

Solutions for Control valve Accessories

TISSIN CO.,LTD.

PRODUCTS CATALOG 2025



- + Smart Valve Positioner
- + Electro-Pneumatic Positioner
- + Pneumatic-Pneumatic Positioner
- + Volume Booster
- + Lock Up Valve
- + Snap Acting Relay
- + Air Filter Regulator
- + Limit Switch Box
- + Valve Position Transmitter

tissin
Solutions for Control valve Accessories

Solutions for control valve accessories!

Tissin Co.,Ltd.

Tissin is a professional brand for control valve accessories in Korea and provides high quality of products that are based on long-term field experience.

Tissin's team members with many experiences who are in charge of the technical department, the sales department and the production department have overcome various problems that have occurred in the field over the years, so with that we have been trying for the customer's trust constantly.

Tissin takes pride in that the company can offer its customers the best and most competitive prices to choose from, as well as our company can solve the problems that other companies can not solve, and solve them through close relationships with our customers.

Tissin's technical department team understands the conditions of the field very well and continues to develop new product lines in the direction that customers want. In addition, TISSIN's sales and production department team is using all of its methods to service the most competitive pricing to meet the customer's requirements.

Tissin will be able to do whatever needs to be done whatever the customer wants, in any field.

Company overview

Company Name	: TISSIN Co.,Ltd.
Address	: 16-5, Hagunsandan 5-ro da-gil, Yangchon-eup, Gimpo-si, Korea 10049
Established	: Apr.2015
President	: An Sun Ho
Main Products	: Valve Positioner, Volume Booster, Lock Up Valve, Air Filter Regulator, Control valve accessories.
Homepage	: www.tissin.co.kr

History

- 2025.03 Moved to New building
- 2023.07 Produced Snap acting relay TS250 series
- 2023.07 Award 'Bucheon Small Giants' in 2023 from Bucheon City Government
- 2023.05 Produced P/P Positioner TS610 series
- 2022.11 Produced valve position transmitter TS500 series
- 2022.11 Produced Limit switch box TS400 series
- 2021.12 Produced Fail freeze type Smart positioner TS700 series
- 2021.04 Certified Technology Innovation-Oriented Small and Medium Enterprise(Inno-Biz)
- 2020.06 Established R&D center
- 2018.04 Produced Smart positioner TS900 series
- 2017.09 Produced Air filter regulator TS300 series
- 2017.08 Certified patent for TS800 torque motor
- 2017.06 Produced Smart positioner TS800 series
- 2017.04 Certified Venture Business
- 2016.01 Produced Lock up valve TS200 series
- 2016.01 Produced Volume booster TS100 series
- 2015.09 Produced E/P Positioner TS600 series
- 2015.04 Established TISSIN Co.,Ltd.



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Certifications

03



IECEx



ATEX



CE



CSA/US



EAC



KCS



CCC



NEPSI



SIL



RoHS



Inno-Biz



Venture Enterprise



ISO9001:2015



R&D Center



Patent of Invention



HART Membership





Model	Certification	Certificate number	Explosion proof grade
TS600	IECEX	IECEX EPS 18.0078X	Ex db mb IIB/IIC T6/T5 Gb
	ATEX	EPS 18 ATEX 1 156 X	Ex ia IIC T6/T5 Gb
	CCC	2020322307000492	Ex tb IIIC T85°C/T100°C Db IP66
	NEPSI	GYJ21.1313X	Ex db mb IIC(IIB) T5/T6 Gb
		GYJ21.1314X	Ex tb IIIC T85°C/T100°C Db
	EAC	RU C-KR.HA65.B.01513/22	Ex ia IIC T5/T6 Gb
		RU C-KR.AA71.B.00616/24	1Ex d mb IIC(IIB) T5/T6 Gb X
	KCS	16-KA2BO-0353	1Ex ia IIC T6...T5 Ga X
		16-KA2BO-0424	Ex dmb IIB T6/T5
TS700 TS720	IECEX	IECEX EPS 23.0057X	Ex dmb IIC T6/T5
	ATEX	EPS 23 ATEX 1 141 X	Ex ia IIC T5/T6 Gb
	CCC	2023322307005650	Ex ia IIIC T100°C/85°C Db
	NEPSI	GYJ23.1300X	
	EAC	RU C-KR.AA71.B.00616/24	1Ex ia IIC T6...T5 Ga X
		24-KA2BO-0009X	Ex ia IIC T6/T5
TS800 TS805 TS820	KCS	24-KA2BO-0008X	Ex ia IIIC T85°C/100°C
	IECEX	IECEX EPS 17.0088X	Ex ia IIC T5/T6 Ga
	ATEX	EPS 17 ATEX 1 174 X	Ex ia IIIC T112°C/T92°C Da IP66
	EAC	RU C-KR.HA65.B.01513/22	1Ex ia IIC T5/T6 Ga X
		20-KA2BO-0189X	Ex ia IIC T6/T5
	KCS	20-KA2BO-0188X	Ex ia IIIC T85°C/100°C
	CCC	2020322307002407	Ex ia IIC T5/T6 Gb
	NEPSI	GYJ23.1056X	Ex ia IIIC T85°C/T100°C Db
TS900 TS905	CSA	80139740	CL I, DIV 1&2, GP ABCD; T5...T6
			Ex ia IIC T5...T6 Ga
	CSA	80139740	CL I, ZN 0 AEx ia IIC T5...T6 Ga
			CL II, DIV 1&2, GP EFG; T112°C...T92°C; CL III
	CSA	80139740	Ex ia IIIC T112°C...T92°C Da
			ZN 20 AEx ia IIIC T112°C...T92°C Da
	SIL	FS/71/220/25/1666 (SGS TUV SAAR)	SIL2 at HFT=0
			SIL3 at HFT=1
	IECEX	IECEX EPS 19.0052X	Ex db IIC T5/T6 Gb
	ATEX	EPS19 ATEX1 112 X	Ex tb IIIC T100°C/T85°C Db
TS410 TS415	CCC	2020322307000493	
	NEPSI	GYJ23.1057X	
	EAC	RU C-KR.AД07.B.01961/20	1Ex d IIC T5/T6 Gb
			Ex tb IIIC T100°C/T85°C Db
	KCS	23-KA2BO-0145X(TS900)	Ex db IIC T6/T5 Gb
		23-KA2BO-0147X(TS905)	
	KCS	23-KA2BO-0146X(TS900)	Ex tb IIIC T100°C/T85°C Db
		23-KA2BO-0418X(TS905)	
TS510 TS515	CSA	80153472	CL I, DIV 1, GP C and D; T5...T6
			CL II, DIV 1, GP E, F and G; T85°C...T100°C
	CSA	80153472	Ex db IIC T5...T6 Gb
			CL I, ZN 1 AEx db IIC T5...T6 Gb
	SIL	FS/71/220/25/1666 (SGS TUV SAAR)	Ex tb IIIC T85°C...T100°C Db
TS410 TS415	IECEX	IECEX EPS 23.0105X	CLII, ZN 21 AEx tb IIIC T85°C...T100°C Db
	ATEX	EPS23 ATEX1 376 X	SIL2 at HFT=0
	KCS	2024-043245-01-1	SIL3 at HFT=1
	CCC	2024322304006320	
TS510 TS515	NEPSI	GYJ24.1334X	Ex db IIC T5/T6 Gb
	KCS	24-KA2BO-0678X	Ex tb IIIC T100°C/T85°C Db
TS510 TS515	NEPSI	GYJ24.1289X	Ex db IIC T5/T6 Gb
			Ex tb IIIC T100°C/T85°C Db

Smart Valve Positioner TS800/TS805 Series

05

Description

TS800 Smart Valve Positioner controls the valve stroke in response to an input signal of 4-20mA from the control panel, DCS, or calibrator.

