

Unloading Relief Valve

Technical specification



| Specification | 03 | 06 | 10 | |
|--------------------------------|--|----|-----|------|
| Max. working pressure (MPa) | 31.5 | | | |
| Max. Flow (L/min) | 10% | 40 | 80 | 120 |
| | 7% | 60 | 120 | 240 |
| Working fluid | Mineral oil;phosphate-ester | | | |
| Fluid temp. (°C) | -20~70 | | | |
| Viscosity (mm ² /s) | 12~380 | | | |
| Working press (MPa) | 5 | 10 | 20 | 31.5 |
| Cleanliness | The maximum allowable cleanliness of the oil should be according to 9th degree of Standard NAS1638.It is suggested that the minimum filter rating should be $\beta_{10} \geq 75$. | | | |

YX/YXW valve is a pilot-operated unloading valve. Its function is to switch two situations in hydraulic system, by adjusting handle to set the working pressure or unloading pressure. Pump will be unloading automatically by controlling electrical magnetic.

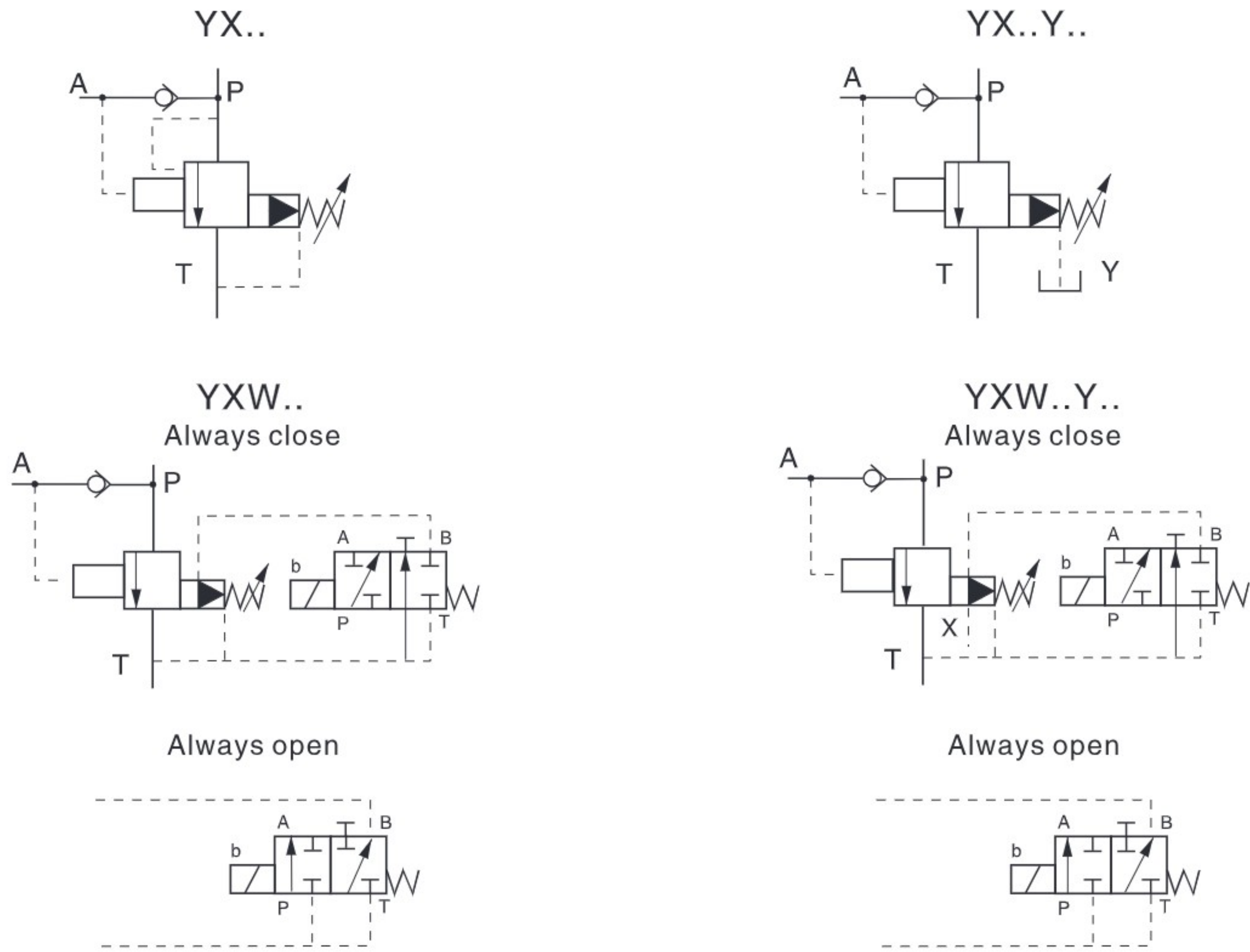
Model description

| Unloading Relief Valve | YX | * | * | - | * | - | * | - | * | - | * | / | * | * | * | / | * | / | * | 5X | * | Remarks |
|--|----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---|---|
| Omint without solenoids directional valve W With solenoids directional valve | | | | | | | | | | | | | | | | | | | | | | Serial number |
| Pilot operated valve Omit Pilot operated without main cartridge (not marked diameter) C Pilot operated with main cartridge (marked diameter) | | | | | | | | | | | | | | | | | | | | | | Seal material Omit NBR Seals V FPM Seals |
| Specification 03 DN10 06 DN20 10 DN30 | | | | | | | | | | | | | | | | | | | | | | Pilot operated drainage port thread Omit G1/4" M M14X1.5 |
| Working pressure 5 to5MPa 10 to10MPa 20 to20MPa 31.5 to 31.5MPa | | | | | | | | | | | | | | | | | | | | | | Omit No damping ²⁾ 08 Φ 0.8 Damping 10 Φ 1.0 Damping 12 Φ 1.2 Damping |
| A Always closed ¹⁾ B Always open | | | | | | | | | | | | | | | | | | | | | | Omit without push rod emergency ³⁾ N9 with concealed push rod emergency |
| 1 Rotary knob 2 Sleeve with hexagon and protective cap | | | | | | | | | | | | | | | | | | | | | | Z5L Square connector with light ⁴⁾ |
| Omit Intl cntrl intl disch Y Intl cntrl extl disch | | | | | | | | | | | | | | | | | | | | | | Working voltage ⁵⁾ D12 DC12V D24 DC24V A110 AC110V A220 AC220V B110 (A110V Rectified) B220 (A220V Rectified) |
| | | | | | | | | | | | | | | | | | | | | | | Switching differential pressure (P→A) 10 on average 17 on average |

