

Smart Positioners YT-3301 / YT-3302 / YT-3303

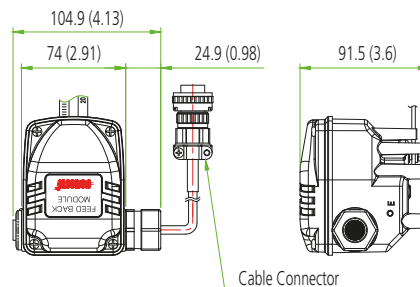
Torque motor technology with communications

Design features

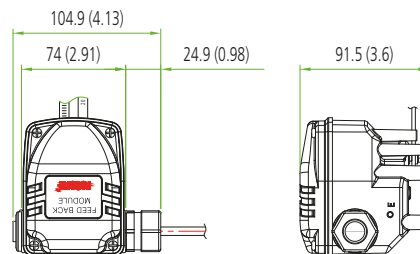
- **Auto calibration.** Simple menu structure with options to auto calibrate all parameters or zero and end points only.
- **LCD display.** Alphanumeric digital display for process values and calibration.
- **Partial Stroke Test (PST).** Fully adjustable Partial Stroke Test. All functionality can be performed and selected locally, through push buttons, or remotely with communication protocol.
- **Feedback signal.** Analogue 4-20 mA position feedback option.
- **PID control.** Pre-calibrated and user-configurable variables via front panel pushbutton menu.
- **Auto / Manual switch.** Enables closed-loop automatic valve position control or manual positioning via the A/M switch. The manual mode is useful for troubleshooting, calibration, system testing or as a manual bypass.
- **HART® communication.** Allows commands, position feedback and diagnostics to be sent digitally over the current loop.
- **Front panel pushbuttons for configuration.** Four robust and positive acting pushbuttons for field configuration.
- **Remote Mounting Option (YT-3301/YT-3302).** Remote sensor via cable to enable the positioner to be mounted away from extreme temperature.



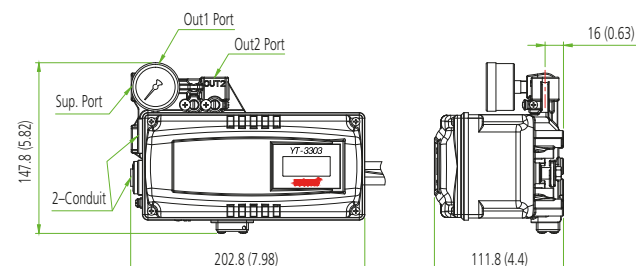
YT-3301 Remote Mounting Option



YT-3302 Remote Mounting Option



YT-3303 Left Side Mounting Option



Dimensions: mm (Inches ")

Smart Positioners YT-3301 / YT-3302 / YT-3303

Item Type		YT-3301 / 3302	YT-3303
Input Signal		4-20 mA DC	
Supply Pressure		0.14 to 0.7 MPa / 1.4 to 7 bar / 20 to 102 psi	
Stroke	Linear Type	10 to 150 mm (0.4 to 6")	
	Rotary Type	55 to 110°	
Impedance		Max. 500 Ω @ 20 mA DC	
Air Connection		Rc ¼, ¼ NPT, G ¼	
Gauge Connection		Rc ⅛, ⅛ NPT	
Conduit		G ½, M20, ½ NPT	
Operating Temp.	Standard Type	-30 to +85 °C (-22 to +185 °F)	
	Low Temp. Type	-40 to +85 °C (-40 to +185 °F)	
	Arctic Temp. Type	-55 to +85 °C (-67 to +185 °F)	
	LCD	withstands -55 to +85 °C (-67 to +185 °F) only visible above -40 °C (-40 °F)	
	Remote Sensor	-40 to +120 °C (-40 to +248 °F)	
Linearity		±0.5% F.S.	
Hysteresis		±0.5% F.S.	
Sensitivity		±0.2% F.S.	
Repeatability		±0.3% F.S.	
Air Consumption		Below 2 LPM (sup = 0.14 Mpa) Below 0.07 CFM (sup = 20 psi)	
Flow Capacity		70 LPM (sup = 0.14 MPa) 2.47 CFM (sup = 20 psi)	
Output Characteristics		Linear, EQ%, Quick Open, User Set (5, 18 Points)	
Material		Aluminium Diecasting	
Ingress Protection		IP66, IP54 (YT-3301) IP66 (YT-3302)	IP66
Explosion Protection Type		ATEX / IECEx / NEPSI / INMETRO / UKEX Ex ia IIC T5/T6 Gb Ex ia IIIC T100°C/T85°C Db	
		CCC Ex ia IIC T5/T6 Gb Ex ia IIIC T85°C/T100°C Db	
		KCs Ex ia IIC T6/T5 Ex ia IIIC T85°C/T100°C	
		CSA CSA certificate	
		FM Class I, Div 1, Groups A, B, C & D Class I, Zone 0 Aex ia IIC Class II/III, Div 1, Groups E, F & G Class I/II/III, Div 2, Groups A, B, C, D, F & G NEMA Type 4X, IP66, IP54 Ambient temp: -40 to +60°C (T5) / -40 to +40°C (T6)	
		EAC 1Ex ia IIC T6/T5 Ex ia IIIC T85/T100	
		SIL SIL2 and SIL3 Non-interference device statement for SIS	
		Communication (Option)	
		HART (ver.7)	
		Weight	Body
Remote Sensor	1 kg (2.1 lb)		-

Product Code

YT-3301 - L - S - N - 2 - 4 - 2 - 1 - S - (1)

Model

YT-3301 = Aluminium housing with remote sensor
YT-3302 = Aluminium housing with remote sensor
YT-3303 = Aluminium housing with right side lever

Motion Type

L = Linear
R = Rotary

Acting Type

S = Single
D = Double

Explosion Protection

N = Non-explosion
i = Intrinsically Safe ATEX, IECEx, KCs, INMETRO, NEPSI, UKEX, PESO
E = Intrinsically Safe EAC
A = Intrinsically Safe CSA, FM
AG = Intrinsically Safe CSA, FM - Tapped Exhaust
Z = Intrinsically Safe CCC (N/A for YT-3302)

Lever Type

Linear	Rotary	fork type
1 = 10 to 40 mm	1 = M6 X 34L (YT-3303 only)	
2 = 20 to 70 mm	2 = M6 X 63L (YT-3303 only)	
3 = 50 to 100 mm	3 = M8 X 34L (YT-3303 only)	
4 = 100 to 150 mm	4 = M8 X 63L (YT-3303 only)	
	5 = NAMUR (YT-3301/3302/3303)	

Conduit & Air Connection

1 = G ½ - Rc ¼
2 = G ½ - ¼ NPT
3 = G ½ - G ¼
4 = M20 - ¼ NPT
5 = ½ NPT - ¼ NPT

Communications

0 = None
2 = HART protocol communication

Output Options

0 = None
1 = 4 to 20 mA feedback

Operating Temp. (Non-explosionproof)¹

S = -30 to +85 °C (-22 to +185 °F) (N/A for EAC)
L = -40 to +85 °C (-40 to +185 °F)
A = -55 to +85 °C (-67 to +185 °F) (EAC only)

Cable Length (YT-3301/3302 only)

Standard cable length is 5 m.
1 = 5 m
2 = 10 m
3 = 15 m
4 = 20 m

Notes:

1. This option is just the normal operating temperature of the product and is not related to explosion protection temperature. See certificates for explosion protection temperature.