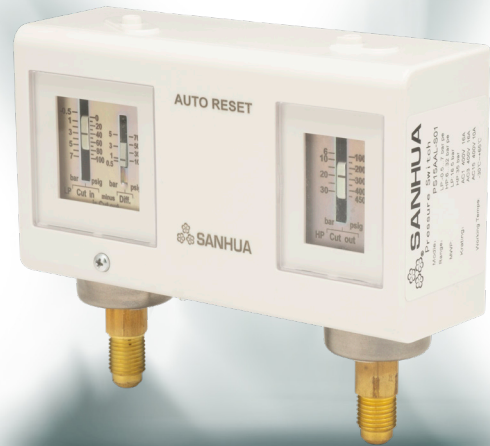




## Pressure switch

Pressure switches 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 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 STANDARD PLATE FOR INSTALLATION
- BELLOW ELEMENTS ARE MADE OF TIN BRONZE AND PRESSURE CONNECTIONS ARE MADE OF BRASS

### GENERAL SPECIFICATION

- Applicable for all common HCFC, non-flammable HFC and HFO refrigerants such as: R134a, R404A/R507, R407C, R22, R407A/F, R448A/449A, R452A, R513A, R450A,, (for R410A, R32, R717, R290, R1234ze(E) 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 (PS): HP: 3.5MPa; LP: 1.65MPa
- Enclosure: IP44
- Certification: CE, PED IV (In process) and UL Listed (In process)
- Contact load

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



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# PS01/50/15 SERIES

## Pressure switch

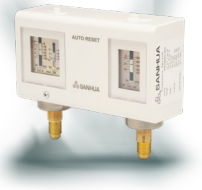


### MODEL DESIGNATION LEGEND

| Position Number | Model Designation Legend                     |  |
|-----------------|--|--|
| 1               | <b>Type of pressure switch</b>               | <b>Description</b>   |
|                 | PS   | Pressure switch  |
| 2               | <b>Pressure regulating range</b>             | <b>Description</b>   |
|                 | 01   | LP:-0.5~7 bar(g)   |
|                 | 02   | TBD  |
|                 | 03   | TBD  |
|                 | 50   | HP:6~32 bar(g)   |
|                 | 60   | HP:642 bar(g)  |
|                 | 70   | TBD  |
|                 | 80   | TBD  |
|                 | 15   | Dual (LP/HP): LP:-0.57 bar(g)/ HP:6~32 bar(g)                |
|                 | 16   | Dual (LP/HP): LP:-0.5~7 bar(g)/ HP:6~42 bar(g)               |
| 55              | Dual (HP/HP): HP:6~32 bar(g)/ HP:6~32 bar(g) |  |
| 3               | <b>Type of reset</b>                         | <b>Description</b>   |
|                 | A  | Automatic reset  |
|                 | M  | Manual reset   |
|                 | C  | Convertible reset  |
|                 | AA   | Auto LP/ Auto HP   |
|                 | AC   | Auto LP/Convertible HP                                       |
|                 | AM/MA/MM/MC/CA/CM/CC                         | .....  |
| 4               | <b>Pressure connection type</b>              | <b>Description</b>   |
|                 | L  | Flare  |
|                 | H  | Solder   |
|                 | M  | Capillary tube   |
| 5               | <b>Product design (type)</b>                 | <b>Description</b>   |
|                 | S  | Standard   |
|                 | C  | Customized   |
| 6               | <b>inch or mm pressure connection</b>        | <b>Description</b>   |
|                 | 01 (03/05/07/09/11/13.....)                  | Inch or unified Inch & Metric (will be certified as Cat. IV) |
|                 | 02 (04/06/08/10/12/14.....)                  | Metric only (will be certified as Cat. IV)                   |
|                 | 51 (53/55/57/59/61/63.....)                  | Inch or unified Inch & Metric                                |
|                 | 52 (54/56/58/60/62/64.....)                  | Metric only  |

