

Valve Positioners



Precision and Reliable Valve Control.



Contents

	Page
Contents & Certification	2
Positioner Features	3
Smart Valve Positioner, SP740 series	4~5
Smart Positioner, SP760 series (Explosion proof Type)	6~7
Electro-Pneumatic Positioner, SP520 series (Linear Type)	8~9
Electro-Pneumatic Positioner, SP520 series (Rotary Type)	10~13
Lock-up Valve, SL210 series	14
Air Volume Booster, SB310 series	15

Certifications



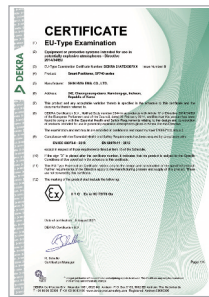
IECEx(Ex ia)



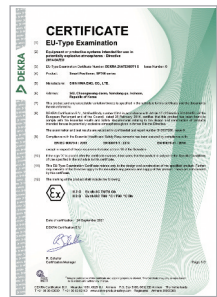
IECEx(Ex db)



IECEx(Ex db mb)



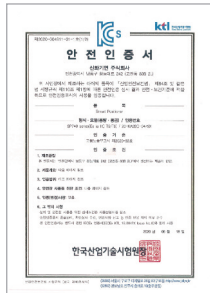
ATEX(Ex ia)



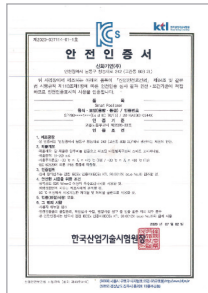
ATEX(Ex db)



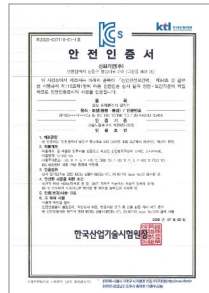
IECEx(Ex db mb)



KCs(Ex ia)



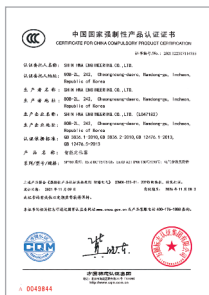
KCs(Ex d)



IECEx(Ex db mb)



CCC(Ex ia)



CCC(Ex db)



CCC(Ex db mb)



CE



PATENT



HART

SEG Valve Positioners

▶ Smart Valve Positioner, SP740 series



- High reliability
- Single or Double acting actuator
- Quick and easy operation
 - Auto calibration
 - Simple Initialization
 - Self diagnostic function
- LCD and 4 button local control
- Enclosure IP66
- Global approvals for explosion protection
Ex ia IIC T5/T6 Ga (IECEX, ATEX, KCs, CCC)
- Vibration and impact resistance
- HART communication

▶ Smart Positioner, SP760 series (Explosion proof Type)



- Explosion proof Housing
(Zone 1,2 and Division 1,2 installation)
- Single or Double acting actuator
- Quick and easy operation
 - Auto calibration
 - Simple Initialization
 - Self diagnostic function
- LCD and 4 button local control
- Enclosure IP66
- Global approvals for explosion protection
Ex db IIC T6/T5 Gb, Ex tb IIIC T80°C/T90°C Db
(IECEX, ATEX, KCs, CCC)
- Vibration and impact resistance
- HART communication

▶ Electro-Pneumatic Positioner, SP520 series



- Compact design, rugged construction
- Quick and Precise response operation
 - Highly precise zero adjustment
 - Ease setting and calibration
 - Wide range of zero setting
- Easy and precise calibration with zero and Span adjustment
- Enclosure IP66
- Global approvals for explosion protection
Ex db mb IIB/IIC T6/T5 Gb, Ex ia IIC T6/T5 Gb
Ex tb IIIC T80°C/T90°C Db, Ex ia IIIC T80°C/T90°C Db
(IECEX, ATEX, KCs, CCC)
- Vibration and impact resistance

Smart Valve Positioner SP740 series

► FEATURES



- High reliability
- Single or Double acting actuator
- Quick and easy operation
 - Auto calibration
 - Simple Initialization
 - Self diagnostic function
- LCD and 4 button local control
- Enclosure IP66
- Global approvals for explosion protection
Ex ia IIC T5/T6 (IECEX, ATEX, KCs, CCC)
- Vibration and impact resistance
- HART communication

