

TORQUE CONTROL

Torque Control Positioners

are available for Rotary Operation of Ball, Butterfly & Plug Valves. They are available in Pneumatic, Electro Pneumatic Analogue and Smart versions. The Smart Versions can also be supplied with either Fail Safe or Fail Freeze operation. Most stocked Smart Positioners are available Intrinsically Safe IEC Ex & Atex Certified and can be supplied with HART feedback. EXD Models, Certified IEC Ex & Atex and are also available. All are supplied with Brackets and screws suitable for mounting to all Namur Top Works Pneumatic Actuators.

TC-1000 Torque Control Pneumatic Positioners

are used by Actuators requiring an Electro Pneumatic Positioner that allows input from an electrical controller with an analogue output of 4-20mA or split range operation.

- Designed for efficient & reliable operation.
- Suitable for Double or Single Acting operation.
- Low air consumption.
- Includes adjustment to prevent hunting for small Actuators.

TC-2300 Torque Control Smart Positioners

are used by Actuators requiring an Electro Pneumatic Positioner that will accept a digital input from an electrical controller and includes as standard an output signal of 4-20mA or split range operation.

- LCD Display makes it easy to set up.
- Auto calibration.
- Valve characteristics such as linear, quick open & equal percentage readily available.
- Easy field adjustment using data entry buttons.
- Optional Hart protocol.

TC-2500 Torque Control Smart Positioners

are similar to the TC-2300 but offer the additional feature of being able to provide a Fail position. Models are available for either Fail Safe Open or Close, or Fail Freeze that is last position. Built in Microprocessor optimizes unique Auto Calibration.

- LCD Display makes it easy to set up.
- Auto Calibration.
- Valve characteristics such as linear, quick open, equal percentage possible.



TC-1000



TC-2300

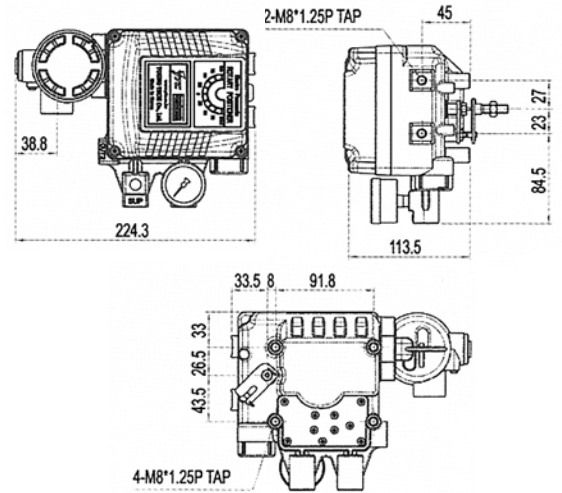


TC-2500

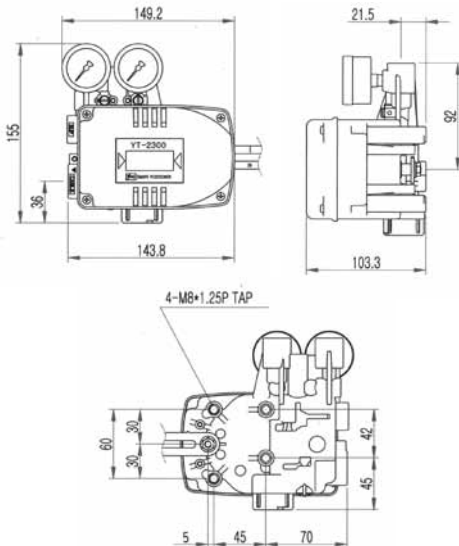
TC-1000



Item Type	Single	Double
Input Signal	4-20mA DC	
Impedance	250±15	
Supply Pressure	100 ~ 700 kPa	
Stroke	0 ~ 90°	
Air Connection	PT(NPT) 1/4	
Gauge Connection	PT(NPT) 1/8	
Conduit	M20	
Protection	IP66	
Amb. Operate Temp	-20°C ~ 70°C	
Linearity	±1% F.S.	±2% F.S.
Hysteresis	1% F.S.	
Sensitivity	±0.2% F.S.	±0.5% F.S.
Repeatability	±0.5% F.S.	
Air Consumption	2.5 LPM	
Flow Capacity	80 LPM	
Material	Aluminium Diecasting	
Weight	2.8kg	



