Hanshang Hydraulic

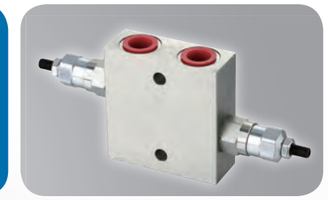
2017 EDITION

Ningbo Hanshang Hydraulic Co.,Ltd.

宁波汉商液压有限公司

Professional • Efficient • Sincerity

专业 • 高效 • 诚信



Industrial hydraulic | Mobile hydraulic valves

宁波汉商液压有限公司
Ningbo Hanshang Hydraulic Co.,Ltd.

地址(Add): 宁波市镇海前程路118号；邮编: 315207
118 Qiancheng Road, Zhenhai, Ningbo,
Zhejiang Province, 315207, China
电话(Tel): 内贸部 Domestic trade dept. : 0086-574-86361566
外贸部 Foreign trade dept. : 0086-574-86361966
传真(Fax): 0086-574-86361266
E-mail: jimmy@nshpv.com
Http: //www.nshpv.com

www.nshpv.com

Hanshang Hydraulic

宁波汉商液压有限公司始建于1988年是一家集工业液压阀、行走机械液压阀和液压系统设计研发、生产制造与国际贸易为一体的高新技术企业。公司占地面积1.2万平方米，标准车间1万平方米。拥有高精度CNC车床、加工中心、高精度磨床、珩磨机、车削中心、集数据采集系统为一体的液压阀试验台、电磁铁测试台、圆度测试仪、圆柱度测试仪等百余台先进加工设备和各类测试仪器。

多年来，公司先后引进各类先进的进口设备和技术，已形成年产25万件液压阀和400余台套液压系统的制造能力，通过了ISO9001-2008质量管理体系认证，并在2005年底取得了出口欧洲的全系列液压阀CE认证。公司成立的宁波汉商液压电液传动及控制工程（技术）中心已在2014年被评为宁波市级工程技术中心，并与国内知名院校建立合作关系，利用高校的科研与人才优势为公司科研攻关提供支持并为公司工程（技术）中心保证人才输送。

公司一直坚持“质量是企业发展的核心”的原则，产品远销国内外50多个国家和地区，汉商液压愿与新老客户在液压领域里携手同进，共创辉煌！

Ningbo hanshang hydraulic co.,ltd founded in 1988 is an enterprise including the R&D and manufacture of hydraulic valves and hydraulic systems,covers an area of 12000 square meters. We have more than 100 Sets major manufacturing equipment, such as CNC digital lathes, machining centers, high-precision grinding machine and high precision honing machines etc.

Hanshang hydraulic owns one prime R&D team in China.The R&D team employs the excellent fluid simulation software AMESim.FLUENT.Matlab and 3D model design software Solidworks,which can ensure highly-efficient,highly-reliability, highly-accuracy of produts 'R&D.

Our management has implemented ERP administration model, and obtained the certification of ISO9001:2008 and CE certificate .

Creating the best brand in the hydraulic field is the target of hanhang hydraulics. You are welcomed to visit our company for business cooperation.

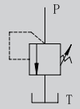
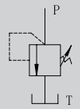
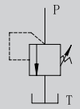
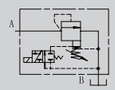
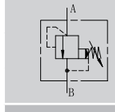
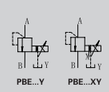
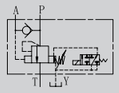
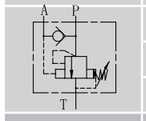
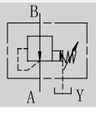
HONOR
荣誉

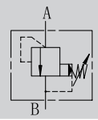
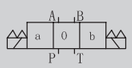
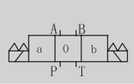
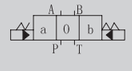
汉商液压 Hanshang Hydraulic

生产设备 EQUIPMENT

目 录 CONTENTS

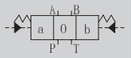
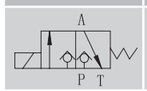
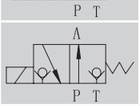
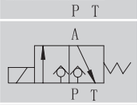
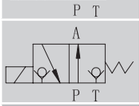
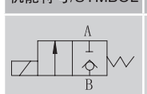
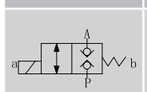
Hanshang Hydraulic

压力阀 PRESSURE CONTROL VALVES					
机能符号/SYMBOL	型号/MODEL	名称/DESCRIPTION	流量/FLOW RATE (L/min)	压力/PRESSURE (MPa)	页码/PAGE
	PBD 6 K	直动式插装压力溢流阀 DIRECT OPERATED PLUG-IN TYPE RELIEF VALVES	35	2.5,5,10,20,31.5,40	02–05
	PBD 10 K		80	2.5,5,10,20,31.5,40	
	PBD 20 K		200	2.5,5,10,20,31.5,40	
	PBD 30 K		300	2.5,5,10,20,31.5,40	
	PBD 6 G	直动式管式压力溢流阀 DIRECT OPERATED THREADED TYPE RELIEF VALVES	35	2.5,5,10,20,31.5,40	02–05
	PBD 8 G		60	2.5,5,10,20,31.5,40	
	PBD 10 G		80	2.5,5,10,20,31.5,40	
	PBD 15 G		150	2.5,5,10,20,31.5,40	
	PBD 20 G		200	2.5,5,10,20,31.5,40	
	PBD 25 G		250	2.5,5,10,20,31.5,40	
	PBD 30 G		300	2.5,5,10,20,31.5,40	
	PBD 6 P	直动式板式压力溢流阀 DIRECT OPERATED SUBPLATE TYPE RELIEF VALVES	35	2.5,5,10,20,31.5,40	02–05
	PBD 10 P		80	2.5,5,10,20,31.5,40	
	PBD 20 P		200	2.5,5,10,20,31.5,40	
	PBD 30 P		300	2.5,5,10,20,31.5,40	
机能符号/SYMBOL	型号/MODEL	名称/DESCRIPTION	流量/FLOW RATE (L/min)	压力/PRESSURE (MPa)	页码/PAGE
	PBW10	先导电磁式溢流阀 PILOT SOLENOID OPERATED RELIEF VALVES	200	31.5	06–10
	PBW20		400	31.5	
	PBW30		600	31.5	
	PB10	先导式溢流阀 PILOT OPERATED RELIEF VALVES	200	31.5	
	PB20		400	31.5	
	PB30		600	31.5	
机能符号/SYMBOL	型号/MODEL	名称/DESCRIPTION	流量/FLOW RATE (L/min)	压力/PRESSURE Mpa	页码/PAGE
	PBEK10	比例溢流阀 PROPORTIONAL PRESSSURE RELIEF VALVES	200	31.5	11–11
	PBEK20		400	31.5	
	PBEK30		600	31.5	
机能符号/SYMBOL	型号/MODEL	名称/DESCRIPTION	流量/FLOW RATE (L/min)	压力/PRESSURE (MPa)	页码/PAGE
	PB6···K	插装式先导溢流阀 PLUG-IN PILOT RELIEF VALVES	60	31.5	12–13
	PB10···K		100	31.5	
	PB20···K		300	31.5	
机能符号/SYMBOL	型号/MODEL	名称/DESCRIPTION	流量/FLOW RATE (L/min)	压力/PRESSURE (MPa)	页码/PAGE
	PAW10	先导式电磁卸荷阀 PILOT SOLENOID OPERATED UNLOADING VALVES	40	31.5	14–16
	PAW20		100	31.5	
	PAW30		250	31.5	
	PA10	先导式卸荷阀 PILOT OPERATED UNLOADING VALVES	40	31.5	
	PA20		100	31.5	
	PA30		250	31.5	
机能符号/SYMBOL	型号/MODEL	名称/DESCRIPTION	流量/FLOW RATE (L/min)	压力/PRESSURE (MPa)	页码/PAGE
	PR10	先导式减压阀 PILOT OPERATED PRESSURE REDUCING VALVES	150	31.5	17–18
	PR20		300	31.5	
	PR30		400	31.5	

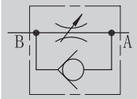
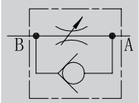
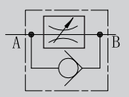
机能符号/SYMBOL	型号/MODEL	名称/DESCRIPTION	流量/FLOW RATE (L/min)	压力/PRESSURE (MPa)	页码/PAGE
	PZ10	先导式顺序阀 PILOT OPERATED SEQUENCE VALVES	150	31.5	19–20
	PZ20		300	31.5	
	PZ30		400	31.5	
方向阀 DIRECTIONAL CONTROL VALVES					
机能符号/SYMBOL	型号/MODEL	名称/DESCRIPTION	流量/FLOW RATE (L/min)	开启压力/CRACKING PRESSURE Mpa	页码/PAGE
	DS 6 A	管式单向阀 THREADED IN-LINE CHECK VALVES	15	0.05；0.15；0.3；0.5	21–22
	DS 8 A		30	0.05；0.15；0.3；0.5	
	DS 10 A		40	0.05；0.15；0.3；0.5	
	DS 15 A		120	0.05；0.15；0.3；0.5	
	DS 20 A		200	0.05；0.15；0.3；0.5	
	DS 25 A		300	0.05；0.15；0.3；0.5	
	DS 30 A		400	0.05；0.15；0.3；0.5	
	DS 6 P	板式单向阀 SUBPLATE TYPE CHECK VALVES	15	0.05；0.15；0.3；0.5	
	DS 8 P		30	0.05；0.15；0.3；0.5	
	DS 10 P		40	0.05；0.15；0.3；0.5	
	DS 15 P		120	0.05；0.15；0.3；0.5	
	DS 20 P		200	0.05；0.15；0.3；0.5	
	DS 25 P		300	0.05；0.15；0.3；0.5	
	DS 30 P		400	0.05；0.15；0.3；0.5	
机	型号/MODEL	名称/DESCRIPTION	流量/FLOW RATE (L/min)	开启压力/CRACKING PRESSURE Mpa	页码/PAGE
	DSV10P	板式单向阀泄漏油内部回油 SUBPLATE TYPE CHECK VALVES INTERNALLY DRAINED	80	0.3；0.5；0.8	23–25
	DSV20P		150	0.3；0.5；0.8	
	DSV30P		300	0.3；0.5；0.8	
	DSV10G	管式单向阀泄漏油内部回油 THREADED TYPE CHECK VALVES INTERNALLY DRAINED	80	0.3；0.5；0.8	
	DSV20G		150	0.3；0.5；0.8	
	DSV30G		300	0.3；0.5；0.8	
	DSL10P	板式单向阀泄漏油外部回油 SUBPLATE TYPE CHECK VALVES EXTERNALLY DRAINED	80	0.3；0.5；0.8	
	DSL20P		150	0.3；0.5；0.8	
	DSL30P		300	0.3；0.5；0.8	
	DSL10G	管式单向阀泄漏油外部回油 SUBPLATE TYPE CHECK VALVES EXTERNALLY DRAINED	80	0.3；0.5；0.8	
	DSL20G		150	0.3；0.5；0.8	
	DSL30G		300	0.3；0.5；0.8	
机能符号/SYMBOL	型号/MODEL	名称/DESCRIPTION	流量/FLOW RATE (L/min)	最高压力/MAX PRESSURE Mpa	页码/PAGE
	4DWG6	六通径电磁控制换向阀 SIZE6 SOLENOID OPERATED DIRECTIONAL VALVES	60	A,B,P: 31.5 T: 16	26–28
	4DWG10	十通径电磁控制换向阀 SIZE10 SOLENOID OPERATED DIRECTIONAL VALVES	120	A,B,P: 31.5 T: 16	29–31
机能符号/SYMBOL	型号/MODEL	名称/DESCRIPTION	流量/FLOW RATE (L/min)	最高压力/MAX PRESSURE Mpa	页码/PAGE
	4DWHG10	十通径电液换向阀 SIZE10 SOLENOID PILOT OPERATED DIRECTIONAL VALVES	160	31.5	32–44
	4DWHG16	十六通径电液换向阀 SIZE16 SOLENOID PILOT OPERATED DIRECTIONAL VALVES	300	35	
	4DWHG22	二十二通径电液换向阀 SIZE22 SOLENOID PILOT OPERATED DIRECTIONAL VALVES	450	31.5	
	4DWHG25	二十五通径电液换向阀 SIZE25 SOLENOID PILOT OPERATED DIRECTIONAL VALVES	650	35	
	4DWHG32	三十二通径电液换向阀 SIZE32 SOLENOID PILOT OPERATED DIRECTIONAL VALVES	1100	35	

目 录 CONTENTS

Hanshang Hydraulic

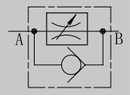
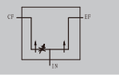
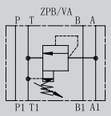
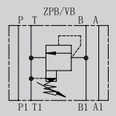
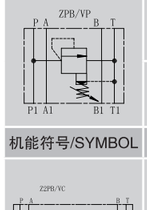
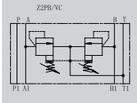
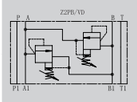
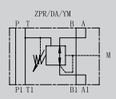
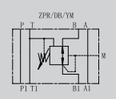
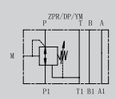
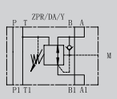
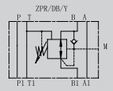
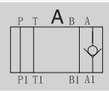
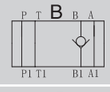
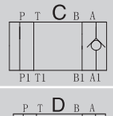
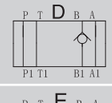
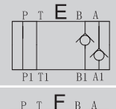
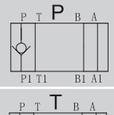
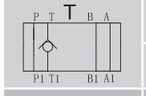
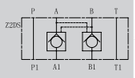
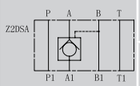
机能符号/SYMBOL	型号/MODEL	名称/DESCRIPTION	流量/FLOW RATE (L/min)	最高压力/MAX PRESSURE Mpa	页码/PAGE
	WHG10	十通径液动控制换向阀 SIZE10 HYDRAULIC OPERATED DIRECTIONAL VALVES	160	31.5	45–45
	WHG16	十六通径液动控制换向阀 SIZE16 HYDRAULIC OPERATED DIRECTIONAL VALVES	300	35	
	WHG25	二十五通径液动控制换向阀 SIZE25 HYDRAULIC OPERATED DIRECTIONAL VALVES	650	35	
	WHG32	三十二通径液动控制换向阀 SIZE32 HYDRAULIC OPERATED DIRECTIONAL VALVES	1100	35	
机能符号/SYMBOL	型号/MODEL	名称/DESCRIPTION	流量/FLOW RATE (L/min)	最高压力/MAX PRESSURE Mpa	页码/PAGE
	4DWMG6	六通径手动换向阀 SIZE 6 MANUAL OPERATED DIRECTIONAL VALVES	60	A,B,P: 31.5 T: 16	46–57
	4DWMG10	十通径手动换向阀 SIZE 10 MANUAL OPERATED DIRECTIONAL VALVES	100	A,B,P: 31.5 T: 16	
	4DWMG16	十六通径手动换向阀 SIZE 16 MANUAL OPERATED DIRECTIONAL VALVES	300	A,B,P: 31.5 T: 16	
	4DWMG22	二十二通径手动换向阀 SIZE 22 MANUAL OPERATED DIRECTIONAL VALVES	450	A,B,P: 31.5 T: 16	
	4DWMG25	二十五通径手动换向阀 SIZE 25 MANUAL OPERATED DIRECTIONAL VALVES	650	A,B,P: 31.5 T: 16	
	4DWMG32	三十二通径手动换向阀 SIZE 32 MANUAL OPERATED DIRECTIONAL VALVES	1100	A,B,P: 31.5 T: 16	
机能符号/SYMBOL	型号/MODEL	名称/DESCRIPTION	流量/FLOW RATE (L/min)	最高压力/MAX PRESSURE Mpa	页码/PAGE
	M–3QDE6C	六通径电磁球阀 SIZE 6 SOLENOID OPERATED BALL VALVES	16	31.5	58–59
	M–3QDE6U	六通径电磁球阀 SIZE 6 SOLENOID OPERATED BALL VALVES	16	31.5	
	M–3QDE10C	十通径电磁球阀 SIZE 10 SOLENOID OPERATED BALL VALVES	24	31.5	
	M–3QDE10U	十通径电磁球阀 SIZE 10 SOLENOID OPERATED BALL VALVES	30	31.5	
机能符号/SYMBOL	型号/MODEL	名称/DESCRIPTION	流量/FLOW RATE (L/min)	最高压力/MAX PRESSURE Mpa	页码/PAGE
	M–2QE6	六通径电磁卸荷球阀 SIZE 6 SOLENOID OPERATED UNLOADING BALL VALVES	16	31.5	60–61
机能符号/SYMBOL	型号/MODEL	名称/DESCRIPTION	流量/FLOW RATE (L/min)	最高压力/MAX PRESSURE Mpa	页码/PAGE
	M–2SED6C	电磁球阀C型 SOLENOID OPERATED DIRECTIONAL BALL VALVES TYPE C	20	20	62–63

流量阀 FLOW CONTROL VALVES

机能符号/SYMBOL	型号/MODEL	名称/DESCRIPTION	流量/FLOW RATE (L/min)	压力/PRESSURE Mpa	页码/PAGE
	FG6	节流阀 THROTTLE VALVES	15	31.5	64–65
	FG8		30		
	FG10		50		
	FG15		125		
	FG20		200		
	FG25		300		
	FG30		400		
	FK6	单向节流阀 THROTTLE CHECK VALVES	15	31.5	
	FK8		30		
	FK10		50		
	FK15		125		
	FK20		200		
	FK25		300		
	FK30		400		
机能符号/SYMBOL	型号/MODEL	名称/DESCRIPTION	流量/FLOW RATE (L/min)	压力/PRESSURE Mpa	页码/PAGE
	FV6	节流截止阀 THROTTLE SHUT–OFF VALVES	16	35	66–68
	FV8		24		
	FV10		35		
	FV12		45		
	FV16		60		
	FV20		100		
	FV25		150		
	FV30		210		
	FV40		375		
	FRV6	单向节流截止阀 THROTTLE CHECK SHUT–OFF VALVES	16	35	
	FRV8		24		
	FRV10		35		
	FRV12		45		
	FRV16		60		
	FRV20		100		
	FRV25		150		
	FRV30		210		
	FRV40		375		
机能符号/SYMBOL	型号/MODEL	名称/DESCRIPTION	流量/FLOW RATE (L/min)	压力/PRESSURE Mpa	页码/PAGE
	2MRB5	流量控制阀 FLOW CONTROL VALVES	0.2	21	69–70
			0.6		
			1.2		
			3		
			6		
			10		
			15		
	2MRB10		10	31.5	
			16		
			25		
			50		

