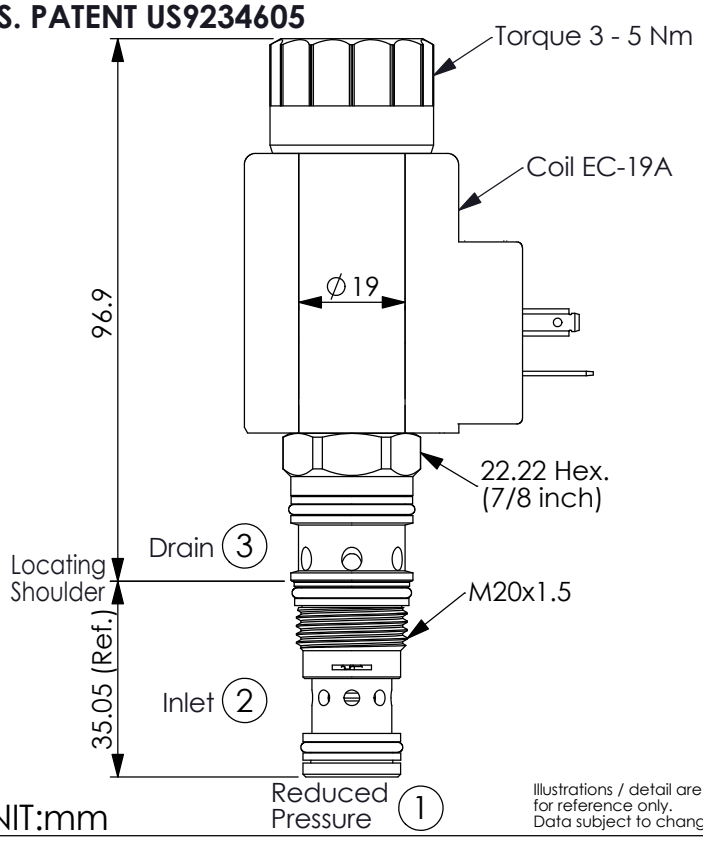
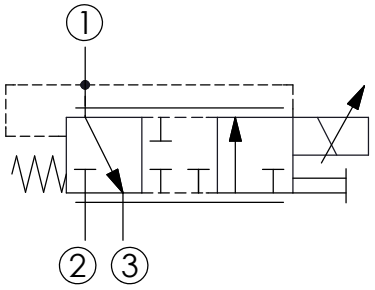
REDUCING/RELIEVING VALVE

(Electro-Proportional, Direct-Acting, Pressure Reducing/Relieving Valve, Improved Dynamic Response, Low Pressure with No Command)

Ordering Code: **PPD-11A-X-Y-Z-74**

U.S. PATENT US9234605





TECHNICAL DATA

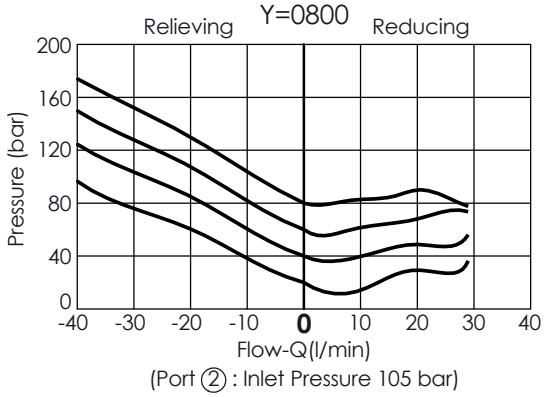
Max.Operating pressure:	350	bar
Rated flow:	20	l/min
Cavity-Tooling:	11A-3	
Installation torque:	40 - 50	Nm
Linearity (with dither)		<2%
Repeatibility (with dither)		<2%
Hysteresis (with dither)		<4%
Hysteresis with DC input		<8%

Maximum valve leakage approximately= 40 cc/min.
This leakage is measured at port ③ when port ② is pressurized to 210 bar and the pressure setting at port ① is 105 bar.

