

**PSV01/50/60/15/16 SERIES****PRESSURE CONTROLS**

Pressure controls can be used in refrigeration and air conditioning systems to protect the systems from extremely low suction pressure or extremely high discharge pressure. The pressure controls are also used to start or stop the refrigeration compressors and air-cooled condenser fans, to regulate other components in the systems which require pressure control function.

**FEATURES**

- HIGH PRECISION AND EXCELLENT STABILITY
- LONG LIFE TIME WITH BOTH EXCELLENT ELECTRIC AND MECHANICAL RELIABILITY
- SPDT SWITCH TO ENSURE GOOD CONTACT AND DISCONNECT CONVERSION WITH FAST REACTIONS
- VARIOUS PRESSURE CONTROLLING RANGES
- INSTALLATION PLATE FOR OPTION

**GENERAL SPECIFICATION**

- Refrigerant: HCFC, HFC, HFO (R134a, R404A/R507, R407C, R22, R407A/F, R448A/449A, R452A, R513A, R450A, R410A) (Contact Sanhua for models for R32, R717, R290 and R1234y for other A2L/A3 refrigerants)
- Medium Temperature: -40°C / +120°C
- Ambient Temperature: -30°C / +65°C
- Relative Humidity: 0-95% RH
- Max. Working Pressure: HP: 3.5MPa/4.5MPa; LP: 1.65MPa
- Enclosure: IP30 (IP44 as option)
- Certification:
  - CE acc. LVD 2014/35/EU (EN60730-1:2011 EN60730-2-6:2016)
  - CE acc. PED 2014/68/EU, category IV (EN 12263)
  - UL acc. UL508 (E480941)

Contact load	AC1	AC3	AC15	DC
Rated Voltage (V)	400	400	400	24
Rated Current (A)	16	16	10	16



**MODEL DESIGNATION**

Position Number	Model Designation Legend	
1	<b>Type</b>	<b>Description</b>
	PSV	Pressure control
2	<b>Pressure regulating range</b>	<b>Description</b>
	01	LP: -0.5~7 bar(g)
	50	HP: 6~32 bar(g)
	60	HP: 8~42 bar(g)
	15	Dual (LP): -0.5~7 bar(g) / Dual (HP): 6~32 bar(g)
	16	Dual (LP): -0.5~7 bar(g) / Dual (HP): 8~42 bar(g)
3	<b>Reset Mode</b>	<b>Description</b>
	A	Automatic reset
	M	Manual reset
	AA	Auto LP/ Auto HP
	AM/MA/MM/MC/CA/CM/CC	.....
4	<b>Connection type</b>	<b>Description</b>
	L	Flare
	H	Solder
	M	Capillary
5	<b>Product design (type)</b>	<b>Description</b>
	S	Standard Model
	C	Customized Model
6	<b>Serial number, Certification type</b>	<b>Description</b>
	0X (01/03/05/.....); X = odd	PED IV Certified, HP Double bellow. Inch or unified Inch & Metric
	0X (02/04/06/.....); X = even	PED IV Certified, HP Double bellow. Metric only
	5X (51/53/55...); X = odd	Ordinary Model, HP Single bellow. Inch or unified Inch & Metric
	5X (52/54/56...); X = even	Ordinary Model, HP Single bellow. Metric only

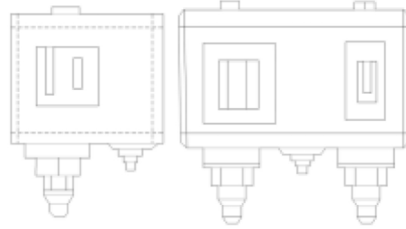
**MODEL DESIGNATION EXAMPLE**

Position Number							Model designation example (according above legend)
1	2	3	4	-	5	6	
PSV	15	AA	L	-	S	01	Pressure control
PSV	<b>15</b>	AA	L	-	S	01	Dual: LP: -0.5~7 bar(g) / HP: 6~32 bar(g)
PSV	15	<b>AA</b>	L	-	S	01	Auto reset HP, Auto reset LP
PSV	15	AA	<b>L</b>	-	S	01	Flare connection
PSV	15	AA	L	-	<b>S</b>	01	Standard Model
PSV	15	AA	L	-	S	<b>01</b>	PED IV Certified, HP Double bellows