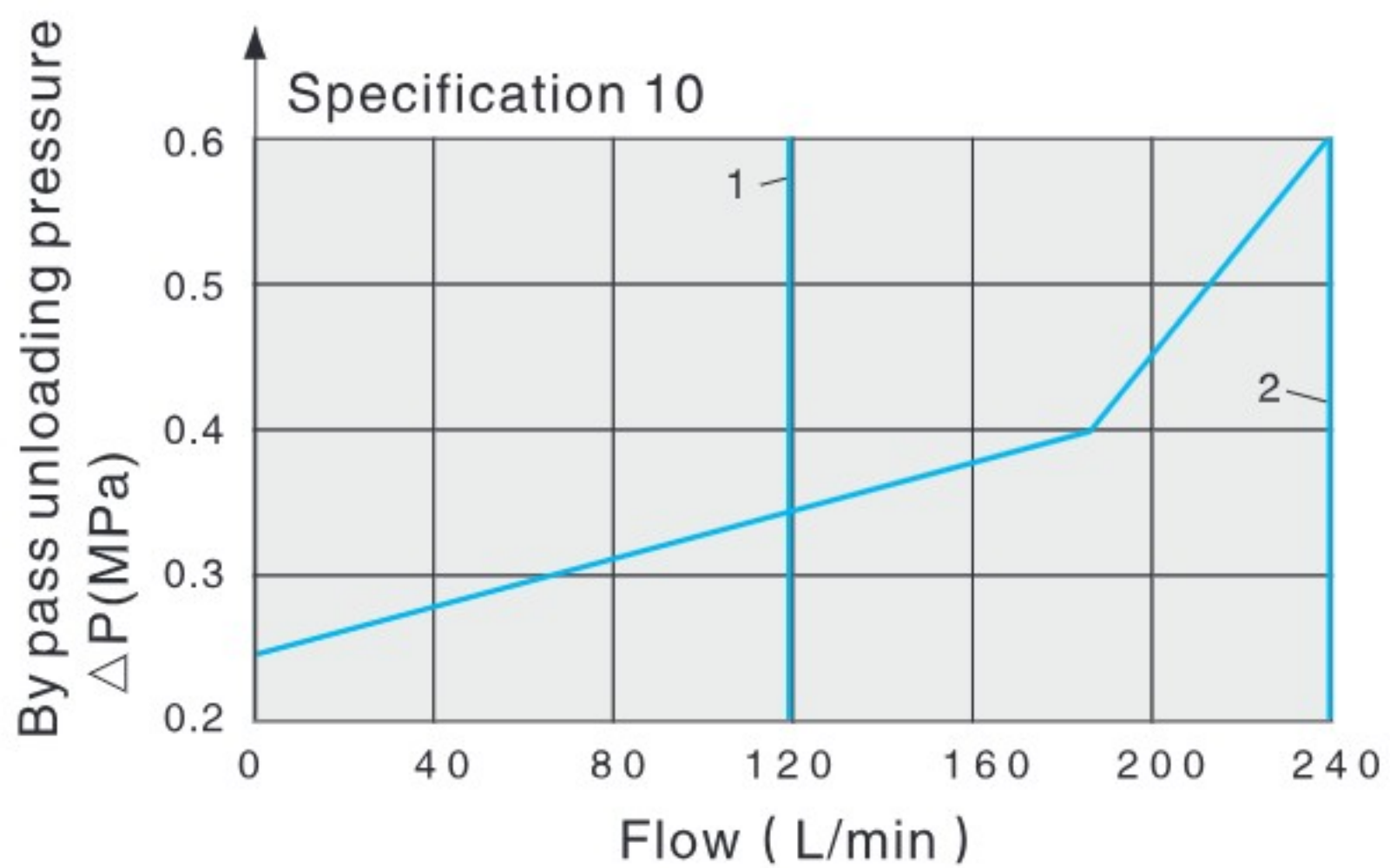
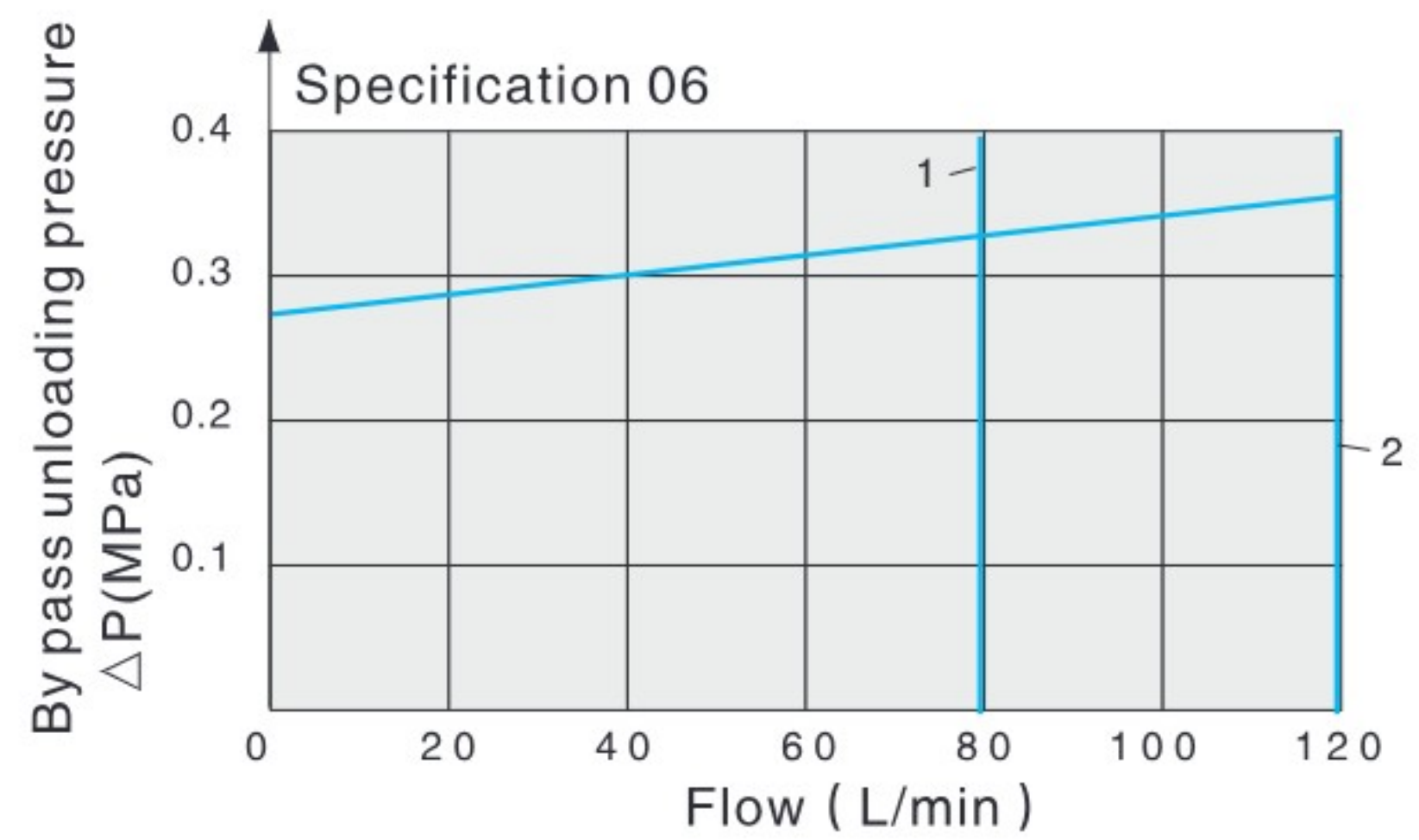
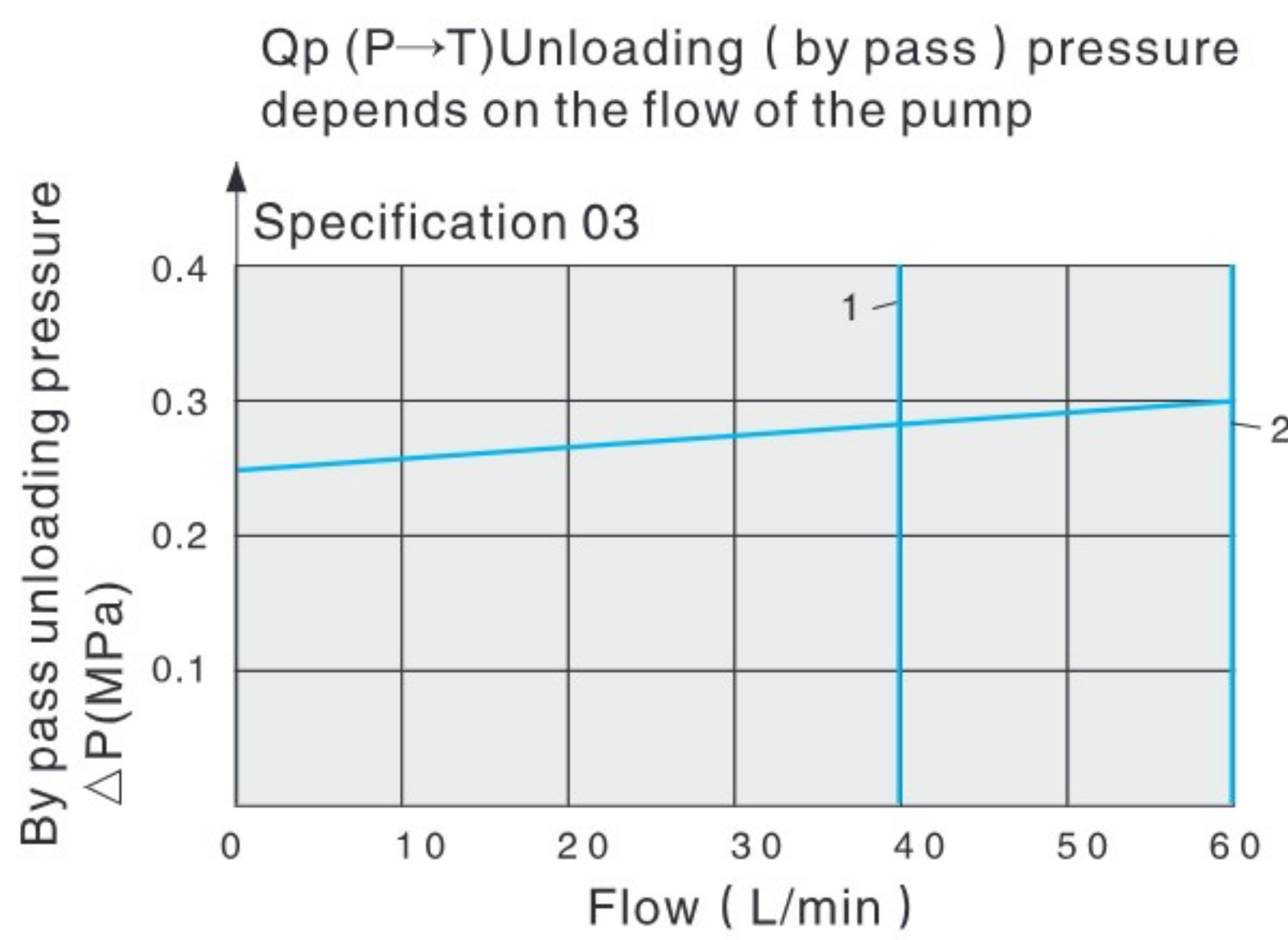
Explanation: 1. 1),2),3),4),5)is used in YXW solenoids relief valves
2. 2) damping is fixed at the B oil port of the solenoids directional valves