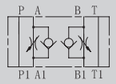
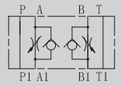
目 录 CONTENTS

Hanshang Hydraulic

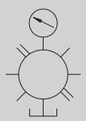
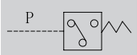
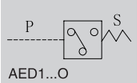
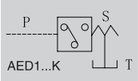
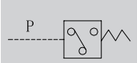
机能符号/SYMBOL	型号/MODEL	名称/DESCRIPTION	流量/FLOW RATE (L/min)	压力/PRESSURE Mpa	页码/PAGE
	2MRB16	流量控制阀 FLOW CONTROL VALVES	60 100 160	31.5	69–70
机能符号/SYMBOL	型号/MODEL	名称/DESCRIPTION	流量/FLOW RATE (L/min)	压力/PRESSURE Mpa	页码/PAGE
	FC–51	流量控制阀 FLOW CONTROL VALVES	114	20.7	71–73
叠加阀/MODULAR VALVES					
机能符号/SYMBOL	型号/MODEL	名称/DESCRIPTION	流量/FLOW RATE (L/min)	压力/PRESSURE Mpa	页码/PAGE
	ZPB6VA	叠加式压力溢流阀 MODULAR PRESSURE RELIEF VALVES	60	31.5	74–77
	ZPB10VA		100		
	ZPB6VB	叠加式压力溢流阀 MODULAR PRESSURE RELIEF VALVES	60	31.5	
	ZPB10VB		100		
	ZPB6VP	叠加式压力溢流阀 MODULAR PRESSURE RELIEF VALVES	60	31.5	
	ZPB10VP		100		
机能符号/SYMBOL	型号/MODEL	名称/DESCRIPTION	流量/FLOW RATE (L/min)	压力/PRESSURE Mpa	页码/PAGE
	Z2PB6VC	叠加式压力溢流阀 MODULAR PRESSURE RELIEF VALVES	60	31.5	74–77
	Z2PB10VC		100		
	Z2PB6VD	叠加式压力溢流阀 MODULAR RESSURE RELIEF VALVES	60	31.5	
	Z2PB10VD		100		
机能符号/SYMBOL	型号/MODEL	名称/DESCRIPTION	流量/FLOW RATE (L/min)	压力/PRESSURE Mpa	页码/PAGE
	ZPR6DA../YM	叠加式减压阀 MODULAR PRESSURE REDUCING VALVES	30	31.5	78–79
	ZPR10DA../YM		60		
	ZPR6DB../YM	叠加式减压阀 MODULAR PRESSURE REDUCING VALVES	30	31.5	
	ZPR10DB../YM		60		
	ZPR6DP../YM	叠加式减压阀 MODULAR PRESSURE REDUCING VALVES	30	31.5	
	ZPR10DP../YM		60		
	ZPR6DA../Y..	叠加式减压阀 MODULAR PRESSURE REDUCING VALVES	30	31.5	
	ZPR10DA../Y..		60		
	ZPR6DB../Y..	叠加式减压阀 MODULAR PRESSURE REDUCING VALVES	30	31.5	78–79
	ZPR10DB../Y..		60		
机能符号/SYMBOL	型号/MODEL	名称/DESCRIPTION	流量/FLOW RATE (L/min)	压力/PRESSURE Mpa	页码/PAGE
	Z1DS6A..	叠加式单向阀 MODULAR CHECK VALVES	40	31.5	80–81
	Z1DS10A..		100		
	Z1DS6B..	叠加式单向阀 MODULAR CHECK VALVES	40	31.5	
	Z1DS10B..		100		
	Z1DS6C..	叠加式单向阀 MODULAR CHECK VALVES	40	31.5	
	Z1DS10C..		100		
	Z1DS6D..	叠加式单向阀 MODULAR CHECK VALVES	40	31.5	
	Z1DS10D..		100		
	Z1DS6E..	叠加式单向阀 MODULAR CHECK VALVES	40	31.5	
	Z1DS10E..		100		
	Z1DS6F..	叠加式单向阀 MODULAR CHECK VALVES	40	31.5	
	Z1DS10F..		100		
	Z1DS6P..	叠加式单向阀 MODULAR CHECK VALVES	40	31.5	
	Z1DS10P..		100		
	Z1DS6T..	叠加式单向阀 MODULAR CHECK VALVES	40	31.5	
	Z1DS10T..		100		
机能符号/SYMBOL	型号/MODEL	名称/DESCRIPTION	流量/FLOW RATE (L/min)	压力/PRESSURE Mpa	页码/PAGE
	Z2DS6..	叠加式单向阀 MODULAR CHECK VALVES	50	31.5	82–84
	Z2DS10..		80		
	Z2DS16..		200		
	Z2DS22..		300		
	Z2DS6A..	叠加式单向阀 MODULAR CHECK VALVES	50	31.5	
	Z2DS10A..		80		
	Z2DS16A..		200		
	Z2DS22A..		300		
	Z2DS6B..	叠加式单向阀 MODULAR CHECK VALVES	50	31.5	
	Z2DS10B..		80		
	Z2DS16B..		200		
	Z2DS22B..		300		

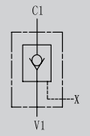
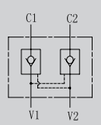
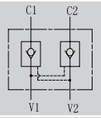
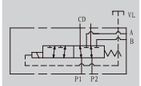
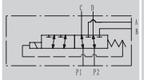
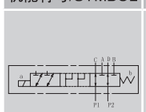
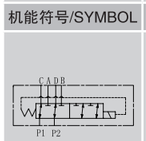
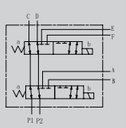
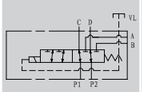
目 录 CONTENTS

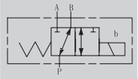
Hanshang Hydraulic

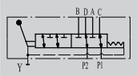
机能符号/SYMBOL	型号/MODEL	名称/DESCRIPTION	流量/FLOW RATE (L/min)	压力/PRESSURE Mpa	页码/PAGE
 Z2FDS/S	Z2FDS6../S..	叠加式双单向节流阀 MODULAR DOUBLE THROTTLE CHECK VALVES	80	31.5	85–87
	Z2FDS10../S..		160		
	Z2FDS16../S..		250	35	
	Z2FDS22../S..		350		
 Z2FDS/S2	Z2FDS6../S2..	叠加式双单向节流阀 MODULAR DOUBLE THROTTLE CHECK VALVES	80	31.5	
	Z2FDS10../S2..		160		
	Z2FDS16../S2..		250	35	
	Z2FDS22../S2..		350		

底板/SU BPLATE	
名称/DESCRIPTION	页码/PAGE
HSD(A)ZVB 阀板/MANIFOLD	88–93
G阀板系列/G SUBPLATES	94–99

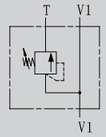
附件/ACCESSORIES					
机能符号/SYMBOL	型号/MODEL	名称/DESCRIPTION	压力/PRESSURE Mpa	压力表显示范围 PRESSUR GAUGE INDICATING	页码/PAGE
	AM1E	压力表隔离阀 PRESSURE GAUGE SHUTTER	30	6.3、10、16、25、40	100–101
机能符号/SYMBOL	型号/MODEL	名称/DESCRIPTION	压力/PRESSURE Mpa	压力表显示范围 PRESSUR GAUGE INDICATING	页码/PAGE
	AM6E	六点压力表开关 PRESSURE GAUGE SWITCH WITH 6 POINTS	31.5	2.5、6、10、16、25、40	102–103
机能符号/SYMBOL	型号/MODEL	名称/DESCRIPTION	工作压力/OPERATING PRESSURE RANGE Mpa		页码/PAGE
	AED4/ZAED4	压力继电器 PRESSURE SWITCH	5、10、35		104–105
机能符号/SYMBOL	型号/MODEL	名称/DESCRIPTION	工作压力/OPERATING PRESSURE RANGE Mpa		页码/PAGE
 AED1...O	AED1O	柱塞式压力继电器 PISTON PRESSURE SWITCH	5、10、35		106–106
 AED1...K	AED1K	柱塞式压力继电器 PISTON PRESSURE SWITCH	10、35、50		
机能符号/SYMBOL	型号/MODEL	名称/DESCRIPTION	工作压力/OPERATING PRESSURE RANGE Mpa		页码/PAGE
	LPS–01	压力继电器 PRESSURE SWITCH	0–31.5		107–107

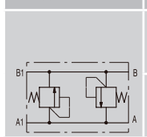
方向阀 DIRECTIONAL CONTROL VALVES						
机能符号/SYMBOL	型号/MODEL	名称/DESCRIPTION	液控比/RATIO	流量/FLOW RATE (L/min)	压力/PRESSURE (MPa)	页码/PAGE
	HPLK–1/4–20	液控单向阀 PILOT OPERATED CHECK VALVES	4.7:1	20	31.5	108–109
	HPLK–3/8–35		4.4:1	35	31.5	
	HPLK–1/2–50		4.6:1	50	31.5	
	HPLK–3/4–100		3.8:1	100	31.5	
	HPLK–1–150		3.2:1	150	31.5	
机能符号/SYMBOL	型号/MODEL	名称/DESCRIPTION	液控比/RATIO	流量/FLOW RATE (L/min)	压力/PRESSURE (MPa)	页码/PAGE
	HKW–1/4–15	双向液压锁 DOUBLE–DIRECTION HYDRAULIC LOCK	4:1	15	31.5	110–111
	HKW–3/8–35		5.2:1	35	31.5	
	HKW–1/2–50		4.3:1	50	31.5	
	HKW–3/4–100		3.9:1	100	31.5	
机能符号/SYMBOL	型号/MODEL	名称/DESCRIPTION	液控比/RATIO	流量/FLOW RATE (L/min)	压力/PRESSURE (MPa)	页码/PAGE
	VBPDE–38	双向液压锁 DOUBLE–DIRECTION HYDRAULIC LOCK	5.2:1	30	31.5	112–113
机能符号/SYMBOL	型号/MODEL	类型/TYPE	名称/DESCRIPTION	流量/FLOW RATE (L/min)	压力/PRESSURE (MPa)	页码/PAGE
	MOP.06.6	二位六通 TWO POSITION SIX WAY	多回路选择阀 FLOW DIVERTERS	50	25	114–115
机能符号/SYMBOL	型号/MODEL	类型/TYPE	名称/DESCRIPTION	流量/FLOW RATE (L/min)	压力/PRESSURE (MPa)	页码/PAGE
	MOPRN–06	二位六通 TWO POSITION SIX WAY	多回路选择阀 FLOW DIVERTERS	50	21	116–117
机能符号/SYMBOL	型号/MODEL	类型/TYPE	名称/DESCRIPTION	流量/FLOW RATE (L/min)	压力/PRESSURE (MPa)	页码/PAGE
	ZVH6	二位六通 TWO POSITION SIX WAY	多回路选择阀 FLOW DIVERTERS	50	21	118–119
机能符号/SYMBOL	型号/MODEL	类型/TYPE	名称/DESCRIPTION	流量/FLOW RATE (L/min)	压力/PRESSURE (MPa)	页码/PAGE
	KVH6	二位六通 TWO POSITION SIX WAY	多回路选择阀 FLOW DIVERTERS	50	25	120–121
机能符号/SYMBOL	型号/MODEL	类型/TYPE	名称/DESCRIPTION	流量/FLOW RATE (L/min)	压力/PRESSURE (MPa)	页码/PAGE
	2KVH	二位八通 TWO POSITION EIGHT WAY	多回路选择阀 FLOW DIVERTERS	50	25	122–123
机能符号/SYMBOL	型号/MODEL	类型/TYPE	名称/DESCRIPTION	流量/FLOW RATE (L/min)	压力/PRESSURE (MPa)	页码/PAGE
	SVK10	二位六通 TWO POSITION SIX WAY	多回路选择阀 FLOW DIVERTERS	80	25	124–125

机能符号/SYMBOL	型号/MODEL	类型/TYPE	名称/DESCRIPTION	流量/FLOW RATE (L/min)	压力/PRESSURE (MPa)	页码/PAGE
	HVC–3/2–10	二位三通 TWO POSITION THREE WAY	电磁换向阀 DIRECTIONAL VALVE	80	21	126–127

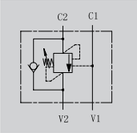
机能符号/SYMBOL	型号/MODEL	类型/TYPE	名称/DESCRIPTION	流量/FLOW RATE (L/min)	压力/PRESSURE (MPa)	页码/PAGE
	KVH6–MB	二位六通 TWO POSITION SIX WAY	多回路选择阀 FLOW DIVERTERS	50	25	128–129

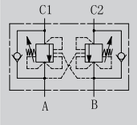
溢流阀/RELIEF VALVES

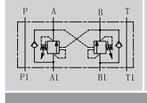
机能符号/SYMBOL	型号/MODEL	名称/DESCRIPTION	流量/FLOW RATE (L/min)	压力/PRESSURE (MPa)	油口尺寸/PORT SIZE	页码/PAGE
	HDR–1/4–25	带遥控的直动式溢流阀 DIRECT OPERATED PRESSURE RELIEF VALVES	25	31.5	G1/4	130–131
	HDR–3/8–50		50	31.5	G3/8	
	HDR–1/2–80		80	31.5	G1/2	
	HDR–3/4–120		120	31.5	G3/4	
	HDR–1–220		220	31.5	G1	

机能符号/SYMBOL	型号/MODEL	名称/DESCRIPTION	流量/FLOW RATE (L/min)	压力/PRESSURE (MPa)	油口尺寸/PORT SIZE	页码/PAGE
	IHDR–3/8	双向溢流阀 DUAL CROSS RELIEF VALVE	45	31.5	G3/8	132–133
	IHDR–1/2		60	31.5	G1/2	

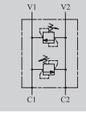
平衡阀/COUNTERBALANCE VALVES

机能符号/SYMBOL	型号/MODEL	名称/DESCRIPTION	先导比/RATIO RATIO	流量/FLOW RATE (L/min)	压力/PRESSURE (MPa)	页码/PAGE
	HOV–3/8–50	单作用平衡阀（开式平衡） SINGLE COUNTERBALANCE VALVES FOR OPEN CENTRE	4.3:1	50	31.5	134–135
	HOV–1/2–80		4.3:1	80	31.5	
	HOV–3/4–120		6.8:1	120	31.5	

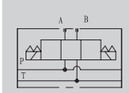
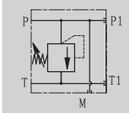
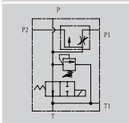
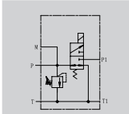
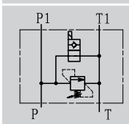
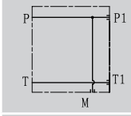
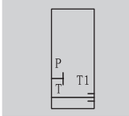
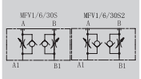
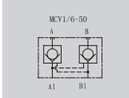
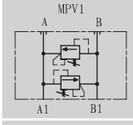
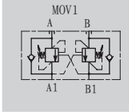
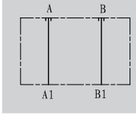
机能符号/SYMBOL	型号/MODEL	名称/DESCRIPTION	液控比/RATIO	流量/FLOW RATE (L/min)	压力/PRESSURE (MPa)	页码/PAGE
	HOW–3/8–50	双作用平衡阀（开式平衡） DUAL COUNTERBALANCE VALVES FOR OPEN CENTRE	4.3:1	50	31.5	136–137
	HOW–1/2–80		4.3:1	80	31.5	
	HOW–3/4–120		6.8:1	120	31.5	
	HOW–1–160		3:1	160	31.5	

机能符号/SYMBOL	型号/MODEL	名称/DESCRIPTION	液控比/RATIO	流量/FLOW RATE (L/min)	压力/PRESSURE (MPa)	页码/PAGE
	OCBW–43	板式双作用平衡阀 （开式平衡） FLANGEABLE DUAL COUNTERBALANCE VALVES FOR OPEN CENTRE	4.3:1	5–45	35	138–139

液压马达控制阀/HYDRAULIC MOTOR VALVES

机能符号/SYMBOL	型号/MODEL	名称/DESCRIPTION	流量/FLOW RATE (L/min)	压力/PRESSURE (MPa)	页码/PAGE
	HSDI–OMP	双向溢流阀 DUAL CROSS OVER RELIEF VALVES	30	31.5	140–141

模块式电磁换向阀组/MODULAR SOLENOID DIRECTIONAL VALVES

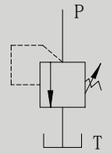
机能符号/SYMBOL	型号/MODEL	名称/DESCRIPTION	流量/FLOW RATE (L/min)	压力/PRESSURE (MPa)	页码/PAGE
	MWE6	换向阀模块 MODULAR DIRECTIONAL VALVE ELEMENTS	40	31	142–146
	PMWE6	泵侧模块 INLET ELEMENTS WITH PRIMARY PRESSURE RELIEF VALVE	50	31	147–147
	POH–MDWE6–1312	泵侧模块 MANIFOLD SOLENOID DIRECTIONAL VALVES	40	31.5	148–148
	TWMDE6	泵侧模块 INLET ELEMENTS	50	31.5	149–149
	PSRMWE6	泵侧模块 INLET ELEMENTS WITH PRIMARY PRESSURE RELIEF VALVE	50	31.5	150–150
	PTMWE6	泵侧模块 INLET ELEMENTS	50	25	151–151
	TMWE6	侧盖模块 OUTLET ELEMENTS	50	25	152–152
	MFV	叠加式单向节流阀 SERIES MODULAR CHECK THROTTLE VALVES	40	31.5	153–154
	MCV	叠加式单向节流阀 MODULAR PILOT CONTROLLED CHECK VALVES	40	31.5	155–156
	MPV	叠加式溢流阀 MODULAR PRESSURE RELIEF VALVES DIRECT ACTING	40	31.5	157–158
	MOV	叠加式平衡阀 MODULAR COUNTERBALANCE VALVES FOR OPEN CENTER	40	31.5	159–160
	MFV1–02	过渡板 TRANSITION PART	40	31.5	161–161

Hanshang Hydraulic

PBD型直动式溢流阀

PBD DIRECT OPERATED PRESSURE RELIEF VALVES

符号 SYMBOL



PBD型溢流阀是直动式座阀，用以限制系统压力，其结构可分为锥阀（压力至40Mpa）和球阀结构，压力等级分别为2.5；5；10；20；31.5；40。

该阀体积小、结构紧凑、流量特性好、噪音小、压力稳定、广泛应用在小流量系统中，可作为安全阀及遥控阀等。

PBD series relief valves are direct operated poppet type used to limit pressure in a hydraulic system. The design can be divided into poppet (Max.40Mpa) and ball type. There are six pressure adjustment ranges available 2.5;5;10;20;31.5;40Mpa. It has characteristics of compact structure,high performance, reliable work, low noise and long service life. These series are widely applied to many lower flow systems, can be also used as relief valve and remote control valve, etc.

