



## Electro-Pneumatic Positioner TS600 Series

- Fast response time and excellent stability
- Simple zero and span adjustment
- IP 66 enclosure
- Strong anti vibration performance
- By-pass valve (A/M switch) installed

## Description

TS600 Electro-Pneumatic Positioner controls the valve stroke in response to an input signal of 4-20mA from the control panel, DCS, or calibrator.

## Certified



## Features

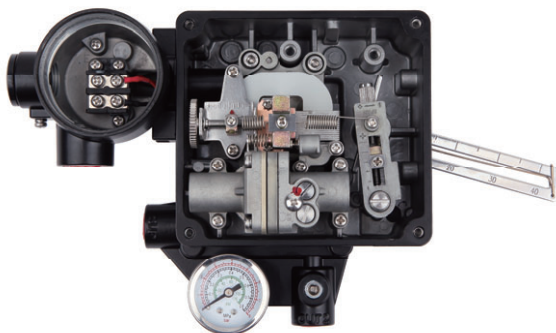


- + Fast response time and excellent stability
- + Simple zero and span adjustment
- + IP 66 enclosure
- + Strong anti vibration performance
- + By-pass valve (A/M switch) installed
- + Air connection part is designed for detachability and it can be changed PT/NPT tapping threads in the field easily
- + Integrated Flameproof and Intrinsically safe protection (ATEX&IECEX version)

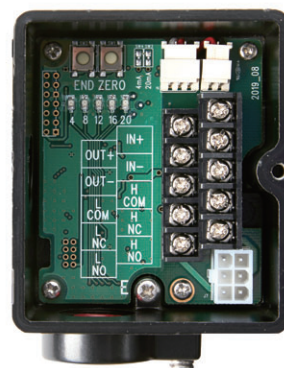
## Installation example



## Internal structure



## Position transmitter PCB



## Specifications

Model		TS600L(Single)	TS600L(Double)
Input signal		4~20mA DC	
Impedance		250 ± 15Ω	
Supply pressure		0.14~0.7MPa	
Stroke		10~150mm	
Air connection		PT1/4, NPT1/4, PF(G)1/4	
Gauge connection		PT1/8, NPT1/8	
Conduit		G(PF)1/2, NPT1/2, M20	
Explosion proof type	ATEX, IECEx, CCC	Ex db mb IIB/IIC T6/T5 Gb Ex tb IIC T85°C/T100°C Db Ex ia IIC T6/T5 Gb	
	EAC	1Ex d mb IIB/IIC T5/T6 Gb X	
	KCS	Ex dmb IIB/IIC T5/T6	
	CSA	See certificate	
Intrinsically safe parameters		Ui=28V, Ii=101mA, Pi=707mV	
Enclosure		IP66 (EN60529)	
Ambient Temp.		-20°C~70°C (Standard type)	
Explosion proof Temp.		-40°C~60°C(T5) / -40°C~40°C(T6)	
Linearity		±1.0% F.S.	±2.0% F.S.
Sensitivity		±0.2% F.S.	±0.5% F.S.
Hysteresis		±1.0% F.S.	
Repeatability		±0.5% F.S.	
Air consumption		Below 2.5LPM (Sup=0.14MPa)	
Flow capacity		Over 80LPM (Sup=0.14MPa)	
Material		Aluminum die cast	
Weight		2.8kg	