► SPECIFICATION

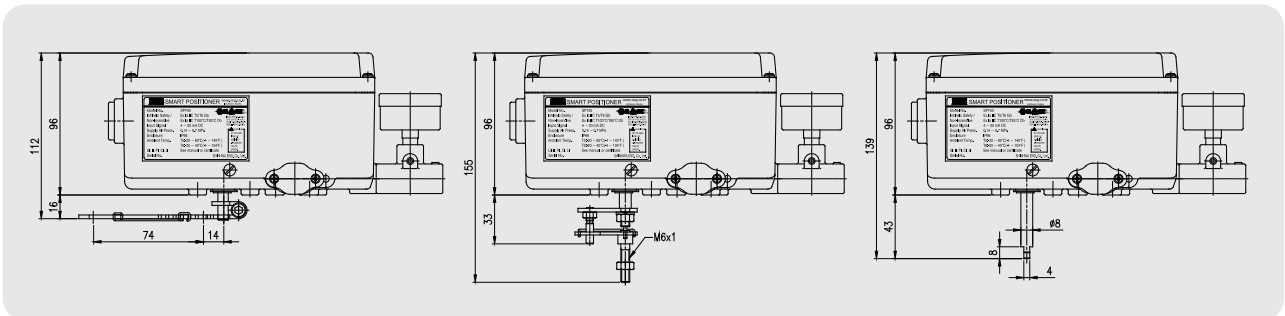
Model	SP740S (Single)		SP740D (Double)	
	Linear	Rotary	Linear	Rotary
Motion Type	Linear	Rotary	Linear	Rotary
Input Signal	4~20mA DC			
Impedance	Max.450Ω @ 20mA DC			
Air Connection	PT 1/4, NPT 1/4			
Pres. Gauge Connection	PT 1/8, NPT 1/8			
Conduit Entry	PF(G) 1/2(Standard), NPT1/2(Option)			
Supply Pressure	0.14~0.7 MPa (1.4~7 bar)			
Explosion Proof Grade	Ex ia IIC T5/T6			
Enclosure	IP66			
Ambient Temperature	-30~80°C			
Linearity	±0.5% F.S.			
Hysteresis	±0.5% F.S.			
Sensitivity	±0.2% F.S.			
Repeatability	±0.3% F.S.			
Cam Characteristic	Linear(L), Square(S), Square root(R), User Set (16 Point)			
Humidity	5~95% RH at 40°C			
Communication (Option)	HART Communication			
Feedback Signal (Option)	4~20mA (DC 10~30V)			
Material	Aluminum Diecasting			
Weight	2 kg (4.4 lb)			



- ① Input signal (4~20mA DC)
Feedback signal (4~20mA DC, 2Wire)
- ② Limit switch Terminal
- ③ Limit switch (Option)
- ④ Indicator needle
- ⑤ LCD
- ⑥ Button (4)
- ⑦ Pressure gauge

► MODEL SELECTION

Model	SP740	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Acting Type	Single	S							
	Double	D							
Motion Type	Linear 20 ~ 80 mm		L1						
	80 ~ 160 mm		L2						
	Rotary Standard		R0						
	Fork Lever		R1						
	Namur		R2						
Feedback	None			0					
	Position transmitter(4 ~ 20 mA DC)			1					
Output safe Position	Fail safe				1				
	Fail Lock				*				
Explosion Protection	None Explosion proof(IP66)					1			
	Explosion proof(Ex ia IIC T5/T6)					2			
Connection	Air – PT1/4", Conduit – G(PF)1/2"						G		
	Air – NPT1/4", Conduit – NPT1/2"						N		
Position L/S	None							0	
	2×SPDT							1	
Option	None								0
	HART communication								H

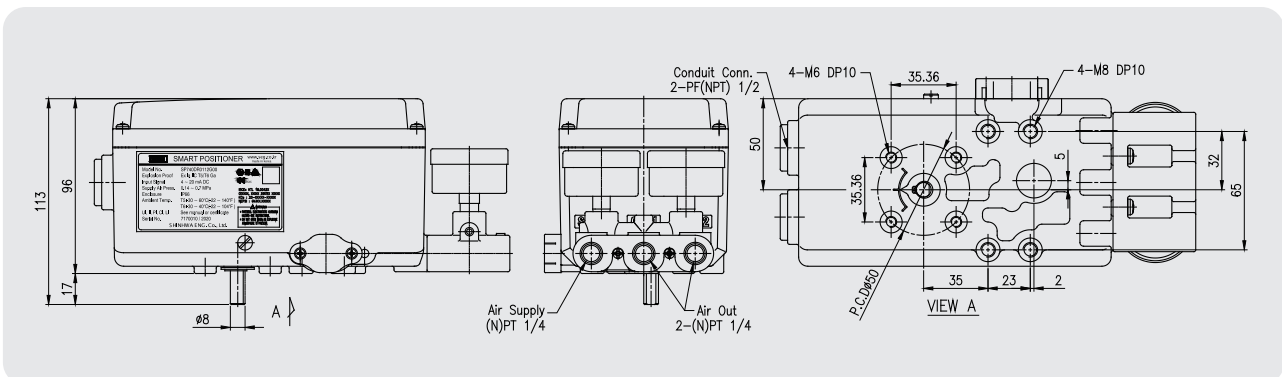


LEVER TYPE

FORK LEVER TYPE

NAMUR TYPE

► DIMENSIONS



Smart Valve Positioner SP760 series (Explosion proof Type)



► FEATURES

- High reliability
- Explosion proof Housing (Zone 1,2 and Division 1,2 installation)
- Single or Double acting actuator
- Quick and easy operation
 - Auto calibration
 - Simple Initialization
 - Self diagnostic function
- LCD and 4 button local control
- Enclosure IP66
- Global approvals for explosion protection
Ex db IIC T6/T5 Gb, Ex tb IIIC T80°C/ T90°C Db (IECEX, ATEX, KCs, CCC)
- Vibration and impact resistance
- HART communication

