

LKD

Detection and indication of refrigerant leaks



MANAGEMENT AND MONITORING

- Early indication of refrigerant gas leaks
- Available for: CO₂, R134a, R404a, NH₃, R290 and R600a
- Connection with Televis systems for monitoring and remote signalling.



DESCRIPTION

The state-of-the-art **LKD** series gas sensors can detect a wide range of gases. Models available:

- **SC**: with semiconductor
- **IR**: with infrared technology

The detected gas / model correspondence is:

- **SC**: R134a/R404a/NH3/R290/R600a
- **IR**: CO₂

One of the most important features of LKD series gas sensors is that they can be used:

- alone (they have a relay-activated digital output that can control a buzzer, siren, etc.)
- built into an Eliwell or third-party remote management system, thanks to an integrated RS485

The main applications are as follows:

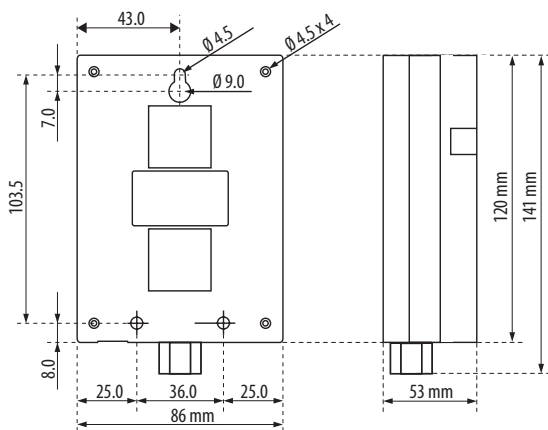
- LT or NT cold rooms
- Refrigerated cabinets
- Compressor rooms

Detection of an excessive concentration of gas (above the factory-set limit) results in the transmission of an alarm signal to the supervisor (if connected to the network) and the activation of an on-site acoustic and visual signal.

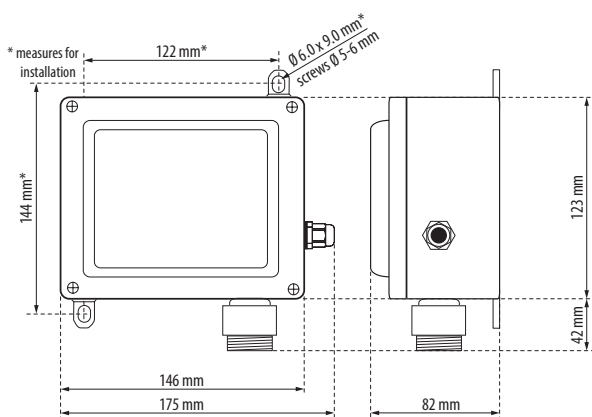
TECHNICAL DATA

IP rating:	<ul style="list-style-type: none"> • IP41 (used for NT applications) • IP66 (used for LT applications)
Dimensions/Weight:	<ul style="list-style-type: none"> • IP41: 86x142x53 mm - 180 g • IP66: 175x165x82 mm - 629 g
Power supply:	12-24 V $\overline{\text{=}}$ /~ \pm 20% 50/60 Hz
Consumption (at 12 V):	SC : 153 mA - IR : 136 mA
Analogue outputs:	0-5 V, 1-5 V, 0-10 V, 2-10 V, 4-20 mA
Digital outputs:	1 1A - 24 V $\overline{\text{=}}$ relay Settable delay: 0, 1, 5, 10 minutes
Connections:	1 RS485 for connection to supervisor Modbus (depending on model)
Measurement range:	SC : 10-1,000 ppm - IR : ppm - %
Temperature range:	IP41 : -20...+50°C - IP66 : -40...+50°C
Humidity range:	0...95% (non-condensing)
Sensor service life:	SC : 5-8 years - IR : 8-10 years
T50 alarm threshold:	SC : 76 sec (filtered) - IR : 25 sec
T90 alarm threshold:	SC : 215 sec (filtered) - IR : 90 sec
Recovery time:	SC : 600 sec - IR : 210 sec
On-site alarm:	light (red LED) / acoustic (buzzer)

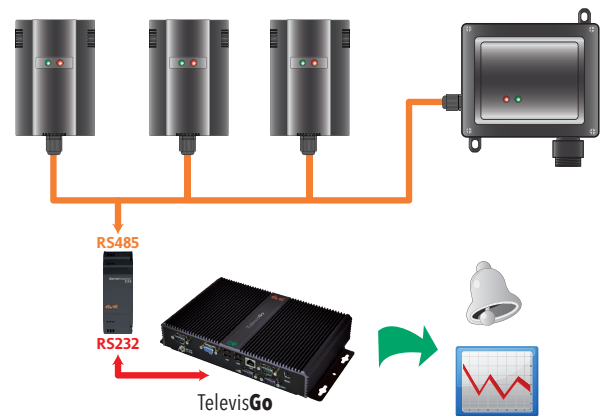
IP41 MODEL INSTALLATION



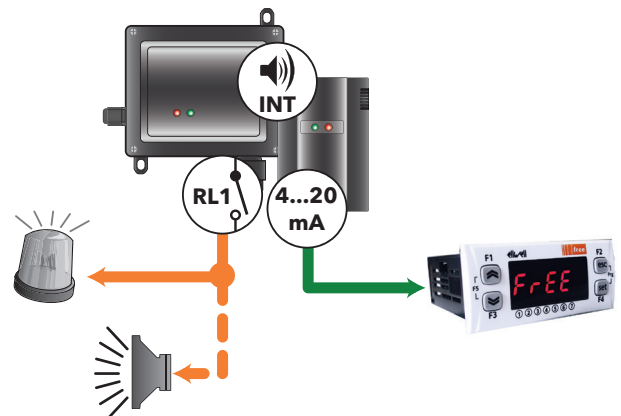
IP66 MODEL INSTALLATION



RS485 NETWORK APPLICATION EXAMPLE



SENSOR ONLY APPLICATION EXAMPLE



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