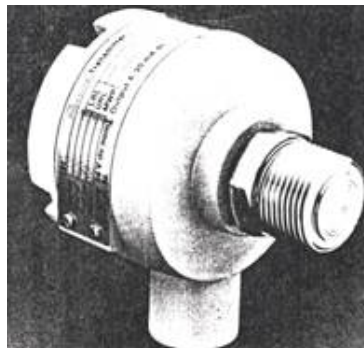


SHICO. FLUSH DIAPHRAGM TRANSMITTER

MODEL : SPT-300 Series

SHICO has designed a compact, light weight transmitter with a flush process diaphragm for measuring the pressure or levels of dirty process liquids with suspended solids such as pulp stock, slurries and wastewater. The SPT-300 Flush diaphragm transmitter is a self-contained unit that eliminates the need for a separate diaphragm seal when measuring dirty process liquids. This approach is not only cost effective, but the self-constance design eliminates the temperature errors associated with remote seal and capillary system.



■ DIRECT MOUNTING TO PROCESS

The sensing diaphragm of the transmitter is flush to end of a one inch NPT process connection which allows the transmitter to be directly mounted to pipes or tanks. This eliminates the need for pipe stands and mounting brackets, thus reducing the cost of installation and making replacement easy.

■ PROTECTION AGAINST EMI, AND ELECTRICAL SURGES

All transmitters in the SPT-300 family are protected against electromagnetic interference (EMI), and in plant electrical surges up to 1000 watts for one millisecond.

This surge protection prevents amplifier board failures and improves the reliability of the transmitter.

■ PHYSICAL SPECIFICATIONS

- Diaphragm and connection materials
: 316 Stainless steel
- Process connection
: 1 inch NPT male
- Electrical connection
: ½ inch NPT conduit connection
- Fill fluids
: DC 200 silicon oil- standard
Fluorlube - optional
- Housing material and rating
: Low copper aluminum, with epoxy paint.
NEMA 4A
- Local indication meter - Optional
: 3 ½ digit LCD display
calibration, or 0-100%
scaled meter option : 2.1lbs.
- Weight
: Standard : 1.6lbs,
with meter option : 2.1lbs.

■ FEATURES

- ± 0.15% accuracy
- Adjustable ranges with 6 : 1 turndown
- Wetted parts of 316SS
- Suitable for pressure and level applications
- Explosion-proof electronics housing
- Optional digital indication meter
- Two year warranty

■ PERFORMANCE SPECIFICATION

- **Accuracy**
±0.15% of calibrated span.
includes the combined effects of linearity, hysteresis, and repeatability.
- **Stability**
±0.25% of upper range limit per six months at reference conditions
- **Overpressure effect**
±0.2% of upper range limit @maximum operating pressure
- **Temperature effect** - Total (Includes zero span)
±0.015% of URL per °F from -25 to 75°F
±0.01% of URL per °F from 75 to 185°F
±0.02% of URL per °F for range code 13
- **Power supply effect**
± 0.005% of upper range limit per volt change

■ FUNCTIONAL SPECIFICATIONS

- **Service**
Liquid, gas or vapor
- **Input ranges**
See model number specifications.
- **Supply Voltage**
24 VDC normal
12.5 VDC minimum
42 VDC maximum
- **Output**
Two wire analog, 4-20mA DC proportional
to pressure or level
Current limited : 35mA maximum
Minimum current : 2 to 3.5mA
- **Local indication**
Optional digital indicator - 3 ½ digit LCD display
- **Zero adjustment**
Up to 500% LRL zero suppression
UP to 600% LRL zero elevation
Maximum input not to exceed upper range limit
- **Span adjustment**
6 : 1 span adjustment through DIP switches
- **Over pressure Limits**
3x upper range limit



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SHICO. FLUSH DIAPHRAGM TRANSMITTER

MODEL : SPT-300 Series

ENVIRONMENTAL SPECIFICATIONS

Temperature limits

- ▶ Wet end :
 - 40° to 220°F (-40° to 104°C) - DC 200 fill
 - 0° to 220°F (-17.° to 104°C) - Fluorolube fill
- ▶ Electronics :
 - 25° to 185°F (-32° to 85°C) - Standard
 - 22° to 176°F (-30° to 80°C) - With meter option
- ▶ Storage :
 - 40° to 212°F (-40° to 100°C) - Standard
 - 40° to 176°F (-40° to 80°C) - With meter option

Humidity Limits (cover in place)

- 15 to 95% RH (noncondensing)@ 140°F(60°C) maximum
- 15 to 50% RH (noncondensing)@ 180°F(85°C) maximum

Mounting position effect

±2" H₂O max. which can be calibrated out

EMI effect

±1% of upper range limits@ 10V/m from 20 to 1000mA not including units with local indication

Hazardous locations

Factory mutual (FM) approval
Explosion proof for Class I, Division 1, Groups B,C,D
Non-incendive for Class I, Division 1, Groups A,B,C and D

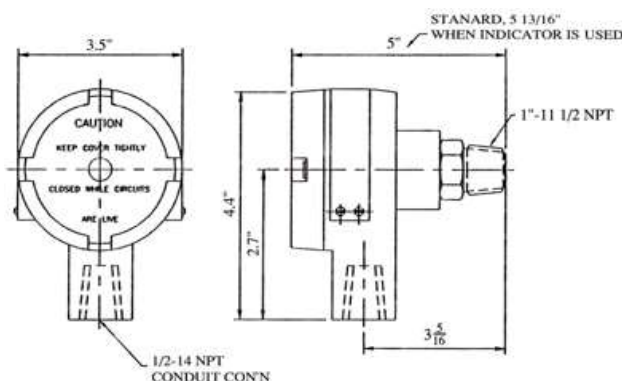
Dust-ignition proof for Class II, Division 1, Groups E,G

Suitable for Class III, Division 1, indoor and outdoor
Hazardous (classified) locations

Surge protection

1000 watts for 1 ms - without local indicator

DIMENSIONS



ORDERING INFORMATION

CODE	INPUT RANGE
13	0-17" to 0-100" H ₂ O
14	0-50" to 0-300" H ₂ O
15	0-67" to 0-400" H ₂ O
20	0-1.5Kg/cm
21	0-3Kg/cm
22	0-6Kg/cm
23	0-18Kg/cm
24	0-30Kg/cm
25	0-600Kg/cm
26	0-1800Kg/cm
CODE	UNUSED CHARACTER
0	
CODE	WETTED PART MATERIAL
2	316 SS
CODE	FILLING MEDIA
1	DC 200
2	FLUOROLUBE
CODE	FUNCTION BOARD
2	ADJUSTABLE
CODE	LOCAL INDICATION
0	NONE
CODE	CERTIFICATION
00	NONE
01	FM EXPLOSION PROOF
CODE	ATTAINMENTS
A300	2 POSITION SIGNAL DAMPING

SPT - 300



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