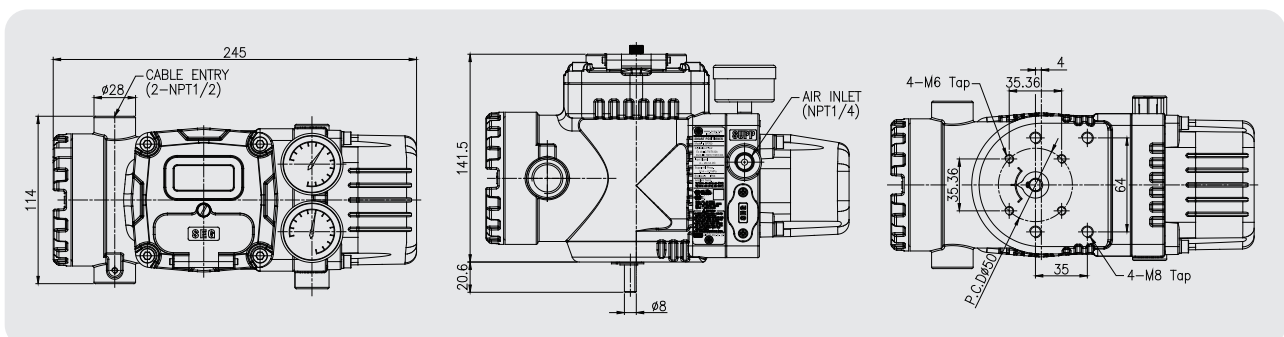
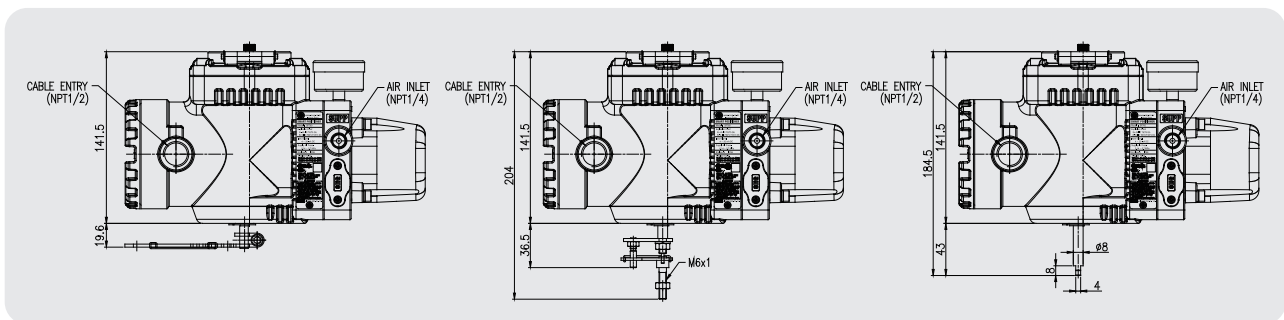
► SPECIFICATION

Model	SP760S (Single)		SP760D (Double)	
	Linear	Rotary	Linear	Rotary
Motion Type	Linear	Rotary	Linear	Rotary
Input Signal	4~20mA DC			
Impedance	Max.450Ω @ 20mA DC			
Air Connection	PT 1/4, NPT 1/4			
Pres. Gauge Connection	PT 1/8, NPT 1/8			
Conduit Entry	PF(G) 1/2(Standard), NPT1/2(OPTION)			
Supply Pressure	0.14~0.7 MPa (1.4~7 bar)			
Explosion Proof Grade	Ex d IIC T6/T5, Ex tb IIIC T80°C/T90°C (KCs) Ex db IIC T6/T5 Gb, Ex tb IIIC T80°C/T90°C Db (IECEX) II 2G Ex db IIC T6/T5 Gb, II 2D Ex tb IIIC T80°C/T90°C Db (ATEX) Ex db IIC T6/T5 Gb, Ex tb IIIC T80°C/T90°C Db (CCC)			
Enclosure	IP66			
Ambient Temperature	-30~80°C			
Linearity	±0.5% F.S.			
Hysteresis	±0.5% F.S.			
Sensitivity	±0.2% F.S.			
Repeatability	±0.3% F.S.			
Cam Characteristic	Linear(L), Square(S), Square root(R), User Set (16 Point)			
Humidity	5~95% RH at 40°C			
Communication(OPTION)	HART Communication			
Feedback Signal (OPTION)	4~20mA (DC 10~30V)			
Material	Aluminum Diecasting			
Weight	3.2 kg (7.1 lb)			

► MODEL SELECTION

Model	SP760	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Acting Type	Single	S							
	Double	D							
Motion Type	Linear 20 ~ 80 mm		L1						
	80 ~ 160 mm		L2						
	Rotary Standard		R0						
	Fork Lever		R1						
	Namur		R2						
Feedback	None			0					
	Position transmitter(4 ~ 20 mA DC)			1					
Output safe Position	Fail safe				1				
	Fail Lock				*				
Explosion Protection	None Explosion proof		(IP66)			0			
	Explosion proof		(KCs)			1			
	(Ex db IIC T6/T5 Gb)		(IECEX)			2			
	(Ex tb IIIC T80°C/T90°C Db)		(ATEX)			3			
			(CCC)			4			
Connection	Air – PT1/4", Conduit – G(PF)1/2"						G		
	Air – NPT1/4", Conduit – NPT1/2"						N		
	Air – NPT1/4", Conduit – M20						M		
Position L/S	None							0	
	2×SPDT							1	
Option	None								0
	HART communication								H

