

Refrigeration solutions Catalogue

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ELECTRONIC CONTROLS

Eliwell controllers are the ideal solution for newgeneration refrigeration systems and equipment. Developed using the most recent technologies, they are compatible with a wide range of low GWP refrigerants that help to reach sustainability and efficiency targets for refrigeration equipment.

They guarantee quality and safety in the preservation of fresh and frozen food, ensuring optimal refrigeration system efficiency in terms of energy savings and low maintenance.

The vast range of sizes available makes Eliwel controllers fully adaptable to a wide range of applications.





Connectible controllers for commercial stores with high-efficiency refrigeration equipment

- > Universal, easy to install
- > Compatible with new and natural refrigerants
- > HACCP report from mobile devices



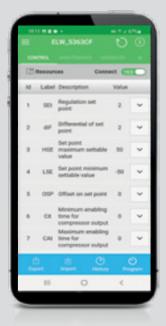
Watch the video

Find out all the advantages according to your type of work

ARE YOU A REFRIGERATION INSTALLER?

Easy access

to Coldface configuration parameters.



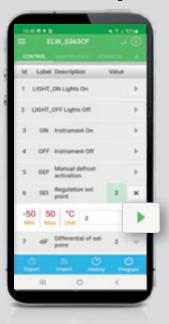
Simple configuration

each parameter includes the range of settable values and the related unit of measure.



Configuration completed

The configuration is completed when the arrow turns green.



ARE YOU THE OWNER OF A SMALL STORE?

HACCP report

step-by-step customisation







HACCP temperature data table

The selected data are shown in a clear layout

The HACCP report can be downloaded in .csv and .pdf formats.

The file can be shared on social networks or via e-mail, sent to a specific device via Bluetooth or stored in the device memory.

This procedure can be used to create specific reports which include alarm events, in order to share the alarms log with the installer, who can better organise maintenance in the field.



Typical applications

- > Butchers
- Delicatessens
- Catering
- Hotels

- Dairies
- Pasta shops
- Wineries
- Cold stores

- Distribution centres
- Greengrocers
- Food trucks

IDNext 902 - IDNext 961

The new-generation controller for refrigeration equipment







Codes	Description	Relay rating	Power supply
IDN902P6D103Z00	IDNext 902 P	10A	12 Vac/dc
IDN902P6D107Z00	IDNext 902 P	10A	230 Vac
IDN961P7D103Z00	IDNext 961 P	12A	12 Vac/dc
IDN961P7D107Z00	IDNext 961 P	12A	230 Vac



Accessories

Codes	Description
ADBT50005110H0	HACCP Module
NEXTACCWA00000	Wide Adapter without switches
NEXTACCWA20000	Wide Adapter with holes for switches

Applications

Controllers in the IDNext range are new-generation devices suitable for static and ventilated units at normal and low temperatures.

The IDNext series is suitable for use with units which utilise flammable refrigerants in category 2L or 3, such as R290 or R600.

IDNext offers an innovative Modular defrost management which, unique on the market, is being patented.

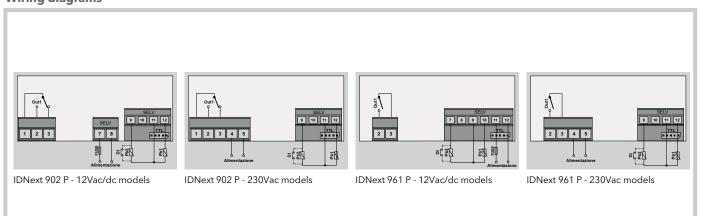
IDNext controllers feature the **Deep Cooling Cycle** function (advanced algorithm allowing rapid temperature decrease). **Easy Map** is the function that offers multiple preloaded machine configurations and the Compressor Over Heating function that monitors the compressor discharge temperature, signalling any operating

The IDNext series is compatible with the Eliwell AIR APP and the TelevisAir cloud solution.

Common features

Appearance	UNIBODY front panel with built-in seal	Storage temperature	-3085 °C
Dimensions	Front panel 81x35 mm, depth 60 mm	Ambient humidity	1090% RH (non-condensing)
Installation	Panel-mounted 71x29mm	Accessories	USB/TTL unicard
Connectivity	TTL port for connection to Unicard or TelevisSystem ModBus monitoring device		HACCP Module Wide Adapter without switches
Operating temperature	-555 °C		Wide Adapter with holes for switches

Technical data	IDNext 902	IDNext 961
Display range:	-99.9+99.9°C -999+999°C	-99.9+99.9°C -999+999°C
Display:	LED 3 figures + sign	LED 3 figures + sign
Analogue inputs:	1x PTC or NTC or Pt1000	1x PTC or NTC or Pt1000
Digital inputs:	1x SELV	1x SELV
Digital outputs:	1x SPDT 10(6)A 230Vac	1x SPST 2Hp 12(8)A 230Vac
Measurement range:	NTC: -50.0+110.0°C PTC: -55.0+140.0°C Pt1000: -55.0+150.0 °C	NTC: -50.0+110.0°C PTC: -55.0+140.0°C Pt1000: -55.0+150.0 °C
Accuracy:	 NTC, PTC: better than 0.5% of integral scale + 1 digit Pt1000 [-55,0+70,0°C]: better than 0.5% of integral scale + 1 digit Pt1000 [+70,0+150,0°C]: better than 1.0% of integral scale + 1 digit 	 NTC, PTC: better than 0.5% of integral scale + 1 digit Pt1000 [-55,0+70,0°C]: better than 0.5% of integral scale + 1 digit Pt1000 [+70,0+150,0°C]: better than 1.0% of integral scale + 1 digit
Resolution:	0.1°C	0.1°C
Power consumption:	3 VA - 1.5W 5 VA	5 VA - 2.5W 5.5 VA
Power supply:	12V AC/DC 230Vac	12V AC/DC 230Vac



IDNext 971 - IDNext 974

The new-generation controller for refrigeration equipment









Codes	Description	Relay rating	Power supply
IDN971P9D303Z00	IDNext 971 P/B	12A/8A	12 Vac/dc
IDN971P9D307Z00	IDNext 971 P/B	12A/8A	230 Vac
IDN974PED303Z00	IDNext 974 P/B	12A/8A/5A	12 Vac/dc
IDN974PED307Z00	IDNext 974 P/B	12A/8A/5A	230 Vac
IDN974PED507Z00	IDNext 974 P/C	12A/8A/5A	230 Vac
IDN974PND527Z00	IDNext 974 P/CI	VSC/10A/8A	230 Vac

Accessories

Codes	Description
ADBT50005110H0	HACCP Module
NEXTACCWA00000	Wide Adapter without switches
NEXTACCWA20000	Wide Adapter with holes for switches

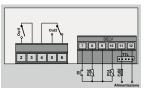
Applications

Controllers in the IDNext series are new-generation devices suitable for static and ventilated units at normal and low temperatures. The IDNext series is suitable for use with units which utilise flammable refrigerants in category 2L or 3, such as R290 or R600. IDNext offers an innovative Modular defrost management which, unique on the market, is being patented. IDNext controllers feature the Deep Cooling Cycle function (advanced algorithm allowing rapid temperature decrease). Easy Map is the function that offers multiple preloaded machine configurations and the Compressor Over Heating function that monitors the compressor discharge temperature, signalling any operating anomalies. The IDNext series is compatible with the Eliwell AIR APP and the TelevisAir cloud solution. IDNext 974 P/CI has a frequency output to control variable speed compressors.

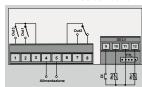
Common features

Appearance	UNIBODY front panel with built-in seal	Storage temperature	-3085°C
Dimensions	Front panel 81x35 mm, depth 60 mm	Ambient humidity	1090% RH (non-condensing)
Installation	Panel-mounted 71x29mm	Accessories	USB/TTL unicard
Connectivity	TTL port for connection to Unicard		HACCP Module
	or TelevisSystem ModBus monitoring device		Wide Adapter without switches
Operating temperature	-555°C		Wide Adapter with holes for switches

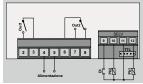
Technical data	IDNext 971	IDNext 974 P/B -IDNext 974 P/C	IDNext 974 P/CI
Display range:	-99.9+99.9°C -999+999°C	-99.9+99.9°C -999+999°C	-99.9+99.9°C -999+999°C
Display:	LED 3 figures + sign	LED 3 figures + sign	LED 3 figures + sign
Analogue inputs:	2x PTC or NTC or Pt1000	2x PTC or NTC or Pt1000	2x PTC or NTC or Pt1000
Digital inputs:	1x SELV	1x SELV	1x SELV
Digital outputs:	1x SPST 2Hp 12(8)A 230Vac 1x SPDT 0.5Hp 8(4)A 230Vac	1x SPST 2Hp 12(8)A 230Vac 1x SPDT 0.5Hp 8(4)A 230Vac 1x SPST 5(2)A 230Vac	1x O.C. VSC: 16Vdc (min. 1500ohm) 1x SPDT 0.5Hp 8(4)A 230Vac 1x SPST 1.5Hp 10(6)A 230Vac
Measurement range:	NTC: -50.0+110.0°C PTC: -55.0+140.0°C Pt1000: -55.0+150.0 °C	NTC: -50.0+110.0°C PTC: -55.0+140.0°C Pt1000: -55.0+150.0 °C	NTC: -50.0+110.0°C PTC: -55.0+140.0°C Pt1000: -55.0+150.0 °C
Accuracy:	 NTC, PTC: better than 0.5% of integral scale + 1 digit Pt1000 [-55,0+70,0°C]: better than 0.5% of integral scale + 1 digit Pt1000 [+70,0+150,0°C]: better than 1.0% of integral scale + 1 digit 	NTC, PTC: better than 0.5% of integral scale + 1 digit Pt1000 [-55,0+70,0°C]: better than 0.5% of integral scale + 1 digit Pt1000 [+70,0+150,0°C]: better than 1.0% of integral scale + 1 digit	NTC, PTC: better than 0.5% of integral scale + 1 digit Pt1000 [-55,0+70,0°C]: better than 0.5% of integral scale + 1 digit Pt1000 [+70,0+150,0°C]: better than 1.0% of integral scale + 1 digit
Resolution:	0.1°C	0.1°C	0.1°C
Power consumption:	5 VA - 2.5W 5.5 VA	5 VA - 2.5W 5.5 VA	5.5 VA
Power supply:	12V AC/DC 230Vac	12V AC/DC 230Vac	230Vac
Buzzer:	Present	Available for IDNext 974 P/B	Not present
Clock:	Not present	Available for IDNext 974 P/C	Present
Variable speed compressor:	Not present	Not present	Present



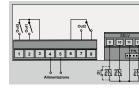
IDNext 971 P/B - 12Vac/dc models



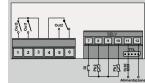
IDNext 974 P/B - 230Vac models



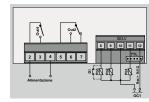
IDNext 971 P/B - 230Vac models



IDNext 974 P/C - 230Vac models



IDNext 974 P/B - 12Vac/dc models



IDNext 974 P/CI - 230Vac models

IDNext 978

The new-generation controller for refrigeration equipment







Codes	Description	Relay rating	Power supply
IDN978P4D307Z00	IDNext 978 P/B	10A/8A/5A/5A	230 Vac
IDN978P4D507Z00	IDNext 978 P/C	10A/8A/5A/5A	230 Vac
IDN978P3D527Z00	IDNext 978 P/CI	VSC/10A/8A/5A	230 Vac

Accessories

Codes	Description
ADBT50005110H0	HACCP Module
NEXTACCWA00000	Wide Adapter without switches
NEXTACCWA20000	Wide Adapter with holes for switches

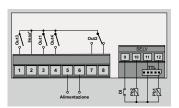
Applications

Controllers in the IDNext range are new-generation devices suitable for static and ventilated units at normal and low temperatures. The IDNext series is suitable for use with units which utilise flammable refrigerants in category 2L or 3, such as R290 or R600. IDNext offers an innovative Modular defrost management which, unique on the market, is being patented. IDNext controllers feature the Deep Cooling Cycle function (advanced algorithm allowing rapid temperature decrease). Easy Map is the function that offers multiple preloaded machine configurations and the Compressor Over Heating function that monitors the compressor discharge temperature, signalling any operating anomalies. The IDNext series is compatible with the Eliwell AIR APP and the TelevisAir cloud solution. IDNext 978 P/CI has a frequency output to control variable speed compressors.

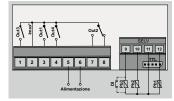
Common features

Appearance	UNIBODY front panel with built-in seal	Storage temperature	-3085 °C
Dimensions	Front panel 81x35 mm, depth 60 mm	Ambient humidity	1090% RH (non-condensing)
Installation	Panel-mounted 71x29mm	Accessories	USB/TTL unicard
Connectivity	TTL port for connection to Unicard or TelevisSystem ModBus monitoring device		HACCP Module Wide Adapter without switches Wide Adapter with holes for switches
Operating temperature	-555 °C		

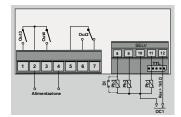
	I	
Technical data	IDNext 978 P/B - IDNext 978 P/C	IDNext 978 P/CI
Display range:	-99.9+99.9°C -999+999°C	-99.9+99.9°C -999+999°C
Display:	LED 3 figures + sign	LED 3 figures + sign
Analogue inputs:	2x PTC or NTC or Pt1000	2x PTC or NTC or Pt1000
Digital inputs:	1x SELV	1x SELV
Digital outputs:	1x SPST 1.5Hp 10(6)A 230Vac 1x SPDT 0.5Hp 8(4)A 230Vac 2x SPST 5(2)A 230Vac	1x O.C. VSC: 16Vdc (min. 1500ohm) 1x SPDT 0.5Hp 8(4)A 230Vac 1x SPST 1.5Hp 10(6)A 230Vac 1x SPST 5(2)A 230Vac
Measurement range:	NTC: -50.0+110.0°C PTC: -55.0+140.0°C Pt1000: -55.0+150.0°C	NTC: -50.0+110.0°C PTC: -55.0+140.0°C Pt1000: -55.0+150.0 °C
Accuracy:	 NTC, PTC: better than 0.5% of integral scale + 1 digit Pt1000 [-55,0+70,0°C]: better than 0.5% of integral scale + 1 digit Pt1000 [+70,0+150,0°C]: better than 1.0% of integral scale + 1 digit 	 NTC, PTC: better than 0.5% of integral scale + 1 digit Pt1000 [-55,0+70,0°C]: better than 0.5% of integral scale + 1 digit Pt1000 [+70,0+150,0°C]: better than 1.0% of integral scale + 1 digit
Resolution:	0.1°C	0.1°C
Power consumption:	5.5 VA	5.5 VA
Power supply:	230Vac	230Vac
Buzzer:	Available for IDNext 978 P/B	Not present
Clock:	Available for IDNext 978 P/CI	Present
Variable speed compressor:	Not present	Present



IDNext 978 P/B - 230Vac models



IDNext 978 P/C - 230Vac models



IDNext 978 P/CI - 230Vac models

EWRC 300 NT - EWRC 500 NT

Connectible controllers for cold rooms







Codes	Description	Notes
RCNS3HDLX2*700	EWRC 300 NT 2HP BUZZER AIR	Buzzer/AIR
RCNS3UDLX2*700	EWRC 500 NT 2HP BUZZER AIR	Buzzer/AIR
RCNS3UDTX2*700	EWRC 500 NT 2HP RTC HACCP BUZ AIR	HACCP/BUZZER/RTC/AIR
RCNA3UDLX2*700	EWRC 500 NT 2HP BUZZER 4DIN AIR	Buzzer/DIN rail/AIR
RCNA3UDTX2*700	EWRC 500 NT 2HP RTC HACCP BUZ 4DIN AIR	HACCP/BUZZER/RTC/DIN RAIL/AIR
RCNA3UDRX2*700	EWRC 500 NT 2HP BUZ 4D W\B AIR	Buzzer/DIN rail with switch/AIR
RCNA3UDSX2*700	EWRC 500 NT 2HP RTC HACCP BUZ 4D W\B AIR	HACCP/Buzzer/RTC/DIN rail with switch/AIR
KP00Q1S0	RS485 Plugin 40x49mm screw terminals	Optional module
ADBT50005110H0	HACCP Module	Optional accessory

^{*}The number or letter in this position indicates the language available for the code: 0: ITA; E: ENG; F: FRA; G: GER; O: POL; R: RUS; S:SPA; T:TUR; U:Arabic; W:SWE; Z:BRA

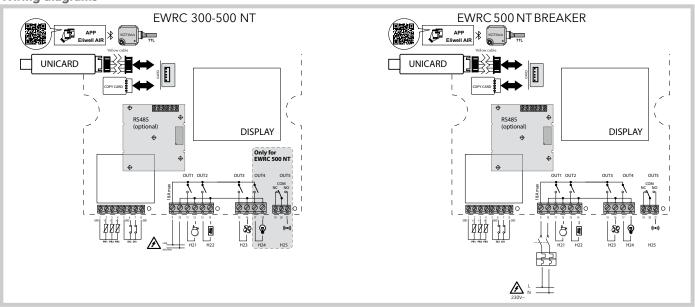
Connectible electronic controllers for managing single-phase cold rooms, with direct compressor management up to 2HP, evaporator fan, defrost heater, cell light and alarm. The default configuration allows you to manage a wide range of applications. The parameter configuration can be customised easily and quickly using the Eliwell AIR app.

Common features

Front panel protection rating	IP65	Operating temperature	-550°C
Container	PC + ABS	Storage temperature	-2085°C
Display	2 displays: 3 digits + sign and 4 digits	Ambient operation and storage humidity	1090% RH (non-condensing)
Installation	wall-mounted		

Range certified according to the European directives applicable to low voltage electrical panels for machine-side applications (EN61439 - EN60204)

Technical data	EWRC 300 NT	EWRC 500 NT	EWRC 500 NT BREAKER
Dimensions	213x318x102 mm	213x318x102 mm	221x318x107 mm
Container	PC + ABS	PC + ABS	PC + ABS
Enclosure rating	IP65	IP65	IP65
Installation	On wall	On wall	On wall
Display	3 digits + sign and 4 digits	3 digits + sign and 4 digits	3 digits + sign and 4 digits
Display range	NTC: -50110 °C / PTC: -55150 °C	NTC: -50110 °C / PTC: -55150 °C	NTC: -50110 °C / PTC: -55150 °C
Resolution	0.1 °C	0.1 °C	0.1 °C
Analogue inputs	3(2) x NTC / PTC*	3(2) x NTC / PTC*	3(2) x NTC / PTC*
Digital inputs	2(3) voltage free	2(3) voltage free	2(3) voltage free
Digital outputs (default config.*) Compressor	12(12) A 2 HP 250 Vac SPST	12(12) A 2 HP 250 Vac SPST	12(12) A 2 HP 250 Vac SPST
Defrost	8(8) A 1 HP 250 Vac SPST	8(8) A 1 HP 250 Vac SPST	8(8) A 1 HP 250 Vac SPST
Evaporator fan	8(4) A 1/2 HP 250 Vac SPST	8(4) A 1/2 HP 250 Vac SPST	8(4) A 1/2 HP 250 Vac SPST
Light	-	8(8) A 1 HP 250 Vac SPST	8(8) A 1 HP 250 Vac SPST
Alarm	-	8(4) A 1/2 HP 250 Vac SPDT	8(4) A 1/2 HP 250 Vac SPDT
Connections	Screw terminals	Screw terminals	Screw terminals
RTC Clock	optional	optional	optional
HACCP	optional	optional	optional
Connectivity	TTL serial port for HACCP Module and Unicard; RS485 port** for Televis and	TTL serial port for HACCP Module and Unicard; RS485 port** for Televis and	TTL serial port for HACCP Module and Unicard; RS485 port** for Televis and
	Modbus RTU monitoring systems	Modbus RTU monitoring systems	Modbus RTU monitoring systems
Power supply	230 Vac / 11 VA	230 Vac / 11 VA	230 Vac / 11 VA
Power supply	-	-	230 Vac Icn 4500 A 2P
Switch	-	-	In = 16 A
Nominal current	-	-	4 KV
Pulse voltage	-5+50 °C	-5+50 °C	-5+50 °C
Operating temperature	1090% RH (non-condensing)	1090% RH (non-condensing)	1090% RH (non-condensing)



EWRC 5000 NT - EWRC 5010 NT - EWRC 5030 NT

Connectible controllers for cold rooms





Codes	Description	Notes
RCNH300DTX*700	EWRC 5000 NT HACCP BZ AIR	Electronic controller only
RCNH301DTX*700	EWRC 5010 NT HACCP BZ 2.5-4A 230Vac AIR	HACCP/Buzzer/RTC/AIR
RCNH302DTX*700	EWRC 5010 NT HACCP BZ 4-6.3A 230Vac AIR	HACCP/Buzzer/RTC/AIR
RCNH303DTX*700	EWRC 5010 NT HACCP BZ 6-10A 230Vac AIR	HACCP/Buzzer/RTC/AIR
RCNH304DTX*700	EWRC 5010 NT HACCP BZ 13-18A 230Vac AIR	HACCP/Buzzer/RTC/AIR
RCNH305DTX*900	EWRC 5030 NT HACCP BZ 2.5-4A 400Vac AIR	HACCP/Buzzer/RTC/AIR
RCNH306DTX*900	EWRC 5030 NT HACCP BZ 4-6.3A 400Vac AIR	HACCP/Buzzer/RTC/AIR
RCNH307DTX*900	EWRC 5030 NT HACCP BZ 6-10A 400VAc AIR	HACCP/Buzzer/RTC/AIR
RCNH308DTX*900	EWRC 5030 NT HACCP BZ 9-14A 400Vac AIR	HACCP/Buzzer/RTC/AIR
RCNH309DTX*900	EWRC 5030 NT HACCP BZ 13-18A 400Vac AIR	HACCP/Buzzer/RTC/AIR
RCNH310DTX*900	EWRC 5030 NT HACCP BZ 17-20A 400Vac AIR	HACCP/Buzzer/RTC/AIR
RCNH311DTX*900	EWRC 5030 NT HACCP BZ 6kW AIR	HACCP/Buzzer/RTX/AIR/ Evaporator unit with electrical defrost 6kW
RCNH312DTX*900	EWRC 5030 NT HACCP BZ 12kW AIR	HACCP/Buzzer/RTX/AIR/ Evaporator unit with electrical defrost 12kW
ADBT50005110H0	HACCP Module	Optional accessory

^{*}The number or letter in this position indicates the language available for the code: 0: ITA; E: ENG; F: FRA; G: GER; O: POL; R: RUS; S:SPA; T:TUR; U:Arabic; W:SWE; Z:BRA

Applications

Connectible electrical panels for complete control of cold rooms, single- or three-phase, with direct compressor management with adjustable protection, evaporator fan, defrost heater, condenser fans, solenoid valve, cell light and compressor oil heater. The default configuration allows you to manage a wide range of applications. The parameter configuration can be customised easily and quickly using the Eliwell AIR app.

Common features

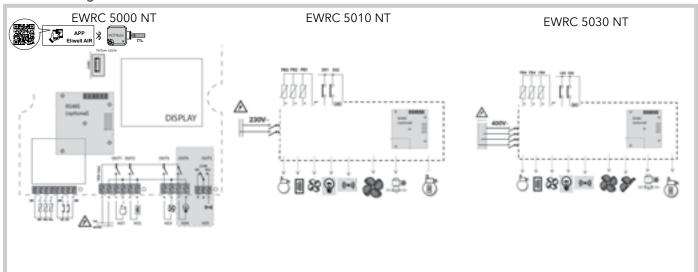
Container	PC + ABS	Operating temperature	-540°C
Display	2 displays: 3 digits + sign and 4 digits	Storage temperature	-20+70°C
Installation	wall-mounted	Ambient operation and storage humid	ity 1090% RH (non-condensing)

Range certified according to the European directives applicable to low voltage electrical panels for machine-side applications (EN61439 - EN60204)

Technical data	EWRC 5000 NT	EWRC 5010 NT	EWRC 5030 NT
Dimensions	450x380x160 mm	450x380x160 mm	450x380x160 mm
Container	PC + ABS	PC + ABS	PC + ABS
Protection rating	IP65	IP65	IP65
Installation	On wall	On wall	On wall
Display	3 digits + sign and 4 digits	3 digits + sign and 4 digits	3 digits + sign and 4 digits
Display range	NTC: -50110 °C / PTC: -55150 °C	NTC: -50110 °C / PTC: -55150 °C	NTC: -50110 °C / PTC: -55150 °C
Resolution	0.1 °C	0.1 °C	0.1 °C
Analogue inputs	3 x NTC / PTC*	3 x NTC / PTC*	3 x NTC / PTC*
Digital inputs	2 voltage-free inputs	2 voltage-free inputs	2 voltage-free inputs
Command type	Single-phase	Single-phase	Three-phase
Connections	Screw terminals	Screw terminals on DIN rail	Screw terminals on DIN rail
Auxiliary Protection	-	Dedicated thermal-magnetic breaker	Dedicated thermal-magnetic breaker
RTC	Present	Present	Present
HACCP	Present	Present	Present
Connectivity	TTL serial port for HACCP Module and Unicard; RS485 port** for Televis and	TTL serial port for HACCP Module and Unicard; RS485 port** for Televis and	TTL serial port for HACCP Module and Unicard; RS485 port** for Televis and
	Modbus RTU monitoring systems	Modbus RTU monitoring systems	Modbus RTU monitoring systems
Power supply	230 Vac +/-10% 50/60Hz	230 Vac (phase + neutral + ground)	400 Vac (3-phase + neutral + ground)
Main switch	-	Two-pole magnetothermal switch	Four-pole magnetothermal switch
Operating temperature	-535 °C (Max 40 °C non continuative)	-535 °C (Max 40 °C non continuative)	-535 °C (Max 40 °C non continuative)
Operating humidity	1090% RH (non-condensing)	1090% RH (non-condensing)	1090% RH (non-condensing)

^{*} configurable by the user -** with optional plug-in accessory

Functional diagram



IDNext Panel 978

Connectible single-phase and three-phase electrical panels for cold rooms







Code	Description	Notes
ELNP300DSX0700	IDNext Panel 978 5.5-8A 230Vac AIR	HACCP/Buzzer
ELNP301DSX0700	IDNext Panel 978 8-11A 230Vac AIR	HACCP/Buzzer
ELNP302DSX0900	IDNext Panel 978 3.7-5.5A 400Vac AIR	HACCP/Buzzer
ELNP303DSX0900	IDNext Panel 978 5.5-6A 400Vac AIR	HACCP/Buzzer
ELNP303DSXU900	IDNext Panel 978 AR/EN 5.5-6A 400Vac AIR	HACCP/Buzzer
ADBT50005110H0	HACCP Module	Optional accessory

Applications

Connectible electrical panels for complete control of cold rooms, single- or three-phase, with direct compressor management with adjustable protection, evaporator fan, defrost heater, cell light. With the TTL port on the DNext 978 controller, it is possible to connect the HACCP Module to connect to the Eliwell AIR app, which allows quick and easy control configuration.

Common features

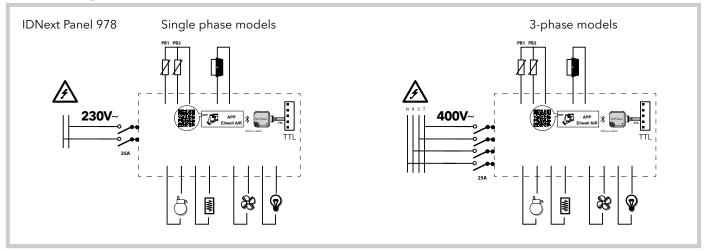
Container	PC + ABS	Operating temperature -5+40°C
Control	IDNext 978 thermoregulator	Storage temperature -25+70°C
Installation	wall-mounted	Ambient operation and storage humidity 1090% RH (non-condensing)

Range certified according to the European directives applicable to low voltage electrical panels for machine-side applications (EN61439 - EN60204)

Technical data	IDNext Panel 978 5.5-8A 230Vac	IDNext Panel 978 8-11A 230Vac	IDNext Panel 978 3.7-5.5A 400Vac	IDNext Panel 978 5.5-6A 400Vac
Dimensions	213x318x102 mm	213x318x102 mm	213x318x102 mm	213x318x102 mm
Container	PC + ABS	PC + ABS	PC + ABS	PC + ABS
Installation	On wall	On wall	On wall	On wall
Display	3Digits + sign	3Digits + sign	3Digits + sign	3Digits + sign
Display range	NTC: -50110 °C / PTC: -55140 °C / Pt1000: -55150 °C	NTC: -50110 °C / PTC: -55140 °C / Pt1000: -55150 °C	NTC: -50110 °C / PTC: -55140 °C / Pt1000: -55150 °C	NTC: -50110 °C / PTC: -55140 °C / Pt1000: -55150 °C
Resolution	0.1 °C	0.1 °C	0.1 °C	0.1 °C
Analogue inputs	2 PTC / NTC /Pt1000*			
Configurable inputs	1 digital (SELV) / analogue (PTC / NTC / Pt1000) / 1 digi- tal (SELV) / serial TTL *	1 digital (SELV) / analogue (PTC / NTC / Pt1000) / 1 digi- tal (SELV) / serial TTL *	1 digital (SELV) / analogue (PTC / NTC / Pt1000) / 1 digi- tal (SELV) / serial TTL *	1 digital (SELV) / analogue (PTC / NTC / Pt1000) / 1 digi- tal (SELV) / serial TTL *
Command type	Single-phase	Three-phase		
Compressor	1PH 5.5 - 8.0 A	1PH 8.0 -11.0 A	3PH 3.7 - 5.5 A	3PH 5.5 - 6.0 A
Defrost	1PH 800 W	1PH 800 W	3PH 2400 W	3PH 2400 W
Evaporator fan	1PH 800 W	1PH 800 W	1PH 800 W	1PH 800 W
Light	1PH 800 W	1PH 800 W	1PH 800 W	1PH 800 W
Connections	Screw terminals on DIN rail			
Connectivity	TTL port for connection to HACCP Module, Unicard or monitoring systems Televis / ModBus monitoring devices	TTL port for connection to HACCP Module, Unicard or monitoring systems Televis / ModBus monitoring devices	TTL port for connection to HACCP Module, Unicard or monitoring systems Televis / ModBus monitoring devices	TTL port for connection to HACCP Module, Unicard or monitoring systems Televis / ModBus monitoring devices
Power supply	230 Vac (phase + neutral + ground)	230 Vac (phase + neutral + ground)	400 Vac (3-phase + neutral + ground)	400 Vac (3-phase + neutral + ground)
Door lock mains switch	25 A	25 A	25 A	25 A
Operating temperature	-5+40 °C (Max 40 °C non continuative)			
Operating humidity	1090% RH (non-condensing)	1090% RH (non-condensing)	1090% RH (non-condensing)	1090% RH (non-condensing)
General protection	Fuses	Fuses	Fuses	Fuses
Motor protection	Thermal relay	Thermal relay	Thermal relay	Thermal relay

^{*} configurable by the user

Functional diagram



ID 985 /S/E/CK - Echo

32x74 refrigeration thermostats



Codes	Description	Power supply	Power supply
ID34DR2SCDH00	ID 985/S/E/CK	1.5Hp	100240V~
EH000010VE000	Echo		

^{*}The number or letter in this position indicates the languages available for the code: 0=IT; E=EN; F=FR; G=DE; R=RU; S=ES; Z=PT(BR).

Applications

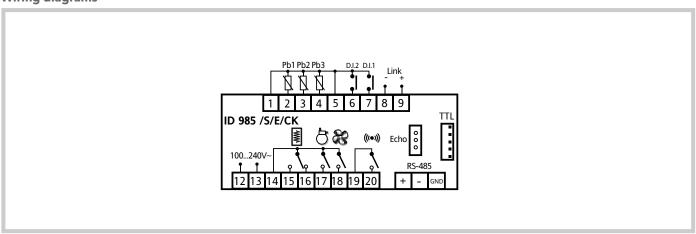
ID 985 controllers are suitable for any application on ventilated refrigeration units at normal or low temperature. The Echo is a remote signal repeater which can be connected to ID 985/S/E/CK controllers.

ID 985 /S/E/CK compact electronic controllers, specifically designed for supermarket refrigeration systems, are equipped with on-board integrated RS-485, remote display (Echo) and switching power supply; they guarantee quality and safety in the preservation of fresh and frozen foods and ensure the maximum efficiency of the refrigeration system in terms of energy saving.

Common features

Front panel protection	IP65	Operating temperature	-555°C
Container	PC+ABS UL94 V-0 plastic resin casing, polycarbonate	Storage temperature	-3085°C
	display window, thermoplastic resin buttons	Ambient humidity	
Installation	panel mounting with 71x29mm	for operation and storage	1090% RH (non-condensing)
	(+0.2/-0.1mm) drilling template		

Technical data	ID 985/S/E/CK	Echo
Display range:	• NTC probe: -50.0110.0 °C • PTC probe: -50.0140.0 °C	• NTC probe: -50.0110.0 °C • PTC probe: -50.0140.0 °C
Display:	no decimal point * 3 and a half digits + sign	no decimal point * 3 and a half digits + sign
Analogue inputs:	3 PTC or NTC *	-
Digital inputs:	2 voltage-free inputs	-
Connections:	TTL port for connection to Copy Card and TelevisSystem or to systems based on ModBus protocol internal RS-485 for connection to TelevisSystem or to systems based on ModBus protocol	3-way connection (GND, data, 12 V) on quick-connection terminal block
Digital outputs:	3 SPST 5(2) A 1/4 hp 250 V~ + 1 SPDT 8(3) A 250 V~	-
Measurement range:	-55140 °C	-
Accuracy:	better than 0.5% of integral-scale + 1 digit	-
Resolution:	0.1 °C	1 or 0.1°C
Power consumption:	2.5 W max	-
Power supply:	100240 V~ ±10% 50/60 Hz	from the instrument to which it is connected
Dimensions:	front panel 74x32 mm, depth 66 mm	front panel 48x28.6 mm - depth 15 mm
Installation:	panel mounting with 71x29 mm (+0.2/-0.1 mm) drilling template	panel mounting with 45.9x26.4 mm (+0.2/-0.1 mm) drilling template
Output for Echo:	present (/E model)	-
Link:	present (/CK model)	-
Clock:	present (/CK model)	-



ICPlus 902

32x74 cold/hot thermostats



Codes	Descr.	Probe*	Power supply
ICP11D0750000	ICPlus 902 NTC-PTC 230V	NTC/PTC	230V~
ICP11D0450000	ICPlus 902 NTC-PTC 12/24V~/ 	NTC/PTC	1224V~/1236V

^{*}selectable by parameter



Applications

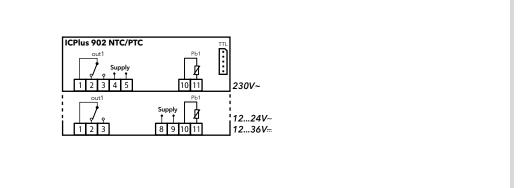
ICPlus 902 controllers are one-step electronic devices, used to control temperature. They are compatible with Televis System and with Modbus protocol monitoring systems.

Common features

Container	PC+ABS UL94 V-0 plastic resin casing, polycarbonate display	Operating temperature	055°C
	window, thermoplastic resin buttons	Storage temperature	-3085°C
Dimensions	front panel 79x37 mm, depth 59 mm	Ambient humidity for	
Installation	panel mounting with 71x29 mm	operation and storage	1090% RH (non-condensing)
	(+0.2/-0.1 mm) drilling template		

Technical data	ICPlus 902 NTC/PTC
Display range:	• NTC probe: -50.0110.0 °C
	• PTC probe: -50.0140.0 °C
Display:	no decimal point *
	3 and a half digits + sign
Analogue inputs:	1 PTC or NTC *
Digital inputs:	not available
Connections:	TTL port for connection to USB Unicard, Televis System and systems with ModBus protocol
Digital outputs:	1 SPDT 8(4) A 250 V~
Measurement range:	from -50 to 140
Accuracy:	better than 0.5% of end of
	scale+1 digit
Resolution:	0.1 or 1°C
Power consumption:	• 3 W for 1224 V~ model
	• 3 W for 230 V~ model
Power supply:	• 12 V~ , 24 V~ ,1224 V~/1236 V=(°) ±10% 50/60 Hz
	• 115 V~/230 V~ ±10% 50/60 Hz

* selectable by parameter (°) non-insulated power supply



ICPlus 915

32x74 cold/hot thermostats





Codes	Descr.	Probe*	Power supply
ICP22JI750000	ICPlus 915 J/K PT100 230 V	J/K PT100	230 V~
ICP22JI450000	ICPlus 915 J/K PT100 12/24 V~/	J/K PT100	1224 V~/1236 V
ICP22DI750000	ICPlus 915 NTC-PTC 230 V	NTC/PTC	230 V~
ICP22DI450000	ICPlus 915 NTC-PTC 12/24 V~/ 	NTC/PTC	1224 V~/1236 V
ICP22I0750000	ICPlus 915 V/I 230 V	V/I	230 V~
ICP22I0450000	ICPlus 915 V/I 12/24 V~/ 	V/I	1224 V~/1236 V

^{*}selectable by parameter

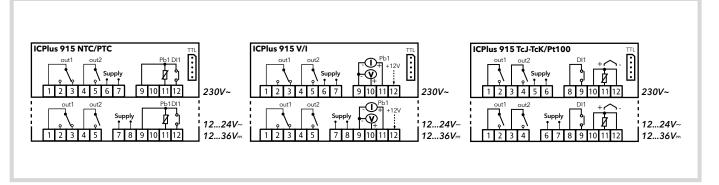
Applications

IC Plus 915 controllers are electronic two-step devices, either dependent or independent or with neutral zone, used for the control of temperature, relative humidity and pressure. They are compatible with Televis System and with Modbus protocol monitoring systems.

