

PS01/50/15 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 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
- 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,.
- 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 and UL Listed
- Contact load

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



MODEL DESIGNATION LEGEND

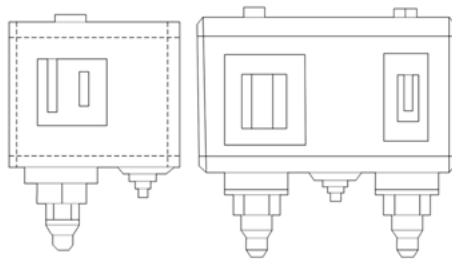
| Position Number | Model Designation Legend | |
|-----------------|---------------------------------------|--|
| 1 | Type of pressure control | Description |
| | PS | Pressure control |
| 2 | Pressure regulating range | Description |
| | 01 | LP:-0.5~7 bar(g) |
| | 02 | TBD |
| | 03 | TBD |
| | 50 | HP:6~32 bar(g) |
| | 60 | HP:642 bar(g) |
| | 70 | TBD |
| | 80 | TBD |
| | 15 | Dual (LP/HP): LP:-0.5 ~ 7 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 | Type of reset | Description |
| | 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 | Pressure connection type | Description |
| | L | Flare |
| | H | Solder |
| | M | Capillary tube |
| 5 | Product design (type) | Description |
| | S | Standard |
| | C | Customized |
| 6 | inch or mm pressure connection | Description |
| | 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 |



MODEL DESIGNATION EXAMPLE

| Position Number | | | | | | | Model designation example (according above legend) |
|-----------------|-----------|-----------|----------|---|----------|-----------|--|
| 1 | 2 | 3 | 4 | - | 5 | 6 | |
| PS | 15 | AA | L | - | S | 01 | Pressure control |
| PS | 15 | AA | L | - | S | 01 | Dual Pressure Range LP:-0.5~7 bar(g)/ HP:6~32 bar(g) |
| PS | 15 | AA | L | - | S | 01 | Auto reset HP, Auto reset LP |
| PS | 15 | AA | L | - | S | 01 | Flare connection type |
| PS | 15 | AA | L | - | S | 01 | Standard |
| PS | 15 | AA | L | - | S | 01 | Inch (or unified Inch & Metric) pressure connection Double bellows - fail safe in case of High pressure |

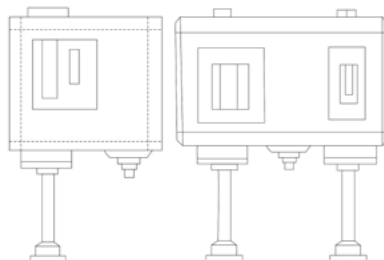
SELECTION AND ORDERING



| PS01, PS50, PS15, Flare Connection | | | | | | | | | | |
|------------------------------------|--------------------|-------------------|--------------------------|--------------------|--------------------------|--------------|---------------|---|--|-------------|
| Pressure | Type | Low Pressure (LP) | | High Pressure (HP) | | Reset | | PED 2014 68/EU EN 12263 Certified ¹⁾ | 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 |
| Low | PS01 ²⁾ | -0.5~7 | 0.5~5 | — | — | Auto | — | Compliant | PS01AL-S01 | 10660003102 |
| Low | PS01 | -0.5~7 | 1 | — | — | Manual | — | Compliant | 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 | Compliant | PS50AL-S01 | 10660003002 |
| High | PS50 | — | — | 6~32 | 4 | — | Manual | Compliant | 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 | Compliant | PS15AAL-S01 | 10660002902 |
| Dual | PS15 | -0.5~7 | 0.5~5 | 6~32 | 4 | Auto | Manual | Compliant | PS15AML-S01 | 10660003602 |