► DIMENSIONS



Electro-Pneumatic Positioner SP520 series (Linear type)



► FEATURES

- Compact design, rugged construction
- Quick and Precise response operation
 - Highly precise zero adjustment
 - Ease setting and calibration
 - Wide range of zero setting
- Easy and precise calibration with zero and Span adjustment
- Enclosure IP66
- Global approvals for explosion protection
 - Ex db mb IIB/IIC T6/T5 Gb,
 - Ex tb IIIC T80°C/T100°C Db IP66
 - Ex ia IIC T6/T5 Gb, Ex ia IIIC T80°C/T100°C Db (IECEX, ATEX, KCs, CCC)
- Vibration and impact resistance

► SPECIFICATION

Model	SP520S	SP520D
Acting Type	Single	Double
Motion Type	Linear	
Input Signal	4~20mA DC	
Impedance	250 ± 15 Ω	
Air Connection	Rc(PT) 1/4, NPT 1/4	
Pres. Gauge Connection	Rc(PT) 1/8, NPT 1/8	
Conduit Entry	PF(G)1/2, NPT1/2, M20x1.5	
Stroke	10~150 mm	
Supply Pressure	0.14~0.7 MPa (1.4~7 bar)	
Explosion Proof Grade	Ex db mb IIB/IIC T5/T6 Gb Ex ia IIC T6/T5 Gb, Ex ia IIIC T80°C/T90°C Db Ex tb IIIC T80°C/T90°C Db IP66 (IECEX), (ATEX), (KCs), (CCC)	
Enclosure	IP66	
Ambient Temperature	-20~70°C (-4°F~158°F)	
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.	
Flow Capacity	70 LPM (Sup.=0.14 MPa)	
Air Consumption	2 LPM (sup.=0.14MPa), 3 LPM (sup.=0.7MPa)	
Humidity	5~95% RH at 40°C	
Feedback Signal (Option)	4~20mA (DC 10~30V)	
Material	Aluminum Diecasting	
Weight	3 kg (6.6 lb)	
Color	Black	

▶ MODEL SELECTION (LINEAR TYPE)

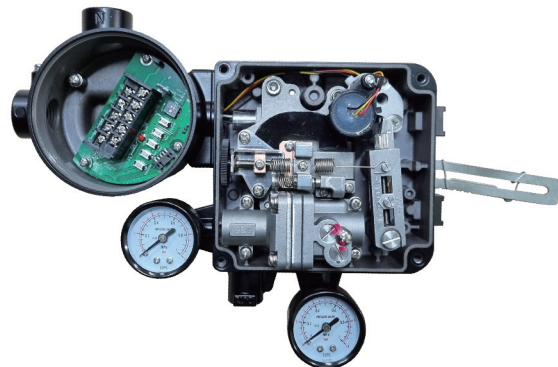
Model	SP520	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Acting Type	Single	S							
	Double	D							
Motion Type	Linear 10~40mm		L1						
	40~90mm		L2						
	90~150mm		L3						
Feedback	None			0					
	Position transmitter(4 ~ 20 mA DC)			1					
Explosion Protection	None (IP66)				N				
	Ex db mb IIB/IIC T6/T5 Gb				D				
	Ex ia IIC T6/T5 Gb, Ex ia IIIC T80°C/T100°C Db				A				
	Ex tb IIIC T80°C/T100°C Db IP66				T				
Explosion proof specification	None (IP66)					0			
	KCs					1			
	IECEX					2			
	ATEX					3			
	CCC					4			
Connection	Air – Rc(PF)1/4, Conduit – G(PF)1/2						G		
	Air – NPT1/4, Conduit – NPT1/2						N		
	Air – NPT1/4, Conduit – M20x1.5						M		
Position L/S	None							0	
Orifice	None								0
	Ø1								1
	Ø2								2

※ Optionable items

1. Non-Explosion Proof : Feedback option
2. Ex db mb : Option not applicable.
3. Ex ia : Feedback option



LINEAR TYPE



Feedback option
(Ex ia, Non-explosion type)

Electro-Pneumatic Positioner SP520 series (Rotary type)

► FEATURES



- Compact design, rugged construction
- Quick and Precise response operation
 - Highly precise zero adjustment
 - Ease setting and calibration
 - Wide range of zero setting
- Easy and precise calibration with zero and Span adjustment
- Enclosure IP66
- Global approvals for explosion protection
 - Ex db mb IIB/IIC T6/T5 Gb,
 - Ex tb IIIC T80°C/T100°C Db IP66
 - Ex ia IIC T6/T5 Gb, Ex ia IIIC T80°C/T100°C Db (IECEX, ATEX, KCs, CCC)
- Vibration and impact resistance