Common features

Container	PC+ABS UL94 V-0 plastic resin casing, polycarbonate	Operating temperature	055°C
	display window, thermoplastic resin buttons	Storage temperature	-3085°C
Dimensions	front panel 79x37 mm, depth 59 mm	Ambient humidity for	
Installation	panel mounting with 71x29 mm	operation and storage	1090% RH (non-condensing)
	(+0.2/-0.1 mm) drilling template		

Technical data	ICPlus 915 NTC/PTC	ICPlus 915 V/I	ICPlus 915 TC/Pt100
Display range:	• NTC probe: -50.0110.0 °C	• -199199 *	• Pt100 probe: -150650 °C
	• PTC probe: -50.0140.0 °C	• -199.9199.9 *	• TcJ probe: -40750 °C
		• -19991999 *	• TcK probe: -401350 °C
Display:	no decimal point *	no decimal point *	no decimal point *
	3 and a half digits + sign	3 and a half digits + sign	3 and a half digits + sign
Analogue inputs:	1 PTC or NTC *	1 V-I (01V,05V,010V,020mA,420mA)*	1 Pt100 or 1 TcJ/TcK
Digital inputs:	1 clean contact at extra low	not available	1 clean contact at extra low
	safety voltage		safety voltage
Connections:	TTL port for connection to USB	TTL port for connection to USB	TTL port for connection to USB
	Unicard, Televis System and systems	Unicard, Televis System and systems	Unicard, Televis System and systems
	with ModBus protocol	with ModBus protocol	with ModBus protocol
Digital outputs:	1 SPDT 8(4) A 250 V~ +	1 SPDT 8(4) A 250 V~ +	1 SPST 8(4) A 250 V~ +
	1 SPST 8(4) A 250 V~	1 SPST 8(4) A 250 V~	1 SPST 8(4) A 250 V~
Measurement range:	from -50 to 140	from -999 to 1000	from -150 to 1350
Accuracy:	better than 0.5% of end of	better than 0.5% of end of	Pt100:0.5% for whole scale + 1 digit,
	scale+1 digit	scale+1 digit	0.2% from -150 to 300°C
			TcJ: 0.4% for whole scale + 1 digit
			TcK: 0.5% for whole scale + 1 digit,
			0.3% from -40 to 800°C
Resolution:	0.1 or 1°C	0.1 or 1°C	Pt100:0.1°C (0.1°F) up to 199.9°C;
			1°C (1°F) beyond this
			TcJ: 0.1°C (0.1°F) up to 199.9°C;
			1°C (1°F) beyond this
			TcK: 0.1°C (0.1°F)
Power consumption:	• 3 W for 1224 V~ model	• 3 W for 1224 V~ model	• 3 W for 1224 V~ model
	• 3 W for 230 V~ model	• 3 W for 230 V~ model	• 3 W for 230 V~ model
Power supply:	• 12V~ , 24V~ ,1224V~/1236V (°)	• 12V~, 24V~,1224V~/1236V (°)	• 12V~, 24V~,1224V~/1236V (°
	±10% 50/60 Hz	10% 50/60 Hz	±10% 50/60 Hz
	• 115 V~/230 V~ ±10% 50/60 Hz	• 115V~/230 V~ ±10% 50/60 Hz	• 115 V~/230 V~ ±10% 50/60 Hz



IC 917/PID (SSR)

PID 32x74 cold/hot thermostats



Codes	Descr.	Probe*	Power supply
IC12DI0TMD700	IC 917/PID	NTC/PTC	230 V~
IC12ZI0TMD700	IC 917/PID	TC/Pt100	230 V~
IC1RDI0TMD700	IC 917/PID SSR	NTC/PTC	230 V~
IC1RZI0TMD700	IC 917/PID SSR	TC/Pt100	230 V~

^{*}selectable by parameter

Applications

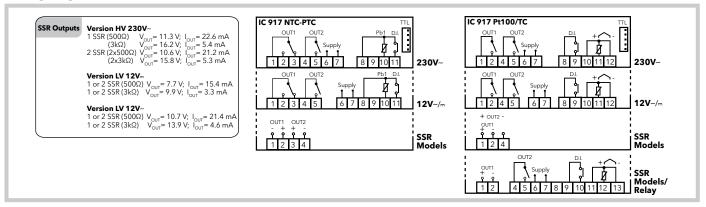
IC 917 controllers are electronic two-step devices, either dependent or independent, ON/OFF action, PD, PID, Soft Start function and Autotuning

Common features

Container	PC+ABS UL94 V-0 plastic resin casing, polycarbonate	Operating temperature	-555°C
	display window, thermoplastic resin buttons	Storage temperature	-3085°C
Dimensions	front panel 74x32 mm, depth 59 mm	Ambient humidity for	
Installation	panel mounting with 71x29 mm	operation and storage	1090% RH (non-condensing)
	(+0.2/-0.1 mm) drilling template	Soft Start Function	present
	· ·		·

Technical data	IC 917/PID NTC/PTC (SSR)	IC 917/PID TC/Pt100 (SSR)
Display range:	• NTC probe: -50.0110.0 °C	• Pt100 probe: -150650 °C
	• PTC probe: -55.0140.0 °C	• TcJ probe: -40750 °C
Display:		• TcK probe: -401350 °C
Analogue inputs:	3 and a half digits + sign	3 and a half digits + sign
Digital inputs:	1 PTC or NTC *	1 Pt100 or 1 TcJ/TcK*
Connections:	1 clean contact at extra low safety voltage	1 clean contact at extra low safety voltage
Digital outputs:	TTL port for connection to Copy Card	TTL port for connection to Copy Card
	1 SPDT 8(3) A 1/2 hp 250 V~ • 1 SPST 8(3) A 1/2 hp 250 V~	2 SPST 8(3) A 1/2 hp 250 V~
Measurement range:	SSR models: please see wiring diagram	SSR models: please see wiring diagram
Accuracy:	from -55 to 140°C	from -150 to 1350 °C
	better than 0.5% of end of	Pt100:0.5% for whole scale + 1 digit,
	scale+1 digit	0.2% from -150 to 300°C
		TcJ: 0.4% for whole scale + 1 digit
		TcK: 0.5% for whole scale + 1 digit,
		0.3% from -40 to 800°C
Resolution:	0.1°C (0.1°F) up to 199.9°C; 1°C (1°F) beyond this	Pt100:0.1°C (0.1°F) up to 199.9°C; 1°C (1°F) beyond this
		TcJ: 0.1°C (0.1°F) up to 199.9°C; (1°F) beyond this
		TcK: 0.1°C (0.1°F)
Power consumption:	• 1.5 W for 12 V~ model	• 1.5 W for 12 V~ model
	• 3 W for 230 V~ model	• 3 W for 230 V~ model
Power supply:	• 12 V~/ ±10% 50/60 Hz	• 12 V~/ ±10% 50/60 Hz
	• 230 V~ ±10% 50/60 Hz	• 230 V~ ±10% 50/60 Hz
Alarm:	optional	optional

^{*} selectable by parameter



EMPlus 600

Temperature, humidity, pressure indicators



Codes	Descr.	Probe*	Power supply
EMP60D0350000	EMPlus 600 NTC-PTC	NTC/PTC	12V~/
EMP60D0450000	EMPlus 600 NTC-PTC	NTC/PTC	1224V~/
EMP60D0750000	EMPlus 600 NTC-PTC	NTC/PTC	230V~
EMP60P0350000	EMPlus 600 Pt100/TCJ-K	Pt100/TC	12V~/
EMP60P0450000	EMPlus 600 Pt100/TCJ-K	Pt100/TC	1224V∼/
EMP60P0750000	EMPlus 600 Pt100/TCJ-K	Pt100/TC	230V~
EMP60I0350000	EMPlus 600 V-I	420mA/010V	12V~/
EMP60I0750000	EMPlus 600 V-I	420mA/010V	230V~

^{*}selectable by parameter

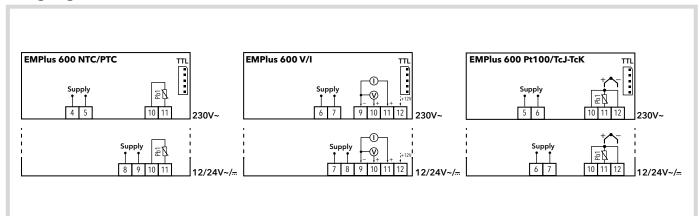
Applications

 $The \ EMPlus\ 600\ is\ a\ device\ for\ measuring\ temperature, humidity\ and\ pressure\ in\ commercial\ refrigeration\ and\ industrial\ applications$

Common features

Container	PC+ABS UL94 V-0 plastic resin casing,	Operating temperature	-555°C
	polycarbonate display window, thermoplastic resin buttons	Storage temperature	-3085°C
Dimensions	front panel 79x37mm, depth 59mm	Ambient humidity for	
Installation	panel mounting with 71x29mm	operation and storage	1090% RH (non-condensing)
	(+0.2/-0.1mm) drilling template		

Technical data	EMPlus 600 NTC/PTC	EMPlus 600 V/I	EMPlus 600 TC/Pt100
Display range:	• NTC probe: -50.0110.0°C	• -199199 *	• Pt100 probe: -150650°C
	• PTC probe: -50.0140.0°C	• -199.9199.9 *	• TcJ probe: -40750°C
		• -19991999 *	• TcK probe: -401350°C
Display:	no decimal point *	no decimal point *	no decimal point *
	3 and a half digits + sign	3 and a half digits + sign	3 and a half digits + sign
Analogue inputs:	1 PTC or NTC *	1 V-I (01V,05V,010V,020mA,420mA)*	1 Pt100 or 1 TcJ/TcK
Connections:	TTL port for connection to USB	TTL port for connection to USB	TTL port for connection to USB
	Unicard, Televis System and systems	Unicard, Televis System and systems	Unicard, Televis System and systems
	with ModBus protocol	with ModBus protocol	with ModBus protocol
Measurement range:	from -50 to 140	from -999 to 1000	from -150 to 1350
Accuracy:	better than 0.5% of end of	better than 0.5% of end of	Pt100:0.5% for whole scale + 1 digit,
	scale+1 digit	scale+1 digit	0.2% from -150 to 300°C
			TcJ: 0.4% for whole scale + 1 digit
			TcK: 0.5% for whole scale + 1 digit,
			0.3% from -40 to 800°C
Resolution:	0.1 or 1°C	0.1 or 1°C	Pt100:0.1°C (0.1°F) up to199.9°C,
			1°C (1°F) beyond
			TcJ: 0.1°C (0.1°F) up to199.9°C,
			1°C (1°F) beyond
			TcK: 0.1°C (0.1°F)
Power consumption:	• 3W for 1224V~ model	• 3W for 1224V~ model	• 3W for 1224V~ model
	• 3W for 230V~ model	• 3W for 230V~ model	• 3W for 230V~ model
Power supply:	• 12V~, 24V~,1224V~/1236V (°)	• 12V~ , 24V~ ,1224V~/1236V (°)	• 12V~, 24V~, 1224V~/1236V (°)
	±10% 50/60Hz	±10% 50/60Hz	±10% 50/60Hz
	• 115V~/230V~ ±10% 50/60Hz	• 115V~/230V~ ±10% 50/60Hz	• 115V~/230V~ ±10% 50/60Hz



EWTL 300 - EWTL 310 - DST-30

LCD thermometers



Codes	Description	Probe cable length
T1M1BT0107 (A)	EWTL 300	1.5 m
T1M1BT0109 (B)	EWTL 310	1.5 m
T1M1BT0105 (C)	DST-30	1 m

Applications

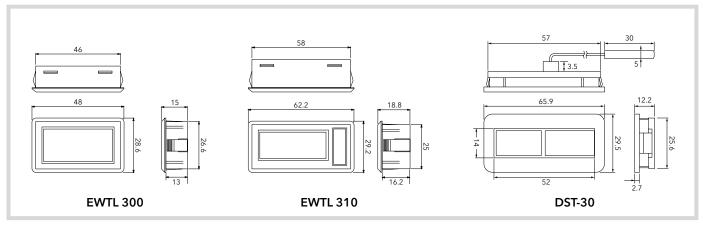
The EWTL 300/310 is a range of LCD digital temperature gauges with temperature probes connected to the instrument via a cable of length 1.5, 2 or 3 metres. AN adapter that allows to replace 32x64 mm front tools (with 24.5x58 template hole mm) with the EWTL 300 thermometer is available. DST-30 is a solar-cell thermometer specifically designed for refrigerated counters and display units.

Common features

Installation panel-mounted

Technical data	EWTL 300	EWTL 310	DST-30
Display:	LCD with 2 and 1/2 digits	LCD with 2 and 1/2 digits	LCD 24x14 mm
Resolution:	0.1 °C	0.1 °C (1°C <20°C)	0.1°C
Accuracy:	±1°C	±1°C	±1°C
Probe:	connected to instrument, cable length	connected to instrument, cable length	connected to instrument, cable length 1m
Display refresh:	1.5m	1.5m	
Display range:	10 seconds	12 seconds	-2080°C
Dimensions:	-5070°C (-58158 °F)	-5070°C (-58158 °F)	front panel 66x30 mm
	front panel 48x28.6 mm	front panel 62.2x29.2 mm	depth 11.6 mm
Installation:	depth 13 mm	depth 16.2 mm	57x25.6 mm
Power supply:	46x26.6 mm	58x25 mm	integrated solar cells
	two 1.5V LR 44 batteries or equivalent -	one 1.5V LR 44 battery or equivalent -	
Protection rating:	duration 12 months	duration 12 months	IP68

Dimensions



EWDR 981 - EWDR 984

DIN controllers for refrigeration



Codes	Descr.	Probe*	Power supply
DR26DI0TCD700	EWDR 981	NTC/PTC	230V~
DR3CDI0TCD700	EWDR 984	NTC/PTC	230V~

^{*}selectable by parameter

Applications

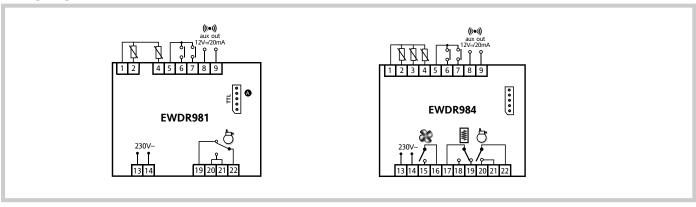
The EWDR range of products, available in a 4 DIN module size (70x85mm), is designed for applications requiring controllers installed on DIN rails Omega, such as electrical panels for cold rooms, or applications with centralised electrical panels.

Common features

Container	plastic casing with 4 DIN modules	Ambient humidity for	
Dimensions	front panel 70x85mm, depth 61mm	operation and storage	1090% RH (non-condensing)
Installation	on DIN rail (Omega) or wall mounted	Connections	on screw-on terminal block for ≤ 2.5 mm² wires
Operating temperature	-555°C		(just one wire per terminal for power connections)
Storage temperature	-3085°C		

Technical data	EWDR 981	EWDR 984
Display range:	• NTC probe: -50.0110.0°C	• NTC probe: -50.0110.0°C
	• PTC probe: -55.0140.0°C	• PTC probe: -55.0140.0°C
Display:	no decimal point * 3 and a half digits + sign	no decimal point * 3 and a half digits + sign
Analogue inputs:	2 PTC or NTC *	3 PTC or NTC *
Digital inputs:	2 voltage-free inputs *	2 voltage-free inputs *
Connections:	TTL port for connection to Copy Card	TTL port for connection to Copy Card
Digital outputs:	1 SPDT 15A 1hp 250V~	1 SPDT 8(3)A 250V~
		1 SPST 15A 1hp 250V~
		1 SPST 8(3)A 250V~
Analogue outputs:	output 12V/24mA *	output 12V::/24mA *
Measurement range:	from -55 to 140°C	from -55 to 140°C
Accuracy:	better than 0.5% of integral-scale + 1 digit	better than 0.5% of integral-scale + 1 digit
Resolution:	1 or 0.1°C	1 or 0.1°C
Power consumption:	5VA max	5VA max
Power supply:	230V~ ±10% 50/60Hz	230V~ ±10% 50/60Hz

^{*} selectable by parameter



EWDR 983 LX/S - EWDR 985 LX/S/C/K

DIN controllers for remote counters



Codes	Descr.	Probe*	Power supply
DR38DI0TCD700	EWDR 983	NTC/PTC	230V~
DR38DF0SCD700	EWDR 983/CS LX	NTC/PTC	230V~
DR34DI0TCD700	EWDR 985	NTC/PTC	230V~
DR35DR0SCD700	EWDR 985/CS LX BUZ.	NTC/PTC	230V~

^{*}selectable by parameter

Applications

The EWDR range of products, available in a 4 DIN module size (70x85mm), is designed for applications requiring controllers installed on DIN rails Omega, such as electrical panels for cold rooms, or applications with centralised electrical panels.

EWDR 983 LX and EWDR 985 LX devices are equipped with an internal clock (RTC) for the management of the defrosting and the RS-485 serial port for the connection to Televis**System**.

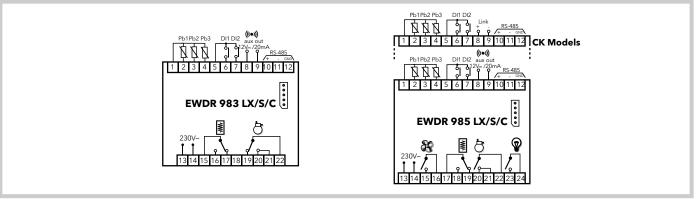
Common features

Container	plastic casing with 4 DIN modules	Ambient humidity for	
Dimensions	front panel 70x85mm, depth 61mm	operation and storage	1090% RH (non-condensing)
Installation	on DIN rail (Omega) or wall mounted	Connections	on screw-on terminal block for ≤ 2.5 mm² wires
Operating temperature	-555°C		(just one wire per terminal for power connections)
Storage temperature	-3085°C		

Technical data	EWDR 983 LX/S	EWDR 985 LX/S/C/K
Display range:	• NTC probe: -50.0110.0°C	• NTC probe: -50.0110.0°C
	• PTC probe: -55.0140.0°C	• PTC probe: -55.0140.0°C
Display:	no decimal point * 3 and a half digits + sign	no decimal point * 3 and a half digits + sign
Analogue inputs:	3 PTC or NTC *	3 PTC or NTC *
Digital inputs:	2 voltage-free inputs *	2 voltage-free inputs *
Connections:	TTL port for connection to Copy Card	TTL port for connection to Copy Card
	LX only: RS -485 for connection to TelevisSystem	LX only: RS -485 for connection to TelevisSystem
Digital outputs:	1 SPDT 8(3)A 250V~	1 SPST 8(3)A 1/2hp 250V~
	1 SPDT 15A 1hp 250V~	1 SPDT 8(3)A 1/2hp 250V~
		1 SPST 15A 1hp 250V~
		1 SPST 8(3)A 1/2hp 250V~
Analogue outputs:	output 12V/24mA *	output 12V::/24mA *
Measurement range:	from -55 to 140°C	from -55 to 140°C
Accuracy:	better than 0.5% of integral-scale + 1 digit	better than 0.5% of integral-scale + 1 digit
Resolution:	1 or 0.1°C	1 or 0.1°C
Power consumption:	5VA max	5VA max
Power supply:	230V~ ±10% 50/60Hz	230V~ ±10% 50/60Hz
Link:	not available	available

available

Wiring diagrams



available

Clock: * selectable by parameter

DR4020

Universal DIN controllers



Codes	Descr.	Probe*	Power supply
E4D12E00BH710	DR4020	Pt100	100240V~
E4D12A00BD710	DR4020	TC	100240V~
E4D12I00BN710	DR4020	V/I/Pt100	100240V~
E4D12N00BH710	DR4020	NTC/PTC/Pt1000	100240V~
E4D12E00BH410	DR4020	Pt100	1224V~/
E4D12A00BD410	DR4020	TC	1224V~/
E4D12I00BN410	DR4020	V/I/Pt100	1224V~/
E4D12N00BH410	DR4020	NTC/PTC/Pt1000	1224V~/

^{*} selectable by parameter

Applications

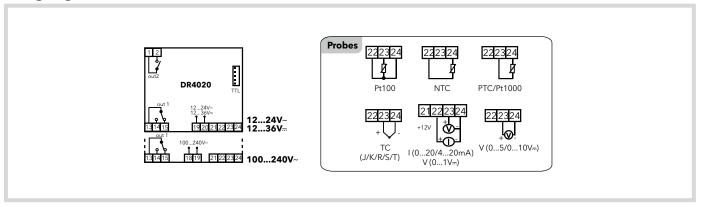
New Eliwell thermoregulators in the Universal Controller series are ideal for all industrial applications requiring high precision temperature control, ranging from the moulding of plastic materials and packaging, to raw material transformation process control.

Common features

Container	plastic casing with 4 DIN modules	Operating temperature	-555°C
Dimensions	front panel 70x85mm, depth 61mm	Storage temperature	-2085°C
Installation	on DIN rail (Omega) or panel mounting,	Ambient humidity for	
	with 70x45mm (+0.2/-0.1mm) drilling template	operation and storage	1090% RH (non-condensing)

Technical data	DR4020
Display:	no decimal point *
, ,	2 4-digit displays + sign
Analogue inputs:	1 input* (see Probes diagram on Wiring Diagram)
Digital inputs:	not available
Connections:	TTL port for connection to Copy Card and Unicard
Digital outputs:	1 SPDT 8(3)A 250V~
	1 SPST 8(3)A 250V~
Analogue output:	not available
Measurement range:	according to probe used
Accuracy:	according to probe used
Resolution:	according to probe used
Power consumption:	4W max
Power supply:	• 1224V~/1236V ±10% 50/60Hz
	• 100240V~ ±10% 50/60Hz

^{*}selectable by parameter



DR4022

Universal DIN controllers with serial port



Codes	Descr.	Probe*	Power supply
E4D12EASBH710	DR4022	Pt100	100240V~
E4D12NASBH710	DR4022	NTC/PTC/Pt1000	100240V~
E4D12AASBD710	DR4022	TC	100240V~
E4D12IASBN710	DR4022	V/I/Pt100	100240V~
E4D12VASBN410	DR4022	V/I/Pt100	1224V~/

^{*}selectable by parameter

Applications

New Eliwell thermoregulators in the Universal Controller series are ideal for all industrial applications requiring high precision temperature control, ranging from the moulding of plastic materials and packaging, to raw material transformation process control.

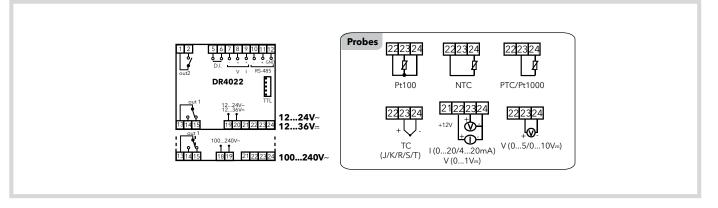
Common features

Container	plastic casing with 4 DIN modules	Operating temperature	-555°C
Dimensions	front panel 70x85mm, depth 61mm	Storage temperature	-2085°C
Installation	on DIN rail (Omega) or panel mounting,	Ambient humidity for	
	with 70x45mm (+0.2/-0.1mm) drilling template	operation and storage	1090% RH (non-condensing)

		ata

Technical data	DR4022
Display:	no decimal point *
	2 4-digit displays + sign
Analogue inputs:	1 input* (see Probes table)
Digital inputs:	1 clean contact at extra low safety voltage
Connections:	TTL port and internal RS-485 for connection to Copy Card, Unicard, Televis System and ModBus protocol systems
Digital outputs:	1 SPDT 8(3)A 250V~
	1 SPST 8(3)A 250V~
Analogue output:	V-I: 01V, 05V ,010V / 020mA, 420mA
Measurement range:	according to probe used
Accuracy:	according to probe used
Resolution:	according to probe used
Power consumption:	4W max
Power supply:	• 1224V~/1236V ±10% 50/60Hz
	• 100240V~ ±10% 50/60Hz

^{*(}selectable by parameter)



EW4820 (SSR)

Universal 48x48 controllers



Codes	Descr.	Probe*	Power supply
E481BI0XBH700	EW4820	V/I/Pt100	100240V~
E481SI0XBN700	EW4820 SSR output	V/I/Pt100	100240V~
E481BP0PMH700	EW4820	Pt100/Pt1000/NTC/PTC/TC	100240V~
E481SP0PMH700	EW4820 SSR Output	Pt100/Pt1000/NTC/PTC/TC	100240V~
E481BP0PMH400	EW4820	Pt100/Pt1000/NTC/PTC/TC	1224V~/
E481SP0PMH400	EW4820 SSR Output	Pt100/Pt1000/NTC/PTC/TC	1224V~/

^{*} selectable by parameter

Applications

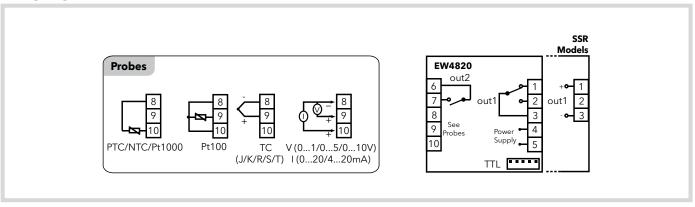
Eliwell thermoregulators in the Universal Controller series are ideal for all industrial applications requiring high precision temperature control, ranging from the moulding of plastic materials and packaging, to raw material transformation process control.

Common features

Container	PC+ABS UL94 V-0 resin plastic casing,	Operating temperature	-555°C
	switch keys with adhesive polycarbonate film	Storage temperature	-2085°C
Dimensions	front panel 48x48mm, depth 113mm	Ambient humidity for	
Installation	panel mounting with 45x45mm	operation and storage	1090% RH (non-condensing)
	(+0.2/-0.1mm) drilling template		

Technical data	EW4820 (SSR)
Display:	no decimal point *
	2 4-digit displays + sign
Analogue inputs:	1 input* (see Probes table)
Digital inputs:	not available
Connections:	TTL port for connection to Copy Card or Televis System
Digital outputs:	1 SPDT 3A 250V~
	1 SPST 2A 250V~
Digital outputs - SSR models:	Vout = 012Vπ / Imax = 015mA / Vmin = 7.5V
	1 SPST 2A 250V~
Analogue output:	not available
Measurement range:	according to probe used
Accuracy:	according to probe used
Resolution:	according to probe used
Power consumption:	• 2.45W for 1224V~/1236V model
	• 2.40W for 100240V~model
Power supply:	• 1224V~/1236V ±10% 50/60Hz
	• 100240V~ ±10% 50/60Hz

^{*(}selectable by parameter)



EW4822 (SSR)

Universal 48x48 controllers with serial port



Codes	Descr.	Probe*	Power supply
E481BIISBH700	EW4822 AO 420mA	V/I/Pt100	100240V~
E481BPIQMH700	EW4822 AO 020mA	Pt1000/Pt100/NTC/PTC/TC	100240V~
E481BPVQMH700	EW4822 AO 0/10V	Pt1000/Pt100/NTC/PTC/TC	100240V~
E481SPIQMH700	EW4822 AO 020mA SSR Output	Pt1000/Pt100/NTC/PTC/TC	100240V~
E481BPIQMH400	EW4822 AO 020mA	Pt1000/Pt100/NTC/PTC/TC	1224V~/
E481SPIQMH400	EW4822 AO 020mA SSR Output	Pt1000/Pt100/NTC/PTC/TC	1224V~/
*			

^{*}selectable by parameter

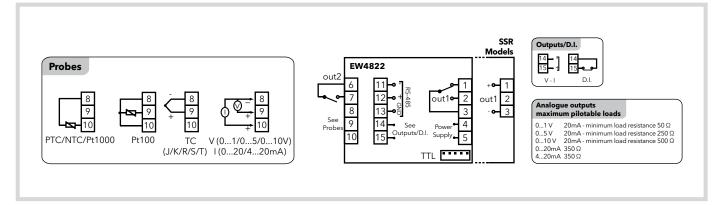
Applications

Eliwell thermoregulators in the Universal Controller series are ideal for all industrial applications requiring high precision temperature control, ranging from the moulding of plastic materials and packaging, to raw material transformation process control.

Common features

Container	PC+ABS UL94 V-0 resin plastic casing,	Operating temperature	-555°C
	switch keys with adhesive polycarbonate film	Storage temperature	-2085°C
Dimensions	front panel 48x48mm, depth 113mm	Ambient humidity for	
Installation	panel mounting with 45x45mm	operation and storage	1090% RH (non-condensing)
	(+0.2/-0.1mm) drilling template		

Technical data	EW4822 (SSR)
Display:	no decimal point *
	2 4-digit displays + sign
Analogue inputs:	1 input* (see Probes table)
Digital inputs:	1 clean contact at extra low safety voltage
Connections:	TTL port for connection to Copy Card or Televis System + internal RS-485 for connection to systems with ModBus protocol
Digital outputs:	1 SPDT 3A 250V~
	1 SPST 2A 250V~
Digital outputs - SSR models:	Vout = 012V / Imax = 015mA / Vmin = 7.5V
	1 SPST 2A 250V~
Analogue output:	V: 01V, 05V ,010V or I: 020mA, 420mA
	maximum pilotable loads: please see wiring diagrams
Measurement range:	according to probe used
Accuracy:	according to probe used
Resolution:	according to probe used
Power consumption:	• 2.80W for 1224V~/1236V model
	• 2.60W for 100240V~model
Power supply:	• 1224V~/1236V ±10% 50/60Hz
	• 100240V~ ±10% 50/60Hz
*(selectable by parameter)	



EW7210 - EW7220

Universal 72x72 controllers



Codes	Descr.	Probe*	Power supply
E7211A0XHD700	EW7210	TC	100240V~
E7211E0XHD700	EW7210	Pt100	100240V~
E7211N0XHD700	EW7210	NTC/PTC/Pt1000	100240V~
E7211A0XHD400	EW7210	TC	1224V∼/
E7211E0XHD400	EW7210	Pt100	1224V∼/
E7211N0XHD400	EW7210	NTC/PTC/Pt1000	1224V~/
E7212E0XBH700	EW7220	Pt100	100240V~
E7212A0XBD700	EW7220	TC	100240V~
E7212I0XBH700	EW7220	V/I/Pt100	100240V~
E7212N0XBD700	EW7220	NTC/PTC/Pt1000	100240V~
E7212E0XBH400	EW7220	Pt100	1224V~/
E7212A0XBD400	EW7220	TC	1224V~/
E7212I0XBH400	EW7220	V/I/Pt100	1224V~/
E7212N0XBD400	EW7220	NTC/PTC/Pt1000	1224V~/

^{*}selectable by parameter

Applications

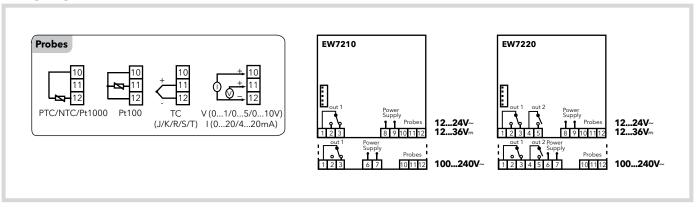
Eliwell thermoregulators in the Universal Controller series are ideal for all industrial applications requiring high precision temperature control, ranging from the moulding of plastic materials and packaging, to raw material transformation process control.

Common features

Container	PC+ABS UL94 V-0 resin plastic casing,	Operating temperature	-555°C
	switch keys with adhesive polycarbonate film	Storage temperature	-2085°C
Dimensions	front panel 72x72mm, depth 80mm	Ambient humidity for	
Installation	panel mounting with 67x67mm	operation and storage	1090% RH (non-condensing)
	(+0.2/-0.1mm) drilling template		

Technical data	FW7040	FW7220
lechnical data	EW7210	EW7220
Display:	no decimal point *	no decimal point *
	2 4-digit displays + sign	2 4-digit displays + sign
Analogue inputs:	1 input* (see Probes table)	1 input* (see Probes table)
Digital inputs:	not available	not available
Connections:	TTL port for connection to Copy Card, Televis System or	TTL port for connection to Copy Card, Televis System or
	systems with ModBus protocol	systems with ModBus protocol
Digital outputs:	1 SPDT 8(3)A 250V~	1 SPDT 8(3)A 250V~
		1 SPST 8(3)A 250V~
Analogue output:	not available	not available
Measurement range:	according to probe used	according to probe used
Accuracy:	according to probe used	according to probe used
Resolution:	according to probe used	according to probe used
Power consumption:	4W max	4W max
Power supply:	• 1224V~/1236V ±10% 50/60Hz	• 1224V~/1236V ±10% 50/60Hz
	• 100240V~ ±10% 50/60Hz	• 100240V~ ±10% 50/60Hz

^{*(}selectable by parameter)



EW7221 - EW7222

Universal 72x72 controllers with serial port



Codes	Descr.	Probe*	Power supply
E7213PAXBH700	Univ. EW7221	Pt100/Pt1000/NTC/PTC/TC	100240V~
E7213IAXBH700	EW7221	V/I/Pt100	100240V~
E7213PAXBD700	Univ. EW7221 - RS485	Pt100/Pt1000/NTC/PTC/TC	100240V~
E7213PAXBH400	Univ. EW7221	Pt100	1224V~/
E7213PASBH700	EW7222 UnivRS485	Pt100/Pt1000/NTC/PTC/TC	100240V~
E7213IASBH700	EW7222	V/I/Pt100	100240V~
E7213PASBH400	EW7222 UnivRS485	Pt100/Pt1000/NTC/PTC/TC	1224V~/

^{*}selectable by parameter

Applications

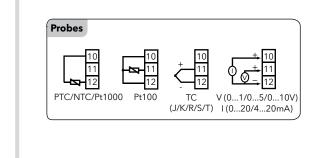
Eliwell thermoregulators in the Universal Controller series are ideal for all industrial applications requiring high precision temperature control, ranging from the moulding of plastic materials and packaging, to raw material transformation process control.

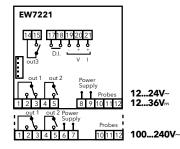
Common features

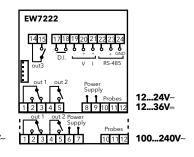
Container	PC+ABS UL94 V-0 resin plastic casing,	Operating temperature	-555°C
	switch keys with adhesive polycarbonate film	Storage temperature	-2085°C
Dimensions	front panel 72x72mm, depth 80mm	Ambient humidity for	
Installation	panel mounting with 67x67mm	operation and storage	1090% RH (non-condensing)
	(+0.2/-0.1mm) drilling template		

Technical data	EW7221	EW7222
Display:	no decimal point *	no decimal point *
	2 4-digit displays + sign	2 4-digit displays + sign
Analogue inputs:	1 input* (see Analogue Inputs table)	1 input* (see Probes table)
Digital inputs:	1 clean contact at extra low safety voltage	1 clean contact at extra low safety voltage
Connections:	TTL port for connection to Copy Card, Televis System or	TTL port and RS-485 for connection to Copy Card,
	systems with ModBus protocol	Televis System or systems with ModBus protocol
Digital outputs:	1 SPDT 8(3)A 250V~	1 SPDT 8(3)A 250V~
	1 SPST 8(3)A 250V~	1 SPST 8(3)A 250V~
	1 SPST 5A 250V~	1 SPST 5A 250V~
Analogue output:	V-I: 01V, 05V ,010V / 020mA, 420mA	V-I: 01V, 05V ,010V / 020mA, 420mA
Measurement range:	according to probe used	according to probe used
Accuracy:	according to probe used	according to probe used
Resolution:	according to probe used	according to probe used
Power consumption:	4W max	4W max
Power supply:	• 1224V~/1236V ±10% 50/60Hz	• 1224V~/1236V ±10% 50/60Hz
	• 100240V~ ±10% 50/60Hz	• 100240V~ ±10% 50/60Hz

^{*(}selectable by parameter)







EWTSPlus 990

32x74 timers and counters



Codes	Descr.	Power supply
ET020I0XTG700	EWTSPlus 990	230V~
ET020I0XTG500	EWTSPlus 990	24V~
ET020I0XTG300	EWTSPlus 990	12V~/

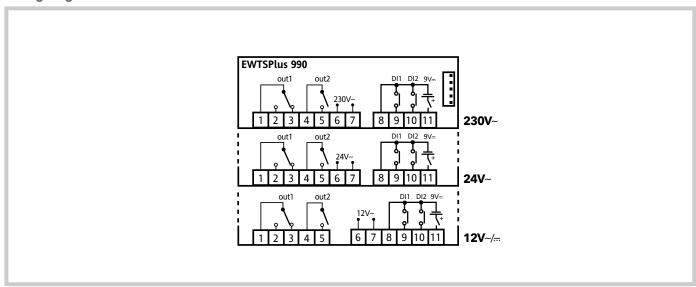
Applications

The Eliwell series of digital timers is the ideal measuring solution for all measurable quantities in commercial refrigeration and light industry. The range is used in all applications requiring precision control of processing stages and the management of functions linked to pre-set time intervals.

Common features

Container	PC+ABS UL94 V-0 plastic resin casing,	Operating temperature	-555°C
	polycarbonate display window, thermoplastic resin buttons	Storage temperature	-3085°C
Dimensions	front panel 79x37mm, depth 59mm	Ambient humidity for	
Installation	panel mounting with 71x29mm	operation and storage	1090% RH (non-condensing)
	(+0.2/-0.1mm) drilling template		

Technical data	EWTSPlus 990
Display range:	9999 hours / 99 hours and 59 minutes / 99 minutes and 59 seconds / 99 seconds and 99 hundredths of a second
Display:	no decimal point * 4 digits + sign
Digital inputs:	2 clean contacts at extra low safety voltage
Connections:	TTL port for connection to Copy Card and Televis System
Digital outputs:	1 SPDT 8(3)A 1/2hp 250V~ 1 SPST 8(3)A 1/2hp 250V~
Accuracy:	3.6 sec/h
Power consumption:	3VA max
Power supply:	12V~/= or 24V~ or 230V~ ±10% 50/60Hz
External battery:	 power supply 9V: battery duration: depends on model, with 9V:/10mA/h battery duration 1h instrument absorption with power supply from 10mA battery



EWCM 400D PRO

Compact controllers for compressor racks





Codes	Description	Notes
EPDT1PCR2400A	EWCM 436D PRO /A-CRII W/CABLES 1	Specifically for CRii compressors
EPDT1PSTD400A	EWCM 436D PRO /A-STD W/CABLES ¹	For compressors:
EPD01PSTD400A	EWCM 455D PRO /A-STD W/CABLES ¹	with steps, Digital Scroll and Inverter.
EPE01PSTD400A	EWCM 455P PRO /A-STD W/CABLES ¹	Expandable with EXP 455D PRO
EP5500000400A	EXP 455D PRO W/CABLES ²	I/O expansion
SKP1000000000	SKP 10	Display / Optional remote keyboard
COLV0000E0100	WIRING LV FREE/FLEX 1 m 20 WAY	I/O Wiring
COLV000042100	WIRING WIRING OUT 4WAY 1m	Analogue output wiring
COLV000035100	WIRING RS485 FREE/FLEX 1m	RS-485 serial wiring

¹ All controllers include wiring COLV0000E0100, COLV000042100, COLV000035100

Applications

The new series of controllers for EWCM 400 PRO compressor racks was designed to manage central cooling up to 4 compressors of which one has variable capacity, of the type CRii, Digital Scroll, or via inverter.

The controller also manages the condenser fans controlled via inverter or up to 4 steps in /STD models, 2 steps in /CRII models.

The management of the floating condensation set point according to the external temperature conditions offers energy saving, together with the noise management function with night-time setpoint for condenser fans.

The EWCM 436D PRO /A-CRII is designed for CRii series compressors with direct control of the capacity modulation valves.