Certified



Features



TS800 Standard type



TS805 Stainless steel 316 type



TS800 with Limit switch type

- + Quick and easy auto calibration
- + Flapper / Nozzle type Torque motor
- + By-pass valve (A/M switch) installed
- + HART communication (HART 7)
- + Limit switch (Mechanical or Proximity type)
- + Partial stroke test (PST) function
- + Alarm function
- + Advanced diagnostics (Option)
- + Copper minimized (Option)

TS820 (Remote type)

TS820 Body

TS820 Sensor



Interface structure



- | | |
|-----------------------------|----------------------------------|
| 1. LCD | 6. Position transmitter (Option) |
| 2. Button (4) | - 2 Wire |
| 3. Alarm modules | - 4~20mA DC feedback signal |
| 4. Input signal (4~20mA DC) | 7. Limit switch (Option) |
| 5. Ground | - Mechanical type |
| | - Proximity type |

Specifications

Model		TS800/TS820	TS805
Input signal		4~20mA DC	
Impedance		500Ω at 20mA DC	
Supply pressure		0.14~0.7MPa	
Stroke		10~150mm (Linear), 0~90° (Rotary)	
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	Ex ia IIC T5/T6 Ga Ex ia IIIC T112°C/92°C Da	
	CCC, NEPSI, KCS	Ex ia IIC T5/T6 Gb Ex ia IIIC T85°C/100°C Db	
	EAC	1 Ex ia IIC T5/T6 Ga	
	CSA/US	See certificate	
Enclosure	EN60529	IP66	
	NEMA	Type 4	Type 4X
Surge protection		Max.16KV	
Ambient Temp.	Standard type	-30°C~85°C	
	Low temp type	-40°C~85°C	
	Explosion proof	-40°C~60°C(T5) / -40°C~40°C(T6)	
	LCD operating	-30°C~85°C	
Linearity		±0.5% F.S.	
Sensitivity		±0.2% F.S.	
Hysteresis		±0.5% F.S.	
Repeatability		±0.3% F.S.	
Air consumption		Below 2.3LPM (Sup=0.14MPa)	
Required air quality		Class 3 (ISO 8573-1)	
Flow capacity		Over 100LPM (Sup=0.14MPa)	
Material		Aluminum die cast	Stainless steel 316
Weight		2.6kg	4.2kg
HART version*		HART 7	
Position transmitter*	Connection type	2 Wire	
	Supply voltage	9~28V DC	
Limit switch rating*	Mechanical type	AC 125V, 3A DC30V, 2A	
	Proximity type	DC8.2V 8.2A	

* Options

Product code

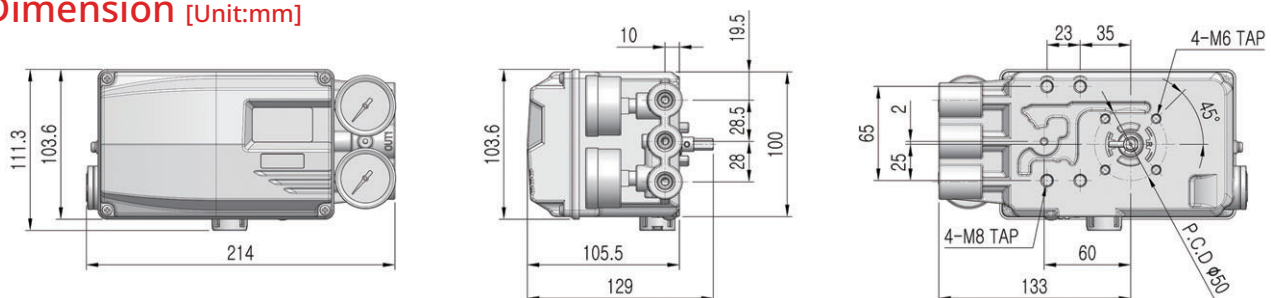
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*Connection type for CSA is only available with No.3~4.

*Ambient Temp. for CSA is only available with L type.

*Limit switch options are not available with Non-contact sensor type .

Dimension [Unit:mm]



Smart Valve Positioner TS900/TS905 Series (Flame proof type)

07

Description

TS900 Smart Valve Positioner controls the valve stroke in response to an input signal of 4-20mA from the control panel, DCS, or calibrator.

Certified



Features



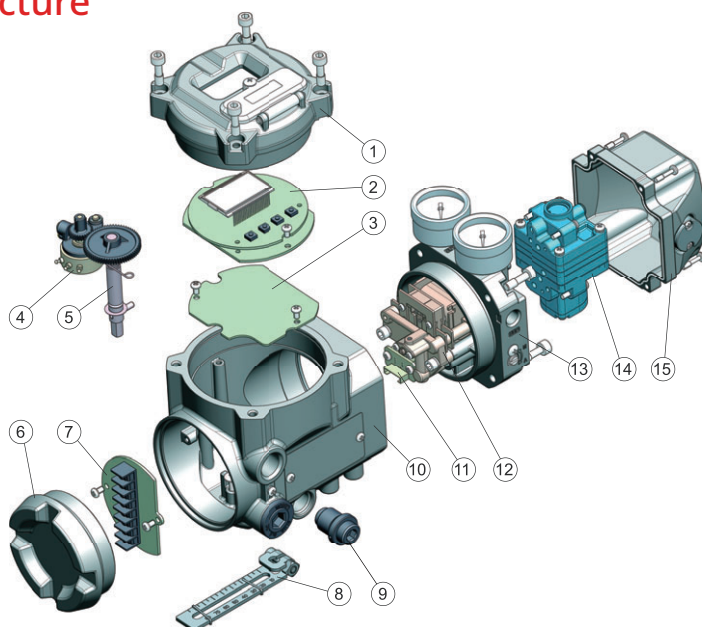
TS900



TS905

- + Quick and easy auto calibration
- + Large flow pilot valve(Over than 100LPM)
- + Flapper / Nozzle type Torque motor
- + By-pass valve (A/M switch) installed
- + HART communication (HART 7)
- + Partial stroke test (PST) function
- + Alarm function (Option)
- + Advanced diagnostics (Option)

Structure



1. Body cover
2. Main PCB
3. PCB guide
4. Potentiometer
5. Main shaft
6. Junction box cover
7. Terminal PCB
8. Feedback lever
9. Drain plug
10. Base body
11. Pressure sensor(Optional)
12. Torque motor
13. Air connection block
14. Pilot valve
15. Pilot valve cover

