

Valve Position Transmitter



- Accurately Monitors Valve Position
- Weather-Sealed and Explosion-Proof
- Used on 131 Series Electronic Control Valves
- Easy Field Adjustments
- Compact and Rugged Construction

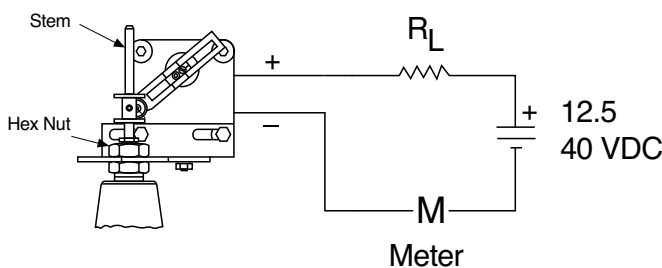
The Cla-Val Model X117C Valve Position Transmitter is an accurate monitor of valve position. Through an industry standard 4-20 mA output, the X117C delivers the level of accuracy required for computer-guided control valve systems (SCADA type). The electronic components are enclosed in a rugged, sealed aluminum housing. The assembly is mounted externally on the cover of the Cla-Val main valve. An extension of the valve stem projects outside of the cover at the center boss and is mechanically linked to the electronic components. As the valve stem rises and lowers, the X117C provides an output signal in direct proportion to valve position. The X117C is available with optional switches for additional signal functions as Model X117CLS.

Wiring Diagram

The signal from the position sensing mechanism is converted to a two-wire 4 to 20 mA current output. The voltage compliance range is 12.5 to 40 VDC (12.5 is transmitter voltage consumption). The required, but not supplied, maximum load resistance can be calculated using the following formula:

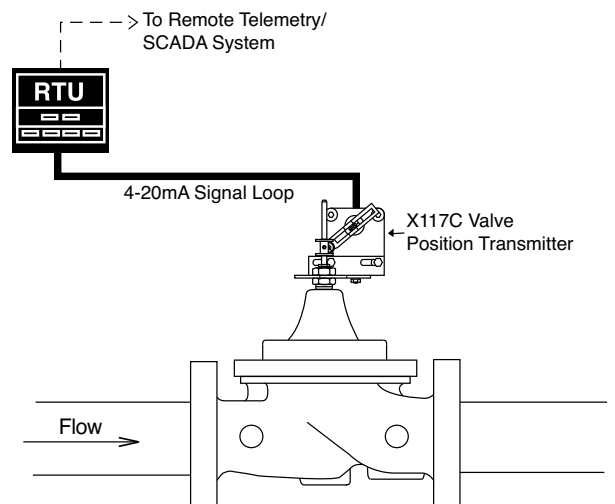
$$R_L \text{ Max.} = \frac{V_{\text{supply}} - 12.5}{.020}$$