# PS01/50/15 SERIES

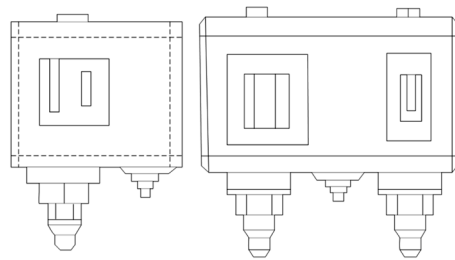
## Pressure switch



### MODEL DESIGNATION EXAMPLE

| Position Number |           |           |          |   |          |           | Model designation example (according above legend)   |
|-----------------|-----------|-----------|----------|---|----------|-----------|--|
| 1               | 2         | 3         | 4        | - | 5        | 6         |  |
| PS              | 15        | AA        | L        | - | S        | 01        | Pressure switch  |
| PS              | <b>15</b> | AA        | L        | - | S        | 01        | Dual Pressure Range LP:-0.5~7 bar(g)/ HP:6~42 bar(g)   |
| PS              | 15        | <b>AA</b> | L        | - | S        | 01        | Auto reset HP, Auto reset LP   |
| PS              | 15        | AA        | <b>L</b> | - | S        | 01        | Flare connection type  |
| PS              | 15        | AA        | L        | - | <b>S</b> | 01        | Standard   |
| PS              | 15        | AA        | L        | - | S        | <b>01</b> | Inch (or unified Inch & Metric) pressure connection<br>Double bellows - fail safe in case of High pressure |

### SELECTION AND ORDERING



| PS01, PS50, PS15, 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 | Low Pressure | High Pressure |   | Flare Connection 7/16-20UNF (1/4in. & 6mm) |             |
|                                    |                    | [bar]             | [bar]                    | [bar]              | [bar]                    |              |               |   | Model                                      | U11 Code    |
| Low                                | PS01 <sup>2)</sup> | -0.5~7            | 0.5~5                    | —                  | —                        | Auto         | —             | In process                                      | PS01AL-S01                                 | 10660003102 |
| Low                                | PS01               | -0.5~7            | 1                        | —                  | —                        | Manual       | —             | In process                                      | PS01ML-S01                                 | 10660003202 |
| High                               | PS50               | —                 | —                        | 6~32               | 3~15                     | —            | Auto          | NO  | PS50AL-S51                                 | 10660002702 |
| High                               | PS50               | —                 | —                        | 6~32               | 4                        | —            | Manual        | NO  | PS50ML-S51                                 | 10660003302 |
| High                               | PS50               | —                 | —                        | 6~32               | 3~15                     | —            | Auto          | In process                                      | PS50AL-S01                                 | 10660003002 |
| High                               | PS50               | —                 | —                        | 6~32               | 4                        | —            | Manual        | In process                                      | PS50ML-S01                                 | 10660003402 |
| Dual                               | PS15               | -0.5~7            | 0.5~5                    | 6~32               | 4                        | Auto         | Auto          | NO  | PS15AAL-S51                                | 10660002802 |
| Dual                               | PS15               | -0.5~7            | 0.5~5                    | 6~32               | 4                        | Auto         | Manual        | NO  | PS15AML-S51                                | 10660003502 |
| Dual                               | PS15               | -0.5~7            | 0.5~5                    | 6~32               | 4                        | Auto         | Auto          | In process                                      | PS15AAL-S01                                | 10660002902 |
| Dual                               | PS15               | -0.5~7            | 0.5~5                    | 6~32               | 4                        | Auto         | Manual        | In process                                      | PS15AML-S01                                | 10660003602 |

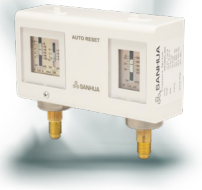


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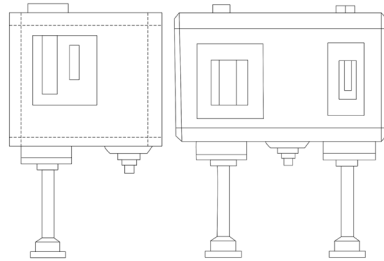
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# PS01/50/15 SERIES