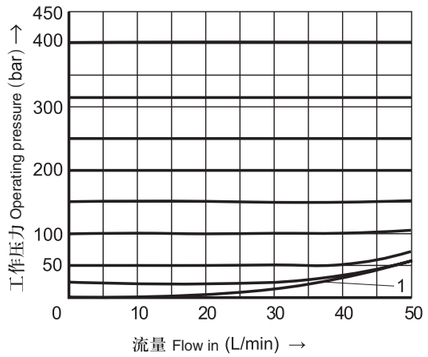
技术参数 Technical data

通径 Size		6	8	10	15	20	25	30
工作压力(Mpa) Operating pressure(Mpa)		31.5						
最大流量(L/min) Max .flow rate(L/min)		35	60	80	150	200	250	300
介质温度(℃) Fluid temperature(℃)		–20 ~ 70						
过滤精度(μm) Filtration accuracy(μm)		25						
重量(千克) Weight(KGS)	PBD K	0.4		0.5		0.9		2.1
	PBD G	1.6	3.6	3.6	6.9	6.9	15.2	15.2
	PBD P	1.7		3.7		7.1		15.7
阀体（材料）表面处理 Valve body（Material）Surface treatment		钢件 表面发黑处理 Steel Body Surface Black Oxide						
油液清洁度/Oil cleanliness		NAS1638 9级和ISO4406 20/18/15级 NAS1638 class 9 and ISO4406 class 20/18/15						

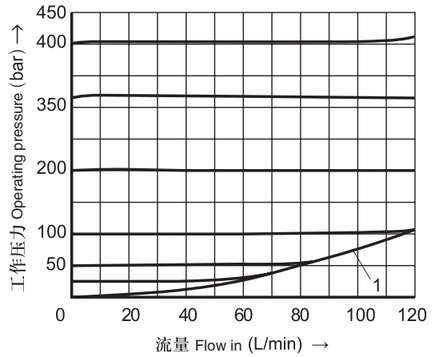
特性曲线（在使用 HLP46，$\vartheta_{油}$=40℃±5℃时测得）

Characteristic curves（measured with HLP46，Voil=40℃±5℃）

通径 6 Size 6



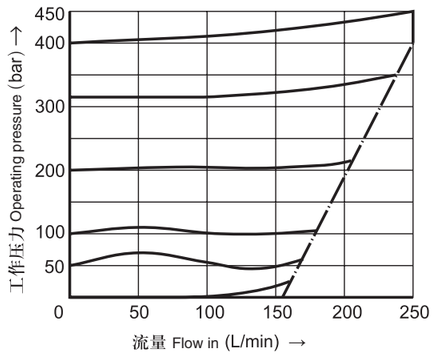
通径8和10 Size 8 & 10



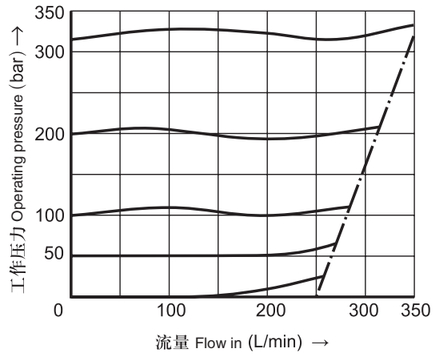
1 = 最低可调压力

1 = Min adjustable pressure

通径 15 和 20 Size 15 & 20



通径 25 和 30 Size 25 & 30



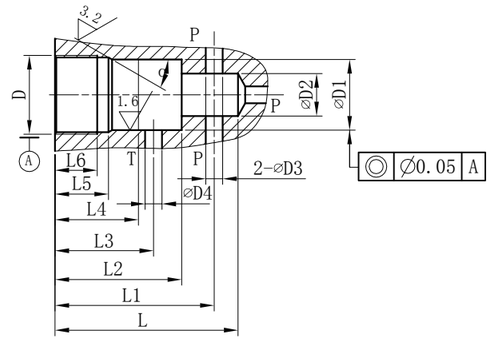
⚠ 注意！

– 该性能曲线在整个流量范围内对出口压力＝0有效，且在测量时不考虑壳体内的压降！
– 特性曲线仅在所述环境和温度条件下有效。必须考虑特性曲线受边界条件变化的影响！
– 该性能曲线与给定压力等级（如200bar）相关联。在其他离开额定压力等级的压力设定值时（如<200bar时），随着溢流流量的增加压力的升高值会更大一些。

⚠ Attention！

– The curves are available when output pressure =0 within the flow ranges，and the pressure differential of housing is not considered when measures.
– The curves are only available for the said environment and temperature conditions,and the effect of boundary variation conditions for characteristic curves must be considered.
– The curves are ralated to setting pressure level (like 200bar.).The increased pressure data will be higher when relief flow rate added.

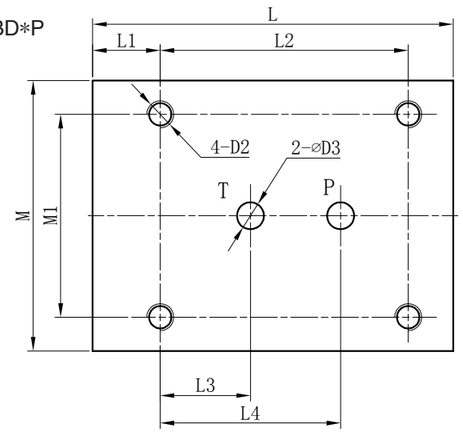
PBD*K插入阀连接尺寸 PBD*K Dimensions for cartridge



通径 Size	D	D1	D2	D3	D4	L	L1	L2	L3	L4	L5	L6	α
6	M28x1.5	25H8	15	6	6	65	56.5 ± 1	45	35	30	19	15	15°
10	M35x1.5	32H8	18.5	10	10	80	67.5 ± 1	52	41	35	23	18	15°
20	M45x1.5	40H8	24	20	20	110	91.5 ± 1	70	54	45	27	21	20°
30	M60x2	55H8	38.75	30	30	140	113.5 ± 1	84	60	45	29	23	20°

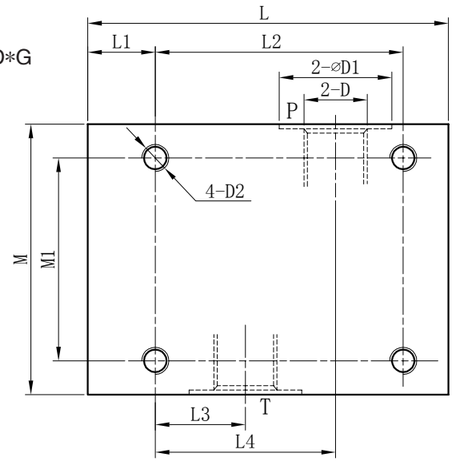
安装尺寸/Installation dimensions

PBD*P



通径 Size	L	L1	L2	L3	L4	M	M1	D2	D3
6	80	15	55	20	40	60	45	M6/15	6
10	100	20	70	21	45	80	60	M8/15	10
20	135	20	100	34	65	100	70	M8/22	20
30	180	25	130	35	85	130	100	M10/22	30

PBD*G



通径 Size	D		L	L1	L2	L3	L4	M	M1	D1	D2
	英制 Inch	公制 Metric									
6	G 1/4"	M14 × 1.5	80	15	55	20	40	60	45	25	M6/15
(8)10	(G 3/8") G1/2"	(M18X1.5) M22X1.5	100	20	70	21	49	80	60	(28) 34	M8/15
(15)20	(G 3/4") G1"	(M27X2) M33X2	135	20	100	34	65	100	70	(42) 47	M8/22
(25)30	(G1 1/4") G1 1/2"	(M42X2) M48X2	180	25	130	35	85	130	100	(56) 61	M10/22

PBD | S | 6 | K | 10 | 10 | * | *

型号：直动式
Direct operated

S = 带保护罩的调节螺栓
H= 带手轮
S=Adjustable screw and protective cap
H=Handwheel

通径 6(8)10(15)20(25)30
Size 6(8)10(15)20(25)30

K = 插入式；G = 管式；P = 板式
K = Cartridge valve
G=Threaded connection
P=Subplate mounting

无=丁晴橡胶
V=氟橡胶
No code=NBR seals
V=FPM seals

无=英制；2 = 公制
No code=Inch thread;2=metric

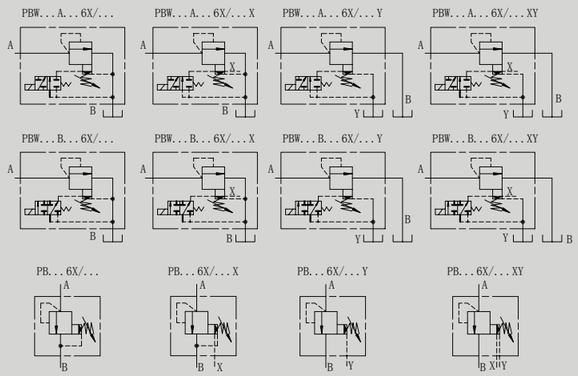
压力等级(兆帕)：2.5；5；10；20；31.5；40
Pressure range(MPa):2.5;5;10;20;31.5;40

系列号10系列(压力等级2.5 ~ 40 MPa)
Series No.10 (Pressure rating2.5 ~ 40 MPa)

PB/PBW型60/6X系列溢流阀

PB/PBW 60/6X SERIES PILOT OPERATED PRESSURE RELIEF VALVES

符号 SYMBOL



PB型阀是先导控制式的溢流阀。PBW型是先导控制式的电磁溢流阀是用于控制液压系统的压力，并能在任意时刻使系统卸荷。

6X系列PB/PBW型阀，性能优于60系列PB/PBW，具有更平稳的调压性能，更低的最低调节压力和调压范围大，通流能力更强等特点。

PB is pilot operated pressure relief valve, PBW is a pilot operated solenoid relief valve available to unload system pressure.

The performance of 6X series is superior than 60 series, the 6X series can be used to control the pressure of hydraulic systems smoothly in a wide range. This type is suitable for a hydraulic system which demands high flow rate.

技术参数 Technical data

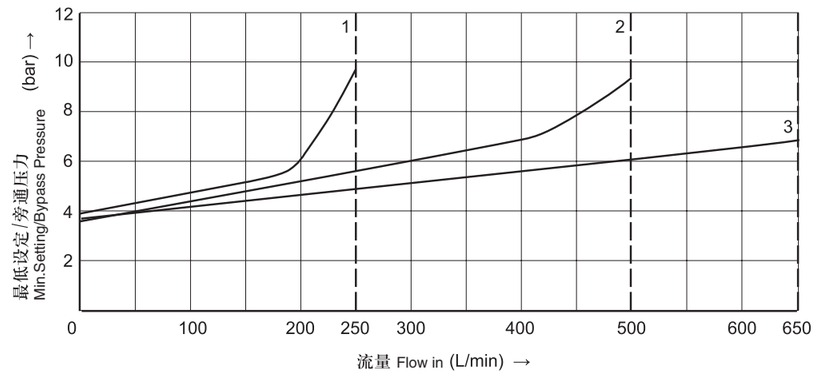
通径 Size		10		20		30	
系列号 Series No		60	6X	60	6X	60	6X
工作压力(Mpa) Operating pressure(Mpa)		31.5	35	31.5	35	31.5	35
最大流量(L/min) Max .flow rate(L/min)		200	250	400	500	600	650
介质温度(℃) Fluid temperature(℃)		–20 ~ 70					
过滤精度(μm) Filtration accuracy(μm)		25					
重量(千克) Weight(KGS)	PB	3.2		4.2		5.2	
	PBW	4.7		5.5		6.8	
阀体（材料）表面处理 Valve body（Material）Surface treatment		铸件 表面磷化处理 casting phosphating surface					
油液清洁度/Oil cleanliness		NAS1638 9级和ISO4406 20/18/15级 NAS1638 class 9 and ISO4406 class 20/18/15					

特性曲线（在使用 HLP46，$\vartheta_{油}$=40℃±5℃时测得）

Characteristic curves（measured with HLP46，Voil=40℃±5℃）

最低设定压力和旁通压力与流量的关系 Characteristic of Min.Setting Pressure.bypass pressure and flow

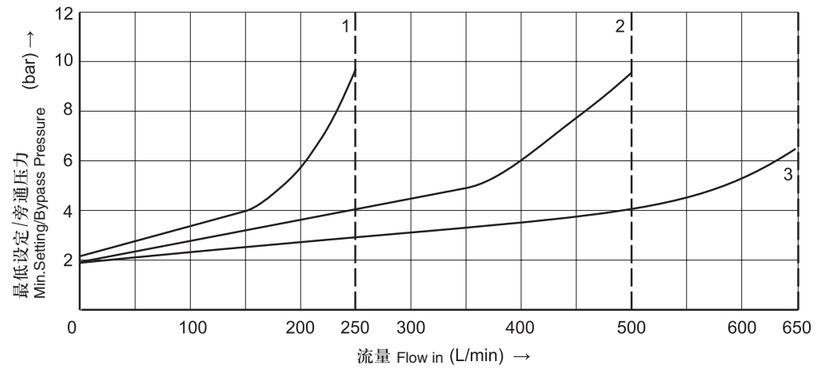
标准型 Standard



1.通径 10 Size 10
2.通径 20 Size 20
3.通径 30 Size 30

最低设定压力和旁通压力与流量的关系 Charaterastics of Min.Setting Pressure.bypass presure and flow

“U“型 Type "U"



1.通径 10 Size 10
2.通径 20 Size 20
3.通径 30 Size 30

☞ 注意！

此特性曲线在控制油外部零压回油时测得。

对于控制油内部回油，进口压力增加了T口的压力值。

此特性曲线在整个流量范围内对于出口压力p_T = 0有效！

☞ Attention！

The curves is measured without pressure when control oil back to the tank.

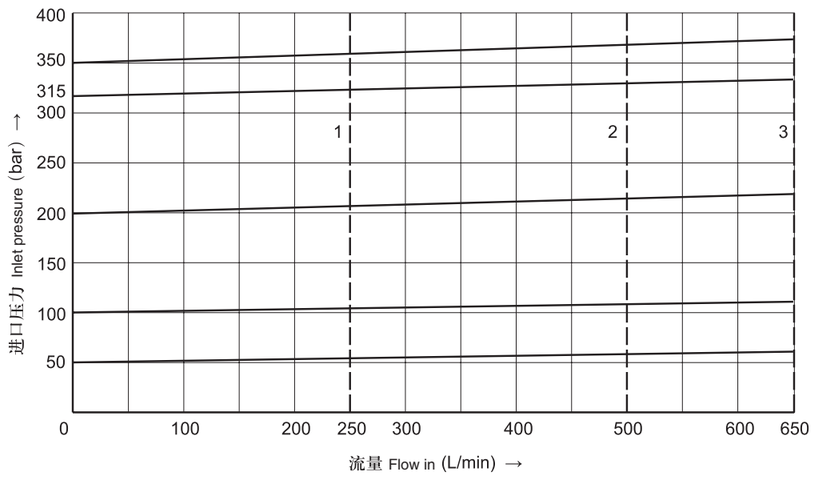
Refers to the back into housing of the control oil,the pressure of “T” port has increased against the input pressure.

The curves are available when the output pressure Pt=0 within the flow ranges.

Hanshang Hydraulic

特性曲线（在使用 HLP46，$\vartheta_{油}$=40℃±5℃时测得）
Characteristic curves（measured with HLP46，Voil=40℃±5℃）

进口压力与流量的关系 Characteristic of inlet Pressure and flow



1.通径 10 Size 10
2.通径 20 Size 20
3.通径 30 Size 30

☞ 注意！

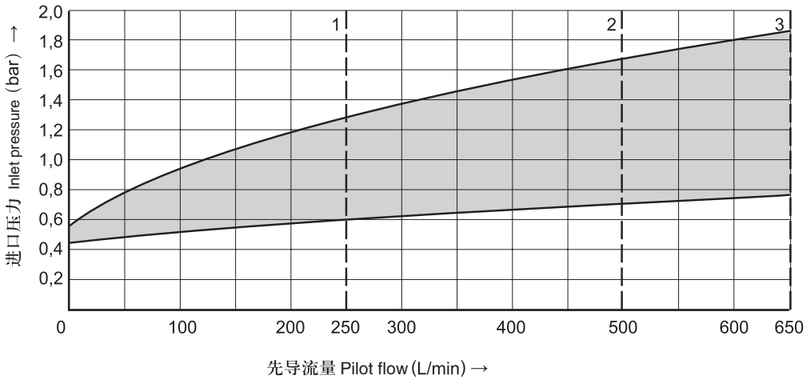
此特性曲线在控制油外部零压回油时测得。
对于控制油内部回油，进口压力增加了T口的压力值。

☞ Attention!

The curves is measured without pressure when control oil back to the tank. Refers to the back into housing of the control oil,the pressure of “T” port has increased against the input pressure.

