

PRESSURE SWITCH SERIES

PSV01/50/60/15/16

Pressure switches can be used in refrigeration and to protect the systems from extremely low suction pressure or extremely high discharge pressure. The pressure switches 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 LEVEL OF ACCURACY AND STABLE REPEATABILITY
- LONG LIFE TIME WITH BOTH EXCELLENT ELECTRIC AND MECHANICAL RELIABILITY
- SPDT SWITCH TO ENSURE GOOD CONTACT AND DISCONNECT CONVERSION WITH FAST REACTIONS
- VARIOUS PRESSURE RANGES ARE AVAILABLE
- SUPPLY WITH INSTALLATION PLATE
- BELLOW ELEMENTS ARE MADE OF TIN BRONZE AND PRESSURE CONNECTIONS ARE MADE OF BRASS

GENERAL SPECIFICATIONS

- Applicable for all common HCFC, non-flammable HFC and HFO refrigerants such as: R134a, R404A/R507, R407C, R22, R407A/F R410A, R448A/449A, R452A, R513A, R450A, R1234ze(E) (for R32, R717, R290 and R1234yf applications please contact Sanhua)
- Medium temperature TS min./max. -40°C / +120°C
- Ambient temperature min./max. -30°C / +65°C
- Relative humidity: 0 - 95% RH
- Max. working pressure (PSV): HP: 3.5/4.5MPa; LP: 1.65MPa
- Enclosure: IP30/IP44 (to be customized)
- Certification: CE, PED IV (In process) and UL Listed
- Contact load

Rated Voltage (V)	AC1	AC3	AC15	DC
	400	400	400	24
Rated Current (A)	16	16	10	8

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MODEL DESIGNATION SYSTEM

Position Number	Model designation legend	
1	Type of pressure switch	Description
	PSV	Pressure switch
2	Pressure regulating range	Description
	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) / HP :6 ~ 32 bar(g)
	16	Dual LP :-0.5 ~ 7 bar(g) / HP :8 ~ 42 bar(g)
	55	Dual HP :6 ~ 32 bar(g)/HP :6 ~ 32 bar(g)
3	Type of reset	Description
	A	Automatic reset
	M	Manual reset
	AA	Auto LP / Auto HP
	AM/MA/MM
4	Pressure connection type	Description
	L	Thread
	H	Solder
	M	Capillary tube
5	Product design (type)	Description
	S	Standard
	C	Customized
6	Sequence number	Description
	0X (01/02/03/04/05/.....)	PED IV certified model, high pressure dual bellows
	5X (51/52/53/54/55.....)	Common model, high pressure single bellow

PRESSURE SWITCH SERIES

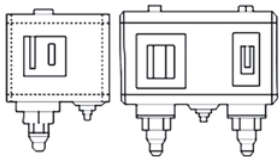
PSV01/50/60/15/16



MODEL DESIGNATION SYSTEM

1	2	3	4	-	5	6	
PSV	15	AA	L	-	S	01	Pressure switch
PSV	15	AA	L	-	S	01	Dual Pressure Range LP:-0.5~7 bar(g)/ HP:6~32 bar(g)
PSV	15	AA	L	-	S	01	Auto reset HP, Auto reset LP
PSV	15	AA	L	-	S	01	Flare connection type
PSV	15	AA	L	-	S	01	Standard
PSV	15	AA	L	-	S	01	PED IV certified model, high pressure dual bellows