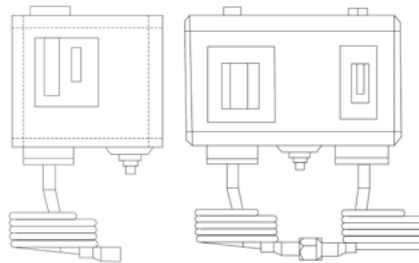
SELECTION AND ORDERING



| PS01, PS50, PS15, Solder ODF Connection | | | | | | | | | | | | |
|---|------|-------------------|--------------------------|--------------------|--------------------------|--------------|---------------|---|--------------------|-------------|----------------|-------------|
| Pressure | Type | Low Pressure (LP) | | High Pressure (HP) | | Reset | | PED 2014 68/EU EN 12263 Certified ¹⁾ | 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 | — | Compliant | PS01AH-S01 | 10660003702 | PS01AH-S02 | 10660005302 |
| Low | PS01 | -0.5~7 | 1 | — | — | Manual | — | Compliant | 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 | Compliant | PS50AH-S01 | 10660004102 | PS50AH-S02 | 10660004902 |
| High | PS50 | — | — | 6~32 | 4 | — | Manual | Compliant | 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 | Compliant | PS15AAH-S01 | 10660004302 | PS15AAH-S02 | 10660005402 |
| Dual | PS15 | -0.5~7 | 0.5~5 | 6~32 | 4 | Auto | Manual | Compliant | PS15AMH-S01 | 10660004202 | PS15AMH-S02 | 10660005602 |



SELECTION AND ORDERING



| PS01, PS50, PS15, Capillary Connection | | | | | | | | | | |
|--|------|-------------------|--------------------------|--------------------|--------------------------|--------------|---------------|---|--|-------------|
| Pressure | Type | Low Pressure (LP) | | High Pressure (HP) | | Reset | | PED 2014 68/EU EN 12263 Compliant ¹⁾ | 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 | — | Compliant | PS01AM-S01 | 10660006102 |
| Low | PS01 | -0.5~7 | 1 | — | — | Manual | — | Compliant | PS01MM-S01 | 10660006002 |
| High | PS50 | — | — | 6~32 | 3~15 | — | Auto | Not | PS50AM-S51 | 10660005902 |
| High | PS50 | — | — | 6~32 | 4 | — | Manual | Not | PS50MM-S51 | 10660005802 |
| High | PS50 | — | — | 6~32 | 3~15 | — | Auto | Compliant | PS50AM-S01 | 10660005702 |
| High | PS50 | — | — | 6~32 | 4 | — | Manual | Compliant | PS50MM-S01 | 10660006602 |
| Dual | PS15 | -0.5~7 | 0.5~5 | 6~32 | 4 | Auto | Auto | Not | PS15AAM-S51 | 10660006502 |
| Dual | PS15 | -0.5~7 | 0.5~5 | 6~32 | 4 | Auto | Manual | Not | PS15AMM-S51 | 10660006402 |
| Dual | PS15 | -0.5~7 | 0.5~5 | 6~32 | 4 | Auto | Auto | Compliant | PS15AAM-S01 | 10660006302 |
| Dual | PS15 | -0.5~7 | 0.5~5 | 6~32 | 4 | Auto | Manual | Compliant | PS15AMM-S01 | 10660006202 |