## Product code

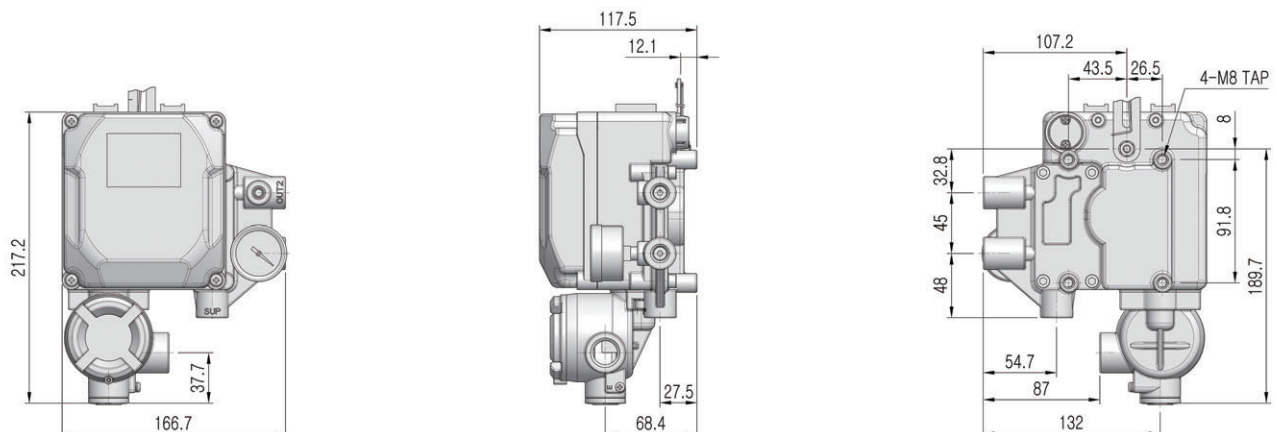
Model		TS600	L					
Acting type	Linear type	L						
Explosion proof type	Non-explosion proof	N						
	Ex dmb IIB T5/T6	B						
	Ex dmb IIC T5/T6	C						
	Ex ia IIC T5/T6	A						
	ATEX&IECEx	X						
	CSA/US (In progress)	S						
Connection type	Conduit entry	Air connection						
	PF(G)1/2	PT1/4	1					
	PF(G)1/2	NPT1/4	2					
	NPT1/2	NPT1/4	3					
	M20	NPT1/4	4					
	M20	PF(G)1/4	5					
Lever type	10 ~ 40mm		1					
	40 ~ 70mm		2					
	70 ~ 100mm		3					
	100 ~ 150mm		4					
Ambient Temp.	-20°C~70°C					S		
	-20°C~120°C *					H		
	-40°C~70°C					L		
	-60°C~70°C(For EAC)					U		
Option	None (Standard type)						0	
	With Position transmitter(4~20mA) (Positioner is RA type) *						1	
	With Position transmitter(4~20mA) (Positioner is DA type) *						2	

Notes:

1. \* Must be Non-explosion proof type.

2. Conduit entry for ATEX/IECEx/CCC/CSA should be "NPT1/2" or "M20".

## Dimension [Unit:mm]



# Electro-Pneumatic Positioner TS600R (Rotary type)

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## Description

TS600 Electro-Pneumatic Positioner controls the valve stroke in response to an input signal of 4-20mA from the control panel, DCS, or calibrator.

## Certified



## Features



- + Fast response time and excellent stability
- + Simple zero and span adjustment
- + IP 66 enclosure
- + Strong anti vibration performance
- + By-pass valve (A/M switch) installed
- + Air connection part is designed for detachability and it can be changed PT/NPT tapping threads in the field easily
- + Integrated Flameproof and Intrinsically safe protection (ATEX&IECEx version)

## Options



Option code No.1  
TS600R with Position transmitter  
(Non-explosion proof type)



Option code No.2 or No.4  
TS600R with Limit switch  
(Non-explosion proof type)



Option code No.3  
TS600R with Limit switch  
(Explosion proof type)



Option code No.5  
TS600R with Position transmitter and  
Limit switch (Explosion proof type)



Option code No.6  
With external Limit switch  
mounting device



Option code No.7  
With Position transmitter and  
external Limit switch mounting device



For KCS certificate type



Option code No.9  
TS600R with Position transmitter  
With LCD(Special type)