Unloading Relief Valve

Code symbol



Performance curve (Measured at $\nu = 41 \text{ mm}^2/\text{s}$ and $t = 50^\circ\text{C}$)



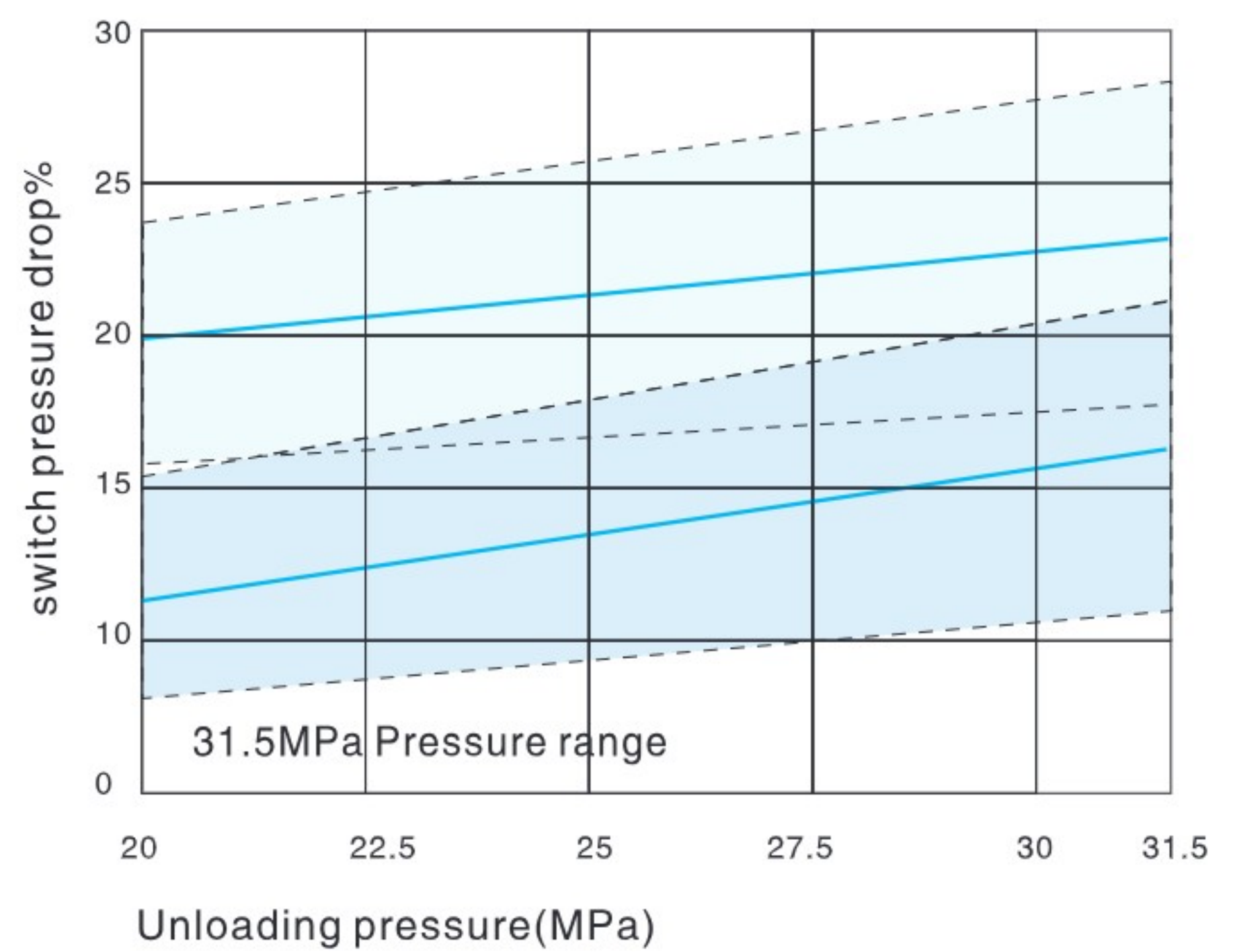