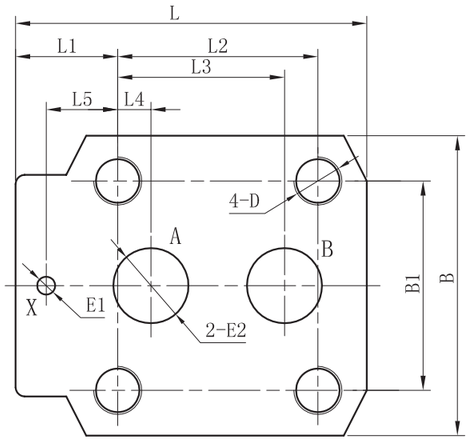
特性曲线（在使用 HLP46，$\vartheta_{油}$=40℃±5℃时测得）
Characteristic curves（measured with HLP46，Voil=40℃±5℃）

先导流量 Pilot flow

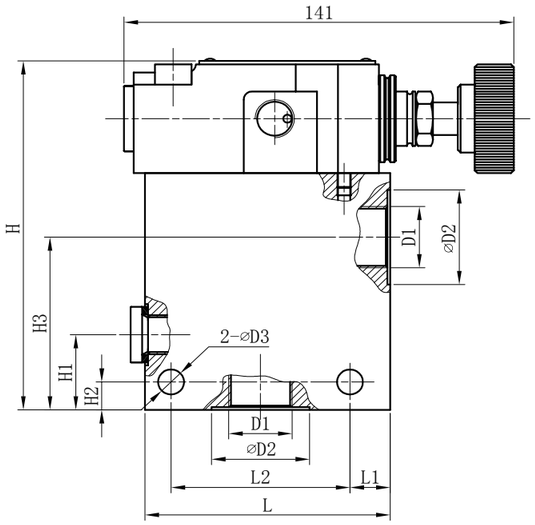


1.通径 10 Size 10
2.通径 20 Size 20
3.通径 30 Size 30

板式底板安装尺寸 Subplate mounting



管式连接尺寸 Threaded connections



板式底板安装尺寸 Subplate mounting

型号 Model	L	L1	L2	L3	L4	L5	B	B1	D	E1	E2
PB/PBW10	90	23.5	54	47.6	22.2	0	78	54	M12/26	Φ6	Φ12
PB/PBW20	117	34	66.7	55.6	11.1	23.8	100	69.8	M16/26	Φ6	Φ25
PB/PBW30	148	41.5	88.7	76.2	12.7	31.7	115	82.5	M18/26	Φ7	Φ32

管式连接尺寸 Threaded connections

型号Model	D1		D2	D3	L	L1	L2	H	H1	H2	H3
	公制 Metric	英制 Inch									
PB8G	M18×1.5	G 3/8"	28	9	85	14	62	125	27	10	62
PB10G	M22×1.5	G 1/2"	34	9	85	14	62	125	27	10	62
PB15G	M27×2	G 3/4"	42	9	85	14	62	125	27	10	62
PB20G	M33×2	G 1"	47	9	85	14	62	125	27	10	57
PB25G	M42×2	G 1 1/4"	56	9	100	18	72	138	40	13	66
PB30G	M48×2	G 1 1/2"	61	9	100	18	72	138	40	13	66

PB | W | 10 | * | * | 1 | 60 | 31.5 | * | * | DC24 | N | Z5L | * | *

型号 Model

无 = 不带换向阀
W = 带换向阀
No code=Without directional valve
W=With directional valve

通径 Size
板式：10;20;30
管式：8;10;15;20;25;30
Subplate mounting:10;20;30
Threaded connection:8;10;15;20;25;30

A=常闭 A=Normally closed
B=常开 B=Normally open

无=板式 No code=subplate mounting
G=管式 G=Threaded connection

1= 带手轮；2 = 带保护罩调节螺栓
1= Hand wheel
2= Sleeve with hexagon and protective cap

系列号：60系列；6X系列 Series number：60；6X

压力等级 Pressure range (Mpa) 5;10;20;31.5

无=丁晴橡胶
V=氟橡胶
No code=NBR seals
V=FPM seals

无=英制;2 = 公制
No code=Inch thread;
2=Metric thread

Z5L=带灯大方型插头
Z5L=Big quadrate plug with light

无标记 = 没有故障检查按钮
N = 有故障检查按钮
No Code=Without manual override
N=With manual override

电压 Voltage AC220;DC24

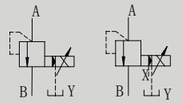
无标记 = 主阀芯硬弹簧
U = 主阀芯软弹簧
No Code=Standard
U=For min.cracking pressure

无 = 先导控制油内供内排
X = 先导控制油外供内排
Y = 先导控制油内供外排
XY = 先导控制油外供外排
No code = Internally pilot, internally drained
X = Externall pilot, internally drained
Y = Internally pilot, externally drained
XY = Externall pilot, externally drained

PBE/PBEK型比例溢流阀

PBE/PBEK TYPE PROPORTIONAL PRESSURE RELIEF VALVES

符号 SYMBOL



PBE...Y PBE...XY

PBE型阀是座阀结构的先导式溢流阀，用这种阀，系统压力可随电气输入信号，连续改变，压力的极限由磁铁设定，与电流有关。PBEK型溢流阀，在PBE型溢流阀基础上加装一个弹簧加载的压力溢流阀，提供最高压力保护。

PBE type valve is a pilot operated pressure relief valve with poppet structure, which can change the system pressure continuously by electrical input signal, the pressure limit can be preset by proportional solenoid and may be relative with current. PBEK relief valve in the PBE-based, install a spring loaded pressure relief valve to provide maximum pressure protection.

安装尺寸详见第9页 Installation dimensions refer to page 9

PBE | K | * | 10 | 60 | 31.5 | Y | * | * | * | *

无代号 = 不带最高压力保护
K = 带最高压力保护
NO code=Without max pressure protection
K=With max pressure protection

无 = 先导式溢流阀
C=带主阀芯组成的先导阀（通径30）
C=不带主阀芯组成的先导阀
T=作为遥控阀的先导阀
No code=pilot operated pressure relief valve
C=Pilot valve with main spool assembly (NG30)
C=Pilot valve without main spool
T=Pilot operated valve as remote control valve

通径：10；20；30
Size:10;20;30

序列号 60
Series number 60

压力等级 Pressure rating 5=5MPa
10=10MPa
20=20MPa
31.5=31.5MPa

Y=内部先导供制油内供外排
XY=内部先导供制油外供外排
Y=Internally piloted/externally drained
XY=externally piloted/externally drained

无 = 英制螺纹
2 = 公制螺纹
No code=Inch thread; 2=Metric

无=丁晴橡胶
V=氟橡胶
No code=NBR seals for petroleum oils
V=FPM seals for phosphate ester

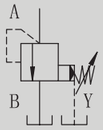
For further detailed 附加说明

PB...K型插装式先导溢流阀

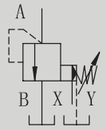
PB...K SERIES PLUG-IN PILOT CONTROLLED PRESSURE RELIEF VALVES

符号 SYMBOL

PB…K/…Y



PB20K…/…XY



PB型溢流阀是插装式先导溢流阀，用于限制液压系统压力。

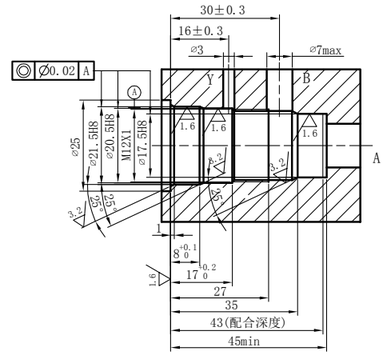
PB…K series are pilot operated relief valves used to limit pressure in a hydraulic system.

技术参数 Technical data

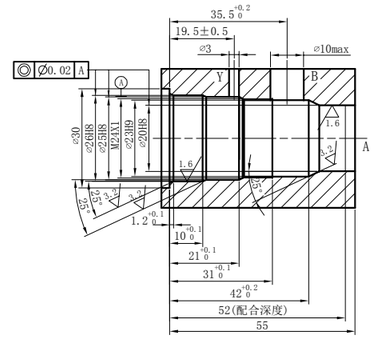
通径 Size	6	10	20
工作压力(Mpa) Operating pressure(Mpa)	31.5		
调节压力(Mpa)Set pressure(Mpa)	至5，10，20，31.5/Up to 5，10，20，31，5		
最大流量(L/min) Max .flow rate(L/min)	60	100	300
介质温度(℃) Fluid temperature(℃)	–20 ~ 70		
过滤精度(μm) Filtration accuracy(μm)	25		
重量(千克) Weight(KGS)	0.22	0.3	0.35
阀体（材料）表面处理 Valve body（Material）Surface treatment	钢件 表面发黑处理 Steel Body Surface Black Oxide		
油液清洁度/Oil cleanliness	NAS1638 9级和ISO4406 20/18/15级 NAS1638 class 9 and ISO4406 class 20/18/15		

安装尺寸 Installation dimensions

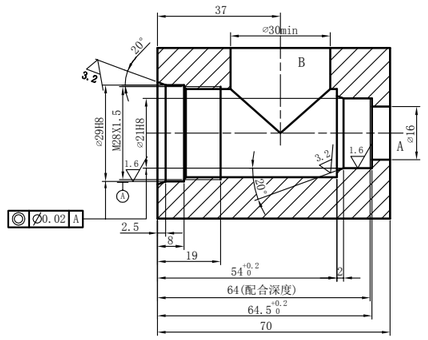
PB6K…/…Y



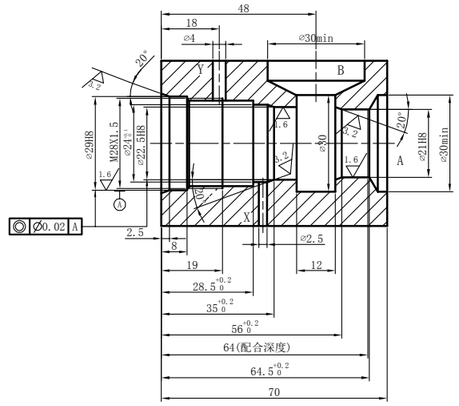
PB10K…/…Y



PB20K…/…Y



PB20K…/…X Y



PB	10	K	1	–	40	/	100	Y	*	*

型号 Model

通径:6;10;20 Size:6;10;20

K = 插装式连接
K = Cartridge valve

1=手柄；2 = 带保护调节螺栓
1=Rotary handle
2=Adjustable screw with protective cap

40=40系列适用于6，10；10 = 10系列适用于20
40=40series are suitable for 6,10;
10=10series are suitable for 20

For further details 附加说明

无=丁晴橡胶 V=氟橡胶
No code=NBR seals
V=FPM seals

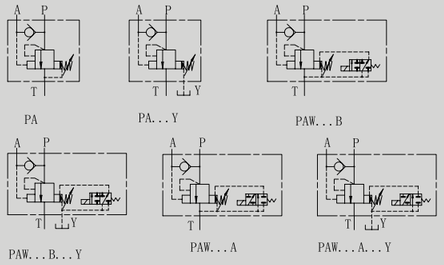
Y=先导控制油内供外排
XY=先导控制油外供外排(仅PB20K)
Y = Internally pilot, externally drained
XY = Externall pilot, externally drained
(Only for PB20K)

压力等级 Pressure rating
50=5 MPa 100=10 MPa 200=20 MPa 315=31.5 Mpa

PA/PAW 型先导式卸荷阀

PA/PAW SERIES PILOT OPERATED UNLOADING VALVES

符号 SYMBOL



PA/PAW型阀是先导控制的卸荷溢流阀。此系列主要作用是在有蓄能器系统中当蓄能器工作时使油泵卸荷；在高低压油泵系统中使高压泵工作，使低压泵卸荷。

PA/PAW series are pilot operated pressure unloading valves. This series are used to unload the oil pumps' pressure in a hydraulic system with accumulator. The valve allows high-pressure pump to operate and low-pressure pump to unload pressure.

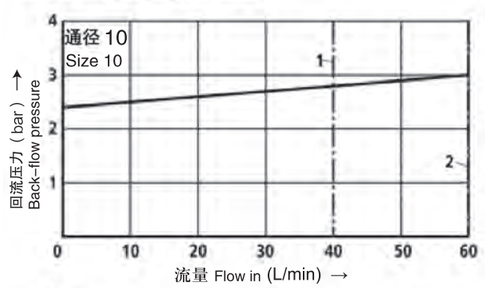
技术参数 Technical data

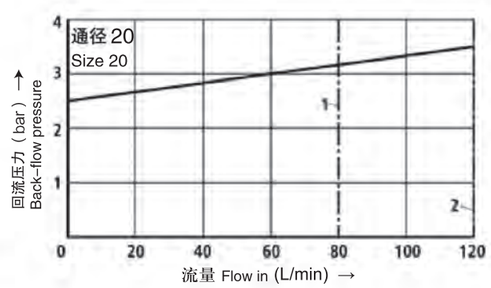
通径 Size	10	20	30
工作压力(Mpa) Operating pressure(Mpa)	31.5		
最大流量(L/min) Max .flow rate(L/min)	40	100	250
阀体（材料）表面处理 Valve body（Material）Surface treatment	铸件 表面喷蓝漆 casting surface blue paint		
油液清洁度/Oil cleanliness	NAS1638 9级和ISO4406 20/18/15级 NAS1638 class 9 and ISO4406 class 20/18/15		

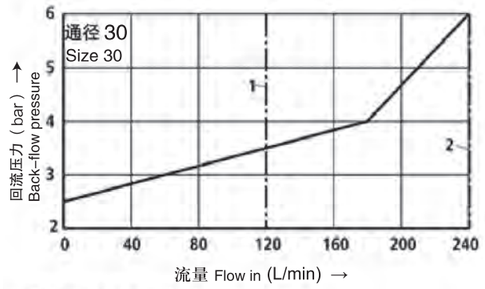
特性曲线（在使用 HLP46，$\vartheta_{油}$=40℃±5℃时测得）

Characteristic curves（measured with HLP46，Voil=40℃±5℃）

回流压力与泵流量q_{vp}(P → A) Back–flow pressure and Pump flow







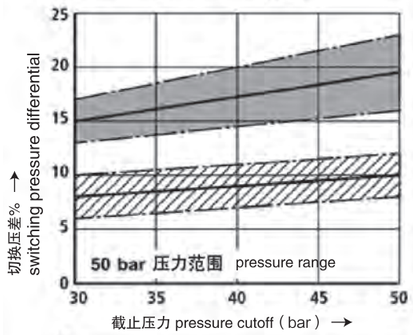
1 $q_{v\,p_{max}}$ 用于10%型　1 $q_{v\,p_{max}}$ for type 10%

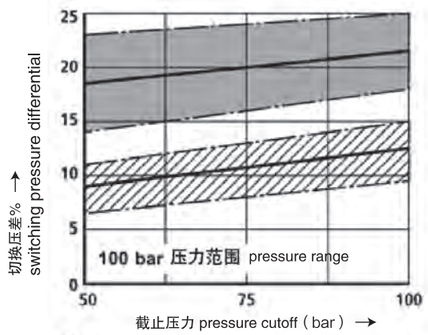
2 $q_{v\,p_{max}}$ 用于17%型　2 $q_{v\,p_{max}}$ for type 17%

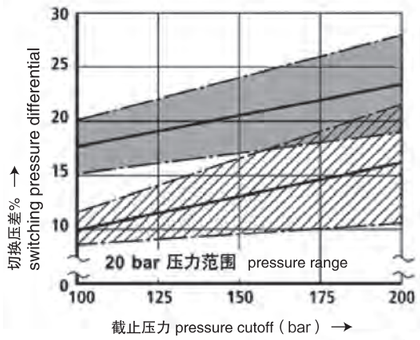
这些特性曲线在整个流量范围内对出口压力（T）=0 有效

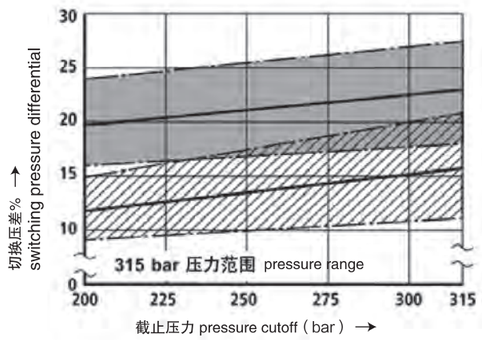
All these curves are available when output pressure（T）=0 with the flow ranges.

切换压差与截止压力(P → A)的关系 Characteristic of switching pressure differential and pressure cutoff（P→A）





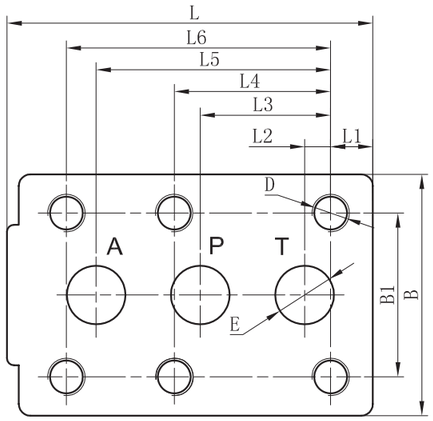




= 10% 型变化范围
Type 10% variation range

= 17% 型变化范围
Type 17% variation range

底板安装尺寸 Subplate Installation dimensions



通径 Size	L	L1	L2	L3	L4	L5	L6	B	B1	D	E	PA/重量(千克) Weight(KGS)	PAW/重量(千克) Weight(KGS)
10	94	16.6	7.1	35.7	42.9	62.7	/	84	66.7	4–M10/20	3–Φ10	3.8	5.3
20	158	14.3	11.1	55.6	66.7	100	112.7	103	66.9	6–M16/25	3–Φ25	7.9	9.4
30	199	14.8	12.7	76.2	88.9	127	139.7	118.5	82.5	6–M18/25	3–Φ32	12.3	13.8

PA | W | 10 | A – 1 | 60 / 80 | Y | DC24 | N | Z5L / V | *

型号 Model

无 = 不带电磁阀
W = 带电磁阀
No code=Without directional valve
W=With directional valve

通径：10；20；30
Size=10;20;30

A=常闭 B=常开
A=Normally closed;B=Normally open

1=带手柄；2 = 带保护调节螺栓
1=Adjustable knob
2=Hexagonal nut and protective cap

系列号 Series Number

80=2–8MPa；160 = 8–16MPa；315 = 16–31.5MPa

无 = 内供内排；Y = 内供外排
No code=Internally piloted,internally drained
Y=Internally piloted;externally drained

AC220=交流220V；DC24 = 直流24V
AC220=AC 220V;DC24=DC 24V

无 = 没有故障检查按钮
N = 有故障检查按钮
No code=Without manual override
N=With manual override

Z5L=带灯的大方形插头
Z5L=Large quadrate plug with light

无=丁晴橡胶
V=氟橡胶
No code=NBR seals
V=FPM seals

附加说明
For further details

PR型 60/6X系列先导式减压阀

PR TYPE60/6X SERIES PILOT OPERATED PRESSURED REDUCING VALVES

符号 SYMBOL

PR型减压阀是先导控制的减压阀，用于降低系统中某一回路的压力和需要平稳油源的回路。
6X系列PR型阀与60系列PR型阀都具有相同的连接方式，相同的压力调节形式。6X系列PR型阀性能优于60型PR阀，其具有更平稳的调压性能，在大流量情况下有较低的输出压力，通流能力和调压范围大的特点。

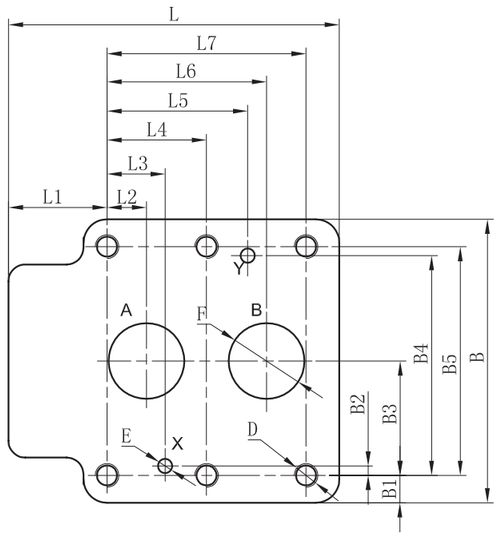
PR are pilot operated pressure reducing valves, which can be used to reduce and maintain pressure in a certain circuit.
Although, 6X series and 60 series with same connection and pressure control, the capability of 6X series is better than 60 series. The 6X have more smoothly adjustable performance, it not only reaches the output pressure at low level under high flow rate, but also with the characteristics of high flow and widely pressure adjustable ranges.