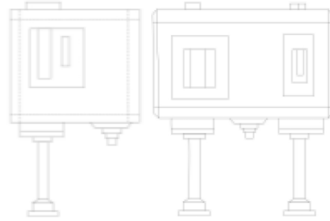
**PRESSURE CONTROLS**



**SELECTION AND ORDERING**



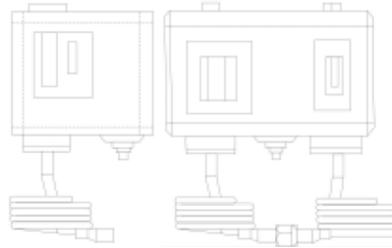
PSV01, PSV50, PSV60, PSV15, PSV60 Flare Connection										
Pressure	Type	Low Pressure (LP)		High Pressure (HP)		Reset		PED 2014 68/EU EN 12263 Certified <sup>1)</sup>	Ordering Code	
		Range	Differential Pressure ΔP	Range	Differential Pressure ΔP				Flare Connection 7/16-20UNF (1/4in. & 6mm)	
		[bar]	[bar]	[bar]	[bar]	Low Pressure	High Pressure		Model	U11 Code
LP	PSV01	-0.5~7	0.7~5	—	—	Auto	—	√	PSV01AL-S01	10660012102
LP	PSV01	-0.5~7	0.7	—	—	Man	—	√	PSV01ML-S01	10660013102
HP	PSV50	—	—	6~32	3~15	—	Auto	×	PSV50AL-S51	10660012902
HP	PSV50	—	—	6~32	3	—	Man	×	PSV50ML-S51	10660013002
HP	PSV50	—	—	6~32	4~15	—	Auto	√	PSV50AL-S01	10660014202
HP	PSV50	—	—	6~32	4	—	Man	√	PSV50ML-S01	10660018402
HP	PSV60	—	—	8~42	4~15	—	Auto	×	PSV60AL-S51	10660019102
HP	PSV60	—	—	8~42	4	—	Man	×	PSV60ML-S51	10660018902
HP	PSV60	—	—	8~42	5~15	—	Auto	√	PSV60AL-S01	10660014302
HP	PSV60	—	—	8~42	5	—	Man	√	PSV60ML-S01	10660019202
Dual	PSV15	-0.5~7	0.7~5	6~32	4	Auto	Auto	×	PSV15AAL-S51	10660012302
Dual	PSV15	-0.5~7	0.7~5	6~32	4	Auto	Man	×	PSV15AML-S51	10660012202
Dual	PSV15	-0.5~7	0.7~5	6~32	5	Auto	Auto	√	PSV15AAL-S01	10660014402
Dual	PSV15	-0.5~7	0.7~5	6~32	5	Auto	Man	√	PSV15AML-S01	10660016702
Dual	PSV16	-0.5~7	0.7~5	8~42	5	Auto	Auto	×	PSV16AAL-S51	10660018602
Dual	PSV16	-0.5~7	0.7~5	8~42	5	Auto	Man	×	PSV16AML-S51	10660019402
Dual	PSV16	-0.5~7	0.7~5	8~42	6	Auto	Auto	√	PSV16AAL-S01	10660014102
Dual	PSV16	-0.5~7	0.7~5	8~42	6	Auto	Man	√	PSV16AML-S01	10660018702



PSV01, PSV50, PSV60, PSV15, PSV16 Solder Connection

Pressure	Type	Low Pressure (LP)		High Pressure (HP)		Reset		PED 2014 68/EU EN 12263 Certified <sup>1)</sup>	Ordering Code		Ordering Code	
		Range	Differential Pressure ΔP	Range	Differential Pressure ΔP	LP	HP		Solder ODF 1/4 in.		Solder ODF 6mm	
		[bar]	[bar]	[bar]	[bar]				Model	U11 Code	Model	U11 Code
LP	PSV01	-0.5~7	0.7~5	—	—	Auto	—	√	PSV01AH-S01	10660021702	PSV01AH-S02	On request
LP	PSV01	-0.5~7	0.7	—	—	Man	—	√	PSV01MH-S01	10660021802	PSV01MH-S02	On request
HP	PSV50	—	—	6~32	3~15	—	Auto	×	PSV50AH-S51	10660020802	PSV50AH-S52	On request
HP	PSV50	—	—	6~32	3	—	Man	×	PSV50MH-S51	10660021002	PSV50MH-S52	On request
HP	PSV50	—	—	6~32	4~15	—	Auto	√	PSV50AH-S01	10660020702	PSV50AH-S02	On request
HP	PSV50	—	—	6~32	4	—	Man	√	PSV50MH-S01	10660020902	PSV50MH-S02	On request
HP	PSV60	—	—	8~42	4~15	—	Auto	×	PSV60AH-S51	10660022202	PSV60AH-S52	On request
HP	PSV60	—	—	8~42	4	—	Man	×	PSV60MH-S51	10660022302	PSV60MH-S52	On request
HP	PSV60	—	—	8~42	5~15	—	Auto	√	PSV60AH-S01	10660021102	PSV60AH-S02	On request
HP	PSV60	—	—	8~42	5	—	Man	√	PSV60MH-S01	10660021202	PSV60MH-S02	On request
Dual	PSV15	-0.5~7	0.7~5	6~32	4	Auto	Auto	×	PSV15AAH-S51	10660021302	PSV15AAH-S52	On request
Dual	PSV15	-0.5~7	0.7~5	6~32	4	Auto	Man	×	PSV15AMH-S51	10660020302	PSV15AMH-S52	On request
Dual	PSV15	-0.5~7	0.7~5	6~32	5	Auto	Auto	√	PSV15AAH-S01	10660020102	PSV15AAH-S02	On request
Dual	PSV15	-0.5~7	0.7~5	6~32	5	Auto	Man	√	PSV15AMH-S01	10660020202	PSV15AMH-S02	On request
Dual	PSV16	-0.5~7	0.7~5	8~42	5	Auto	Auto	×	PSV16AAH-S51	10660022502	PSV16AAH-S52	On request
Dual	PSV16	-0.5~7	0.7~5	8~42	5	Auto	Man	×	PSV16AMH-S51	10660022402	PSV16AMH-S52	On request
Dual	PSV16	-0.5~7	0.7~5	8~42	6	Auto	Auto	√	PSV16AAH-S01	10660020402	PSV16AAH-S02	On request
Dual	PSV16	-0.5~7	0.7~5	8~42	6	Auto	Man	√	PSV16AMH-S01	10660020502	PSV16AMH-S02	On request