SELECTION AND ORDERING

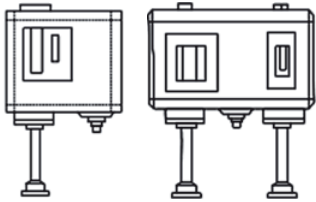


PSV01, PSV50, PSV15, Flare Connection

Pressure	Type	LP		HP		Reset		PED 2014 68/EU EN 12263 Certified	Ordering Code
		LP Range	Differential Pressure ΔP	Range	Differential Pressure ΔP	Low Pressure	High Pressure		Thread Connection Type 7/16-20UNF (1/4in.6mm)
		[bar]	[bar]	[bar]	[bar]				Model
LOW	PSV01	-0.5 ~ 7	0.7 ~ 5	-	-	Auto	-	YES	PSV01AL-S01
LOW	PSV01	-0.5 ~ 7	0.7 Fixed	-	-	Manual	-	YES	PSV01ML-S01
High	PSV50	-	-	6 ~ 32	3 ~ 15	-	Auto	No	PSV50AL-S51
High	PSV50	-	-	6 ~ 32	3 Fixed	-	Manual	No	PSV50ML-S51
High	PSV50	-	-	6 ~ 32	4 ~ 15	-	Auto	YES	PSV50AL-S01
High	PSV50	-	-	6 ~ 32	4 Fixed	-	Manual	YES	PSV50ML-S01
High	PSV60	-	-	8 ~ 42	4 ~ 20	-	Auto	No	PSV60AL-S51
High	PSV60	-	-	8 ~ 42	4 Fixed	-	Manual	No	PSV60ML-S51
High	PSV60	-	-	8 ~ 42	5 ~ 20	-	Auto	YES	PSV60AL-S01
High	PSV60	-	-	8 ~ 42	5 Fixed	-	Manual	YES	PSV60ML-S01
Dual	PSV15	-0.5 ~ 7	0.7 ~ 5	6 ~ 32	4 Fixed	Auto	Auto	No	PSV15AAL-S51
Dual	PSV15	-0.5 ~ 7	0.7 ~ 5	6 ~ 32	4.5 Fixed	Auto	Manual	No	PSV15AML-S51
Dual	PSV15	-0.5 ~ 7	0.7 ~ 5	6 ~ 32	5 Fixed	Auto	Auto	YES	PSV15AAL-S01
Dual	PSV15	-0.5 ~ 7	0.7 ~ 5	6 ~ 32	5.5 Fixed	Auto	Manual	YES	PSV15AML-S01
Dual	PSV16	-0.5 ~ 7	0.7 ~ 5	8 ~ 42	5 Fixed	Auto	Auto	No	PSV16AAL-S51
Dual	PSV16	-0.5 ~ 7	0.7 ~ 5	8 ~ 42	5.5 Fixed	Auto	Manual	No	PSV16AML-S51
Dual	PSV16	-0.5 ~ 7	0.7 ~ 5	8 ~ 42	6 Fixed	Auto	Auto	YES	PSV16AAL-S01
Dual	PSV16	-0.5 ~ 7	0.7 ~ 5	8 ~ 42	6.5 Fixed	Auto	Manual	YES	PSV16AML-S01

PRESSURE SWITCH SERIES

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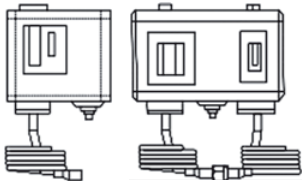


PSV01, PSV50, PSV15, Solder ODF Connection

Pressure	Type	LP		HP		Reset		PED 2014 68/EU EN 12263 Certified	Ordering Code	
		Pressure range	Differential Pressure ΔP	Pressure range	Differential Pressure ΔP	LP	HP		Solder ODF 1/4 in.	Solder ODF 6mm
		[bar]	[bar]	[bar]	[bar]				Model	Model
LOW	PSV01	-0.5 ~ 7	0.7 ~ 5	-	-	Auto	-	YES	PSV01AH-S01	PSV01AH-C01
LOW	PSV01	-0.5 ~ 7	0.7 Fixed	-	-	Manual	-	YES	PSV01MH-S01	PSV01MH-C01
High	PSV50	-	-	6 ~ 32	3 ~ 15	-	Auto	No	PSV50AH-S51	PSV50AH-C51
High	PSV50	-	-	6 ~ 32	3 Fixed	-	Manual	No	PSV50MH-S51	PSV50MH-C51
High	PSV50	-	-	6 ~ 32	4 ~ 15	-	Auto	YES	PSV50AH-S01	PSV50AH-C01
High	PSV50	-	-	6 ~ 32	4 Fixed	-	Manual	YES	PSV50MH-S01	PSV50MH-C01
High	PSV60	-	-	8 ~ 42	4 ~ 20	-	Auto	No	PSV60AH-S51	PSV60AH-C51
High	PSV60	-	-	8 ~ 42	4 Fixed	-	Manual	No	PSV60MH-S51	PSV60MH-C51
High	PSV60	-	-	8 ~ 42	5 ~ 20	-	Auto	YES	PSV60AH-S01	PSV60AH-C01
High	PSV60	-	-	8 ~ 42	5 Fixed	-	Manual	YES	PSV60MH-S01	PSV60MH-C01
Dual	PSV15	-0.5 ~ 7	0.7 ~ 5	6 ~ 32	4 Fixed	Auto	Auto	No	PSV15AAH-S51	PSV15AAH-C51
Dual	PSV15	-0.5 ~ 7	0.7 ~ 5	6 ~ 32	4.5 Fixed	Auto	Manual	No	PSV15AMH-S51	PSV15AMH-C51
Dual	PSV15	-0.5 ~ 7	0.7 ~ 5	6 ~ 32	5 Fixed	Auto	Auto	YES	PSV15AAH-S01	PSV15AAH-C01
Dual	PSV15	-0.5 ~ 7	0.7 ~ 5	6 ~ 32	5.5 Fixed	Auto	Manual	YES	PSV15AMH-S01	PSV15AMH-C01
Dual	PSV16	-0.5 ~ 7	0.7 ~ 5	8 ~ 42	5 Fixed	Auto	Auto	No	PSV16AAH-S51	PSV16AAH-C51
Dual	PSV16	-0.5 ~ 7	0.7 ~ 5	8 ~ 42	5.5 Fixed	Auto	Manual	No	PSV16AMH-S51	PSV16AMH-C51
Dual	PSV16	-0.5 ~ 7	0.7 ~ 5	8 ~ 42	6 Fixed	Auto	Auto	YES	PSV16AAH-S01	PSV16AAH-C01
Dual	PSV16	-0.5 ~ 7	0.7 ~ 5	8 ~ 42	6.5 Fixed	Auto	Manual	YES	PSV16AMH-S01	PSV16AMH-C01