## Pressure switch



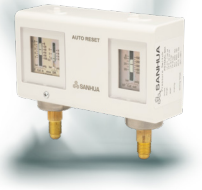
### SELECTION AND ORDERING



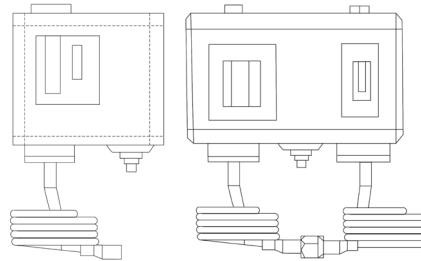
| PS01, PS50, PS15, Solder ODF Connection |      |                   |                          |                    |                          |              |               |   |                    |             |                |             |
|---|------|-------------------|--------------------------|--------------------|--------------------------|--------------|---------------|---|--------------------|-------------|----------------|-------------|
| 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 |              |               |   | Solder ODF 1/4 in. |             | Solder ODF 6mm |             |
|   |      | [bar]             | [bar]                    | [bar]              | [bar]                    | Low Pressure | High Pressure |   | Model              | U11 Code    | Model          | U11 Code    |
| Low                                     | PS01 | -0.5~7            | 0.5~5                    | —                  | —                        | Auto         | —             | In process                                      | PS01AH-S01         | 10660003702 | PS01AH-S02     | 10660005302 |
| Low                                     | PS01 | -0.5~7            | 1                        | —                  | —                        | Manual       | —             | In process                                      | PS01MH-S01         | 10660003802 | PS01MH-S02     | 10660005202 |
| High                                    | PS50 | —                 | —                        | 6~32               | 3~15                     | —            | Auto          | NO  | PS50AH-S51         | 10660003902 | PS50AH-S52     | 10660005102 |
| High                                    | PS50 | —                 | —                        | 6~32               | 4                        | —            | Manual        | NO  | PS50MH-S51         | 10660004002 | PS50MH-S52     | 10660005002 |
| High                                    | PS50 | —                 | —                        | 6~32               | 3~15                     | —            | Auto          | In process                                      | PS50AH-S01         | 10660004102 | PS50AH-S02     | 10660004902 |
| High                                    | PS50 | —                 | —                        | 6~32               | 4                        | —            | Manual        | In process                                      | PS50MH-S01         | 10660004602 | PS50MH-S02     | 10660004802 |
| Dual                                    | PS15 | -0.5~7            | 0.5~5                    | 6~32               | 4                        | Auto         | Auto          | NO  | PS15AAH-S51        | 10660004502 | PS15AAH-S52    | 10660006702 |
| Dual                                    | PS15 | -0.5~7            | 0.5~5                    | 6~32               | 4                        | Auto         | Manual        | NO  | PS15AMH-S51        | 10660004402 | PS15AMH-S52    | 10660004702 |
| Dual                                    | PS15 | -0.5~7            | 0.5~5                    | 6~32               | 4                        | Auto         | Auto          | In process                                      | PS15AAH-S01        | 10660004302 | PS15AAH-S02    | 10660005402 |
| Dual                                    | PS15 | -0.5~7            | 0.5~5                    | 6~32               | 4                        | Auto         | Manual        | In process                                      | PS15AMH-S01        | 10660004202 | PS15AMH-S02    | 10660005602 |