PRESSURE CONTROLS

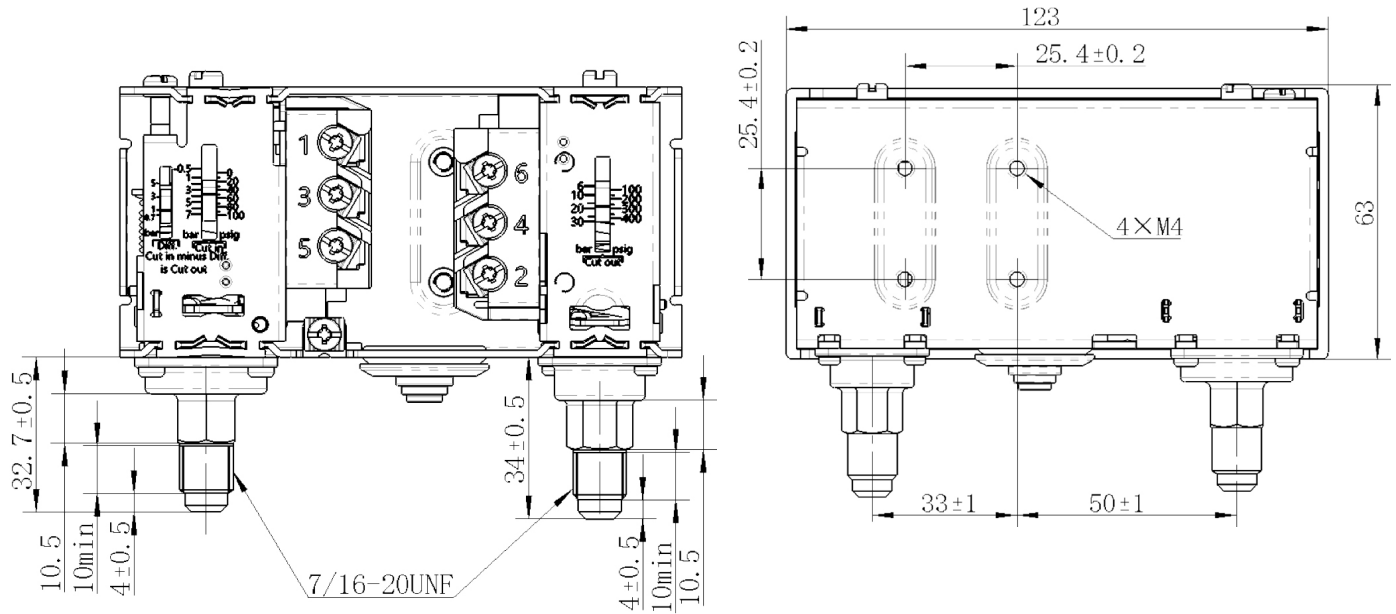


PSV01, PSV50, PSV15, Capillary with nut										
Pressure	Type	Low Pressure (LP)		High Pressure (HP)		Reset		PED 2014 68/EU Certified	Ordering Code	
		Range	Differential Pressure ΔP	Range	Differential Pressure ΔP				Capillary+Nut 7/16-20UNF (1/4in. & 6mm)	
		[bar]	[bar]	[bar]	[bar]	Low Pressure	High Pressure		Model	U11 Code
LP	PSV01	-0.5~7	0.7~5	—	—	Auto	—	√	PSV01AM-S01	10660012802
LP	PSV01	-0.5~7	0.7	—	—	Man	—	√	PSV01MM-S01	10660019502
HP	PSV50	—	—	6~32	3~15	—	Auto	×	PSV50AM-S51	10660012702
HP	PSV50	—	—	6~32	3	—	Man	×	PSV50MM-S51	10660019702
HP	PSV50	—	—	6~32	4~15	—	Auto	√	PSV50AM-S01	10660016502
HP	PSV50	—	—	6~32	4	—	Man	√	PSV50MM-S01	10660019602
HP	PSV60	—	—	8~42	4~15	—	Auto	×	PSV60AM-S51	10660012602
HP	PSV60	—	—	8~42	4	—	Man	×	PSV60MM-S51	10660022002
HP	PSV60	—	—	8~42	5~15	—	Auto	√	PSV60AM-S01	10660019802
HP	PSV60	—	—	8~42	5	—	Man	√	PSV60MM-S01	10660020602
Dual	PSV15	-0.5~7	0.7~5	6~32	4	Auto	Auto	×	PSV15AAM-S51	10660018502
Dual	PSV15	-0.5~7	0.7~5	6~32	4	Auto	Man	×	PSV15AMM-S51	10660022702
Dual	PSV15	-0.5~7	0.7~5	6~32	5	Auto	Auto	√	PSV15AAM-S01	10660021602
Dual	PSV15	-0.5~7	0.7~5	6~32	5	Auto	Man	√	PSV15AMM-S01	10660021502
Dual	PSV16	-0.5~7	0.7~5	8~42	5	Auto	Auto	×	PSV16AAM-S51	10660022102
Dual	PSV16	-0.5~7	0.7~5	8~42	5	Auto	Man	×	PSV16AMM-S51	10660021902
Dual	PSV16	-0.5~7	0.7~5	8~42	6	Auto	Auto	√	PSV16AAM-S01	10660021402
Dual	PSV16	-0.5~7	0.7~5	8~42	6	Auto	Man	√	PSV16AMM-S01	10660019902

