# CMCP549(A) Valve Position Transmitter/ Monitor 



## Transmitter Features:

- Valve Position
- Potentiometer or LVDT Input
- 4-20mA Output
- Two Buffered Outputs
- CE, RoHS Approved


## Monitor Features:

- OK, Alert and Danger Alarms
- 5A @250VAC Relay Outputs
- Latching or Non-Latching Alarms
- Trip Multiply ( $2 x$ or $3 x$ )
- Selectable Time Delay
- API 670 Compliant

The CMCP549 Valve Position Transmitter and CMCP549A Valve Position Monitor are compatible with 5,000 Ohm Rotary Potentiometers and LVDT's. Each transmitter measures the voltage signal from the sensor directly connected to the valve to determine the position of the valve in terms of $0-100 \%$. A $4-20 \mathrm{~mA}$ DC output proportional to the specified full scale range can then be sent to the plant's PLC, DCS, SCADA or other control system to allow operations and maintenance staff to view real time valve position, set alarms and trigger machine shutdowns. An OK Fault Detection Circuit is provided with the $4-20 \mathrm{~mA}$ output so hardware or power failures can be differentiated by the control system to prevent nuisance alarms and false readings. The CMCP549 can be ordered with the optional alarm module by using the CMCP549A prefix. The optional alarm module provides OK, Alert and Danger alarms along with associated relays, selectable time delays and adjustable set points for standalone API 670 compliant machine protection. A Timed OK Danger Defeat circuit is also provided to prevent unwanted false trips. Multiple transmitters and/or monitors can be combined into a single enclosure or cabinet to create a cost effective, multichannel machine protection system with solid state reliability.

## Dimensions:



## CMCP549(A) Valve Position Transmitter/ Monitor

## Specifications:

| Electrical Specifications: | CMCP549 |
| :---: | :---: |
| Input: | 0 to 5,000 Ohm Potentiometer or LVDT |
| Output: | 4-20 mA DC Proportional to Valve Position (600 Ohms max. resistive load) |
| Frequency Response @ -3db | DC |
| Power: | +24 VDC 50 mA Nominal ( 100 mA with Alarm Module) Reverse Polarity and Transient Protected |
| Accuracy: | 1\% Full Scale |
| Calibrated Factory Ranges: | 0 to 100\% |
| Signal Detection: | DC |
| Sensor Power: | Separate as Required |
| OK Circuit: | Green LED ( $\mathrm{On}=\mathrm{OK}$ ), Not OK = Off and $4-20 \mathrm{~mA}<2.0 \mathrm{~mA}$ |
| Timed OK/Alarm/Danger Defeat: | 30 Seconds on Power Up or Loss of OK |
| Buffered Outputs: | Active Buffer, BNC and Terminal |
| Case: | Isolated |
| Terminals: | Screw Type, 24 AWG min, 12 AWG max. |
| Environmental Specifications: |  |
| Operating Temperature: | $-20^{\circ} \mathrm{C}$ to $+80^{\circ} \mathrm{C}\left(-4^{\circ} \mathrm{F}\right.$ to $\left.+176^{\circ} \mathrm{F}\right)$. |
| Storage Temperature: | $-40^{\circ} \mathrm{C}$ to $+95^{\circ} \mathrm{C}\left(-40^{\circ} \mathrm{F}\right.$ to $\left.+203^{\circ} \mathrm{F}\right)$ |
| Relative Humidity: | 0-95\% Non-Condensing |
| Mechanical Specifications: |  |
| Mounting: | 32 mm (G style) or 35 mm (T style) DIN Rail. |
| Dimensions: | $0.99^{\prime \prime} \mathrm{W} \times 3.11^{\prime \prime} \mathrm{H} \times 3.81^{\prime \prime} \mathrm{D}(25.27 \times 78.99 \times 96.67 \mathrm{~mm})$ Transmitter 1.67 "W $\times 3.11^{\prime \prime} \mathrm{H} \times 3.81$ " $\mathrm{D}(42.3 \times 78.99 \times 96.67 \mathrm{~mm})$ Monitor |
| Weight: | $0.21 \mathrm{lb} . / 0.40 \mathrm{lb} . \mathrm{w} /$ Alarm Module ( $0.095 \mathrm{~kg} / 0.18 \mathrm{~kg}$ ) |
| Certifications: | CE, RoHS |


| Optional Alarm Module (Monitor): | CMCP549A |
| :--- | :--- |
| Number of Alarms/Relays | $3-$ OK, Alert and Danger |
| Alarm Indication: | OK = Green LED, Alert = Yellow LED, Danger = Red LED |
| Relay Specification: | $3-$ Form C, SPDT, 5 Amp 30 VDC/250 VAC, Latching or Non-Latching |
| Alarm Time Delay: | Separately Selectable 0.1, 1.0, 3.0 6.0 10.0 Seconds |
| Trip Multiply Function: | Terminal for None, 2X or 3X Alarm Limit Trip Multiply |
| Reset Function: | Terminal for Remote Reset if Latching Alarms Selected |
| Bypass Function: | Hold Reset to Common |
| Display Output: | $0-5$ VDC Switch Selectable Current Value, Alert and Danger Setpoint |

## Ordering Information: (See Valve Position Application Note Online)

| CMCP549 | - XXXX | Valve Position Transmitter |
| :--- | :--- | :--- |
| CMCP549A | - XXXX | Valve Position Monitor |
|  | -5000 | 50 to 5,000 Ohm Potentiometer |
|  | -Specify | Specify Exact Input |