Common features

Control of compressor racks up to 4 compressors or 4 steps	Energy saving with floating condensation	
Modulation of the capacity for CRii series compressors up to 3 valves	Noise management with built-in clock activation	
Fan control with inverter and up to 4 steps	Additional configurable regulator on analogue or digital output	

Technical Data	EWCM 436D PRO	EWCM 455P PRO	EWCM 455D PRO	EXP 455D
Dimensions	"front panel 70.2x87mm, depth 61.6mm"	front panel 74x32mm, depth 60mm	front panel 70.2x87mr	m, depth 61.6mm
Installation	on DIN Omega bar support	panel mounting with 71x29mm drilling template	on DIN Omega l	bar support
Analogue Inputs	3 configurable analogical, clean contact digital, NTC inputs 2 voltage/current analogue configurable inputs, clean contact digital inputs			
Digital Inputs		6 clean contac	t digital inputs	
Analogue Outputs	1 PWM analogue output (2) low voltage (SELV) 2 analogue outputs 0 10 V, low voltage (SELV) 1 analogue output 0 10 V / 4 20 mA / 0 20 mA, low voltage (SELV)			
Digital Outputs	3 relay outputs 2 A - 230 Vac			
TRIAC outputs	2 TRIAC outputs 3 A - 230 Vac			
Expansion bus	Bus for expansion module EXP 455D			
User interface		Remote keyboard SK 10		
Monitoring	Isolated I	RS-485 serial port with Modbus RTU	protocol	
Power supply	12/24 Vac 24 Vdc not insulated			
Power consumption	6 VA			
Operating temperature and humidity	-2055°C 1090% (non-condensing)			
Storage temperature and humidity	-4085°C 1090% (non-condensing)			

² Includes COLV0000E0100, COLV000042100

ELECTROMECHANICAL COMPONENTS

32x74 controllers for compressor racks



Codes	Descr.	Power supply
EM6A12001EL10	EWCM4120 /C	12V~
EM6A12001EL11	EWCM4120 /C with wires	12V~
EM6A22105EL10	EWCM4150 /C	12V~
EM6A22105EL11	EWCM4150 /C with wires	12V~
EM6A22101EL10	EWCM4180 /C	12V~
EM6A22101EL11	EWCM4180 /C with wires	12V~

EM6A12001EL16	KIT EWCM 4120/C	see kit table	
EM6A22101EL16	KIT EWCM 4180/C	see kit table	

Applications

The EWCM 4000 range, which consists of three different controllers, is the ideal solution for small and medium-sized compressor racks, where ease of use, high control reliability and versatility are essential features for meeting all operational requirements in compressor rack management.

Common features

Display	4 figure LED
Container	plastic casing, flame retardant grade UL94-V0
Dimensions	front panel 32x74mm, depth 70mm
Installation	panel-mounted with 71x29mm hole

Operating temperature	-560°C
Storage temperature	-2085°C
Ambient humidity for	
operation and storage	1090% RH (non-condensing)

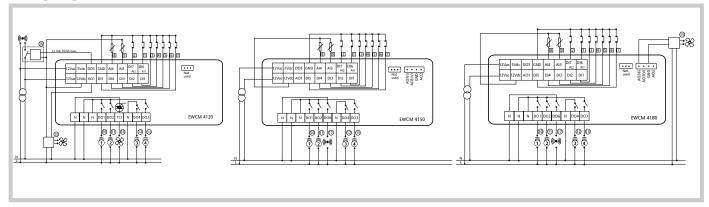
Technical data	EWCM 4120
Analogue inputs:	2 420mA / ratiometric 05V / 010V / NTC / D.I.*
Digital inputs:	7 SELV contacts
Analogue outputs:	• TRIAC
	PWM - Open Collector
	-
Digital outputs:	4 SPST 2A 250V~ + Open Collector
Connections:	TTL port for connection to Copy Card
	and Televis System via
	optional module
Clock:	present
Power consumption:	5VA max
Power supply:	12V~ ±10% 50/60Hz

EWCM 4150	EWCM 4180
2 420mA / ratiometric 05V / 010V	2 420mA / ratiometric 05V / 010V
/ NTC / D.I.*	/ NTC / D.I.*
7 SELV contacts	7 SELV contacts
-	-
• 2 PWM - Open Collector	• 2 PWM - Open Collector
• 010V / 420mA / 020mA*	• 010V / 420mA / 020mA*
5 SPST 2A 250V~ + Open Collector	5 SPST 2A 250V~ + Open Collector
TTL port for connection to Copy Card	TTL port for connection to Copy Card
and Televis System via	and Televis System via
optional module	optional module
present	present
5VA max	5VA max
12V~ ±10% 50/60Hz	12V~ ±10% 50/60Hz

KIT		
Code	Description	Details
EM6A12001EL16	EWCM 4120/C KIT	1 x EM6A12001EL11 - EWCM 4120/C with wires
		1 x TF411200 - transformer 230/12 5VA shielded
		1 x TD420030B - EWPA 030 R 0/5V 0/30BAR ratiometric transd.
		1 x TD420010B - EWPA 010 R 0/5V 0/10BAR ratiometric transd.
		2 x WIRE EWPA 2m R 0/5V for ratiometric transd.
EM6A22101EL16	EWCM 4180/C KIT	1 x EM6A22101EL11- EWCM 4180/C with wires
		1 x TF411200 - transformer 230/12 5VA shielded
		1 x TD420030B - EWPA 030 R 0/5V 0/30BAR ratiometric transd.
		1 x TD420010B - EWPA 010 R 0/5V 0/10BAR ratiometric transd.
		2 x WIRE EWPA 2m R 0/5V for ratiometric transd.

Wiring diagrams

* (selectable by parameter)



EWCM 9000 PRO DOMINO /CO2T

CO2 transcritical compressor rack contol





Code		Description	Notes
EPB01FCTA500	0	EWCM 9000 PRO-HF 42D /CO2T ISOL	Built-in HMI, relay outputs
EPBS1FCTA500		EWCM 9000 PRO-HF 42D SSR /CO2T ISOL	Built-in HMI, relay outputs and SSR
EPB00FCTA500	2	EWCM 9000 PRO-HF 42B /CO2T ISOL	no HMI, relay outputs
EPBS0FCTA500		EWCM 9000 PRO-HF 42B SSR /CO2T ISOL	no HMI, relay outputs and SSR
EP400000B00	4	EXP 4D PRO 14 I/O	14 I/O expansion, relay outputs
EP4S0024V500	6	EXP 4D PRO SSR-24 25 I/O	expansion, relay outputs and SSR
EP4S00LIV500		EXP 4D PRO SSR-MAINS 25 I/O	expansion, relay outputs and SSR (110-230V)
EPKE10000000	8	EVK PRO MONOCHROME DISPLAY -20C	remote HMI
EVEVD2B000500	6	EEVD Exp. 2 EEV Bipolar	expansion for 2 bipolar valve drivers
EVEVDBA000000	7	EEVD battery backup	backup module for 1 valve

Applications

The EWCM 9000 PRO controller for compressor racks, along with RTX 600 DOMINO ZERO and TelevisGo, is part of Eliwell DOMINO, the solution for sustainable refrigeration systems based on carbon dioxide (CO2) as a natural refrigerant. EWCM 9000 PRO /CO2T can be completely configured to control transcritical CO2 systems in commercial and industrial applications.

Based on BOOSTER and PARALLEL COMPRESSION configuration, it can be expanded to control 2 circuits, parallel compression, heat recovery, sub-cooling. EWCM 9000 PRO with its EVEVD valve and backup drives, is compact and saves space in the panel, and is also open to controlling the most renowned valve brands. The high diagnostic capacity makes EWCM 9000 PRO easy to maintain and fully remotely manageable with TelevisGo, and easily configurable with the Device ${\it Manager and Free Studio Installer tools for graphic configuration of I/Os and fine-tuning.}$

Features

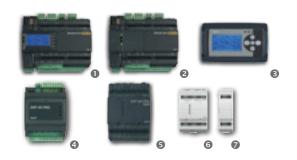
2 circuits (LT/NT or NT/NT) up to 9 NT, 8 LT compressors	Dual compact valve driver with backup	
Parallel booster/compression management up to 4 compressors	Dual modulating heat recovery	
Compact, expandable solution	Sub-cooling with bypass	

Technical data	EWCM 9000 PRO	EWCM 9000 PRO SSR	EVK PRO DISPLAY
Dimensions	144 x 110 mm frontal panel, depth 60mm	144 x 110 mm frontal panel, depth 60mm	front panel 190 x 96 mm, depth 9.9mm, total depth 29mm
Power supply	24 Vac / 2038 Vdc isolated	24 Vac / 2038 Vdc isolated	24 Vac / 24 Vdc
Power consumption	35 VA / 15 W	35 VA / 15 W	3 VA / 2 W
Operating temperature	-20 65°C	-20 65°C	-20° 55°C
Analogue inputs	12 configurable inputs: NTC -40+137 °C DI NTC -50+110 °C PT1000 -200+850 °C PTC -55+150 °C 0-20 mA 4-20 mA 0-10 V / 0-5 V 0-5 V ratiometric	12 configurable inputs: NTC -40+137 °C DI NTC -50+110 °C PT1000 -200+850 °C PTC -55+150 °C 0-20 mA 4-20 mA 0-10 V / 0-5 V 0-5 V ratiometric	
Digital inputs	10 SELV +24 V ac/dc opto isolator inputs 2 rapid opto isolator inputs, up to 2 kHz	10 SELV +24 V ac/dc opto isolator inputs 2 rapid opto isolator inputs, up to 2 kHz	-
Analogue outputs	4 outputs 0-10 V 2 configurable outputs: 0-10 V 4-20 mA Open Collector	4 outputs 0-10 V 2 configurable outputs: 0-10 V 4-20 mA Open Collector	
Digital outputs	10 3 A SPST +250 V a.c. relays 2 1 A SPDT +250 V a.c. relays	8 3 A SPST +250 V a.c. relays 2 1 A SPDT +250 V a.c. relays 2 SSR x 0.5 A +240 V c.a.	-
Display	128x64px backlit graphic LCD 4 status LEDs 4 buttons	128x64px backlit graphic LCD 4 status LEDs 4 buttons	128x64px backlit graphic LCD 3 status LEDs 5 buttons
Connectivity	CAN Bus of expansion 2 RS 485 protocol Modbus RTU serials 1 USB type A (Host) Mass Storage (FAT32) 1 mini USB type B (Device) for PC connection 1 Ethernet port 10 Modbus/TCP protocol and webserver	CAN Bus of expansion 2 RS 485 protocol Modbus RTU serials 1 USB type A (Host) Mass Storage (FAT32) 1 mini USB type B (Device) for PC connection 1 Ethernet port 10 Modbus/TCP protocol and webserver	CAN Bus of expansion
Memory	MicroSD expansion slot for diagrams up to 16GB	MicroSD expansion slot for diagrams up to 16GB	-

EWCM 9000 PRO DOMINO /CO2T

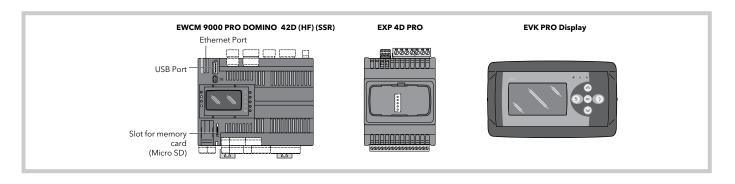
CO2 transcritical compressor rack contol





Code		Description	Notes
EPB01FCTA500	0	EWCM 9000 PRO-HF 42D /CO2T ISOL	Built-in HMI, relay outputs
EPBS1FCTA500		EWCM 9000 PRO-HF 42D SSR /CO2T ISOL	Built-in HMI, relay outputs and SSR
EPB00FCTA500	0	EWCM 9000 PRO-HF 42B /CO2T ISOL	no HMI, relay outputs
EPBS0FCTA500		EWCM 9000 PRO-HF 42B SSR /CO2T ISOL	no HMI, relay outputs and SSR
EP400000B00	4	EXP 4D PRO 14 I/O	14 I/O expansion, relay outputs
EP4S0024V500	6	EXP 4D PRO SSR-24 25 I/O	expansion, relay outputs and SSR
EP4S00LIV500		EXP 4D PRO SSR-MAINS 25 I/O	expansion, relay outputs and SSR (110-230V)
EPKE10000000	8	EVK PRO MONOCHROME DISPLAY -20C	remote HMI
EVEVD2B000500	6	EEVD Exp. 2 EEV Bipolar	expansion for 2 bipolar valve drivers
EVEVDBA000000	7	EEVD battery backup	backup module for 1 valve

Technical Data	EXP 4D PRO	EXP 4D PRO SSR-24/ MAINS	EEVD Exp. 2 EEV Bipolar	EEVD battery backup
Dimensions	70.2 x 87 mm frontal panel, depth 61.6 mm	72 x 110 mm frontal panel, depth 59mm	72 x 110 mm frontal panel, depth 60mm	36 x 110 mm frontal panel, depth 60mm
Power supply	24 Vac / 24 Vdc not insulated	24 Vac / 2038 Vdc isolated	24 Vac / 2038 Vdc isolated	from EEVD Exp
Power consumption	16 VA / 7 W	13 VA / 9 W	35 VA / 30 W	-
Operating temperature	-10 60°C	-20 65°C	-20 65°C	-20 60°C
Analogue inputs	4 configurable inputs: NTC -40+137 °C DI NTC -50+110 °C PT1000 -200+850 °C PTC -55+150 °C 4-20 mA 0-10 V / 0-5 V	10 configurable inputs: NTC -40+137 °C DI NTC -50+110 °C PT1000 -200+850 °C PTC -55+150 °C 4-20 mA 0-10 V / 0-5 V	•	-
Digital inputs	4 safety extra low voltage SELV	6 safety extra low voltage SELV		-
Analogue outputs	2 x 0-10V	2 x 0-10V	-	-
Digital outputs	3 3 A SPST +250 V a.c. relays 1 x 1 A SPDT +250 V a.c. relay	4 3 A SPST +250 V a.c. relays 2 SSR with: Mod 24: 0.5 A +240 V c.a. Mod MAINS: 2 A 24 Vac/Vdc	-	-
Valve driver output	-	-	2 x Bipolar Valve	-
Backup capacity	-	-	Maximum 2 backup modules	Supports 1 valve
Connectivity	CAN Bus of expansion	CAN Bus of expansion	CAN Bus of expansion	-



EWCM 8900 - 9100 - 9900 EO

DIN controllers for compressor racks





Code	Description	Details
EM32AG2*0GH00	EWCM 8900 EO	13 DIN, traditional refrigerants
EM32AG2*1GH00	EWCM 8900 EO HFO	13 DIN, new set of refrigerants
EM32BH2*0GH00	EWCM 9100 EO	13 DIN, traditional refrigerants
EM32BH2*1GH00	EWCM 9100 EO HFO	13 DIN, new set of refrigerants
EM83CI3*0GH00	EWCM 9900 EO	18 DIN, traditional refrigerants
EM83CI3*1GH00	EWCM 9900 EO HFO	18 DIN, new set of refrigerants
EMK0000B0G000	spare keyboard ENG/ITA	
CO000029	3m cable keyboard-base	
CCA0BUI02N000	USB Copy Card	

The letter in this position indicates the languages available for the code:
A: ITA/ENG; B: ENG/ITA; C: FRA/ENG; D: ESP/ENG; F: GER/ENG; O: RUS/ENG; Q:TUR/ENG
Keyboard included.

Applications

The new series of controllers for EWCM EO (Environmentally Optimised) compressor racks provides a single solution to temperature control in refrigeration systems. The external keyboard with graphic LCD and the rapid parameter setting menu give greater accessibility and make it easier for the operator to configure parameters and access data. Energy saving is guaranteed thanks to the dedicated control algorithms.

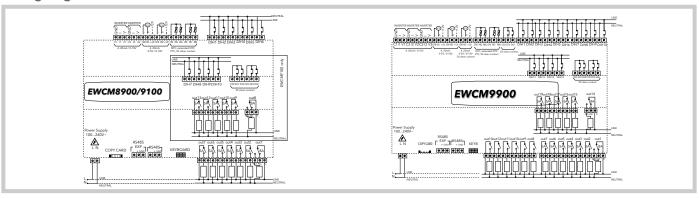
- Subcritical CO₂ management, glycol, HFC and HFO
- Rooms managed in cascade by Plug & Play V910 module
- Advanced management of rooms with inverter
- Rapid configuration tool for PC DeviceManager

Updates for glossaries, applications, and the always updated list of compatible refrigerants are available in the reserved area of www.eliwell.com.

Common features

Insulation Class	2	Traditional refrigerants	R22, R134a, R502, R404A, R407C, R507,
Operating temperature	-555°C		R717 (Ammonia), R410A, R417a, R744 (CO2),
Storage temperature	-3085°C		R407A, R407F, R290, R427, R600A, R23
Ambient humidity of	1090% RH (non-condensing)	New set of refrigerants	R434A, R134a, R448A (N40), R404A, R407C, R427A,
use and storage			R717 (Ammonia), R410A, R452A, R744 (CO2),
			R449A (XP40), R450 (N13), R407A, R513A (XP10),
			R407F, R23

Technical data	EWCM 8900	EWCM 9100	EWCM 9900
Container	PC+ABS plastic resin casing, UL94 V-0 13 DIN modules (227.5x110x60mm)	PC+ABS plastic resin casing, UL94 V-0 13 DIN modules (227.5x110x60mm)	PC+ABS plastic resin casing, UL94 V-0 18 DIN modules (315x110x60mm)
Installation:	on DIN Omega bar support	on DIN Omega bar support	on DIN Omega bar support
Analogue inputs:	4 NTC/NTC extended/PTC/D.I.+ 2 high precision current (420mA / 05V / 010V)	4 NTC/NTC extended/PTC/D.I.+ 2 high precision current (420mA / 05V / 010V)	4 NTC/NTC extended/PTC/D.I.+ 2 high precision current (420mA / 05V / 010V) + 1 current/voltage (420mA / 05V / 010V)
Digital inputs	6 voltage (100240V~)	10 voltage (100240V~) + 4 configurable voltage-free	14 voltage (100240V~) + 6 configurable voltage-free
Analogue outputs:	2 voltage/current (010V/420mA)	2 voltage/current (010V/420mA)	3 voltage/current (010V/420mA)
Digital outputs:	6 SPST 5(2)A 250V~ + 1 SPDT 8(3)A 250V~	11 SPST 5(2)A 250V~ + 2 SPDT 8(3)A 250V~	17 SPST 5(2)A 250V~ + 2 SPDT 8(3)A 250V~
Connections:	TTL port for connection to CopyCard USB RS-485 for connection to TelevisSystem and systems based on ModBus protocol RS-485 EXP for connection to pulse/stepper (V800/V910) driver	TL port for connection to CopyCard USB RS-485 for connection to TelevisSystem and systems based on ModBus protocol RS-485 EXP for connection to pulse/stepper (V800/V910) driver	TTL port for connection to CopyCard USB RS-485 for connection to TelevisSystem and systems based on ModBus protocol RS-485 EXP for connection to pulse/stepper (V800/V910) driver
Display:	LCD on external keyboard	LCD on external keyboard	LCD on external keyboard
Functions:	inverter control both in suction and discharge	inverter control both in suction and discharge	inverter control both in suction and discharge
Clock:	present	present	present
Power consumption:	20W	20W	20W
Power supply:	100240V~ ±10% 50/60Hz	100240V~ ±10% 50/60Hz	100240V~ ±10% 50/60Hz



FASEC 33 - FASEC 43 (C) - FASEC 53

Speed controllers for single-phase fans



Codes	Description	Power supply	Function
FA53370000	FASEC 33	220V~	condensation
FA54370000	FASEC 43	220V~	evaporation
FA55370000	FASEC 53	220V~	manual
CN111114	Octal baseboard		

^{*} probe not included

Applications

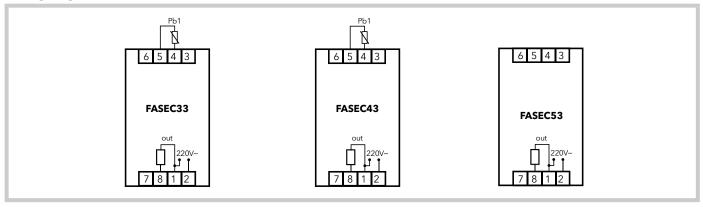
FASEC 33 and FASEC 43 (C) instruments are designed for speed control and are particularly suited for applications on refrigeration units for the condensation

The FASEC 53 is a manual fan regulator suitable for applications on refrigeration units.

Common features

Front panel protection rating IP20		Installation	panel-mounted, with 45x92mm hole
Container	plastic body in flame-retardant NORYL	Operating temperature	-560°C
Dimensions	front panel 48x96mm, depth 96mm excluding baseboard	Storage temperature	-3075°C

was to the following			
Technical data	FASEC 33	FASEC 43 (C)	FASEC 53
Connections:	Octal baseboard	Octal baseboard	Octal baseboard
Regulation:	-	-	from 0 to 100% with knob
			on front panel
Analogue inputs:	1 PTC	1 PTC	-
Setting output:	1 triac 2,5A, triac 7A (optional)	1 triac 2,5A, triac 7A (optional)	1 triac 2,5A, triac 7A (optional)
Setting range:	060°C	• FASEC 43: -4030°C	
		• FASEC 43C: 060°C	
External filter (for version 7A):	load power supply max current	load power supply max current	load power supply max current
	7A; cylinder diameter 38mm, height	7A; cylinder diameter 38mm, height	7A; cylinder diameter 38mm, height
	28mm; M8 fixing bolt	28mm; M8 fixing bolt	28mm; M8 fixing bolt
Type of setting:	proportional to phase capacity step	proportional to phase capacity step	manual phase capacity step
Type of function:	for condensation	for evaporation	manual
Power supply:	220V~ ±10% 50/60Hz	220V~ ±10% 50/60Hz	220V~ ±10% 50/60Hz



WM 253

Speed controllers for single-phase wall fans



Codes	Descr.	Probe	Power supply
VM253710	WM 253 Manual	=	230V~

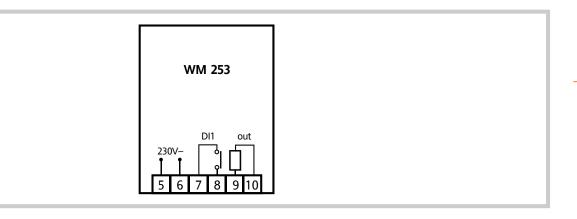
Applications

WM 253 units are automatic fan regulators suitable for air conditioning systems.

Common features

Front panel protection rating IP50		Operating temperature	-555°C
Container	Flame retardant ABS plastic with snap closure	Storage temperature	-3075°C
Dimensions	front panel 75x108mm, depth 49mm	Ambient operation and	
Installation	wall-mounted, fixing screws provided	storage humidity	1090% RH (non-condensing)

Technical data	WM 253
Connections:	on screw-on terminal block for max 2.5mm wires
Setting:	from 0 to 100% with knob on front panel
Input:	not available
Setting output:	2.5A triac
Type of function:	manual control; speed proportional to position of potentiometer on front panel
Type of setting:	proportional to phase capacity step
Power consumption:	3VA max
Power supply:	230V~ ±10% 50Hz



CFS02 - CFS04 - CFS06 - CFS08

Power modules to control fan speed





Codes	Descr.
CF10x11011000	CFS0 x
CF10x21011000	CFS0x /V
CF10x31011000	CFS0x /I

x=2,4,6,8

Applications

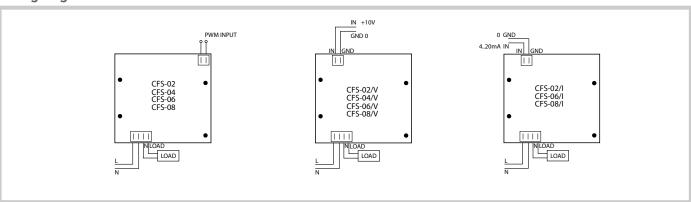
The instruments in the new CFS range are optional modules which can be connected to the main control systems for regulation of single-phase fan speed at currents between 2 A and 9 A. The power supply is 230V~ max.

Features

CFS regulators come in an "open board" format and are available in various models (see table).

Models differ in relation to the rated load current applicable and the type of control signal, whether current, voltage or PWM (pulse modulation).

Technical data	CFS 02-04-06-08	CFS 02-04-06-08/V	CFS 02-06-08/I
Dimensions:	CFS02:	CFS02/V:	CFS02/I:
	90.0x83.0x38.0mm(LxDxH)+1.6mm(PCB)	90.0x83.0x38.0mm(LxDxH)+1.6mm(PCB)	90.0x83.0x38.0mm(LxDxH)+1.6mm(PCB)
	CFS 04:	CFS04/V:	CFS04/I:
	90.0x83.0x51.0mm(LxDxH)+1.6mm(PCB)	90.0x83.0x51.0mm(LxDxH)+1.6m-	90.0x83.0x51.0mm(LxDxH)+1.6mm(PCB)
	CFS06:	m(PCB)	CFS06/I:
	90.0x83.0x63.5mm(LxDxH)+1.6mm(PCB)	CFS06/V:	90.0x83.0x63.5mm(LxDxH)+1.6mm(PCB)
	CFS08:	90.0x83.0x63.5mm(LxDxH)+1.6mm(PCB)	CFS08/I:
	90.0x83.0x63.5mm(LxDxH)+1.6mm(PCB)	CFS08/V:	90.0x83.0x63.5mm(LxDxH)+1.6mm(PCB)
Power supply	230V~ ±10% 50Hz	90.0x83.0x63.5mm(LxDxH)+1.6mm(PCB)	230V~ ±10% 50Hz
Rated current at 40°C:	2.5A - CFS02 model	230V~ ±10% 50Hz	2.5A - CFS 02/I model
	5A - CFS 04 model	2.5A - CFS 02/V model	5A - CFS 04/I model
	7A - CFS 06 model	5A - CFS 04/V model	7A - CFS 06/I model
	9A - CFS 08 model	7A - CFS 06/V model	9A - CFS 08/I model
Rated current @50°C	2A - CFS02 model	9A - CFS 08/V model	2A - CFS 02/I model
	4A - CFS04 model	2A - CFS 02/V model	5A - CFS 04/I model
	6A - CFS06 model	4A - CFS 04/V model	6A - CFS 06/I model
	8A - CFS08 model	6A - CFS 06/V model	8A - CFS 08/I model
Control signal:	PWM	8A - CFS 08/V model	420mA
Ambient operating temperature:	-10+50°C	010V 	-10+50°C
Ambient storage temperature:	-20+85°C	-10+50°C	-20+85°C
Ambient humidity for operation	1090% RH (non-condensing)	-20+85°C	1090% RH (non-condensing)
and storage:		1090% RH (non-condensing)	



SOLUTIONS FOR SUPERMARKETS

food quality as provided by HACCP regulations and European standards (EN13845- EN12830) governing

offers a product range combining energy efficiency air conditioning and domestic water into a single and location.





Applications for efficient and sustainable food retail

Up to 25% more efficient

less investment, less space, less maintenance



Discover the solution

DOMINO CO2 transcritical system

Control solution for CO2 transcritical systems





Code		Description	Notes
EPB01FCTA500	0	EWCM 9000 PRO-HF 42D /CO2T ISOL	Built-in HMI, relay outputs
EPBS1FCTA500		EWCM 9000 PRO-HF 42D SSR /CO2T ISOL	Built-in HMI, relay outputs and SSR
EPB00FCTA500	2	EWCM 9000 PRO-HF 42B /CO2T ISOL	no HMI, relay outputs
EPBS0FCTA500		EWCM 9000 PRO-HF 42B SSR /CO2T ISOL	no HMI, relay outputs and SSR
EP4000000B00	4	EXP 4D PRO 14 I/O	expansion, relay outputs
EP4S0024V500	6	EXP 4D PRO SSR-24 25 I/O	expansion, relay outputs and SSR 24V
EP4S00LIV500		EXP 4D PRO SSR-MAINS 25 I/O	expansion, relay outputs and SSR 250V
EPKE10000000	6	EVK PRO MONOCHROME DISPLAY -20C	remote HMI
EVEVD2B000500	6	EEVD Exp. 2 EEV Bipolar	expansion for 2 bipolar valve drivers
EVEVDBA000000	7	EEVD battery backup	backup module for 1 valve
EWKRTZX1E00		RTX 600 /V DOMINO ZERO KIT KDEPlus	kit with keyboard, Pulse
EWKRTZX1X00		RTX 600 /V COLD ROOM PANEL KIT 100-240V	cell panel, Pulse
EWKRTZS3E00		RTX 600 /VS DOMINO ZERO P.PACK KIT KDEPlus	kit with keyboard and backup, Stepper
EWKRTZS3X00		RTX 600 /VS POWER-PACK PANEL KIT 100-240V	cell panel with backup, Stepper
RTZX0S1H00	8	RTX 600 /V DOMINO ZERO	controller only, Pulse
RTZS0S3H00	0	RTX 600 /VS DOMINO ZERO POW- ER-PACK	controller with backup, Stepper
KDE400E004000		KDEPlus 32x74 AMBER SCREW/JST	keyboard, panel mount- ing
KDX5H0R0000		KDX 500 100-240V	small cell panel
KDX5HDR0000		KDX 500 4D 100-240V	small cell panel 4 DIN modules
KDX5KDR0000	0	KDX 5000 100-240V	large cell panel

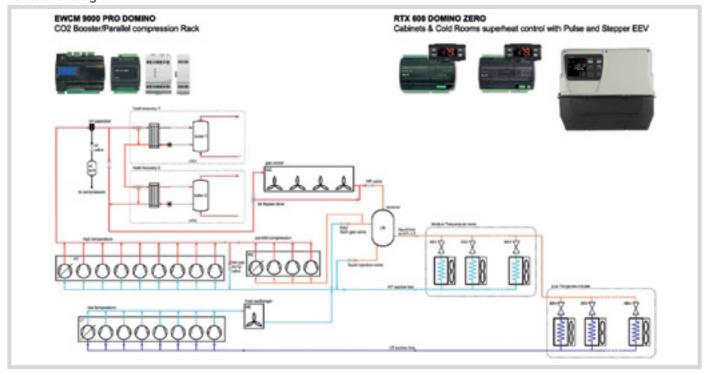
Applications

DOMINO is the Eliwell solution responding to the sustainability and efficiency needs of all food distribution sector players: refrigerator installers, maintenance companies, manufacturers of refrigeration equipment, who are looking for efficient systems that are easy to install and maintain over time, with recognised solutions. DOMINO combines evaporation and compression controls to optimise refrigeration performance, working at the highest and most stable suction pressure possible, adapting to any climatic zone even with standard compressor rack designs.

Features

Efficiency for supermarkets and cold stores	Adaptive control for stable system operation
Integrated Refrigeration and HVAC solution	Stable suction pressure improves system reliability

Functional diagram



EWCM 9000 PRO DOMINO /CO2T

CO2 transcritical compressor rack contol





Code		Description	Notes
EPB01FCTA500	0	EWCM 9000 PRO-HF 42D /CO2T ISOL	Built-in HMI, relay outputs
EPBS1FCTA500		EWCM 9000 PRO-HF 42D SSR /CO2T ISOL	Built-in HMI, relay outputs and SSR
EPB00FCTA500	0	EWCM 9000 PRO-HF 42B /CO2T ISOL	no HMI, relay outputs
EPBS0FCTA500		EWCM 9000 PRO-HF 42B SSR /CO2T ISOL	no HMI, relay outputs and SSR
EP400000B00	4	EXP 4D PRO 14 I/O	14 I/O expansion, relay outputs
EP4S0024V500	6	EXP 4D PRO SSR-24 25 I/O	expansion, relay outputs and SSR
EP4S00LIV500		EXP 4D PRO SSR-MAINS 25 I/O	expansion, relay outputs and SSR (110-230V)
EPKE10000000	8	EVK PRO MONOCHROME DISPLAY -20C	remote HMI
EVEVD2B000500	6	EEVD Exp. 2 EEV Bipolar	expansion for 2 bipolar valve drivers
EVEVDBA000000	7	EEVD battery backup	backup module for 1 valve

Applications

The EWCM 9000 PRO controller for compressor racks, along with RTX 600 DOMINO ZERO and TelevisGo, is part of Eliwell DOMINO, the solution for sustainable refrigeration systems based on carbon dioxide (CO2) as a natural refrigerant. EWCM 9000 PRO /CO2T can be completely configured to control transcritical CO2 systems in commercial and industrial applications.

Based on BOOSTER and PARALLEL COMPRESSION configuration, it can be expanded to control 2 circuits, parallel compression, heat recovery, sub-cooling. EWCM 9000 PRO with its EVEVD valve and backup drives, is compact and saves space in the panel, and is also open to controlling the most renowned valve brands. The high diagnostic capacity makes EWCM 9000 PRO easy to maintain and fully remotely manageable with TelevisGo, and easily configurable with the Device Manager and Free Studio Installer tools for graphic configuration of I/Os and fine-tuning.

Features

2 circuits (LT/NT or NT/NT) up to 9 NT, 8 LT compressors	Dual compact valve driver with backup
Parallel booster/compression management up to 4 compressors	Dual modulating heat recovery
Compact, expandable solution	Sub-cooling with bypass

Technical data	EWCM 9000 PRO	EWCM 9000 PRO SSR	EVK PRO DISPLAY
Dimensions	144 x 110 mm frontal panel, depth 60mm	144 x 110 mm frontal panel, depth 60mm	front panel 190 x 96 mm, depth 9.9mm, total depth 29mm
Power supply	24 Vac / 2038 Vdc isolated	24 Vac / 2038 Vdc isolated	24 Vac / 24 Vdc
Power consumption	35 VA / 15 W	35 VA / 15 W	3 VA / 2 W
Operating temperature	-20 65°C	-20 65°C	-20° 55°C
Analogue inputs	12 configurable inputs: NTC -40+137 °C DI NTC -50+110 °C PT1000 -200+850 °C PTC -55+150 °C 0-20 mA 4-20 mA 0-10 V / 0-5 V 0-5 V ratiometric	12 configurable inputs: NTC -40+137 °C DI NTC -50+110 °C PT1000 -200+850 °C PTC -55+150 °C 0-20 mA 4-20 mA 0-10 V / 0-5 V 0-5 V ratiometric	-
Digital inputs	10 SELV +24 V ac/dc opto isolator inputs 2 rapid opto isolator inputs, up to 2 kHz	10 SELV +24 V ac/dc opto isolator inputs 2 rapid opto isolator inputs, up to 2 kHz	-
Analogue outputs	4 outputs 0-10 V 2 configurable outputs: 0-10 V 4-20 mA Open Collector	4 outputs 0-10 V 2 configurable outputs: 0-10 V 4-20 mA Open Collector	-
Digital outputs	10 3 A SPST +250 V a.c. relays 2 1 A SPDT +250 V a.c. relays	8 3 A SPST +250 V a.c. relays 2 1 A SPDT +250 V a.c. relays 2 SSR x 0.5 A +240 V c.a.	-
Display	128x64px backlit graphic LCD 4 status LEDs 4 buttons	128x64px backlit graphic LCD 4 status LEDs 4 buttons	128x64px backlit graphic LCD 3 status LEDs 5 buttons
Connectivity	CAN Bus of expansion 2 RS 485 protocol Modbus RTU serials 1 USB type A (Host) Mass Storage (FAT32) 1 mini USB type B (Device) for PC connection 1 Ethernet port 10 Modbus/TCP protocol and webserver	CAN Bus of expansion 2 RS 485 protocol Modbus RTU serials 1 USB type A (Host) Mass Storage (FAT32) 1 mini USB type B (Device) for PC connection 1 Ethernet port 10 Modbus/TCP protocol and webserver	CAN Bus of expansion
Memory	MicroSD expansion slot for diagrams up to 16GB	MicroSD expansion slot for diagrams up to 16GB	-

EWCM 9000 PRO DOMINO /CO2T

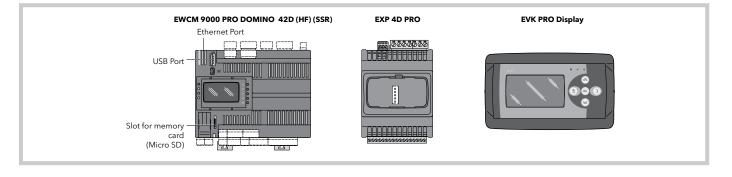
CO2 transcritical compressor rack contol





Code		Description	Notes
EPB01FCTA500	0	EWCM 9000 PRO-HF 42D /CO2T ISOL	Built-in HMI, relay outputs
EPBS1FCTA500		EWCM 9000 PRO-HF 42D SSR /CO2T ISOL	Built-in HMI, relay outputs and SSR
EPB00FCTA500	2	EWCM 9000 PRO-HF 42B /CO2T ISOL	no HMI, relay outputs
EPBS0FCTA500		EWCM 9000 PRO-HF 42B SSR /CO2T ISOL	no HMI, relay outputs and SSR
EP400000B00	4	EXP 4D PRO 14 I/O	14 I/O expansion, relay outputs
EP4S0024V500	6	EXP 4D PRO SSR-24 25 I/O	expansion, relay outputs and SSR
EP4S00LIV500		EXP 4D PRO SSR-MAINS 25 I/O	expansion, relay outputs and SSR (110-230V)
EPKE10000000	8	EVK PRO MONOCHROME DISPLAY -20C	remote HMI
EVEVD2B000500	6	EEVD Exp. 2 EEV Bipolar	expansion for 2 bipolar valve drivers
EVEVDBA000000	7	EEVD battery backup	backup module for 1 valve

Technical Data	EXP 4D PRO	EXP 4D PRO SSR-24/ MAINS	EEVD Exp. 2 EEV Bipolar	EEVD battery backup
Dimensions	70.2 x 87 mm frontal panel, depth 61.6 mm	72 x 110 mm frontal panel, depth 59mm	72 x 110 mm frontal panel, depth 60mm	36 x 110 mm frontal panel, depth 60mm
Power supply	24 Vac / 24 Vdc not insulated	24 Vac / 2038 Vdc isolated	24 Vac / 2038 Vdc isolated	from EEVD Exp
Power consumption	16 VA / 7 W	13 VA / 9 W	35 VA / 30 W	-
Operating temperature	-10 60°C	-20 65°C	-20 65°C	-20 60°C
Analogue inputs	4 configurable inputs: NTC -40+137 °C DI NTC -50+110 °C PT1000 -200+850 °C PTC -55+150 °C 4-20 mA 0-10 V / 0-5 V	10 configurable inputs: NTC -40+137 °C DI NTC -50+110 °C PT1000 -200+850 °C PTC -55+150 °C 4-20 mA 0-10 V / 0-5 V	-	-
Digital inputs	4 safety extra low voltage SELV	6 safety extra low voltage SELV	-	
Analogue outputs	2 x 0-10V	2 x 0-10V	-	
Digital outputs	3 3 A SPST +250 V a.c. relays 1 x 1 A SPDT +250 V a.c. relay	4 3 A SPST +250 V a.c. relays 2 SSR with: Mod 24: 0.5 A +240 V c.a. Mod MAINS: 2 A 24 Vac/Vdc	-	-
Valve driver output	÷	-	2 x Bipolar Valve	-
Backup capacity	-	-	Maximum 2 backup modules	Supports 1 valve
Connectivity	CAN Bus of expansion	CAN Bus of expansion	CAN Bus of expansion	



DIN controllers for compressor racks

EWCM 8900 - 9100 - 9900 EO





Code	Description	Details
EM32AG2*0GH00	EWCM 8900 EO	13 DIN, traditional refrigerants
EM32AG2*1GH00	EWCM 8900 EO HFO	13 DIN, new set of refrigerants
EM32BH2*0GH00	EWCM 9100 EO	13 DIN, traditional refrigerants
EM32BH2*1GH00	EWCM 9100 EO HFO	13 DIN, new set of refrigerants
EM83CI3*0GH00	EWCM 9900 EO	18 DIN, traditional refrigerants
EM83CI3*1GH00	EWCM 9900 EO HFO	18 DIN, new set of refrigerants
EMK0000B0G000	spare keyboard ENG/ITA	
CO000029	3m cable keyboard-base	
CCA0BUI02N000	USB Copy Card	

The letter in this position indicates the languages available for the code: A: ITA/ENG; B: ENG/ITA; C: FRA/ENG; D: ESP/ENG; F: GER/ENG; O: RUS/ENG; Q:TUR/ENG Keyboard included.