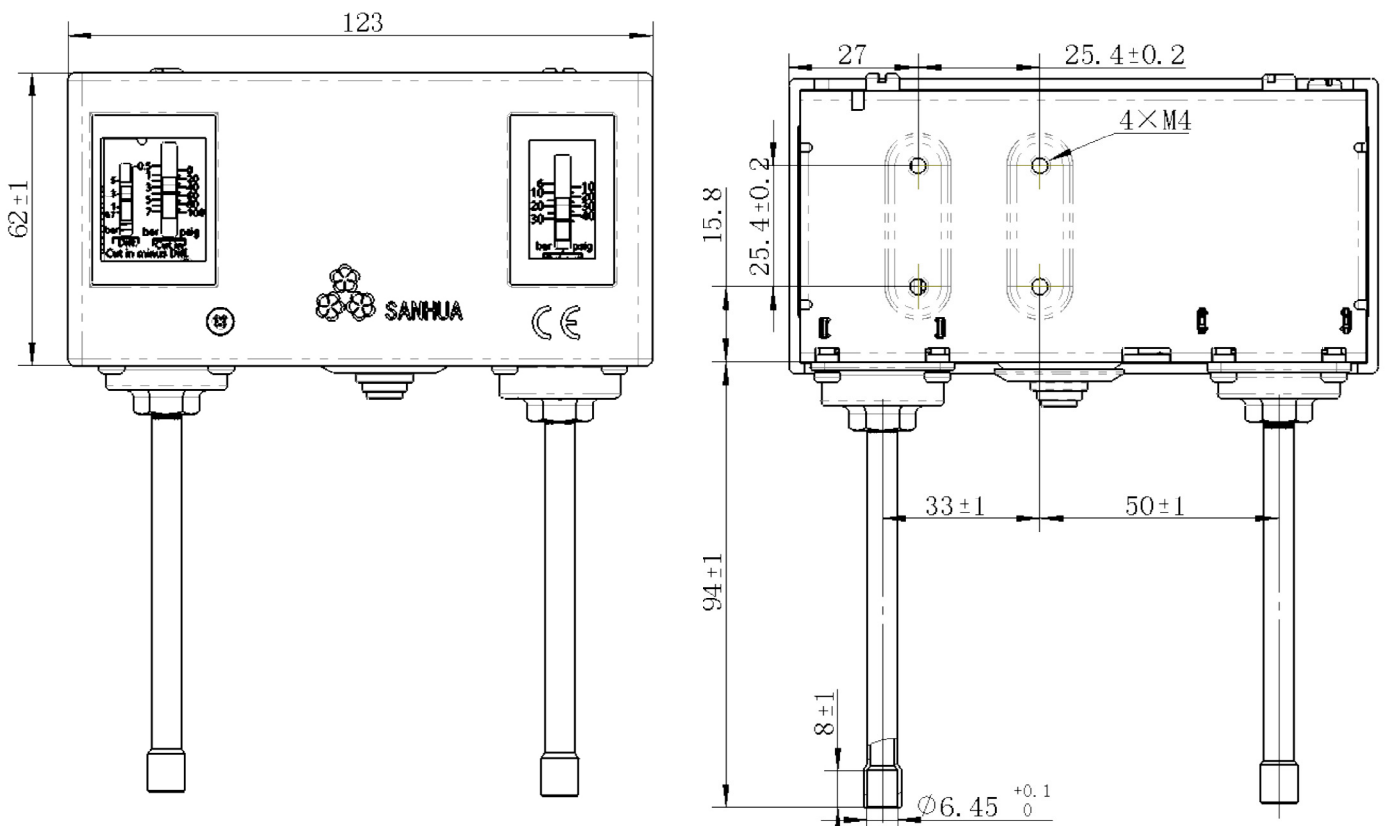
**Tips:** Pressure controls which are certified by TÜV, Rheinland acc. to PED 2014 68/EU, EN12263 are designed with double bellows at high pressure, and they provide “fail-safe” function. The double bellows system prevents loss of charge in the event of the inner bellow rupture. A rupture in the inner bellow will cause the control cut-out pressure to fall about 3 times less the set value and the compressor will stop. A rupture in the outer bellows will cause the control cut-out pressure to fall to about 3 bar under the set value and providing the so-called “fail-safe” function.