# PS01/50/15 SERIES

## Pressure switch



### SELECTION AND ORDERING



| PS01, PS50, PS15, Capillary Connection |      |                   |                          |                    |                          |              |               |   |  |             |
|--|------|-------------------|--------------------------|--------------------|--------------------------|--------------|---------------|---|--|-------------|
| Pressure                               | Type | Low Pressure (LP) |                          | High Pressure (HP) |                          | Reset        |               | PED 2014 68/EU EN 12263 Certified <sup>1)</sup> | Connection   |             |
|  |      | Range             | Differential Pressure ΔP | Range              | Differential Pressure ΔP |              |               |   | Capillary with 7/16-20UNF Flare Nut (1/4in. & 6mm) |             |
|  |      | [bar]             | [bar]                    | [bar]              | [bar]                    | Low Pressure | High Pressure |   | Model  | U11 Code    |
| Low                                    | PS01 | -0.5~7            | 0.5~5                    | —                  | —                        | Auto         | —             | In process                                      | PS01AM-S01   | 10660006102 |
| Low                                    | PS01 | -0.5~7            | 1                        | —                  | —                        | Manual       | —             | In process                                      | PS01MM-S01   | 10660006002 |
| High                                   | PS50 | —                 | —                        | 6~32               | 3~15                     | —            | Auto          | NO  | PS50AM-S51   | 10660005902 |
| High                                   | PS50 | —                 | —                        | 6~32               | 4                        | —            | Manual        | NO  | PS50MM-S51   | 10660005802 |
| High                                   | PS50 | —                 | —                        | 6~32               | 3~15                     | —            | Auto          | In process                                      | PS50AM-S01   | 10660005702 |
| High                                   | PS50 | —                 | —                        | 6~32               | 4                        | —            | Manual        | In process                                      | PS50MM-S01   | 10660006602 |
| Dual                                   | PS15 | -0.5~7            | 0.5~5                    | 6~32               | 4                        | Auto         | Auto          | NO  | PS15AAM-S51  | 10660006502 |
| Dual                                   | PS15 | -0.5~7            | 0.5~5                    | 6~32               | 4                        | Auto         | Manual        | NO  | PS15AMM-S51  | 10660006402 |
| Dual                                   | PS15 | -0.5~7            | 0.5~5                    | 6~32               | 4                        | Auto         | Auto          | In process                                      | PS15AAM-S01  | 10660006302 |
| Dual                                   | PS15 | -0.5~7            | 0.5~5                    | 6~32               | 4                        | Auto         | Manual        | In process                                      | PS15AMM-S01  | 10660006202 |

**Notes:** 1) PS50 and PS15 which are planned to be 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.

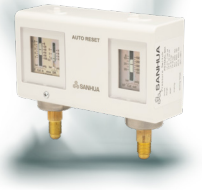
2) The PS01 are planned to be certified by TÜV, Rheinland acc. to PED 2014 68/EU, EN12263 but due to the fact that they will not be used as high pressure protection function, PED IV is not required and they are designed with only single bellow.



