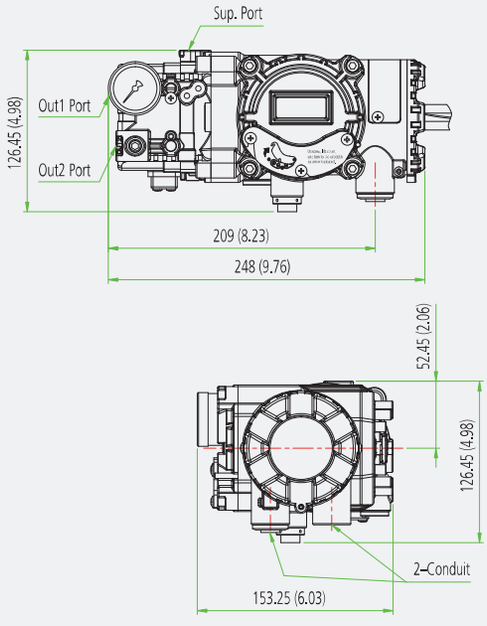
Smart Positioners YT-3400 / YT-3450

Torque motor technology with communications

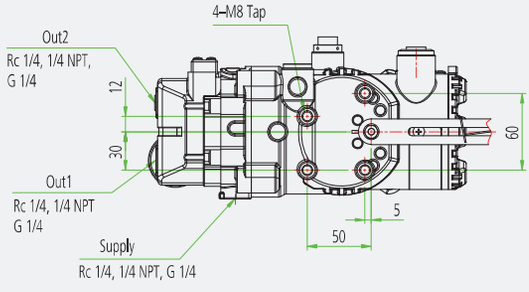
Design features

- **Explosionproof / flameproof housing.** Global certification for Zone 1 and Division 1 installations.
- **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 PST, with single or double set positions, all functionality can be performed and selected locally, through push buttons, or remotely with communication protocol.
- **Feedback signal.** Analogue feedback signals with 4 to 20 mA, mechanical and transistor switch options.
- **Auto / manual switch.** Enables closed-loop automatic valve position control or manual positioning via the Open / Close buttons. The manual mode is useful for troubleshooting, calibration, system testing or as a manual bypass.
- **PID control.** Pre-calibrated and user configurable variables via front panel pushbutton menu.
- **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.

YT-3400 Aluminium Enclosure



YT-3450 STS316 Enclosure



Dimensions: mm (Inches ")

Smart Positioners YT-3400 / YT-3450

Item Type		YT-3400	YT-3450
Input Signal		4 to 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. 450 Ω @ 20 mA DC	
Air Connection		Rc 1/4, 1/4 NPT, G 1/4	1/4 NPT
Gauge Connection		Rc 1/8, 1/8 NPT	1/8 NPT
Conduit		G 1/2, 1/2 NPT, M20	G 1/2
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 Operating Temp.	withstands -55 to +85 °C (-67 to +185 °F) only visible above -40 °C (-40 °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 0.08 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 or 18 Points)	
Material		Aluminium Diecasting	Stainless Steel 316
Ingress Protection		NEMA 4-4X, IP66	
Explosion Protection Type		**ATEX, IECEx, EAC** Ex db IIC T5/T6, Ex tb IIIC T85°C/T100°C **CCC, NEPSI** Ex d IIC T5/T6 Gb Ex tD A21 IP66 T85°C/T100°C **KCs** Ex d IIC T5/T6 IP66 **CSA** Ex db IIC T5 or T6 Class I, Zone 1, AEx db IIC T5 or T6, Class II, Division 1, Groups E, F and G; Ex tb IIC T85°C/T100°C AEx tb IIIC T85°C/T100°C Type 4, 4X ; IP66 **FM** XP/I/1/ABCD/T6 Ta= -40°C to +70°C, T5 Ta= -40°C to +80°C I/1/AEx db/IIC/T6 Ta= -40°C to +70°C, T5 Ta= -40°C to +80°C DIP/II, III/1/EFG/T6 Ta= -40°C to +70°C, T5 Ta= -40°C to +80°C 21/AEx tb/IIIC/T85°C Ta= -40°C to +70°C, T100°C Ta= -40°C to +80°C; IP66 **ECAS** Ex db IIC T5/T6 Gb, Ex tb IIIC T100°C/T85°C Db **INMETRO** Ex db IIC T5/T6 Gb IP66 Ex tb IIIC T85°C/T100°C Db IP66	
Communication (Option)		HART (ver.7)	
Weight		3.4 kg (7.5 lb)	7.0 kg (15.4 lb)

Product Code

YT-3400 - L - S - C - 2 - 4 - 2 - 3 - S

Model
YT-3400 = Aluminium housing
YT-3450 = Stainless steel housing

Motion Type
L = Linear
R = Rotary

Acting Type
S = Single
D = Double

Explosion Protection
C[1] = ATEX, IECEx, KCs, CCC, NEPSI, INMETRO
E = EAC
A = CSA, FM
Z = CCC

Lever Type

Linear	Rotary
1 = 10 to 40 mm	1 = M6 x 34L
2 = 20 to 70 mm	2 = M6 x 63L
3 = 50 to 100 mm	3 = M8 x 34L
4 = 100 to 150 mm	4 = M8 x 63L
	5 = NAMUR

Conduit & Air Connection
1 = G1/2 - Rc1/4 (N/A for CCC, YT-3450)
2 = G1/2 - 1/4 NPT (N/A for CCC)
3 = G1/2 - G1/4 (N/A for CCC, YT-3450)
4 = M20 - 1/4 NPT (N/A for YT-3450)
5 = 1/2 NPT - 1/4 NPT

Communication
0 = None
2 = HART protocol communication

Output Options
0 = None
1 = 4 to 20 mA feedback
2 = Limit switch[2]
3 = 4 to 20 mA feedback + Limit switch[2]

Operating Temp. (Non-explosion proof)[3]
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) (only available with EAC certification)

Notes:
1. Please put the name of the certificate in a purchase order.
2. Limit switch: DC 24V (50mA) and transistor type.
3. 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.