detcon inc.

ISO 9001: 2008
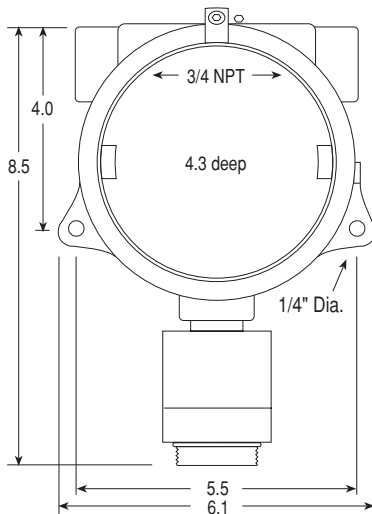*Certified*

Model IR-640
Carbon Dioxide Sensor

888-367-4286
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fax 281-292-2860

www.detcon.com
sales@detcon.com

Specifications

Sensor Type
Non-dispersive Infrared Optical (NDIR)

Measurement Range
0 - 0.3%/0 - 1%/0 - 3%/0 - 5% by volume

Accuracy/Repeatability
±5% full scale

Response/Clearing Time
T50 <15 seconds
T90 <40 seconds

Zero Drift
<0.05% per year

Operating Temperature Range
-40°F to +167°F; -40°C to +75°C

Operating Humidity Range
0-99% RH non-condensing

Outputs
Linear 4-20 mA DC
RS-485 Modbus™
3 Relays (alarm 1, alarm 2, & fault)
Contacts rated 5 amps

Input Voltage
22.5-28 VDC

Power Consumption
<3 watts @ 24 VDC

Electrical Classification
Explosion proof
Class I, Division 1, Groups B, C, D

Ingress Protection
NEMA 4X, IP66

Safety Approvals
CSA/NRTL (US OSHA Certified)

Sensor Life/Warranty
Sensor: 5 year warranty pro-rated
Transmitter: 2 year warranty

Dimensions

3/4 NPT
4.0
8.5
4.3 deep
1/4" Dia.
5.5
6.1

Splashguard 2"H x 2"Dia.

Non-dispersive Infrared Optical

MicroSafe™ Intelligent Sensor

Description

Detcon Model IR-640 sensors are non-intrusive "Smart" sensors designed to detect and monitor Carbon Dioxide. Available ranges of detection are 0-0.3%, 0-1%, 0-3%, and 0-5% by volume. The sensor assembly consists of a miniature infrared optical sensor in a stainless steel housing that includes a splashguard with integral cal port, a plug-in control transmitter circuit, a base connector board and an explosion proof enclosure.

Features

▷ CSA-NRTL Approved: Class I, Division 1, Groups B, C, & D
▷ Compatible with PLCs, SCADA, DCS, via 4-20 mA, and/or RS-485, and/or alarm relays
▷ Sensor status and parameters accessible via RS-485 (Modbus™)
▷ Menu programmable relays standard (two alarms plus fault)
▷ Simple menu driven calibration - takes less than 3 minutes
▷ Backlit LCD and LED indicators for FAULT and CAL status
▷ Unique miniature field-replaceable optical sensor
▷ Plug-in field-replaceable transmitter
▷ Low power consumption
▷ 5-year expected sensor life

Order Guide

PN 966-404520-_ _ _   Model IR-640 in Aluminum Junction Box
PN 966-40542B-_ _ _   Model IR-640-316SS in Stainless Steel Junction Box

Complete the part number by choosing range
005 = 5%
003 = 3%
001 = 1%
0X3 = 0.3%

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R053112