Applications

The new series of controllers for EWCM EO (Environmentally Optimised) compressor racks provides a single solution to temperature control in refrigeration systems. The external keyboard with graphic LCD and the rapid parameter setting menu give greater accessibility and make it easier for the operator to configure parameters and access data. Energy saving is guaranteed thanks to the dedicated control algorithms.

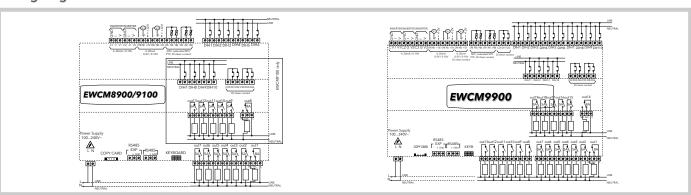
- Subcritical CO₂ management, glycol, HFC and HFO
- Rooms managed in cascade by Plug & Play V910 module
- Advanced management of rooms with inverter
- Rapid configuration tool for PC DeviceManager

Updates for glossaries, applications, and the always updated list of compatible refrigerants are available in the reserved area of www.eliwell.com.

Common features

Insulation Class	2	Traditional refrigerants	R22, R134a, R502, R404A, R407C, R507,
Operating temperature	-555°C		R717 (Ammonia), R410A, R417a, R744 (CO2),
Storage temperature	-3085°C		R407A, R407F, R290, R427, R600A, R23
Ambient humidity of	1090% RH (non-condensing)	New set of refrigerants	R434A, R134a, R448A (N40), R404A, R407C, R427A,
use and storage			R717 (Ammonia), R410A, R452A, R744 (CO2),
			R449A (XP40), R450 (N13), R407A, R513A (XP10),
			R407F, R23

Technical data	EWCM 8900	EWCM 9100	EWCM 9900
Container	PC+ABS plastic resin casing, UL94 V-0 13 DIN modules (227.5x110x60mm)	PC+ABS plastic resin casing, UL94 V-0 13 DIN modules (227.5x110x60mm)	PC+ABS plastic resin casing, UL94 V-0 18 DIN modules (315x110x60mm)
Installation:	on DIN Omega bar support	on DIN Omega bar support	on DIN Omega bar support
Analogue inputs:	4 NTC/NTC extended/PTC/D.I.+ 2 high precision current (420mA / 05V / 010V)	4 NTC/NTC extended/PTC/D.I.+ 2 high precision current (420mA / 05V / 010V)	4 NTC/NTC extended/PTC/D.I.+ 2 high precision current (420mA / 05V / 010V) + 1 current/voltage (420mA / 05V / 010V)
Digital inputs	6 voltage (100240V~)	10 voltage (100240V~) + 4 configurable voltage-free	14 voltage (100240V~) + 6 configurable voltage-free
Analogue outputs:	2 voltage/current (010V/420mA)	2 voltage/current (010V/420mA)	3 voltage/current (010V/420mA)
Digital outputs:	6 SPST 5(2)A 250V~ + 1 SPDT 8(3)A 250V~	11 SPST 5(2)A 250V~ + 2 SPDT 8(3)A 250V~	17 SPST 5(2)A 250V~ + 2 SPDT 8(3)A 250V~
Connections:	TTL port for connection to CopyCard USB RS-485 for connection to TelevisSystem and systems based on ModBus protocol RS-485 EXP for connection to pulse/stepper (V800/V910) driver	TTL port for connection to CopyCard USB RS-485 for connection to TelevisSystem and systems based on ModBus protocol RS-485 EXP for connection to pulse/stepper (V800/V910) driver	TTL port for connection to CopyCard USB RS-485 for connection to TelevisSystem and systems based on ModBus protocol RS-485 EXP for connection to pulse/stepper (V800/V910) driver
Display:	LCD on external keyboard	LCD on external keyboard	LCD on external keyboard
Functions:	inverter control both in suction and discharge	inverter control both in suction and discharge	inverter control both in suction and discharge
Clock:	present	present	present
Power consumption:	20W	20W	20W
Power supply:	100240V~ ±10% 50/60Hz	100240V~ ±10% 50/60Hz	100240V~ ±10% 50/60Hz



Subcritical CO₂ cascade system

Motorised electronic valve control





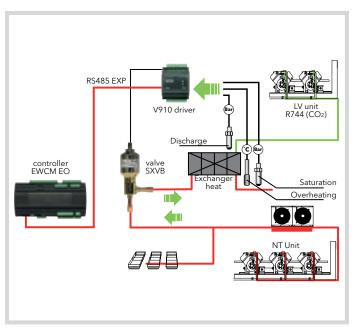
Codes	Descr.	Details
EVD4A31BS2100	V910 V3 EEVD step valve 24V RS485	EEV driver module with dual PID controller
SKP100000000	SKP10 - Configuration keyboard	Keyboard for configuration
DMI100x002000*	Device Manager Interface	

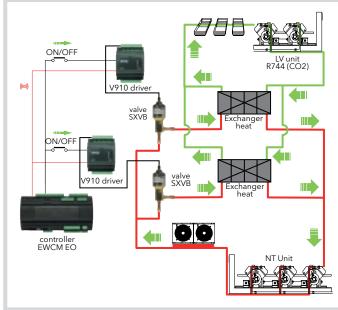
*x=1: End User; x=2: Service; x=3: Manufacturer

Applications

The V910 driver for motorised electronic valve control is designed for excellent control of heat exchangers in CO2 subcritical cascade systems in combination with HFC and HFO refrigerants.

Its flexibility makes it ideal for the control of hot gas bypass systems, compressor discharge temperature / pressure and liquid subcooling.



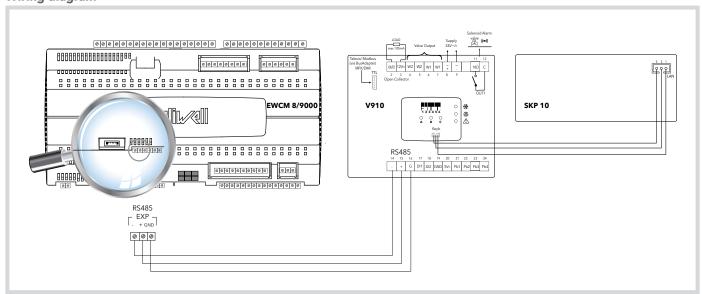


Solution integrated with EWCM 8/9000 EO

The high-precision PID control of the V910 module is integrated with the EWCM 8/9000 EO series controllers through the serial port dedicated to share real-time configuration and the heat exchanger control status, also through the Televis supervision system.

Solution for dual heat exchanger

V910 is designed also for operation independent from the central controller, thus providing the option for configurations with multiple heat exchangers in series or parallel to provide better power modulation and greater safety thanks to a redundant configuration.



RTX 600 /V DOMINO ZERO - RTD 600 /V DOMINO ZERO

DIN controller for EEV remote cabinets and cold rooms



Codes	Descr.		
RTZX0S1H00	RTX 600 /V DOMINO ZERO		
RTZD1S1H00	RTD 600 /V DOMINO ZERO VERT CONN RTX 600 /V DOMINO ZERO KIT KDEPlus RTX 600 /V COLD ROOM PANEL KIT 100-240V KDEPlus 32x74 AMBER SCREW/JST		
EWKRTZX1E00			
EWKRTZX1X00			
KDE400E004000			
EH000050V4000	ECHO PLUS AMBER 5m CABLE		
KDX5H0R0000	KDX 500 100-240V		
KDX5HDR0000	KDX 500 4 DIN 100-240V		

Applications

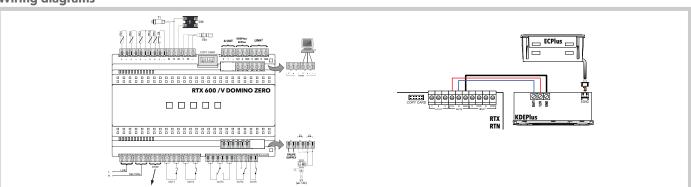
RTX 600/V DOMINO ZERO and RTD 600/V DOMINO ZERO were designed to control remote counters and cold rooms with electronic expansion valve in single or multiple evaporator configurations. The innovative adaptive control algorithm of DOMINO ZERO works at low overheating values with all refrigerants and with flooded evaporators for managing high-efficiency CO2 systems. RTX 600/V DOMINO ZERO and RTD 600/V DOMINO ZERO controllers are ideal for Eliwell PXV electronic expansion valves and can be interfaced with keyboards KDTPlus and KDEPlus, the ECHO Plus display module and the new KDX designed specifically as a control panel for cold rooms.

Features

High-efficiency systems with low adaptive overheating	Control of all counter and cold room functions		
Overheating configuration with only 2 parameters	from a single controller		
Intelligent defrost for energy saving and excellent	Rapid multiple evaporator system configuration with Link² plug-n-play		
food storage	Compatible with NTC, Pt1000, PTC probes		

Technical data	RTX - RTD 600 /V DOMINO ZERO		
Casing:	PC+ABS resin casing, UL94 V-0		
	RTX 600/V: with casing		
	RTD 600/V: without casing		
Dimensions:	10 DIN modules		
Installation:	on DIN Omega bar support		
Display range:	• NTC: -50,0°C+110°C;		
	• PTC: -55,0°C+150°C;		
	• Pt1000: -60°C+150°C		
Analogue/digital inputs:	5 NTC/PTC/Pt1000/D.I.*		
	1 420mA/D.I.*		
	1 ratiometric/D.I.* + 1 voltage-free D.I.		
Connections:	• 1 voltage serial for keyboard		
	• 1 voltage serial for LAN		
	• 1 RS-485 for connection to Televis System or ModBus monitoring system		
	• 1 TTL port for connection to Unicard and DeviceManager (via DMI)		
Digital outputs:	2 SPST 12(5)A max 230Vac		
	2 SPDT 12(5)A + 8(4)A max 230Vac		
	1 SPST 8(4)A max 230Vac 1 O.C. multifunction: 12Vdc 20mA		
A 1	1 SSR 100240Vac/dc; lmax=300mA 1 D.A.C. multifunction: 010V - 420mA		
Analogue outputs:			
Accuracy:	better by 1.0%		
Resolution:	1 or 0.1°C		
Power supply:	SMPS 100240V~ ±10% 50/60 Hz		
Power consumption:	7.5W max		
Ambient operating temperature:	-5+50°C		
Ambient storage temperature:	-30+50°C		
Ambient operation and storage humidity:	1090% RH (non-condensing)		
* selectable by parameter			

selectable by parameter



ELECTRONIC CONTROLS

RTX 600 /V DOMINO ZERO TP

DIN controller for double EEV remote cabinets and cold rooms



Codes	Descr.
RTZT0S1H02	RTX 600 /V DOMINO ZERO TP

Applications

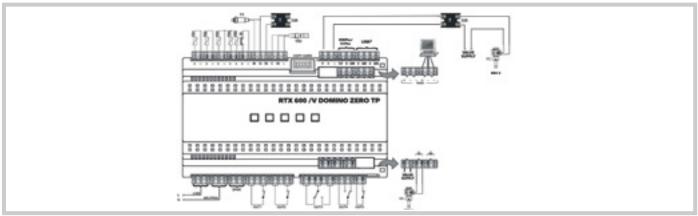
RTX 600/V DOMINO ZERO TP (Twice Pulse) is a controller designed to control remote counters and cold rooms with dual evaporator with electronic expansion valve.

RTX 600/V DOMINO ZERO TP is used to manage a dual evaporator system, drastically reducing the space required in the electrical panel, being able to drive an electronic valve via the integrated output and a second one via an external SSR relay.

RTX 600/V DOMINO ZERO TP is combined with the Eliwell PXV electronic expansion valves and can be interfaced with the keyboards KDTPlus and KDEPlus, the ECHO Plus display module and the KDX electrical panel, designed specifically as a control panel for cold rooms.

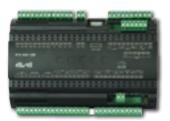
Technical data	RTD 600 /V DOMINO ZERO TP
Casing:	PC+ABS resin casing, UL94 V-0
Dimensions:	10 DIN modules
Installation:	on DIN Omega bar support
Display range:	• NTC: -50,0°C+110°C; • PTC: -55,0°C+150°C; • Pt1000: -60°C+150°C
Analogue/digital inputs:	5 NTC/PTC/Pt1000/D.I.* 1 420mA/D.I.* 1 ratiometric/D.I.* + 1 voltage-free D.I.
Connections:	 1 voltage serial for keyboard 1 voltage serial for LAN 1 RS-485 for connection to TelevisSystem or ModBus monitoring system 1 TTL port for connection to Unicard and DeviceManager (via DMI)
Digital outputs:	2 SPST 12(5)A max 230Vac 2 SPDT 12(5)A + 8(4)A max 230Vac 1 SPST 8(4)A max 230Vac 1 O.C. multifunction: 12Vdc 20mA 1 SSR 100240Vac/dc; Imax=300mA
Analogue outputs:	1 D.A.C. multifunction: 010V - 420mA
Accuracy:	better by 1.0%
Resolution:	1 or 0.1°C
Power supply:	SMPS 100240V~ ±10% 50/60 Hz
Power consumption:	7.5W max
Ambient operating temperature:	-5+50°C
Ambient storage temperature:	-30+50°C
Ambient operation and storage humidity:	1090% RH (non-condensing)

^{*} selectable by parameter



RTX600

DIN controllers for counters and cold rooms



Codes	Descr.
RTX5HBM0S2H00	RTX600
KDE400E004000	KDEPlus
KDW6004004080	KDWPlus
EH000050V4000	ECPlus

Applications

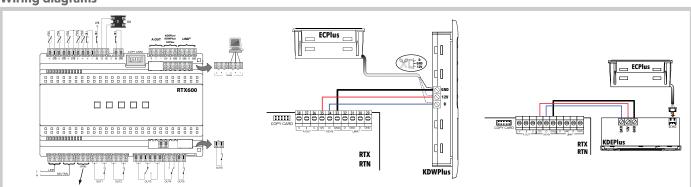
RTX600 (Environmentally Optimised, optimised for the environment) is an electronic device specifically designed for plug-in applications, with thermostatic valve. The RTX600 controller can be interfaced with the KDEPlus, KDWPlus keyboards and the ECPlus display module.

Features

Relay of up to 2HP for direct control of loads	Rapid synchronisation of remote counters and island cabinets with Link² Plug
Removable terminals and customised quick connections	& Play
Intelligent defrosting (with clock) to save energy and preserve food better	Compatible with NTC, Pt1000, PTC probes
Control of heating elements of frames / demisting heaters	

Technical data	RTX600
Casing:	PC+ABS resin casing, UL94 V-0
Dimensions:	10 DIN modules
Installation:	on DIN Omega bar support
Display range:	• NTC: -50,0°C+110°C; • PTC: -55,0°C+150°C; • Pt1000: -60°C+150°C
Analogue/digital inputs:	5 NTC/PTC/Pt1000/D.I.* 3 D.I.* voltage-free
Connections:	 1 voltage serial for keyboard 1 voltage serial for LAN 1 RS-485 for connection to TelevisSystem or Modbus 1 TTL for connection to Unicard/ DeviceManager (via DMI)
Digital outputs:	1 SPST 2HP max 240V~ 1 SPST + 1 SPDT 1HP max 250V~ 1 SPDT 8(4)A max 250V~ 2 SPST 8(4)A max 250V~ 1 O.C. 12VC 20mA
Analogue outputs:	1 D.A.C. 010V - 420mA
Accuracy:	better by 1.0%
Resolution:	1 or 0.1°C
Power supply:	SMPS 100240V~ ±10% 50/60 Hz
Power consumption:	7.5W max
Ambient operating temperature:	-5+50°C
Ambient storage temperature:	-30+85°C
Ambient operation and storage humidity:	1090% RH (non-condensing)

^{*} selectable by parameter



KDEPlus - KDWPlus - ECHO Plus - KDTPlus - KDX

User interfaces for RTX, RTD, RTN series controllers





ECHO Plus

KDEPlus





KDWPlus

Codes	Descr.
KDE400E004000	KDEPlus AMBER
KDW6004004080	KDWPlus
EH000050V4000	ECHO PLUS AMBER 5m CABLE
KDT6HB0F17080	KDTPlus STD WHITE
KDT6VBWF17080	KDTPlus
KDX5H0R0000	KDX 500 100-240V
KDX5HDR0000	KDX 500 4 DIN 100-240V
KDX5KDR0000	KDX 5000 100-240V
KDA5KDRUUUU	NDX 3000 100-240V



KDTPlus

KDTPlus STD White







KDX 5000

KDX 500 4 DIN

KDX 500

Applications

A wide range of interfaces makes it possible to adapt to several applications and allows you to customise the appearance of counters and cold rooms. The KDX series, designed specifically for cold rooms, offers further remote I/Os to integrate multiple functions in and easy-to-use user interface.

Features

Standard dimensions 32x74 and minimum depth	6 buttons with direct access to the most frequently used functions		
Second ECHO Plus display can be used in conjunction with KDEPlus and KDWPlus			

Technical data	KDEPlus	KDWPlus	ECPlus	KDTPlus STD	KDTPlus	
Casing:	PC+ABS UL9	PC+ABS UL94 V-0 resin casing, polycarbonate window, thermoplastic resin keys			Polymethylmethacrylate (PMMA) front panel	
Dimensions:	front panel 74x32 mm, depth 30 mm	front panel 180x37 mm, depth 23mm	front panel 48x28.6 mm, depth 15 mm	front panel 180x40mm, depth 1.5mm	front panel 87x135mm, depth 1.5mm	
Installation:	panel-mounting, with 71x29mm (+0.2/-0.1 mm) drilling template	panel-mounting, with 150x31 mm (+0.2/-0.1 mm) drilling template	panel mounting, with 45.9x26.4 mm (+0.2/-0.1 mm) drilling template	panel mounting, can be set for a distance of up to 100m, with 150x31mm drilling tem- plate	panel mounting, can be set for a distance of up to 100m, with 67x120mm drilling tem- plate	
Keys:	4 mechanical	6 mechanical	-	6 capacitive touch keys	6 capacitive touch keys	
Display:	with decimal point ° 3 digits + sign, 8 icons					
Power supply:	from power board					

^{*} selectable by parameter ° selectable by parameter (from power board)

Technical data	KDX 500	KDX 500 4 DIN	KDX 5000				
Dimensions:	213 x 318mm front panel, depth 102mm	213 x 318mm front panel, depth 102mm	front panel 450 x 380mm, depth 160 mm				
Installations:		On wall					
Keys:		6 mechanical					
Display:	1 second	1 main display with status icons dary display with temperature, humidity, %, PPN	√ settings				
Power supply:	SMPS 100240 Vac (±10 %) 50/60 Hz Independent from the controller						
Inputs:	1 x analogue input 420mA 2 digital inputs, voltage-free						
Outputs:		Buzzer 1 x SPST Relay 1 x SPDT Relay					

EEV Pulse SYSTEM

EEV Pulse system entry level and for retrofit



Codes	Descr.	Details		
EVD2A43BSC000	V800/P1	see model table		
EVD2A53BSC000	V800/P3	see model table		
ID34DR4SCDH00	ID985 /V	see model table		
WK1400100N000	IWK /V	see model table		
EVK2A43BXC010	Standard kit	see kit table		
EVK2A43BXC020	Starter kit	see kit table		
DMI100x002000	Device Manage Interface	see accessories table		

Applications

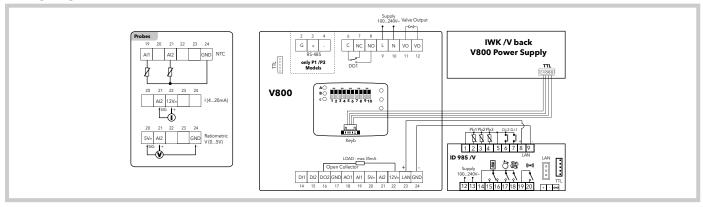
The Electronic Expansion Valve (EEV) is designed to maximise the energy saving and performance potential of refrigerated cabinets in retail applications. The complete Eliwell solution consists of the EEV V800 driver, which can be connected to the IWK/V remote display device, and the ID 985/V electronic controller.

Features

Container	PC+ABS UL94 V-0 plastic resin casing	Ambient operation and	
Operating temp.	-555°C	storage humidity	1090% RH (non-condensing)
Storage temperature	-2085°C		

Technical data	V800	ID 985/V	IWK/V
Dimensions:	front panel 70.2x87mm, depth 61.6mm	front panel 74x32mm, depth 60mm	front panel 74x32mm, depth 30mm
Installation:	on DIN Omega bar support	panel mounting with 71x29mm drilling template	panel mounting with 71x29mm drilling template
Display:		no decimal point * 3 and a half digits + sign	no decimal point * 4 and a half digits + sign
Display range:	-	-55140°C	-55140°C
Analogue inputs:	1 NTC/4-20mA/0-5V* 1 NTC/4-20mA*	3 NTC/PTC*	-
Digital inputs:	2 voltage free	2 voltage free	-
Connections:	 TTL port for connection to CopyCard and TelevisSystem TTL port for connection to USB Copy Card and IWK/V LAN port for connection to ID 985/V RS-485 serial port: Models/P1/P3 1 SPDT N.O. 5A 250V~, N.C. 2A 250V~ 	•TTL port for connection to CopyCard and Televis System - • LAN port for connection to V800 • RS-485 serial port	TTL port for connection to V800
Digital outputs:	1 open collector max current 35mA 1 010V max current 20mA	1 SPDT 5(2)A 1/4 HP 250V~ 3 SPST 3A 250V~	-
Analogue outputs:	better than 0.5% of integral-scale +	-	-
Accuracy:	1 digit 1 or 0.1°C	better than 0.5% of integral-scale + 1 digit	better than 0.5% of integral-scale + 1 digit
Resolution:	100240V~ ±10% 50/60Hz	1 or 0.1°C	1 or 0.1°C
Power supply:	3W max	100240V~ ±10% 50/60Hz	from V800
Power consumption:	10-way DipSwitch	2.5W max	<1W
User interface:		LED display	LED display

^{* (}selectable by parameter)



EEV Pulse SYSTEM

EEV Pulse system entry level and for retrofit



Models

Code	Description	Details
EVD2A43BSC000	V800 - P1	230V~ valve control. on-board RS485
EVD2A53BSC000	V800 - P3	230V valve control on-board RS485
ID34DR4SCDH00	ID985 /V	Electronic controller with V800 driver control via LAN serial port
WK1400100N000	IWK /V	Remote terminal for parameter config., displ. I/O, alarms, etc.

Kit

Code	Description	Details
EVK2A43BXC010	Standard Kit	Includes:
		• 1 x ID 985 /V
		• 1 x V800/P2
		• 1 x 'FAST' NTC probe (SN8P0X3002)
		• 1 x ratiometric probe (TD420030B)
EVK2A43BXC020	Starter Kit	Includes:
		• 1 x ID 985 /V
		• 1 x V800/P2
		• 1 x 'FAST' NTC probe (SN8P0X3002)
		• 1 x ratiometric probe (TD420030B)
		• 1 USB Copy Card (CCA0BUI02N000)
		• 1 x Device Manager CD (DMP1000002000)
		• 1 x Device Manager Interface - DMI

Accessories

Code	Description	Details
DMI100x002000	Device Manager Interface	Hardware interface
		x=1: End User
		x=2: Service
		x=3: Manufacturer

Refrigerant compatibility

 $R404A-R22-R410A-R134A-R744\left(CO_{2}\right)-R507A-R717\left(NH_{3}\right)-R290-R407a-R448a-R449a-R450a-R513A$

PULSE valve compatibility*

·	
Model	Brand
PXV	Eliwell
AKV10	Danfoss
AKV15	Danfoss
AKV20	Danfoss
AKVA (NH ₃)	Danfoss
EX2	Alco
HP130	Parker
DS1120	Parker

 $[\]hbox{\rm {\it *if} using other valves, contact Eliwell Technical Support}\\$



Electronic pulse expansion valve





Applications

The PXV solenoid operated expansion valve controls the flow of refrigerant to the evaporator by modulating the opening time of the valve element, allowing a wide range of power variation. Highly precise and reliable control of refrigerant flow increases the efficiency of the entire system. There are 9 interchangeable orifices available (10 for CO2), with power ratings from 1 kW to 24 kW. This valve must be piloted by a electronic driver. The typical application is in refrigeration systems, especially refrigerated counter displays of the kind used in supermarkets.

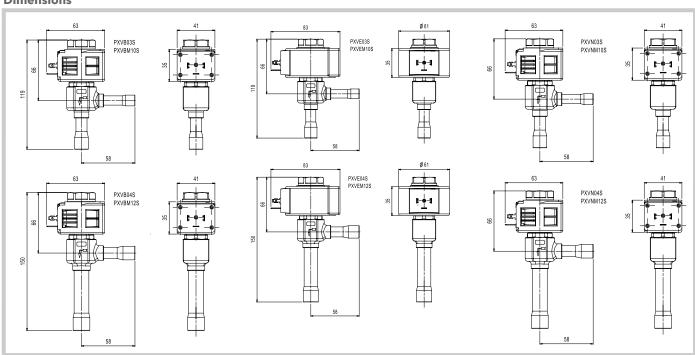
Technical data	Models	
Temperature (TS):	PXVB PXVN PXVE	-40 °C100 °C (-40 °F 212 °F) -40 °C 100 °C (-40 °F 212 °F) -50 °C 100 °C (-40 °F 212 °F)
Ambient temperature (TA)	PXVB PXVN PXVE	-20 °C 50 °C (-4 °F58 °F) -20 °C 50 °C (-4 °F58 °F) 0 °C 50 °C (-40 °F58 °F)
Open pressure differential (minimum OPD)	All models	0 bar / 0 psi
Maximum open pressure differential (MOPD)	PXVB / PXVN	PXVB/N from orif. 1 to orif. 5: 37 MOPD PXVB/N orif. 6: 27 MOPD PXVB/N from orif. 7 to orif. 9: 18 MOPD
Maximum open pressure differential (MOPD)	PXVE	PXVEfrom orif. 0 to orif. 6: 37 MOPD PXVEorif. 7: 35 MOPD PXVEorif. 8: 30 MOPD PXVEorif. 9: 25 MOPD
Maximum operating pressure	PXVB PXVN PXVE	45 bar / 652.7 psi 45 bar / 652.7 psi 80 bar / 1160.3 psi (CO2 models)
Burst Pressure	PXVB PXVN PXVE	225 bar / 3262 psi (PS x 5) 225 bar / 3262 psi (PS x 5) 240 bar / 3480 psi (PS x 3)
PED	All models	ART. 4.3 of 2014/68/UE
Operating principles	All models	PWM
Minimum operating time	All models	1 sec.

Coil technical data

М	od	e	S
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Voltage tolerance (Vac)	24 Vac model	+10 / -10%
Voltage tolerance (Vac)	All models 220\230 Vac	+6 / -10%

Dimensions



Electronic pulse expansion valve

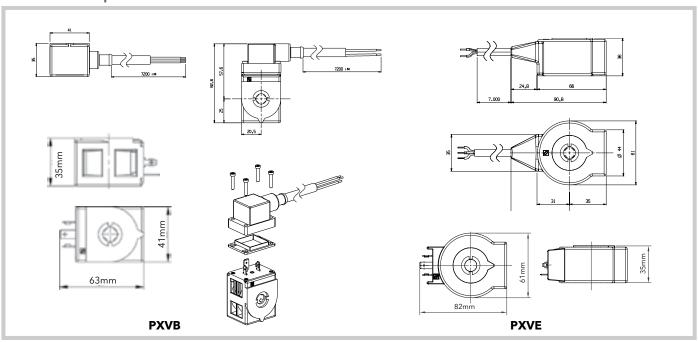


General specifications and cooling capacities of valves (HFO-HFC-HC refrigerants)

				ODS con	nections			Cooling capacity (kW)					
Code	Type of	Orifice hole	(inc	hes)	(n	nm)	Flow factor						
	orifice	(mm)	IN	OUT	IN	OUT	Kv (m3/h)	R134a	R507	R407C	R410A	R290	
PXVN03S010100	1	0.5	3/8"	1/2"	-	-	0.010	0.0	0.77	1.03	1.47		
PXVNM10S01100	'	0.5	-	-	10	12	0.010	0.8				1.1	
PXVN03S020100	2	0.7	3/8"	1/2"	-	-	0.017	1.5	1 /			2.2	
PXVNM10S02100	2	0.7	-	-	10	12	0.017	1.5	1.6	1.9	2.7	2.2	
PXVN03S030100	2	0.0	3/8"	1/2"	-	-	0.000	4.0	0.0	0.0	2.4	0.7	
PXVNM10S03100	3	0.8	-	-	10	12	0.023	1.8	2.0	2.2	3.4	2.7	
PXVN03S040100	4	1 1	3/8"	1/2"	-	-	0.043	2.0	2.9 3.0	3.5	5.5	4.2	
PXVNM10S04100	4	1.1	-	-	10	12	0.043	2.9					
PXVN03S050100	_	4.2	3/8"	1/2"	-	-	0.045	4.9	5.3	6.2	9.5	7.4	
PXVNM10S05100	5	1.3	-	-	10	12	0.065						
PXVN03S060100	,	1 7	3/8"	1/2"	-	-	0.113	0.442	6.8 7.2	8.4	12.0	10.1	
PXVNM10S06100	6	1.7	-	-	10	12	0.113	6.8			12.9		
PXVN03S070100	- 7	0.0	3/8"	1/2"	-	-	0.200	10.7	7 11.6	14.2	20.6	16.1	
PXVNM10S07100	/	2.3	-	-	10	12	0.200	10.7					
PXVN04S070100	-	0.0	1/2"	5/8"	-	-	0.000	40.7	44.6	440	00.4	4.4	
PXVNM12S07100	7	2.3	-	-	12	16	0.200	10.7	11.6	14.2	20.6	16.1	
PXVN04S080100	0	2.5	1/2"	5/8"	-	-	0.220	12.0	12.0	1/4	24.5	10.4	
PXVNM12S08100	8	2.5	-	-	12	16	0.230	12.9	12.9 13.8	16.4	24.5	19.4	
PXVN04S090100		0.7	1/2"	5/8"	-	-	0.050	444	45.4	40.4	07.0	04.7	
PXVNM12S09100	9	2.7	-	-	12	16	0.250	14.4	15.4	18.1	27.3	21.6	

Rated cooling capacities refer to: Evaporation temp. Tevap = $+5^{\circ}$ C • Condensation temp. Tcond = $+32^{\circ}$ C • Temp. of valve input liquid Tliq = $+28^{\circ}$ C

Dimensions and specifications





Electronic pulse expansion valve



General specifications and cooling capacities of CO₂ valves (R744)

				ODS connections				
Code	Type of orifice	Orifice hole (mm)	(inches)		(mm)		Flow factor Kv (m3/h)	
	Office		IN	OUT	IN	OUT	KV (m3/n)	R744 (CO ₂)
PXVE03S000100	0	0.3	3/8"	1/2"	=	-	0.003	1.04
PXVEM10S00100		0.5	-	-	10	12	0.003	
PXVE03S010100	1	0.5	3/8"	1/2"	-	-	0.010	0.7
PXVEM10S01100	'	0.5	-	-	10	12	0.010	2.6
PXVE03S020100	2	0.7	3/8"	1/2"	-	-	0.017	4.4
PXVEM10S02100	2	0.7	-	-	10	12	0.017	4.4
PXVE03S030100	3	0.8	3/8"	1/2"	-	-	0.022	г 0
PXVEM10S03100	3	0.8	-	-	10	12	0.023	5.8
PXVE03S040100		1.1	3/8"	1/2"	-	-	0.043	9.1
PXVEM10S04100	4		-	-	10	12		
PXVE03S050100	_		3/8"	1/2"	-	-	0.065	15.7
PXVEM10S05100	5	1.3	-	-	10	12		
PXVE03S060100	,	4.7	3/8"	1/2"	-	-	0.112	04.4
PXVEM10S06100	6	1.7	-	-	10	12	0.113	21.4
PXVE03S070100	_	0.0	3/8"	1/2"	-	-	0.000	0.4.0
PXVEM10S07100	7	2.3	-	-	10	12	0.200	34.3
PXVE04S070100	7	2.3	1/2"	5/8"	-	-	0.200	24.2
PXVEM12S07100	7		-	-	12	16	0.200	34.3
PXVE04S080100		0.5	1/2"	5/8"	-	-	0.000	44.5
PXVEM12S08100	8	8 2.5	-	-	12	16	0.230	41.5
PXVE04S090100		9 2.7	1/2"	5/8"	-	-	0.050	44.0
PXVEM12S09100	9		-	-	12	16	0.250	46.3

Rated cooling capacities refer to: Evaporation temp. Tevap = -25° C • Condensation temp. Tcond = 0° C • Temp. of valve input liquid Tliq = -4° C

Coils and connectors

Model	Code	Voltage (Vac) (1)	Tolerance (% Vac)	Frequency (Hz)	Power (W)	Insulation class	TA °C (F)	Electrical connections	
PXVB	PXVB0ARA20100	24	+10/-10	50/60	8	F	-2050 (-458)	Connector IP65 PXVB0AR020100	
PAVB	PXVB0ARA60100	220/230	+6/-10	50/60	8	F	-2050 (-458)	Connector IP68 PXVB0AR030100	
PXVE	PXVE0ARA60100	220/230	+6/-10	50/60	12	F	-2050 (-458)	Connector IP65 PXVB0AR020100	
PXVB	PXVB0ARA6A172	220/230	+6/-10	50/60	8	F	-2050 (-458)	Cable and connector 7.2 m assembled	
PXVE	PXVE0ARA6M170	220/230	+6/-10	50/60	12	F	-2050 (-458)	Connector printed with 7.0 m cable	

⁽¹⁾ Contact the Sales Office for information on other power supplies

RTX 600/VS DOMINO ZERO

DIN controllers for EEV motorised counters and cold rooms



Code	Description
EWKRTZS3E00	RTX 600 /VS DOMINO ZERO POWER-PACK KIT KDEPlus
RTZS0S3H00	RTX 600 /VS DOMINO ZERO POWER-PACK
EWKRTZS1E00	RTX 600 /VS DOMINO KIT KDEPlus
EWKRTZS3X00	RTX 600 /VS POWER-PACK PANEL KIT 100-240V
KS0000S1	VS POWER-PACK
KDE400E004000	KDEPlus 32x74 AMBER SCREW/JST
EH000050V4000	ECHO PLUS AMBER 5m CABLE
KDX5H0R0000	KDX 500 100-240V
KDX5HDR0000	KDX 500 4 DIN 100-240V
TF111205	TF TRANSF 230/24 35VA PROT. DIN

Applications

RTX 600/VS DOMINO ZERO is designed to control remote counters and cold rooms with unipolar or bipolar Stepper type electronic expansion valves in configuration with single or multiple evaporators. The innovative adaptive control algorithm of DOMINO ZERO works at low overheating values with all refrigerants and with flooded evaporators for managing high-efficiency CO2 systems. The RTX 600/V DOMINO ZERO TP controller can control various unipolar or bipolar Stepper valve models, and can be interfaced with the keyboards KDTPlus and KDEPlus, the ECHO Plus display module and the new KDX, designed specifically as a control panel for cold rooms.

Features

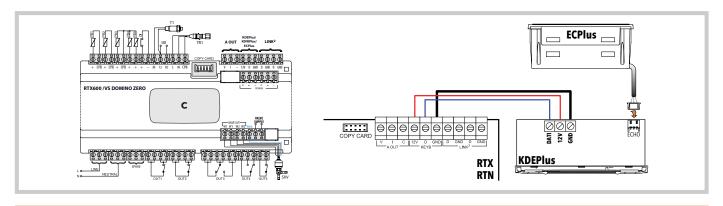
High-efficiency systems with low adaptive overheating	Control of all counter and cold room functions from a single controller	
Overheating configuration with only 2 parameters	Rapid multiple evaporator system configuration with Link² plug-n-play	
Intelligent defrost for energy saving and excellent food storage	Single model for different brands of unipolar and bipolar valves	

Technical data	RTX 600 /VS DOMINO ZERO
Dimensions:	10 DIN modules
Installation:	on DIN Omega bar support
Display range:	• NTC: -50,0°C+110°C; • PTC: -55,0°C+150°C; • Pt1000: -60°C+150°C
Analogue/digital inputs:	5 NTC/PTC/Pt1000/D.I.* 1 420mA/D.I.* 1 ratiometric/D.I.* + 1 voltage-free D.I.
Connections:	 1 RS-485 serial isolated for monitoring 1 keyboard serial 1 serial per local Link² on-site 1 TTL for Unicard/Copycard connection
Digital outputs:	 3 x 12(5)A - 230Vac relays 2 x 8(4)A - 230Vac relays 1 Open Collector (12Vdcc - 20mA) output
Analogue outputs:	1 D.A.C. multifunction: 010V - 420mA
Valve driver output:	• 4 way connector for bipolar command
Auxiliary power supply	• Auxiliary input for 24Vac 35VA max driver valve
Accuracy:	better by 1.0%
Resolution:	1 or 0.1°C
Power supply:	SMPS 100240V~ ±10% 50/60 Hz
Power consumption:	12.5W max
Ambient operating temperature:	-5+50°C
Ambient storage temperature:	-30+50°C
Ambient operation and storage humidity:	1090% RH (non-condensing)

^{*} selectable by parameter

Power-Pack

Sliding assembly in the RTX 600 /VS front compartment	Ambient storage temperature: -30+85°C	
Power supply from power board	Ambient operation and storage humidity: 1090% RH (non-condensing)	
Ambient operating temperature: -5+50°C		



EEV Stepper system

EEV stepper system





Code	Description
XVD420H485030	XVD 420H RS-485
SKP1000000000	SKP10 Configuration Keyboard
DMI100x002000	Device Manager Interface (Hardware interface)
TF111205	230V~/24V~ 35VA transformer

*x=1: End User; x=2: Service; x=3: Manufacturer

Applications

The driver for the proportional motorised valve XVD is designed to optimize energy efficiency and the refrigerated utilities performance. Its wide compatibility with the refrigerants and unipolar and bipolar valves on the market makes this product particularly flexible. Moreover, the service keyboard SKP10 and the USB interface ensures quick-and-easy system set-up.