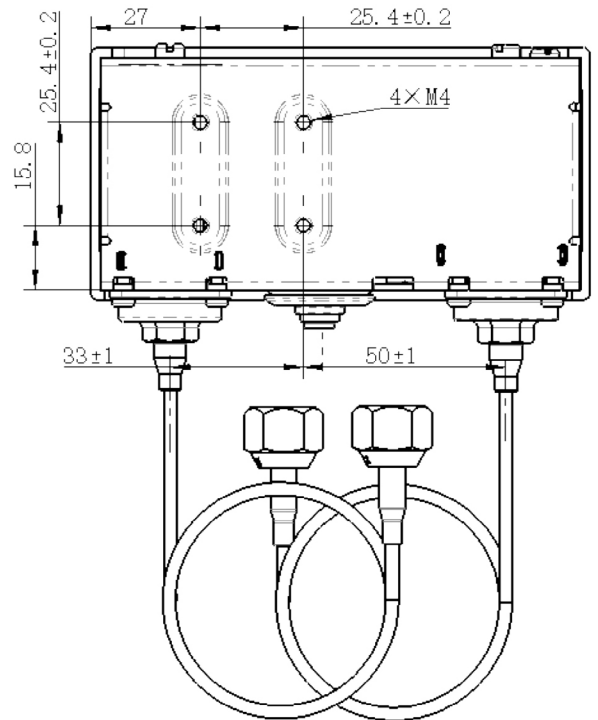
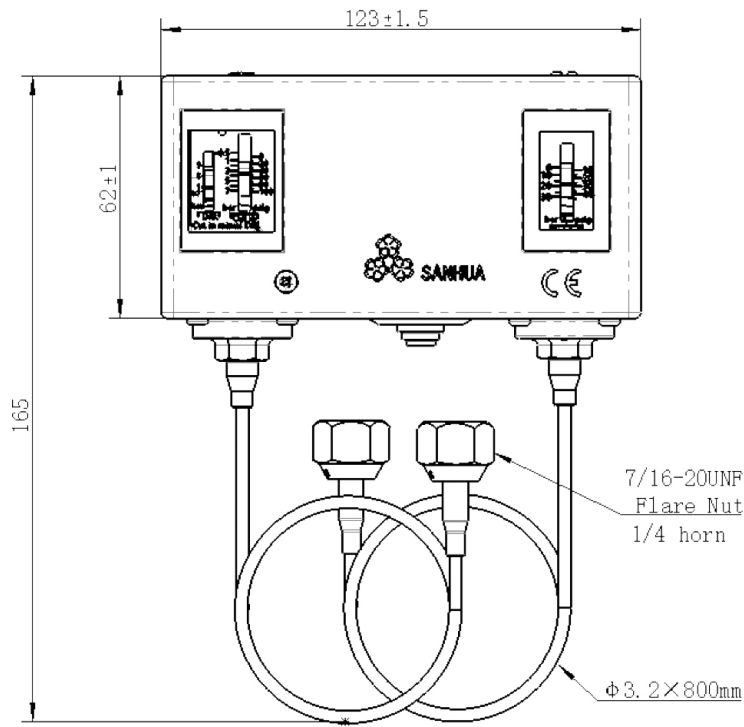
**DIMENSIONAL DRAWING**



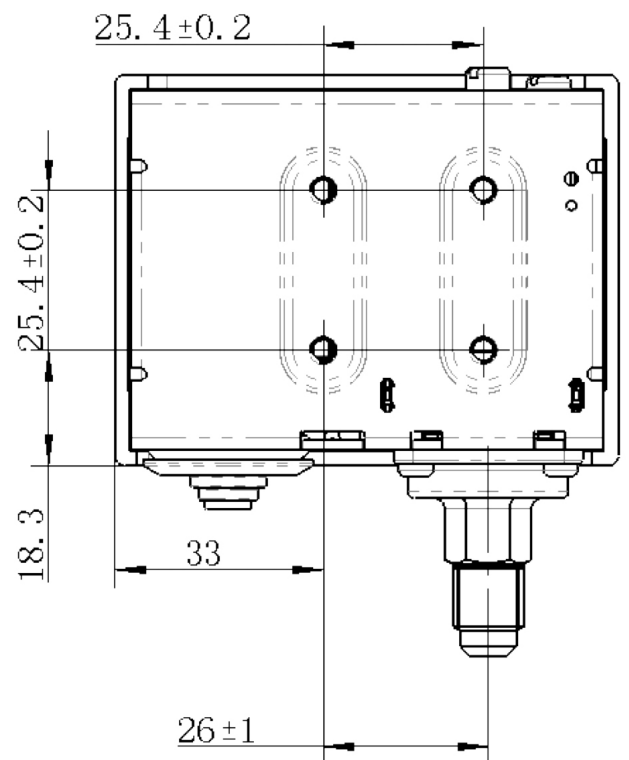
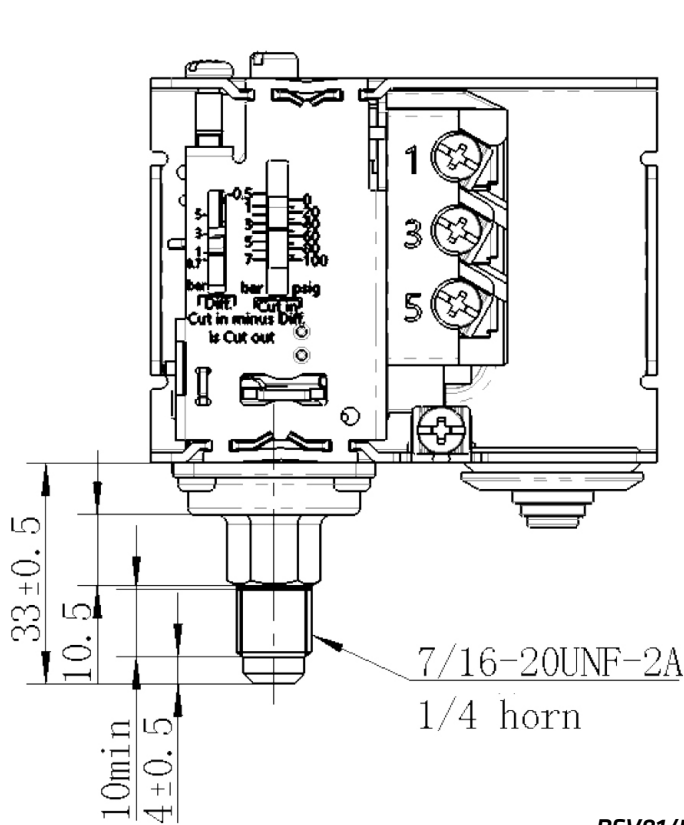
**PSV15/16xxL**