Specifications

Model		TS900	TS905
Input signal		4~20mA DC	
Impedance		500Ω at 20mA DC	
Supply pressure		0.14~0.7MPa	
Stroke		10~150mm(Linear), 0~90°(Rotary)	
Air connection		NPT1/4, PF(G)1/4	
Gauge connection		NPT1/8	
Conduit		NPT1/2, M20, PF(G)1/2	
Explosion proof type	ATEX, IECEx CCC, EAC,KCS	Ex db IIC T5/T6 Gb Ex tb IIIC T85°C/T100 °C Db	
	CSA/US	See certificate	
Enclosure	EN60529	IP66	
	NEMA	Type 4	Type 4X
Surge protection		Max.16KV	
Ambient Temp.	Standard type	-30°C~80°C	
	Low temp type	-40°C~80°C	
	Explosion proof	-40°C~80°C(T5) / -40°C~70°C(T6)	
	LCD operating	-30°C~85°C	
Linearity		±0.5% F.S.	
Sensitivity		±0.2% F.S.	
Hysteresis		±0.5% F.S.	
Repeatability		±0.3% F.S.	
Air consumption		Below 2.3LPM (Sup=0.14MPa)	
Required air quality		Class 3 (ISO 8573-1)	
Flow capacity		Over 100LPM (Sup=0.14MPa)	
Material		Aluminum die cast	Stainless Steel 316
Weight		3.5kg	7.0kg
HART version*		HART 7	
Position transmitter*	Connection type	2 Wire	
	Supply voltage	9~30V DC	
Alarm switch*		9~30V DC	

* Options

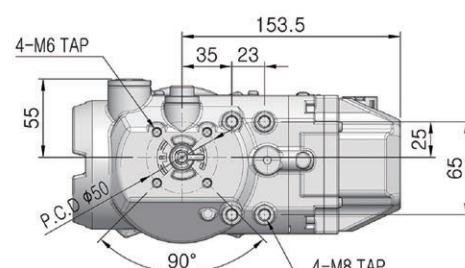
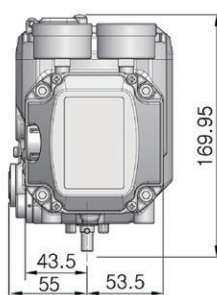
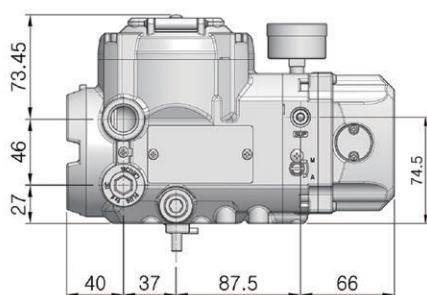
Product code

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*Connection type No.1 and 2 are only available with KCS.

* Natural gas type only available ATEX&IECEx.

Dimension [Unit:mm]



Description

TS700 Smart Valve Positioner controls the valve stroke in response to an input signal of 4-20mA from the control panel, DCS, or calibrator.

Certified



Features



- + Fail freeze function
- + Zero air consumption when standby signal
- + Prevents circuit board corrosion by external air exhaust design
- + Quick and easy auto calibration
- + Built-in air filter(5 micron)
- + HART communication (HART 7)
- + Limit switch (Mechanical or Proximity type)
- + Partial stroke test (PST) function
- + Self diagnostic

TS720 (Remote type)

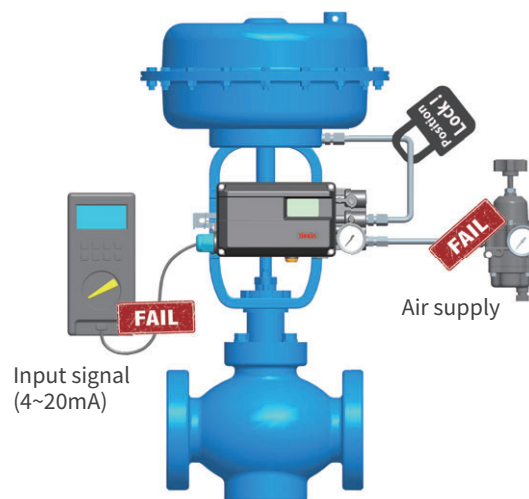
TS720 Body

TS720 Sensor



Fail freeze function diagram

When the 4~20mA input signal or air supply signal is fail, cut off the air pressure to the actuator to hold the current valve position



Specifications

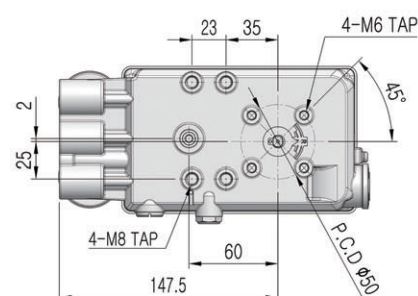
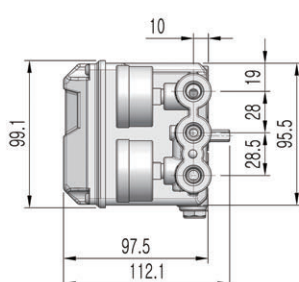
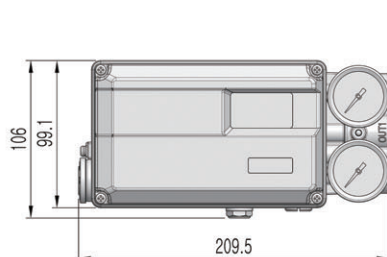
Model		TS700
Input signal		4~20mA DC
Impedance		500Ω at 20mA DC
Supply pressure		0.14~0.8MPa
Stroke		10~150mm (Linear), 0~90° (Rotary)
Air connection		PT1/4, NPT1/4, PF(G)1/4
Gauge connection		PT1/8, NPT1/8
Conduit		PF(G)1/2, NPT1/2, M20
Explosion proof type		Ex ia IIC T5/T6 Gb Ex ia IIIC T100°C/85°C Db
Enclosure		IP66 (EN60529)
Surge protection		Max.16KV
Ambient Temp.	Standard type	-25°C~80°C
	Low temp type	-40°C~80°C
	Explosion proof	-40°C~60°C(T5) / -40°C~40°C(T6)
	LCD operating	-30°C~85°C
Linearity		±0.5% F.S.
Sensitivity		±0.2% F.S.
Hysteresis		±0.5% F.S.
Repeatability		±0.3% F.S.
Air consumption		Below 0.01LPM (Sup=0.14MPa)
Required air quality		Class 4 (ISO 8573-1)
Flow capacity		Over 75LPM (Sup=0.14MPa)
Material		Aluminum die cast
Weight		1.5kg
HART version*		HART 7
Position transmitter*	Connection type	2 Wire
	Supply voltage	9~28V DC
Limit switch rating*	Mechanical type	AC 125V, 3A DC30V, 2A
	Proximity type	DC8.2V 8.2A