► SPECIFICATION

Model	SP520S	SP520D
Acting Type	Single	Double
Motion Type	Rotary	
Input Signal	4~20mA DC	
Impedance	250 ± 15 Ω	
Air Connection	Rc(PT) 1/4, NPT 1/4	
Pres. Gauge Connection	Rc(PT) 1/8, NPT 1/8	
Conduit Entry	PF(G)1/2, NPT1/2, M20x1.5	
Stroke	0~90°	
Supply Pressure	0.14~0.7 MPa (1.4~7 bar)	
Explosion Proof Grade	Ex db mb IIB/IIC T5/T6 Gb Ex ia IIC T6/T5 Gb, Ex ia IIIC T80°C/T90°C Db Ex tb IIIC T80°C/T90°C Db IP66 (IECEX), (ATEX), (KCs), (CCC)	
Enclosure	IP66	
Ambient Temperature	-20~70°C (-4°F~158°F)	
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.	
Flow Capacity	70 LPM (Sup.=0.14 MPa)	
Air Consumption	2 LPM (sup.=0.14MPa), 3 LPM (sup.=0.7MPa)	
Humidity	5~95% RH at 40°C	
Feedback Signal (Option)	4~20mA (DC 10~30V)	
Material	Aluminum Diecasting	
Weight	3 kg (6.6 lb)	
Color	Black	

▶ MODEL SELECTION (ROTARY TYPE)

Model	SP520	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Acting Type	Single	S							
	Double	D							
Motion Type	Rotary Fork Lever		R1						
	Namur		R2						
Feedback	None			0					
	Position transmitter(4 ~ 20 mA DC)			1					
Explosion Protection	None (IP66)				N				
	Ex db mb IIB/IIC T6/T5 Gb				D				
	Ex ia IIC T6/T5 Gb, Ex ia IIIC T80°C/T100°C Db				A				
	Ex tb IIIC T80°C/T100°C Db IP66				T				
Explosion proof specification	None (IP66)					0			
	KCs					1			
	IECEX					2			
	ATEX					3			
	CCC					4			
Connection	Air – Rc(PF)1/4, Conduit – G(PF)1/2						G		
	Air – NPT1/4, Conduit – NPT1/2						N		
	Air – NPT1/4, Conduit – M20x1.5						M		
Position L/S	None							0	
	2×SPDT							1	
	External Limit Switch							2	
Orifice	None								0
	∅1								1
	∅2								2

※ Optionable items

1. Non-Explosion Proof : Feedback, L/S, Feedback + L/S, External L/S, External (L/S + Feedback)
2. Ex db mb : External L/S, External (L/S + Feedback)
3. Ex ia : Feedback, L/S, Feedback + L/S
4. Ex tb: External L/S, External L/S + Feedback (External equipment can be used by third-party products)



ROTARY TYPE



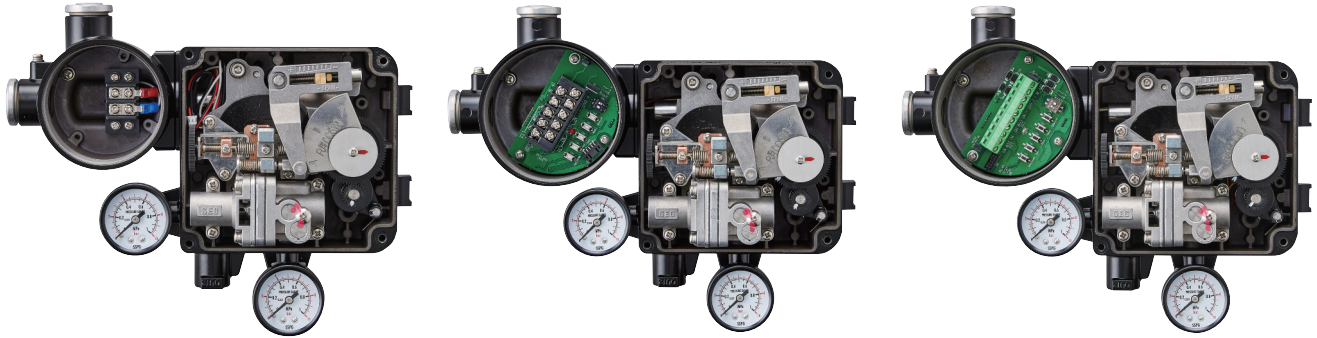
Internal Limit switch
(Ex ia., Non-explosion)



External Limit switch
(Ex db mb, Ex tb, Non-explosion)



▶ **SP520 TERMINAL BOX (Rotary type)**

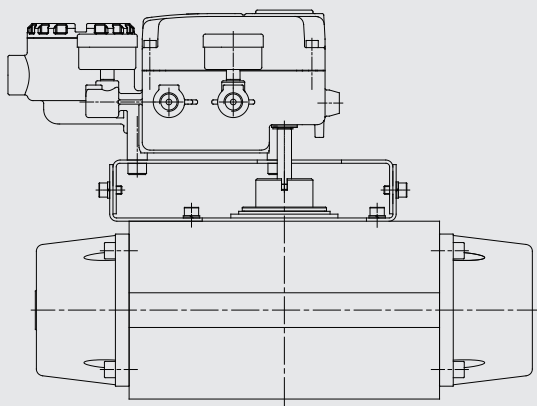


Explosion type
(Ex db mb, Ex ia)