技术参数 Technical data

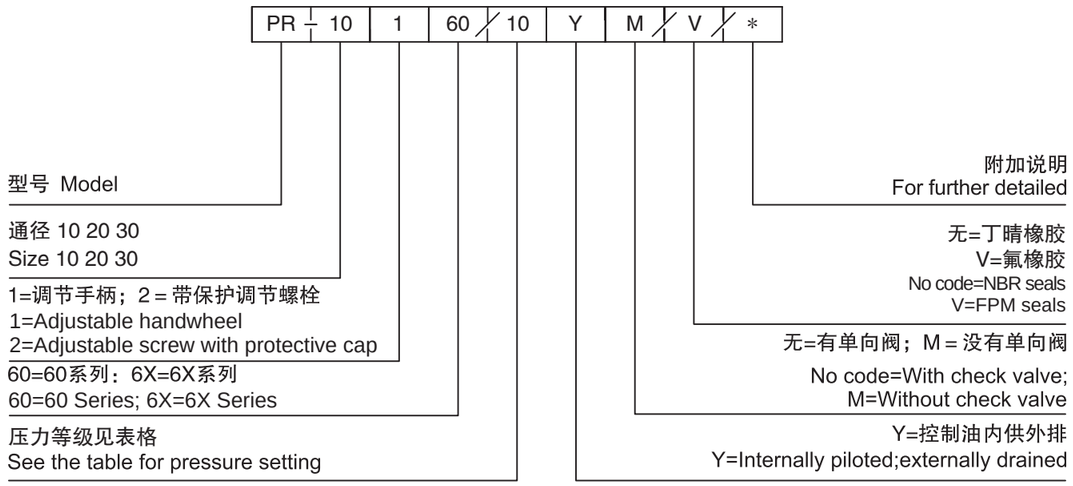
通径 Size	板式 Subplate mounting	压力等级(Mpa) Pressure range(Mpa)					重量(千克) Weight(KGS)
10	10	5	10	20	31.5	35	4
20	20	5	10	20	31.5	35	5.5
30	30	5	10	20	31.5	35	8.2
阀体（材料）表面处理 Valve body（Material）Surface treatment		铸件 表面喷蓝漆 casting surface blue paint					
油液清洁度/Oil cleanliness		NAS1638 9级和ISO4406 20/18/15级 NAS1638 class 9 and ISO4406 class 20/18/15					

通径/系列 Size/Series	10/6X	20/6X	30/6X
流量(L/min) Flow rate(L/min)	150	300	400
工作压力(Mpa) Operating pressure(Mpa)	至35/ To 35		
进口压力(Mpa) Input pressure(Mpa)	至35/ To 35		
出口压力(Mpa) Output pressure(Mpa)	1至35/1– To 35		
背压Y口(Mpa) Back pressure Y port(Mpa)	35(仅可用于不带单向阀结构)/35(Only used for without check valves)		
介质温度(℃) Fluid temperature(℃)	–20–70		
过滤精度(μm) Filtration accuracy(μm)	25		

底板安装尺寸 Subplate Installation dimensions



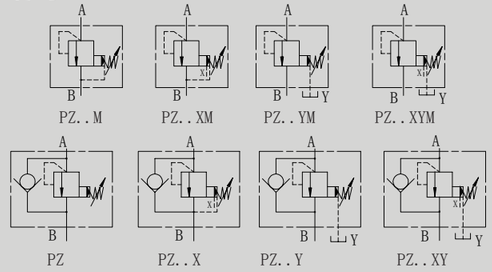
型号Model	L	L1	L2	L3	L4	L5	L6	L7	B	B1	B2	B3	B4	B5	D	E	F
PR 10	96	34.5	7.2	21.5	/	21.5	35.8	42.9	85	9.15	7.9	33.35	58.8	66.7	4–M10/24	2–Φ6	2–Φ13
PR 20	112	37	11.1	20.6	/	39.7	49.2	60.3	102	11.3	6.4	39.7	73	79.4	4–M10/24	2–Φ6	2–Φ22
PR 30	140	31.3	16.7	24.6	42.1	59.5	67.5	84.2	120	11.6	3.8	48.4	92.8	96.8	6–M10/24	2–Φ6	2–Φ32



PZ60/6X 先导顺序阀

PZ60/6X PILOT-OPERATED SEQUENCE VALVES

符号 SYMBOL



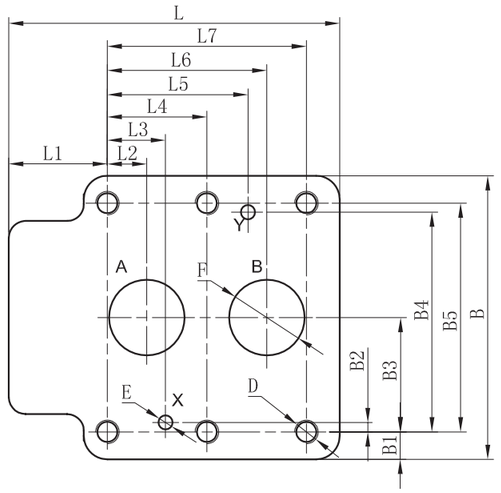
PZ型先导式顺序阀用来控制执行元件的先后动作顺序，以实现液压系统的自动控制。该阀有两种连接形式和四种控制油形式，通过改变控制油控制形式可得到不同的功能。
6X系列PZ型阀，性能优于60系列PZ型阀，具有调压平稳，调压范围大，通油能力强等特点。

PZ type pilot-operated sequence valve is used to control the sequencing, braking, unloading or other functions. The valve has two connection types and four kinds of control methods of pilot oil, therefore, it has different functions by changing the control method of pilot oil. The 6X series PZ type valve has higher performance than 60 series, with smoothly adjustable performance, widely adjustable range, high flow tare.

技术参数 Technical data

通径 Size	10	20	30
工作压力(Mpa) Operating pressure(Mpa)	31.5		
最大流量(L/min) Max .flow rate(L/min)	150	300	450
阀体（材料）表面处理 Valve body（Material）Surface treatment	铸件 表面喷蓝漆 casting surface blue paint		
油液清洁度/Oil cleanliness	NAS1638 9级和ISO4406 20/18/15级 NAS1638 class 9 and ISO4406 class 20/18/15		

底板安装尺寸 Subplate Installation dimensions



型号Model	L	L1	L2	L3	L4	L5	L6	L7	B	B1	B2	B3	B4	B5	D	E	F	重量(千克) Weight(KGS)
PZ10	96	34.5	7.2	21.5	/	21.5	35.8	42.9	85	9.15	7.9	33.35	58.8	66.7	4–M10/24	2–Φ6	2–Φ13	4
PZ20	112	37	11.1	20.6	/	39.7	49.2	60.3	102	11.3	6.4	39.7	73	79.4	4–M10/24	2–Φ6	2–Φ22	5.7
PZ30	140	31.3	16.7	24.6	42.1	59.5	67.5	84.2	120	11.6	3.8	48.4	92.8	96.8	6–M10/24	2–Φ6	2–Φ32	8.4

PZ | 10 | 1 | 60 | 210 | X | M | 2 | V | *

型号 Model

通径:10=10;25=20;32=30
Size:10=10;25=20;32=30

1=调节手柄；2＝带保护调节螺栓
1=Handwheel
2=Screw adjustment with protective cap

60=60系列：6X=6X系列
60=60 Series:6X=6X Series

210=最高调节压力21MPa
210=Max. adjustable pressure is 21Mpa

无＝内供内排;X＝外供内排
Y＝内供外排;XY＝外供外排
No code=Internal pilot,internal drain
X=External pilot,internal drain
Y=Internal pilot,external drain
XY=External pilot,external drain

附加说明
For further details

无=丁晴橡胶
V=氟橡胶
No code=NBR seals
V=FPM seals

无＝泄油口G1/4";2＝泄油口M14X1.5
No code=Drain port with G1/4";
2=Drain port with M14X1.5

无=带单向阀;M＝不带单向阀
No code=With check valve
M=Without check valve

Hanshang Hydraulic

DS型单向阀

DS SERIES CHECK VALVES

符号 SYMBOL

DS型单向阀的作用是使油液只能向一方向流动，而另一个方向止流。

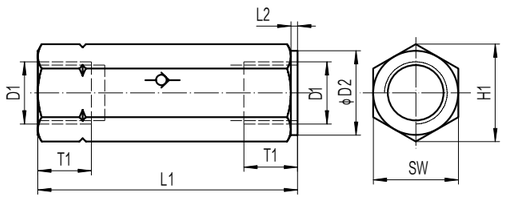
DS series check valves allow free flow in one direction and block flow in the counter direction

技术参数 Technical data

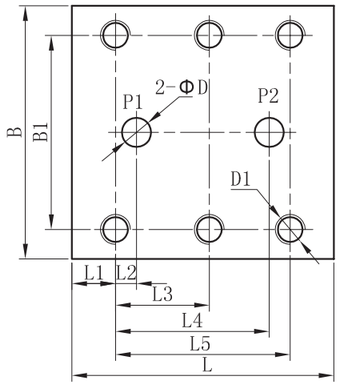
通径 Size		6	8	10	15	20	25	30
管式 Threaded connection	英制 Inch	G1/4"	G3/8"	G1/2"	G3/4"	G1"	G1 1/4"	G1 1/2"
	公制 Metric	M14X1.5	M18X1.5	M22X1.5	M27X2	M33X2	M42X2	M48X2
额定流量(L/min) Max .flow rate(L/min)		15	30	40	120	200	300	400
最高使用压力(MPa) Max .operating pressure(Mpa)		31.5						
六角对边(mm) Distance across flats(mm)		19	24	30	36	46	60	63
长度(mm) Length(mm)		58	58	72	85	98	120	132
重量(千克) Weight(KGS)		0.1	0.2	0.3	0.5	1	2.1	2.5
阀体（材料）表面处理 Valve body（Material）Surface treatment		钢件 表面发黑处理 Steel Body Surface Black Oxide						
油液清洁度/Oil cleanliness		NAS1638 9级和ISO4406 20/18/15级 NAS1638 class 9 and ISO4406 class 20/18/15						

管式安装尺寸 Threaded connection dimensions

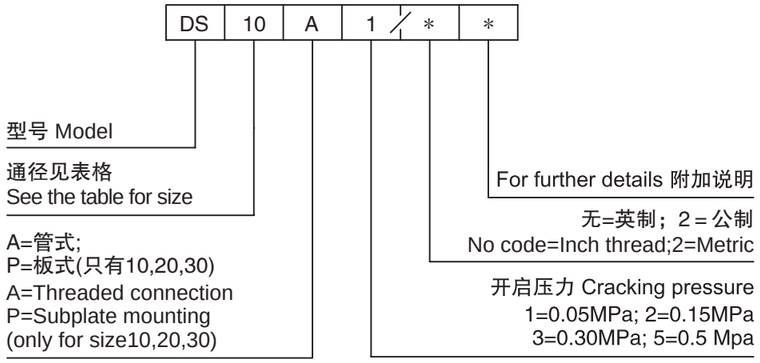
通径 size	6	8	10	15	20	25	30
D1	G1/4 "	G3/8 "	G1/2 "	G3/4 "	G1 "	G1 1/4 "	G1 1/2 "
	M14x1.5	M18x1.5	M22x1.5	M27x2	M33x2	M42x2	M48x2
ΦD2	19	24	30	36	46	60	65
H1	21.5	27	34	40.5	53	69	75
L1	58	58	72	85	98	120	132
L2	1.5	1.5	1.5	1.5	1.5	1.5	1.5
T1	12	12	14	16	18	20	22
SW	19	24	30	36	46	60	65



板式安装尺寸 Subplate dimensions



通径 Size	B	B1	L	L1	L2	L3	L4	L5	D	D1
10	87	66.7	90	23.5	7.2	—	35.8	42.9	11	4–M10/20
20	110	79.4	120	23.4	11.1	—	49.2	60.3	22	4–M10/20
30	128	96.8	148	27.8	16.7	42.1	67.5	84.2	28	6–M10/20

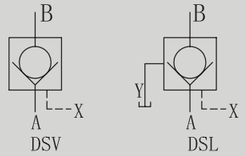


Hanshang Hydraulic

DSV/DSL型液控单向阀

DSV/DSL PILOT OPERATED CHECK VALVES

符号 SYMBOL



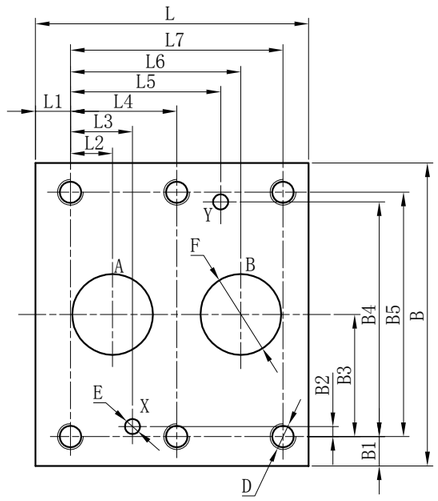
DSV/DSL型液控单向阀只允许油液从正向通过，反向则截止，可用作保压。当接通控制口X时，压力油可反向流动。
DSV型为泄漏油内部回油；DSL型为泄漏油外部回油。

DSV/DSL pilot operated check valves allow free flow in one direction and block flow in the counter direction to maintain pressure. The oil is allowed to flow in the counter direction when the X port is connected.
DSV is designed for internally drained. DSL is designed for externally drained.

技术参数 Technical data

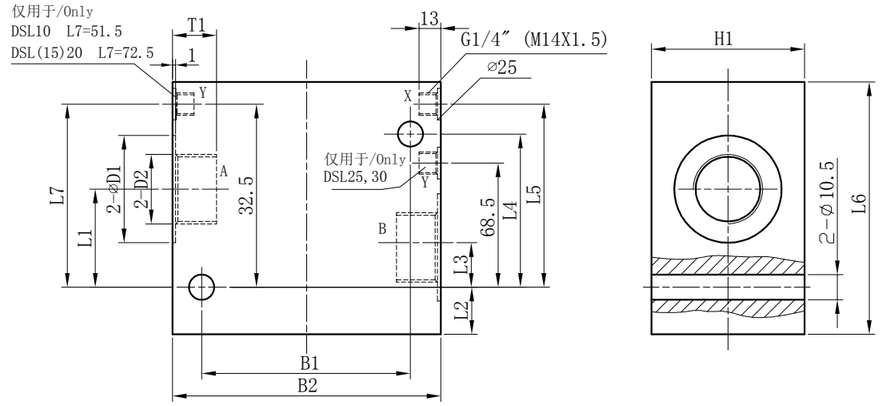
通径(板式) Size	DSV10	DSL10	DSV20	DSL20	DSV30	DSL30
X口控制容积(cm^3) Port X pilot volume(cm^3)	2.2		8.7		17.5	
Y口容积(cm^3) Port Y volume(cm^3)	—	1.9	—	7.7	—	15.8
流动方向 Direction of flow	从A→B正向流通 从B→A阀开启时反向流通 Free from A to B;From B to A by opening					
工作压力(Mpa) Operating pressure(Mpa)	31.5					
控制压力(MPa) Pilot control pressure range(MPa)	0.5–31.5					
最大流量(L/min) Max .flow rate(L/min)	80		150		300	
重量(千克) Weight(KGS)	2.5	2.3	4.3	4.6	8.5	9.2
阀体（材料）表面处理 Valve body（Material）Surface treatment	钢件 表面发黑处理 Steel Body Surface Black Oxide					
油液清洁度/Oil cleanliness	NAS1638 9级和ISO4406 20/18/15级 NAS1638 class 9 and ISO4406 class 20/18/15					

底板安装尺寸 Subplate mounting dimensions



通径 size	L	L1	L2	L3	L4	L5	L6	L7	B	B1	B2	B3	B4	B5	D	E	F
10	80	18.5	7.2	21.5	—	21.5	35.8	42.9	85	9.15	7.9	33.35	58.8	66.7	4–M10/24	2–Φ6	2–Φ13
20	95	17.5	11.1	20.6	—	39.7	49.2	60.3	102	11.3	6.4	39.7	73	79.4	4–M10/24	2–Φ6	2–Φ25
30	115	15.5	16.7	24.5	42.1	59.5	67.5	84.2	120	11.6	3.8	48.4	92.8	96.8	6–M10/24	2–Φ6	2–Φ32

管式连接尺寸 Threaded connection dimensions



型号Model	通径 size	B1	B2	D1	D2	T1	H1	L1	L2	L3	L4	L5	L6
DSV	10	66.5	85	34	G 1/2" M22X1.5	14	42	27.5	18.5	10.5	33.5	49	80
	15	79.5	100	42	G 3/4" M27X2	16	57	36.7	17.3	13.3	50.5	67.5	95
	20	79.5	100	47	G1" M33X2	18	57	36.7	17.3	13.3	50.5	67.5	95
	25	97	120	56	G 1 1/4" M42X2	20	75	54.5	15.5	20.5	73.5	89.5	115
	30	97	120	61	G1 1/2" M48X2	22	75	54.5	15.5	20.5	73.5	89.5	115
DSL	10	66.5	85	34	G 1/2" M22X1.5	14	42	22.5	18.5	10.5	33.5	49	80
	15	79.5	100	42	G 3/4" M27X2	16	57	30.5	17.5	13	50.5	72.5	100
	20	79.5	100	47	G1" M33X2	18	57	30.5	17.5	13	50.5	72.5	100
	25	97	120	56	G 1 1/4" M42X2	20	75	54.5	15.5	20.5	84	99.5	125
	30	97	120	61	G1 1/2" M48X2	22	75	54.5	15.5	20.5	84	99.5	125

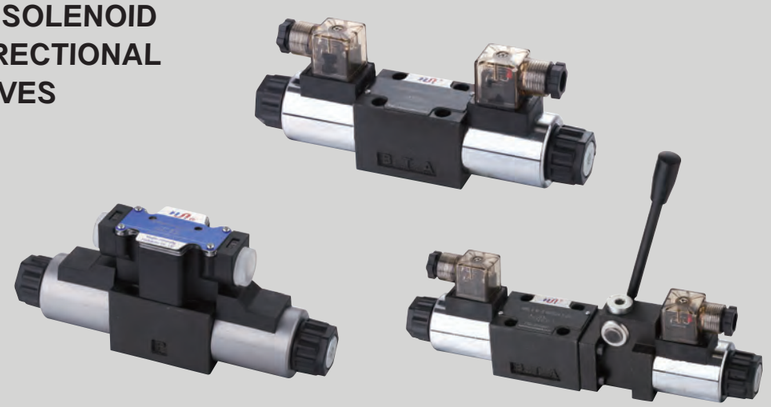
DS | V | 10 | P | A | 1 | 30 | 2 | V | *

- For further details附加说明
- 无=丁晴橡胶 V=氟橡胶 / No code=NBR seals for petroleum oils V=FPM seals for phosphate ester
- 无=英制；2=公制 / No code=Inch thread;2=Metric
- 系列号 / Series number
- 开启压力 Cracking pressure 1=0.3MPa; 2=0.5MPa; 3=0.8MPa
- V=泄漏油内部回油 L=泄漏油外部回油 V=Internally drained(without drain port) L=Externally drained(with drain port)
- 通径 Size: 10/15/20/25/30
- P=板式:只有10,20,30；G=管式 P=Subplate mounting(Only for size10,20,30) G=Threaded connection
- A=先导式；B=直动式 A=Pilot type; B=Direct type

Hanshang Hydraulic

DWG6型电磁换向阀

DWG6 SERIES SOLENOID OPERATED DIRECTIONAL CONTROL VALVES



DWG6型方向控制阀是电磁铁操纵的换向阀，用以控制油液的开启、停止和换向。

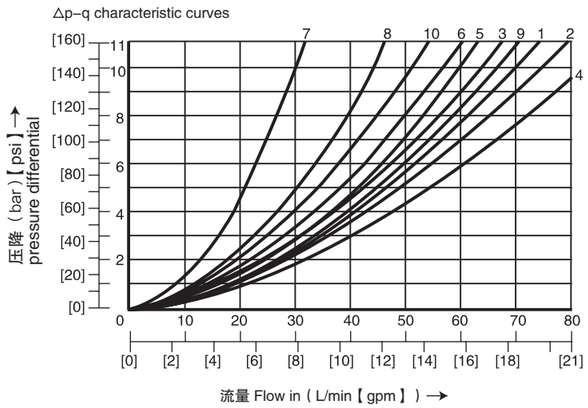
DWG6 series directional control valves are solenoid operated directional spool valves ,these valves are used to the start ,stop and direct flow.