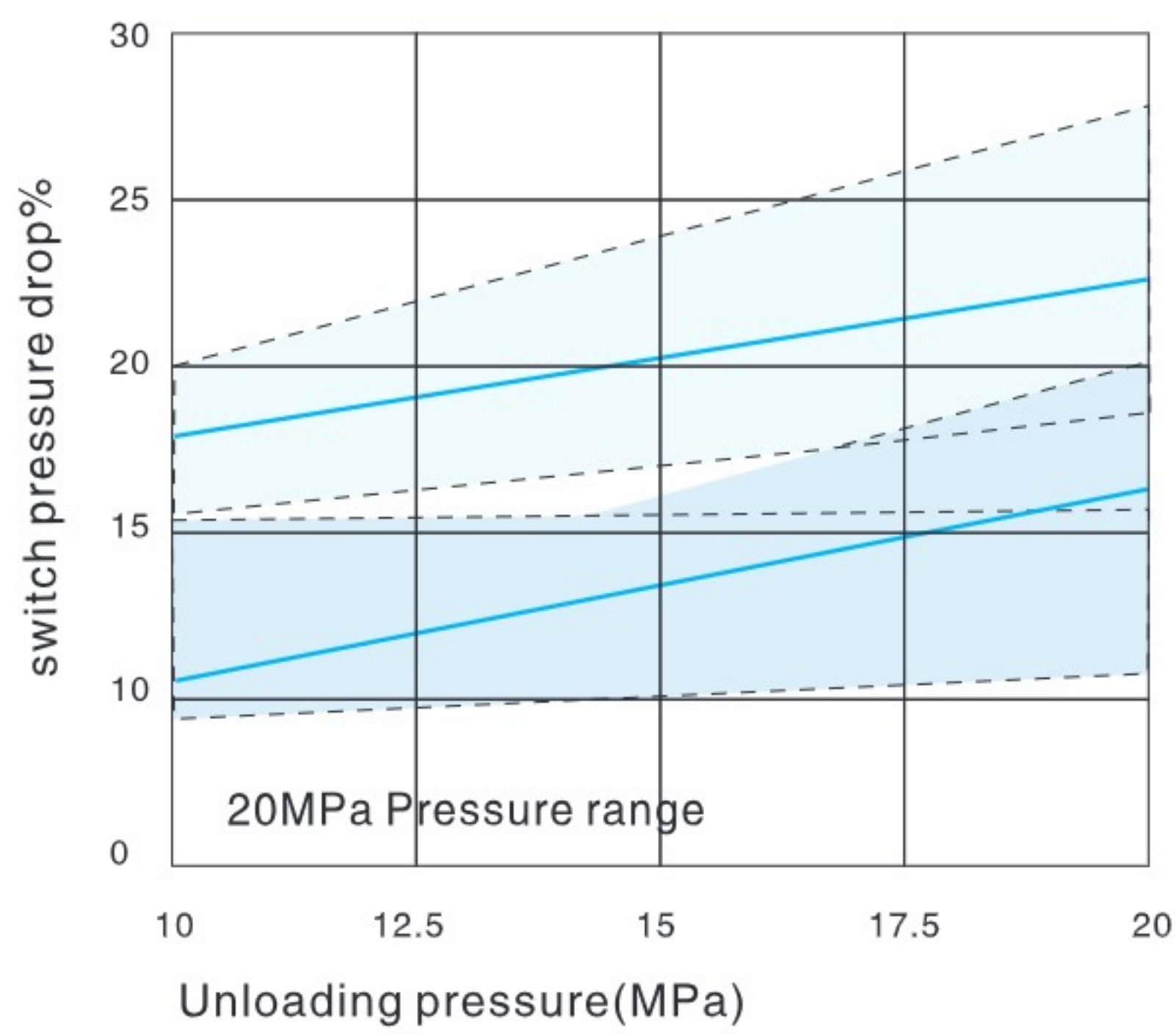
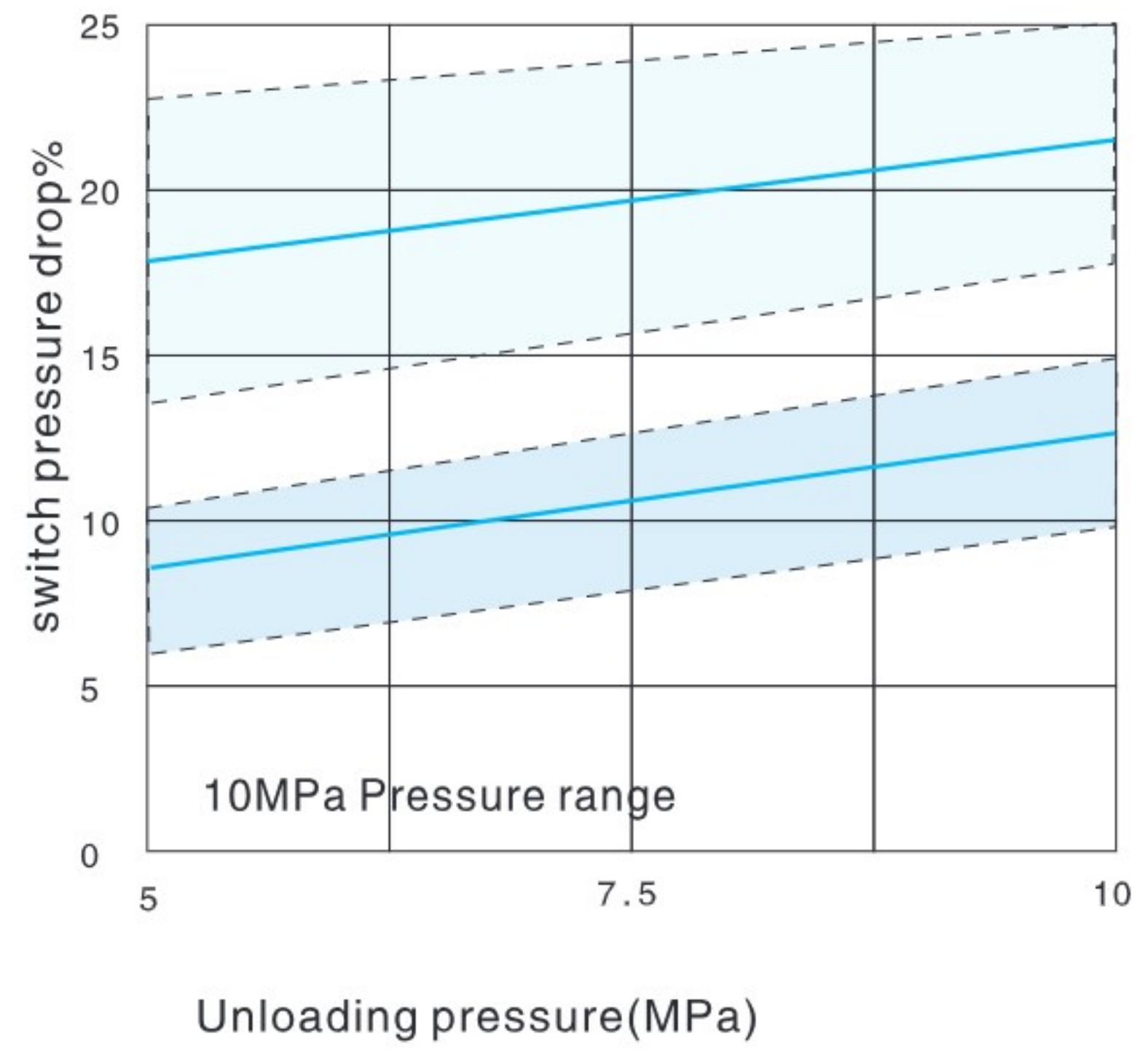
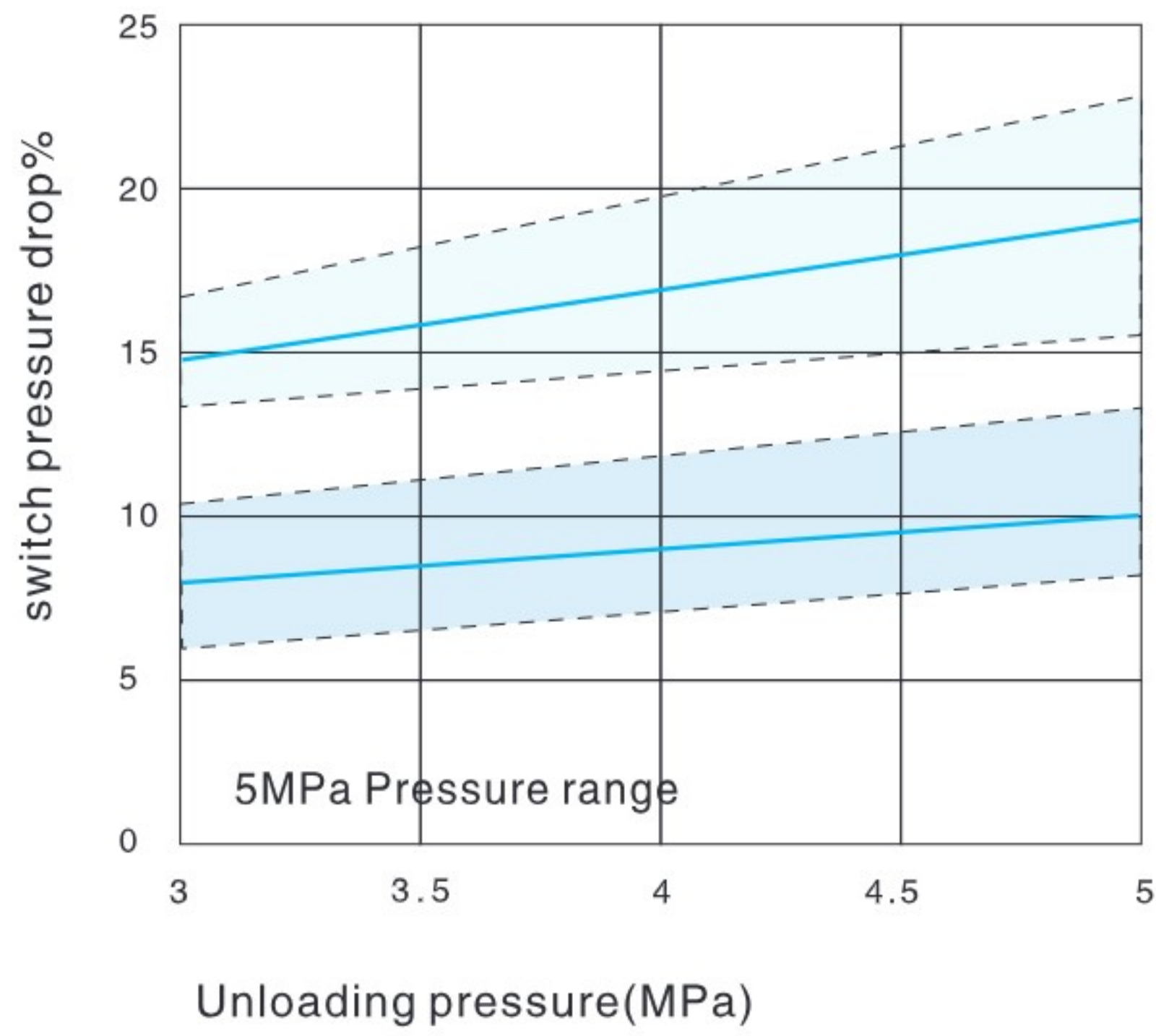
1. Q_{pmax} is used in type 10%
2. Q_{pmax} is used in type 17%