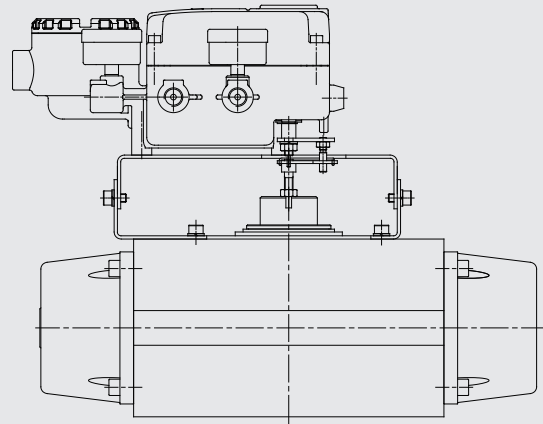
Non-Explosion type
(feedback option)

Explosion type
(Ex ia, feedback option)

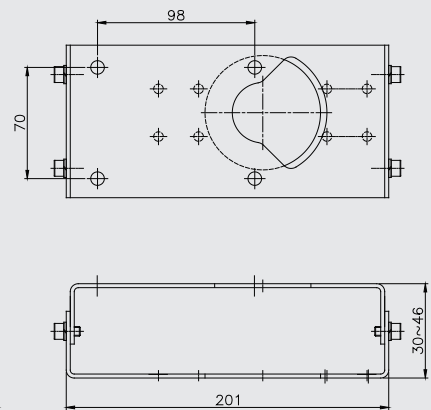
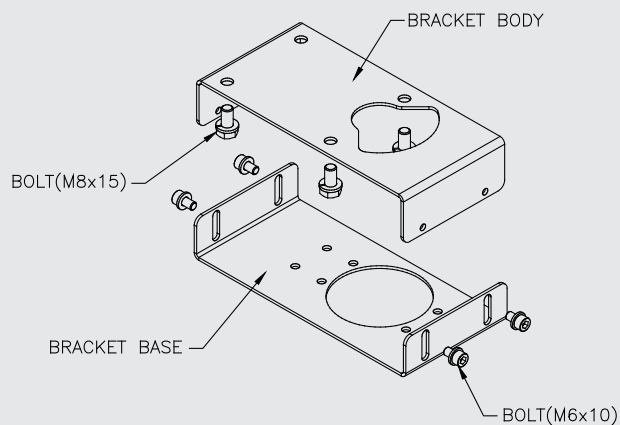
▶ **SP520 INSTALL BRACKET**



Namur Type

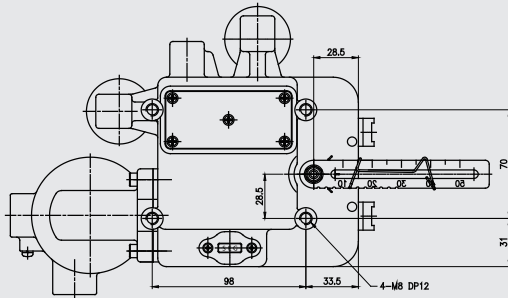
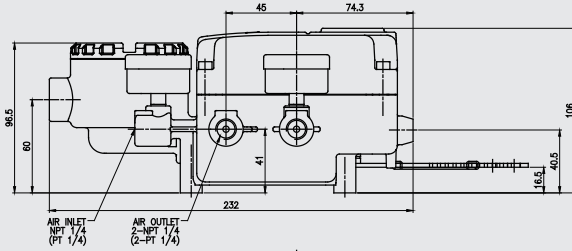
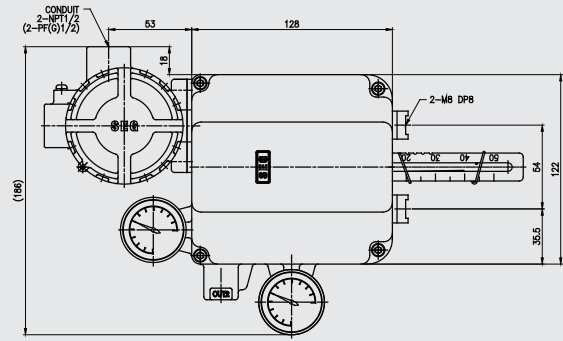


Fork Lever Type

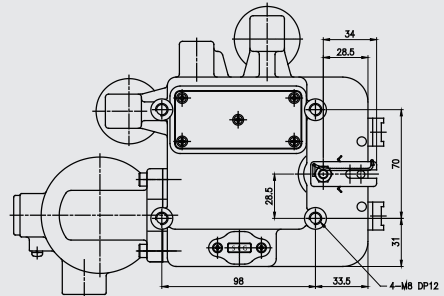
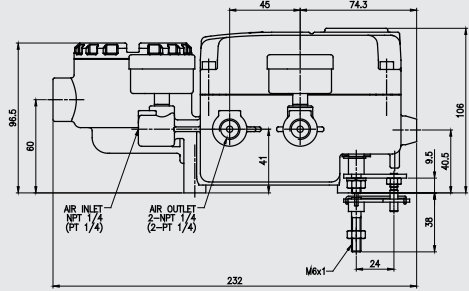
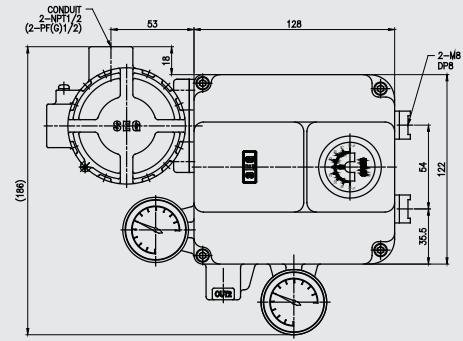


