



## Purchasing Specifications

### MODEL X117E Valve Position Transmitter Assembly (Contact-Less)



#### Contact Information

**Cla-Val Factory**  
1701 Placentia Ave  
Costa Mesa, CA  
92627

800.942.6326  
claval@cla-val.com

[www.cla-val.com](http://www.cla-val.com)

#### Function

The Contact-Less Valve Position Transmitter Assembly is designed to provide electronic indication of the position of automatic control valves manufactured by Cla-Val Co. The assembly is mechanically-actuated by the opening or closing movement of a Cla-Val main valve on which it is mounted to provide two analog output signals that are in direct proportion to valve position and to provide two switched outputs for alarm signals.

#### Description

A stainless steel actuating stem with built-in spring-load shall directly contact main valve stem top as it moves through entire valve stroke. This actuating stem shall be located inside pressure chamber extension of main valve cover chamber, and also have a delrin and magnetic metal target attached. Actuating stem top shall have an attached delrin rod extension for visual indication of valve position in glass sight tube top extension of pressure chamber. No O-ring type seals will be allowed on actuating stem.

Supplied sensor shall be suitable-range linear Hall-effect device mounted on exterior of pressure chamber inside protective aluminum and delrin enclosure. There shall not be any metallic contact between target and sensor. Sensor mounting to pressure chamber shall be adjustable to allow "zeroing out" between target and sensor when valve is completely closed.

Provision shall be made for bleeding air from main valve cover chamber through a small bleed screw located on top of assembly glass sight tube housing. Standard materials in contact with operating fluid are to be delrin, stainless steel, and glass. Protective housing shall be made of anodized aluminum and delrin conforming to IP-68 enclosure protection standard. The electronic components shall be in a separate weatherproof enclosure to be rated to IP-68.

Linear sensor output shall be processed by included and attached calculating/programming module. Module shall provide two identical 4 to 20 mA output signals calibrated to valve stroke with less than one percent full scale accuracy. Module shall also provide two dry-contact outputs for high and low alarms and each rated to 1 Ampere max. at 24VDC. Module shall be continuously powered by 24 VDC supplied by others (wiring and conduit supplied by others). Module alarms and other parameters shall be programmed with manufacturer's no-cost provided software. Protection against over temperature short circuit and over voltage shall be provided.

Calibration of valve stroke 0 to 100 percent to 4 – 20 mA analog output signal shall be electronically programmed inside supplied module and mechanically set at both valve positions with manufacturer's supplied calibration tool and hand-applied magnet, or free Windows XP and 7 compatible software. Calibration and setting of two alarm outputs over entire range of valve positions shall also be performed with this software.

The valve position transmitter assembly manufacturer shall warrant the assembly free of defects in material and workmanship for a period of three years from date of shipment, provided the assembly is installed and used in accordance with all applicable instructions. Items included with assembly but not manufactured by Cla-Val shall be subject to that manufacturer's warranty provisions.

The Contact Less Valve Position Transmitter shall be supplied mounted on the Cla-Val main control valve. This valve accessory shall be Cla-Val Co. Model X117E Contact-Less Valve Position Transmitter Assembly, as manufactured by Cla-Val Co., Newport Beach, CA 92659-0325.