

GDTB Termination Box



APPLICATION

The Gas Detector Termination Box (GDTB) is recommended for installations where an approved stand-alone 4-20 mA sensor is not connected directly to a transmitter/control device. The GDTB contains a circuit board with the required connectors for proper field wiring, as well as an internal magnetic switch for non-intrusive sensor calibration and an LED to indicate calibration status.

Tall and short cover models are available. In addition to more room for wiring, the tall cover model provides a window for viewing the LED without removing the cover.

SPECIFICATIONS

TERMINALS—

UL/CSA rated for 14 to 22 AWG wire.

ELECTRICAL RATING—

Input Voltage: 18 to 30 Vdc.

Input Power: 0.5 watt maximum.

Output Power: 20 watts maximum load.

TEMPERATURE RANGE—

Operating: -40°F to +167°F (-40°C to +75°C).

Storage: -67°F to +185°F (-55°C to +85°C).

HUMIDITY RANGE—

0 to 99% RH, non-condensing.

THREAD OPTIONS—

3/4 inch NPT or M25.



MOUNTING—

Det-Tronics tall cover termination box is recommended for optimum ease of wiring and detector calibration.

NOTE

Many sensors are orientation sensitive. Refer to the sensor manual for specific installation requirements.

WIRING—

Refer to Figure 1 for an example of an NTMOS sensor wired to a GDTB (other sensors will be similar).

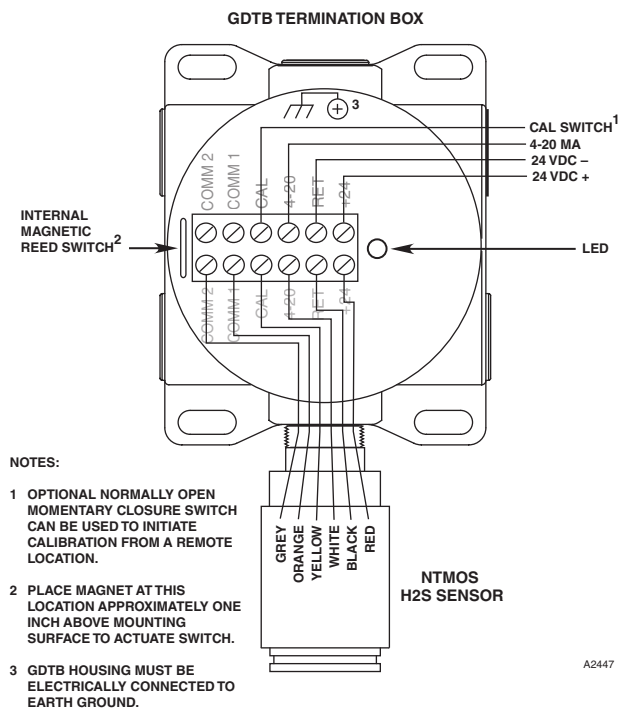


Figure 1—NTMOS H₂S Sensor Wired to GDTB Termination Box

DIMENSIONS—

See Figure 2.

CERTIFICATION—

FM/CSA:



Class I, Div. 1, Groups B, C & D (T6).
Class I, Div. 2, Groups A, B, C & D (T6).
Tamb = -40°C to +75°C.
Enclosure NEMA/Type 4X.

ATEX:



0539 II 2 G
Ex db IIC T5-T6
DEMKO 02 ATEX 131326
T5 (Tamb -55°C to +75°C)
T6 (Tamb -55°C to +60°C)
IP66.

EN Standards:

EN 50270: 2006
EN 60079-0: 2012+A11: 2013
EN 60079-1: 2007
EN 60529: 1991+A1: 2000
EN 60079-29-1: 2007.

IECEX:



IECEX ULD 10.0002
Ex db IIC T5-T6
T5 (Tamb -55°C to +75°C)
T6 (Tamb -55°C to +60°C)
IP66.

IEC Standards:

IEC 60079-0: 2007
IEC 60079-1: 2007
IEC60529, 2.1.ed.+Corr. 1:2003+2:2007.

Special Conditions for Safe Use:

All cable entry devices and blanking elements shall be certified in type of explosion protection flameproof enclosure “d”, suitable for the conditions of use and correctly installed. Unused apertures shall be closed with suitable blanking elements.

For ambient temperatures below -10°C and above +60°C, use field wiring suitable for both minimum and maximum ambient temperature.