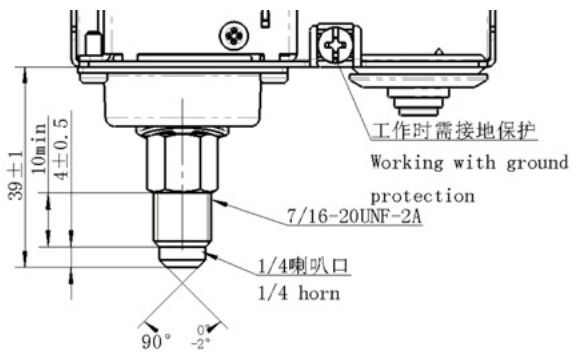
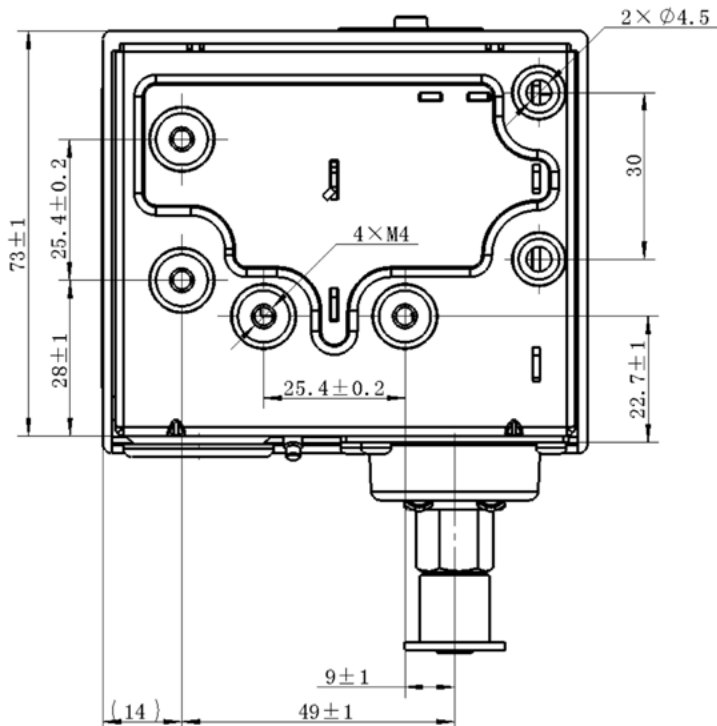
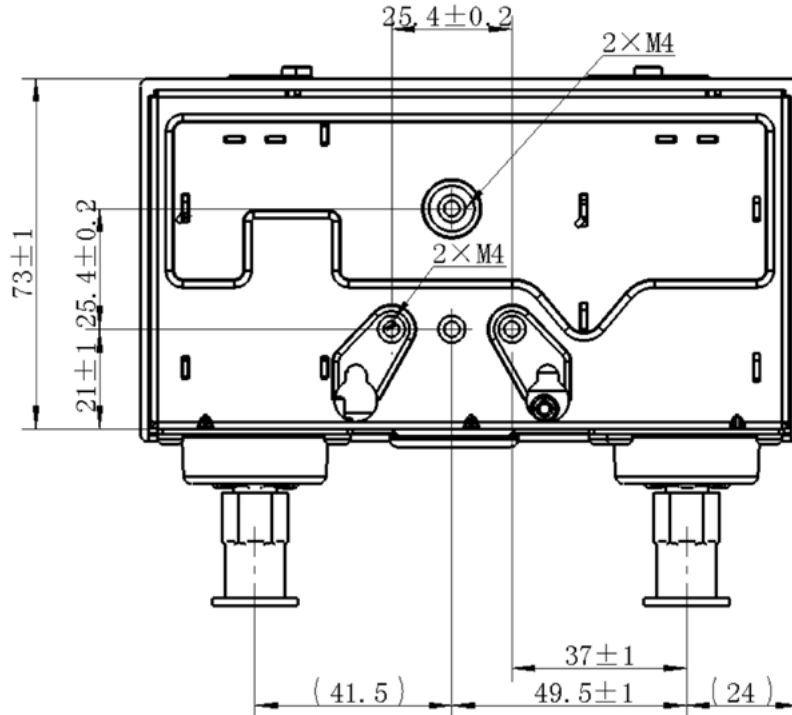
Notes: 1) PS50 and PS15 which are certified by TÜV, Rheinland acc. to PED 2014 68/EU, EN12263 are designed with double bellows at high pressure and they provide fail-safe function (models without PED 2014 68/EU Certificate can be used as pressure regulation devices, usage them as pressure safety devices 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 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.