Current Output

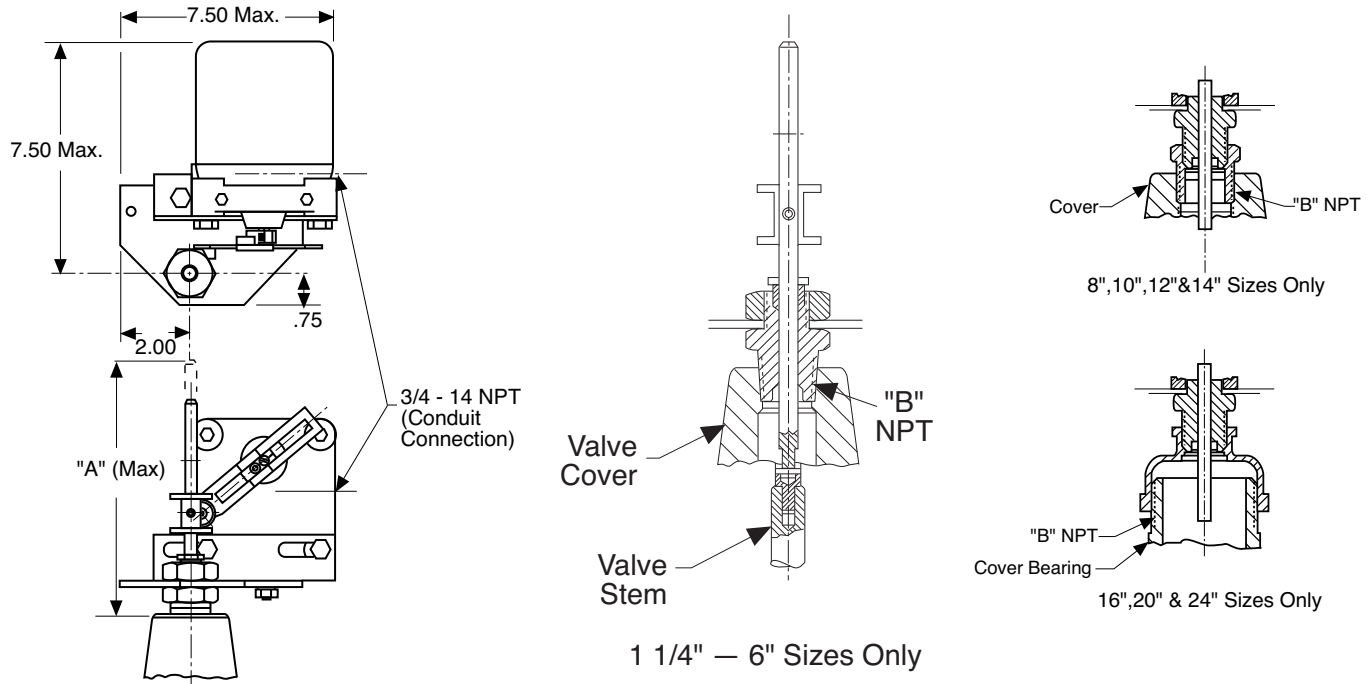


Typical Installation

The X117C Valve Position Transmitter can be used to transmit valve position to the optional 131VC-1 Electronic Valve Controller.



Dimensions



Pilot System Dimensions (In Inches)

Valve Size	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	6"	8"	10"	12"	14"	16"	20" (600)	24" (600)	24"
A (Max.)	10.19	10.19	7.16	7.16	7.34	7.00	6.69	6.91	9.88	9.09	9.16	10.78	10.78	10.78	19.12
B NPT	.25	.25	.50	.50	.50	.75	.75	1.00	1.00	1.25	1.50	2.00	2.00	2.00	1

Specifications

Fits Valve Sizes

1-1/4" thru 24"

Pressure Rating

400 psi Max.

Temperature

-13° to 185° F

Materials

Cast aluminum housing
Steel bracket
Brass adapter
Stainless steel stem
Buna-N® synthetic rubber seals
Other materials available
as extra cost option

Electrical

Housing, weather sealed and explosion proof to NEMA Standards:

1, 3, 4, 7, 9, and 13

UL Listed:

Class I, Groups C and D.

Class II, Groups E, F and G

CSA Certified:

Class I, Groups C and D
Class II, Groups E, F and G

Output

Current: 4-20 mA

Span: Adjustable from 15° to 90° of angular rotation

Null: 4mA position may be set at any angular position

Optional

Switches:

2 SPDT

UL/CSA rating

15 amps, 120, 240 or 480 VAC

.5 amp 125 VDC

.25 amp 250 VDC

When Ordering, Please Specify

- For New Valves – At time of order specify: "With X117C Installed".
- For Retrofitting Existing Valves specify: all nameplate data of valve to which X117C will be installed.
- Add LS to model number for optional limit switches, ie: X117CLS.
- When Vertically Installed.



E-X117C (R-3/2011)

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