TC-2300

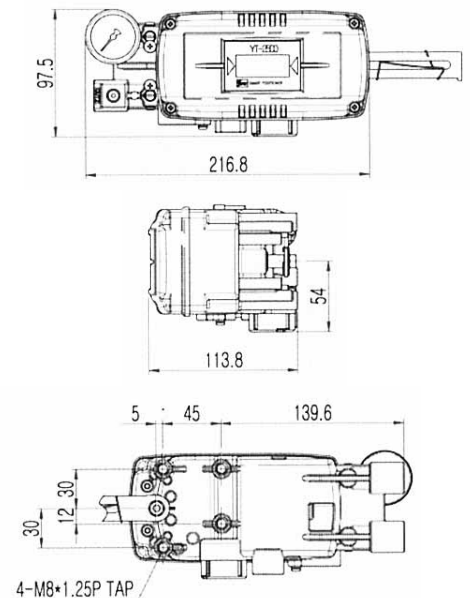


Item Type	TC-2300R
Input Signal	4 ~ 20 mA DC
Supply Pressure	100 ~ 700 kPa
Stroke	0 ~ 90°
Impedance	Max. 460 / 20mA DC
Air Connection	PT(NPT) 1/4
Gauge Connection	PT(NPT) 1/8
Conduit	M20
Repeatability	±0.3% F.S.
Amb. Operate Temp	-30°C ~ 80°C
Amb. Explosion Temp	-40 ~ 60°C (T5) / -40 ~ 40°C (T6)
Linearity	±0.5% F.S.
Hysteresis	±0.5% F.S.
Sensitivity	±0.2% F.S.
Air Consumption	Below 2 LPM (sup=1.4k)
Flow Capacity	70 LPM
Output Characteristics	Linear, EQ%, Quick Open user set (16pt)
Material	Aluminium Diecasting
Protection	IP66
Explosion Proof Type	Ex ia IIC T5/T6
Weight	2.8kg

TC-2500



Item Type	TC-2500
Input Signal	4-20mA DC
Supply Pressure	100 ~ 700 kPa
Stroke - Rotary Type	0 ~ 90°
Impedance	Max. 460Ω @20mA DC
Air Connection	PT(NPT) 1/4
Gauge Connection	PT(NPT) 1/8
Conduit	M20
Amb. Operate Temp	-30°C ~ 80°C
Linearity	±0.5% F.S.
Hysteresis	±0.5% F.S.
Sensitivity	±0.2% F.S.
Repeatability	±0.3% F.S.
Air Consumption	0.01PM (sup = 0.14 MPa)
Flow Capacity	60 LPM
Output Characteristics	Linear, EQ%, Quick Open user set (16 Point)
Material	Aluminium Diecasting
Enclosure	IP66
Explosion Proof Type	Ex ia IIC T6 / T5
Weight	1.5kg



TORQUE CONTROL

TC-2600 Torque Control Smart Positioner

EXD IEC Ex or Atex Certified Exd IIC T6 Class 1 or 2, is the Explosion Proof Version of the TC2500. Models are available for either Fail Safe Open or Close or Fail Freeze that is last position.

- LCD Display makes it easy to set up
- Auto Calibration
- Valve characteristics such as linear, quick open, equal percentage & Custom possible.
- PID Control Alarms & Protocol Communication.
- Split Range either 4-12mA or 12-20mA.

TC-3300 Torque Control Smart Positioner

incorporates the latest technology which will accept a 4 – 20mA signal from the control room. Using the inbuilt microprocessor to calculate & optimize PID parameters and support auto calibration, alarm & HART protocols.

The TC-3300 uses a Torque Motor / flapper nozzle system which makes this Positioner more durable against moisture, oil and dust. It incorporates an Auto/Manual Switch so that in Manual mode the Positioner can be operated as a by-pass.

Easy set push buttons allow auto calibration using the easy to read LCD Display. This model is generally stocked with Open/Closed Limit Switch.

- LCD Display makes it easy to set up
- Auto Calibration
- Valve characteristics such as linear, quick open, equal percentage & Custom possible
- PID Control Alarms & Protocol Communication
- Low Air Consumption below 2 LPM
- Resistant to Vibration up to 6 G

TC-3400 Torque Control Smart Positioner

EXD IEC Ex or Atex Certified Exd IIC T6 Class 1 or 2, is the Explosion Proof Version of the TC-3300 Models and includes all features.



