



Pressure, Level & Temperature Transmitters & Transducers

2770 Long Road, Grand Island, NY 14072 USA

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INDUSTRIAL GRADE FLUSH TRANSMITTER

Models 117, 217, 317, 317Z (FM/CSA Intrinsically Safe)



FEATURES:

- Flush Diaphragm
- All-welded type 316 & 15-5 ph SST
- Rugged, all encapsulated electronics
- Minimal zero installation effect

PRESSURE RANGES:

- From 0-50 to 0-10,000 psi

ACCURACY:

- From 0.2% FSO to 1.0% FSO
(See specifications)

Approvals



WIRING:

A/1 RED
B/2 GREEN
C/3 WHITE
D/4 BLACK
E/5 BLUE
F/6 BROWN
SHIELD

117

+EXC.
+SIGNAL
-SIGNAL
-EXC.
CAL. OPTIONAL
CAL. OPTIONAL
OPEN

217

+EXC.
+SIGNAL
NC
-EXC./SIGNAL
CAL. OPTIONAL
CAL. OPTIONAL
OPEN

317

+EXC./SIGNAL
NC
NC
-EXC./SIGNAL
CAL. OPTIONAL
CAL. OPTIONAL
OPEN

Accuracy:

Static error band (Includes Hysteresis, Non-linearity, Non-Repeatability)

- **Series A:** $\pm 1.0\%$ FSO (RSS)
- **Series B:** $\pm 0.5\%$ FSO (RSS)
- **Series C:** $\pm 0.2\%$ FSO (RSS)

Temperature Compensation:

- Effect on Zero / Span: Less than $\pm 2.0\%$ FSO/100°F for each

Electricals:

- Excitation Voltage:
(Model 117) 3.5-15 Vdc
(Models 217 & 317) 9-40 Vdc
- Output at 70°F:
(Model 117) 3.0 mV/V $\pm 2\%$ FSO
(Model 217) 0 - 5.0 Vdc $\pm 2\%$ FSO
(Model 317) 4-20 mA $\pm 2\%$ FSO
- Input Current :
(Model 217) 8 mA nominal
- Output Current:
(Model 317) 2.0 mA max. for less than 0.1% FSO attenuation.
- Input Impedance:
(Model 117) 350 ohms nominal
- Load Impedance:
(Model 117) 50,000 ohms min. for less than 0.1% FSO attenuation
(Model 317) 1350 ohms max. at 36 Vdc and 750 ohms max. Vdc.
- Zero Balance:
(Model 117) 0.0 mV/V $\pm 2\%$ FSO at 70° F
(Model 217) 0.0 Vdc $\pm 2\%$ FSO
(Model 317) 4.0 mA $\pm 2\%$ FSO at 70° F
- Insulation Resistance: Greater than 10 megohms at 50 Vdc & 70° F
- Resolution: Infinite

Temperature Limits:

- Compensated: 0° F to +180° F
- Operating (Tip Temperature): -20° to +250° F

Mechanicals:

- Proof Pressure: 1.5 X full scale pressure range or 12 kpsi, whichever is less.
- Burst Pressure: 5 X full scale pressure range or 15 kpsi, whichever is less.
- Case Materials: Type 316 Stainless Steel
- Weight: 8 oz. nominal
- Identification: Etched SST nameplate welded to body.

Connections:

- Pressure: 3/4" - 16 UNF-3A thread with Teflon O-ring with retaining rim (included)
- Electrical Cable:
(Models 117 & 217) 6 conductor, 24 AWG 36" long,
(Model 317) 4 conductor, 24 AWG 36" long.