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PSV01, PSV50, PSV15, Capillary Connection

Pressure	Type	LP		HP		Reset		PED 2014 68/EU EN 12263 Certified	Connection Type
		LP Range	Differential Pressure ΔP	LP Range	Differential Pressure ΔP	LP	HP		Flare Connection 7/16-20UNF (1/4in. & 6mm)
		[bar]	[bar]	[bar]	[bar]				Model
LOW	PSV01	-0.5 ~ 7	0.7 ~ 5	-	-	Auto	-	YES	PSV01AM-S01
LOW	PSV01	-0.5 ~ 7	0.7 Fixed	-	-	Manual	-	YES	PSV01MM-S01
High	PSV50	-	-	6 ~ 32	3 ~ 15	-	Auto	No	PSV50AM-S51
High	PSV50	-	-	6 ~ 32	3 Fixed	-	Manual	No	PSV50MM-S51
High	PSV50	-	-	6 ~ 32	4 ~ 15	-	Auto	YES	PSV50AM-S01
High	PSV50	-	-	6 ~ 32	4 Fixed	-	Manual	YES	PSV50MM-S01
High	PSV60	-	-	8 ~ 42	4 ~ 20	-	Auto	No	PSV60AM-S51
High	PSV60	-	-	8 ~ 42	4 Fixed	-	Manual	No	PSV60MM-S51
High	PSV60	-	-	8 ~ 42	5 ~ 20	-	Auto	YES	PSV60AM-S01
High	PSV60	-	-	8 ~ 42	5 Fixed	-	Manual	YES	PSV60MM-S01
Dual	PSV15	-0.5 ~ 7	0.7 ~ 5	6 ~ 32	4 Fixed	Auto	Auto	No	PSV15AAM-S51
Dual	PSV15	-0.5 ~ 7	0.7 ~ 5	6 ~ 32	4.5 Fixed	Auto	Manual	No	PSV15AMM-S51
Dual	PSV15	-0.5 ~ 7	0.7 ~ 5	6 ~ 32	5 Fixed	Auto	Auto	YES	PSV15AAM-S01
Dual	PSV15	-0.5 ~ 7	0.7 ~ 5	6 ~ 32	5.5 Fixed	Auto	Manual	YES	PSV15AMM-S01
Dual	PSV16	-0.5 ~ 7	0.7 ~ 5	8 ~ 42	5 Fixed	Auto	Auto	No	PSV16AAM-S51
Dual	PSV16	-0.5 ~ 7	0.7 ~ 5	8 ~ 42	5.5 Fixed	Auto	Manual	No	PSV16AMM-S51
Dual	PSV16	-0.5 ~ 7	0.7 ~ 5	8 ~ 42	6 Fixed	Auto	Auto	YES	PSV16AAM-S01
Dual	PSV16	-0.5 ~ 7	0.7 ~ 5	8 ~ 42	6.5 Fixed	Auto	Manual	YES	PSV16AMM-S01

Notes:

1) Based on the 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 (models without PED 2014 68/EU Certificate can be used as pressure regulation devices, usage them as pressure safety devices must be verified as per local legislation in the country of use). Regarding availability of PED 2014 68/EU (Category IV) Certificate please contact your Sanhua sales representative.

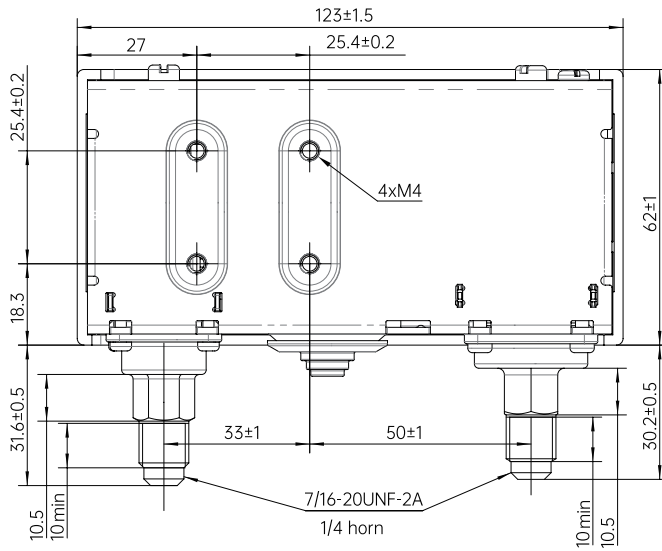
The double bellows system prevents loss of charge in the event of the inner bellow rupture. A rupture in the inner bellow will cause the control cut-out pressure to fall about 3 times less the set value and the compressor will stop. A rupture in the outer bellows will cause the control cut-out pressure to fall to about 3 bar under the set value and providing the so-called 'fail-safe' function.