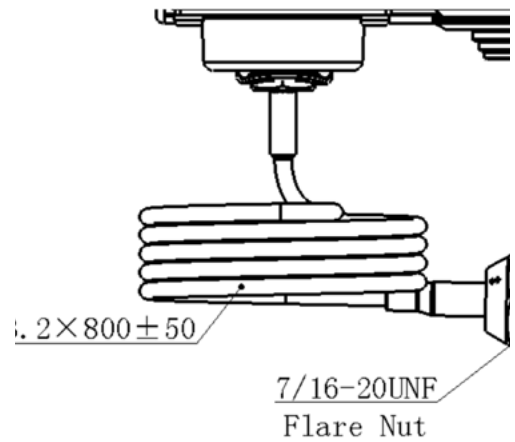
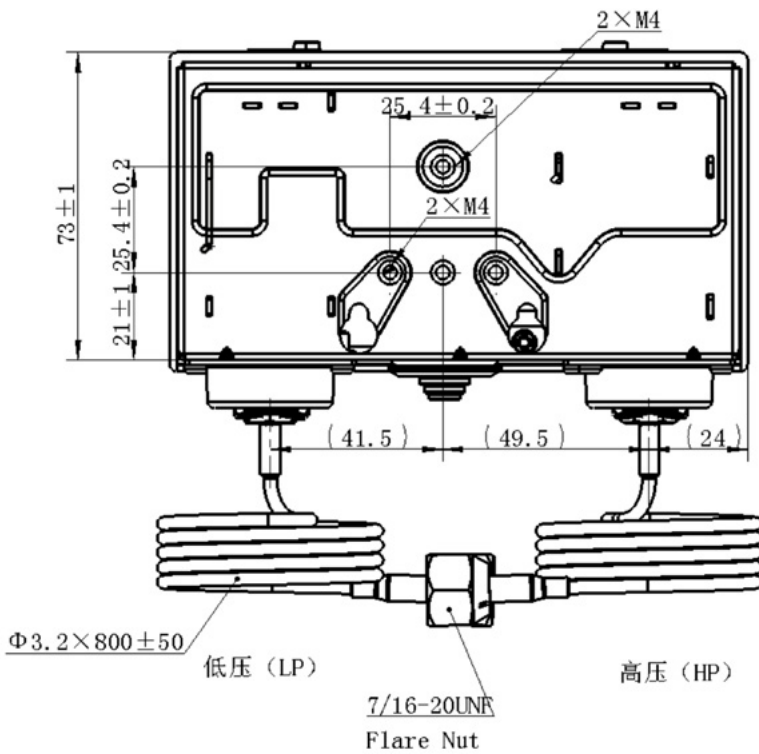
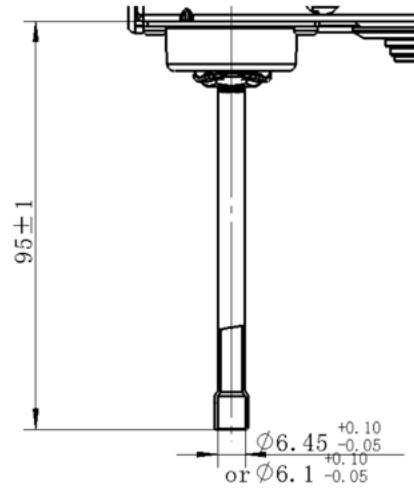
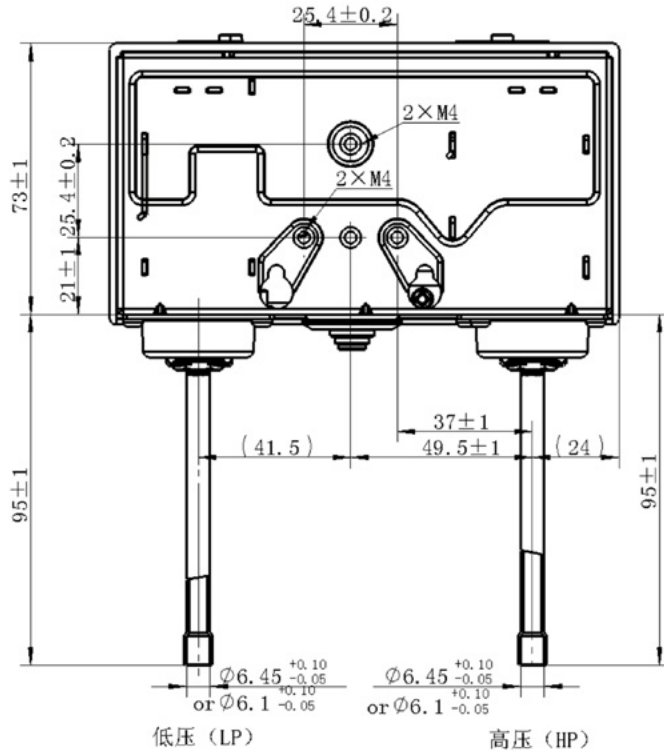