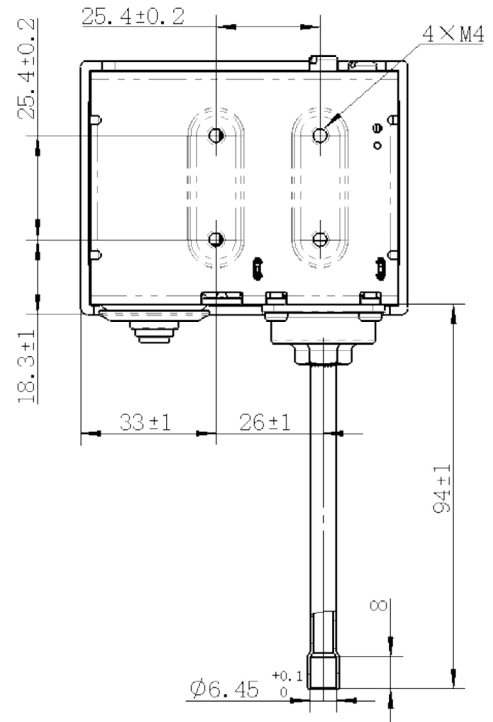
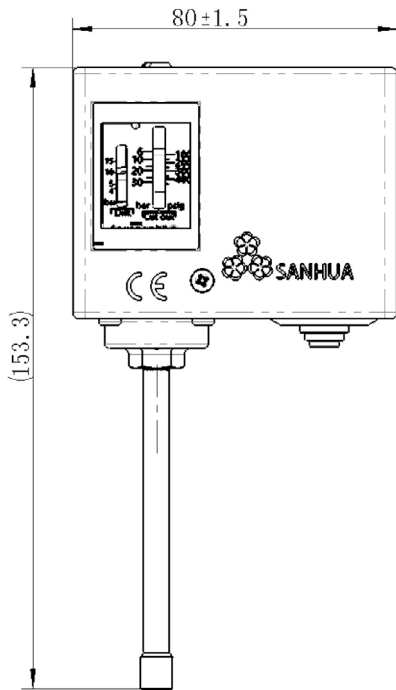
**PSV15/16 xxH**