技术参数 Technical data

通径 Size		6
最大流量(L/min) Max.flow rate(L/min)		60
工作压力(MPa) Operating pressure(MPa)		A、B、P油口31.5 / A、B、P oil port 31.5
		T油口16 / T oil port 16
不带手柄/带手柄 Without Handle/With Handle 重量(千克) Weight(KGS)	单头	1.6/2.2
	双头	2.2/2.8
阀体（材料）表面处理 Valve body（Material）Surface treatment		铸件 表面磷化处理 casting phosphating surface

特性曲线（在使用 HLP46 测量，$\vartheta_{油}$（ν =190 SUS) = 40 °C ± 5 °C [104 °F ± 9 °F]测得）

Characteristic curves（measured with HLP46，Voil=40℃ ± 5℃[104 °F ± 9 °F]）

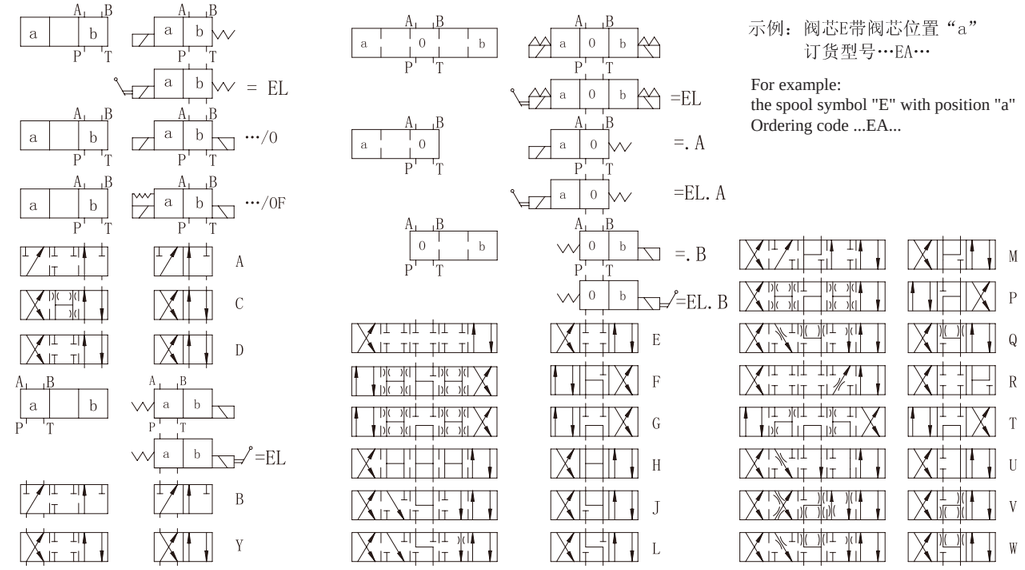


7 阀芯机能符号R处于控制位置B → A
8 阀芯机能符号G和T在中心位置
9 阀芯机能符号H和T在中心位置P → T

7 Spool symbol “R” in spool position B→A
8 Spool symbol “G” and “T” in central position
9 Spool symbol “H” and “T” in central position P→T

机能符号 Spool symbol	流向 Flow direction			
	P – A	P – B	A – T	B – T
A; B	3	3	–	–
C	1	1	3	1
D;Y	5	5	3	3
E	3	3	1	1
F	1	3	1	1
T	10	10	9	9
H	2	4	2	2
J;Q	1	1	2	1
L	3	3	4	9
M	2	4	3	3
P	3	1	1	1
R	5	5	4	–
V	1	2	1	1
W	1	1	2	2
U	3	3	9	4
G	6	6	9	9

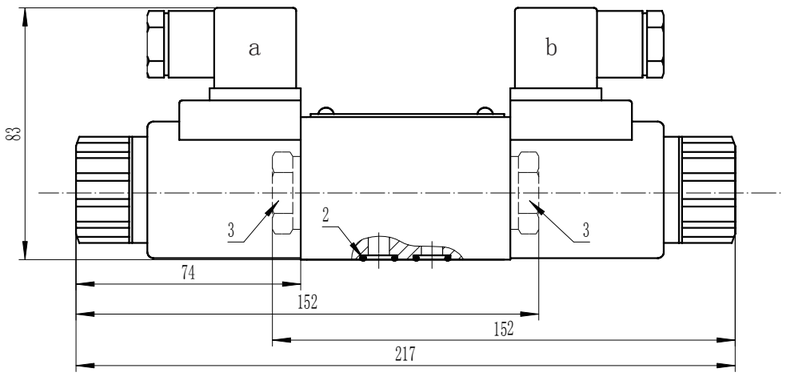
机能符号 Spool symbols



示例：阀芯E带阀芯位置“a”
订货型号…EA…

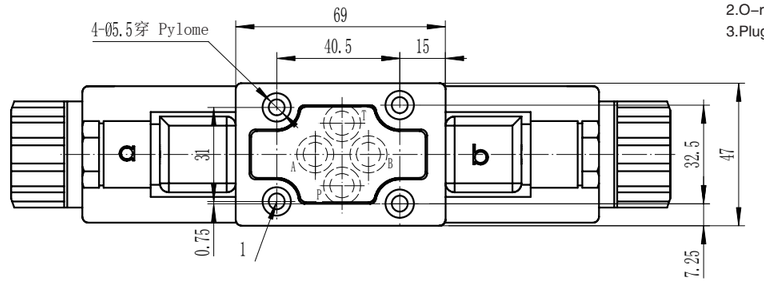
For example:
the spool symbol "E" with position "a"
Ordering code ...EA...

DWG6外型尺寸 DWG6 Subplate Installation Dimensions

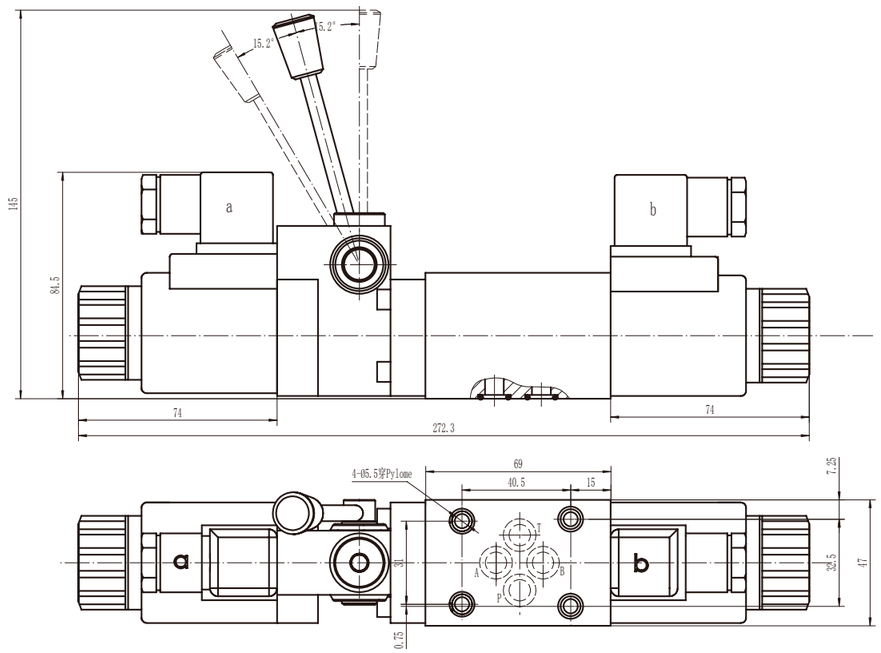


1、阀固定螺丝：
4个M5X45 GB/T70.1–12.9级
拧紧扭矩Ma=8.9Nm
2、O型圈Φ12.3X1.9
3、用于1个电磁铁阀的堵头

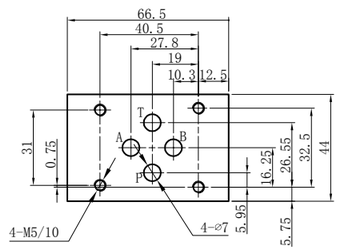
1.Valve’s set screw
4 of M5×45 GB/T70.1–12.9
Tightening torque Ma=8.9Nm.
2.O–ring φ12.3×1.9
3.Plug screw for valves with one solenoid.



DWG6–EL 外型尺寸 DWG6–EL Subplate Installation Dimensions



DWG6底板安装尺寸 DWG6 Subplate Installation Dimensions



Z1DS6,Z2DS6,Z2FDS6,ZPB6,ZPR6
安装尺寸相同

Installations are the same with
Z1DS6,Z2DS6,Z2FDS6,ZPB6,ZPR6

4	DWG	6	*	—	E	60	/	*	DC24	N	Z5L	/	*	*	*

3=三油口
4=四油口
3=3-way
4=4-way

通径 6 Size 6

1、无=不带手动换向模块
2、EL=带手动换向模块
1.No code=Without hand lever
2.EL=With hand lever

机能符号 Spool type

系列号 60=60螺纹连接电磁铁
Series 60=60 Solenoid coils with thread connection

无=弹簧复位;O=无复位弹簧;OF=带定位器
No code=With spring return;O=Without spring return
OF=Without spring return with detent

电压 Voltage
DC12;DC24 ;AC110;AC220

For further details 附加说明

无=丁晴橡胶 V=氟橡胶
No code=NBR seals
V=FPM seals

无=无插装节流器 B0.8=节流孔径0.8
B10=节流孔径1.0;B12=节流孔径1.2
No code=Without orifice insert
B08=Orifice size0.8mm
B10=Orifice size1.0mm
B12=Orifice size1.2mm

Z5L=带灯大方形插头
ZC=防水插头 JS=接线盒
Z5L=Large quadrate plug with light
ZC=Waterproof connector
JS=Wire box connector

N=有故障检查按钮;无=没有故障检查按钮
N =With concealed manual override
No Code =Without concealed manual override

Hanshang Hydraulic

DWG10型电磁换向阀

DWG10 SERIES SOLENOID OPERATED DIRECTIONAL CONTROL VALVES

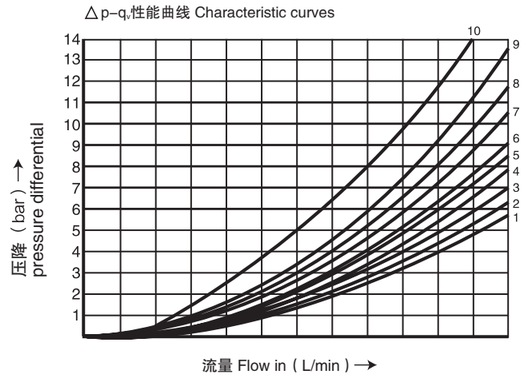
DWG10型方向控制阀是电磁铁操纵的换向阀，用以控制油液的开启、停止和换向。

DWG10 series directional control valves are solenoid operated directional spool valves,these valves are used to the start ,stop and direct flow.

技术参数 Technical data

通径 Size		10
最大流量(L/min) Max.flow rate(L/min)		120
工作压力(MPa) Operating pressure(MPa)		A、B、P油口31.5 / A、B、P oil port 31.5
		T油口16 / T oil port 16
重量(千克) Weight(KGS)	单头	4.6
	双头	6
阀体（材料）表面处理 Valve body（Material）Surface treatment		铸件 表面磷化处理 casting phosphating surface
油液清洁度/Oil cleanliness		NAS1638 9级和ISO4406 20/18/15级 NAS1638 class 9 and ISO4406 class 20/18/15

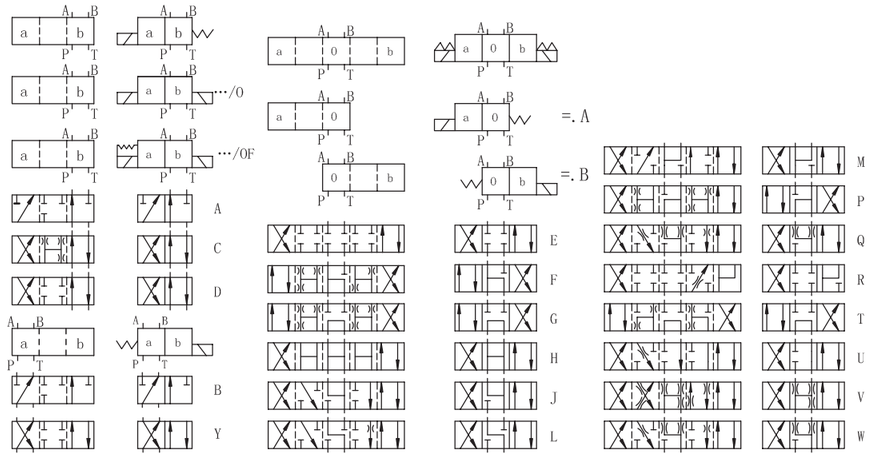
特性曲线（在使用 HLP46，$\vartheta_{油}$=40℃±5℃时测得）
Characteristic curves（measured with HLP46，Voil=40℃±5℃）



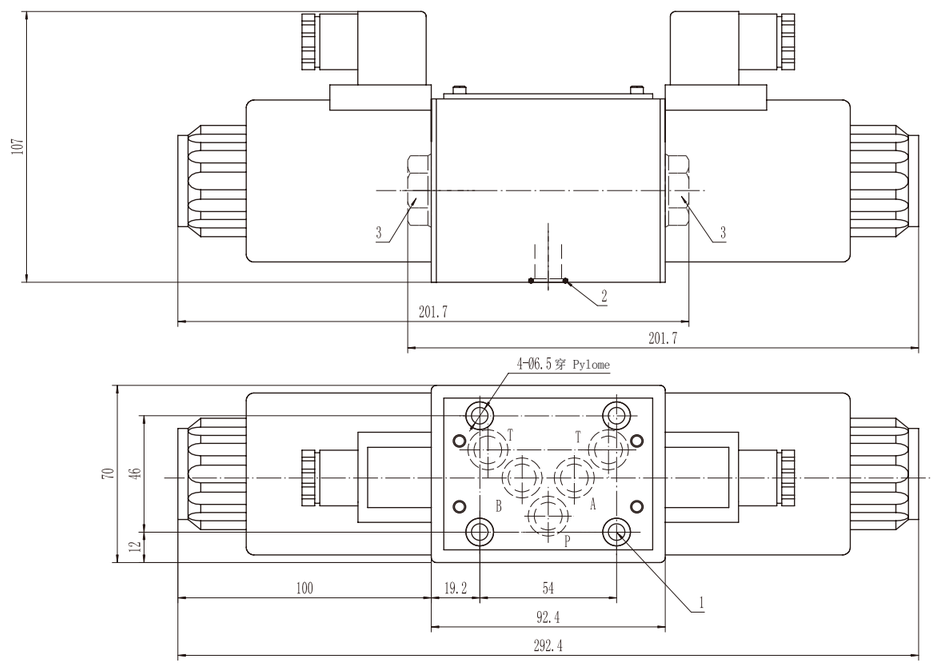
机能符号 Spool symbol	流向 Flow direction P→A	P→B	A→T	B→T
A; B	3	3	–	–
C	3	3	4	5
D;Y	5	5	6	6
E	1	1	4	4
F	2	3	7	4
G	3	3	6	7
H	1	1	6	7
J	1	1	3	3
L	2	2	3	5
M	1	1	4	5
P	4	2	5	7
Q	1	2	1	3
R	3	6	4	–
T	3	3	6	7
U,V	2	2	3	3
W	2	2	4	5
接通位置 on-positon	P–A	B–A	A–T	P–T
R	–	9	–	–

	P–A	P–B	B–T	A–T	P–T
F	4	–	–	9	9
9	–	5	8	–	10
G,T			–	–	9
H			–	–	3

机能符号 Spool symbols



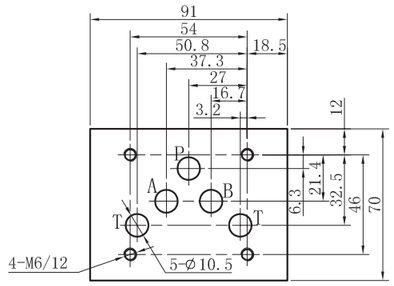
DWG10外型尺寸 DWG10 Subplate Installation Dimensions



1、阀固定螺丝：
4个M6X40 GB/T70.1-12.9级
拧紧扭矩Ma=15.5Nm
2、O型圈Φ16X1.9
3、用于1个电磁铁阀的堵头

1.Valve’s set screw:
4 of M6×40 GB/T70.1-12.9
Tightening torque Ma=15.5Nm.
2.O-ring φ16×1.9
3.Plug screw for valves with one solenoid.

