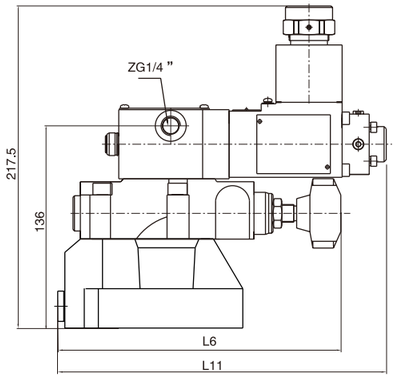
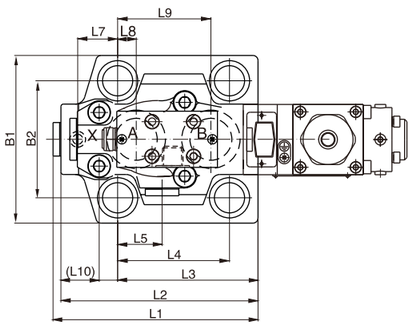
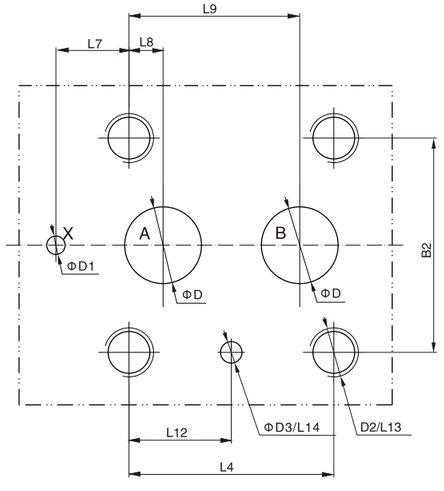
Explosion Isolation Proportional Pilot-operated Relief Valve

External dimensions





Subplate size



Specification	Fixing screw	Amount	Tighten torque
GDBY-03	M12x45-10.9	4	130Nm
GDBY-06	M16x50-10.9	4	310Nm
GDBY-10	M18x50-10.9	4	430Nm

Specification	B1	B2	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12	L13	L14	D	D1	D2	D3
GDBY-03	80	54	101	96	67	54	32.4	177	0	22.1	47.5	14	218.1	22.1	20	6	12	6	M12	7
GDBY-06	100	69.8	122.2	117.5	83.7	66.7	35.4	189.5	23.8	11.1	55.6	11	230.6	33.3	25	6	25	6	M16	7
GDBY-10	115	82.5	154.5	149.5	106.9	88.9	37	200.2	31.8	12.7	76.2	9.4	241.3	44.4	30	6	32	6	M18	7

1.When installing the product, conside horizontal position firstly.
2.The medium used in the hydraulic system must be filtered. its accuracy at least should be20 μ m.
3.Screw should be according to the parameters of catalogue.
4.The surface, connecting with the valve ,should be Ra0.8 roughness, and 0.01/100mm flatness.

Explosion Isolation Proportional Pilot-Operated Pressure-reducing Valve

Technical specification

Specification		03	06
Max. working pressure (MPa)	Oil ports A, B	25	
	Oil ports Y	0 Mpa return to oil tank	
Working pressure (Mpa)		7 16 25	
Max. Flow (L/min)		80	200
Working fluid		Mineral oil;phosphate-ester	
Fluid temp. (℃)		-20~70	
Viscosity (mm^2/s)		15~380	
Hysteresis (%)		± 2	
Repeatability (%)		± 2.5	
Linearity (%)		± 4	
Working voltage (V)		DC24	
Rated current (mA)		750	
Coil resistance (Ω)		19.5	
Insulation grade		IP55	
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 β 10≥75.		

Model instruction

GDBYJ ＊-＊-＊ ＊ ＊ ＊ ＊/＊ ＊-52＊

Explosion isolation proportional pilot -operated pressure-reducing valve

Omit[1] limit max.pressure
M With limit max.pressure

Specification
03 DN10
06 DN20

Working pressure
7 to 7MPa
16 to 16MPa
25 to 25MPa

Omit without check valve
D with check valve

Y intl cntrl extl disch

Pilot operated drainage port thread
Omit ZG1/4"

Ex d I Mb
Ex d II C T6 Gb
E Ex d IIIC T80*C Db IP65

Working voltage
D24 DC24V

Seal material
Omit NBR Seals
V FPM Seals

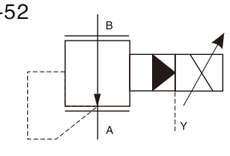
Serial number

Remarks

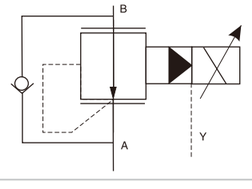
Notice: 1) Only with limited max. Pressure, available from stock