A5SL-17.00 Rev B



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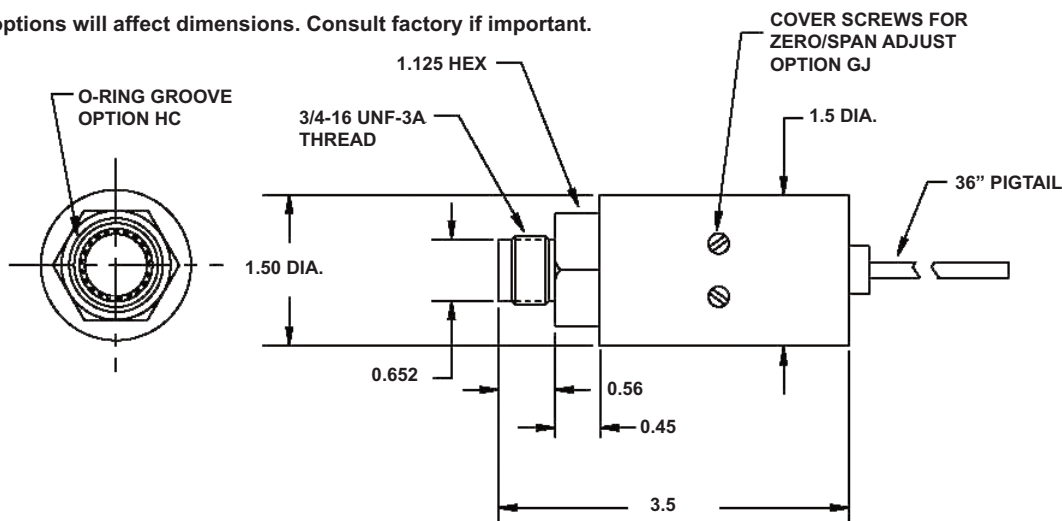
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Some options will affect dimensions. Consult factory if important.



Typical configurations (consult factory for more options)

MODEL

117	3 mV/V
217	0 - 5 Vdc
317	4 - 20 mA
317Z	4 - 20 mA Intrinsically Safe

ACCURACY (Series)

A	1.0% FSO
B	0.5% FSO
C	0.2% FSO

PRESSURE RANGE (PSI)

PV	50	RF	300	RT	3,000
PX	75	RH	500	RV	5,000
PZ	100	RK	750	RX	7,500
RB	150	RM	1,000	RZ	10,000
RD	200	RO	1,500	SZ	Other
RE	250	RR	2,000		

PRESSURE TYPE

2	Gauge
3	Absolute
6	Sealed Gauge (Hermetic)
7	Sealed Gauge (non-hermetic)

OPTIONS (Other Options Available Consult Factory)

ALTERNATE CONNECTOR OR CABLE

CA	PTIH-10-6P (Mate PT06E-10-6S [SR], not included)
CF	1/2" NPT (M) thread with 36" potted leads
CH	Vented cable 8' long (NEMA 4 termination)
CJ	DIN 43650 connector (includes mate)
CL	1/2" NPT (M) thread with 24" vented cable (for ranges less than 299 psi).
CT	Teflon jacketed cable, Tefzel used on submersible units (options CH, CL, CW, DE, GM)

PROCESS CONNECTION

AA	3/4" - 16 UNF-3A M Port, Teflon O-Ring Face Seal & Retaining Ring
FN	1/2" NPT (M)
LH	SAE-6 (M), 9/16"-18 UNF, ranges > 500 psi only
FZ	Non-standard pressure port

GENERAL

CW	Submersible housing, 8' non-vented submersible polyurethane jacket cable, neoprene grommet, 1/2" NPT (M) conduit.
DE	IP-67 (NEMA-6) vented polyurethane jacket cable, neoprene grommet.
GA	Standardized output to $\pm 0.5\%$ FSO
GB	Alternate pressure range, pressure units, or full scale outputs that are non-standard
GE	Improved temp. compensation to $\pm 0.5\%$ FSO/ 100°F for zero and span respectively
GG	Alternate shunt calibration signal
GH	Internal shunt calibration resistor set to 100 $\pm 0.5\%$ FSO unless otherwise specified
GJ	Zero & span adjust. ($\sim \pm 20\%$ FSO). Not on Model 117
GK	Inconel thread and diaphragm
GP	Hastelloy thread and diaphragm
HC	Integral O-ring groove, includes Teflon O-ring. (Eliminates need for O-ring retaining ring)
HL	RFI protection (For unit in proximity to radio transmitter)
HX	Hastelloy diaphragm only
JG	Viton O-ring
GX	Mineral oil fill
GZ	Customer special

MODEL 17 ACCESSORIES

	PN#	Material	Seal Type	Pressure Port
Weld Nipple	WN17	AA(316 SS)	AA (Retaining Ring)	AA (3/4" - 16 UNF-3B)
Weld Plug	WP17	AA(316 SS)	AA (Retaining Ring)	AA (3/4" - 16 UNF-3A)
O-Ring with Retaining Ring	OR17	AA(Teflon)	AA (Retaining Ring)	

NOTE:

Specifications reflect standard product, improved performance / mechanical options available.

Modifications may alter specs, consult factory for more information.

* Consult factory for option code.