TC-2600



TC-3300

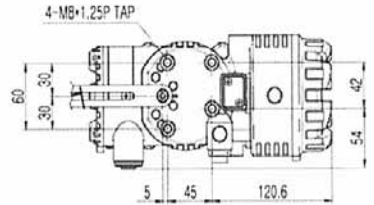
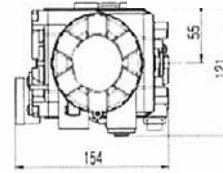
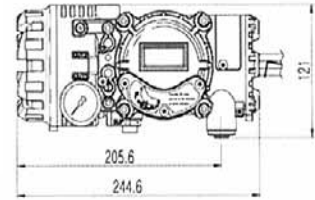


TC-3400

TC-2600



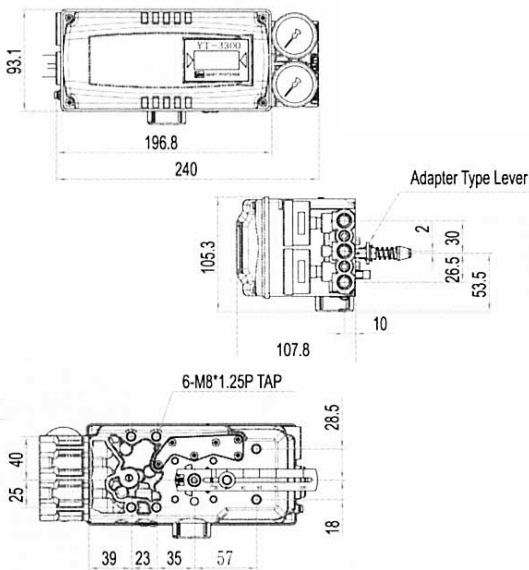
Item Type	TC-2600
Input Signal	4-20mA DC
Supply Pressure	100 ~ 700 kPa
Stroke	0 ~ 90°
Impedance	Max.460Ω @20mA DC
Air Connection	PT(NPT) 1/4
Gauge Connection	PT(NPT) 1/8
Conduit	PF 1/2 (G1/2)
Amb. Operate Temp	-30°C ~ 80°C
Amb. Explosion Temp	-40°C ~ 85°C
Linearity	±0.5% F.S.
Hysteresis	±0.5% F.S.
Sensitivity	±0.2% F.S.
Repeatability	±0.3% F.S.
Air Consumption	0.01LPM (sup=0.14MPa)
Flow Capacity	50 LPM
Material	Aluminium Diecasting
Enclosure	IP66
Explosion Proof Type	Ex d IIC T6 / T5
Weight	3.0kg



TC-3300



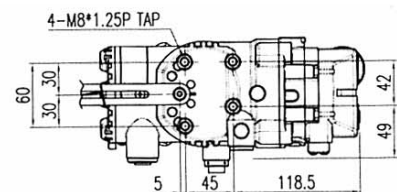
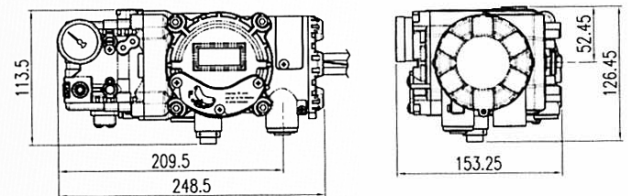
Item Type	TC-3300
Input Signal	4 ~ 20 mA DC
Supply Pressure	100 ~ 700 kPa
Stroke	0 ~ 90°
Impedance	Max.450Ω @20mA DC
Air Connection	PT(NPT) 1/4
Gauge Connection	PT(NPT) 1/8
Conduit	M20
Amb. Standard Operating Temp	-30°C ~ 80°C
Amb. LCD Operating Temp	-30°C ~ 80°C
Linearity	±0.5% F.S.
Hysteresis	±0.5% F.S.
Sensitivity	±0.2% F.S.
Repeatability	±0.3% F.S.
Air Consumption	Below 2 LPM (sup=0.14MPa)
Flow Capacity	70 LPM (sup=0.14MPa)
Output Characteristics	Linear, EQ%, Quick Open user set (16pt)
Limit Switch	2 Mechanical Switches
Material	Aluminium Diecasting
Enclosure	IP66
Weight	2.0kg



TC-3400



Item Type	TC-3400
Input Signal	4 ~ 20 mA DC
Supply Pressure	100 ~ 700 kPa
Stroke	0 ~ 90°
Impedance	Max.450Ω @20mA DC
Air Connection	PT(NPT) 1/4
Gauge Connection	PT(NPT) 1/8
Conduit	PF1/2 (G1/2)
Amb. Standard Operating Temp	-30°C ~ 80°C
Amb. Explosion Temp	-40 ~ 70°C (T5)
Amb. LCD Operating Temp	-30°C ~ 80°C
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=0.14MPa)
Flow Capacity	70 LPM (sup=0.14MPa)
Output Characteristics	Linear, EQ%, Quick Open user set (16pt)
Material	Aluminium Diecasting
Enclosure	IP66
Explosion Proof Type	Ex d IIC T6 / T5
Weight	3.4kg



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