* Options

Product code

[illegible]

Dimension [Unit:mm]



Electro-Pneumatic Positioner TS600L (Linear type)

11

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

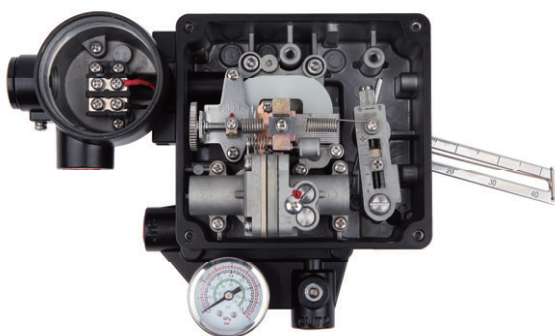


- + Fast response time and excellent stability
- + Simple zero and span adjustment
- + IP 66 enclosure
- + Strong anti vibration performance
- + By-pass valve (A/M switch) installed
- + Air connection part is designed for detachability and it can be changed PT/NPT tapping threads in the field easily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

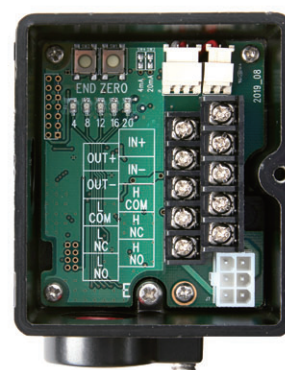
Installation example



Internal structure



Position transmitter PCB



Specifications

Model		TS600L(Single)	TS600L(Double)
Input signal		4~20mA DC	
Impedance		250 $\pm$ 15 Ω	
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 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

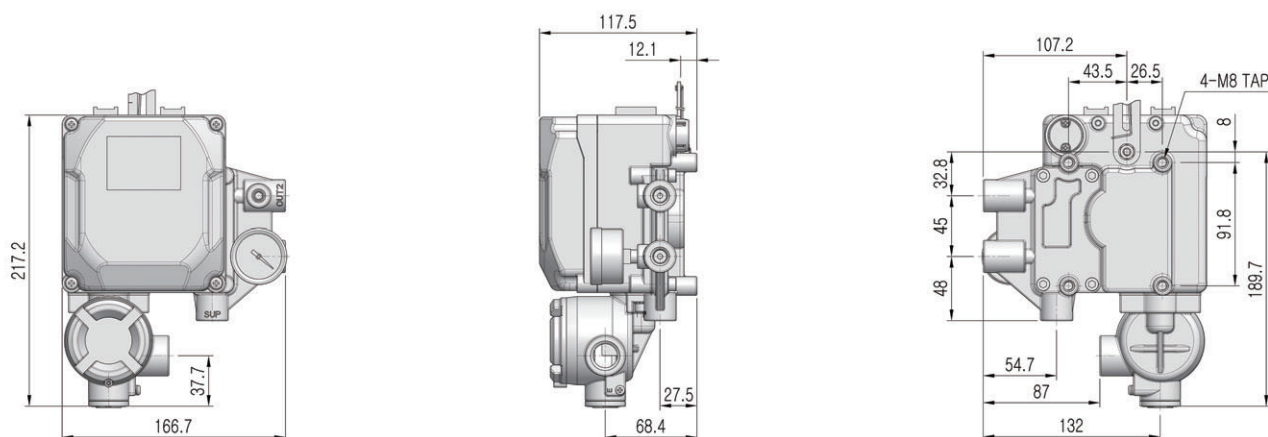
Model		TS600	L				
Acting type	Linear type		L				
Explosion proof type	Non-explosion proof		N				
	Ex dmb IIB T5/T6		B				
	Ex dmb IIC T5/T6		C				
	Ex ia IIC T5/T6		A				
	ATEX&IECEX		X				
	CSA/US (In progress)		S				
Connection type	Conduit entry	Air connection					
	PF(G)1/2	PT1/4	1				
	PF(G)1/2	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)

13

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 Ω	
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

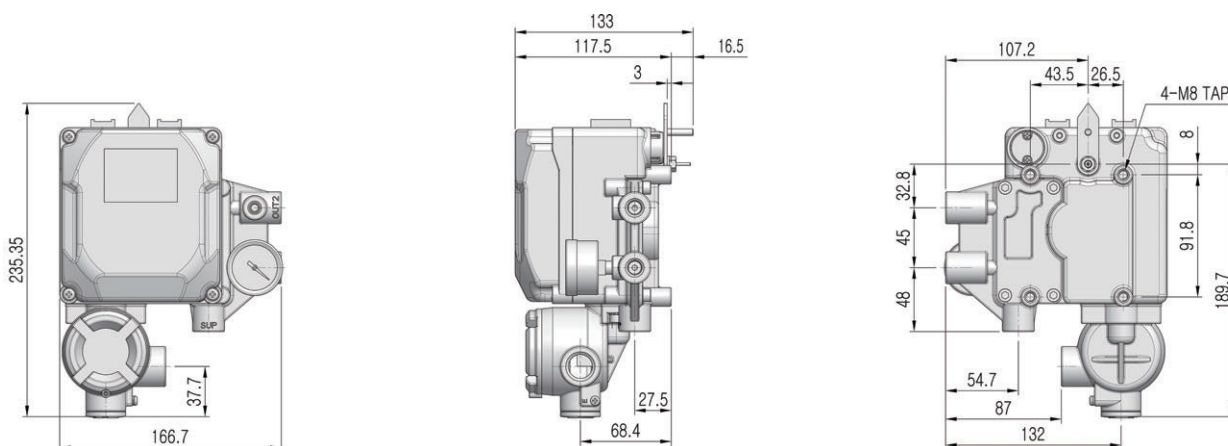
Notes:

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]



Description

TS610 series Pneumatic-Pneumatic Positioner controls the valve stroke in response to an input signal pressure of 0.02~0.1MPa from the controller.

Certified



IP₆₆

Features



TS610L (Linear type)



TS610R (Rotary type)

- + Fast response time and excellent stability
- + Simple zero and span adjustment
- + IP 66 enclosure
- + Low air consumption
- + By-pass valve (A/M switch) installed
- + Position transmitter and Limit switch (Options)

Options



Option code No.1
TS610R with Dome cover



Option code No.2
TS610R with Position transmitter
(External TS500)



Option code No.3 and No.6
TS610R with Position transmitter
(External TS510)



Option code No.4
TS610R with Limit switch box
(External TS400)



Option code No.5
TS610R with Limit switch box
(External TS410)