DIMENSIONAL DRAWINGS





DIMENSIONAL DRAWINGS

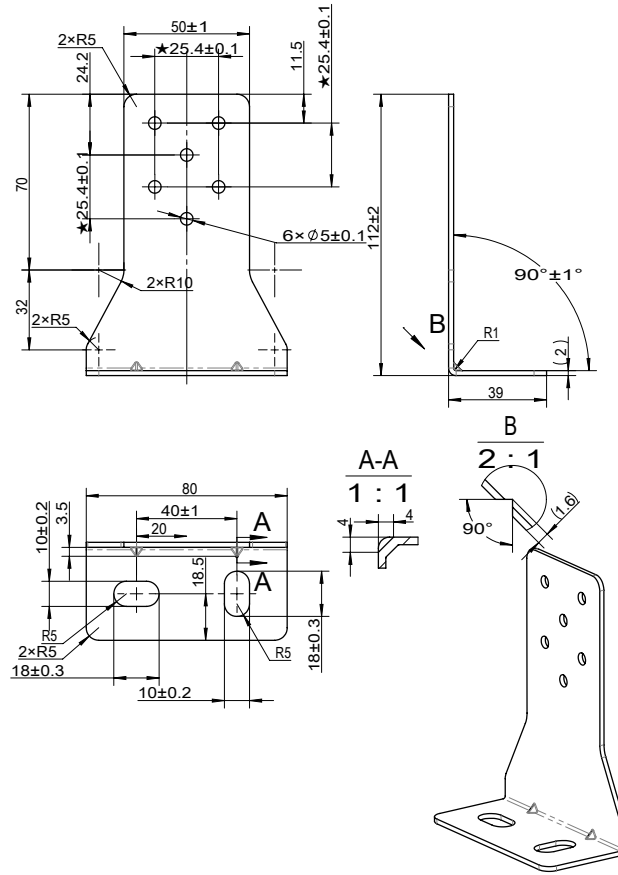




MOUNTING PLATE

Model: PS50-50001

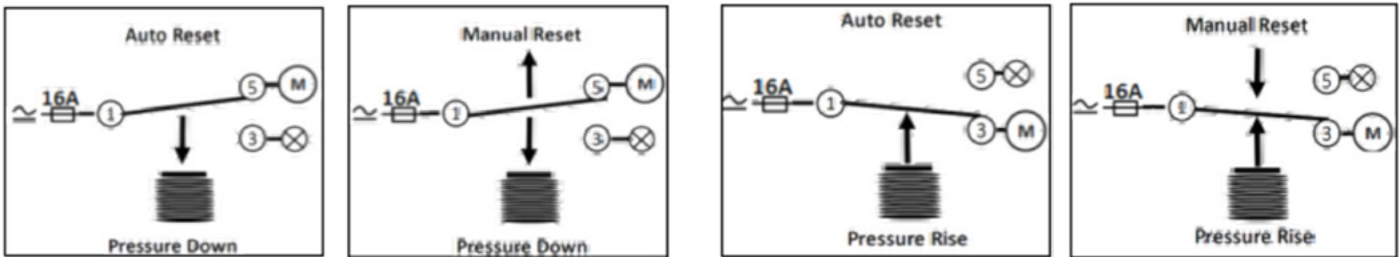
U11 code: 20660018502



CONTACT SYSTEM

Single PS01

Single PS50



Dual PS15

