

3M™ Detcon™ TP-524D

Hydrogen Sulfide Sensor

System Specifications

Sensor Type

Continuous diffusion/adsorption
CHEMFET Solid State Metal Oxide Semiconductor

Sensor Life

5 to 10 years typical

Measurement Range

0-20 ppm, 0-50 ppm, 0-100 ppm

Accuracy/Repeatability

±10% of reading or ±2 ppm (greater of)

Response/Clearing Time

T50 <30 seconds; T90 <60 seconds

Outputs

Linear 4-20 mA DC
HART (optional)

Electrical Classification

Explosion proof

CSAuS

Class I, Division 1, Groups B, C, D (Tamb = -25°C to +40°C)

Class I, Zone 1, Group IIB+H2

cCSA

Class I, Division 1, Groups B, C, D (Tamb = -40°C to +40°C)

Class I, Zone 1, Group IIB+H2

FM

Class I, Division 1, Groups B, C, D (Tamb = -40°C to +60°C)

Complies with ANSI/ISA 92.00.01-2010

ATEX

Ex d IIB+H2 T4 (Tamb = -40°C to +60°C)

Ingress Protection

NEMA 4X, IP66

Warranty

Plug-in detector - 10 year conditional
Transmitter - 2 Years

Environmental Specifications

Operating Temperature Range

-40°C to +40°C; -40°F to 104°F (CANADA)

-25°C to +40°C; -13°F to 104°F (USA)

Storage Temperature Range

-35°C to +55°C; -31°F to +131°F

Operating Humidity Range

5-100% RH non-condensing

Operating Pressure Range

Atmospheric ±10%

Mechanical Specifications

Dimensions

10"H (including splashguard) x 6.1"W x 4.3"D

254mmH x 155mmW x 109mmD

Mounting holes (J-box) 5.5"; 140mm center to center

Weight

6 lbs; 2.72kg (w/aluminum j-box)

9 lbs; 4.08kg (w/stainless steel j-box)

Electrical Specifications

Power Input

12-28 VDC

Power Consumption

Normal operation = 68mA (<1.7 watt)

Maximum = 85mA (2 watts)

RFI/EMI Protection

Complies with EN 50270

Analog Output

Linear 4-20mA DC (1,000 ohms max loop load @ 24VDC)

0mA All Fault Diagnostics

2mA In-Calibration

4-20mA 0-100% full-scale

22mA Over-range condition

Status Indicators

4-digit LED display with gas concentration

Full-script menu prompts for AutoSpan,

Set-up Options, and Fault Reporting

LEDs for Fault and Calibration

Faults Monitored

Heater, Loop, Input Voltage,

Sensor, Processor, Memory, Calibration

Cable Requirements

Power/Analog

3-wire shielded cable

Maximum distance is 13,300 feet with 14 AWG

I/O Protection

Over-voltage, Miswiring, EMI/RFI Immunity

Specifications subject to change without notice

Order Guide

PN 965-015420-100 Model TP-524D in Aluminum Junction Box

PN 965-01542B-100 Model TP-524D-316SS in Stainless Steel Junction Box

PN 9H5-015420-100 Model TP-524D with HART in Aluminum Junction Box

PN 9H5-01542B-100 Model TP-524D-316SS with HART in Stainless Steel Junction Box