Features

Container	PC+ABS UL94 V-0 plastic resin casing	Ambient operation and	
Operating temp.	-5+55°C	storage humidity	1090% RH (non-condensing)
Storage temperature	-20+85°C		

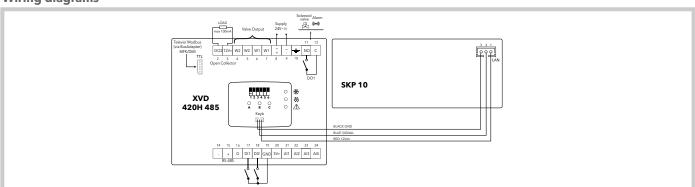
echnical data	XVD 420H 485	SKP10
Dimensions:	70.2x87 mm frontal panel, depth 61.6 mm	front panel 74x32mm, depth 60mm
Installation:	on DIN Omega bar support	panel mounting (71x29mm drilling template)
Display:		3 and a half digits + sign
Display range:		-55140°C
Analogue inputs:	2x NTC/Pt1000/420mA/0-5V / 0-10V *	-
	2x NTC/Pt1000	-
Digital inputs:	2 voltage free	
Connections:	• TTL (Keyb) for connection to Unicard/MFK/DMI	Lan port for connection to XVD
	• TTL for Televis/Modbus connection	
	• RS485 for connection of Televis/Modbus	-
Digital outputs:	1 SPST: N.O. 5A 250V~	
	1 Open Collector 12V max 100mA	
Accuracy:	better than 0.5% of end of scale	better than 0.5% of end of scale
Resolution:	0.1°C	1 or 0.1°C
Power supply:	24V~/ ±10% 50/60 Hz	100240V~ ±10% 50/60Hz
Power consumption:	30VA / 25W	<1W
Interface:	-	LED display

^{*} selectable by parameter

STEPPER valve compatibility*

. ,	
Models	Brand
CEVxx-S1 (xx = 10, 14, 16, 18, 24, 26, 30, 32) with CEC100Y5 stator	Parker-Sporlan
SER / SERI / SEI / SEH	Parker-Sporlan
GC / FGB	Parker-Sporlan
EX4 / EX5 / EX6 / EX7 / EX8	Alco
ETS 12.5 / 25 / 50 / 100	Danfoss

 $[\]hbox{\tt *if using other valves, contact Eliwell Technical Support}\\$



TelevisGo

Monitoring and maintenance systems via web





Code	Description	Applications
TGODQE101E00K	TelevisGo W10-64 /10 KIT*	Algorithms. 10 controllers
TGODQE301E00K	TelevisGo W10-64 /30 KIT*	Algorithms. 30 controllers
TGODQE601E00K	TelevisGo W10-64 /60 KIT*	Algorithms. 60 controllers
TGODQE2H1E00K	TelevisGo W10-64 /224 KIT*	Algorithms. 224 controllers
TGODQE101ER0K	TelevisGo W10-64 LE /30 KIT*	10 controllers
TGODQE301ER0K	TelevisGo W10-64 LE /60 KIT*	30 controllers
TGODQE601ER0K	TelevisGo W10-64 LE /60 KIT*	60 controllers

contains 1 **Serial**Adapter + RS232 serial cable

Applications

Televis Go is a system for the remote monitoring, control and management of supermarkets and refrigeration systems.

The product is available in a LE variant for small-scale and low-automation installations, and in a full version for systems with up to 224 loads.

The system allows automatic recognition of connected controllers and offers full system configuration and operation via a network connection.



Data recording and alarm management

- Recording temperature / pressure / humidity / digital inputs and outputs / functional statuses
- Recording temporary data for detailed system diagnostics and fine-tuning
- Recording alarm conditions and sending a signal by email and SMS



Energy reports

- Connection to energy meters with MODBUS protocol
- Dashboards dedicated to the real time and historic display of energy consumption
- Graphic display of energy consumption combined with the functional parameters of the system



Graphic display of the system

- Display and access to data and parameters of the controllers by means of a freely configurable graphic interface
- HTML interface accessible by most browsers for PC, tablet and smartphone (Internet Explorer, Mozilla, Firefox)
- The graphic interface can be planned off-line with the tools freely available for download from the site www.eliwell.com



Connectivity and security

- Web-based user interface with HTTPS protocol and SSL security
- It is possible to access all the historic and real time information and to interact with each controller connected to the system to change its parameters and activate the functions
- The complete management of Televis Go is included (configuration, updating, restarting of the device)
- TelevisGo can be connected to the Internet with ADSL, 3G or 4G connections, or by configuring the LAN/WAN network to which the device is connected



Activity automation

- Automation of recurrent activities such as switching the lights on and off for energy saving
- Periodic sending by e-mail of detailed reports in PDF format
- Periodic transfer of data to centralised systems for performance analysis



Algorithms and Expandability with IEC 61131*

- System extensions with new Plug & Play algorithms installable from the web interface
- Algorithms for management of floating evaporation, faulty pressure probe backup and distribution of the dewpoint for energy saving functions with RTX 600/V and EWCM 9000 EO
 - System for the development of new algorithms for distributed management of the installation based on FREE Studio with standard languages IEC 61131

^{*}functions not available in LE versions

TelevisGo

Monitoring and maintenance systems via web

Features

For the end user

- recording of HACCP temperatures
- automatic reports
- complete, easy to use system
- open, expandable system

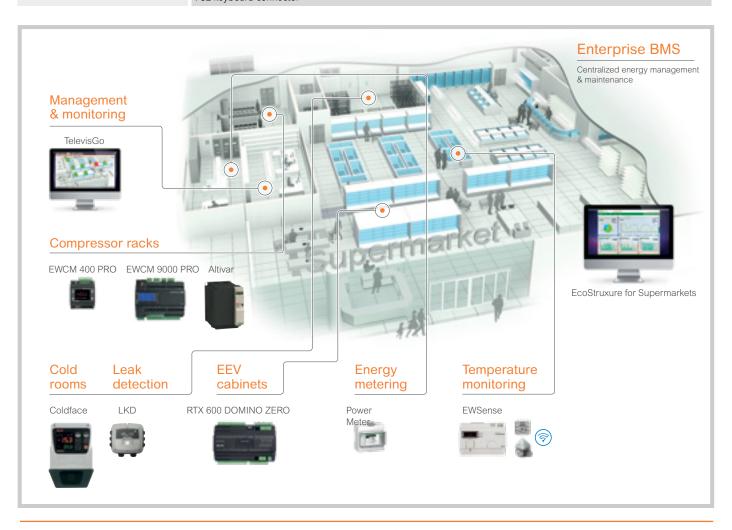
For the maintenance technician

- compact, reliable, ready-to-use system
- intuitive user interface easy to learn
- alarm signalling via email and SMS, with priority configuration
- remote web access for diagnostics and control
- dedicated devices for maintenance: device parameters, controls, detailed diagnostics and recording of all functional states
- complete remote system updating via web: software, languages, controller drivers

For supermarket chains and system integrators

- solution can be scaled to suit the size of the installation
- instruments for off line configuration, plant cloning and configuration modification in
- compatibility with third-party Modbus devices: energy measurement and HVAC controls
- field connectivity Modbus serial and Ethernet
- Floating Evaporation for energy efficiency
- programmable algorithms with FREE Studio Plus
- can be integrated into BMS systems with protocols based on IP
- safety and reliability with Windows 10 IoT core

Technical Data	TelevisGo
User interface:	from web browser
Browsers supported:	Micosoft EDGE
	Google Chrome
	Mozilla Firefox
User language interfaces pre-loaded:	IT - EN - FR - DE - ES - PT - PL - NL - TR - RU - CN
Operating System:	Microsoft Windows 10 IoT core 64bit
Power supply:	12V with external power supply
	100240V~ ±10%
Power consumption:	10W max
Connections:	4 USB ports
	2 RS-232 ports (for modem)
	2 RS-232 ports (for Serial Adapter)
	1 Ethernet port (LANRJ45)
	VGA monitor connection
	PS2 keyboard connector



EWSense

Wireless system for temperature measuring







	Codes	Description	Notes
	ESG0010700	EWSense Gate ZBRN12	Wireless receiver with serial port RS-485 Modbus/RTU
	ESARJC200	EWSense 2 x RJ45 serial cable 1m	Kit with 2 cables with RJ45 connector for RS-485 serial connection
	ESST010B00	EWSense Temp	Wireless temperature sensor
	ESR0012700	EWSense Repeater ZBRA12	5-metre cable
	ESR0013700	EWSense Repeater ZBRA13	5-metre cable with EU two-pin plug
	ESST010B0400	4 x EWSense Temp	Kit of 4 EWSense Temp sensors
	ESAMPL000	EWSense Metal Plate KIT x4	Kit for panel fixing with metal plates for 4 EWSense Temp
	ESATIE000	EWSense 100 Ties KIT	Fixing kit with clamps for EWSense Temp (100 clamps 180 x 4.8 mm)

Applications

EWSense is a wireless system for measuring the temperature of food storage and processing equipment and rooms. The wireless and battery-operated sensors make the system extremely easy to install; they can also be replaced, avoiding the need to periodically re-calibrate the system.

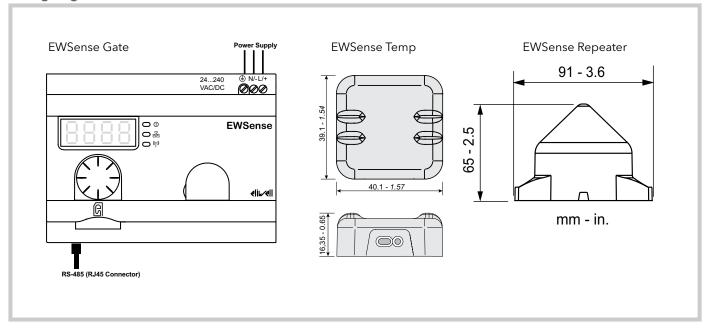
The EWSense Temp sensor is made from plastic, suited to food-grade environments with protection rating IP65 and measures the ambient temperature where it is installed between -30° C and $+55^{\circ}$ C for over 2 years, thanks to the integrated battery.

The EWSense Gate receiver manages up to 60 sensors positioned in a radius of 100m in free field, indicatively 10 metres in standard installations. The RS-485 Modbus/RTU line allows monitoring systems to acquire temperature date, signal level and battery level, for full system diagnostics.

Common features

Low-consumption wireless communication	Temperature measurement from -30°C to +55°C
Up to 60 EWSense Temp sensors for each EWSense Gate receiver	Compatible with third-party Televis and Modbus/RTU systems

Technical data	EWSense Gate	EWSense Temp	EWSense Repeater
Dimensions (mm)	121 x 89 x 69.6 (LxHxD)	40.1 x 39.1 x 16.4 (LxHxD)	91.0 x 67.0 x 67.0 (LxHxD)
Installation	on DIN Omega bar support	Gluing on flat surface with double sided tape (supplied)	wall
Power supply	24V240Vac/dc	Integrated battery, not replaceable. Duration more than 2 years of operation.	24V240Vac/dc
Connectivity	IEEE receiver 802.15.4 - 2.405GHz RS-485 for connection to TelevisSystem monitoring and systems based on ModBus protocol	IEEE transmitter 802.15.4 - 2.405 GHz Max distance: 100m (in free field)	IEEE repeater 802.15 2.405 GHz Max distance: 100m (in free field)
Protection rating	IP 20	IP 65	IP 65
Measurement range	-	-30°C +55°C	-
Measurement accuracy		±1 °C	-



TelevisIn / TelevisOut

Data acquisition modules and actuators



Codes	Descr.	Power supply
TAMID152RS700	Televis In	100240V~
TAMOD602RS700	Televis Out	100240V~

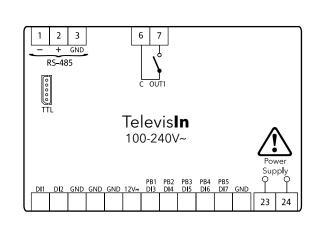
Applications

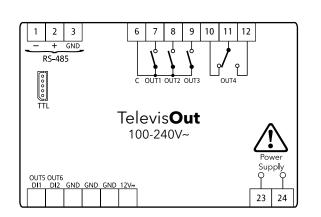
TelevisIn and TelevisOut are data acquisition, alarm signalling and user control modules which can be connected to Televis systems or third-party systems, thanks to the ModBus protocol that can be selected from the relevant parameter. The TelevisIn controller, connected to specific probes, enables the acquisition of temperature, humidity and pressure data, and digital signals. It will also calculate dew points. TelevisOut provides alarm signalling and utility monitoring functions. It can be used to connect warning devices or telephone diallers and, in combination with the supervisor, to deliver energy savings, manage lights and other utilities.

Common features

Compatible with third-party and ModBus systems	Two models to cover all applications
Up to 8 configurations for fast installation	Removable "T" connector for fast installation of the RS-485 line

Technical data	TelevisIn	TelevisOut
Dimensions	4 DIN modules	4 DIN modules
Installation:	on DIN Omega bar support	on DIN Omega bar support
Display range:	• NTC probe: -50.0110.0°C	• NTC probe: -50.0110.0°C
	• PTC probe: -55.0140.0°C	• PTC probe: -55.0140.0°C
	• Pt1000 probe: -55.0400.0°C	• Pt1000 probe: -55.0400.0°C
	• Vin probe: 0-1V, 0-5V and 0-10V	• Vin probe: 0-1V, 0-5V and 0-10V
	• Ain probe: 020mA and 420mA	• Ain probe: 020V and 420mA
Analogue inputs:	3 NTC/PTC/Pt1000/DI inputs +1 V (0-1V / 0-5V / 0-10V)	-
	input + 1 I (020mA / 420mA) input	
Digital inputs:	2 digital inputs (DI1 / DI2)	2 clean contact digital inputs (DI1 / DI2) also configurable
		as analogue outputs with no dangerous voltage
Digital outputs:	1 SPST 2A 250V~	2 (SELV) Open Collector: PWM
		3 SPST 2A 250V~
		1 SPDT 2A 250V~
Connections:	• 1 RS-485 for connection to Televis System monitoring and	• 1 RS-485 for connection to Televis System monitoring and
	systems based on ModBus protocol	systems based on ModBus protocol
	• 1 TTL to connect to Eliwell Unicard USB, Copycard and	• 1 TTL to connect to Eliwell Unicard USB, Copycard and
	DMI interface for Device Manager	DMI interface for Device Manager
Connectors:	Removable screw terminals	Removable screw terminals
Applications:	AP1=Temperature; AP2=Analogue Inputs	AP1=Alarm signalling
	AP3=Digital Inputs; AP4=Dew Point	AP28=Free
	AP58=Free	
Power consumption:	5W	5W
Power supply:	SMPS 100240V~ ±10% 50/60Hz	SMPS 100240V~ ±10% 50/60Hz





LKD

Detection and indication of refrigerant leaks









Codes	Description
LKD41SC00M400	LKD 500 R134a 24Vac-dc 1000 ppm
LKD41SC01M400	LKD 500 R449a 24Vac-dc 1000 ppm
LKD41IR02M400	LKD 500 CO2 24Vac-dc 0-10000 ppm
LKD41SC03M400	LKD 500 R448a 24Vac-dc 1000 ppm
LKD41SC04M400	LKD 500 R404a 24Vac-dc 1000 ppm
LKD41SC05M400	LKD 500 R407a 24Vac-dc 1000 ppm
LKD41EC06M400	LKD 500 NH3 24Vac-dc 0-100 ppm
LKD41SC07M400	LKD 500 R450 24Vac-dc 1000 ppm
LKD41SC08M400	LKD 500 R507a 24Vac-dc 1000 ppm
LKD41SC09M400	LKD 500 R410a 24Vac-dc 1000 ppm
LKD41SC10M400	LKD 500 R513a 24Vac-dc 1000 ppm
LKD41SC11M400	LKD 500 R1234ze 24Vac-dc 1000 ppm
LKD41SC12M400	LKD 500 R1234yf 24Vac-dc 1000 ppm
LKD41SC13M400	LKD 500 R32 24Vac-dc 1000 ppm
LKD41SC14M400	LKD 500 R407c 24Vac-dc 1000 ppm
LKD41SC16M400	LKD 500 R454 24Vac-dc 1000 ppm
LKD41SC17M400	LKD 500 R422 24Vac-dc 1000 ppm
LKD41SC18M400	LKD 500 R422D 24Vac-dc 1000 ppm
LKD41SC19M400	LKD 500 R427A 24Vac-dc 1000 ppm
LKD41SC00S400	LKD 500 R134a 24Vac-dc 1000 ppm
LKD41SC01S400	LKD 500 R449a 24Vac-dc 1000 ppm
LKD41IR02S400	LKD 500 CO2 24Vac-dc 0-10000 ppm
LKD41SC03S400	LKD 500 R448a 24Vac-dc 1000 ppm
LKD41SC04S400	LKD 500 R404a 24Vac-dc 1000 ppm
LKD41SC05S400	LKD 500 R407a 24Vac-dc 1000 ppm
LKD66IR02M400	LKD 500 CO2 24Vac-dc 0-10000 ppm
LKD66SC04M400	LKD 500 R404a 24Vac-dc 1000 ppm

Codes	Description
LKD66SC01M400	LKD 500 R449a 24Vac-dc 1000 ppm
LKD66SC03M400	LKD 500 R448a 24Vac-dc 1000 ppm
LKD66SC00M400	LKD 500 R134a 24Vac-dc 1000 ppm
LKD66SC20M400	LKD 500 R407f 24Vac-dc 1000 ppm
LKD66EC06M400	LKD 500 NH3 24Vac-dc 0-100 ppm
LKD66SC10M400	LKD 500 R513a 24Vac-dc 1000 ppm
LKD66IR21M400	LKD 500 R290 24Vac-dc 0-100% LFL
LKD66SC08M400	LKD 500 R507a 24Vac-dc 1000 ppm
LKD66SC09M400	LKD 500 R410a 24Vac-dc 1000 ppm
LKD66SC12M400	LKD 500 R1234yf 24Vac-dc 1000 ppm
LKD66SC11M400	LKD 500 R1234ze 24Vac-dc 1000 ppm
LKD66SC13M400	LKD 500 R32 24Vac-dc 1000 ppm
LKD66SC14M400	LKD 500 R407c 24Vac-dc 1000 ppm
LKD66SC16M400	LKD 500 R454 24Vac-dc 1000 ppm
LKD66SC17M400	LKD 500 R422 24Vac-dc 1000 ppm
LKD66SC18M400	LKD 500 R422D 24Vac-dc 1000 ppm
LKD66SC19M400	LKD 500 R427A 24Vac-dc 1000 ppm
LKD66IR02S400	LKD 500 CO2 24Vac-dc 0-10000 ppm
LKD66SC04S400	LKD 500 R404a 24Vac-dc 1000 ppm
LKD66SC01S400	LKD 500 R449a 24Vac-dc 1000 ppm
LKD66SC03S400	LKD 500 R448a 24Vac-dc 1000 ppm
LKD66SC00S400	LKD 500 R134a 24Vac-dc 1000 ppm
LKDR6SC04M400	LKD 600 R404a 24Vac-dc 1000 ppm
LKDR6SC20M400	LKD 600 R407f 24Vac-dc 1000 ppm
LKDR6SC09M400	LKD 600 R410a 24Vac-dc 1000 ppm
LKDR6IR21M400	LKD 600 R290 24Vac-dc 0-100% LFL
LKDR6SC01M400	LKD 600 R449a 24Vac-dc 1000 ppm

Applications

 $The state-of-the-art \textbf{LKD} \ series \ gas \ sensors \ can \ detect \ a \ wide \ range \ of \ gases \ and \ refrigerants \ depending \ on \ the \ model:$ NH3, HFO, HC, HFC and CO2.

LKD gas sensors can be used alone to control a buzzer, siren, etc., or integrated with Eliwell or third party remote management systems, through an on-board RS485 ModBus.

The main applications are: LT or NT cold rooms, refrigerated cabinets and compressor units.

Common features

Compatible with Televis and third-party systems	Suitable for refrigerants:	NH3, HFO, HC, HFC and CO2
Available versions SC (semiconductor) and IR (infra-red)		

Technical data	LKD 500 IP41	LKD 500 IP66	LKD 600 IP66 remote sensor
Dimensions	165x165x77mm	165x165x87mm	165x165x87mm
Enclosure rating	IP41 (NT applications)	IP66 (LT applications)	IP66 (LT applications)
Installation		wall mounted. Height suitable to the type	e of refrigerant
Analogue outputs		0-5V, 1-5V, 0-10V, 2-10V, 4-20r	mA
Digital outputs		Optionals	
		2 SPDT 1A 24vac\dc relays	
Connectivity		ModBus-RTU	
Measurement range	EC 0100ppm		
Temperature range	-4050°C		
Humidity range	1090% RH (Non-condensing)		
Check calibration	1 year		
Service life (typical)		SC 3 years, IR 8 years. EC 3 ye	ears
Response time 50% integral scale	Depends on model		
Response time 90% integral scale		Depends on model	
Power supply		19.5 - 28.5 Vdc ; 24 Vac +/-20% ;50	0 - 60 Hz

SerialAdapter

Connectivity modules for systems



Codes	Description	
SAT1AMM100000	SerialAdapter 232	

Applications

Serial A dapter is a galvanically isolated RS-232/RS-485 adapter to be used on networks with Televis Go.

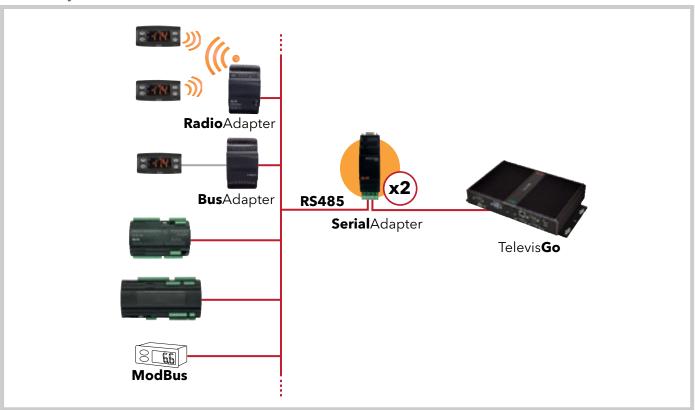
Features

RS-232, Ethernet and WiFi connectivity

Up to 2 SerialAdapter networks with TelevisGo

General technical specifications	SerialAdapter
Casing:	plastic, 2 DIN modules
Installation:	on DIN Omega bar support
Power supply:	12V ← through Televis Go serial port
Ambient operating temperature:	-5+55°C
Storage ambient temperature:	-30+75°C
Ambient humidity	1090% RH (non-condensing)
operation and storage humidity:	
Terminals:	screw terminals to connect electric cables with a section of max. 2.5 mm2
	(one connector per terminal).
Connections:	RS-485 port for connection to Televis System

Connectivity



BusAdapter 130 - 150

RS-485 opto isolator connectivity modules





Codes	Description	Details
BA11250N3700	BusAdapter 130	1.0 m cable
BA10000R3700	BusAdapter 150	1.0 m cable
BA00000XD000	BusAdapter 150 DONGLE	30 cm cable

Applications

BusAdapter 130 and 150 is a family of devices used to connect Eliwell controllers to wired supervision and monitoring networks in RS-485 mode.

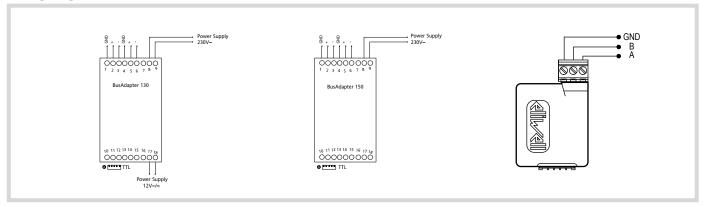
Features

130 models have an auxiliary 12V (5 VA) output to power the instrument.

150 models are equipped with reinforced electric insulation

The 150 DONGLE models are powered directly from the controller and are not isolated. Check the list of compatible controllers on the website www.eliwell.com

Technical data	BusAdapter 130	BusAdapter 150	BusAdapter 150 DONGLE
Container	3 DIN modules	3 DIN modules	47x31x22 mm (LxHxD)
Installation	on DIN Omega bar support	on DIN Omega bar support	free
Power supply	230Vac +/-10% 50/60Hz	230Vac +/-10% 50/60Hz	/
Power consumption	6W	1.5W	/
Insulation class	II	II	/
Ambient operating temper-	-5+55°C	-5+60°C	-2060 °C
ature			
Storage ambient temperature	-30+75°C	-30+75°C	-3085°C
Ambient operation and	1090% RH (non-condensing)	1090% RH (non-condensing)	1090% RH (non-condensing)
storage humidity			
Terminals	screw-on terminal block to connect	screw-on terminal block to connect	screw terminals to connect electric cables
	electric cables with a section of max. 2.5	electric cables with a section of max. 2.5	with a section of max. 2.5 mm2
	mm2 (one wire per terminal for power	mm2 (one wire per terminal for power	
	connections)	connections)	
Connectivity	• RS-485 dual port	• RS-485 dual port	• RS-485 port
D 1 .	• TTL port for connection to instruments	• TTL port for connection to instruments	• TTL port for connection to instruments
Baud rate	240019200 bps	240019200 bps	240019200 bps
Auxiliary output	12V~/ ±10% 50/60Hz	/	/



Modem GSM/GPRS

Modem



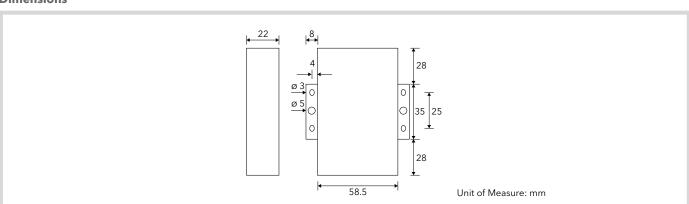
Codes	Description
SAMGPRS40AL00	GSM/GPRS v4 W/ANT PSU MODEM KIT
	Includes: power supply unit (EU power socket
	10A) + antenna with 1m cable

Applications

The GSM/GPRS modem can be used to send text messages and for backup connectivity.

Technical Data	Modem GSM/GPRS
Case:	Metal
Dimensions:	91x58.5x22 mm (BxHxD)
Weight:	205g
Frequency bands:	EGSM900/GSM1800MHz, GSM850/900/1800
GSM standard:	GSM phase 2/2+
GPRS standard:	class 10
Transmission power:	GSM850/900: <33dBm;
	GSM1800: <30dBm
Reception sensitivity:	<-107dBm
Connections:	12-way screw connector
	- power supply with protection from overcurrent and polarity reversing
	- RS-232 serial port ESD 15kV protection
	- RS-485 serial port ESD 15kV protection
	Antenna connector SMA 50 Ohm, female connector
	SIM/USIM housing 3.0V/1.8V with ESD 15kV protection
Power supply:	536Vdc
Power consumption:	<200mA (12V)
Serial configuration:	Speed 110 230400 bps
	5, 6 , 7, 8 data bits
	1, 1.5, 2 stop bit
	Parity none, even, odd, space, mark
Operating temperature:	-30+75°C (-22167°F)
Storage temperature:	595% (non-condensing)
Operation and storage humidity:	1095% RH (non-condensing)
Accessories	Power supply 12V 500mA
	Antenna with 1m cable and SMA connector

Dimensions



ELECTROMECHANICAL COMPONENTS

of the user's work.





Components for HVACR systems suited to high operating temperatures and pressures

- > Compact, light and easy to install
- > Compatible with low GWP gases
- > Certified UL, VDE and PED category IV



Discover the solution

NSD

Fixed setting pressure switches





- Compatibility with natural refrigerants (A2L & A3)
- Updating of PED certificate category IV with higher PS and TS
- NSD family, fully certified UL (as a Protective device) and VDE (including plastic tests)

Applications

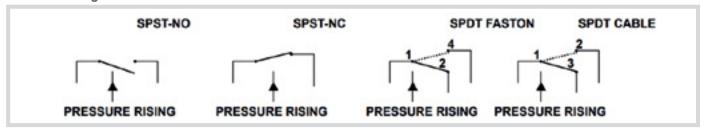
The NSD range of electromechanical pressure switches with fixed setting are compact, lightweight and easy to install.

With their simple construction technology and stainless steel diaphragm welding process, NSDs are a simple and reliable solution to install, with high sealing to protect and control HVAC/R systems from critical conditions by setting high or low pressure limit values. Having updated the PED category IV certificate, the NSD pressure switch can work at higher temperatures and pressures, making it interesting in applications with high delivery temperatures, which can be used in heat recovery systems integrated or otherwise into the machine (e.g. R32 machines). The NSD range is fully certified UL as a safety device and VDE with plastics tests (GWT, PTI and BPT). This offers the manufacturer a quick, simplified machine certification at a lower cost. Finally, the NSD range is compatible with flammable gases including propane (R290), ultra-low GWP refrigerant.

Technical data			NSD			
The product also complies with the following harmonised standards			EN 60730-1 / EN 60730-2-6 / EN 12263			
Device construction			Built-in device			
Device purpose			Pressure control device (VDE) - Pressure control device (UL)			
Type of action			Manual reset: 2.C (UL) - 1.B (VDE) - Automatic reset: 2.B (UL) - 1.B (VDE)			
Contacts configuration	on		SPST-NO, SPST-NC, SPDT			
Protection rating pro	vided by oute	r casing	IP67 (versions with cable)			
Pollution class			3 (UL) - 2 (VDE)			
Over voltage catego	ry		II .			
Rated impulsive volta	age		4'000 V (UL) - 2'500 V (VDE)			
Refrigerants			see List of compatible refrigerants*			
Environmental opera	ting condition	ns	080°C (32 176 °F) (UL) - 085 °C (32 185 °F) (VDE)			
Transportation and st	torage conditi	ons	-40 60°C (-40 140 °F) (UL) - 25 60°C (-13 140°F)			
		< 1.5 bar (22 psi)	-54 135°C (-65.2 275°F)			
System temperature (Fluid temperature)	15	1.5 55 bar (22 798 psi) 120175 bar (17402538 psi)	-54 150°C (-65.2 302°F			
Reset mode			Automatic or manual			
Transient pressure in	crease (Pmax)		1.1 x PS			
		Automatic reset	0.2 55 bar (2.9 798 psi)			
Pressure range	-	Manual reset	10 55 bar (145 798 psi)			
		CO2 applications	120 175 bar (1740 2538 psi)			
		< 1.5 bar - (< 22 psi)	28 bar (406 psi)			
Maximum system	CUT OUT	1.5 ≤ 43 bar - (22 ≤ 623 psi)	50 bar (725 psi)			
pressure PS	Pressure	> 43 55 bar - (> 623 798 psi)	1.1 x (CUT OUT + 2 bar)			
		120 175 bar - (> 1740 2538 psi)	1.1 x (CUT OUT + 2 bar)			
Burst pressure test	Operating	0.2 55 bar - (2,9 798 psi)	345 bar (5000 psi)			
burst pressure test	range	120 175 bar (1740 2538 psi)	Pmax x 4			
Standard electrical connections (1)			Faston 6.35 mm / 0.25 in 1.0 m cable (3.28 ft) UL1015 (0.82 mm2 / 18 AWG) Other types of electrical connections on request (see "ORDERING METHODS" on page 13			
Standard pressure fitting			7/16-20 UNF with depressor Other types of connectors on request (see "ORDERING METHODS" on page 13)			
Certifications			UL - VDE - PED category IV			
Continuations			CO2 models: PED category IV			
Vibration resistance			8 g's from 50 to 2000 Hz			

^{*} consult the NSD Technical Data Sheet, available on the Eliwell website $^{(1)}$ refer to the technical drawing of the specific p/n.

Contacts configuration



NSD

Fixed setting pressure switches

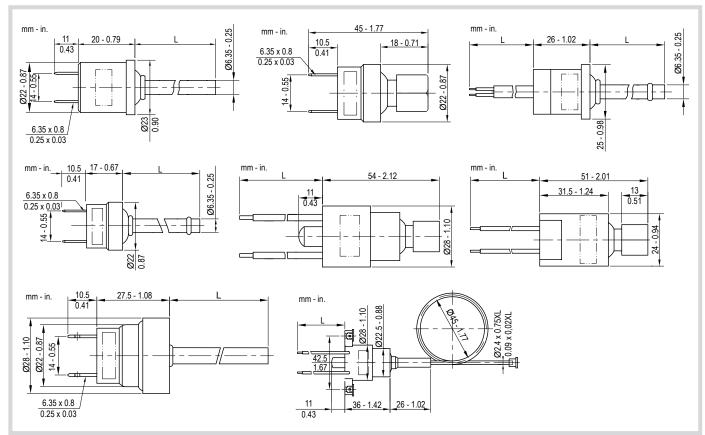


Models	Contact type	Reset	UL	VDE
NSDM	SPST	Manual Reset	Control device: 3 A inductive 250 Vac 125 VA 24 Vac pilot duty 375 VA 120/240Vac pilot duty Protection device: 6FLA 36LRA 120/240 Vac	6 A resistive 125/250 Vac
NSDM2	SPDT	Manual Reset	Protection device: NC: 6FLA 36LRA 250 Vac NO: 3FLA 18LRA 250 Vac	NC: 6A resistive 125/250 Vac NO: 3A resistive 125/250 Vac
NSD01H - NSD03H NSD01L - NSD03L	SPDT	Automatic Reset	Protection device: 6A inductive 250 Vac 3A resistive 36 Vdc 125 VA 24 Vac pilot duty 375 VA 120/240 Vac pilot duty 6FLA 36LRA 120/250 Vac	6 A resistive 250 Vac
NSDCA			Control device: 6A inductive 250 Vac	
NSD01H2 - NSD03H2 NSD01L2 - NSD03L2	SPDT	Automatic Reset	Protection device: NC: 6A resistive 120/250 Vac NO: 3A resistive 120/250 Vac NC: 6FLA 36LRA 120/250 Vac NO: 3FLA 18LRA 120/250 Vac	NC: 6 A resistive 125/250 Vac NO: 3 A resistive 125/250 Vac

Code (*)	Application	Reset	CUT-OUT [bar (psi)]	CUT-IN [bar (psi)]	Contact configuration	UL model
NSDHA00B39101		automatic	18 (261)	13 (188)	SPST - NC	NSD03H
NSDHM00C39006		manual	18 (261)	13 (188)	SPST - NC	NSDM
NSDHA00B39107		automatic	24 (348)	18 (261)	SPST - NC	NSD03H
NSDHA00B39102	High Pressure	automatic	26 (377)	20 (290)	SPST - NC	NSD03H
NSDHA00B39103		automatic	28 (406)	21 (304)	SPST - NC	NSD03H
NSDHM00C39007		manual	28 (406)	21 (304)	SPST - NC	NSDM
NSDHA00B39104		automatic	42 (609)	33 (479)	SPST - NC	NSD03H
NSDHM00C39008		manual	42 (609)	33 (479)	SPST - NC	NSDM
NSDLA00A39100	Low Pressure	automatic	1.7 (24.66)	2.7 (39.16)	SPST - NO	NSD03L
NSDLA00A39114		automatic	2.5 (36.25)	4.2 (60.91)	SPST - NO	NSD03L
NSDHF00A39103	Fan control	automatic	8.5 (123)	11 (159)	SPST - NO	NSD03H
NSDHF00A39104	Fan control	automatic	13 (188)	16 (232)	SPST - NO	NSD03H
NSDCA11B32300	CO2 high pressure	automatic	125 (1812)	90 (1305)	SPST - NC	NSDCA

 $^{^{\}star}$ Standard codes with 1 m cable length, and $^{1\!\!/}$ SAE female connection with depressor

Dimensions



D16P

Adjustable single pressure controllers





Applications

D16P instruments are electromechanical pressure controllers for high and low pressure, equipped with an SPDT switch that closes and opens as the pressure increases or decreases.

	2475					
Technical data	D16P					
Compatible refrigerants	R22, R407A, R407C, R134a, R404A, R410A, **					
Maximum system temperature (TS)	120 °	C (248 °F)				
Ambient operating temperature	-4055°	C (-40131°F)				
Storage and transportation conditions	-4070 °C (-40 158 °F)	1090 %RH (non condensing)				
Contact configuration		SPDT				
Electrical load and nominal current	ENEC	UL				
	16 (16) A resistive inductive 240 Vac	16 FLA - 96 LRA 240 Vac				
	1(1) A resistive inductive 240 Vac	3 HP 240 Vac				
		2 HP 120 Vac				
Protection rating provided by outer casing	IP44 with automatic reset and upper cover					
	IP30 with manual reset and upper cover					
	IP20 without upper cover					
Maximum pressure system (PS)	RANGE	PS				
	-0.3 7 bar (-4.35 101 psi)	17 bar (246 psi)				
	7 20 bar (101 290 psi)	25 bar (362 psi)				
	7 31 bar (101 449 psi)	35 bar (507 psi)				
	10 45 bar (145 652 psi)	50 bar (725 psi)				
Burst Pressure	RANGE	BURST PRESSURE				
	-0.3 7 bar (-4.35 101 psi)	80 bar (1160 psi)				
	7 20 bar (101 290 psi)	100 bar (1450 psi)				
	7 31 bar (101 449 psi)	140 bar (2030 psi)				
	10 45 bar (145 652 psi)	200 bar (2900 psi)				
Installation	Threaded holes for screws	M4x5 on the back of the casing				
Regulation	Hex head and cross head s	crews, for range and differential				

^{**} Contact the Eliwell Sales Office for non-listed refrigerants.