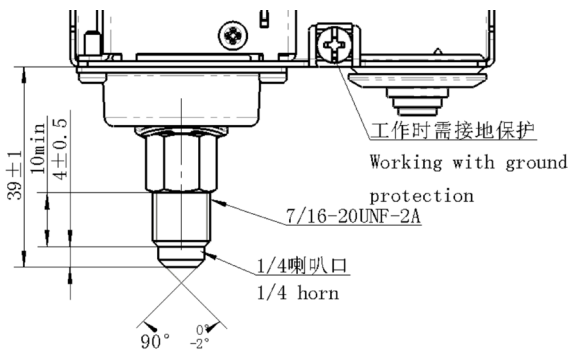
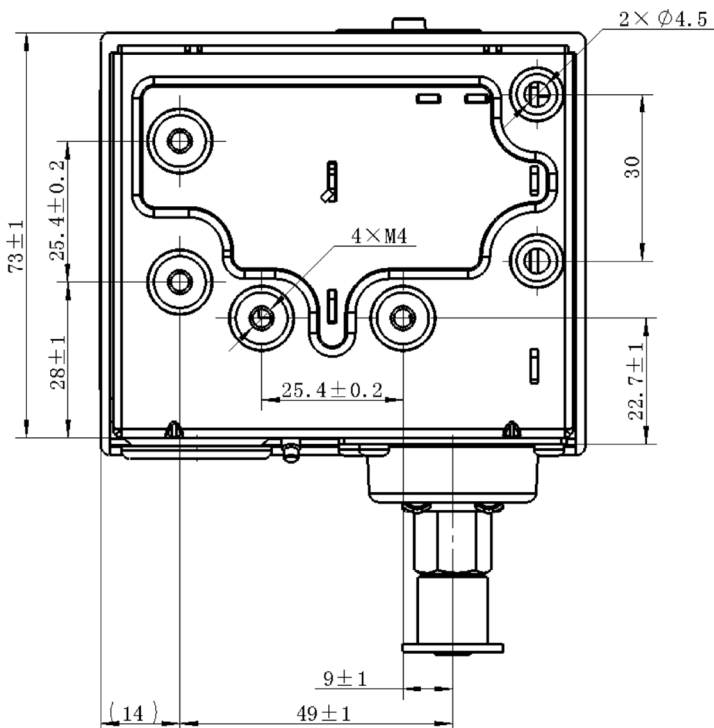
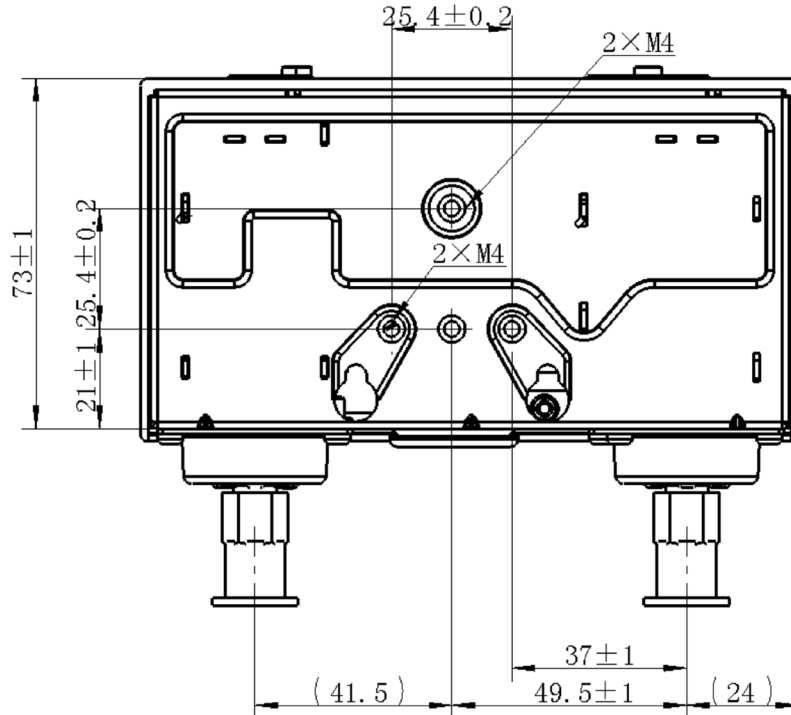
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**PS01/50/15 SERIES**  
**Pressure switch**



**DIMENSIONAL DRAWINGS**



DS-PS/EN-R1905  
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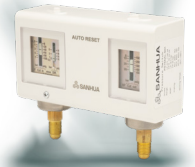