Option code No.7
TS610R With external Limit switch
mounting device

Specifications

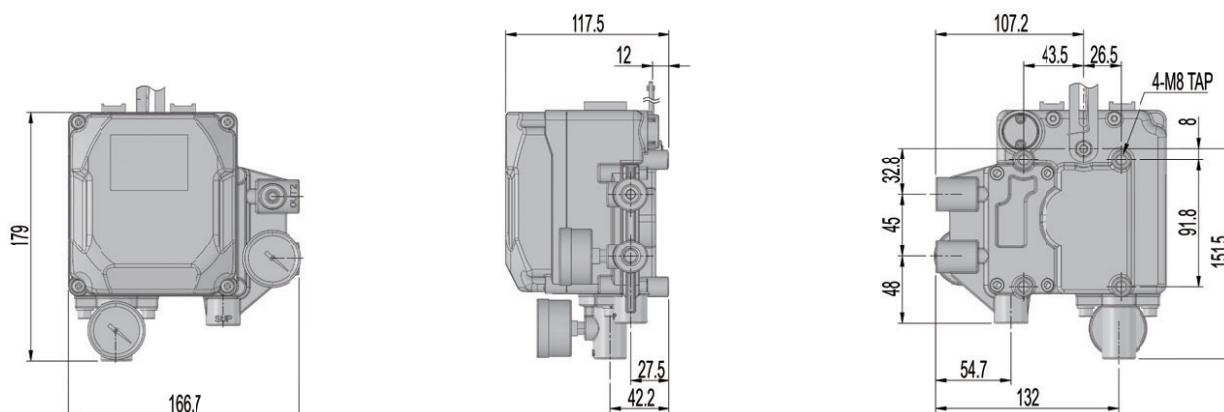
Model	TS610(Single)	TS610(Double)
Input signal	0.02~0.1MPa	
Supply pressure	0.14~0.7MPa	
Stroke	10~150mm (Linear), 0~90°(Rotary)	
Air connection	PT1/4, NPT1/4, G1/4	
Gauge connection	NPT1/8	
Enclosure	IP66 (EN60529)	
Ambient Temp.	-20°C~70°C (Standard type)	
Linearity	±1.0% F.S.	±2.0% F.S.
Sensitivity	±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	
Painting	Polyester powder coating	
Weight	2.8kg	

Product code

Model	TS610					
Acting type	Linear type	L				
	Rotary type	R				
Connection	PT1/4		1			
	NPT1/4		2			
	G1/4		3			
Lever (Linear type)	10 ~ 40mm			1		
	40 ~ 70mm			2		
	70~100mm			3		
	100~150mm			4		
Lever (Rotary 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				U	
Option	None					0
	With Dome cover					1
	External position transmitter (TS500)					2
	External Position transmitter (TS510)					3
	External Limit switch (TS400)					4
	External Limit switch (TS410)					5
	External Position transmitter and Limit switch (TS510)					6
	With Limit switch mounting device					7

*Option No.1~7 are only available with TS610R(Rotary type).

Dimension [Unit:mm]



Volume Booster TS100/105/110/115/120/125 Series

17

Description

Volume Booster is one-to-one Signal to output supply air, when used with a positioner/actuator, it is a control device to increase the stroking speed of control valves.

Certified



Features

- + Precise and fast response
- + Soft seats provide tight shut off
- + Adjustable Sensitivity
- + Options available (High and Low temperature)
- + Speed up valve regulation



TS100



TS110



TS120



TS105



TS115



TS125

Specifications

Model		TS100 TS105	TS110 TS115	TS120 TS125
Max supply pressure		1MPa		
Signal pressure		0.14~0.7MPa		
Signal to output ratio		1:1		
Linearity		1%		
Flow capacity(CV)	Output	1.2	2.1	5.2
	Exhaust	1.3	2.7	4.9
Supply / Output port		NPT(PT)1/4	NPT(PT)1/2	NPT3/4
Signal port		NPT1/4, PT1/4		
Ambient temperature		-20°C~70°C		
Material	TS1x0	Aluminum die cast		
	TS1x5	Stainless steel 316		
Weight	TS1x0	0.55kg	0.75kg	1.9kg
	TS1x5	1.4kg	1.9kg	4.5kg

Product code

Model		TS1			
In/ Output port size	1/4"	0			
	1/2"	1			
	3/4"	2			
Material	Aluminum		0		
	Stainless steel 316		5		
Air connection type*	NPT			N	
	PT			P	
Ambient temperature	-20°C~70°C				S
	-20°C~120°C				H
	-40°C~70°C				L
	-60°C~70°C				U

* TS120/105/115/125 are only available with NPT .

Description

The pneumatic Lock Up Valve TS200 series shuts off the signal pressure line either when the air supply falls below an adjusted value or upon complete air supply failure. This causes the actuator to remain in its last position.

Certified



Features

- + Quick Response and high precision
- + Easy set-up of lock up air pressure
- + Small size and light weight
- + Options available (High & Low Temperature)



Specifications

Model	TS200	TS210	TS205	TS215
Signal pressure	0.14~0.7MPa			
Max supply pressure	1MPa			
Max lock up pressure	0.7MPa			
Differential pressure	Below 0.01MPa			
Operating Temp.	-20°C~70°C(Standard type)			
Flow capacity(CV)	0.9	1.8	0.9	1.8
In/Out connection	NPT(PT) 1/4	NPT(PT) 3/8	NPT1/4	NPT3/8
Signal connection	NPT(PT)1/4		NPT1/4	
Material	Aluminum die cast		Stainless steel 316	
Weight	Single type	0.5kg	1.2kg	3.3kg
	Double type	0.6kg	2.1kg	6.0kg

Product code

Model	TS2				
In/ Output port size	1/4"	0			
	3/8"	1			
Material	Aluminum	0			
	Stainless steel 316	5			
Acting type	Single		S		
	Double		D		
Air connection type*	NPT			N	
	PT			P	
Ambient temperature	-20°C~70°C				S
	-20°C~120°C				H
	-40°C~70°C				L
	-60°C~70°C				U

* TS205/215 are only available with NPT .

Snap Acting Relay TS250/255/260/265 Series

19

Description

Snap Acting Relay is a device that moves the control valve to the desired position in case of an emergency by switching or locking OUT port of pneumatic pipe when the signal pressure is lower than the set pressure.

Features

- ★ Quick Response and high precision
- ★ Easy set-up of switching signal air pressure
- ★ Can be switched to Lock up valve
- ★ Options available (High & Low Temperature)

Certified



Specifications

Model	TS250	TS260	TS255	TS265
Signal pressure	0.14~0.7MPa			
Max supply pressure	1MPa			
Max signal pressure	0.7MPa			
Differential pressure	Below 0.01MPa			
Operating Temp.	-20°C~70°C(Standard type)			
Flow capacity(CV)	0.9	1.8	0.9	1.8
Signal connection	NPT(PT) 1/4	NPT(PT) 3/8	NPT1/4	NPT3/8
In/Out connection	NPT(PT)1/4		NPT1/4	
Material	Aluminum die cast		Stainless steel 316	
Weight	Single type	0.7kg	1.2kg	1.7kg
	Double type	1.3kg	2.1kg	3.1kg

Product code

Model	TS2				
In/ Output port size	1/4"	5			
	3/8"	6			
Material	Aluminum	0			
	Stainless steel 316	5			
Acting type	Single		S		
	Double		D		
Air connection type*	NPT			N	
	PT			P	
Ambient temperature	-20°C~70°C				S
	-20°C~120°C				H
	-40°C~70°C				L
	-60°C~70°C				U

* TS255/265 are only available with NPT .