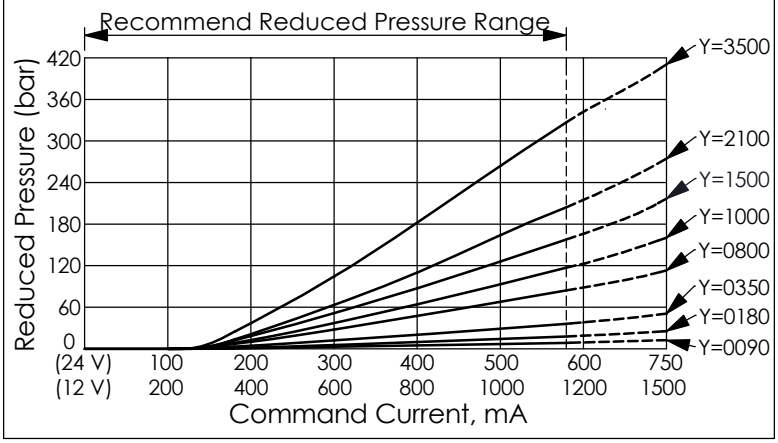
Weight:(with Coil)	0.49	kg
(without Coil)	0.25	kg

Hydraulic Fluid Viscosity、Cleanliness、Temperature Level:
Please refer WINNER technical information.
(T.101.101.E HYDRAULIC FLUID (A)VISCOSITY)
(T.101.102.E HYDRAULIC FLUID (B)CLEANLINESS)
(T.101.103.E HYDRAULIC FLUID (C)TEMPERATURE)

- To achieve optimal performance, it is recommended to use a current-sensing amplifier with a dither function. The dither frequency should be adjustable between 100 Hz and 250 Hz. (recommended range: 140 - 200 Hz)



(Port ② : Inlet Pressure 105 bar)



Y	OPERATING RANGE	
	Rated Pressure	
0090	1 - 9 bar	
0180	1 - 18 bar	
0350	1 - 35 bar	
0800	2 - 80 bar	
1000	10 - 100 bar	
1500	10 - 150 bar	
2100	20 - 210 bar	
3500	35 - 350 bar	

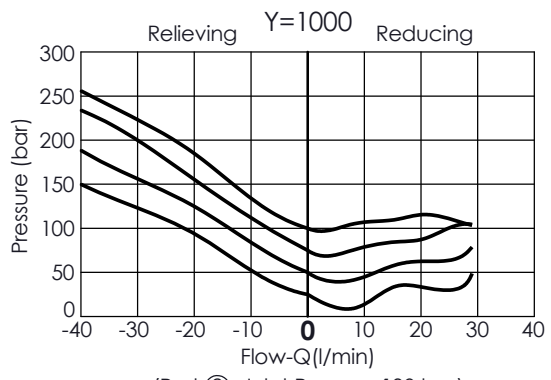
- When inlet pressure up to 210 - 350 bar, Recommend : Keep "Reduced Pressure" (Port ①) minimum 30 bar to have best control.
- Basically, this valve can be used under 1 bar but please kindly be noted that the back pressure of port ③ will add to the valve setting at 1:1 ratio.
- If your operation need to control under 10 bar, please contact WINNER's sales department.
  Example: Y=1000、Y=1500、Y=2100、Y=3500

X	OPERATION	
3D	3 Ports、22 Watt. Coil ∅19 mm tube	

Z	OPTIONS		
N	Non-adjustable		
P	Push Style Manual Override		

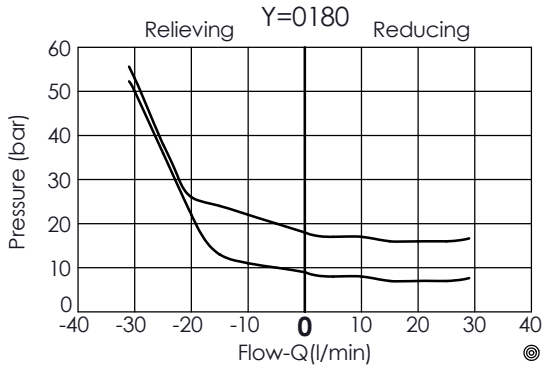
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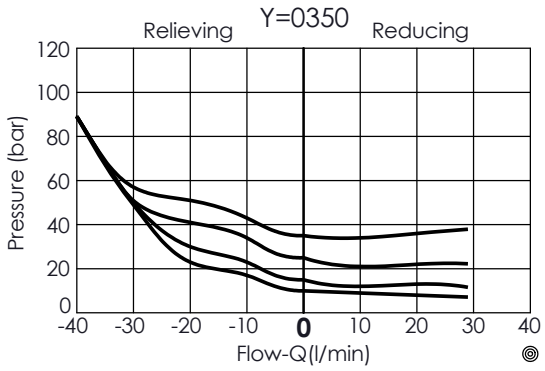
(Port ② : Inlet Pressure 130 bar)

(PPD-11A-3D-1000-Z-74)



(Port ② : Inlet Pressure 25 bar)

(PPD-11A-3D-0180-Z-74)



(Port ② : Inlet Pressure 46 bar)

(PPD-11A-3D-0350-Z-74)

The performance curve or data is only for reference, as customers' using condition, pressure, flow, hydraulic fluid viscosity, cleanliness, temperature and so on are different, the curve or data will be different.