



BDS-50

UNIVERSAL GAS TRANSMITTER

State of the art technology, reliable and proven detection.



PRODUCT OVERVIEW

The BDS-50 is a state-of-the-art fixed gas detector designed to provide continuous monitoring and early detection of potentially hazardous combustible and toxic gases in industrial and commercial environments. With advanced sensing technologies and robust features, the BDS-50 ensures the safety of personnel and assets by alerting users to the presence of harmful gases before they reach dangerous levels. The BDS-50 is a truly universal gas detector that allows all sensor types to plug into the detector sensor housing and automatically uploads the sensor parameters to the BDS-50. The BDS-50 comes standard with dual 4-20 mA analog outputs, programmable (4) relays and Modbus RTU RS-485 which provides seamless integration and or standalone operation. The BDS-50 has a color display, menu driven screens and enhanced user interaction. The BDS-50 is C1/D1 approved for hazardous locations.

KEY FEATURES & BENEFITS

- ✓ A universal transmitter for combustible and toxic sensors
- ✓ CSA certified for Class 1, Div 1 explosion proof installations
- ✓ High resolution TFT color display enhances user interface and readability
- ✓ Multiple output options for maximum flexibility and compatibility (included)
 - Dual 4-20 mA analog output
 - Programmable (4) relays
 - Modbus RS-485 RTU
- ✓ 2 Year Warranty on transmitter
- ✓ User friendly intuitive menus
- ✓ Digital Input (remote alarm activation)
- ✓ Remote Acknowledge (alarm reset)
- ✓ Industrial sensor cartridge design
- ✓ Sensor types: Infrared "IR", Cat-bead and Electrochemical
- ✓ Magnetic non-intrusive calibration / interface
- ✓ Single and dual channel capability with smart sensor technology


DETECTABLE GASES

- ✓ Ammonia
- ✓ Carbon Dioxide
- ✓ Carbon Monoxide
- ✓ Chlorine
- ✓ Chlorine Dioxide
- ✓ Combustible Gases
- ✓ Hydrogen
- ✓ Hydrogen Chloride
- ✓ Hydrogen Cyanide
- ✓ Hydrogen Fluoride
- ✓ Hydrogen Sulfide
- ✓ Nitric Oxide
- ✓ Nitrogen Dioxide
- ✓ Oxygen
- ✓ Ozone
- ✓ Phosphine
- ✓ Sulfur Dioxide

SPECIFICATIONS

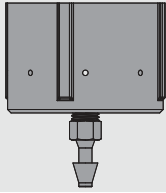
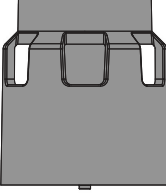
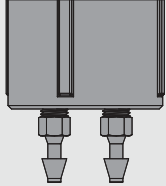
Temperature range	Operating: -40C to +60C (-40F to 140F) See Sensor Temperature limits in BDS-50 Manual
Humidity	IR and Cat-bead Sensor 95% Electrochemical Sensor 90%
Display	QVGA color TFT 240 x 320 LCD pixel display
Operating Voltage	24 VDC nominal (10 – 30 VDC) @ 5 watts max (all relays energized), Reverse Polarity Protection
Cable Entries	2 x 3/4" NPT-conduit
Wiring	3 or 4 wire dependent on configuration (Single / Dual)
Electromagnetic Compatibility	EMI / RFI protect / Immunity Tested
Relays	Programmable (4) relays, contacts rated 250 VAC, 30 VDC, 5.0 A max. Resistive, Form "C"
4 – 20 mA	Current source analog output (Max loop resistance 750 ohms @ 24 VDC)
RS-485	Modbus RTU / RS-485
Enclosure	Cast Aluminum Enclosure / Stainless Steel Sensor Housing
Transmitter	Single Channel = 5.71 (W) x 7.76 (H) x 5.06 (D)
Dimensions	Dual Channel = 5.71 (W) x 12.14 (H) x 5.06 (D)
Transmitter Weight	Single 5 lbs. / 2.27 Kg Dual 8 Lbs. / 3.63 Kg
IP Rating	Cast Aluminum Enclosure: IP65 or IP66 with Weather Guard

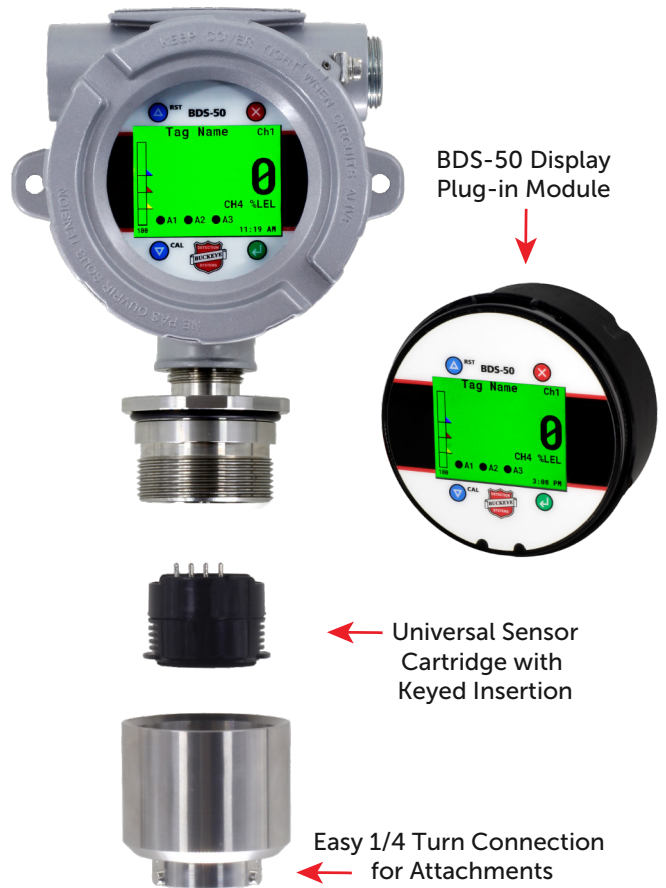
Approvals

CSA Approvals (File # 2681264): BDS-50 with the
01-0001001 Sensor Housing
Class 1, Division 1, Groups A, B, C, and D T6 
(U.S. and Canada)

DS-BDS-50_REV_1.0

ACCESSORIES

Calibration Adapter	50-1009	
Weather Guard	50-1008	
Flow Cell Adapter	50-1010	



Clear
Detailed
Interface
Screens



Menu
Driven
Config
Screens

Main Menu	
Calibration	→
Channel Settings	→
Relay Configuration	→
System	→
Technician	→

Relay 1	
Device Name	
Alarm Assignment	
A1	A2 A3 F
<input type="checkbox"/>	<input type="checkbox"/> Ch1
<input type="checkbox"/>	<input type="checkbox"/> Ch2
<input type="checkbox"/>	<input type="checkbox"/> Ch1 or Ch2
<input type="checkbox"/>	<input type="checkbox"/> Ch1 and Ch2
<input type="checkbox"/>	<input type="checkbox"/> None

Display Preferences	
A1 Gas Value	Black
A2 Gas Value	Black
A3 Gas Value	Black
Show ALM Setpoints	No
Home Background	Green
Brightness	100%

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