Description

Air filter regulator TS300 series are used to provide pneumatic measuring and control equipment with a constant air supply.

Certified



Features

- + Remove particles from compressed air
- + Excellent flow and regulation characteristics
- + Easy Installation, Repair and Replacement
- + 2 gauge port, 5 micron filter
- + Auto drain (option)



TS300
(1/4")



TS300
(1/4" Auto drain)



TS310
(1/2")



TS310
(1/2" Auto drain)



TS305
(1/4" STS316)



TS305
(1/4" STS316
Auto drain)



TS315
(1/2" STS316)



TS315
(1/2" STS316
Auto drain)

Specifications

Model		TS300	TS310	TS305	TS315
Max supply pressure		1.7MPa			
Max output pressure		0.84MPa			
Operating Temp.		-20℃~70℃ (Standard type)			
Filtering capacity		5 micron			
Air connection		NPT(PT) 1/4	NPT(PT) 1/2	NPT1/4	NPT1/2
Gauge connection		NPT(PT)1/4		NPT1/4	
Material		Aluminum die cast		Stainless steel 316	
Weight	Sdandard	0.6kg	0.9kg	1.5kg	1.7kg
	Auto drain	0.6kg	1.0kg	1.6kg	1.9kg

Product code

Model	TS3						
In/ Output port size	1/4"	0					
	1/2"	1					
Material	Aluminum	0					
	Stainless steel 316	5					
Air connection type*	NPT			N			
	PT			P			
Ambient temperature	-20°C~70°C				S		
	-20°C~120°C				H		
	-40°C~70°C				L		
	-60°C~70°C				U		
Pressure gauge	None					0	
	Included (0~1MPa)					1	
	Included (0~0.4MPa)					2	
Option	None						0
	Auto drain						A

* TS305/315 are only available with NPT .



Description

Limit switch box is a device which notifies the central control room or controller when the valve reaches the set position.

Features



Certified

CE IP₆₇

- + Compact design with high visibility indicator
- + Aluminum die casting with polyester powder coating
- + With spring loaded cams, easily set limit positions
- + Dual cable entries
- + NAMUR VDI/VDE 3845

Specifications

Model		TS400M	TS400P
Switch type		Mechanical switch 2xSPDT	Inductive proximity sensor
		KW3A-16Z3-A100 (Dongnan)	PSN17-5DNU (Autonics)
Switch rating	AC	16A,125/250V	-
	DC	30V, 10A	10~30V
Ingress protection		IP67	
Conduit entry		2 x NPT1/2, G(PF)1/2, M20	
Ambient Temp.		-20°C~70°C (Standard type)	
Terminal		8 Points	
Material		Aluminum die cast	
Painting		Polyester powder coating	
Weight		0.7kg	

Product code

Model		TS400			
Switch type	Mechanical(2xSPDT)	M			
	Proximity	P			
	Mechanical (2xDPDT)	D			
Conduit entry	NPT1/2		1		
	M20x1.5P		2		
	G1/2		3		
Ambient temperature	-20°C~70°C			S	
	-40°C~70°C			L	
	-60°C~70°C			U	
Bracket type	None				0
	ST-1 (30x80,H20)				1
	ST-2 (30x80,H30)				2
	ST-3 (30x130,H30)				3
	ST-4 (30x130,H50)				4

Description

Limit switch box is a device which notifies the central control room or controller when the valve reaches the set position.

Features



TS410



TS415

Certified



- + Flame proof type
- + Compact design with high visibility indicator
- + Aluminum die casting with polyester power coating
- + With spring loaded cams, easily set limit positions
- + Dual cable entries
- + NAMUR VDI/VDE 3845

Specifications

Model		TS410M	TS415M	TS410P	TS415P
Switch type		Mechanical switch 2xSPDT		Inductive proximity sensor	
		KW3A-16Z3-A100 (Dongnan)		PSN17-5DNU (Autonics)	
Switch rating	AC	16A,125/250V		-	
	DC	30V, 10A		10~30V	
Explosion proof		Ex db IIC T5/T6 Gb Ex tb IIIC T100°C/T85°C Db			
Ingress protection		IP67			
Conduit entry		2 x NPT1/2, NPT3/4, M20, M25			
Ambient Temp.		-40°C~80°C(T5) / -40°C~70°C(T6)			
Terminal		8 Points			
Painting		Polyester powder coating	-	Polyester powder coating	-
Material		Aluminum die cast	STS 316	Aluminum die cast	STS 316
Weight		1.3kg	3.2kg	1.3kg	3.2kg

* TS415 is only available with NPT3/4.

Product code

Model	TS4								
Option*	None	1							
	With PTM&Dome	3							
	With PTM&LCD	4							
Material	Aluminum	0							
	Stainless steel 316	5							
Switch type	Mechanical(2xSPDT)				M				
	Proximity				P				
	Mechanical (2xDPDT)				D				
Explosion proof type	ATEX&IECEX					A			
	KCS					K			
	CCC&NEPSI					C			
	EAC(TR CU)					E			
Conduit entry	NPT1/2						1		
	M20x1.5P						2		
	NPT3/4						3		
	M25*1.5P						4		
Ambient temperature	-20°C~80°C(T5)/70°C(T6)							S	
	-40°C~80°C(T5)/70°C(T6)							L	
	-60°C~80°C(T5)/70°C(T6)(For EAC)							U	
Bracket type	None								0
	ST-1 (30x80,H20)								1
	ST-2 (30x80,H30)								2
	ST-3 (30x130,H30)								3
	ST-4 (30x130,H50)								4

*Option codes No.3 and 4 are only available with CSA certification.

Description

TS500 Series is 2 wire type transmitter which transmits 4 ~ 20 mA DC signal according to changes in valve or damper position.

Certified

CE IP₆₇

Features



- + 2 wire connection type
- + LCD displays current output signal
- + Easy and simple setting with 2 buttons
- + High accuracy and reliability
- + Two or five points smart setup

Specifications

Model	TS500
Connection type	2 Wire
Supply voltage	9~28V DC
Output signal	4~20mA
Ingress protection	IP67
Conduit entry	2 x NPT1/2, G1/2, M20
Ambient Temp.	-40°C~85°C
Linearity	±1% F.S.
Hysteresis	±0.2% F.S.
Sensitivity	±0.2% F.S.
Material	Aluminum die cast
Painting	Polyester powder coating
Weight	0.6kg

Product code

Model	TS500				
Motion type	Linear Rotary	L R			
Conduit entry	NPT1/2 M20x1.5P G1/2		1 2 3		
Lever type	Linear (10~70mm) Linear (70~150mm) Rotary (NAMUR)			1 2 5	
Option	None With Limit switch and Dome cover (Only for rotary type) With Limit switch and LCD				0 3 4



Description

TS500 Series is 2 wire type transmitter which transmits 4 ~ 20 mA DC signal according to changes in valve or damper position.