## Specifications

Model	TS600L(Single)	TS600L(Double)
Input signal	4~20mA DC	
Impedance	250 $\pm$ 15 $\Omega$	
Supply pressure	0.14~0.7MPa	
Stroke	0~90°	
Air connection	PT1/4, NPT1/4, PF(G)1/4	
Gauge connection	PT1/8, NPT1/8	
Conduit	PF(G)1/2, NPT1/2, M20	
Explosion proof type	ATEX, IECEx, CCC	Ex db mb IIB/IIC T6/T5 Gb Ex tb IIIC T85°C/T100°C Db Ex ia IIC T6/T5 Gb
	EAC	1Ex d mb IIB/IIC T5/T6 Gb X
	KCS	Ex dmb IIB/IIC T5/T6
	CSA	See certificate
Intrinsically safe parameters	Ui=28V, Ii=101mA, Pi=707mV	
Enclosure	IP66 (EN60529)	
Ambient Temp.	-20°C~70°C (Standard type)	
Explosion proof Temp.	-40°C~60°C(T5) / -40°C~40°C(T6)	
Linearity	$\pm$ 1.0% F.S.	$\pm$ 2.0% F.S.
Sensitivity	$\pm$ 0.2% F.S.	$\pm$ 0.5% F.S.
Hysteresis	$\pm$ 1.0% F.S.	
Repeatability	$\pm$ 0.5% F.S.	
Air consumption	Below 2.5LPM (Sup=0.14MPa)	
Flow capacity	Over 80LPM (Sup=0.14MPa)	
Material	Aluminum die cast	
Weight	2.8kg	

## Product code

Model	TS600	R					
Acting type	Rotary type	R					
Explosion proof type	Non-explosion proof	N					
	Ex dmb IIB T5/T6	B					
	Ex dmb IIC T5/T6	C					
	Ex ia IIC T5/T6	A					
	ATEX&IECEx	X					
	CSA/US (In progress)	S					
Connection type	Conduit entry	Air connection					
	PF(G)1/2	PT1/4	1				
	PF(G)1/2	NPT1/4	2				
	NPT1/2	NPT1/4	3				
	M20	NPT1/4	4				
	M20	PF(G)1/4	5				
Lever type	M6 x 39L		1				
	NAMUR		5				
Ambient Temp.	-20°C~70°C					S	
	-20°C~120°C *					H	
	-40°C~70°C					L	
	-60°C~70°C (For EAC)					U	
Option	None						0
	Internal PTM*						1
	Internal L/S*						2
	External L/S (TS410)						3
	Internal PTM + L/S*						4
	External PTM+L/S (TS510)						5
	With external L/S mounting device						6
	With PTM + L/S mounting device*						7
	With Dome cover*						8

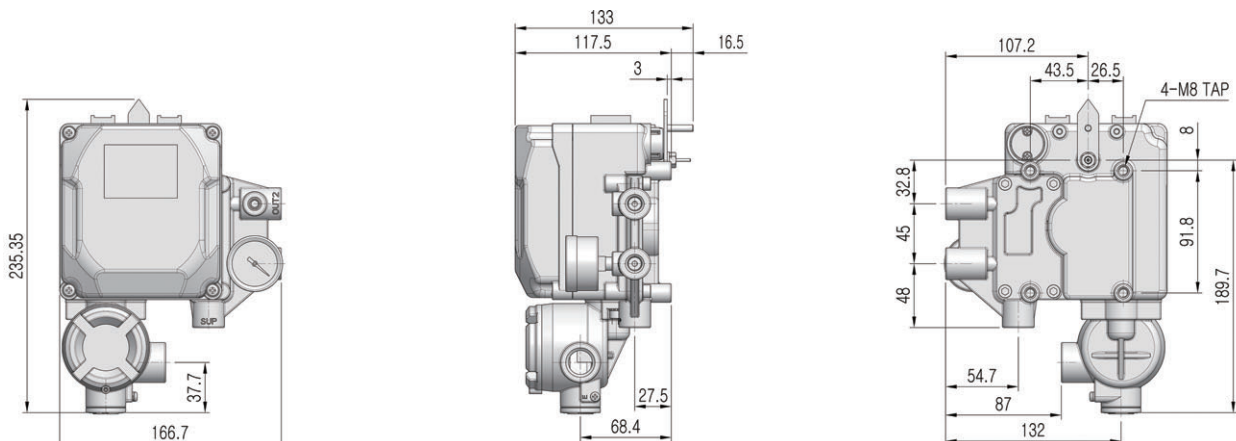
Notes:

1. \* Must be Non-explosion proof type.

2. Conduit entry for ATEX/IECEx/CCC/CSA should be "NPT1/2" or "M20".

3. PTM is Position transmitter, L/S is Limit switch.

## Dimension [Unit:mm]





Solutions for control valve system

tissin

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