The characteristic curves are valid for outlet pressure $P_T = 0$ for complete flow range.

Unloading Relief Valve

Performance curve (Measured at $v=41\text{mm}^2/\text{s}$ and $t=50^\circ\text{C}$)

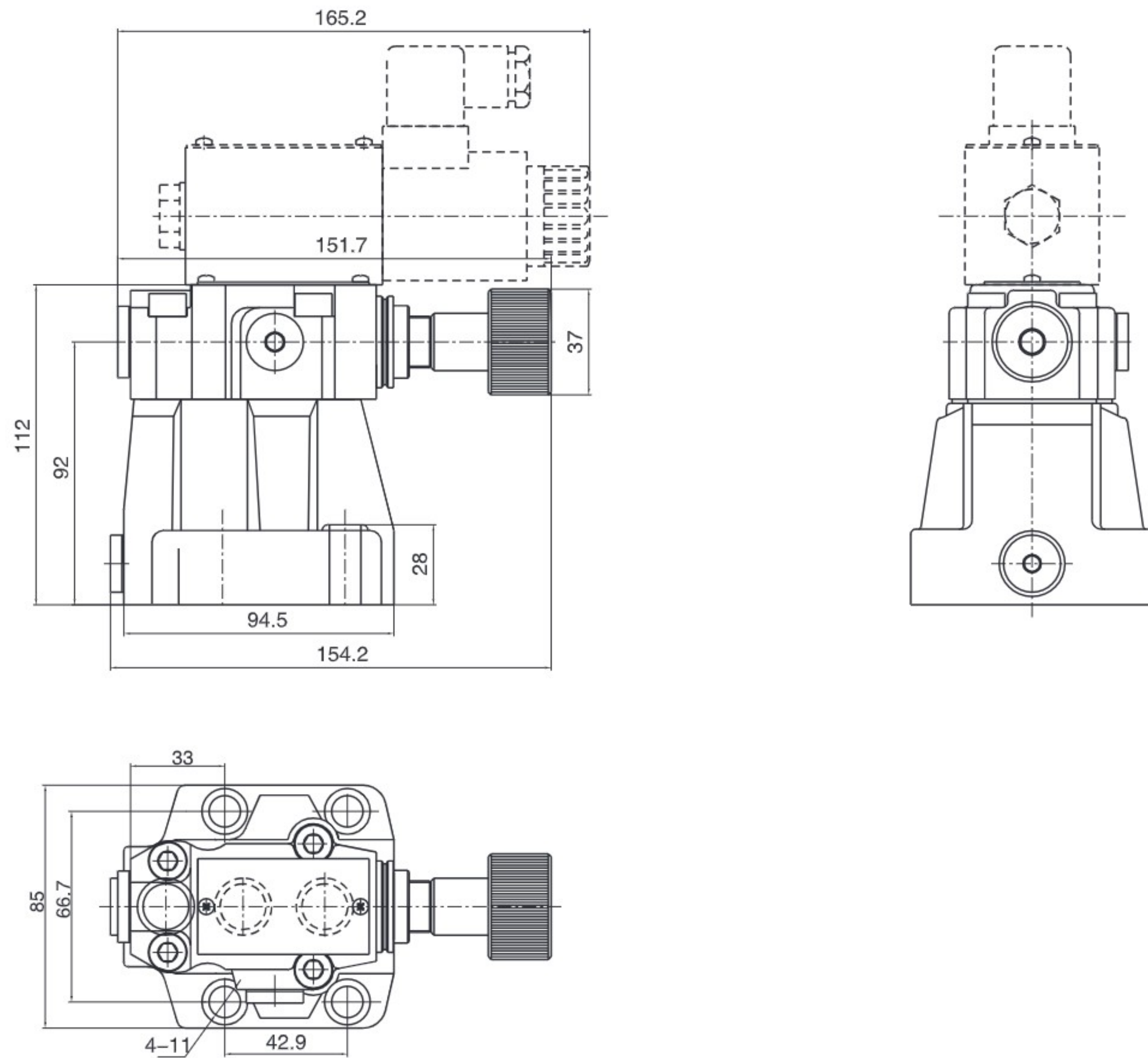
Switching differential pressure (P→A) depending on cut-off pressure P_o (Type DA)