Features



TS510

TS515

Certified



- + Flame proof type
- + LCD displays current output signal
- + Easy and simple setting with 2 buttons
- + High accuracy and reliability
- + Two or five points smart setup
- + Limit switch option

Specifications

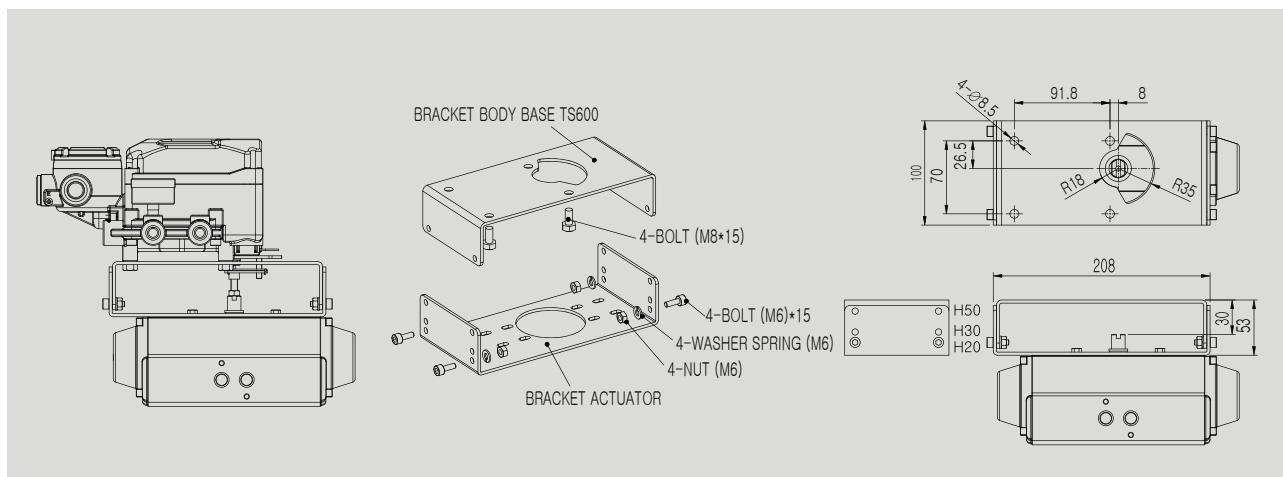
Model	TS510	TS515
Connection type	2 Wire	
Supply voltage	9~28V DC	
Output signal	4~20mA DC	
Explosion proof	Ex db IIC T5/T6 Gb Ex tb IIIC T85°C/T100°C Db	
Ingress protection	IP67	
Conduit entry	2 x NPT1/2, NPT3/4, M20, M25	2 x NPT3/4
Ambient Temp.	-40°C~80°C (T5)/-40°C~70°C (T6)	
Linearity	±1% F.S.	
Hysteresis	±0.2% F.S.	
Sensitivity	±0.2% F.S.	
Material	Aluminum die cast	Stainless steel 316
Painting	Polyester powder coating	-
Weight	1.4kg	3.3kg

Product code

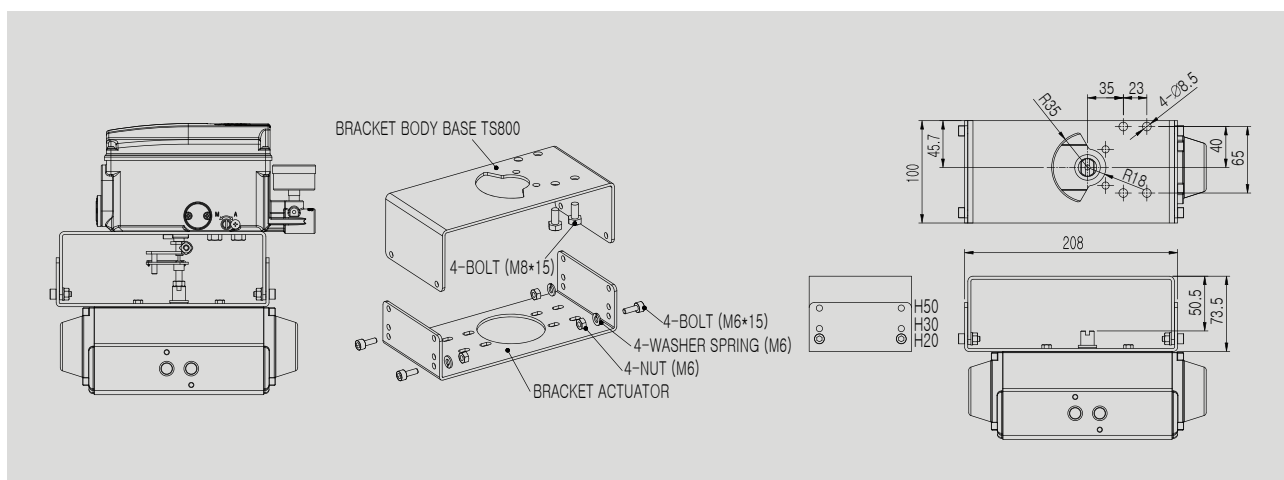
Model	TS510					
Material	Aluminum Stainless steel 316	TS510 TS515				
Motion type	Linear Rotary		L R			
Explosion proof type	ATEX&IECEX KCS NEPSI EAC(TR CU)			A K C E		
Conduit entry*	NPT1/2 M20x1.5P NPT3/4 M25x1.5P				1 2 3 4	
Lever type	Linear (10~70mm) Linear (70~150mm) Rotary (NAMUR)					1 2 5
Option	None With Limit switch and Dome cover (Only for rotary type) With Limit switch and LCD					0 3 4

* TS515 is only available NPT3/4.

