SERIES 3500 | SMART DIFFERENTIAL PRESSURE TRANSMITTER



FEATURES/BENEFITS

- **High accuracy (±0.075% FS)**
- **Rangeability (up to 25:1)**
- **Configurable using zero/span buttons (no calibrator required)**
- **Fail-mode process function**
- **Automatic ambient temperature compensation**

APPLICATIONS

- Flow measurement
- Level monitoring
- Filter or pump differential pressure
- Critical process monitoring

DESCRIPTION

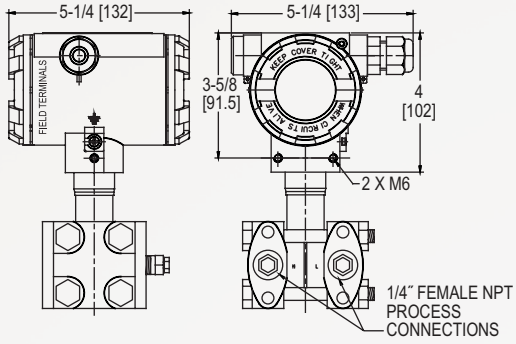
The **Series 3500 Smart Differential Pressure Transmitter** is a microprocessor-based high performance transmitter, which has flexible pressure calibration, push button configuration, and programmable using HART® Communication. The Series 3500 is capable of being configured for differential pressure or level applications with the zero and span buttons. A field calibrator is not required for configuration. The transmitter software compensates for thermal effects, improving performance. EEPROM stores configuration settings and stores sensor correction coefficients in the event of shutdowns or power loss. The Series 3500 can be configured to be ATEX or IECEX approved for use in hazardous (classified) locations. The rangeability allows the smart transmitter to be configured to fit any application.

SPECIFICATIONS

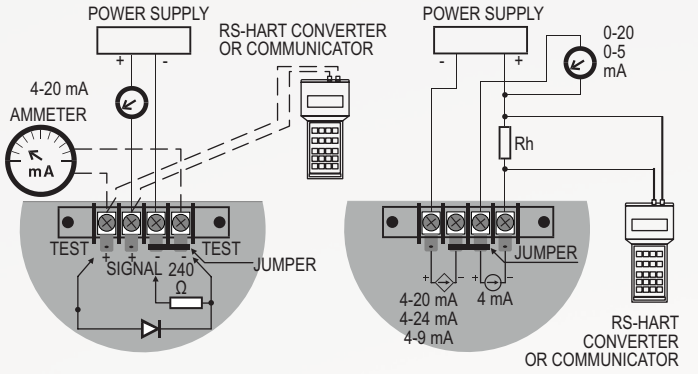
Service	Compatible gases, steam, liquids or vapors.
Wetted Materials	316L SS and FPM; with -DS: 316L SS
Accuracy	±0.075% FS (@20°C).
Rangeability	Up to 25:1 turn down.
Stability	≤0.075% FSO/3 years.
Temperature Limits	Ambient: -40 to 185°F (-40 to 85°C); Process w/ -DS: -40 to 400°F (-40 to 204°C).
Thermal Effect	<±0.05% span/10°C.
Power Requirements	10-55 VDC.
Output Signal	4-20 mA.
Response Time	16 to 480 ms (programmable).
Damping Time	0 to 60 s.
MTBF (Mean Time Between Failure)	124 years.
MTTF (Mean Time To Failure)	MTBF minus 8 h.
Loop Resistance	Operation: 0 to 1500 Ω; HART® communication: min. 240 Ω, max. 1100 Ω.
Electrical Connection	Packing gland M20x1.5, two 1/2″ female NPT conduit, screw terminal.
Process Connections	1/4″ female NPT.
Enclosure Rating	NEMA 4X IP66/IP67.
Agency Approvals	CE; -IS, -FP suffix: ATEX Compliant CE 0518 II 2G Ex ia/db IIC T6/T5 Gb Ta<80°C, T5 / II 2D Ex ia/tb IIIC T85°C/T100°C Db. Type Certificate No. KDB 17ATEX0056X. ATEX Standards: EN 60079-0:2012+A11:2013, EN 60079-1:2014, EN 60079-11:2012, EN 60079-26:2015, EN 60079-31:2014 IECEx Compliant: Ex ia/db IIC T6/T5 Gb / Ex ia/tb IIIC T85°C/T100° Db. Certificate of Conformity IECEx KDB 17.0008X. IECEx Standards: IEC 60079-0:2011, IEC 60079-1:2014-06, IEC 60079-11:2011, IEC 60079-26:2006, IEC 60079-31:2013.

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DIMENSIONS



WIRING DIAGRAM



HOW TO ORDER

Use the **bold** characters from the chart below to construct a product code.

3500 -AL -02 -DS -1 -SPRB A 0 -1 -1 -NIST

SERIES
3500: Differential pressure smart transmitter

HOUSING
-AL: Aluminum housing
-AS: Stainless steel housing

RANGE
-02: -10 to 10 in w.c.
-04: 0 to 30 in w.c.
-08: 0 to 100 in w.c.
-10: -200 to 200 in w.c.
-15: 0 to 1000 in w.c.
-20: 0 to 15 psi
-38: 0 to 230 psi
-40: 0 to 1000 psi
-50: -2.5 to 2.5 in w.c.
-60: -1.5 to 1.5 psi

PROCESS CONNECTIONS
-NF: 1/4″ female NPT
-DS: Diaphragm seal selection

ELECTRICAL CONNECTIONS
-1: Packing gland M20x1.5
-2: Thread 1/2″ female NPT

DIAPHRAGM SEAL TYPE
-SPDH: S-P flush diaphragm seal direct mount high side
-SPRB: S-PK flush diaphragm seal capillary mount both sides
-SPRH: S-PK flush diaphragm seal capillary mount high side
-STDH: S-T extended diaphragm seal direct mount high side
-STRB: S-TK extended diaphragm seal capillary mount both sides
-STRH: S-TK extended diaphragm seal capillary mount high side

OPTIONS
-FP: ATEX/IECEx flameproof
-IS: ATEX/IECEx intrinsically safe
-MT: Stainless steel tag plate (wire mounted)
-NIST: NIST traceable calibration certificate
-ST: Stainless steel tag plate (housing mounted)
-GB: 2″ galvanized steel mounting bracket
-SB: 2″ SS mounting bracket

CAPILLARY LENGTH LOW SIDE
-#: Capillary length, 1 to 20 feet (increments of 1)

CAPILLARY LENGTH HIGH SIDE
-#: Capillary length, 1 to 20 feet (increments of 1)

EXTENSION LENGTH
0: No extension, flush mount
2: 2″ (50 mm)
4: 4″ (100 mm)
6: 6″ (150 mm)

MOUNTING FLANGE
A: 2″ ANSI
B: 2″ DN50
C: 3″ ANSI
D: 3″ DN80

ACCESSORIES

Model	Description	Model	Description
A-630	Stainless steel angle type bracket with SS bolts	**BBV-22F**	Flanged 5-valve block manifold
A-631	Stainless steel flat type bracket with SS bolts	**DevCom2000**	HART® Communication Protocol Software
BBV-1F	Flanged 3-valve block manifold		

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