WARNING

Always ensure that the detector/termination box hazardous (classified) location ratings are applicable for the intended use.

GDTB MODEL MATRIX (not CE compliant)

MODEL	DESCRIPTION						
GDTB	Gas Detector Termination Box						
	<table> <tr> <th>TYPE</th><th>MATERIAL</th></tr> <tr> <td>A</td><td>Aluminum</td></tr> <tr> <td>S</td><td>Stainless Steel</td></tr> </table>	TYPE	MATERIAL	A	Aluminum	S	Stainless Steel
TYPE	MATERIAL						
A	Aluminum						
S	Stainless Steel						
	<table> <tr> <th>TYPE</th><th># OF OPEN PORTS</th></tr> <tr> <td>5</td><td>5 Port</td></tr> </table>	TYPE	# OF OPEN PORTS	5	5 Port		
TYPE	# OF OPEN PORTS						
5	5 Port						
	<table> <tr> <th>TYPE</th><th>THREAD TYPE</th></tr> <tr> <td>L</td><td>Metric M25</td></tr> <tr> <td>N</td><td>3/4 NPT</td></tr> </table>	TYPE	THREAD TYPE	L	Metric M25	N	3/4 NPT
TYPE	THREAD TYPE						
L	Metric M25						
N	3/4 NPT						
	<table> <tr> <th>TYPE</th><th>APPROVAL</th></tr> <tr> <td>W</td><td>FM/CSA/ATEX/IECEX</td></tr> <tr> <td>R</td><td>VNIIFTRI (Russia)</td></tr> </table>	TYPE	APPROVAL	W	FM/CSA/ATEX/IECEX	R	VNIIFTRI (Russia)
TYPE	APPROVAL						
W	FM/CSA/ATEX/IECEX						
R	VNIIFTRI (Russia)						
	<table> <tr> <th>TYPE</th><th>COVER TYPE</th></tr> <tr> <td>1</td><td>Short without window</td></tr> <tr> <td>3</td><td>Tall with window</td></tr> </table>	TYPE	COVER TYPE	1	Short without window	3	Tall with window
TYPE	COVER TYPE						
1	Short without window						
3	Tall with window						
	<table> <tr> <th>TYPE</th><th>CABLE ENTRIES</th></tr> <tr> <td>V</td><td>Ports 2 thru 6 open</td></tr> </table>	TYPE	CABLE ENTRIES	V	Ports 2 thru 6 open		
TYPE	CABLE ENTRIES						
V	Ports 2 thru 6 open						

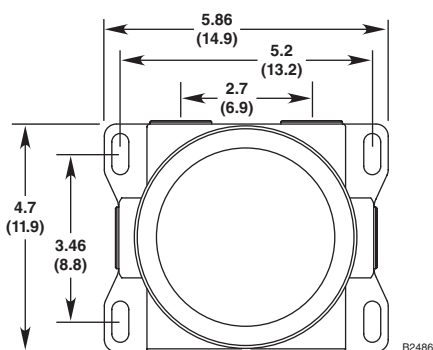
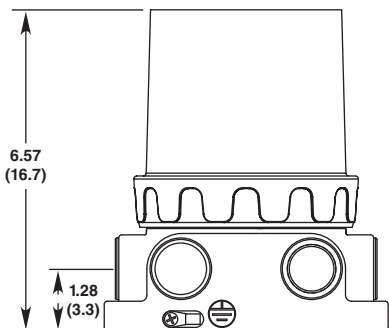
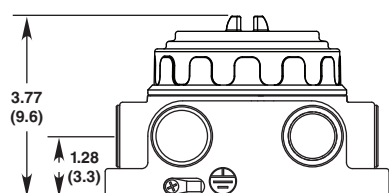


Figure 2—Dimensions of GDTB Termination Box in Inches (Centimeters)

Specifications subject to change without notice.

All trademarks are the property of their respective owners.
© 2020 Detector Electronics Corporation. All rights reserved.

Det-Tronics manufacturing system is certified to ISO 9001—
the world's most recognized quality management standard.



95-8644



Corporate Office

6901 West 110th Street
Minneapolis, MN 55438 USA
www.det-tronics.com

Phone: +1 952.941.6665
Toll-free: +1 800.765.3473
Fax: 952.829.8750
det-tronics@carrier.com