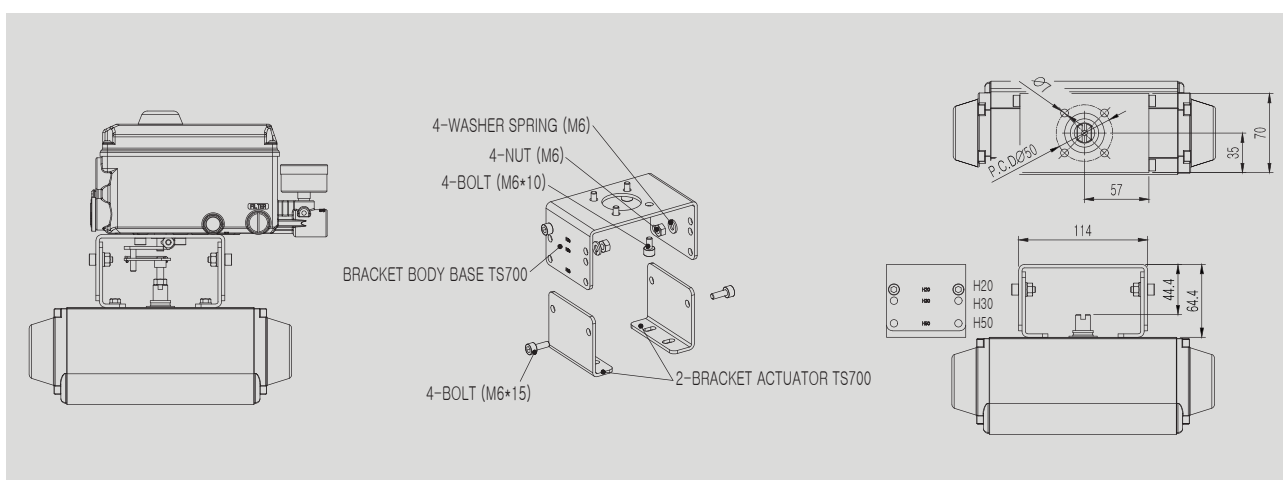
TS600R Bracket



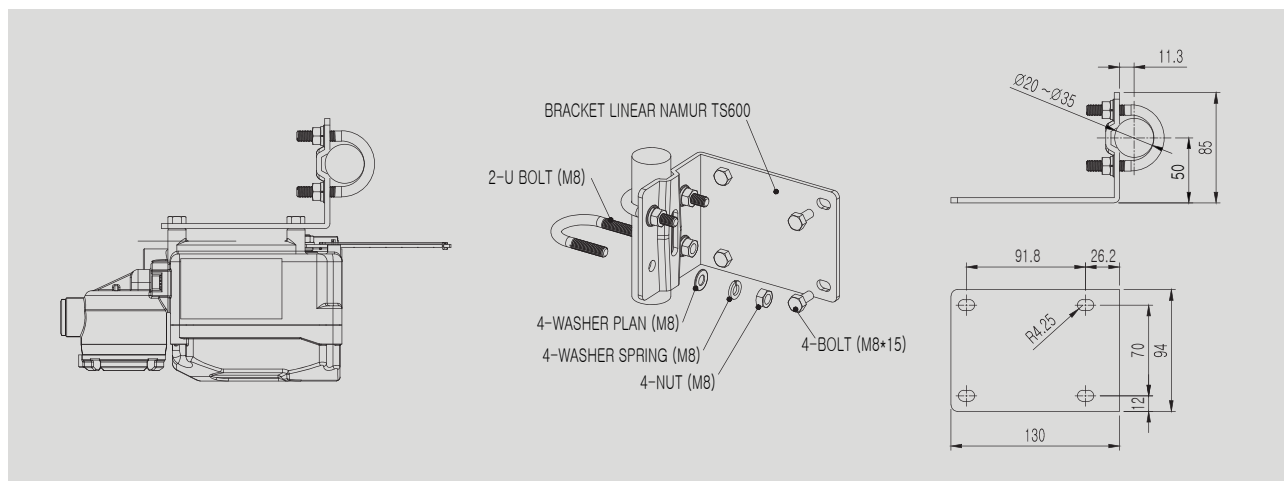
TS800R / TS900R Bracket



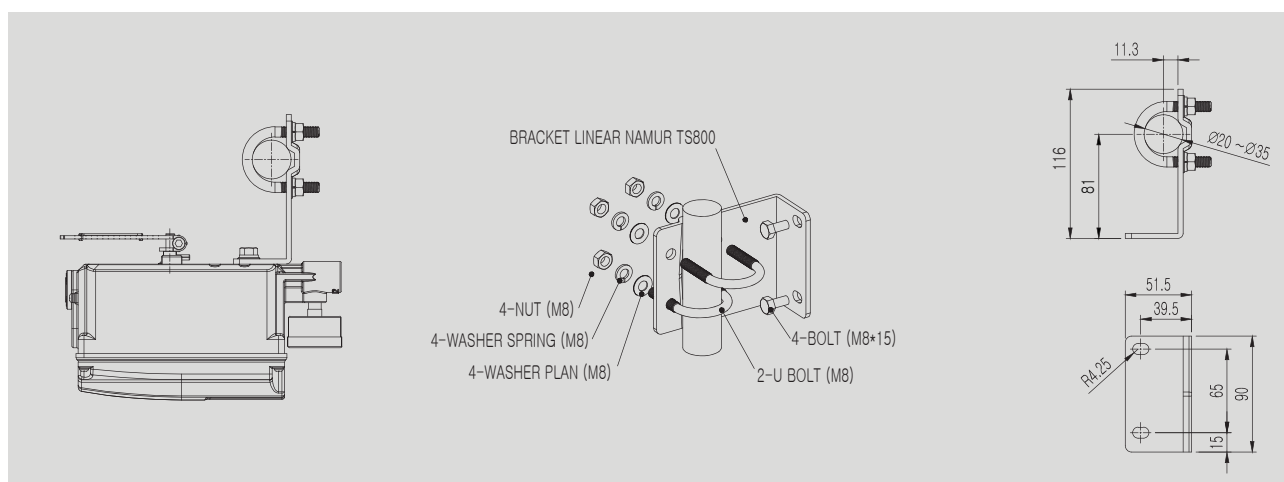
TS700R Bracket



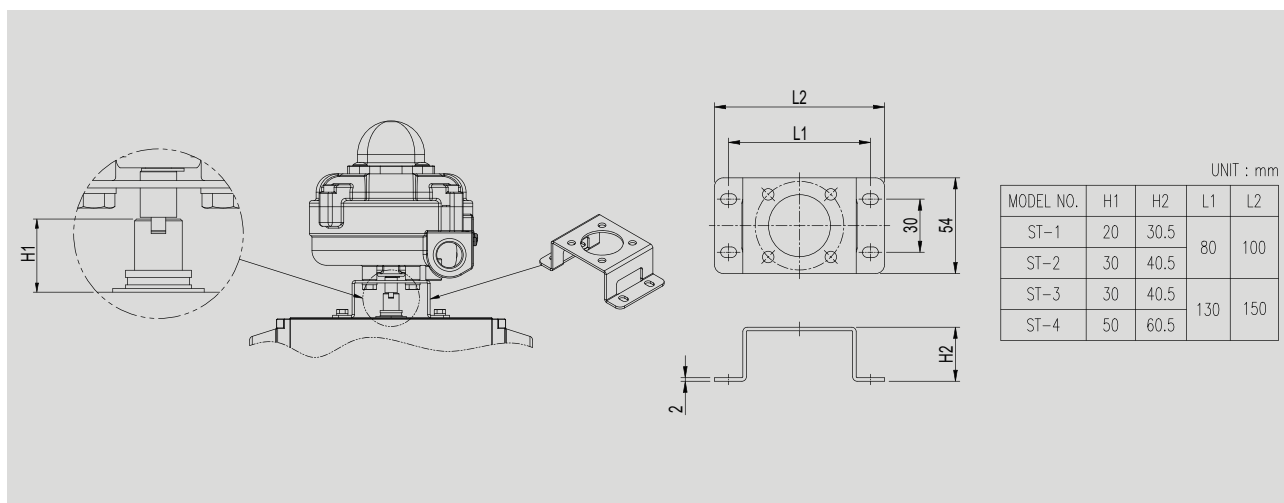
TS600L NAMUR type bracket



TS800L / TS900L / TS700L NAMUR type bracket



TS400 / TS410 / TS415 / TS500R / TS510R / TS515R bracket



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Version: PC-EN_06/2025



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