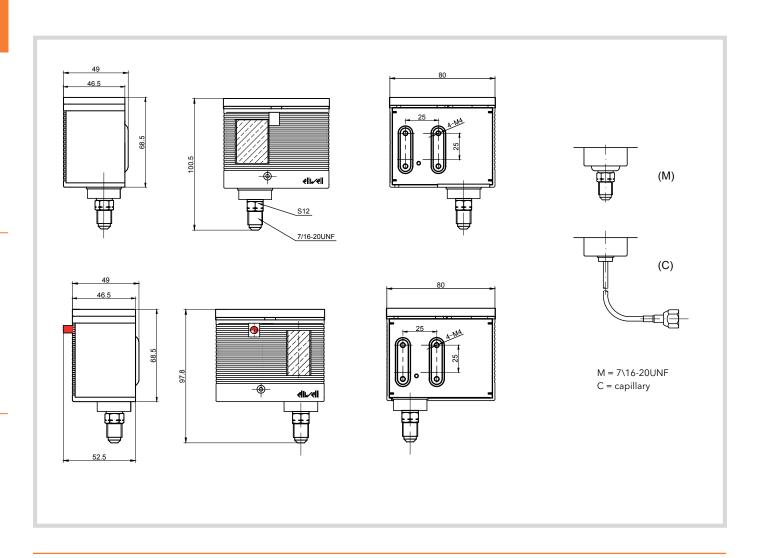
D16P

Single adjustable pressure controllers



Code	Type of	Pressure range bar (psi)	Differential bar (psi)	Reset	Connectors	Accessories included in the stand- ard single pack
D16P07A01MS200	Automatic reset low pressure control	-0.37 (-0.4100)	Adjustable 0.64 (958)	Automatic	Male 7/16-20UNF	Upper cover, knob, instruction sheet
D16P07A01CS200	Automatic reset low pressure control	-0.37 (-0.4100)	Adjustable 0.64 (958)	Automatic	Capillary and countersunk nut 1 m	Upper cover, knob, instruction sheet
D16P07M01MS200	Manual reset low pressure control	-0.37 (-0.4100)	Fixed >= 0.6 (9)	Manual	Male 7/16-20UNF	Upper cover, knob, instruction sheet
D16P07M01CS200	Manual reset low pressure control	-0.37 (-0.4100)	Fixed >= 0.6 (9)	Manual	Capillary and countersunk nut 1 m	Upper cover, knob, instruction sheet
	Automatic reset fan pressure					
D16P20A01MS200	control	720 (100290)	Adjustable 1.56 (2187)	Automatic	Male 7/16-20UNF	Upper cover, knob, instruction sheet
D16P20A01CS200	Automatic reset fan pressure control	720 (100290)	Adjustable 1.56 (2187)	Automatic	Capillary and countersunk nut 1 m	Upper cover, knob, instruction sheet
	A . A A A lain la					
D16P30A01MS200	Automatic reset high pressure control	731 (100450)	Adjustable 28 (35115)	Automatic	Male 7/16-20UNF	Upper cover, knob, instruction sheet
D16P30A01CS200	Automatic reset high pressure control	731 (100450)	Adjustable 28 (35115)	Automatic	Capillary and countersunk nut 1 m	Upper cover, knob, instruction sheet
D16P30M01MS200	Manual reset high pressure control	731 (100450)	Fixed >= 3.0 (45)	Manual	Male 7/16-20UNF	Upper cover, knob, instruction sheet
D16P30M01CS200	Manual reset high pressure control	731 (100450)	Fixed >= 3.0 (45)	Manual	Capillary and countersunk nut 1 m	Upper cover, knob, instruction sheet
D16P45A01MS200	Automatic reset high pressure control	1045 (145650)	Adjustable 515 (70215)	Automatic	Male 7/16-20UNF	Upper cover, knob, instruction sheet
D16P45M01MS200	Manual reset high pressure control	1045 (145650)	Fixed >= 4.0 (58)	Manual	Male 7/16-20UNF	Upper cover, knob, instruction sheet

Contact the Eliwell Sales Office for availability.



D17P

Adjustable dual pressure controllers





Applications

D17P instruments are electromechanical pressure controllers for high and low pressure, equipped with 2 independent SPDT switches that close and open as the pressure increases or decreases.

Technical data	D17P						
Compatible refrigerants	R22, R407A, R407C, F	R22, R407A, R407C, R134a, R404A, R410A **					
Maximum system temperature (TS)	120 °C	C(248 °F)					
Ambient operating temperature	-4055°C	(-40131°F)					
Storage and transportation conditions	-4070 °C (-40 158 °F)	1090 %RH (non condensing)					
Contact configuration	2 x	SPDT					
Electrical load and nominal current	ENEC	UL					
	16 (16) A resistive inductive 240 Vac	16 FLA - 96 LRA 240 Vac					
	1(1) A resistive inductive 240 Vac	3 HP 240 Vac					
		2 HP 120 Vac					
Protection rating provided by outer casing	IP44 with automatic reset and upper cover						
	IP30 with manual reset and upper cover						
	IP20 without upper cover						
Maximum pressure system (PS)	RANGE	PS					
	-0.3 7 bar (-4.35 101 psi)	17 bar (246 psi)					
	7 31 bar (101 449 psi)	35 bar (507 psi)					
	10 45 bar (145 652 psi)	50 bar (725 psi)					
Burst Pressure	RANGE	BURST PRESSURE					
	-0.3 7 bar (-4.35 101 psi)	80 bar (1160 psi)					
	7 31 bar (101 449 psi)	140 bar (2030 psi)					
	10 45 bar (145 652 psi)	200 bar (2900 psi)					
Installation	Threaded holes for screws N	Threaded holes for screws M4x5 on the back of the casing					
Regulation	Hex head and cross head screws, for range and differential						

^{**} Contact the Eliwell Sales Office for non-listed refrigerants.

D17P

Adjustable dual pressure controllers

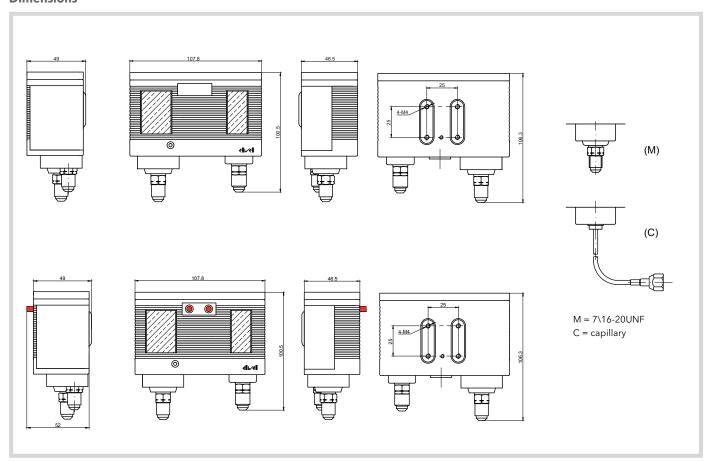


Code	Type of	Pressure range bar (psi)	Differential bar (psi)	Reset	Connectors	Accessories included in the standard single pack
D17P30AA1MS200	Dual pressure control auto-auto reset	-0.37; 731 (-0.4100; 100450)	Adjustable LP 0.64 (958); Adjustable HP 28 bar (29116 psi)	Automatic - Automatic	Male 7/16-20UNF	Upper cover, knob, instruction sheet
D17P30AA1CS200	Dual pressure control auto-auto reset	-0.37; 731 (-0.4100; 100450)	Adjustable LP 0.64 (958); Adjustable HP 28 bar (29116 psi)	Automatic - Automatic	Capillary and countersunk nut 1 m	Upper cover, knob, instruction sheet
D17P30AM1MS200	Dual pressure control auto-manual reset	-0.37; 731 (-0.4100; 100450)	Adjustable LP 0.64 (958); Fixed HP >= 3.0 (45)	Automatic - Manual HP	Male 7/16-20UNF	Upper cover, knob, instruction sheet
D17P30AM1CS200	Dual pressure control auto-manual reset	-0.37; 731 (-0.4100; 100450)	Adjustable LP 0.64 (958); Fixed HP >= 3.0 (45)	Automatic - Manual HP	Capillary and countersunk nut 1 m	Upper cover, knob, instruction sheet
D17P30MM1MS200	Dual pressure control manual-manual reset	-0.37; 731 (-0.4100; 100450)	Fixed LP 0.6 (9); Fixed HP >= 3.0 (45)	Manual - Manual	Male 7/16-20UNF	Upper cover, knob, instruction sheet
D17P30MM1CS200	Dual pressure control manual-manual reset	-0.37; 731 (-0.4100; 100450)	Fixed LP 0.6 (9); Fixed HP >= 3.0 (45)	Manual - Manual	Capillary and countersunk nut 1 m	Upper cover, knob, instruction sheet
D17P45AA1MS200	Dual pressure control auto-auto reset	-0.37; 1045 (-0.4100; 145650)	Adjustable LP 0.64 (958); Adjustable HP 515 bar (73, 218 psi)	Automatic - Automatic	Male 7/16-20UNF	Upper cover, knob, instruction sheet

D17P45AA1MS200	Dual pressure control auto-auto reset	-0.37; 1045 (-0.4100; 145650)	(958); Adjustable HP 515 bar (73218 psi)	Automatic - Automatic	Male 7/16-20UNF	Upper cover, knob, instruction sheet
D17P45AM1MS200	Dual pressure control auto-manual reset	-0.37; 1045 (-0.4100; 145650)	Adjustable LP 0.64 (958); Fixed HP ≤8 bar (116 psi)	Automatic - Manual HP	Male 7/16-20UNF	Upper cover, knob, instruction sheet

Contact the Eliwell Sales Office for availability.

Dimensions



D16T

Adjustable temperature controllers



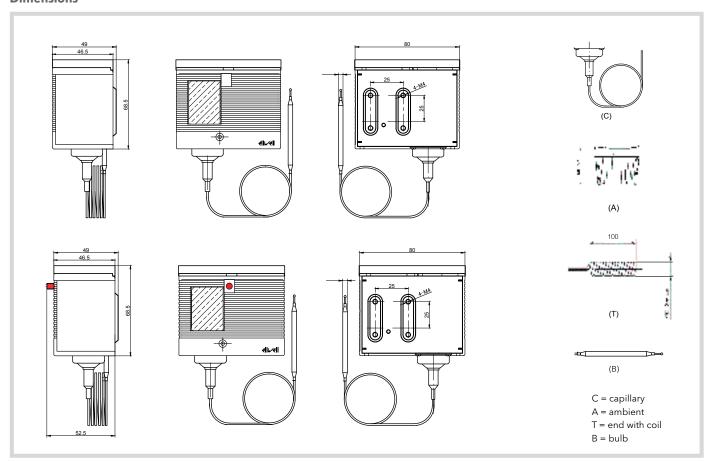


Applications

D16T instruments are electromechanical temperature controllers equipped with a SPDT switch that opens or closes when the temperature increases or decreases.

Technical data	D16T	
Ambient operating temperature	-4055°C (-40131°F)	
Storage and transportation conditions	-4070 °C (-40 158 °F)	1090 %RH (non condensing)
Contact configuration	SPDT	
Electrical load and nominal current	ENEC 16 (16) A resistive inductive 240 Vac 1(1) A resistive inductive 240 Vac	UL 16 FLA - 96 LRA 240 Vac 3 HP 240 Vac
Protection rating provided by outer casing	IP44 with automatic reset and upper cover IP30 with manual reset and upper cover IP20 without upper cover	2 HP 120 Vac
Installation	Threaded holes for screws M4x5 on the back of the casing	
Regulation	Hex head and cross head screws, for range and differential	

Dimensions



D16T

Adjustable temperature controllers

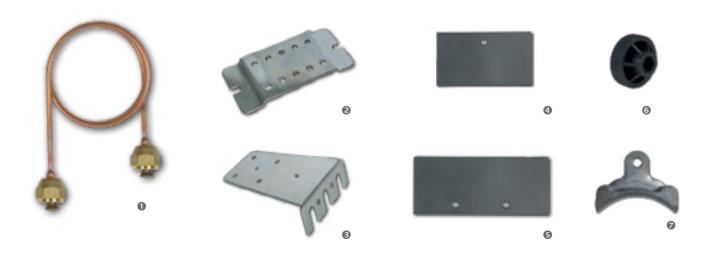


		Temperature				Sensor	Accessories included in
Code	Type of	range °C (°F)	Differential °C (°F)	Reset	Sensor type	length	the standard single pack
D16T15AAC2S200	Temperature control automatic reset	-20\+15 (-4\+59)	Adjustable 210 (3,618)	Automatic	Straight capillary	2m	Upper cover, knob, instruction sheet
D16T15AAC3S200	Temperature control automatic reset	-20\+15 (-4\+59)	Adjustable 210 (3,618)	Automatic	Straight capillary	3m	Upper cover, knob, instruction sheet
D16T15AAC6S200	Temperature control automatic reset	-20\+15 (-4\+59)	Adjustable 210 (3,618)	Automatic	Straight capillary	6m	Upper cover, knob, instruction sheet
D16T15AAC1S200	Temperature control automatic reset	-20\+15 (-4\+59)	Adjustable 210 (3,618)	Automatic	Straight capillary	12m	Upper cover, knob, instruction sheet
D16T15AFC2S200	Temperature control automatic reset	-20\+15 (-4\+59)	Fixed 2 (3,6)	Automatic	Straight capillary	2m	Upper cover, knob, instruction sheet
D16T15AFC3S200	Temperature control automatic reset	-20\+15 (-4\+59)	Fixed 2 (3,6)	Automatic	Straight capillary	3m	Upper cover, knob, instruction sheet
D16T15AFC6S200	Temperature control automatic reset	-20\+15 (-4\+59)	Fixed 2 (3,6)	Automatic	Straight capillary	6m	Upper cover, knob, instruction sheet
D16T15AFC1S200	Temperature control automatic reset	-20\+15 (-4\+59)	Fixed 2 (3,6)	Automatic	Straight capillary	12m	Upper cover, knob, instruction sheet
D16T15MFC2S200	Temperature control manual reset	-20\+15 (-4\+59)	Fixed 2 (3,6)	Manual	Straight capillary	2m	Upper cover, knob, instruction sheet
D16T15MFC3S200	Temperature control manual reset	-20\+15 (-4\+59)	Fixed 2 (3,6)	Manual	Straight capillary	3m	Upper cover, knob, instruction sheet
D16T15MFC6S200	Temperature control manual reset	-20\+15 (-4\+59)	Fixed 2 (3,6)	Manual	Straight capillary	6m	Upper cover, knob, instruction sheet
D16T15MFC1S200	Temperature control manual reset	-20\+15 (-4\+59)	Fixed 2 (3,6)	Manual	Straight capillary	12m	Upper cover, knob, instruction sheet
D16T15AAT2S200	Temperature control manual reset	-20\+15 (-4\+59)	Adjustable 210 (3,618)	Automatic	End with coil Ø 9.3x100mm	2 m in total	Upper cover, knob, instruction sheet
D16T15MFT2S200	Temperature control manual reset	-20\+15 (-4\+59)	Fixed 2 (3,6)	Manual	End with coil Ø 9.3x100mm	2 m in total	Upper cover, knob, instruction sheet
D16T15AAB2S200	Temperature control automatic reset	-20\+15 (-4\+59)	Adjustable 210 (3,618)	Automatic	Bulb Ø 6 x 70 mm	2 m in total	Upper cover, knob, instruction sheet
D16T15AAA0S200	Temperature control automatic reset	-20\+15 (-4\+59)	Adjustable 210 (3,618)	Automatic	Cage Ø 40mm	40mm	Upper cover, knob, instruction sheet
D16T15AFA0S200	Temperature control automatic reset	-20\+15 (-4\+59)	Fixed 2 (3,6)	Automatic	Cage Ø 40mm	40mm	Upper cover, knob, instruction sheet
D16T25AAC2S200	Temperature control auto reset	-10\+25 (+14\+77)	Adjustable 510 (918)	Automatic	Straight capillary	2m	Upper cover, knob, instruction sheet
D16T25AAC3S200	Temperature control auto reset	-10\+25 (+14\+77)	Adjustable 510 (918)	Automatic	Straight capillary	3m	Upper cover, knob, instruction sheet
D16T25AAT2S200	Temperature control auto reset	-10\+25 (+14\+77)	Adjustable 510 (918)	Automatic	End with coil Ø 9.3x100mm	2 m in total	Upper cover, knob, instruction sheet
D16T25AAB2S200	Temperature control auto reset	-10\+25 (+14\+77)	Adjustable 510 (918)	Automatic	Bulb Ø 6 x 70 mm	2 m in total	Upper cover, knob, instruction sheet
D16T25AAA0S200	Temperature control auto reset	-10\+25 (+14\+77)	Adjustable 510 (918)	Automatic	Cage Ø 40mm	40mm	Upper cover, knob, instruction sheet
D16T25AFA0S200	Temperature control auto reset	-10\+25 (+14\+77)	Fixed 5°C (9°F)	Automatic	Cage Ø 40mm	40mm	Upper cover, knob, instruction sheet
D16T40AAA0S200	Temperature control auto reset	+5\+40 (+41\+104)	Adjustable 510°C (918°F)	Automatic	Cage Ø 40mm	40mm	Upper cover, knob, instruction sheet
D16T05AAT2S200	Temperature control auto reset	-40\-5 (-40\+23)	Adjustable 210 (3,618)	Automatic	End with coil Ø 9.3x100mm	2 m in total	Upper cover, knob, instruction sheet

Contact the Eliwell Sales Office for availability.

Accessories for D Controls

Accessories for D pressure and temperature controllers



Code		Description	Note
D00P00FN110200	0	Coupling for 1.0 m D controllers without valve	D16P-D17P only
D00P00FN115200		Coupling for 1.5 m D controllers without valve	D16P-D17P only
D00A00BF100200	2	Flat mounting bracket for D controllers	
D00A00BA100200	•	Angled mounting bracket for D controllers	
D00A00TC116200	4	Upper cover for D16	
D00A00TC117200	6	Upper cover for D17	
D00A00KN100200	6	D controller adjustment knob	
D00T0MCC100200	7	Metal clamp for D controller capillary	Only D16T

Contact the Eliwell Sales Office for availability.

RV

4-way reversing valves





Applications

RV series 4-way reversing valves are the key component to provide heating and cooling in a climate controlled space by reversing the refrigerant. They are used for air conditioning individual rooms, centralised air conditioning plants, monobloc air conditioners and CR units for defrosting applications.

Reversing valves are designed for systems with capacities from 1 kW up to 265 kW.

The valves are suitable for use with refrigerants HC, HCFC, HFC, and HFO, including those in category A2L.

The valve design also guarantees minimum pressure drop and very low leakage. The available models offer a wide range of connections, configurations and capacities for specific applications.

The valves are certified PED (EU Directive 2014/68/EU category 2 module D1) and have UL and European type-approvals.

 $\label{eq:local_equal_equal} \textbf{All models and individually packaged to ensure maximum flexibility for purchasing and usage.}$

List of permitted refrigerants:

R407C / R410A / R404A / R134a / R22 / R32 / R1234yf / R1234ze / R452B / R450A / R454A / R454A / R454C / R455A / R1233zd / R1336mzz / R290

Direct action models

-		MIN - MAX CAPACITY (conditions 1)									
		Evap	oration 7.	.2°C; sub	cooling 5		densatio 4MPa	n 55°C; o	verheatir	ng 5°C; lo	ad loss
Code	Description	R4	07C	R4	10A	R:	32	R1:	34A	R2	90
		k	w	k	w	k	w	k	w	k	w
		min	max.	min	max.	min	max.	min	max.	min	max.
RV00BD06050000	REV VALVE 0.5 UST 3/8 - 5/16 U DISCH	1.32	3.10	1.53	3.86	1.65	4.25	1.13	2.38	1.29	3.33
RV01AD06060000	REV VALVE 1 UST 3/8 - 3/8	1.39	4.62	1.73	6.01	1.87	6.61	1.39	3.91	1.48	5.17
RV01AD06050000	REV VALVE 1 UST 3/8 - 5/16	1.39	4.62	1.73	6.01	1.87	6.61	1.39	3.91	1.48	5.17
RV01AD08050000	REV VALVE 1 UST 1/2 - 5/16	1.39	4.62	1.73	6.01	1.87	6.61	1.39	3.91	1.48	5.17
RV01BD06050000	REV VALVE 1 UST 3/8 - 5/16 U DISCH	1.39	4.62	1.73	6.01	1.87	6.61	1.39	3.91	1.48	5.17
RV01BD06060000	REV VALVE 1 UST 3/8 - 3/8 U DISCH	1.39	4.62	1.73	6.01	1.87	6.61	1.39	3.91	1.48	5.17
RV01AD08060000	REV VALVE 1 UST 1/2 - 3/8	1.39	4.62	1.73	6.01	1.87	6.61	1.39	3.91	1.48	5.17
RV01BD08060000	REV VALVE 1 UST 1/2 - 3/8 U DISCH	1.39	4.62	1.73	6.01	1.87	6.61	1.39	3.91	1.48	5.17
RV02AD08060000	REV VALVE 2 UST 1/2 - 3/8	2.79	6.35	3.17	7.70	3.42	8.47	2.44	4.95	2.76	6.65
RV02BD08060000	REV VALVE 2 UST 1/2 - 3/8 U DISCH	2.79	6.35	3.17	7.70	3.42	8.47	2.44	4.95	2.76	6.65
RV02CD10060000	REV VALVE 2 UST 5/8 - 3/8	3.85	7.10	4.54	8.81	4.90	9.69	3.14	5.63	3.69	7.76
RV02DD10060000	REV VALVE 2 UST 5/8 - 3/8 U DISCH	3.85	7.10	4.54	8.81	4.90	9.69	3.14	5.63	3.70	7.76
RV03ED10080000	REV VALVE 3 UST 5/8 - 1/2	3.85	9.55	4.54	11.98	4.90	13.18	3.14	7.42	3.70	10.34
RV03ED12080000	REV VALVE 3 UST 3/4 - 1/2	3.85	9.90	4.54	12.35	4.90	13.59	3.14	7.78	3.70	11.08
RV03CD10080000	REV VALVE 3 UST 5/8 - 1/2 CENT DISCH	3.85	9.55	4.54	11.98	4.90	13.18	3.14	7.42	3.70	10.34
RV03DD10080000	REV VALVE 3 UST 5/8 - 1/2 U DISCH	3.85	9.55	4.54	11.98	4.90	13.18	3.14	7.42	3.70	10.34
RV06AD12080000	REV VALVE 6 UST 3/4 - 1/2	3.85	19.02	4.54	23.95	4.90	26.35	3.14	14.81	3.70	20.69
RV06AD14080000	REV VALVE 6 UST 7/8 - 1/2	3.85	19.02	4.54	23.95	4.90	26.35	3.14	14.81	3.70	20.69
RV06AD14100000	REV VALVE 6 UST 7/8 - 5/8	3.85	19.02	4.54	23.95	4.90	26.35	3.14	14.81	3.70	20.69
RV06AD14120000	REV VALVE 6 UST 7/8 - 3/4	3.85	19.02	4.54	23.95	4.90	26.35	3.14	14.81	3.70	20.69
RV10AD14080000	REV VALVE 10 UST 7/8 - 1/2	11.22	33.11	13.01	41.88	14.05	46.07	9.82	26.05	11.08	36.56
RV10AD14120000	REV VALVE 10 UST 7/8 - 3/4	11.22	33.11	13.01	41.88	14.05	46.07	9.82	26.05	11.08	36.56
RV10AD141200S0	REV VALVE 10 UST 7/8 - 3/5	11.22	33.11	13.01	41.88	14.05	46.07	9.82	26.05	11.08	36.56
RV10AD14140X00	REV VALVE 10 UST 7/8 - 7/8 FREE	11.22	33.11	13.01	41.88	14.05	46.07	9.82	26.05	11.08	36.56
RV10AD180M0000	REV VALVE 10 UST 1-1/8 - METRIC	17.21	37.67	19.71	47.51	21.29	52.26	14.41	32.36	16.62	41.36
RV10AD18120000	REV VALVE 10 UST 1-1/8 - 3/4	17.21	37.67	19.71	47.51	21.29	52.26	14.41	32.36	16.62	41.36
RV10AD18140000	REV VALVE 10 UST 1-1/8 - 7/8	17.21	37.67	19.71	47.51	21.29	52.26	14.41	32.36	16.62	41.36
RV10AD181400S0	REV VALVE 10 UST 1-1/8 - 7/9	17.21	37.67	19.71	47.51	21.29	52.26	14.41	32.36	16.62	41.36
RV12FD220T0000	REV VALVE 12 UST 1-3/8	22.83	46.82	26.35	58.94	28.46	64.83	18.97	36.96	22.16	51.7
RV15AD18140000	REV VALVE 15 UST 1-1/8 - 7/8	15.81	54.54	15.81	61.58	17.07	67.74	12.28	40.83	16.6	55.4



Direct action models

					MIN - MA	AX CAP <u>A</u>	CITY (con	ditions 2)					
		Evap	ooration 4	1.4°C; suk	ocooling		lensation MPa	38°C; ov	rheating 5°C; load loss				
Code	Description	R40	07C	R4	10A	R	32	R1:	34A	R2	290		
		k	w	k	w	k	w	k	w	k	w		
		min	max.	min	max.	min	max.	min	max.	min	max.		
RV00BD06050000	REV VALVE 0.5 UST 3/8 - 5/16 U DISCH	1.43	3.37	1.66	4.20	1.80	4.62	1.23	2.59	1.40	3.62		
RV01AD06060000	REV VALVE 1 UST 3/8 - 3/8	1.51	5.02	1.88	6.53	2.03	7.19	1.51	4.25	1.61	5.62		
RV01AD06050000	REV VALVE 1 UST 3/8 - 5/16	1.51	5.02	1.88	6.53	2.03	7.19	1.51	4.25	1.61	5.62		
RV01AD08050000	REV VALVE 1 UST 1/2 - 5/16	1.51	5.02	1.88	6.53	2.03	7.19	1.51	4.25	1.61	5.62		
RV01BD06050000	REV VALVE 1 UST 3/8 - 5/16 U DISCH	1.51	5.02	1.88	6.53	2.03	7.19	1.51	4.25	1.61	5.62		
RV01BD06060000	REV VALVE 1 UST 3/8 - 3/8 U DISCH	1.51	5.02	1.88	6.53	2.03	7.19	1.51	4.25	1.61	5.62		
RV01AD08060000	REV VALVE 1 UST 1/2 - 3/8	1.51	5.02	1.88	6.53	2.03	7.19	1.51	4.25	1.61	5.62		
RV01BD08060000	REV VALVE 1 UST 1/2 - 3/8 U DISCH	1.51	5.02	1.88	6.53	2.03	7.19	1.51	4.25	1.61	5.62		
RV02AD08060000	REV VALVE 2 UST 1/2 - 3/8	3.03	6.90	3.45	8.37	3.72	9.21	2.65	5.38	3.00	7.22		
RV02BD08060000	REV VALVE 2 UST 1/2 - 3/8 U DISCH	3.03	6.90	3.45	8.37	3.72	9.21	2.65	5.38	3.00	7.22		
RV02CD10060000	REV VALVE 2 UST 5/8 - 3/8	4.18	7.72	4.93	9.58	5.33	10.53	3.41	6.12	4.01	8.43		
RV02DD10060000	REV VALVE 2 UST 5/8 - 3/8 U DISCH	4.18	7.72	4.93	9.58	5.33	10.53	3.41	6.12	4.02	8.43		
RV03ED10080000	REV VALVE 3 UST 5/8 - 1/2	4.18	10.38	4.93	13.02	5.33	14.32	3.41	8.07	4.02	11.24		
RV03ED12080000	REV VALVE 3 UST 3/4 - 1/2	4.18	10.76	4.93	13.42	5.33	14.77	3.41	8.46	4.02	12.04		
RV03CD10080000	REV VALVE 3 UST 5/8 - 1/2 CENT DISCH	4.18	10.38	4.93	13.02	5.33	14.32	3.41	8.07	4.02	11.24		
RV03DD10080000	REV VALVE 3 UST 5/8 - 1/2 U DISCH	4.18	10.38	4.93	13.02	5.33	14.32	3.41	8.07	4.02	11.24		
RV06AD12080000	REV VALVE 6 UST 3/4 - 1/2	4.18	20.67	4.93	26.03	5.33	28.64	3.41	17.59	4.02	22.48		
RV06AD14080000	REV VALVE 6 UST 7/8 - 1/2	4.18	20.67	4.93	26.03	5.33	28.64	3.41	17.59	4.02	22.48		
RV06AD14100000	REV VALVE 6 UST 7/8 - 5/8	4.18	20.67	4.93	26.03	5.33	28.64	3.41	17.59	4.02	22.48		
RV06AD14120000	REV VALVE 6 UST 7/8 - 3/4	4.18	20.67	4.93	26.03	5.33	28.64	3.41	17.59	4.02	22.48		
RV10AD14080000	REV VALVE 10 UST 7/8 - 1/2	12.20	35.99	14.14	45.52	15.27	50.07	10.67	28.32	12.04	39.74		
RV10AD14120000	REV VALVE 10 UST 7/8 - 3/4	12.20	35.99	14.14	45.52	15.27	50.07	10.67	28.32	12.04	39.74		
RV10AD141200S0	REV VALVE 10 UST 7/8 - 3/5	12.20	35.99	14.14	45.52	15.27	50.07	10.67	28.32	12.04	39.74		
RV10AD14140X00	REV VALVE 10 UST 7/8 - 7/8 FREE	12.20	35.99	14.14	45.52	15.27	50.07	10.67	28.32	12.04	39.74		
RV10AD180M0000	REV VALVE 10 UST 1-1/8 - METRIC	18.71	40.95	21.42	51.64	23.14	56.81	15.66	35.17	18.07	44.96		
RV10AD18120000	REV VALVE 10 UST 1-1/8 - 3/4	18.71	40.95	21.42	51.64	23.14	56.81	15.66	35.17	18.07	44.96		
RV10AD18140000	REV VALVE 10 UST 1-1/8 - 7/8	18.71	40.95	21.42	51.64	23.14	56.81	15.66	35.17	18.07	44.96		
RV10AD181400S0	REV VALVE 10 UST 1-1/8 - 7/9	18.71	40.95	21.42	51.64	23.14	56.81	15.66	35.17	18.07	44.96		
RV12FD220T0000	REV VALVE 12 UST 1-3/8	24.82	50.89	28.64	64.07	30.93	70.47	20.62	40.17	24.08	56.2		
RV15AD18140000	REV VALVE 15 UST 1-1/8 - 7/8	17.18	59.28	17.18	66.93	18.56	73.63	13.35	44.38	18.04	60.22		

Models with pilot

					MIN - MA	X CAPA	CITY (cond	ditions 1)			
		Evap	oration 7.	2°C; sub	cooling 5			n 55°C; o	verheatir	ıg 5°C; lo	ad loss
Code	Description	R40	7.56 72.48 17.59 81.64 19.00 89.80 13.69 54.19 7.56 72.48 17.59 81.64 19.00 89.80 13.69 54.19 6.35 108.72 26.36 122.44 28.47 134.68 20.36 81.28 5.14 144.95 35.16 163.25 37.97 179.58 27.03 108.36 5.14 144.95 35.16 163.25 37.97 179.58 27.03 108.36 5.14 181.13 35.21 203.99 38.03 224.39 27.03 135.40					34A	R2	90	
		k	w	k	w	kW		k	w	k	w
		min	max.	min	max.	min	max.	min	max.	min	max.
RV20AP20160000	REV VALVE 20 UST 1-1/4 - 1	17.56	72.48	17.59	81.64	19.00	89.80	13.69	54.19	18.47	73.86
RV20AP22180000	REV VALVE 20 UST 1-3/8 - 1-1/8	17.56	72.48	17.59	81.64	19.00	89.80	13.69	54.19	18.47	73.86
RV30AP24200000	REV VALVE 30 UST 1-1/2 - 1-1/4	26.35	108.72	26.36	122.44	28.47	134.68	20.36	81.28	27.68	110.79
RV40AP28240000	REV VALVE 40 UST 1-3/4 - 1-1/2	35.14	144.95	35.16	163.25	37.97	179.58	27.03	108.36	36.92	147.71
RV40AP26240000	REV VALVE 40 UST 1-5/8 - 1-1/2	35.14	144.95	35.16	163.25	37.97	179.58	27.03	108.36	36.92	147.71
RV50AP34240000	REV VALVE 50 UST 2-1/8 - 1-1/2	35.14	181.13	35.21	203.99	38.03	224.39	27.03	135.40	36.93	184.64
RV60AP42260000	REV VALVE 60 UST 2-5/8 - 1-5/8	38.30	197.43	38.38	222.35	41.45	244.59	29.46	147.59	40.26	201.26

RV20AP20160000 REV VALVE 20 UST 1-1/4 - 1 19.09 78.78 19.12 88.74 20.65 97.61 14.88 58.90 20.08 80.28 RV20AP22180000 REV VALVE 20 UST 1-3/8 - 1-1/8 19.09 78.78 19.12 88.74 20.65 97.61 14.88 58.90 20.08 80.28 RV30AP24200000 REV VALVE 30 UST 1-1/2 - 1-1/4 28.64 118.17 28.65 133.09 30.94 146.40 22.13 88.35 30.08 120.42						MIN - MA	X CAPAC	CITY (cond	ditions 2)			
R407C R410A R32 R134A R290 R407C R410A R32 R134A R290 R407C R410A R			Evap	ooration 4	0.01MPa R410A R32 R134A kW kW kW min max. min max. 19.12 88.74 20.65 97.61 14.88 58.90 19.12 88.74 20.65 97.61 14.88 58.90 7 28.65 133.09 30.94 146.40 22.13 88.35 3 38.22 177.45 41.27 195.19 29.38 117.78 3 38.27 221.73 41.33 243.90 29.38 147.17				erheating	g 5°C; loa	d loss	
min max. mi	Code	Description	R40	Noration 4.4°C; subcooling 0°C; condensation 38°C; overheating 0.01MPa OTC R410A R32 R134A W kW kW kW max. min max. min max. 78.78 19.12 88.74 20.65 97.61 14.88 58.90 78.78 19.12 88.74 20.65 97.61 14.88 58.90 118.17 28.65 133.09 30.94 146.40 22.13 88.35 157.55 38.22 177.45 41.27 195.19 29.38 117.78 196.88 38.27 221.73 41.33 243.90 29.38 147.17				34A	R290			
RV20AP20160000 REV VALVE 20 UST 1-1/4 - 1 19.09 78.78 19.12 88.74 20.65 97.61 14.88 58.90 20.08 80.28 RV20AP22180000 REV VALVE 20 UST 1-3/8 - 1-1/8 19.09 78.78 19.12 88.74 20.65 97.61 14.88 58.90 20.08 80.28 RV30AP24200000 REV VALVE 30 UST 1-1/2 - 1-1/4 28.64 118.17 28.65 133.09 30.94 146.40 22.13 88.35 30.08 120.42			k	w	k	w	k	w	k	w	k	w
RV20AP22180000 REV VALVE 20 UST 1-3/8 - 1-1/8 19.09 78.78 19.12 88.74 20.65 97.61 14.88 58.90 20.08 80.28 RV30AP24200000 REV VALVE 30 UST 1-1/2 - 1-1/4 28.64 118.17 28.65 133.09 30.94 146.40 22.13 88.35 30.08 120.42			min	max.	min	max.	min	max.	min	max.	min	max.
RV30AP24200000 REV VALVE 30 UST 1-1/2 - 1-1/4 28.64 118.17 28.65 133.09 30.94 146.40 22.13 88.35 30.08 120.42	RV20AP20160000	REV VALVE 20 UST 1-1/4 - 1	19.09	78.78	19.12	88.74	20.65	97.61	14.88	58.90	20.08	80.28
	RV20AP22180000	REV VALVE 20 UST 1-3/8 - 1-1/8	19.09	78.78	19.12	88.74	20.65	97.61	14.88	58.90	20.08	80.28
RV40AP28240000 REV VALVE 40 UST 1-3/4 - 1-1/2 38.20 157.55 38.22 177.45 41.27 195.19 29.38 117.78 40.13 160.56	RV30AP24200000	REV VALVE 30 UST 1-1/2 - 1-1/4	28.64	118.17	28.65	133.09	30.94	146.40	22.13	88.35	30.08	120.42
	RV40AP28240000	REV VALVE 40 UST 1-3/4 - 1-1/2	38.20	157.55	38.22	177.45	41.27	195.19	29.38	117.78	40.13	160.56
RV40AP26240000 REV VALVE 40 UST 1-5/8 - 1-1/2 38.20 157.55 38.22 177.45 41.27 195.19 29.38 117.78 40.13 160.56	RV40AP26240000	REV VALVE 40 UST 1-5/8 - 1-1/2	38.20	157.55	38.22	177.45	41.27	195.19	29.38	117.78	40.13	160.56
RV50AP34240000 REV VALVE 50 UST 2-1/8 - 1-1/2 38.20 196.88 38.27 221.73 41.33 243.90 29.38 147.17 40.14 200.7	RV50AP34240000	REV VALVE 50 UST 2-1/8 - 1-1/2	38.20	196.88	38.27	221.73	41.33	243.90	29.38	147.17	40.14	200.7
RV60AP42260000 REV VALVE 60 UST 2-5/8 - 1-5/8 41.63 214.60 41.72 241.68 45.05 265.85 32.02 160.42 43.76 218.77	RV60AP42260000	REV VALVE 60 UST 2-5/8 - 1-5/8	41.63	214.60	41.72	241.68	45.05	265.85	32.02	160.42	43.76	218.77

RV

4-way reversing valves



Coils







Code	B	D	F	Power at 50/60 Hz	Cable	length
Code	Description	Power supply	Frequency	(W)	mm	inches
RVCKA702400000	COIL 24 Vac without cable	24 Vac	50/60 Hz	5.5 / 3.5	-	-
RVCKA612000000	COIL 120 Vac without cable	120 Vac	50/60 Hz	5.5 / 3.5	-	-
RVCKA723000000	COIL 230 Vac without cable	230 Vac	50/60 Hz	5.5 / 3.5	-	-
RVCKD001200000	COIL 12 Vdc without cable	12 Vdc	-	10	-	-
RVCKD002400000	COIL 24 Vdc without cable	24 Vdc	-	10	-	-
RVCLA702404800	COIL 24 Vdc with 48" cable	24 Vac	50/60 Hz	5.5 / 3.5	1200	48
RVCLA612004800	COIL 120 Vac with 48" cable	120 Vac	50/60 Hz	5.5 / 3.5	1200	48
RVCLA723004800	COIL 230 Vac with 48" cable	230 Vac	50/60 Hz	5.5 / 3.5	1200	48
RVCLD001204800	COIL 12 Vdc with 48" cable	12 Vdc	-	10	1200	48
RVCLD002404800	COIL 24 Vdc with 48" cable	24 Vdc	e-	10	1200	48

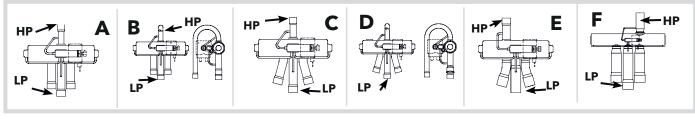
other cable lengths are available on request

Accessories

Code	Doggrintion	Cable length			
Code	Description	mm	inches		
RVCC0W29048000	48" cable for RVCK coil	1200	48		
RV00H7-60A0000	coil screw	-	-		

other cable lengths are available on request

Panel



CONDITIONS 1

the capacities indicated are based on the following conditions:

- evaporation temperature: 7.2 °C;
 condensation temperature: 55 °C;
- sub cooling: 5.0 °C;
 superheat: 5.0 °C;
- pressure drop: 0.014 MPa

CONDITIONS 2

the capacities indicated are based on the following conditions:

- evaporation temperature: 4.4 °C;
- condensation temperature: 38 °C;
- sub cooling: 0 °C;superheat: 5.0 °C;
- pressure drop: 0.01 MPa

NTC Probes

NTC semi-conductor temperature probes



NTC co-moulded with dual insulation

Codes	Description	Capsule material	Capsule dimensions (mm) (ØxL)	Cable type	Level of protection	Dielectric strength	Operating range	Probe length
SN8SAA1502	NTC with dual insulation	AISI304	6X40	silicone	IP67	4000V	-50+120°C	1.5m
SN8PAA1500	NTC with dual insulation	AISI304	6X40	PVC	IP67	4000V	-30+105°C	1.5m

NTC co-moulded with dual insulated cable

THE CO INCIDENCE WITH GRAN INSTITUTE CONTROL CONTROL										
Codes	Description	Capsule material	Capsule dimensions (mm) (ØxL)	Cable type	Level of protection	Dielectric strength	Operating range	Probe length		
SN8T6H0005	NTC co-moulded with dual insulated cable	Thermoplastic rubber	5X20	Thermoplastic rubber shielded	IP68	2000V	-50+110°C	10.0m		
SN8T6H1505	NTC co-moulded with dual insulated cable shielded	Thermoplastic rubber	5X20	Thermoplastic rubber	IP68	2000V	-50+110°C	1.5m		
SN8DED11502C0	NTC co-moulded with dual insulated cable	Thermoplastic rubber	5X20	Thermoplastic rubber (Outer) Polypropylene (Inner)	IP68	2000V	-50+110°C	1.5m		
SN8DED13002C0	NTC co-moulded with dual insulated cable	Thermoplastic rubber	5X20	Thermoplastic rubber (Outer) Polypropylene (Inner)	IP68	2000V	-50+110°C	3.0m		
SN8DAE11502C0	NTC co-moulded with dual insulated cable	AISI304	6X20	Thermoplastic rubber (Outer) Polypropylene (Inner)	IP68	2000V	-50+110°C	1.5m		
SN8DAE13002C0	NTC co-moulded with dual insulated cable	AISI304	6X20	Thermoplastic rubber (Outer) Polypropylene (Inner)	IP68	2000V	-50+110°C	3.0m		
SN8T6N1502	NTC co-moulded with dual insulated cable	AISI304	6X50	Thermoplastic rubber	IP68	2000V	-50+110°C	1.5m		

NTC special versions

Codes	Description	Capsule material	Capsule dimensions (mm) (ØxL)	Cable type	Level of protection	Dielectric strength	Operating range	Probe length		
SN8DEB21502C0	NTC clamp-on	Thermoplastic rubber	6X20	Thermoplastic rubber (Outer) Polypropylene (Inner)	IP68	2000V	-50+110°C	1.5m		
SN8DEB23002C0	NTC clamp-on	Thermoplastic rubber	6X20	Thermoplastic rubber (Outer) Polypropylene (Inner)	IP68	2000V	-50+110°C	3.0m		
SN8DNB11502A0	NTC clamp-on probe IP67 Fast response NTC probe	Copper	4X16	Thermoplastic rubber (Outer) Polypropylene (Inner)	IP67	1500V	-50+110°C	1.5m		
SN8DAC11502AV	Fast response NTC probe	AISI304	4X40	Thermoplastic rubber (Outer) Polypropylene (Inner)	IP67	2000V	-50+110°C	1.5m		
SN8DAC13002AV	Fast response NTC Probe product	AISI304	4X40	Thermoplastic rubber (Outer) Polypropylene (Inner)	IP67	2000V	-50+110°C	3.0m		
SN8DEP15002C0	simulation	Thermoplastic rubber	Ø 110	Thermoplastic rubber (Outer) Polypropylene (Inner)	IP68	2000V	-50+110°C	5.0m		

Pt100 - Pt1000 probes

Pt100 - Pt1000 thermo-resistive temperature probes



Pt100

Codes	Description	Capsule material	Capsule dimensions (mm) (ØxL)	Cable type	Level of protection	Operating range	Probe length
SN200009	Pt100, 3 wires with steel tube	AISI 316	6x100	Vetrotex	IP44	0+600°C	3 mm
SN206000	Pt100, 3 wires with steel tube	AISI 316	6x100	silicone	IP67	-40200°C	3 mm
SN2TAE51502C0	P100 with steel tube	AISI 304	6x50	thermoplastic rubber	IP68	-50+110°C	1.5 mm

Pt1000

Codes	Description	Capsule material	Capsule dimensions (mm) (ØxL)	Cable type	Level of protection	Dielectric strength	Operating range	Probe length
SN9S0A2500	Pt1000 with two wires	AISI304	6X40	Silicone	IP67	2000V	-50+200°C	2.5m
SN9DAE11502C6	Pt1000 co-mould- ed with dual insulated cable	AISI304	6X20	Thermoplastic rubber (Outer) Polypropylene (Inner)	IP68	2000V	-50+110°C	1.5m
SN9DAE13002C6	Pt1000 co-mould- ed with dual insulated cable	AISI304	6X20	Thermoplastic rubber (Outer) Polypropylene (Inner)	IP68	2000V	-50+110°C	3.0m
SN9DED11502C6	Pt1000 co-mould- ed with dual insulated cable	Thermoplastic rubber	5X20	Thermoplastic rubber (Outer) Polypropylene (Inner)	IP68	2000V	-50+110°C	1.5m
SN9DED13002C6	Pt1000 co-mould- ed with dual insulated cable	Thermoplastic rubber	5X20	Thermoplastic rubber (Outer) Polypropylene (Inner)	IP68	2000V	-50+110°C	3.0m

PTC - TC probes

PTC semi-conductor temperature probes, TC thermocouples



Applications

Temperature probes, available in various models, are devices that provide the instruments to which they are connected with a temperature measurement by way of a physical process.

Common features

Accuracy of temperature measurement: +/- 1%

PTC

Codes	Description	Capsule material	Capsule dimensions (mm) (ØxL)	Cable type	Level of protection	Dielectric strength	Operating range	Probe length
SN7T6A1502	PTC co-moulded with dual insulated cable	AISI 304	6X40	Thermoplastic rubber (Outer) Polypropylene (Inner)	IP68	2000	-50+110°C	1.5m
SN7DAE11502C0	PTC co-moulded with dual insulated cable	AISI 304	6X20	Thermoplastic rubber (Outer) Polypropylene (Inner)	IP68	2000	-50+110°C	1.5m
SN7DAE13002C0	PTC co-moulded with dual insulated cable	AISI 304	6X20	Thermoplastic rubber (Outer) Polypropylene (Inner)	IP68	2000	-50+110°C	3.0m
SN7DED11502C0	PTC co-moulded with dual insulated cable	Thermoplastic rubber	5X20	Thermoplastic rubber (Outer) Polypropylene (Inner)	IP68	2000	-50+110°C	1.5m
SN7DED13002C0	PTC co-moulded with dual insulated cable	AISI 304	5X20	Thermoplastic rubber (Outer) Polypropylene (Inner)	IP68	2000	-50+110°C	3.0m

TCK

Codes	Description	Capsule material	Capsule dimensions (mm) (ØxL)	Cable type	Level of protection		Operating range	Probe length
SN400000	Tck	AISI 304	6X100	TTS	IP45	-	0400°C	3.0m
SN400004	Tck	Inconel 600	6X200	TTS	IP45	-	-401150°C	1.0m

TCJ

Codes	Description	Capsule material	Capsule dimensions (mm) (ØxL)	Cable type	Level of protection	Dielectric strength	Operating range	Probe length
SN300000	Tcj	AISI 316	6X100	vetrorex	IP44	-	0350°C	3.0m
SN300008	Tcj	AISI 316	6X100	vetrorex	IP44	-	0350°C	1.5m
SN300042	Tcj	AISI 304	6X100	TTS	IP45	-	0350°C	3.0m

EWPA 007 - 030 - 050

Pressure transducers











Applications

EWPA pressure transducers are sensors capable of transmitting a signal by way of a current output to the measuring instruments with which they are connected.

Technical data	EWPA 007	EWPA 010	EWPA 030	EWPA 050	EWPA 150		
Operating range (relative)	-0.57 bar	-1+9bar	030 bar	050 bar	0.150 bar		
Output signal			2 wires 420 mA				
Overload			6 times pressure range				
Power supply			733 Vdc				
Accuracy		± 0.5% FS max (linearity, hysteresis, repeatability)					
Compensated temperature		050°C					
Electrical connection		2m integrated cable 2m cable with M12 connector					
Mechanical connection		male connector / female connector /4 SAE (7/16"-20UNF)					
Operating temperature	Ambient temperature: -3085°C Storage temperature: -50100°C Refrigerant temperature -40135°C						
Response time	<2 ms						
Material exposed to environment	AiSi 316L						
Enclosure rating			IP67				

Codes	Description	Connection	Electrical connection	IP
TD220007B	EWPA 007	7/16 20 UNF (1/4 SAE) MALE	2m cable	IP67
TD220030B	EWPA 030	7/16 20 UNF (1/4 SAE) MALE	2m cable	IP67
TD220050B	EWPA 050	7/16 20 UNF (1/4 SAE) MALE	2m cable	IP67
TD240007B	EWPA 007	7/16 20 UNF (1/4 SAE) MALE	2 m cable with M12 connector	IP67
TD240030B	EWPA 030	7/16 20 UNF (1/4 SAE) MALE	2 m cable with M12 connector	IP67
TD240050B	EWPA 050	7/16 20 UNF (1/4 SAE) MALE	2 m cable with M12 connector	IP67
TD320007B	EWPA 007	7/16 20 UNF (1/4 SAE) FEMALE	2m cable	IP67
TD320009B	EWPA 010	7/16 20 UNF (1/4 SAE) FEMALE	2m cable	IP67
TD320030B	EWPA 030	7/16 20 UNF (1/4 SAE) FEMALE	2m cable	IP67
TD320050B	EWPA 050	7/16 20 UNF (1/4 SAE) FEMALE	2m cable	IP67
TD340007B	EWPA 007	7/16 20 UNF (1/4 SAE) FEMALE	2 m cable with M12 connector	IP67
TD340010B	EWPA 010	7/16 20 UNF (1/4 SAE) FEMALE	2 m cable with M12 connector	IP67
TD340030B	EWPA 030	7/16 20 UNF (1/4 SAE) FEMALE	2 m cable with M12 connector	IP67
TD340050B	EWPA 050	7/16 20 UNF (1/4 SAE) FEMALE	2 m cable with M12 connector	IP67
TD240150B	EWPA 150	G 1/4 MALE	2 m cable with M12 connector	IP67
TD360007B	EWPA 007	7/16 20UNF	2m cable	IP67
TD360010B	EWPA 010	7/16 20UNF	2m cable	IP67
TD360030B	EWPA 030	7/16 20UNF	2m cable	IP67
TD360050B	EWPA 050	7/16 20UNF	2m cable	IP67

EWPA 010 - 030 - 050

Ratiometric pressure transducers





Applications

EWPA pressure transducers are sensors capable of transmitting a signal by way of a current output to the measuring instruments with which they are connected.

Technical data	EWPA 010	EWPA 030	EWPA 050			
Operating range (Relative)	010 bar	030 bar	050 bar			
Output signal		3 wires 0.54.5 Vdc				
Overload		6 times pressure range				
Power supply		5 Vdc +/- 10%				
Accuracy	± 0.5% FS max (linearity, hysteresis, repeatability)					
Electrical connection	2 m cable with M12 connector					
Mechanical connection	female connection ¼ SAE (7/16"-20UNF)					
Operating temperature	Ambient temperature: -3085°C Storage temperature: -50100°C Refrigerant temperature: -40135°C					
Response time	<2 ms					
Material exposed to environment	AiSi 316L					
Enclosure rating	IP67					

Codes	Description	Connection	Electrical connection	IP
TD420010B	EWPA 010	7/16 20 UNF (1/4 SAE) FEMALE	2 m cable with M12 connector	IP67
TD420030B	EWPA 030	7/16 20 UNF (1/4 SAE) FEMALE	2 m cable with M12 connector	IP67
TD420050B	EWPA 050	7/16 20 UNF (1/4 SAE) FEMALE	2 m cable with M12 connector	IP67

EWHS 2840 - 3040 - 3140 - 3140/S

Humidity probes



Codes	Description	Notes
SH5NPM100I400	EWHS 2840	RH%
SH3NPM100Y400	EWHS 3040	RH% + NTC
SH0NPM100I400	EWHS 3140	RH% + TEMP
SH0NPM100S400	EWHS 3140/S	RH% + TEMP, MODBUS
SHONPMIOOSOOO	SPARE PART	Vent.

Applications

Humidity probes in the EWHS2840-3040-3140-3140/S series are intended for connection to humidity and humidity/temperature measuring instruments or Televis or Modbus RTU monitoring systems featuring superior dependability.

Common features

Ambient humidity:	0100% RH
Air maximum speed	20m/s
Polarity inversion protection:	diode

Technical data	EWHS 2840	EWHS 3040	EWHS 3140	EWHS 3140/S
Protection rating		IPa	55	
Installation		Wall-mounted via	a 2 external slots	
Electrical connections		Screw te	erminals	
Dimensions		80x80x	52 mm	
Power supply	928	8 Vdc	928 Vac o	r 940 Vdc
Power consumption	20 m	A max	50 mA max	35 mA max
Ambient temperature	-4060°C			
Humidity sensor		Dig	ital	
Humidity measurement range				
Output current of humidity measurement	420 mA			
Response time in steady conditions (68%) at 23°C		Typical	ly 10 s	
Recovery time from saturation		depends on th	e air flow rate	
Storage temperature		-40	70°C	
Accuracy of humidity measurement (at 23°C)	5%	3%	3%	2%
Number of wires per connection	2	4	5	5
Air filter		PT	FE	
Temperature sensor	-	NTC 10k 25°C	Dig	jital
Temperature range		-406	60°C	
Temperature measurement output	' _	Passive	420mA	Serial
Accuracy of temperature measurement (at 0 °C and 23 °C)	' -	1%	+/-0.6°C	+/-0.3°C
Dewpoint calculation	' _	' <u>-</u>	/ <u>-</u>	Present
Maximum load	150 Ohm	150 Ohm	350 Ohm	' _
RS-485 serial connection	' _	' <u>-</u>	/ <u>-</u>	Modbus-RTU

ACCESSORIES

Eliwell supplies a number of accessories to complete its line of instruments.

Connectivity modules and a wide range of transformers, including memory devices, are designed for easy set-up, quickly transferring parameters and controller firmware updating.

Devices designed to give the user all those instruments enabling greater work quality and productivity.

SOLUTIONS FOR SUPERMARKETS

HACCP Module and Eliwell AIR APP

BTLE interface for commissioning and HACCP datalogging





Codes	Description
ADBT50005110H0	HACCP Module - BTLE 5.0

Applications

The HACCP Module is used to record temperatures at set frequencies with a view to HACCP. From the Eliwell AIR APP, it is possible to view the data in both table and graphic format, downloading the files in CSV or PDF format.

Technical data	HACCP Module
Code	ADBT50005110H0
Operating temperature	-2065°C
Storage temperature	-2550°C
Ambient humidity	090% RH (non-condensing)
Power supply	35 Vdc
Power consumption	< 50 mW
Wireless technology	Bluetooth low energy 5.0
Operating frequency	24022480 MHZ
Range of transmission	10 m
Datalogging memory	Yes
Memory capacity	10080
No. of serial ports	1
Serial ports	1x TTL
Installation	Screw-type
Weight (g) net	20
Width (L) net	45 mm
Height (Ht) net	20 mm
Depth (P) net	45 mm
Weight (g) packaging	70
Width (L) packaging	130 mm
Height (Ht) packaging	90 mm
Depth (P) packaging	50 mm

Eliwell AIR is the app for smartphones or tablets used for Bluetooth connection to plug-in cabinets such as drinks refrigerators, beverage dispensers, ice cream freezers, refrigerated cabinets.

Technical specifications

The advanced, intuitive Eliwell AIR user interface offers access to many different functions:

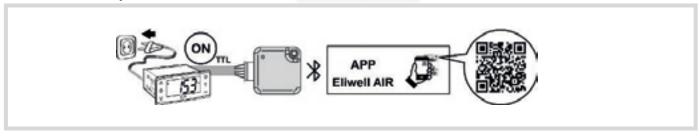
- counter geolocation
- controller status checks
- management of individual parameters, sending specific commands
- uploading and downloading of the tool map







Connect to the compatible controller via the Eliwell AIR APP



DeviceManager

Controller configuration software





Codes	Description
DMP1000002000	CD DeviceManager
DMI1001002000	DMI 100-1 End User
DMI1002002000	DMI 100-2 Service
DMI1003002000	DMI 100-3 Manufacturer
CO111127	TTL Cable
COLV000016200	USB-A/A extension cable

Applications

DeviceManager is a Windows software used to manage and for the first installation of Eliwell devices. The software can be used to create and save parameter maps and transfer them to and from the controller in just a few clicks.

Device Manager needs the USB communication interface Device Manager Interface (DMI) to communicate with controllers directly and is compatible with Unicard USB and Multi Function Key to transfer maps, parameters and controller firmware updating. For information on compatibility and functions available with each controller family, please check the compatibility table in the restricted are of www.eliwell.com

Features

Graphic interface	Device alarm log management
Eliwell instrument parameter management	Firmware updating
Real-time variable monitoring and management	

System requirements	DeviceManager
Operating system:	Windows XP Pro SP2, Italian and English.
	Windows XP Home SP2, Italian and English.
	Windows 2000 Professional SP4, Italian and English.
	Windows 7 Premium, Windows 7 Professional, Windows 7 Ultimate, versions 32bit, Italian-English
	• Windows 10
Software components required	• .NET Framework 2.0
besides operating system:	
Minimum hardware:	• graphics resolution 1024x768
	• 700MHz CPU
	• RAM 256MB
	• HD 1GB
	Mouse or equivalent navigation system
Space required on disk:	Approx. 500 MB for normal installation (2 languages, 50 models)

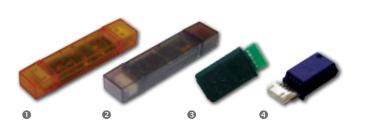
Accessories

Code	Description	Details
CO111127	TTL cable	1m reinforced cable
COLV000016200	USB-A/A 2MT extension lead	Length 2m

ELECTROMECHANICAL COMPONENTS

Unicard - USB Copy Card - Copy Card - Multi Function Key

Memory for fast configuration and updating of controllers



Codes		Notes
CCA0BHT00UU00	0	UNICARD USB/TTL
CCA0BUI02N000	2	USB Copy Card
COLV000016200		Extension cable for USB Copy Card
CC0S00A00M000	•	Standard Copy Card
MFK100T000000	4	Multi Function Key 100

Applications

The new USB/TTL Unicard is a memory device for rapid parameter configuration/duplication, specifically designed for controllers in the IDPlus family. By downloading the **Device**Manager software from the **www.eliwell.com** website, maps for instruments in the ID and IDPlus families can be read and written on the Unicard device without having to use other interfaces/licences.

Copy Card and USB Copy Card are memory devices for rapid Eliwell controller parameter configuration/duplication. Multi Function Key is used with **Device**Manager to transfer maps, parameters and controller firmware updating.

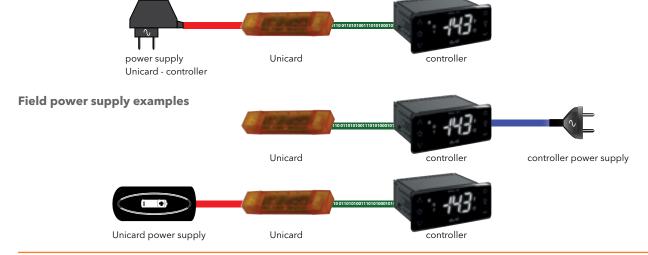
Unicard has a **standard USB port** for connection to the most widely-used power supply units and adapters on the market (mains-powered, machine-powered, battery-powered, etc.). Updating device parameter values

Updating device firmware/applications Downloading parameter values from the instrument Downloading alarm log from the instrument

Use	Copy Card	Multi Function key	Unicard	USB Copy Card
	Copy Card	Multi Function key		USB Copy Card
Series IDPlus, ICPlus and IDNext	•	-	•	-
Series EW - EWPlus (EO LVD) and EWNext	•	-	•	-
IC series	•	-	-	-
ID series	•	-	-	-
EM300 Series	•	-	-	-
DR 4020 - DR4022	•	-	•	-
EW4820 - EW4822	•	-	-	-
EW7220 - EW7222	•	-	-	-
EWTSPlus 990	•	-	-	-
EWRC 300 - EWRC 500 NT series	•	-	•	-
EWDR series	•	-	-	-
EWRC 5000 - 5010 - 5030 NT	•	-	•	-
IWC series	•	-	-	-
IWP 750	•	-	•	-
Televis In Televis Out	•	-	• / F	-
RTN series	-	•	•/F	-
RTX - RTD series	-	•	• / F	-
ID 985/V	•	-	•	-
V800 Pulse EEV driver	-	-	-	•
V910 - XVD Step EEV Driver	-	•	• / F	-
EWCM 80009000 EO	-	-	-	•/F/L/D
EWCM 4000	•	•	-	-
EMPlus 600	-	-	•	-
EWBC 800 series	•	-	•	-
EWBC 1400	-	•	-	-

KEY •: Reading/writing maps parameters F: Updating Firmware L: Updating Interface Languages D: Download Data/Alarms

Counter power supply examples



Drip protection - Plexiglass protection

Protections for 32x74 controllers





Applications

These accessories can be used with devices in the ID, IC, IDPlus, EW, EWPLus, IDNext and EWNext series.

The drip protection, applied to the rear of the instrument, are a valid support in protecting electrical connectors against dripping liquid.

The plexiglass accessory, equipped with a surface easy to clean, is particularly suitable for use in outdoor environments or characterized by a high degree of dirt.

Code	Description	Details
ZZ000270	Drip protection	Pack of 20
ZZ000272	Plexiglass protection for controllers 32x74	Pack of 10

EW BOX - INOX BOX - EWBOX NT

EW BOX - INOX BOX - EWBOX NT



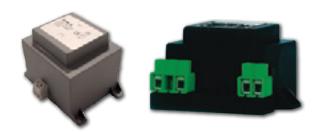
Applications

EW Boxes and INOX Boxes are a range of plastic and stainless steel containers for the wall mounting of instruments designed for panel mounting.

Code	Description
SM000000	EW box without front panel
SM000005	Front panel without holes in ABS for EW box
SM000010	Front panel in ABS for EW vertical box with one hole for standard instrument 32x74 and two holes for switch
SM000013	Front panel in ABS for EW horizontal box with one hole for standard instrument 32x74 and one hole for switch
SM000020	Front panel in ABS for EW vertical box with two holes for standard instrument 32x74 and two holes for switch
SM000030	Front panel in ABS for EW horizontal box with two holes for standard instrument 32x74 and two holes for switch
SM111111	INOX Box with one hole for standard instrument 32x74
SM111112	INOX Box with two holes for standard instruments 32x74
RCX101B001000	PC-ABS box without holes
RCX1A1B001000	PC-ABS box with one hole for standard instrument 32x74
RCX1F1B001000	PC-ABS box with one hole for keyboards 68x138 (EWK1000 \ EVP3000)
RCX1M1B001000	PC-ABS box with one hole for vertical KDT keyboards with rounded corners

TF Transformers

Transformers



Applications

TF transformers are resin-coated in plastic containers, equipped with fixing tabs and screw terminals for wires ≤ 2.5 mm2. Models with different power supply voltages are available.

Code	Models	Details
TF511113	TF 100115120V	115/12V 3VA - cert. UL
TF111145	TF 100115120V	115/12V 3VA
TF11115A	TF 100115120V	110-230/12-12-12 or 12 15VA
TF111115	TF 122448V	24/12V 3VA
TF111162	TF 122448V	24/12V 5,6VA
TF111173	TF 200250V	230/12V 3VA
TF411200	TF 200250V	230/12V - 5VA protected
TF411173	TF 200250V	230/12V 3VA - approved VDE
TF411117	TF 200250V	240/12V 3VA - approved VDE
TF411205	TF 200250V	230/12V - 6VA protected
TF411210	TF 200250V	230/12V - 11VA protected
TF111202	TF 200250V	230/24V 25VA
TF111205	TF 200250V	230/24V 35VA

Wide Adapter

Adapters for Next series controllers



NEXTACCWA00000



NEXTACCWA20000

Codes	Description
NEXTACCWA00000	Wide Adapter without switches
NEXTACCWA20000	Wide Adapter with holes for switches
IN111111	DOUBLE POLE RED SWITCH 220V - Colour RED
IN111112	DOUBLE POLE RED SWITCH 220V - Colour GREEN
IN111113	DOUBLE POLE YELLOW SWITCH 220V - Colour YELLOW

Technical data	NEXTACCWA000000	NEXTACCWA200000
Dimensions (mm)	180x39,5	180x39,5
Drilling template (mm)	150x31	150x31

OEM PRODUCTS

Eliwell supplies a wide range of products and solutions that stand out for high quality and reliability. This is the result of 25 years experience and know how acquired collaborating with the main commercial refrigeration equipment manufacturers.

For manufacturers (OEM) Eliwell supplies a series of standard and customisable products. These are based on consolidated, easy-to-adapt platforms.

Controllers for OEM are only supplied in industrial packaging, with electronic documentation and in minimum lots depending on product type.

OEM controller customisation may go from definition of a customised parameter map, to including a logo or creation of specific functions.

The following pages list the main controller families for OEM where standard solutions are available for manufacturers. Would you kindly contact an Eliwell agent to assess the specific solution for your needs.



Eliwell connectivity solution for drinks refrigerators, beverage dispensers, ice cream freezers, refrigerated cabinets













Discover the solution



TelevisAir CLOUD

Pltaform for plug-in counters connectivity



- > Device tracking geolocate your own coolers
- Monitored performance data storage and analytics
- > Optimised maintenance alarm notifications

Applications

TelevisAir CLOUD is the platform for manufacturers of plug-in refrigerated cabinets including drinks refrigerators, beverage dispensers, ice cream freezers and refrigerated cabinets.

Features

Activate your account and the platform will offer you access to the following functions:

- Device tracking
 View the geographical location and general status of your cooler fleet
- Monitored performance access each refrigerator to check the stored data log
- Optimised maintenance set the thresholds for each operating variable of your refrigerated equipment to receive alarm notifications

The TelevisAir solution: how it works



Typical applications

- > Butchers
- Delicatessens
- Catering
- Hotels

- Dairies
- Pasta shops
- Wineries
- Cold stores

- Distribution centres
- Greengrocers
- Food trucks

ELECTROMECHANICAL COMPONENTS

EWNext Performance

The new high energy saving connectible solution









- Advanced control algorithms for energy saving with no need to modify counter structure
- Self-adaptation of the energy saving functions based on the conditions of use of the refrigerator
- The product is compatible with the new ecological refrigerants R290, R600, in compliance with IEC 60079--15-2005
- Optimised temperature management when switching from night to day mode
- Management of a 2nd compressor on the basis of a delay
- Modular defrost management
- Advanced algorithms for defrost management on the 2nd evaporator
- Management of variable speed compressors VSC (depending on the model)
- 3 easily selectable, pre-loaded configurations with default setting reset
- Deep cooling control
- Internal RTC (depending on the model)
- Ability to directly manage capacitive loads (model EWNext 974 P/R)
- Low Voltage Detector (depending on the model)
- Synchronised defrost from digital input (depending on the model)
- Can be connected to the BTLE AIR Dongle and the TelevisAir cloud solution
- Green Premium Product
- Extended warranty
- IP65

Applications

EWNext Performance is the new range of controllers for commercial plug-in refrigerators and coolers, responding to the most recent technological needs of the market; with a completely renewed design, it has a wider display, 6 touch keys and an integrated seal to guarantee a protection rating of IP65 on the front panel. EWNext Performance controllers are designed to combine high energy savings with maximum ease of installation and use, and can easily replace controllers from previous series. Thanks to platform versatility and a library of available functions, Eliwell can design custom solutions for energy saving requirements and simplification of production processes.

nmon features

Common reatures	
Direct load management up to 2Hp and power supply 230 Vac, 115 Vac or	Unicard USB for customisation
SMPS 100-240 Vac	even of small batches
Use of removable/screw connectors for quick, versatile hookup	Industrial packaging 60 pieces

Model	Application	Notes
EWNext 961 P/B	Static units	2Hp relay, 1 analogue input, 1 digital input Buzzer
EWNext 971 P/B	Ventilated units	2Hp relay, 2 configurable outputs, 2 analogue inputs, 1 digital input, 1 digital input on TTL Buzzer
EWNext 974 P/B	Ventilated units	2Hp relay, 3 configurable outputs, 2 analogue inputs, 1 digital input, 1 digital input on TTL Buzzer
EWNext 974 P/R	Ventilated units	2x 1.5Hp relays, 3 configurable outputs, 2 analogue inputs, 1 digital input (alternatively ta third analogue input), 1 digital input on TTL Buzzer
EWNext 978 P/B	Ventilated units	1.5Hp relay, 4 configurable outputs, 2 analogue inputs, 1 digital input, 1 digital input on TTL Buzzer
EWNext 978 P/BCI	Ventilated units	SMPS power supply 100-240Vac Frequency output for variable speed compressor, 2x 1.5Hp relays suited for managing LED lights and electronic fans, 2 analogue inputs, 1 digital input, 1 digital input on TTL Real Time Clock Buzzer

Longer-lasting components

Advanced control algorithms for long-lasting performance with no need to modify counter structure.

EWNext 971 Performance Dispenser

Solutions for connectible refrigerated dispensers / beer taps







- Electronic temperature control
- Electronic ice level control with single and dual sensor
- 🚦 Ice sensor sensitivity configured via parameter
- Pump management
- Compatible with hydrocarbon applications (R290, R600a)
- Can be connected to the BTLE AIR Dongle and the TelevisAir cloud solution
- Green Premium Product
- Extended warranty
- 🚹 IP65

Applications

EWNext 971 Performance Dispenser is a controller designed to offer a compact, efficient solution to control the refrigeration of drink dispensers, such as beer and soft drinks. Thanks to platform versatility and a library of available functions, Eliwell has integrated control of temperature and ice level into a single controller that can be parametrized from the keyboard to adapt to the various application configurations easily.

Common features

Configurable inputs for temperature and single or dual	Unicard USB for customizing
ice level sensor	even for small batches
Power supply 115 or 230 Vac	Industrial packaging 60 pieces

Model	Application	Notes
EWNext 971 P/CD	Dispenser	Ice level control
		Pump control
		Real Time Clock
		Can be connected to the BTLE AIR Dongle

Energy saving

- The dual ice sensor configuration gives users considerable energy and reliability benefits.
- This configuration allows you to set a hysteresis on the formation of ice mechanically decreasing the number of times the compressor comes on, while reducing the need for maintenance and increasing duration.

EWNext Optimized

The new connectible solution compatible with natural refrigerants







- The product is compatible with the new ecological refrigerants R290, R600, in compliance with IEC 60079--15-2005
- Modular defrost management
- 3 easily selectable, pre-loaded configurations with default setting reset
- Synchronised defrost from digital input (depending on the model)
- Can be connected to the BTLE AIR Dongle and the TelevisAir cloud solution
- 🚦 Green Premium Product
- Extended warranty

Applications

EWNext Optimized is the new range of controllers for commercial plug-in refrigerators and coolers, responding to the most recent technological needs of the market; with a completely renewed design, it has a wider display, 4 touch keys and an integrated seal to guarantee a protection rating of IP65 on the front panel. EWNext Optimized controllers are designed to combine energy savings with maximum ease of installation and use, and can easily replace controllers from previous series.

Common features

Direct load management up to 2Hp and power supply	Unicard USB for customizing
of 230 Vac or 115 Vac	even for small batches
Use of removable/screw connectors for quick,	Industrial packaging 60 pieces
versatile hookup	

Model	Application	Notes
EWNext 961 O/B	Static units	2Hp relay, 1 analogue input, 1 digital input Buzzer
EWNext 971 O/B	Ventilated units	2Hp relay, 2 configurable outputs, 2 analogue inputs, 1 digital input Buzzer
EWNext 974 O/B	Ventilated units	2Hp relay, 2 configurable outputs, 2 analogue inputs, 1 digital input

Longer-lasting components

Advanced control algorithms for long-lasting performance with no need to modify counter structure.

EWEPlus -HC Series

The entry level range of controllers for commercial refrigeration OEMs



- The display features large digits and coloured icons, for at-a-glance operating status monitoring
- Simple, intuitive menu for fast learning
- Compatibility with flammable gases HFC and HFO, category A3 and A2L
- ENEC, UL, NSF certifications (check on the device label)

Applications

EWEPlus -HC is a family of electronic controllers for managing refrigerated cabinets, display cabinets and refrigerating units. With its flexible platform and function library, EWEPlus is the best solution for manufacturers seeking custom solutions for energy saving and simplified production processes.

Common features

Direct load management up to 2Hp and wide range of power supplies	Unicard USB for customizing even small lots
Wide range of solutions even for the more critical applications where size is a	Industrial packaging 60 pieces
problem	

Model	Power supply	Depth	Application	Notes
EWEPlus 400	100240Vac	41mm.	Counter pits for cans	1.5Hp relay - configurable digital input
	12V AC/DC	30mm.	Static units, counter pits	1.5Hp relay
EWEPlus 500	230Vac	50mm.	Static units	2Hp relay - configurable digital input
EWEPlus 902	115Vac-230Vac	59mm.	Positive temperatures	Change-over contact relay
EWEPlus 961	115Vac-230Vac	59mm.	Static units	2Hp relay - configurable digital input
EWEPlus 971	115Vac-230Vac	59mm.	Ventilated units	2 Hp relay, 1 configurable output (defrost/fans/lights/alarm/stand-by)
EWEPlus 974	115Vac-230Vac	59mm.	Ventilated units	2 Hp relay, 2 configurable output (defrost/fans/lights/alarm/stand-by)

ELECTROMECHANICAL COMPONENTS

EWPlus EO series

High energy saving solutions



- Advanced control algorithms contribute to an **energy saving of up to 39%*** with no counter structure modification required
- Self-adaptation of the energy saving functions based on the conditions of use of the refrigerator
- The product is **compatible with the new ecological refrigerants R290, R600**, in compliance with IEC 60079-15-2005
- Optimised temperature management when switching from night to day mode
- No supplementary sensors needed thanks to the virtual door switch
- Management of a 2nd compressor on the basis of a differentiated temperature threshold and a delay
- Advanced algorithms for defrost management on the 2nd evaporator
- Voluntary certification: ENEC/UL (check on device label)
- 4 easy-to-select configurations pre-loaded in a single controller
- ☐ Internal RTC (depending on the model)
- Optional connectivity to BTLE AIR Dongles
- Extended range versions for applications up to -80°C Ultra Low Temperature

Applications

EWPlus EO series controllers are designed to combine high energy savings with maximum ease of installation and use, easily applicable also replacing prior series controllers.

Thanks to platform versatility and a library of available functions, Eliwell can design custom solutions for energy saving requirements and simplification of production processes.

Common features

Direct load management up to 2 Hp and power supply 230Vac, 115Vac or	Use of removable/faston/screw connectors for quick, versatile hookup
SMPS 100-240 Vac	Unicard USB for customizing even small lots
Integrated protection of loads against voltage fluctuations controllable by	Industrial packaging 60 pieces
parameter	

Model	Application	Notes
EWPlus 961 EO	Static units	2Hp relay, 1 analogue input, 1 digital input
EWPlus 961 EO AIR	Static units	2Hp relay, 1 analogue input, 1 digital input Can be connected to the BTLE AIR Dongle
EWPlus 971 EO	Ventilated units	2Hp relay, 2 configurable outputs (defrost/fans/lights/alarm/stand-by), 2 analogue inputs, 1 digital input
EWPlus 971 EO AIR	Ventilated units	2Hp relay, 2 configurable outputs (defrost/fans/lights/alarm/stand-by), 2 analogue inputs, 1 digital input Can be connected to the BTLE AIR Dongle
EWPlus 974 EO	Ventilated units	2Hp relay, 3 configurable outputs (defrost/fans/lights/alarm/stand-by), 2 analogue inputs, 1 digital input
EWPlus 974 EO AIR	Ventilated units	2Hp relay, 3 configurable outputs (defrost/fans/lights/alarm/stand-by), 2 analogue inputs, 1 digital input Can be connected to the BTLE AIR Dongle
EWPlus 978 EO	Ventilated units Ultra Low Temperature Freezers	2Hp relay, 4 configurable outputs (defrost/fans/lights/alarm/stand-by), 2 analogue inputs, 1 digital input
EWPlus 974 EO Smart Control	Ventilated units	2Hp relay, 3 configurable outputs (defrost/fans/lights/alarm/stand-by), 2 analogue inputs, 1 digital input
EWPlus 978 EO Smart Control	Ventilated units	2Hp relay, 4 configurable outputs (defrost/fans/lights/alarm/stand-by), 2 analogue inputs, 1 digital input
EWPlus 978 EO Smart Control AIR	Ventilated units	2Hp relay, 4 configurable outputs (defrost/fans/lights/alarm/stand-by), 2 analogue inputs, 1 digital input Can be connected to the BTLE AIR Dongle

EWPlus 978

Solutions for dual evaporator and dual compressor



- Solution for combined counters, dual evaporator or dual compressor
- Compact solution for control of small-sized monoblocs
- Suited to applications with hydrocarbons

Applications

EWPlus 978 series controllers are designed to combine high energy savings with maximum ease of installation and use, easily applicable also replacing prior series controllers.

Thanks to platform versatility and a library of available functions, Eliwell can design custom solutions for energy saving requirements and simplification of production processes.

Common features

4 configurable output relays for dual compressor control and single or dual	12V power supply
defrost	Unicard USB for customizing even small lots

Model	Application	Notes
EWPlus 978	Combined counters	Single or dual compressor
	Monoblocs	Single or dual evaporator



Application examples

In a combined refrigerated cabinet, **EWPlus 978** can manage the dual compressor with:

- delayed ignition
 - ignition based on differentiated temperature threshold and delay In this case, the controller can manage the set sequence or rotation between two compressors.