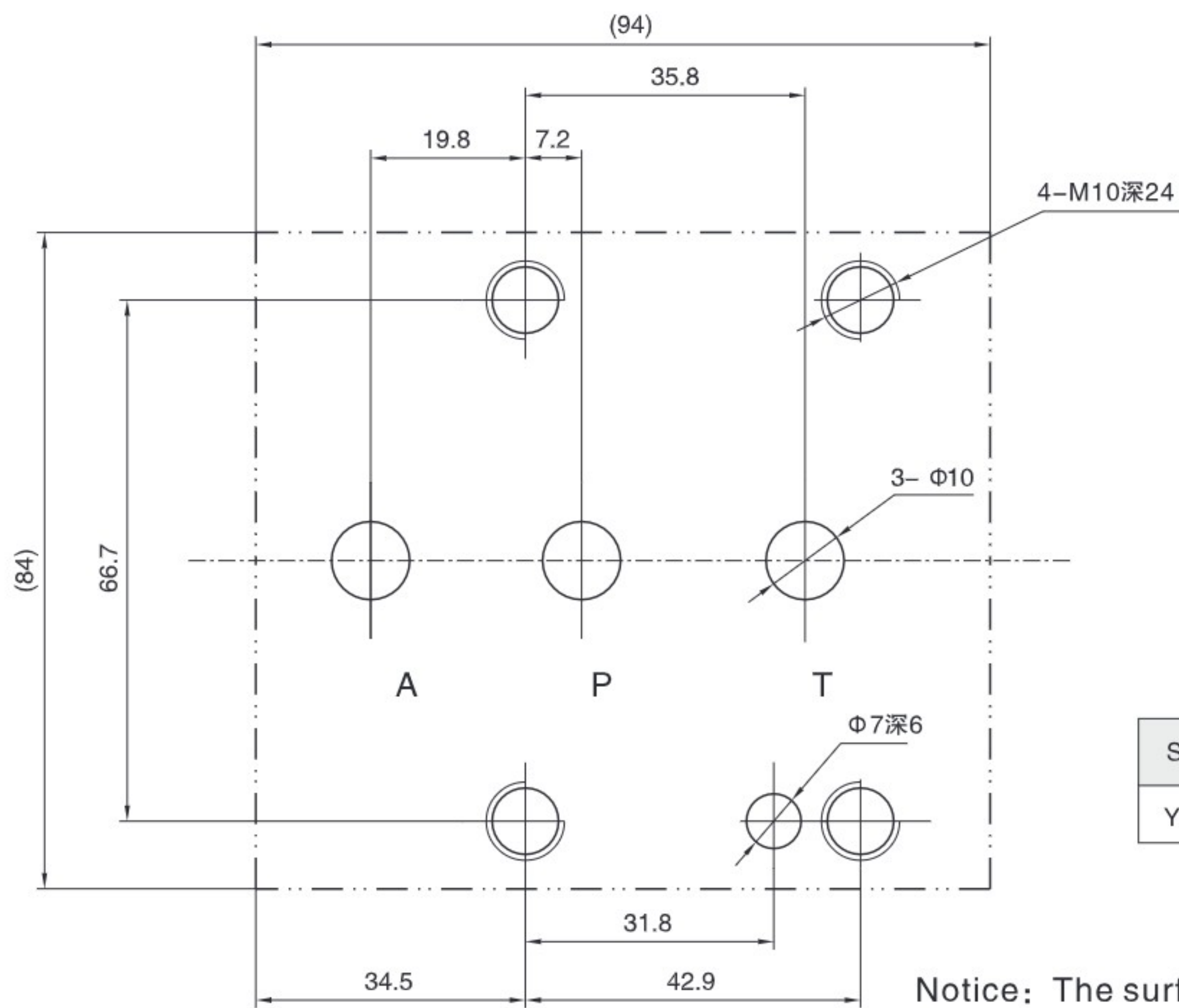
Scatter range of type 17%
 Scatter range of type 10%