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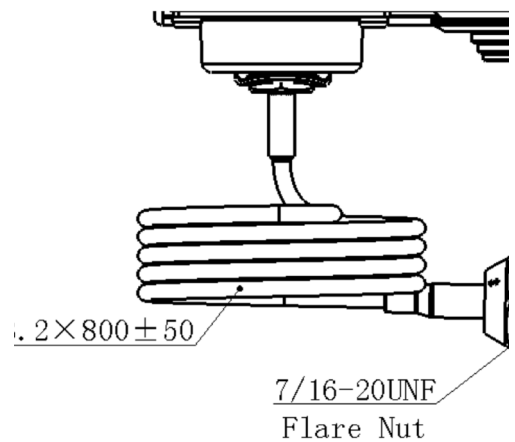
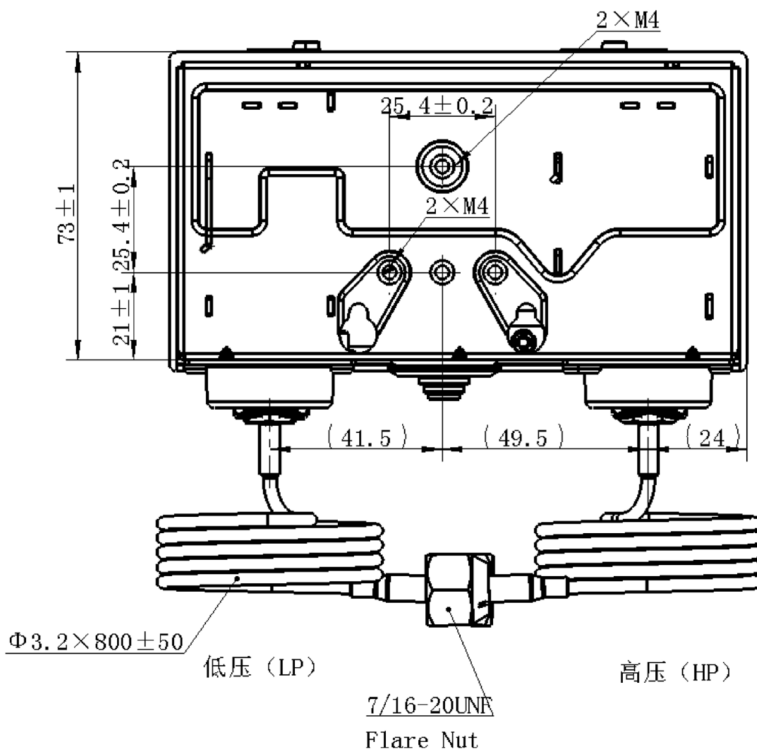
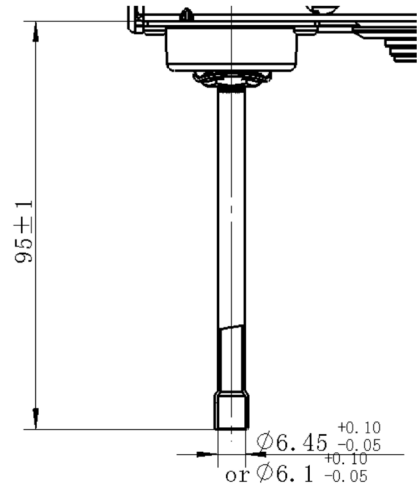
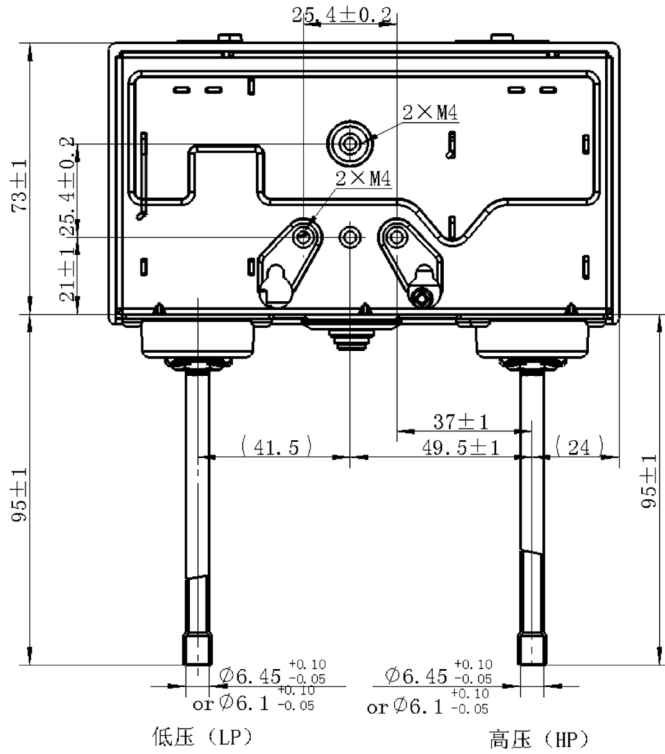
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# PS01/50/15 SERIES