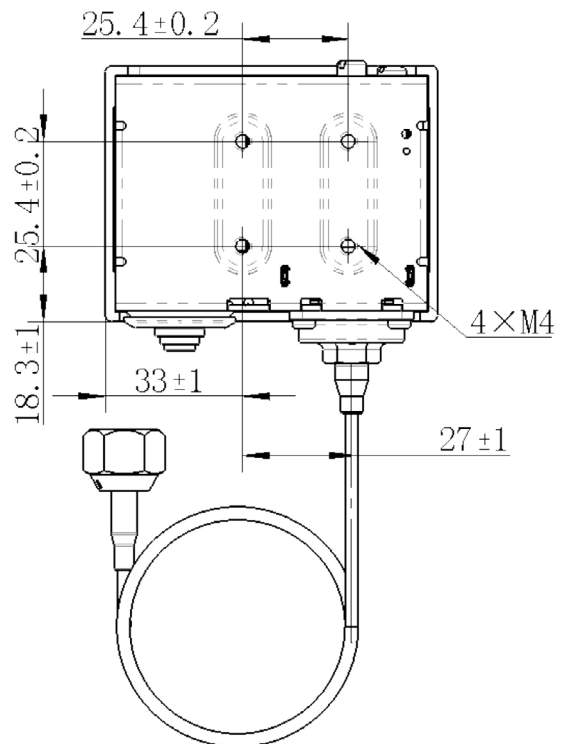
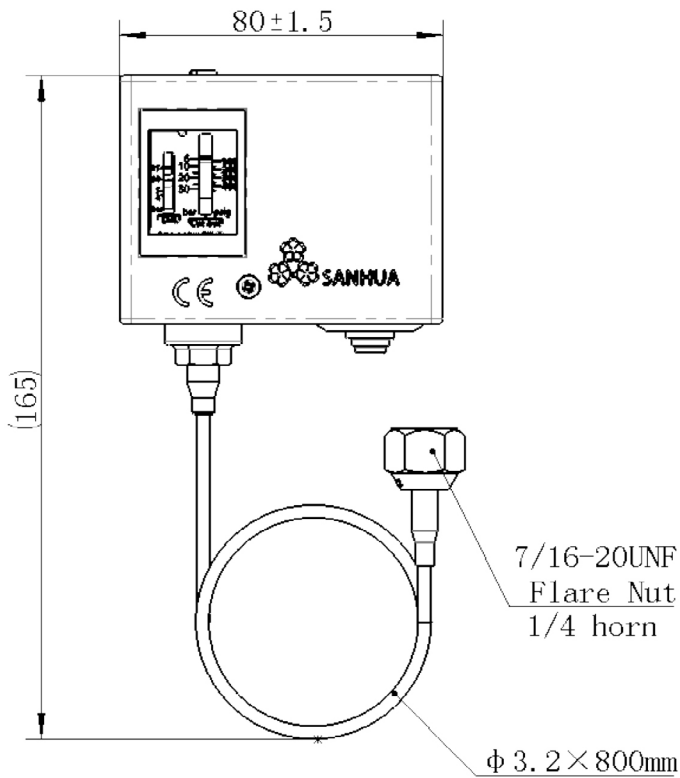
PSV15/16 xxM



PSV01/50/60xL



PSV01/50/60×H



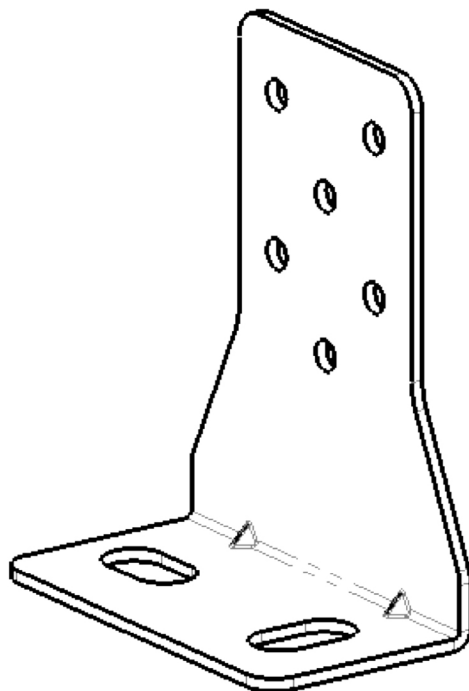
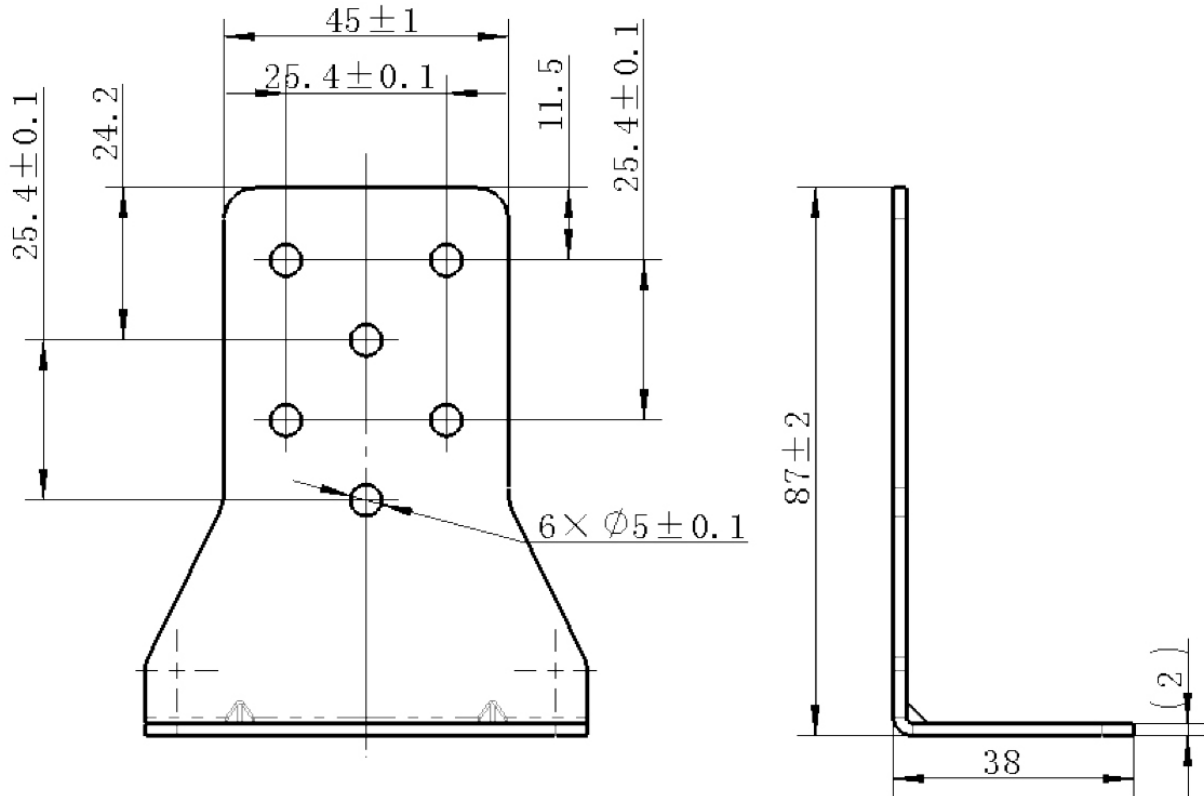
PSV01/50/60×M





