

## CMCP545(A) Thrust Position Transmitter/Monitor



### Transmitter Features:

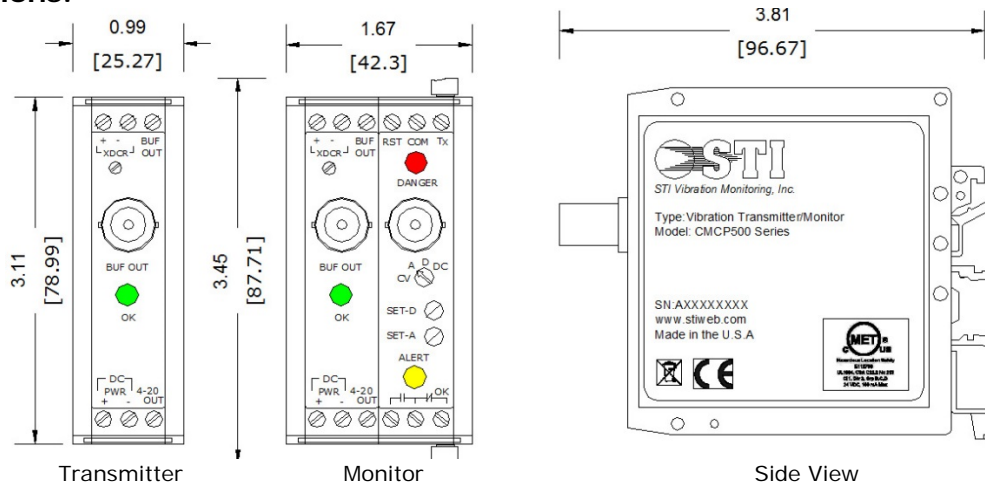
- Thrust Position Output(mils/mm)
- Proximity Probe Input
- Zero Potentiometer
- 4-20mA Output
- Two Buffered Outputs
- Class 1 Division 2, Groups B-D
- CE Approved

### Monitor Features:

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

The **CMCP545 Thrust Position Transmitter** and **CMCP545A Thrust Position Monitor** are compatible with all industry standard proximity probe systems. Each transmitter measures the signals "DC Gap" voltage to determine the overall amplitude in terms of Thrust Position in either mils or microns ( $\mu\text{m}$ ). A "Zero Potentiometer" is provided to adjust center of the output to active thrust shoe or center of float. A 4-20mA DC output proportional to one of the five user selectable ranges 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 machinery health, set alarms and trigger machine shutdowns for scheduled preventative maintenance. An OK Fault Detection Circuit is provided with the 4-20mA output so hardware or power failures can be differentiated by the control system to prevent nuisance alarms and false readings. The CMCP545 can be ordered with the optional alarm module by using the CMCP545A 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:



# CMCP545(A) Thrust Position Transmitter/Monitor

## Specifications:

Electrical Specifications:	CMCP545
Input:	100 or 200 mV/mil (3.94/7.87 mV/um) Proximity Probe System Other Sensitivities Available Upon Request
Output:	4-20 mA DC Proportional to Displacement (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 40 mils ( $\pm 20$ mils), 0 to 80 mils ( $\pm 40$ mils) 0 to 1.0 mm ( $\pm 0.5$ mm), 0 to 2.0 mm ( $\pm 1.0$ mm)
Signal Detection:	DC (Probe DC Gap Voltage)
Sensor Power:	Separate -24 VDC Power Supply
OK Circuit:	Green LED (On = OK), Not OK = Off and 4-20 mA < 2.0 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°C to +80°C (-4°F to +176°F).
Storage Temperature:	-40°C to +95°C (-40°F to +203°F)
Relative Humidity:	0 - 95% Non-Condensing
Mechanical Specifications:	
Mounting:	32 mm (G style) or 35 mm (T style) DIN Rail.
Dimensions:	0.99"W x 3.11"H x 3.81"D (25.27 x 78.99 x 96.67 mm) Transmitter 1.67"W x 3.11"H x 3.81"D (42.3 x 78.99 x 96.67 mm) Monitor
Weight:	0.21 lb./0.40 lb. w/Alarm Module (0.095kg/0.18kg)
Certifications:	CE, RoHS, CSA & UL Approved Class I Division II B-D

Optional Alarm Module (Monitor):	CMCP545A
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:

CMCP545	-XXX	-XX	Thrust Position Transmitter
CMCP545A	-XXX		Thrust Position Monitor
	-100		100 mv/mil (3.94 mV/um) Proximity Probe
	-200		200 mv/mil (7.87 mV/um) Proximity Probe
	-Specify		Specify Input (Mod Charge May Apply)
		-01	0-40 Mils Range or +/-20 mils / 0-1.01mm or +/- 0.5mm
		-02	0-80 Mils Range or +/- 40 mils / 0-2.03mm or +/- 1.01mm



1010 East Main St. League City, TX 77573 Phone: 281-334-0766 Fax: 281-334-4255  
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