## Pressure switch



### DIMENSIONAL DRAWINGS

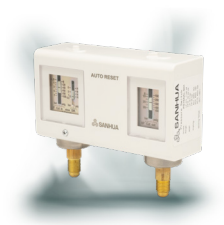


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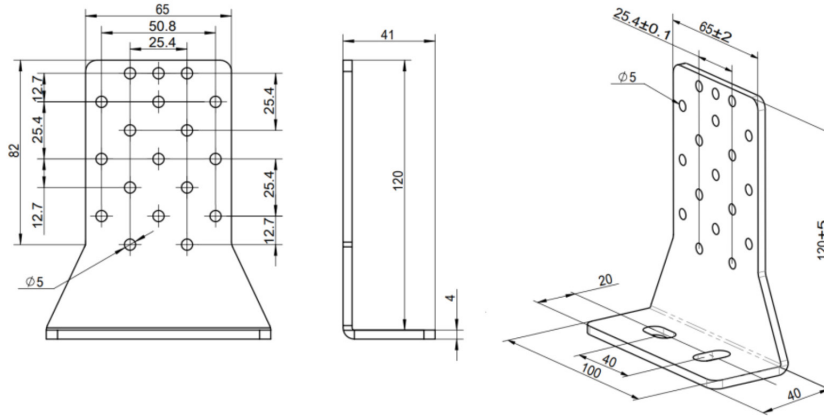
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# PS01/50/15 SERIES

## Pressure switch

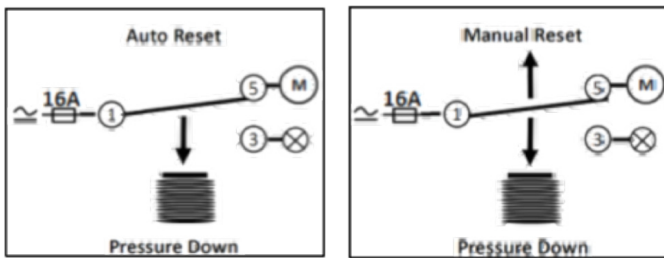


### MOUNTING PLATE



### CONTACT SYSTEM

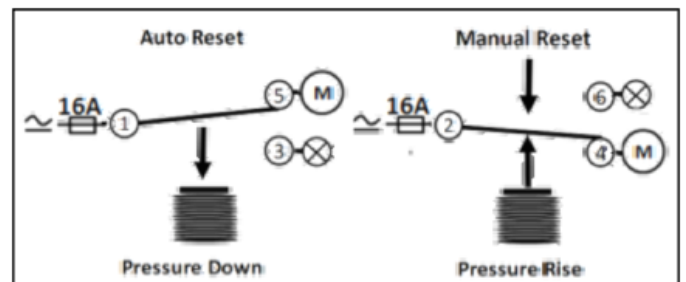
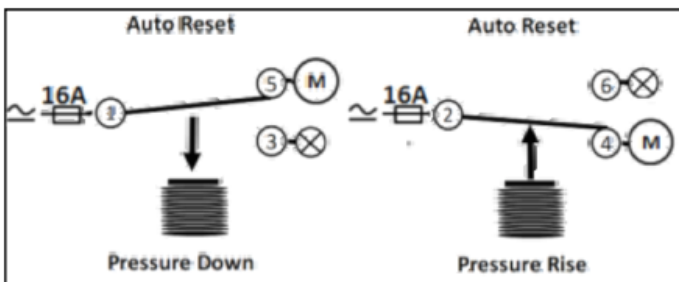
Single PS01



Single PS50



Dual PS15



“ For complete product family information please visit us at [www.sanhuaeurope.com](http://www.sanhuaeurope.com) and download the full range of datasheet at TECHNICAL INFORMATION LINK. “



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