Code symbol

GDBYJ…Y…/…-52

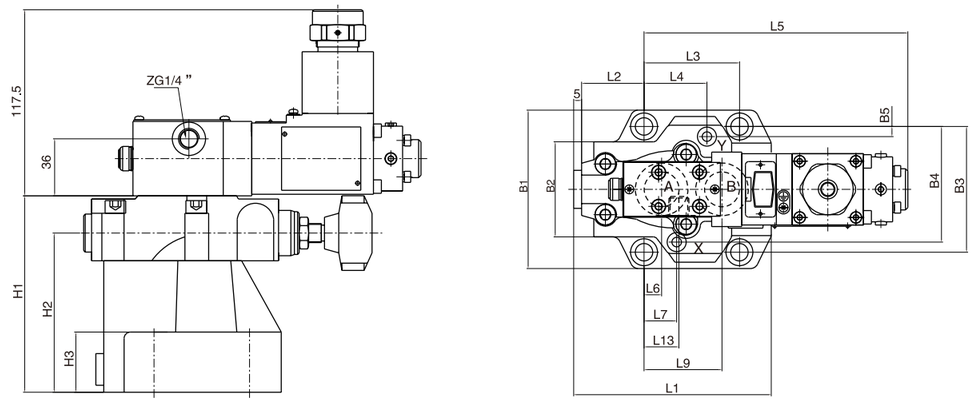


GDBYJ…DY…/…-52

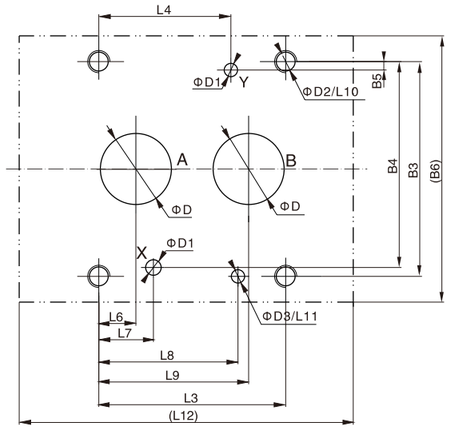


Explosion Isolation Proportional Pilot-Operated Pressure-reducing Valve

External dimensions



Subplate size



Specification	Fixing screw	Amount	Tighten torque
GDBY-03	M10X50-10.9	4	75Nm
GDBY-06	M10x60-10.9	4	75Nm

Specification	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12	L13
GDBYJ-03	100.5	35.5	42.9	21.5	182.5	7.2	21.5	31.8	35.8	23	6	98	25.8
GDBYJ-06	124	39.4	60.3	39.7	178.7	11.1	20.6	44.5	49.2	24	6	118	22

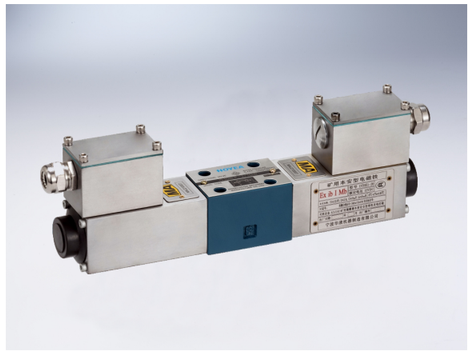
Specification	B1	B2	B3	B4	B5	B6	H1	H2	H3	D	D1	D2	D3
GDBYJ-03	85	50	66.7	58.8	7.9	87	113	89.5	28	12	6	M10	7
GDBYJ-06	102	59.5	79.4	73	6.4	104	124	100.5	38	25	6	M10	7

1.When installing the product，consider horizontal position firstly.
2.The medium used in the hydraulic system must be filtered. its accuracy at least should be20μm.
3.Screw should be according to the parameters of catalogue.
4.The surface, connecting with the valve ,should be Ra0.8 roughness, and 0.01/100mm flatness.

HOYEA

Intrinsic safety 3-way proportional reducing valve for mining

Technical parameter



Direct acting pressure control
Suit for explosive or flammable atmosphere
Intrinsic safety solenoid for mining
Solenoid as perEx ib I Mb
IP class IP65

Technical parameter（Please consult us if your application is out of the rated technical range）

Model		IS3DREP-3-20HY
Mounting		Free,recommended for horizontal installing
Storage temperature	(°C)	+5~+40
Working temperature	(°C)	-20~+50
Weight	(kg)	Type A,B, 1.5，type C2

Hydraulic parameter

Max working pressure	(Mpa)	P	Pressure rating40 5~10
		T	0~3
Max flow rate	(L/min)		4(△P=5MPa)
Working fluid			Mineral hydraulic oil, phosphate
Fluid temp range	(°C)		+5~+50
Viscosity range	(mm^2/s)		20~380
Hysteresis	(%)		≤3%
Repeatability	(%)		≤1%
Sensibility	(%)		≤1%
Minimum fluid cleanliness			Maximum permissible degree of pressure fluid contamination to NAS 1638 to class 9 recommended filter $\beta_{10} \geqslant 75$。