

DESCRIPTION

Remote sensor module for connection to DT6 Digital Gas Transmitter. Available with any SC2-Series toxic or combustible gas sensor module.

Compliant with Safety Integrity Level 2 (SIL 2) and rigorous international standard EN 50545-1 for parking garages and tunnels, DT6-Series sensors utilize advanced self-diagnostics and flexible ventilation control functions to ensure maximum human safety without compromising energy efficiency.

Advanced, microprocessor-based X-Change sensor modules meet or exceed the EN 50545-1 self-diagnostic standards including notifying the controller when calibration is due. Although field calibration is possible, X-Change technology allows fast and cost-effective sensor module swaps minimizing field service time, eliminating system downtime and ensuring peak system performance for many years.

APPLICATION

DT6/DR6 transmitters in combination with DGC6 Digital Gas Controllers provide scalable solutions for monitoring and controlling toxic and/or combustible gas levels. DT6-CO (single gas) and DT6-CO-NO2 (dual gas) transmitters are economical electrochemical sensors ideally suited to parking garage, vehicle maintenance shops, package sorting and distribution facilities and tunnel applications. Methane monitoring is an economical addition with the DR6-COMB digital remote module.

FEATURES

- Economical solution for monitoring additional gas concentration when appropriate mounting height is different than the nearest DT6 sensor/transmitter.
- X-Change toxic and combustible gas sensor modules for reliable operation and easy maintenance
- Mounts up to 16 feet (5 m) from DT6
- Digital measurement processing with temperature compensation
- Internal diagnostics including integrated hardware watchdog
- High-impact NEMA 4X (IP65) enclosure
- Hardware & software conforms to SIL 2 standard

PolyGard®2 DR6



- EMC Directive 2014/30/EU
- CE
- EN 50271
- EN 61010-1:2010
- ANSI/UL 61010-1
- CAN/CSA-C22.2 No. 61010-1
- City of Los Angeles Approved

SPECIFICATIONS

Electrical

Power consumption 24 VDC

- base 0 mA

- sensor *See SC2 datasheet*

Sensors* SC2 Series;

**Incompatible with infrared sensors*

- performance *See SC2 datasheet for specific gases*

- coverage *See SC2 datasheet for specific gases*

Storage time 6 months (for sensor elements)

Environmental

Permissible ambient *See SC2 datasheet for specific gases*

Physical

Enclosure "A", standard

- material Polycarbonate,
UL 94-HB, fire retardant

- conforms to UL 50

- color Light gray

- protection NEMA 4X (IP65)

- installation Wall (surface) mounted, or
single gang electrical box

Dimensions (H x W x D) 5.12 x 3.70 x 2.25 in.

(130 x 94 x 57 mm)

Cable entry, knock out 1 hole (short side) for 1/2 in.

conduit, closed w/screwed "plug"

Wire connection

- field bus Screw-type terminal;
24 AWG (0.25 mm²), min.
14 AWG (2.5 mm²), max.

- local bus for SC 3-pin connector

Cable lengths local bus for

Remote Sensor Board 16.4 ft (5 m), max.

Weight 0.7 lb (0.3 kg)

Conforms to EMC Directive 2014/30/EU

CE

EN 50271

EN 61010-1:2010

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City of Los Angeles

Warranty

Two years material and
workmanship,
12 months normal exposure for
sensor element

ACCESSORIES

Duct Mounting Kit

- flow rate

- air duct diameter

- length of sampling tube

- hose length

Calibration Kits

- carbon monoxide

- nitrogen dioxide

- combustible gases

PG2-DUCTKIT

Min. 3.1 mph (5000 m/h),
max. 12.4 mph (20,000 m/h)

Min. 3.94 in. (0.1 m),
max. 39.37 in. (1.0 m)

9.84 in. (250 mm), adaptable
2 x 39.37 in. (1000 mm)

CALKIT-PG2-CO

Calibration Kit includes:

Sensor calibration adapter
w/ tube and cup, 150 mL/min
regulator, 17 L 200 ppm carbon
monoxide gas bottle,
17 L 99.99% nitrogen gas bottle,
carrying case

CALKIT-PG2-NO2

Calibration Kit includes:

Sensor calibration adapter
w/ tube and cup, 500 mL/min
regulator, 58 L 5 ppm nitrogen
dioxide gas bottle, 58 L 99.99%
nitrogen gas bottle, carrying case

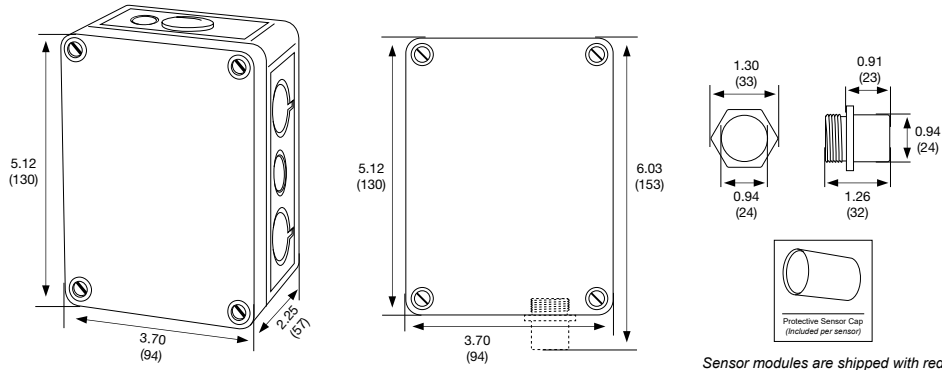
CALKIT-PG2-COMB

Calibration Kit includes:

Sensor calibration adapter
w/ tube and cup, 150 mL/min
regulator, 17 L 2.5% methane gas
bottle, 17 L 99.99% nitrogen gas
bottle, carrying case

DIMENSIONS

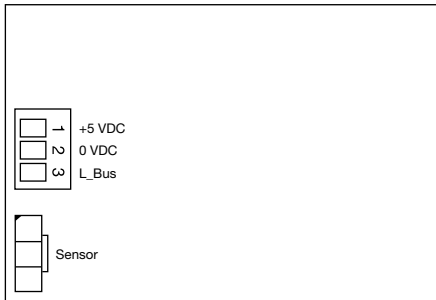
inches (mm)



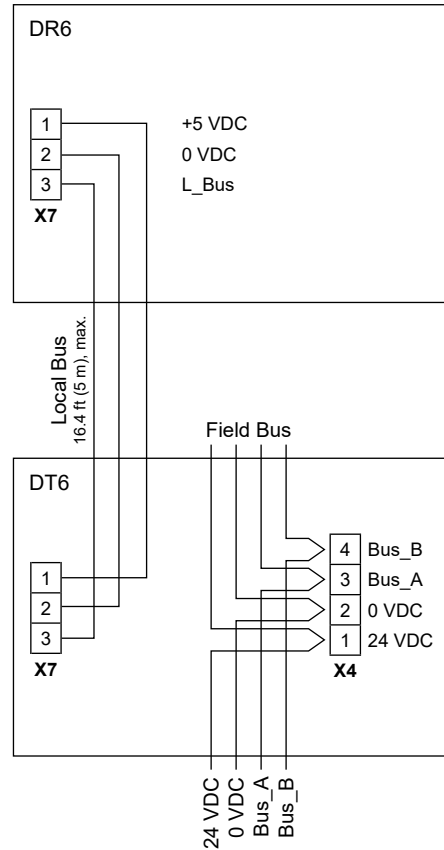
Sensor modules are shipped with red protective cap. Remove cap to place sensor into service. Re-install cap to protect sensor from construction dust, power-washing or other excessive dirt/moisture.

WIRING CONFIGURATION

DR6 Sensor Board



DR6 piggybacking a DT6 transmitter module



ORDERING INFORMATION

PART NUMBER	DESCRIPTION
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BUNDLED SENSORS AND CONTROLS

DR6-P3400-A	DR6, (1) 0-100% LEL CH ₄ Sensor
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SENSOR PLATFORM

DR6-01	DR6, connects to DT6, (1) sensor input capable; includes "A" enclosure; sensor cartridges ordered separately
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SC2 Sensor Cartridges available separately.
See SC2 datasheet for specifications.