INSTALLATION PLATE

Model	U11 code
PS50-50001	20660018502

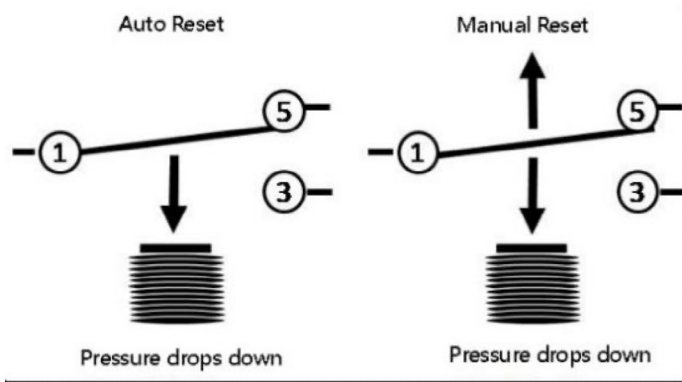


**PRESSURE CONTROLS**

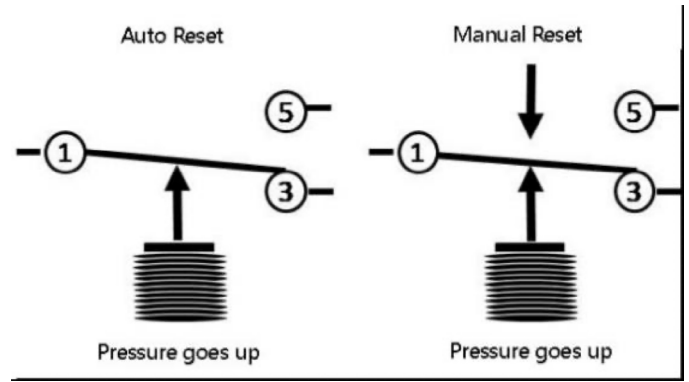


**CONTACT SYSTEM**

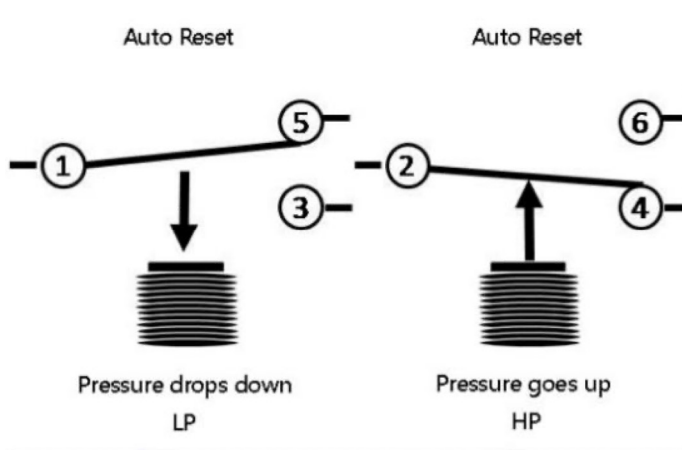
*Single PSV01*



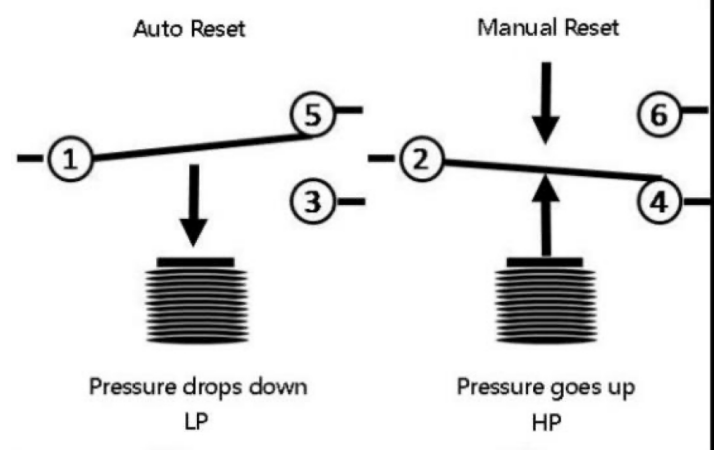
*Single PSV50/60*



*Dual PSV15/16AA*



*Dual PSV15/16AM*



*Dual PSV15/16MM*