DWG10底板安装尺寸 DWG10 Subplate Installation Dimensions



Z1DS10,Z2DS10,Z2FDS10,ZPB10,
ZPR10 安装尺寸相同
Installations are the same with
Z1DS10,Z2SD10,Z2FDS10,ZPB10,
ZPR10

4 | DWG | 10 | E | 30 / * | DC24 | Z5L / * | * | *

3=三油口
4=四油口
3=3-way
4=4-way

通径 10 Size 10

机能符号 Spool type

系列号 30=30螺纹连接电磁铁
Series 30=30 Solenoid coils with thread connection

O=无复位弹簧;OF=带定位器;无=弹簧复位
No code=With spring return;O=Without spring return
OF=Without spring return with deten

电压 Voltage
DC12;DC24 ;AC110;AC220

For further details 附加说明

无=丁晴橡胶 V=氟橡胶
No code=NBR seals
V=FPM seals

无=无插装节流器 B0.8=节流孔径0.8
B10=节流孔径1.0;B12=节流孔径1.2
No code=Without orifice insert
B0.8=Orifice size0.8mm
B10=Orifice size1.0mm
B12=Orifice size1.2mm

Z5L=带灯大方形插头
Z5L=Large quadrate plug with light

Hanshang Hydraulic

DWHG型电液换向阀

DWHG SERIES SOLENOID PILOT OPERATED DIRECTIONAL VALVES

DWHG型电液换向阀是用电磁换向阀作为先导控制的滑阀式换向阀，用于控制液流的通断和流动方向。

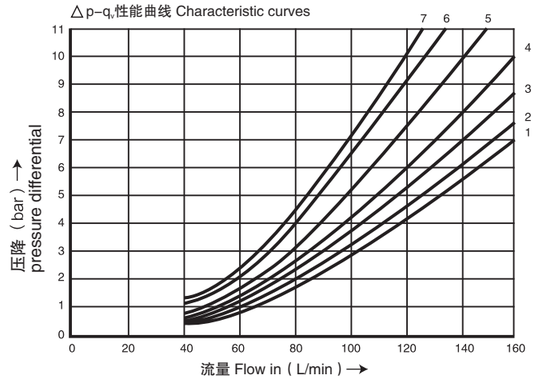
DWHG series are solenoid pilot operated spool type valves . This series are used to control the start ,stop and direction of flow.

技术参数 Technical data

通径 Size		10	16	22	25	32
最高工作压力 P A B(MPa) Max operating pressure P.A.B(MPa)		31.5	35	31.5	35	35
T口(MPa) T Port (MPa)	控制油外排 Externally drained	31.5	25	25	25	25
	控制油内排 Internally drained	交流(AC)–10	交流(AC)–10	交流(AC)–10	交流(AC)–10	交流(AC)–10
		直流(DC)–16	直流(DC)–16	直流(DC)–16	直流(DC)–16	直流(DC)–16
Y口(MPa) Y Port (MPa)	控制油外排 Externally drained	交流(AC)–10	交流(AC)–10	交流(AC)–10	交流(AC)–10	交流(AC)–10
		直流(DC)–16	直流(DC)–16	直流(DC)–16	直流(DC)–16	直流(DC)–16
最小控制压力 (MPa) Min. Pilot pressure(MPa)		0.45–1	0.45–1.3	0.45–1	0.45–1	0.45–1
最大流量(L/min) Max. flow rate(L/min)		160	300	450	650	1100
重量(千克) Weight(KGS)		6.7	9.5	12	18	38.5
阀体（材料）表面处理 Valve body（Material）Surface treatment		铸件 表面磷化处理 casting phosphating surface				
油液清洁度/Oil cleanliness		NAS1638 9级和ISO4406 20/18/15级 NAS1638 class 9 and ISO4406 class 20/18/15				

特性曲线：4DWHG10...型（在使用 HLP46，$\vartheta_{油}$=40℃±5℃时测得）

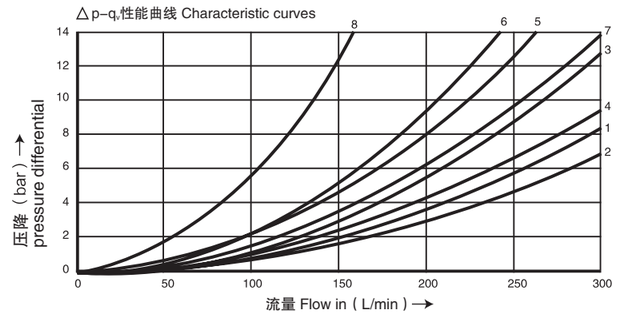
Characteristic curves：Type 4DWHG10...（measured with HLP46，Voil=40℃±5℃）



机能符号 Spool symbol	切换位置 Spool position				机能符号 Spool symbol	中位 Central position		
	P–A	P–B	A–T	B–T		A–T	B–T	P–T
E,Y,D	2	2	4	5				
F	1	4	1	4	F	3	–	6
G,T	4	2	2	6	G,T	–	–	7
H,C	4	4	1	4	H	1	3	5
J,K	1	2	1	3				
L	2	3	1	4	L	3	–	–
M	4	4	3	4				
P	4	1	3	4	P	–	7	5
Q,V,W,Z	2	2	3	5				
R	2	2	3	–				
U	3	3	3	4	U	–	4	–

特性曲线：4DWHG16...型（在使用 HLP46，$\vartheta_{油}$=40℃±5℃时测得）

Characteristic curves：Type 4DWHG16...（measured with HLP46，Voil=40℃±5℃）

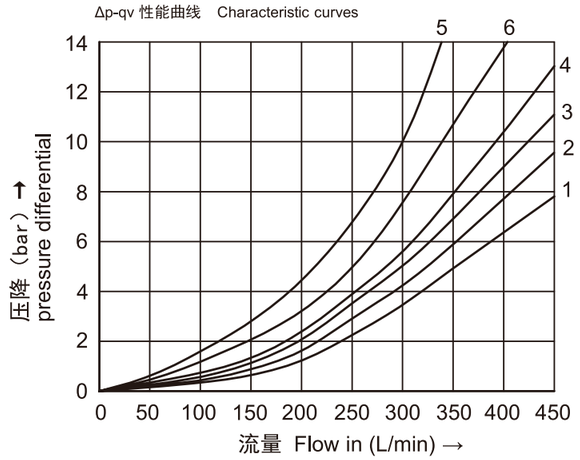


机能符号 Spool symbol	切换位置 Spool position				
	P–A	P–B	A–T	B–T	P–T
E,D,Y	1	1	1	3	–
F	2	2	3	3	–
G,T	5	1	3	7	6
H,C,Q,V,Z	2	2	3	3	–
J,K,L	1	1	3	3	–

机能符号 Spool symbol	切换位置 Spool position				
	P–A	P–B	A–T	B–T	P–T
M,W	2	2	4	3	–
R	2	2	4	–	–
U	1	1	4	7	–
S	4	4	4	–	8

特性曲线：4DWHG22...型（在使用 HLP46，$\vartheta_{油}$=40℃±5℃时测得）

Characteristic curves：Type 4DWHG22...（measured with HLP46，Voil=40℃±5℃）

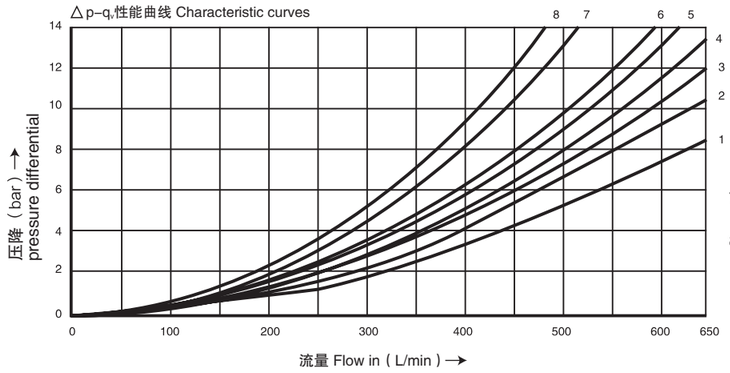


机能符号 Spool symbol	切换位置 Spool position					
	P–A	P–B	A–T	B–T	P–T	B–A
E	2	2	1	4	–	–
F	1	2	1	2	4	–
G	2	2	2	4	6	–
H	2	2	1	3	2	–
J	2	2	1	3	–	–
L	2	2	1	2	–	–
M	2	2	1	4	–	–
P	2	2	1	4	6	–
Q	2	2	1	4	–	–
R	1	2	1	–	–	5
T	2	2	2	4	5	–
U	2	2	1	4	–	–
V	2	2	1	4	–	–
W	2	2	1	3	–	–

4 机能符号L Spool symbol L
中位A – T Central position A – T
6 机能符号U Spool symbol U
中位B – T Central position B – T

特性曲线：4DWHG25...型（在使用 HLP46，$\vartheta_{油}$=40℃±5℃时测得）

Characteristic curves：Type 4DWHG25...（measured with HLP46，Voil=40℃±5℃）



7 机能符号 G Spool symbol G
中位P – T Central position P – T
8 机能符号 T Spool symbol T
中位P – T Central position P – T

机能符号 Spool symbol	切换位置 Spool position			
	P–A	P–B	A–T	B–T
E	1	1	1	3
F	1	4	3	3
G	3	1	2	4
H	4	4	3	4
J,Q	2	2	3	5

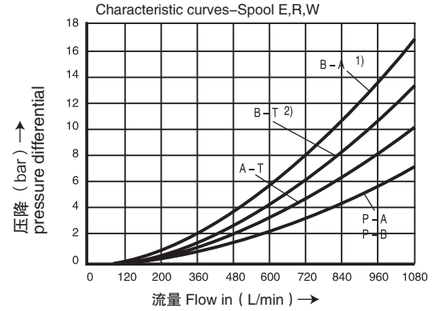
机能符号 Spool symbol	切换位置 Spool position			
	P–A	P–B	A–T	B–T
L	2	2	3	3
M	4	4	1	4
P	4	1	1	5
R	2	1	1	–

机能符号 Spool symbol	切换位置 Spool position			
	P–A	P–B	A–T	B–T
U	4	1	1	6
V	2	4	3	6
W	1	1	1	3
T	3	1	2	4

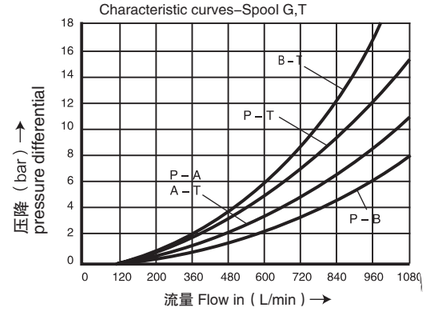
特性曲线：4DWHG32...型（在使用 HLP46，$\vartheta_{油}$=40℃±5℃时测得）

Characteristic curves：Type 4DWHG32...（measured with HLP46，Voil=40℃±5℃）

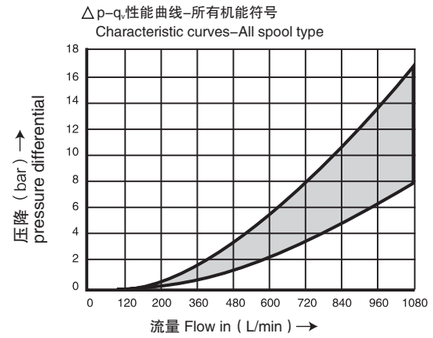
△p–q,性能曲线–机能符号E,R,W
Characteristic curves–Spool E,R,W



△p–q,性能曲线–机能符号G,T
Characteristic curves–Spool G,T



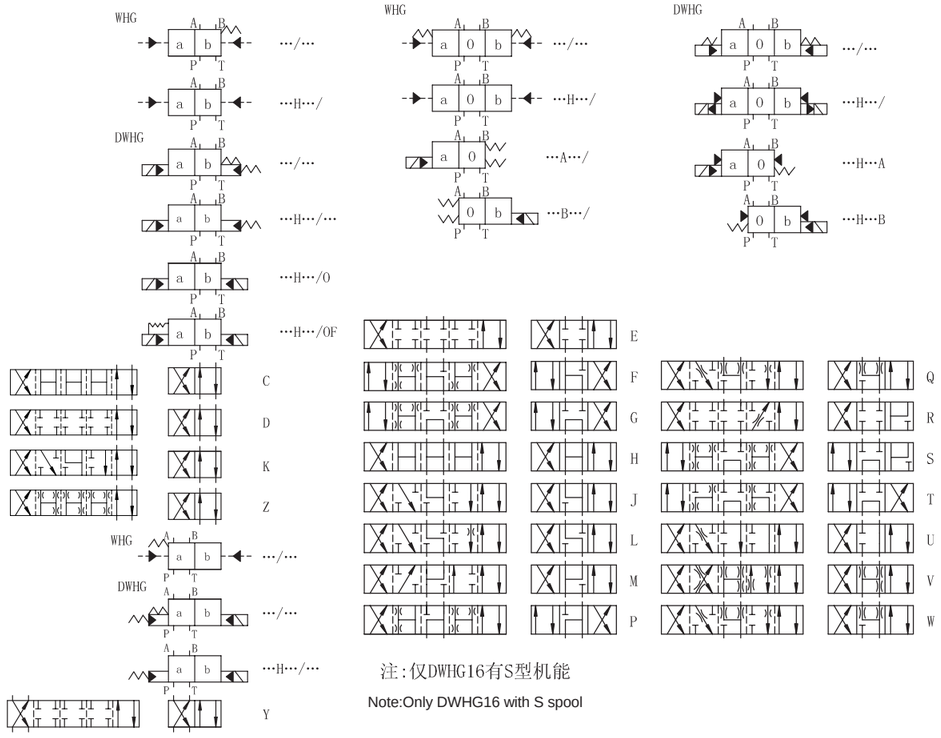
△p–q,性能曲线–所有机能符号
Characteristic curves–All spool type



1) 仅用于机能符号 R
2) 不用于机能符号 R

1) Only applicable for spool R
2) Not applicable for spool R

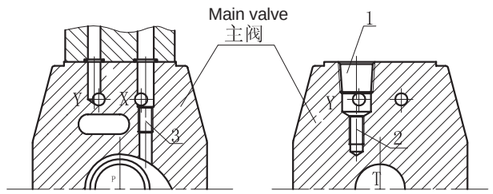
机能符号 Spool symbols



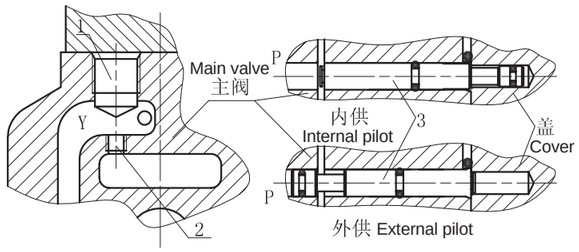
注：仅DWHG16有S型机能

Note:Only DWHG16 with S spool

控制油内供与外供及内排与外排的说明 Pilot fluid supply



DWHG10 型供排结构图
DWHG10 explanation partial drawing



DWHG16 型供排结构图
DWHG16 explanation partial drawing

一、4DWHG10型

1、内供与外供转换:主阀体顶上P孔中有M6螺钉3为外供，拆下M6螺钉3为内供。

2、内排与外排转换:卸去螺塞1，装上M6螺钉2为外排，拆下M6螺钉为内排。

二、4DWHG16型

1、内供与外供转换：拆下右盖，将销3的小头朝向主阀内装成外供，将销3的小头朝外装成内供。

2、内排与外排转换：将主阀顶上螺塞1拆下，装上M6螺钉2成外排，拆下M6螺钉2成内排。

1、4DWHG10

(1) Internal pilot and external pilot:
The“P”port with M6 screw 3 is external pilot,to convert valve into internal pilot, the M6 screw 3 must be removed.

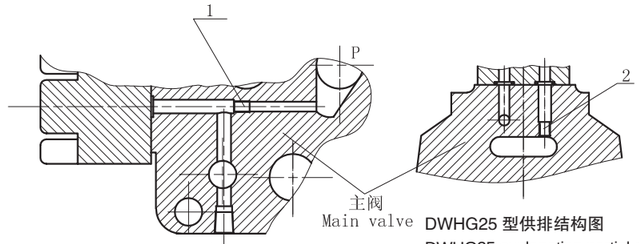
(2) Internal drain and external drain:
Removing the bolt 1, to install M6 screw 2 is external drain,unscrew the M6 screew 2 is internal drain.

2、4DWHG16

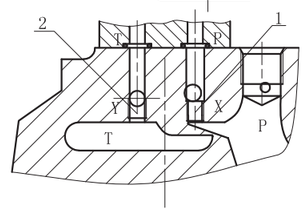
(1) Internal pilot and external pilot:
Removing the sideward cover, installing the pin to allow “P” port with open position is internal pilot, to convert the pin into “P” port with plugged position is external drain.

(2) Internal drain and external drain:
Removing the bolt 1 and installing M6 screw 2 is external drain, unscrew the M6 screw 2 is internal drain.

控制油内供与外供及内排与外排的说明 Pilot fluid supply



DWHG25 型供排结构图
DWHG25 explanation partial drawing



DWHG32 型供排结构图
DWHG32 explanation partial drawing

三、4DWHG25型

1、内供与外供转换：拆下端盖，装上M6螺钉 1 外供，拆下M6螺钉 2 成内供。

2、内排与外排转换：将主阀顶上T孔中的M6螺钉2拆下为内排，装上为外排。

四、4DWHG32型

1、内供与外供转换：将主阀顶上P孔中的M6螺钉1 装上成外供,拆下为内供。

2、内排与外排转换：将主阀顶上T孔中的M6螺钉2装上为外排，拆下为内排。

注意事项：内供时必须把底板上X口堵住，内排时必须把底板上Y口堵住。

3、4DWHG25

(1) Internal pilot and external pilot:
Removing the sideward cover,installing M6 screw 1 is external pilot,unscrew the M6 screw 2 is internal pilot.

(2) Internal drain and external drain:
Removing the M6 screw 2 in the “T”port on the top of main valve is internal drain, installing the M6 screw 2 is external drain.