SP520 Install Bracket

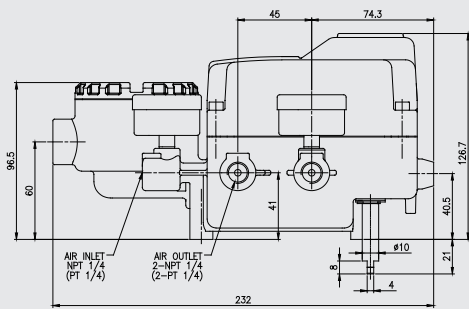
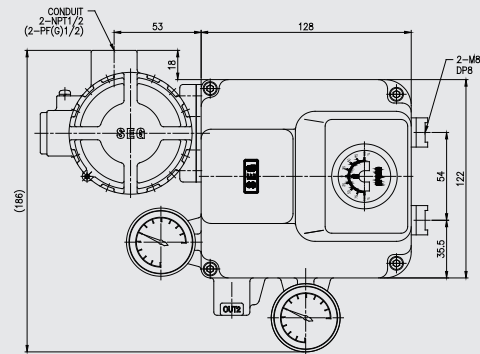
► DIMENSIONS



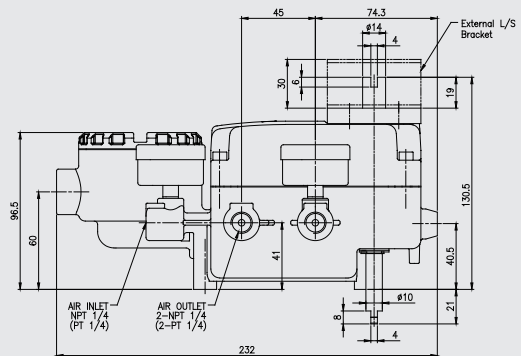
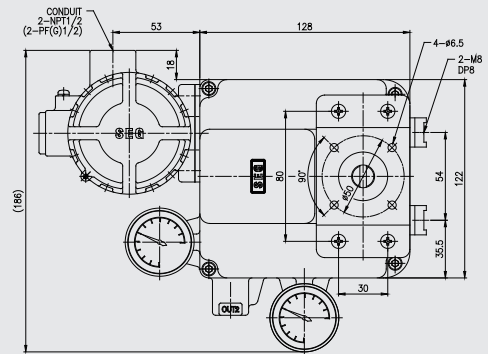
LINEAR TYPE



ROTARY TYPE



ROTARY TYPE
(Internal Limit switch)



ROTARY TYPE
(External Limit switch)

Lock-up Valve SL210 series



► MODEL SELECTION

Model	SL210	(1)	(2)
Acting Type	Single	S	G
	Double	D	
Connection	Rc(PT)1/4	N	
	NPT1/4		