The DR6 accepts (1) SC2 Sensor Cartridge.

The DR6's chosen sensor module cannot be an identical part number to ones that already exists on the connected DT6 transmitter.

Incompatible with SC2 infrared sensors.

Gas Sensor & Range				
#	TOXIC GASES AND OXYGEN			Mounting Height (ft)
E1110-E	Carbon Monoxide	CO	0-250 ppm	5-6
E1110-F	Carbon Monoxide	CO	0-300 ppm	5-6
E1130-A	Nitrogen Dioxide	NO ₂	0-10 ppm	5-6
E1130-B	Nitrogen Dioxide	NO ₂	0-20 ppm	5-6
E1130-C	Nitrogen Dioxide	NO ₂	0-30 ppm	5-6
E1130-D	Nitrogen Dioxide	NO ₂	0-500 ppm	5-6
E1125-C	Ammonia	NH ₃	0-300 ppm	Ceiling
E1125-D	Ammonia	NH ₃	0-1000 ppm	Ceiling
E1193-C	Chlorine	Cl ₂	0-10 ppm	Floor
E1183-C	Hydrogen Cyanide	HCN	0-100 ppm	Ceiling
E1189-C	Ethylene	C ₂ H ₄	0-200 ppm	5-6
E1185-B	Formaldehyde	CH ₂ O	0-10 ppm	Floor
E1190-A	Ozone	O ₃	0-5 ppm	Floor
E1196-B	Sulfur Dioxide	SO ₂	0-20 ppm	Floor
E1197-A	Hydrogen Sulfide	H ₂ S	0-50 ppm	Floor
E1195-A	Oxygen	O ₂	0-25 Vol%	5-6

#	COMBUSTIBLE GASES			Mounting Height (ft)
P3485-A	Acetone	C ₃ H ₆ O	0-100% LEL	Floor
P3408-A	Ammonia	NH ₃	0-100% LEL	Ceiling
P3496-A	Gasoline Vapors	-	0-100% LEL	-
P3460-A	Butane	C ₄ H ₁₀	0-100% LEL	Floor
P3472-A	Cyclopentane	C ₅ H ₁₀	0-100% LEL	Floor
P3427-A	Ethyl Acetate	C ₄ H ₈ O ₂	0-100% LEL	Floor
P3425-A	Ethyl Alcohol	C ₂ H ₅ OH	0-100% LEL	Floor
P3410-A	Ethylene	C ₂ H ₄	0-100% LEL	Ceiling
P3491-A	Heptane	C ₇ H ₁₆	0-100% LEL	Floor
P3435-A	Hexane	C ₆ H ₁₄	0-100% LEL	Floor
P3476-A	Isopentane	C ₅ H ₁₂	0-100% LEL	Floor
P3482-A	Isopropyl Alcohol	C ₃ H ₈ O	0-100% LEL	Floor
P3498-A	JP8	-	0-100% LEL	-
P3402-A	LPG	-	0-100% LEL	-
P3400-A	Methane	CH ₄	0-100% LEL	Ceiling
P3450-A	Methanol	CH ₃ OH	0-100% LEL	Floor
P3458-A	Methyl Ethyl Ketone	C ₄ H ₈ O	0-100% LEL	Floor
P3475-A	Pentane	C ₅ H ₁₂	0-100% LEL	Floor
P3480-A	Propane	C ₃ H ₈	0-100% LEL	Floor
P3480-C	Propane	C ₃ H ₈	0-5000 ppm	Floor
P3484-A	Propyl Alcohol	C ₃ H ₈ O	0-100% LEL	Floor
P3490-A	Toluene	C ₇ H ₈	0-100% LEL	Floor
P3440-A	Hydrogen	H ₂	0-100% LEL	Ceiling

ACCESSORIES

PG2-DUCTKIT	(1) Duct mounting kit for SC2 / AT6 sensor
CALKIT-PG2-CO	Carbon monoxide calibration kit for SC2 / AT6 sensors
CALKIT-PG2-NO2	Nitrogen dioxide calibration kit for SC2 / AT6 sensors
CALKIT-PG2-COMB	Combustible calibration kit for SC2 / AT6 sensors