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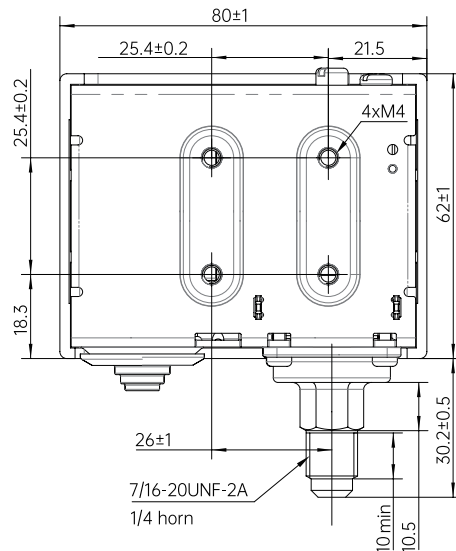
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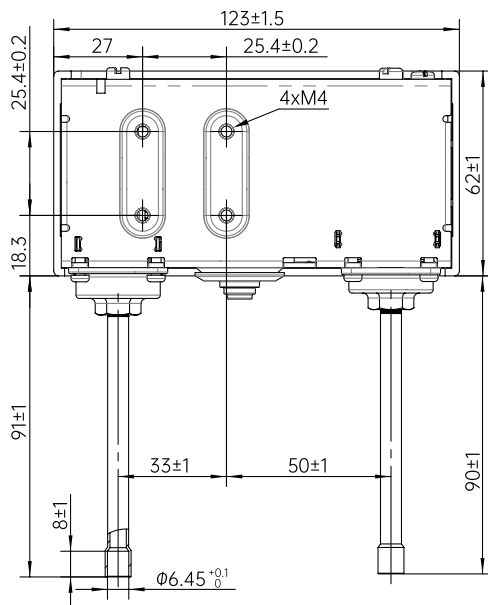
DIMENSIONAL DRAWINGS



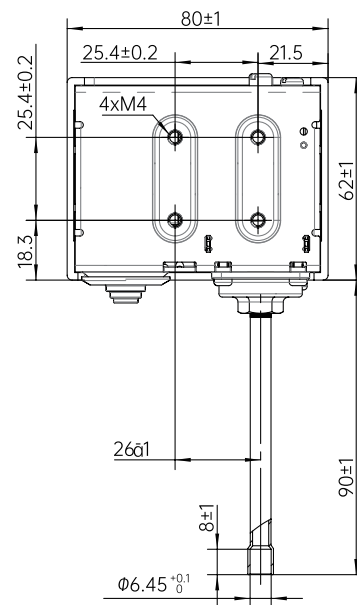
Dual pressure thread



Single pressure thread



Dual pressure connections



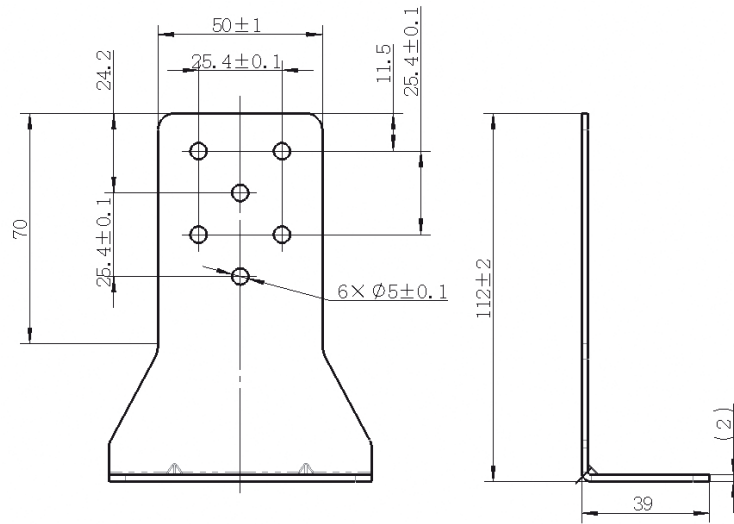
Single pressure connection

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MOUNTING PLATE



CONTACT SYSTEM

