**Dwyer**

# SERIES 3500

CE HART

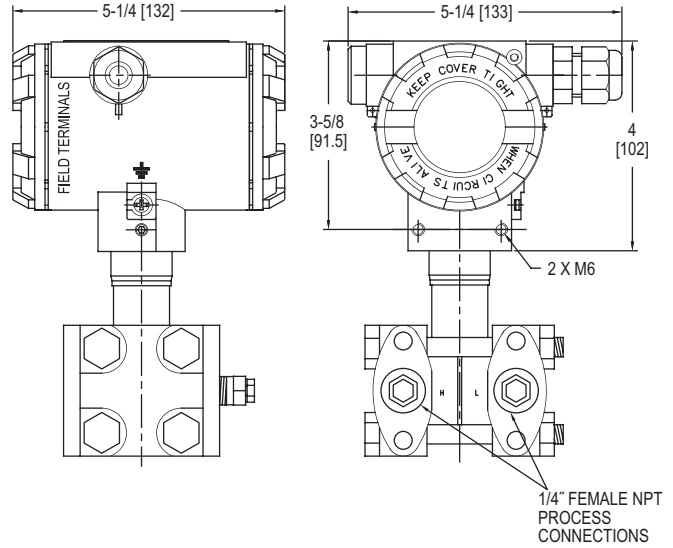# SMART DIFFERENTIAL PRESSURE TRANSMITTER
## HART® Communication, Push Button Configuration, Rangeability (Up to 25:1)



5-1/4 [132]  FIELD TERMINALS

5-1/4 [133]  KEEP COVER TIGHT  WHEN CIRCUITS ALIVE

3-5/8 [91.5]

4 [102]

2 X M6

1/4″ FEMALE NPT PROCESS CONNECTIONS

VIDEO ONLINE

The **Series 3500 Smart Differential Pressure Transmitter** is a microprocessor-based high performance transmitter, which has flexible pressure calibration, push button configuration, and is 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.

### 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

### SPECIFICATIONS
**Service:** Compatible gases, steam, liquids or vapors.
**Wetted Materials:** 316L SS and FPM; with diaphragm seal: 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 with -DS: -40 to 400°F (-40 to 204°C).
**Thermal Effect:** < ±0.05% span/10°C.
**Power Requirements:** 10 to 55 VDC.
**Output Signal:** 4 to 20 mA.
**Response Time:** 16 to 480 ms (programmable).
**Damping Time:** 0 to 60 seconds.
**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.

### MODEL CHART

| Model | Range |
|---|---|
| **3500-AL-02-NF-2** | -10 to 10 in w.c. |
| **3500-AL-04-NF-2** | 0 to 30 in w.c. |
| **3500-AL-08-NF-2** | 0 to 100 in w.c. |
| **3500-AL-10-NF-2** | -200 to 200 in w.c. |
| **3500-AL-15-NF-2** | 0 to 1000 in w.c. |
| **3500-AL-20-NF-2** | 0 to 15 psi |
| **3500-AL-25-NF-2** | 0 to 100 psi |
| **Note:** Bar ranges are also available. | |

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# SMART DIFFERENTIAL PRESSURE TRANSMITTER
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## MODEL CHART

| Example | 3500 | -AL | -01 | -DS | -1 | -SPRB | A | 0 | -1 | -1 | -NIST | 3500-AL-01-DS-1-SPRBA0-1-1-NIST |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Series** | 3500 | | | | | | | | | | | Smart 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 |
| | | | 25 | | | | | | | | | 0 to 100 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 adapter |
| | | | | 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 type both sides |
| | | | | | | SPRH | | | | | | S-PK flush diaphragm seal capillary type high side |
| | | | | | | STDH | | | | | | S-T extended diaphragm seal direct mount high side |
| | | | | | | STRB | | | | | | S-TK extended diaphragm seal capillary type both sides |
| | | | | | | STRH | | | | | | S-TK extended diaphragm seal capillary type high side |
| **Mounting Flange** | | | | | | | A | | | | | 2˝ ANSI |
| | | | | | | | B | | | | | 2˝ DN50 |
| | | | | | | | C | | | | | 3˝ ANSI |
| | | | | | | | D | | | | | 3˝ DN80 |
| **Extension Length** | | | | | | | | 0 | | | | No extension, flush mount |
| | | | | | | | | 2 | | | | 2˝ (50 mm) |
| | | | | | | | | 4 | | | | 4˝ (100 mm) |
| | | | | | | | | 6 | | | | 6˝ (150 mm) |
| **Capillary Length High Side** | | | | | | | | | # | | | High side capillary length, 1 to 20 ft (increments of 1) |
| **Capillary Length Low Side** | | | | | | | | | | # | | Low side capillary length, 1 to 20 ft (increments of 1) |
| **Options** | | | | | | | | | | | FP | ATEX/IECEx flameproof |
| | | | | | | | | | | | IS | ATEX/IECEx intrinsically safe |
| | | | | | | | | | | | MT | Stainless steel tag plate mounted on wire |
| | | | | | | | | | | | NIST | NIST traceable calibration certificate |
| | | | | | | | | | | | GB | 2˝ galvanized steel mounting bracket |
| | | | | | | | | | | | SB | 2˝ SS mounting bracket |
| | | | | | | | | | | | ST | Stainless steel plate riveted to the housing |

## ACCESSORIES

| Model | Description |
|---|---|
| **A-630** | Stainless steel angle type bracket with SS bolts |
| **A-631** | Stainless steel flat type bracket with SS bolts |
| **BBV-0N** | 2-valve block manifold |
| **DevCom2000** | HART® communication protocol software |