

## 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 mm<sup>2</sup>), min.  
14 AWG (2.5 mm<sup>2</sup>), 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

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### 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

- combustible gases

- nitrogen dioxide

- carbon monoxide  
& nitrogen dioxide

### 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

Sensor calibration adapter  
w/ tube and cup, 500 mL/min.  
regulator, 17L 200 ppm carbon  
monoxide, 17L 99.99% nitrogen,  
carrying case

### CALKIT-PG2-COMB

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

### CALKIT-PG2-NO2

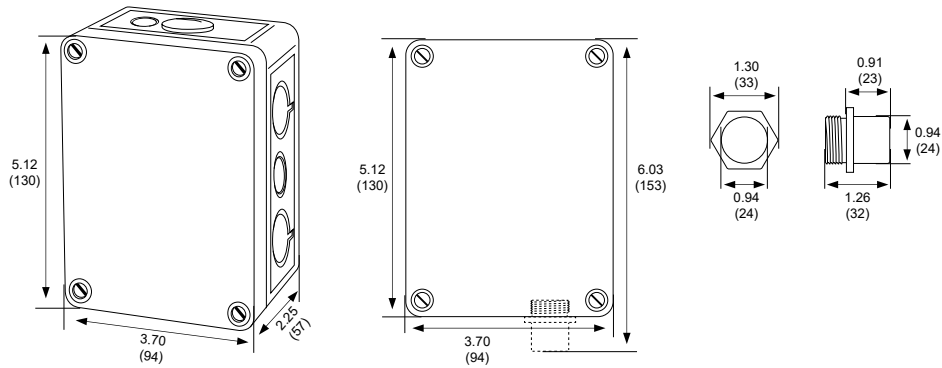
Sensor calibration adapter  
w/ tube and cup, 500 mL/min.  
regulator (stainless steel),  
70L 10 ppm nitrogen dioxide,  
70L 99.99% nitrogen,  
carrying case

### CALKIT-PG2-CO-NO2

Sensor calibration adapter  
w/ tube and cup, 500 mL/min.  
regulator (for CO), 500 mL/  
min. regulator (stainless steel,  
for NO2), 17L 200 ppm carbon  
monoxide, 70L 99.99% nitrogen,  
70L 10 ppm nitrogen dioxide,  
and (2) carrying cases

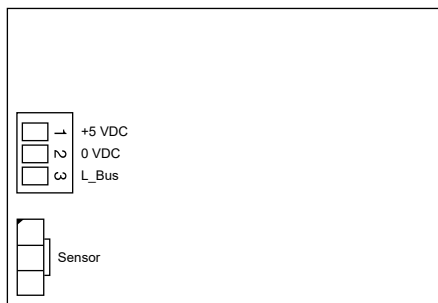
**DIMENSIONS**

inches (mm)

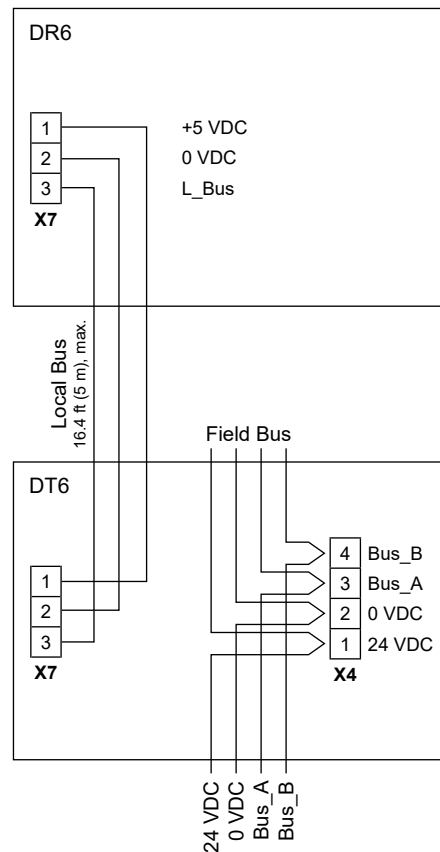


**WIRING CONFIGURATION**

DR6 Sensor Board



DR6 piggybacking a DT6 transmitter module



ORDERING INFORMATION	
PART NUMBER	DESCRIPTION
<b>BUNDLED SENSORS AND CONTROLS</b>	
<b>DR6-P3400-A</b>	DR6, (1) 0-100% LEL CH4 sensor
<b>SENSOR PLATFORM</b>	
<b>DR6-01</b>	DR6, <i>connects to DT6</i> , (1) sensor input capable; includes "A" enclosure; sensor cartridges ordered separately

**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	NO2	0-10 ppm	5-6
E1130-B	Nitrogen Dioxide	NO2	0-20 ppm	5-6
E1130-C	Nitrogen Dioxide	NO2	0-30 ppm	5-6
E1130-D	Nitrogen Dioxide	NO2	0-500 ppm	5-6
E1125-C	Ammonia	NH3	0-300 ppm	Ceiling
E1125-D	Ammonia	NH3	0-1000 ppm	Ceiling
E1193-C	Chlorine	Cl2	0-10 ppm	Floor
E1183-C	Hydrogen Cyanide	HCN	0-100 ppm	Ceiling
E1189-C	Ethylene	C2H4	0-200 ppm	5-6
E1185-B	Formaldehyde	CH2O	0-10 ppm	Floor
E1190-A	Ozone	O3	0-5 ppm	Floor
E1195-A	Oxygen	O2	0-25 Vol%	5-6
E1196-B	Sulfur Dioxide	SO2	0-20 ppm	Floor
E1197-A	Hydrogen Sulfide	H2S	0-50 ppm	Floor
#	COMBUSTIBLE GASES			Mounting Height (ft)
P3485-A	Acetone	C3H6O	0-100% LEL	Floor
P3408-A	Ammonia	NH3	0-100% LEL	Ceiling
P3496-A	Gasoline Vapors	-	0-100% LEL	-
P3460-A	Butane	C4H10	0-100% LEL	Floor
P3472-A	Cyclopentane	C5H10	0-100% LEL	Floor
P3427-A	Ethyl Acetate	C4H8O2	0-100% LEL	Floor
P3425-A	Ethyl Alcohol	C2H5OH	0-100% LEL	Floor
P3410-A	Ethylene	C2H4	0-100% LEL	Ceiling
P3491-A	Heptane	C7H16	0-100% LEL	Floor
P3435-A	Hexane	C6H14	0-100% LEL	Floor
P3476-A	Isopentane	C5H12	0-100% LEL	Floor
P3482-A	Isopropyl Alcohol	C3H8O	0-100% LEL	Floor
P3402-A	LPG	-	0-100% LEL	-
P3400-A	Methane	CH4	0-100% LEL	Ceiling
P3450-A	Methanol	CH3OH	0-100% LEL	Floor
P3458-A	Methyl Ethyl Ketone	C4H8O	0-100% LEL	Floor
P3475-A	Pentane	C5H12	0-100% LEL	Floor
P3480-A	Propane	C3H8	0-100% LEL	Floor
P3480-C	Propane	C3H8	0-5000 ppm	Floor
P3484-A	Propyl Alcohol	C3H8O	0-100% LEL	Floor
P3490-A	Toluene	C7H8	0-100% LEL	Floor
P3440-A	Hydrogen	H2	0-100% LEL	Ceiling

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