Unloading Relief Valve

03 External dimensions



03 Subplate mounting size

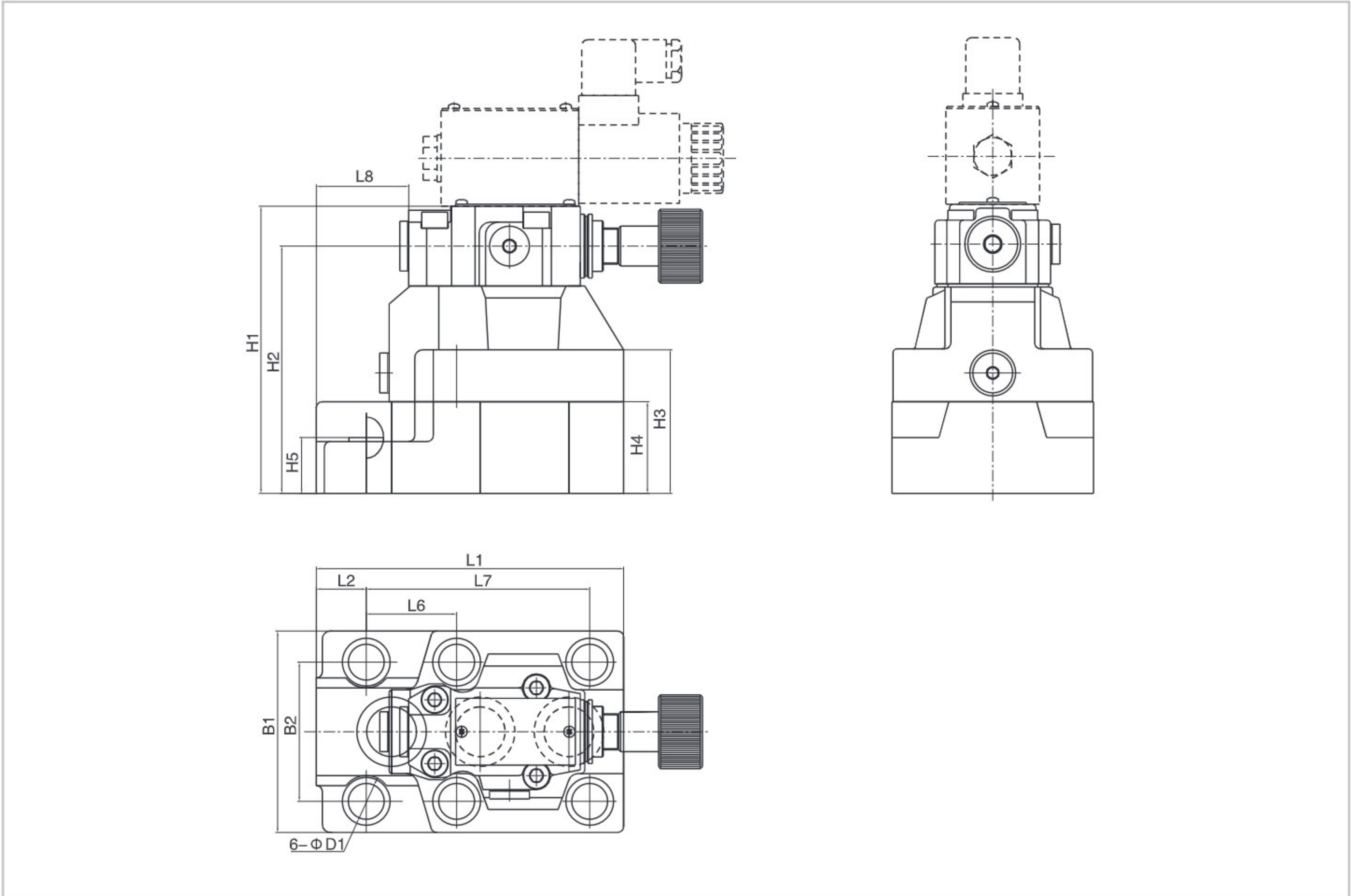


| Specification | Mounting screw | Tighten torque |
|---------------|----------------|----------------|
| YX/YXW-03 | 4-M10x50-10.9 | 130Nm |

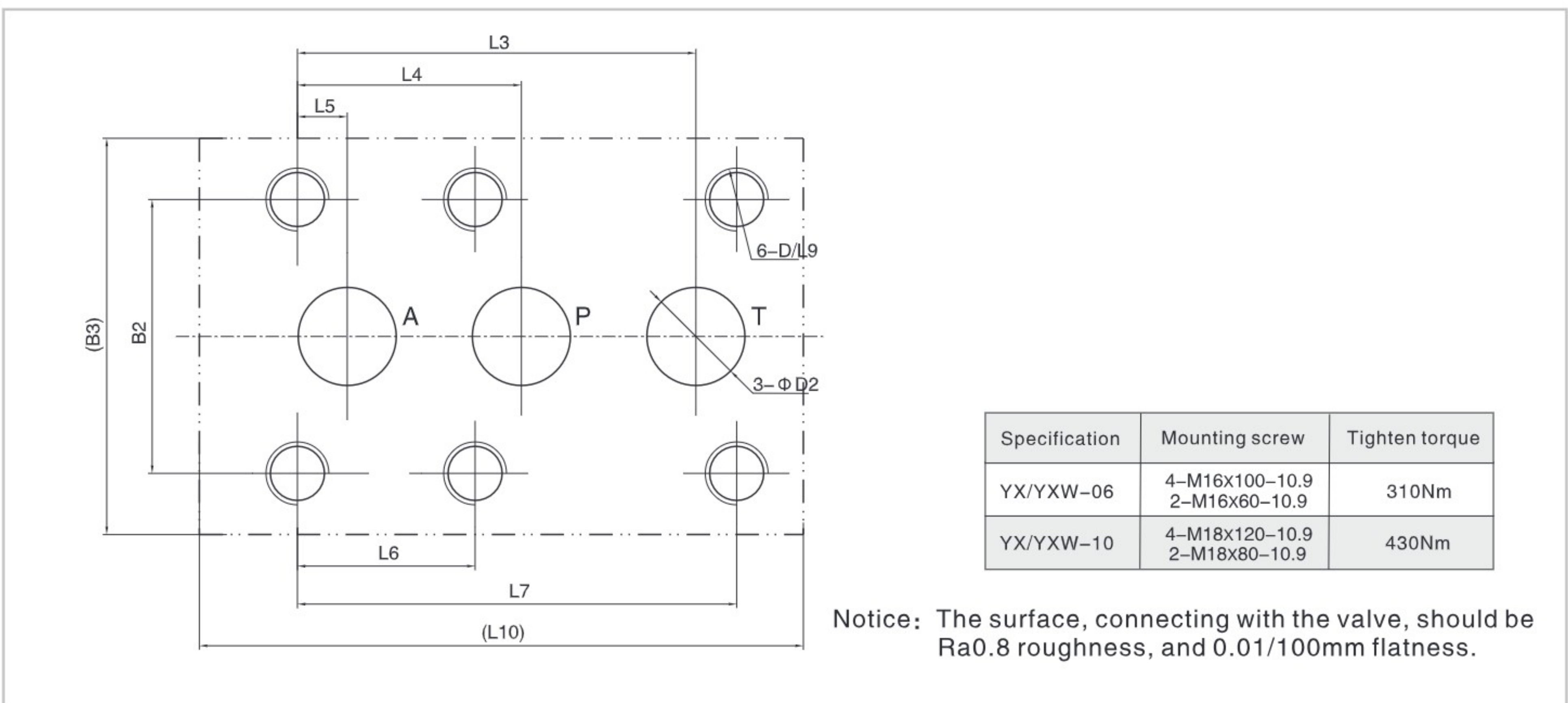
Notice: The surface, connecting with the valve, should be Ra0.8 roughness, and 0.01/100mm flatness.

Unloading Relief Valve

06、10 External dimensions



06、10 Subplate mounting size



| Specification | L1 | L2 | L3 | L4 | L5 | L6 | L7 | L8 | L9 | L10 | B1 | B2 | B3 | H1 | H2 | H3 | H4 | H5 | D | D1 | D2 |
|---------------|-----|----|-------|------|------|------|-------|------|----|-----|-------|------|-------|-----|-----|----|----|----|-----|----|----|
| YX/YXW-06 | 154 | 25 | 101.6 | 57.1 | 12.7 | 46 | 112.7 | 46.3 | 34 | 156 | 101 | 69.9 | 103 | 144 | 124 | 72 | 46 | 28 | M16 | 18 | 25 |
| YX/YXW-10 | 199 | 42 | 127 | 63.5 | 12.7 | 50.8 | 139.7 | 67.9 | 37 | 201 | 118.5 | 82.5 | 118.5 | 165 | 145 | 93 | 87 | 45 | M18 | 20 | 32 |

B.3.5