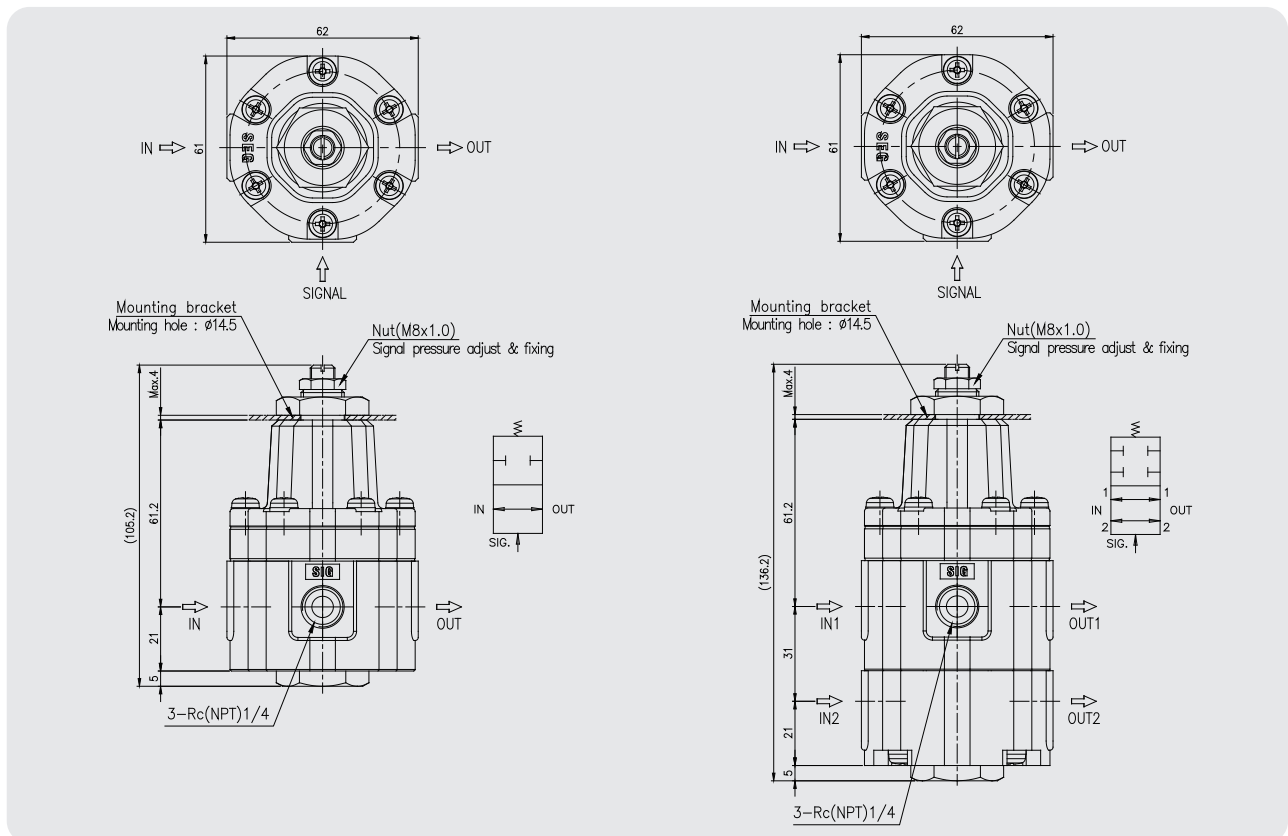
► FEATURES

- Compact design, rugged construction
- Applicable to many types of control valves at an accurate and fast response rate.
- Easy to install.
- You can simply adjust the set pressure.

► SPECIFICATION

Model	SL210S	SL210D
Acting Type	Single	Double
Max. Supply Pressure	Max. 1 MPa (10 bar)	
Supply Pressure Setting	0.14 ~ 0.7MPa (1.4 ~ 7bar)	
Flow capacity (Cv)	0.9	
Ambient Temp.	-20 ~ 70°C (-4 ~ 158°F)	
Air Connection	Rc(PT) 1/4, NPT 1/4	
Material	Aluminum Diecasting	
Weight	0.5kg	0.7kg

► DIMENSIONS



SL210S

SL210D

Air Volume Booster SB310 series



► FEATURES

- High stability with suitable flow characteristics for the control valve.
- Continuous and reliable operation of large actuators provides fast control times.
- Built-in locking screws for adjusting sensitivity and dynamic response.

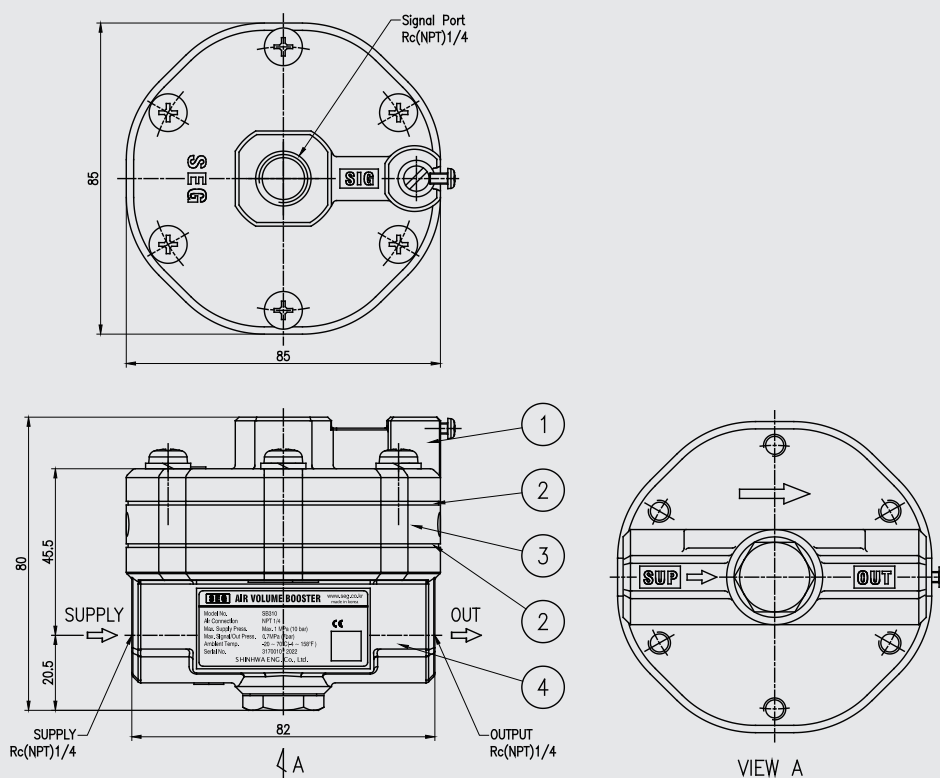
► SPECIFICATION

Model	SB310
Max. Supply Pressure	Max. 1 MPa (10 bar)
Supply Pressure Setting	0.14 ~ 0.7MPa (1.4 ~ 7bar)
Flow capacity (Cv)	1.3
Ambient Temp.	-20 ~ 70°C (-4 ~ 158°F)
Air Connection	Rc(PT) 1/4, NPT 1/4
Material	Aluminum Diecasting
Weight	0.6 kg (1.6 lb)

► MODEL SELECTION

Model	SB310	(1)	(2)
Connection	Rc(PT)1/4 NPT1/4	G N	
Bracket	with Bracket without Bracket		B 0

► DIMENSIONS



Production item

- ◆ **Smart Positioner**
- ◆ **Electrical Actuator**
- ◆ **Pneumatic Actuator**
- ◆ **Motor Cylinder**



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