It can also manage dual defrosting:

- delayed
- with independent defrost end temperatures
- with common defrost time-out

EWPlus 978

IWP 750

Solutions for mono-blocks





- Specific customisable solution for monoblocs with keyboard for panel mounting with polycarbonate
- Faston type connection for all loads and screw connection for all signals
- Keyboard can be set for a distance of up to 100m
- Board for RS-485 connectivity optional plug-in
- Availability of models compatible with flammable gases HFC and HFO, category A3 and A2L

Applications

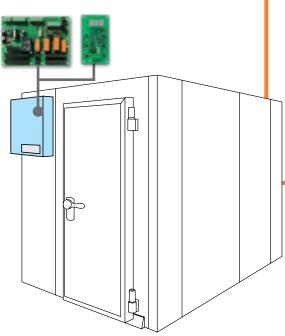
IWP 750 controllers are designed to combine high energy savings with maximum ease of installation and use, easily applicable also replacing prior series control-

Thanks to platform versatility the product can be configured in various relay combinations to adapt better to the monobloc features.

Common features

Power boards and bare keyboard, for panel mounting	Compressor control up to 2Hp
3 temperature probes and 3 configurable digital inputs	SMPS 100240V~ power supply
5 configurable relay outputs	

Model	Application	Notes
IWP 750	Monoblocs	Power boards with 5 relays
IWK Open		Bare keyboard from panel
		Can be set for a distance of up to 100m



Environmental sustainability

The IWP devices offer a wide range of machine configuration options, predominantly thanks to the vast array of relays, available with power levels of up to 2Hp and used to control two separate compressors directly.

Easy to use

The minimised wiring with on-board power relay, quick connections, simple, intuitive remote user interface and support tools allow for straightforward customisation, even on the production line. The IWK remote keypad is available in reduced depth format so that its can even be used in areas where installation conditions are particularly limited.

IWP 750 - IWI

IWC 700 series

Controllers for professional / catering applications



- Solutions for professional counters, normally used to store fresh and frozen foods
- Can be connected to remote ECHO display depending on the model
- Models managing dual temperature Set points available

Applications

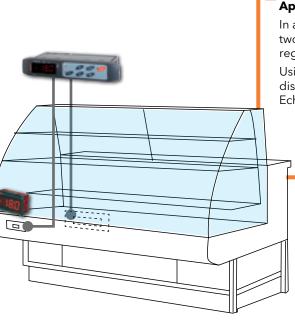
IWC 720-730 controllers are suitable for applications on ventilated refrigeration units for normal or low temperatures

IWC750 Twin is designed specifically to control dual independent temperature refrigeration systems, normally used for the preservation of fresh and frozen foods. IWC730/E Twin with two set points is ideal for catering applications, and can be connected to the Echo remote display.

Common features

Container	PC+ABS UL94 V-0 resin plastic casing, polycarbonate	Dimensions	front panel 180x37mm, depth 69mm
	display window, switch keys with adhesive	Installation	panel mounting with 150x31mm
	polycarbonate film		(+0.2/-0.1mm) drilling template

Model	Application	Notes	
IWC 720	ventilated refrigeration unit (medium or low temperature)	2 configurable relays	
IWC 730	ventilated refrigeration unit (medium or low temperature)	3 configurable relays	
IWC 730/E TWIN	catering applications	3 configurable relays	
		can be connected to the Echo display	
IWC 740	ventilated refrigeration unit (medium or low temperature)	4 configurable relays	
		can be connected to the Televis monitoring system	
IWC 740 COMMON LINE	refrigerators for the preservation and processing of foods/	4 configurable relays	
	pastry		
IWC 750	ventilated refrigeration unit (medium or low temperature)	5 configurable relays	
		can be connected to the Televis monitoring system	
IWC 750 COMMON LINE	refrigerators for the preservation and processing of foods/	5 configurable relays	
	pastry		
IWC 750 TWIN	dual independent temperature refrigerators	5 configurable relays	
		management of dual temperature set points	



Application examples

In a catering counter, the IWC 750 TWIN controller can be set with two separate preservation temperatures, thanks to its dual integrated regulator.

Using the IWC 730/E TWIN model, temperatures can also be displayed on the front of the refrigerated cabinet, thanks to the remote Echo display.

IWC 700 series

RTX 600 /V DOMINO ZERO - RTD 600 /V DOMINO ZERO

Controllers for supermarket counters



- Specific solutions for high efficiency remote counters
- Integrated control of all refrigeration counter functions
- Energy saving with electronic valve control
- Plug-n-play LINK2 synchronisation for island and remote counters

Applications

RTX600/V and RTD600/V DOMINO are electronic controllers for high efficiency remote and multi-evaporator refrigerated cabinets with pulse electronic valve control.

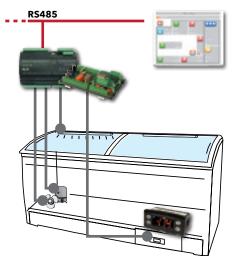
They combine optimised defrost cycle management, dewpoint-based heating and anti-condensation element modulation and cold room Set point modulation, with automatic identification of open/closed operational time bands.

Configuration has been simplified by introducing pre-set profiles for 8 separate applications that can be easily selected through the **KDEPlus** and **KDWPlus** user terminals.

Features

Power boards in plastic boxes (RTX), or mounted on DIN Rail (RTD)	AC and DC pulse electronic valve control
3 temperature probes and 3 configurable digital inputs	SMPS 100240V~ power supply
6 configurable relay outputs	

Code	Model	Application	Notes
RTZX0S1H00	RTX 600 /V DOMINO ZERO	Supermarket counters	Version in plastic box
RTZD1S1H00	RTD 600 /V DOMINO ZERO	Supermarket counters	Open version mounted on DIN bar and vertical removable
			terminals



Application examples

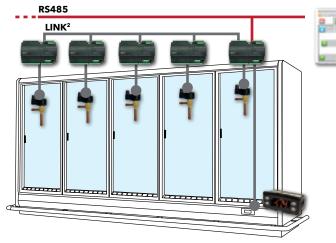
RTX600/V and RTD600/V can be used for different applications.

In a **plug-in counter**, for example, RTX600/V or RTD600/V DOMINO are used to control compressor, lights and fan connected to the monitoring system via RS-485 network.

In a **remote cabinet**, RTX600/V or RTD600/V DOMINO can be used for high efficiency control of the electronic pulse expansion valve; several instruments connected via LINK 2 network for efficient synchronisation of defrosting and lights.

The system can be monitored via RS-485 network.

RTX600/V - RTD600/V DOMINO



RTX600 - RTN600 series

Controllers for supermarket counters





- Compact (10 DIN) unit and direct load control up to 2HP.
- Compressor and fan load protection.
- Optimization of defrost (smart electrical defrost, advanced clock and temperature management)
- Quick and easy to install and configure.

Applications

Electronic controllers RTX600 and RTN600 have energy saving functions for use in supermarkets and commercial food distribution and storage applications. RTX600 and RTN600 combine optimised defrost cycle management, dewpoint-based heating and anti-condensation element modulation and cold room set point modulation, with automatic identification of open/closed operational time bands.

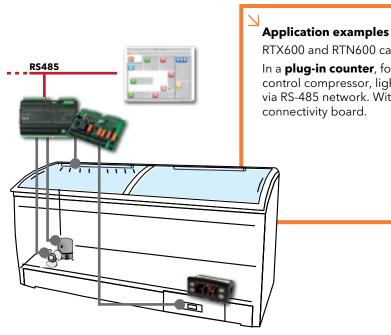
Configuration has been simplified by introducing pre-set profiles for 8 separate applications that can be easily selected through the KDEPlus and KDWPlus user

The ECPlus remote display is used to view displayed data at a distance of up to 100 m, differentiating it from the data displayed on KDEPlus and KDWPlus terminals.

Features

Power boards in plastic boxes (RTX), or bare board (RTN)	6 configurable outputs with direct control of loads up to 2HP
3 temperature probes and 3 configurable digital inputs	SMPS 100240V~ power supply

Code	Model	Application	Notes
RTX5HBM0S2H00	RTX600 5P/D/O/S/C	Supermarket counters	Version in plastic box
RTN5HBE1M2H00	RTN600 5P/D/O/S/C	Supermarket counters	Bare board for panel-mounting



RTX600 and RTN600 can be used for different applications.

In a plug-in counter, for example, RTX600 or RTN600 are used to control compressor, lights and fan connected to the monitoring system via RS-485 network. With RTN600 you need the optional RS-485

RTX600 - RTN600

RTN400 - RTN400 SM series

Controllers for plug-in supermarket counters



- Single or dual compressor control.
- Advanced electrical heater defrost.
- Evaporator fan control in Night&Day mode.
- Fixed duty cycle frame heater control.
- Pre-programmed, easy-to-select configurations.
- Adaptive control for variable speed compressors
- Availability of models compatible with flammable gases HFC and HFO, category A3 and A2L

Applications

RTN400 controller is designed for plug-in and multi-evaporator remote cabinets with thermostatic valve control.

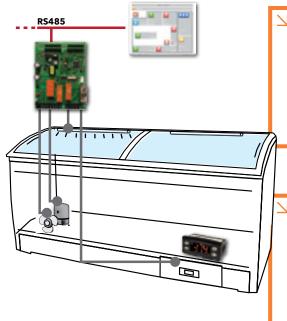
RTN400 controllers are compact and stand out for their high performance and flexibility, with energy saving algorithms and direct control of compressor and fans. RTN400 SM provides energy savings in supermarkets and commercial food distribution and storage applications; it is suitable for controlling EMBRACO VNEU and SECOP CCD variable speed compressors, exploiting their full potential through an operating parameter self-learning algorithm. It also combines optimised defrost cycle management, dewpoint-based heating and anti-condensation element modulation and cold room set point modulation, with automatic identification of open/ closed operational time bands.

RTN400 controllers can be interfaced with KDEPlus and KDWPlus keyboards and with the ECPlus display module.

Features

Power boards in compact bare box (121x92mm)	4 configurable output relays with direct control of loads up to 2HP
5 temperature probes and 1 configurable digital input	SMPS 100240V~ power supply

Model	Application	Notes
RTN400	Supermarket counters	Bare board with fast power connections, faston type
RTN400 SM	Supermarket counters with variable speed compressor	Bare board with fast power connections, faston type



Application examples

In a plug-in counter, RTN400 is used to control compressor, lights and fans connected to a monitoring system via RS-485 network (the optional board is needed for RS-485 connectivity).

RTN400

Plug-in R290 tank with variable speed compressor

RTN 400 SM can control all aspects of the application, including compressor, fans, lights and defrosting.

The innovative self-learning algorithm for control of variable speed compressors significantly reduces the time required for commissioning, ensuring maximum energy efficiency in all conditions and a longer motor life.

The advantages of this type of application are:

- Smaller compressor
- Reduced refrigerant charge
- Continuous control of cooling capacity
- Fewer compressor start-ups and consequently longer compressor

<u>RTN400 SM</u>

KD - ECPlus series user interfaces

User interfaces for RT family











- ECPlus, KDEPlus, KDWPlus: compatible with controllers in the RT series (RTX, RTD, RTN)
- KDTplus: keyboard with touch technology, compatible with controllers in the RT series (RTX, RTD, RTN)

Applications

KDEPlus and **KDWPlus** are user terminals for integral display and programming of controllers for multi-evaporator remote and plug-in refrigerated cabinets. Each power board can be connected to a single KDWPlus keyboard and, if required, to an ECPlus module for remote display.

The ECPlus remote display is used to view displayed data at a distance of up to 100 m, differentiating it from the data displayed on KDEPlus and KDWPlus terminals. **KDTPlus** keyboards, made from backlit screen-printed plexiglass, are used for all operations currently available with membrane and standard 32x74 keyboards, but with a perfectly smooth and easy to clean surface, combined with a modern design and the natural feeling of touch-sensitive keys with light and sound feedback. The special construction of the keyboards, with its glued-on installation option, offers reduced installation times, precise positioning and a protection rating of IP65. The simplicity of the KDTPlus keyboards is the result of Eliwell's experience in designing solutions for easy design and installation.

Technical data	KDTPlus STD	KDTPlus	KDEPlus	KDWPlus	ECPlus
Casing:	Polymethylmethacrylate (PMMA) front panel	Polymethylmethacrylate (PMMA) front panel	PC+ABS UL94 V-0 resin casing, polycarbonate window, thermoplastic resin keys	PC+ABS UL94 V-0 resin casing, polycarbonate window, thermoplastic resin keys	Body and window in poly- carbonate
Dimensions:	front panel 180x40mm, depth 1.5mm	front panel 87x135mm, depth 1.5mm	front panel 74x32 mm, depth 30 mm	front panel 180x37 mm, depth 23mm	front panel 48x28.6 mm, depth 15mm
Installation:	panel mounting, can be set for a distance of up to 100m, with 150x31mm drilling template	panel mounting, can be set for a distance of up to 100m, with 67x120mm drilling template	panel-mounting, with 71x29mm (+0.2/-0.1 mm) drilling template	panel-mounting, with 150x31 mm (+0.2/-0.1 mm) drilling template	panel mounting with 45.9x26.4 mm (+0.2/-0.1 mm) drilling template
Display:	3 digits+sign, 8 coloured icons colours can selected from: amber/red/blue/white 6 capacitive touch keys	3 digits+sign, 8 coloured icons colours can selected from: amber/red/blue/white 6 capacitive touch keys	with decimal point ° 3 digits + sign	with decimal point ° 3 digits + sign	with decimal point ° 3 digits + sign
Display range:			see power board	see power board	see power board
Connections:			screw terminals for low voltage connection JST for ECPlus display connection	screw terminals for low voltage connection JST for ECPlus display connection	screw terminals for low voltage connection JST for KDWPlus or KDEPlus user terminal connection
Power supply:			from power board	from power board	from power board
Power consumption:			-	-	
Ambient operating temperature:			-5+55°C	-5+55°C	-5+55°C
Ambient storage temperature:			-30+85°C	-30+85°C	-30+85°C
Ambient operation and storage humidity:			1090% RH (non-con- densing)	1090% RH (non-con- densing)	1090% RH (non-con- densing)

EWBC 800 series - KDT BC

Solutions for blast chillers









- Display with LEDs and icons and 8 self-explanatory easy-to-use capacitive touch keys (KDT BC) or integral touch colour graphic interface (TGI)
- Main blast chilling functions selectable directly from touch key
- 3-wire base-keypad connection suitable also for mounting to blast chiller doors.
- Positive/negative, timer/core probe and hard/soft chill control
- UV management (sterilisation with germicidal lamp), core probe extraction and door frame heater.
- Removable terminals and quick connections
- Device Manager configuration tool
- Controlled temperature food defrosting management (EWBC 875 only)
- Low temperature cooking management (EWBC 875 only)
- HACCP with recording of the 10 most recent events (EWBC 875 only)

Applications

Blast chillers are used for rapid cooling of hot foods from their cooking temperature to a core temperature of $+3^{\circ}$ C in less than 90 minutes, so that the product can then be stored in a freezer or refrigerator.

This treatment extends the average shelf-life of the food product, because cold inhibits the growth of bacteria (bacteria multiply more quickly between +8°C and +68°C).

The **EWBC 800** controllers, developed by Eliwell specifically for blast chillers, are designed in a split format to ensure maximum installation flexibility. EWBC 800s are used in conjunction with the **KDT BC** user interface, consisting of 8 touch capacitive keys and a LED display, and are particularly suited to stylistic customisation.

EWBC 854	EWBC 875	
121 x 92 mm	195 x 124 mm	
• Via LINK ² : with KDT BC touch keypad	• Via LINK ² : with KDT BC touch keypad	
(3-digit LED-type with 8 icons)	(3-digit LED-type with 8 icons)	
Via RS485: via TGI full touch graphic interface	Via RS485: via TGI full touch graphic interface	
3.5", 4.3" or 7"	3.5", 4.3" or 7"	
SMPS 100-240V~ ±10% 50/60Hz	SMPS 100-240V~ ±10% 50/60Hz	
4 outputs: 1x 2HP, 1x 1HP, 2x 8(4)A	6 outputs: 1 x 2HP, 2x 1HP, 3x 8(4)A	
1x Open Collector	1x Open Collector + 1x DAC	
1 x multi-function, voltage-free D.I.	3 x multi-function, voltage-free D.I.	
4x configurable NTC/PTC/PT1000/D.I.	5x configurable NTC/PTC/PT1000/D.I.	
TTL for connection to Copy Card and Unicard	TTL for connection to Copy Card and Unicard	
	121 x 92 mm • Via LINK ² : with KDT BC touch keypad (3-digit LED-type with 8 icons) • Via RS485: via TGI full touch graphic interface 3.5", 4.3" or 7" SMPS 100-240V~ ±10% 50/60Hz 4 outputs: 1x 2HP, 1x 1HP, 2x 8(4)A 1x Open Collector 1 x multi-function, voltage-free D.I. 4x configurable NTC/PTC/PT1000/D.I.	

EWBC 1400

Solutions for blast chillers





- Compact and economical controller for entry level applications, with Led display and 4 buttons
- Positive/negative, timer/core probe chill control
- UV management (sterilisation with germicidal lamp), core probe extraction and defrost on shutdown
- Removable terminals and quick connections
- Device Manager configuration tool

Applications

Blast chillers are used for rapid cooling of hot foods from their cooking temperature to a core temperature of $+3^{\circ}$ C in less than 90 minutes, so that the product can then be stored in a freezer or refrigerator.

This treatment extends the average shelf-life of food as the cold inhibits bacterial growth (bacteria multiply more quickly between +8°C and +68°C).

The **EWBC 1400** blast chiller controller consists of an open frame circuit board, designed to ensure cost-effective machine control. On request, Eliwell can supply a standard version of the external polycarbonate, which is easy to customise to individual requirements.

Technical data	EWBC 1400
Format:	95 x 105 mm
Display:	3-digit LED
Power supply:	230V~ ±15% 50/60Hz
Digital outputs:	4 configurable outputs: 4 x 5A 250V
Digital inputs:	1 x voltage-free digital input with contact closure to ground
Analogue inputs:	4 inputs:
	1 x non-configurable input set as core probe needle
	2 x configurable input, NTC 103AT / PTC KTY 83-121
	1 x configurable input, NTC 103AT / PTC KTY 83-121 / D.I.
Connections:	TTL for connection to Multi Function Key

EWBC 400

Entry level controllers for blast chillers



- Compact and economical flush-mounted controller for "entry level" applications, with LED display and 4 buttons
- Positive/negative/deep negative, timer/core probe chill control
- Availability of models compatible with flammable gases HFC and HFO, category A3 and A2L
- Removable terminals for quick connections
- Device Manager configuration tool

Applications

Blast chillers are used for rapid cooling of hot foods from their cooking temperature to a core temperature of $+3^{\circ}$ C in less than 90 minutes, so that the product can then be stored in a freezer or refrigerator.

This treatment extends the average shelf-life of food as the cold inhibits bacterial growth (bacteria multiply more quickly between $+8^{\circ}$ C and $+68^{\circ}$ C).

EWBC 400 are electronic controllers developed in 32x74 format, maximum mounting flexibility at competitive costs. With a view to increasing the product quality standards, Eliwell supplies MOCA-certified core probes on request.

Technical data	EWBC 432	EWBC 433
Module	32X74 depth 60mm.	32X74 depth 60mm.
Display	3 digits + sign, white display	3 digits + sign, white display
Power supply	230 Vac (±10%) 50/60 Hz	230 Vac (±10%) 50/60 Hz
Digital outputs	3 outputs: 2Hp, 8A,5A @250Vac	3 outputs: 2Hp, 6A,3A @250Vac
Analogue inputs	1 camera NTC probe -50110°C	1 camera NTC probe -50110°C
	1 core NTC probe -55150°C	1 core NTC probe -55150°C
		1 defrost end NTC probe -50110°C
Digital inputs	1 door switch	1 door switch with adapter CO000037
Terminals	Removable - female not included	Removable - female not included
Connectivity	1 TTL port	1 TTL port

FREE Way

Programmable platform







FREE Panel



FREE Smart





FREE Advance

FREE Studio Plus

Applications

FREE Way is the range of logic controllers developed by Eliwell, including FREE Smart, FREE Panel and FREE Advance.

FREE Studio Plus is the universal programming software for automated machinery with **Free Way** logic controllers. This software simplified each step of machine design and commissioning:

- 1 single software suite, simple and flexible for the whole **Free Way** range
- Compatible with the 5 standard programming languages (IEC 61131-3) to cover all the graphic or text-based language needs.
- Advanced debug and simulation options plus a complete and effective on-line guide.
- Tools that simplify commissioning
- Advanced communication functions including control and remote downloading
- Creation of web pages from the software

FREE Smart

Programmable platform



The **FREE Smart controller** for simple, compact applications, is one of the simplest programmable controllers on the market.

FREE Smart is available for mounting on DIN rail (model **SMD** with display, **SMC** without display) and in the Eliwell compact size 32x74, for panel mounting (SMP). Extremely versatile, with minimum installation times.

A range of SME expansion modules and terminals (SKP, SKW) is available for use with the controllers. Inputs and outputs can be configured for all types of sensors and HVAC actuators, maximising the adaptability of the unit to any system.



FREE Smart features

- User interface with configurable keys.
- Available in three formats, in 100...240V~ and 12...24V~/ 24VC versions:
 - FREE Smart SMP for panel mounting (32x74mm) with LED display
 - FREE Smart SMD 4 DIN with led display, FREE Smart SMC 4 DIN without display
- Can be connected via RS-485, Modbus RTU or via standard Eliwell peripherals and user interfaces
- Scalable solution with a wide range of start / end points: from 14 to 22 I/Os

FREE Panel

Programmable platform







The **FREE Panel** range includes controllers that, in a single device, have a programmable graphic interface and a programmable controller with connectivity, for remote connection and management of the distributed control.

FREE Panel Evolution (EVP) is the solution with LCD display that can be used as a system controller, with gateway functions, used in association with the other FREE Way controllers or third-party controllers, and I/O expansions via CAN expansion bus.

FREE Panel Advance (AVP) is a coloured, high-performing programmable touchscreen interface with an attractive design.

Available for wall and panel mounting, it is suited to any kind of application.

The version for wall mounting includes a temperature sensor, temperature and humidity sensor or temperature, humidity and presence sensor, while the panel-mounting version is available in grey or white.

Both series include a Modbus SL RS485 port that can be configured as Master or Slave.



FREE Panel features

FREE Smart - FREE Panel

- FREE Panel EVP system controller, with gateway functions and backlit LCD graphic display, for panel or wall mounting
- FREE Panel AVP zone controller with backlit colour graphic touch display, for wall or panel mounting, with built-in temperature, humidity and presence sensors
- High connectivity: can be integrated in industrial systems and micro BMS
- Connects to standard Eliwell and third-party peripheral devices

FREE Advance

Programmable platform



The **FREE Advance** controller for connected or connectable machines of any size, is the top of the programmable controller range, designed to manage more demanding applications. Available for mounting on DIN rail, it is fully scalable, with different formats and a wide range of I/O expansion modules.

FREE Advance is equipped with two RS485 ports for Modbus SL (master or slave) or BACnet MS/TP (B-AAC profile, certified BTL).

Inputs and outputs are fully configurable for any type of HVAC sensor ((0-10V, 4-20mA, 0-20mA, NTC, PTC, PT1000...) and actuators to maximise the adaptability of the unit to any system.

7

FREE Advance features

- Fully customizable graphic user interface
- Available in the 4 DIN and 8 DIN formats FREE Advance AVD with backlit graphic LCD and FREE Advance AVC without display
- · Superior connectivity as standard for integration in industrial systems and BMS without optional modules
- Scalable solution with a wide range of start / end points: from 7 to 42 I/Os
- Can be connected with standard Eliwell peripherals (including FREE Smart) to any network, including Modbus SL, BACnet MS/TP, Modbus TCP, BACnet IP or LonWorks.
- · A slot for a micro SD memory card, can be used to record data or for storage on the Webserver
- USB programming ports:
 - Type A USB port used to transfer programmes with a USB key.
 - Type B port used to connect to a PC for programming

Secure Interface

Programmable platform



Secure Interface is an Edge device in the Free Way family, used to enable IoT connectivity in an efficient, intuitive and competitive cybersafe mode.

Secure Interface not only connects to FREE Way PLCs, but also to any device equipped with Modbus bus on RS485, collecting data and transferring it to the Cloud, where specific applications analyse the data and enable predictive maintenance. It is also equipped with a client to open a VPN for immediate and safe remote access to the machine. All protocols in the Secure Interface are in cybersafe version. It can be used as a simple Modbus gateway or for more complex connectivity operations, with different programming levels.



Secure Interface features

- Linux embedded PC, extremely compact (72 x 110 x 60 mm)
- Two Ethernet ports with switch function
- Programmable using the software Free Studio based on the standard IEC 61131
- Configurable via web-app
- Protocols: HTTPs, FTPs, SMTPs, MQTT, SNMP, Modbus TCP/IP and RTU
- Slot for micro SD card, can be used to record data or for storage on the Webserver
- USB programming ports:
 - Type A USB port used to transfer programmes with a USB key.
 - Type B port used to connect to a PC for programming

APPENDIX

Temperature Probe Tables Appendix

NTC probe table

NTC probe table					
Ambient temperature	Resistance (kOhm)				
(°C)	103AT				
-50	329.50				
-45	247.70				
-40	188.50				
-35	144.10				
-30	111.30				
-25	86.43				
-20	47.77				
-15	53.41				
-10	42.47				
-5	33.90				
0	27.28				
5	22.05				
10	17.96				
15	14.69				
20	12.09				
25	10.00				
30	8.313				
35	6.940				
40	5.827				
45	4.911				
50	4.160				
55	3.536				
60	3.020				
65	2.588				
70	2.228				
75	1.924				
80	1.668				
85	1.451				
90	1.266				
95	1.108				
100	0.9731				
105	0.8572				
110	0.7576				

NTC probe table - Extended range

MIC Plobe table - I	-xtellueu lalige	-					
Ambient temperature	Resistance (kOhm)						
(°C)	Minimum	Standard	Maximum				
-40	321.654	333.562	345.877				
-35	233.032	241.072	249.364				
-30	170.611	176.082	181.710				
-25	126.176	129.925	133.773				
-20	94.221	96.807	99454				
-15	71.015	72.809	74.640				
-10	54.004	55.253	56.525				
-5	41.419	42.292	43.179				
0	32.028	32.640	33260				
5	24.962	25.391	25.824				
10	19.601	19.902	20.205				
15	15.504	15.713	15.924				
20	12.348	12.493	12.639				
25	9.900	10.000	10.100				
30	7.962	8.055	8.150				
35	6.444	6.530	6.616				
40	5.247	5.325	5.403				
45	4.296	4.367	4.438				
50	3.537	3.601	3.665				
55	2.928	2.985	3.042				
60	2.436	2.487	2.538				
65	2.037	2.082	2.127				
70	1.711	1.751	1.792				
75	1.444	1.480	1.516				
80	1.224	1.256	1.288				
85	1.042	1.070	1.099				
90	0.890	0.916	0.941				
95	0.764	0.786	0.810				
100	0.658	0.678	0.699				
105	0.569	0.587	0.605				
110	0.493	0.510	0.526				
115	0.429	0.444	0.459				
120	0.375	0.388	0.402				
125	0.328	0.340	0.353				
130	0.289	0.299	0.310				
135	0.254	0.264	0.274				
140	0.224	0.234	0.243				
145	0.199	0.207	0.215				
150	0.177	0.184	0.192				

r IC pro	be table					
Ambie	nt temperature	Temperature coefficient	KTY81-121 / H	CTY82-121		
°C)	(°F)	(%/K)	Resistance (Ohr Minimum	n) Standard	Maximum	Error - temperature
-55	-67	0.99	471	485	500	±3.02
-50	-58	0.98	495	510	524	±2.92
-40	-40	0.96	547	562	576	±2.74
-30	-22	0.93	603	617	632	±2.55
-20	-4	0.91	662	677	691	±2.35
-10	14	0.88	726	740	754	±2.14
0	32	0.85	794	807	820	±1.91
10	50	0.83	865	877	889	±1.67
20	68	0.80	941	951	962	±1.41
25	77	0.79	980	990	1000	±1.27
30	86	0.78	1018	1029	1041	±1.39
40	104	0.75	1097	1111	1125	±1.64
50	122	0.73	1180	1196	1213	±1.91
60	140	0.71	1266	1286	1305	±2.19
70	158	0.69	1355	1378	1402	±2.49
80	176	0.67	1447	1475	1502	±2.80
90	194	0.65	1543	1575	1607	±3.12
100	212	0.63	1642	1679	1716	±3.46
110	230	0.61	1745	1786	1828	±3.83
120	248	0.58	1849	1896	1943	±4.33
125	257	0.55	1900	1950	2000	±4.66
130	266	0.52	1950	2003	2056	±5.07
140	284	0.45	2044	2103	1462	±6.28
150	302	0.35	2124	2189	2254	±8.55

Temperature Probe Tables Appendix

Pt100 probe table

Ambient	Resistance								
temperature	resistance								
(°C)	(Ohm)								
-200	18.52	20	107.79	230	186.84	440	260.78	650	329.64
-190	22.83	30	111.67	240	190.47	450	264.18	660	332.79
-180	27.10	40	115.54	250	194.10	460	267.56	670	335.93
-170	31.34	50	119.40	260	197.71	470	270.93	680	339.06
-160	35.54	60	123.24	270	201.31	480	274.29	690	342.18
-150	39.72	70	127.08	280	204.90	490	277.64	700	345.28
-140	43.88	80	130.90	290	208.48	500	280.98	710	348.38
-130	48.00	90	134.71	300	212.05	510	284.30	720	351.46
-120	52.11	100	138.51	310	215.61	520	287.62	730	354.53
-110	56.19	110	142.29	320	219.15	530	290.92	740	357.59
-100	60.26	120	146.07	330	222.68	540	294.21	750	360.64
-90	64.30	130	149.83	340	226.21	550	297.49	760	353.67
-80	68.33	140	153.58	350	229.72	560	300.75	770	366.70
-70	72.33	150	157.33	360	233.21	570	304.01	780	369.71
-60	76.33	160	161.05	370	236.70	580	307.25	790	372.71
-50	80.31	170	164.77	380	240.18	590	310.49	800	375.70
-40	84.27	180	168.48	390	243.64	600	313.71	810	378.68
-30	88.22	190	172.17	400	247.09	610	316.92	820	381.65
-20	92.16	200	175.86	410	250.53	620	320.12	830	384.60
-10	96.09	210	179.53	420	253.96	630	323.30	840	387.55
0	100.00	220	183.19	430	257.38	640	326.48	850	390.48
10	103.90								

Pt1000 probe table

Pt 1000 probe table									
Ambient temperature	Resistance								
(°C)	(Ohm)								
-200	185.281	20	1077.936	230	1868.465	440	2608.235	650	3297.246
-190	228.327	30	1116.731	240	1904.843	450	2642.196	660	3328.790
-180	271.029	40	1155.411	250	1941.106	460	2676.042	670	3360.219
-170	313.408	50	1193.976	260	1977.254	470	2709.773	680	3391.533
-160	355.484	60	1232.426	270	2013.287	480	2743.389	690	3422.731
-150	397.277	70	1270.961	280	2049.205	490	2776.889	700	3453.815
-140	432.903	80	1308.981	290	2085.007	500	2810.275	710	3484.783
-130	480.081	90	1347.085	300	2120.695	510	2843.545	720	3515.637
-120	521.127	100	1385.075	310	2156.267	520	2876.701	730	3546.375
-110	561.954	110	1422.949	320	2191.725	530	2909.741	740	3576.998
-100	602.578	120	1460.709	330	2227.067	540	2942.666	750	3607.506
-90	643.012	130	1498.353	340	2262.294	550	2975.476	760	3637.899
-80	683.267	140	1535.882	350	2297.406	560	3008.171	770	3668.177
-70	723.355	150	1573.296	360	2332.403	570	3040.751	780	3698.340
-60	763.286	160	1610.595	370	2367.285	580	3073.216	790	3728.387
-50	903.068	170	1647.779	380	2402.052	590	3105.565	800	3758.320
-40	842.71	180	1684.848	390	2436.703	600	3137.800	810	3788.137
-30	882.218	190	1721.801	400	2471.240	610	3169.919	820	3917.840
-20	921.6	200	1758.640	410	2505.661	620	3201.924	830	3847.427
-10	960.859	210	1795.363	420	2539.968	630	3233.813	840	3876.899
0	1000	220	1831.972	430	2574.159	640	3265.587	850	3906.256
10	1039.025								

Temperature Probe Tables Appendix

TCJ probe table

Temp.	0°C	-10°C	-20°C	-30°C	-40°C	-50°C	-60°C	-70°C	-80°C	-90°C
-200°C	-7.890	-8.095	-	-	-	-	-	-	-	-
-100°C	-4.633	-5.037	-5.426	-5.801	-6.159	-6.500	-6.821	-7.123	-7.403	-7.659
0°C	0.000	-0.501	-0.995	-1.482	-1.961	-2.431	-2.893	-3.344	-3.786	-4.215
	10°C	20°C	30°C	40°C	50°C	60°C	70°C	80°C	90°C	100°C
0°C	0.000	0.507	1.019	1.537	2.059	2.585	3.116	3.650	4.187	4.726
100°C	5.269	5.814	6.360	6.909	7.459	8.010	8.562	9.115	9.669	10.224
200°C	10.779	11.334	11.889	12.445	13.000	13.555	14.110	14.665	15.219	15.773
300°C	16.327	16.881	17.434	17.986	18.538	19.090	19.642	20.194	20.745	21.297
400°C	21.848	222.400	22.952	23.504	24.059	243610	24.164	25.720	26.276	26.834
500°C	27.393	27.953	28.516	29.080	29.647	30.216	30.788	31.362	31.939	32.519
600°C	33.102	33.689	34.279	34.873	35.470	36.071	36.675	37.284	37.896	38.512
700°C	39.132	39.755	40.382	41.012	41.645	42.281	42.919	43.559	44.203	44.848
800°C	45.494	46.141	46.786	47.431	48.074	48.715	49.353	49.989	50.622	51.251
900°C	51.877	52.500	53.119	53.735	54.347	54.956	55.561	56.164	56.763	57.360
1000°C	57.953	58.545	59.134	59.721	60.307	60.890	61.473	62.054	62.634	63.214
1100°C	63.792	64.370	64.948	65.525	66.102	66.679	67.255	67.831	68.406	68.980
1200°C	69.553	-	-	-	-	-	-	-	-	-

TCK probe table

ICK PIOD	e table									
Temp.	0°C	-10°C	-20°C	-30°C	-40°C	-50°C	-60°C	-70°C	-80°C	-90°C
-200°C	-5.730	-6.035	-6.158	-6.262	-6.344	-6.404	-6.441	-6.458	-	-
-100°C	-3.554	-3.852	-4.138	-4.411	-4.669	-4.913	-5.141	-5.354	-5.550	-5.730
0°C	0.000	-0.392	-0.778	-1.156	-1.527	-1.889	-2.243	-2.587	-2.920	-3.243
	10°C	20°C	30°C	40°C	50°C	60°C	70°C	80°C	90°C	100°C
0°C	0.000	0.397	0.798	1.203	1.612	2.023	2.436	2.851	3.267	3.682
100°C	4.096	4.509	4.920	5.328	5.735	6.138	6.540	6.941	7.340	7.739
200°C	8.138	8.539	8.940	9.343	9.747	10.153	10.561	10.971	11.382	11.795
300°C	12.209	12.624	13.040	13.457	13.874	14.1293	14.713	15.133	15.554	15.975
400°C	16.397	16.820	17.243	17.667	18.091	18.516	18.941	19.366	19.792	20.218
500°C	20.644	21.071	21.497	21.924	22.350	22.776	23.203	23.629	24.055	24.480
600°C	24.905	25.330	25.755	26.179	26.602	27.025	27.447	27.869	28.289	28.710
700°C	29.129	29.548	29.965	30.382	30.798	31.213	31.628	32.041	32.453	32.865
800°C	33.275	33.685	34.093	34.501	34.908	35.313	35.718	36.121	36.524	36.925
900°C	37.326	37.725	38.124	38.522	38.918	39.314	39.708	10.101	40.490	40.885
1000°C	41.276	41.665	42.053	42.440	42.826	43.211	43.595	43.978	44.359	44.740
1100°C	45.119	45.497	45.873	46.249	26.623	46.995	47.367	47.737	48.105	48.473
1200°C	48.838	49.202	49.565	49.926	50.286	50.644	51.000	51.355	51.708	52.060
1300°C	52.410	52.759	53.106	53.451	53.795	54.138	54.479	54.819	-	-

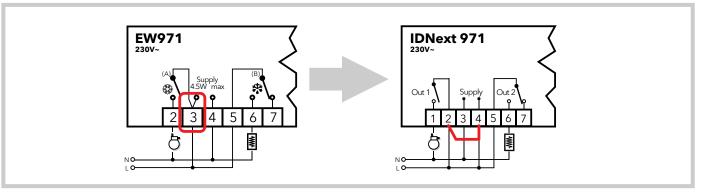
IDNext vs IDPlus, EW and ID, ICPlus vs IC compatibility

Compatibility tables

IDNext models	IDPlus models	IC - ID	EWPC - EWTC - EWPX	EW - EWPlus*	EWNext
IDNext 902 Output: 10A SPDT	IDPlus 902 Output: 8A SPDT	IC 901 IC 902 ID 961 ID 961LX	EWPC 901 EWPC 902 EWPC 961 EWTC 101 EWPX 161	EW 902 EWPlus 902	-
IDNext 961 Output: 2Hp SPST	IDPlus 961 Output: 2Hp SPST	IC 901 IC 902 ID 961 ID 961LX	EWPC 901 EWPC 902 EWPC 961 EWTC 101 EWPX 161	EW 961 EWPlus 961	EWNext 961
IDNext 971 Outputs: 2Hp + 8A	IDPlus 971 Outputs: 2Hp + 8A	ID 961/A ID 970 ID 970LX ID 971LX	EWPC 970 EWPC 971 EWPX 161AR EWPX 170 EWPX 171	EW 971 EWPlus 971	EWNext 971
IDNext 974 Outputs: 2Hp + 8A + 5A	IDPlus 974 Outputs: 2Hp + 8A + 5A	ID 974 ID 974 LX	EWPC 974 EWPX 174	EW 974 EWPlus 974	EWNext 974
IDNext 978 Outputs: 1.5Hp + 8A + 5A (2x)	IDPlus 978 Outputs: 1.5Hp + 8A + 5A (2x)	ID 975LX ID 983 ID 985 ID 983LX (no C/K/S) ID 985LX (no C/K/S)	EWPX 174AR EWPX 174AX EWPX 185 EWPX 190	EWPlus 978	EWNext 978

ICPlus models	IC	EWPC - EWTC
ICPlus 902/A	IC 901/A	-
ICPlus 902	IC 901 IC 902 IC 912 (no LX) IC 912LX V/I	EWPC 901 EWPC 902 EWTC 101
ICPlus 915	IC 912LX (no V/I) IC 915 IC 915I X	EWPC 905

*NB - Controllers in the series for OEM EW / EWPlus include a connection between power supply and loads that is not found in the IDNext series. IT IS therefore necessary to jumper the load line and the controller power supply, see example below:



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The type approval marks associated with each individual instrument are present on specific part numbers only. Check details and availability with sales office.





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