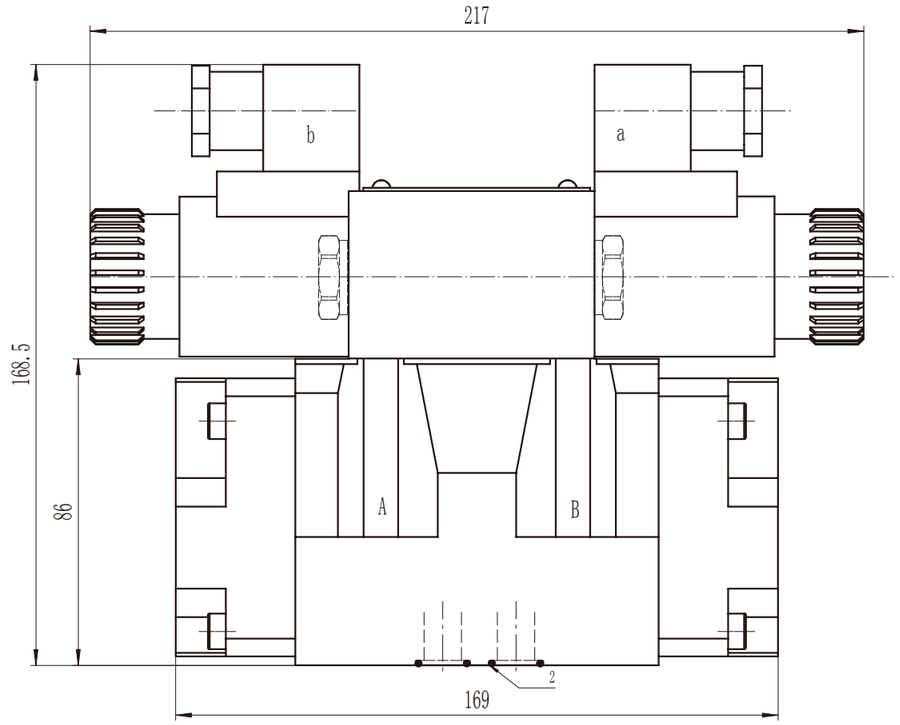
4、4DWHG32

1、Internal pilot and external pilot:
Installing the M6 screw 1 in the“P”port on the top of main valve is external pilot；removing the M6 screw 1 is internal pilot.

2、Internal drain and external drain:
Removing the M6 screw 2 in the“T”port on the top of main valve is external drain；installing the M6 screw 2 is internal drain.

NOTE : 1.The “X” port on the base plate must be plugged if internal pilot.
2.The “Y” port on the base plate must be plugged if internal drain.

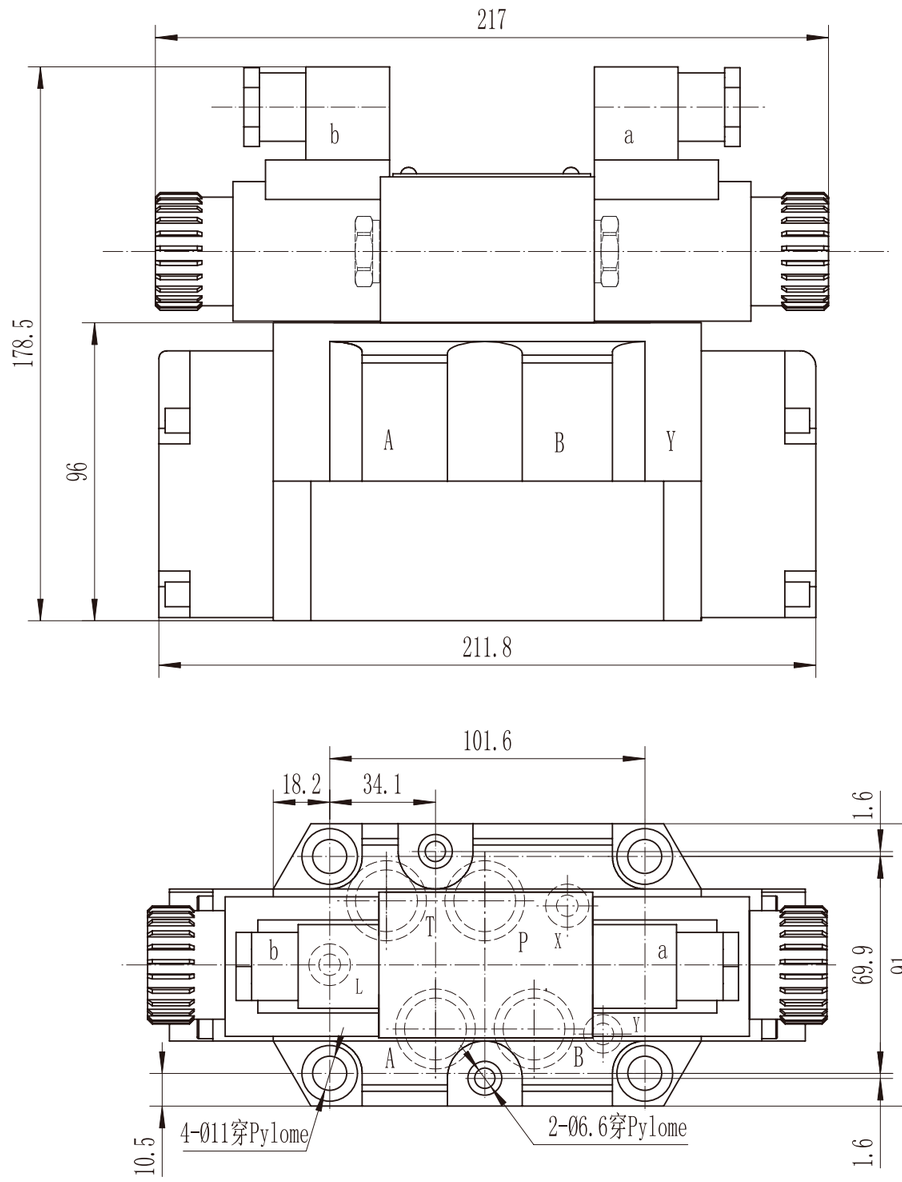
4DWHG10外型尺寸 4DWHG10 Subplate Installation Dimensions



1、阀固定螺丝：
4个M6X45 GB/T70.1–12.9级
拧紧扭矩Ma=15.5Nm
2、0型圈Φ16X1.9

1.Valve’s set screw
4 of M6×45 GB/T70.1–12.9
Tightening torque Ma=15.5Nm.
2.O–ring φ16×1.9

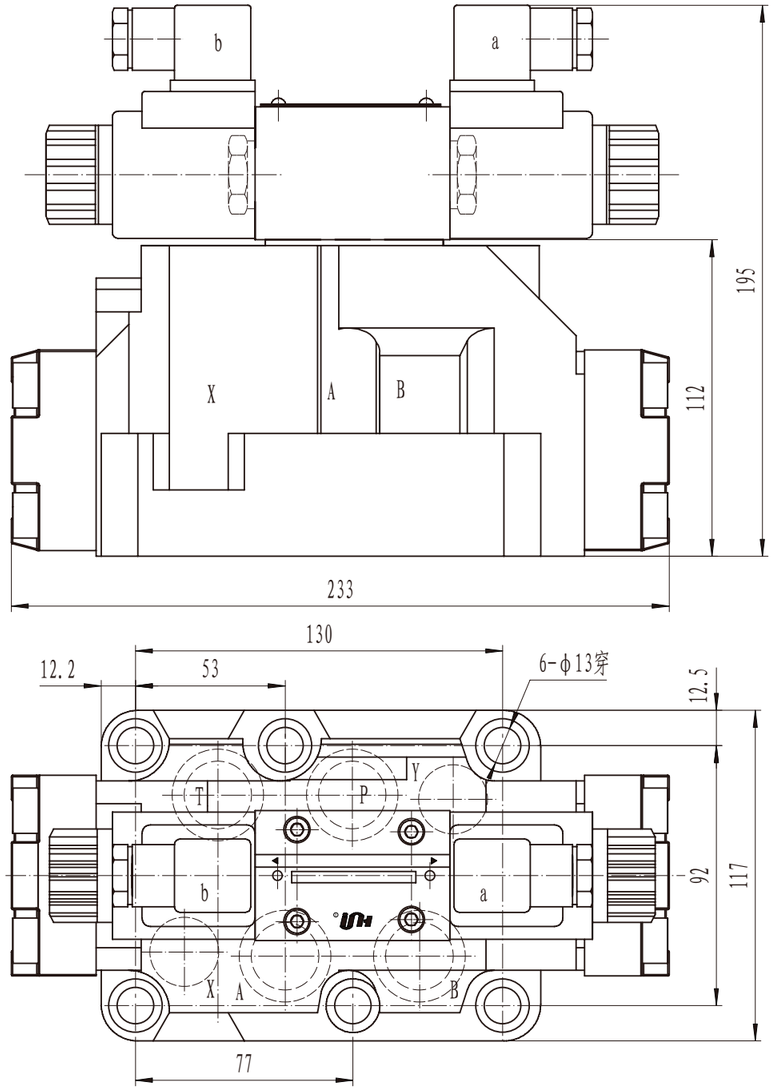
4DWHG16外型尺寸 4DWHG16 Subplate Installation Dimensions



阀固定螺钉
4个M10X60GB/T 70.1–12.9级 拧紧扭矩Ma=75Nm
2个M6X60GB/T 70.1–12.9级 拧紧扭矩Ma=15.5Nm
P.T.A.B口O型圈：Φ26X2.4
X.Y.L口O型圈：Φ15X1.9

Valve’s set screw
4 of M10×60 GB/T70.1–12.9 Tightening torque Ma=75Nm.
2 of M6×60 GB/T70.1–12.9 Tightening torque Ma=15.5Nm.
O–ring for P.T.A.B Port: φ26×2.4
O–ring for X.Y.L Port: φ15×1.9

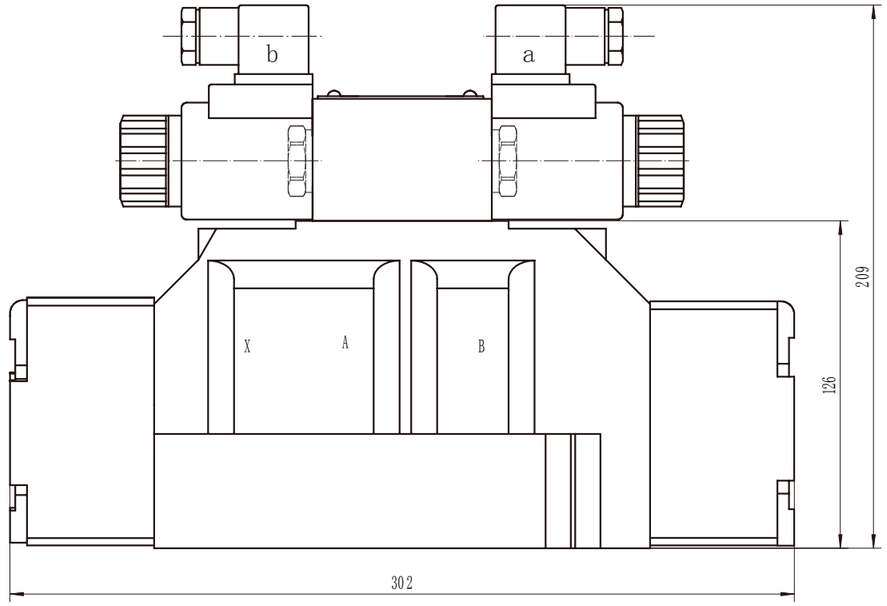
4DWHG22外型尺寸 4DWHG22 Subplate Installation Dimensions

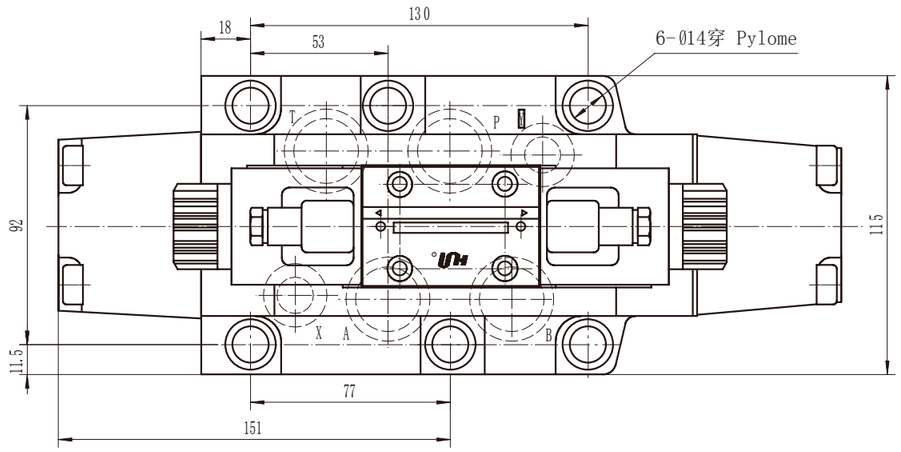


阀固定螺钉
6个M12X60GB/T 70.1–12.9级 拧紧扭矩Ma=130Nm
P.T.A.B口0型圈：Φ31X3.1
X.Y口0型圈：Φ25X3.1

Valve’s set screw
6 of M12×60 GB/T70.1–12.9 Tightening torque Ma=130Nm.
O–ring for P.T.A.B Port: φ31×3.1
O–ring for X.Y Port: φ25×3.1

4DWHG25外型尺寸 4DWHG25 Subplate Installation Dimensions

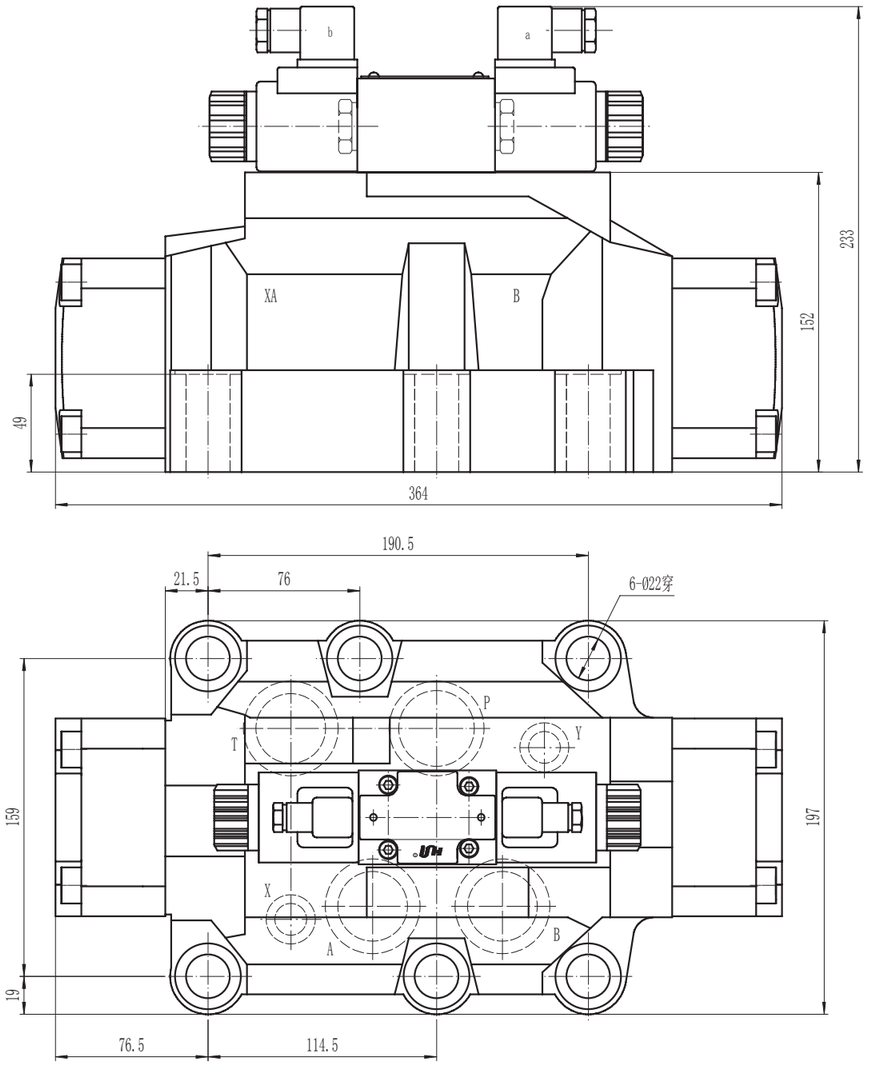




阀固定螺钉
6个M12X60 GB/T 70.1–12.9级 拧紧扭矩Ma=130Nm
A.B.P.T口0型圈：Φ34X3.1
X.Y口0型圈：Φ25X3.1

Valve’s set screw
6 of M12×60 GB/T70.1–12.9 Tightening torque Ma=130Nm.
O–ring for P.T.A.B Port: φ34×3.1
O–ring for X.Y Port: φ25×3.1

4DWHG32外型尺寸 4DWHG32 Subplate Installation Dimensions

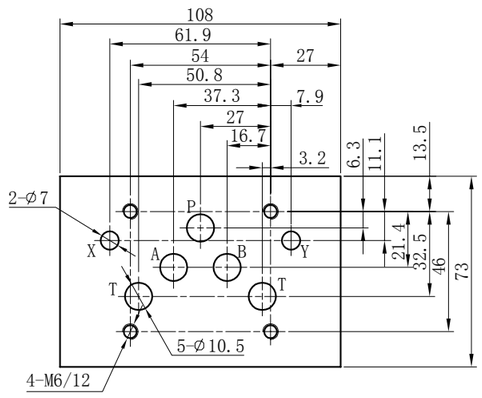


阀固定螺钉
6个M20X80 GB/T 70.1-2000 12.9级 拧紧扭矩
Ma=430Nm
A.B.P.T口O型圈：Φ42X3
X.Y口O型圈：Φ19X3

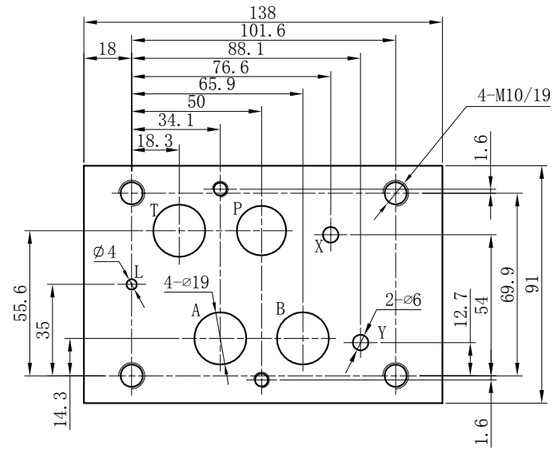
Valve’s set screw
6 of M20×80 GB/T70.1-2000 12.9 Tightening torque Ma=430Nm.
O-ring for P.T.A.B Port: ϕ42×3
O-ring for X.Y Port: ϕ19×3

底板安装尺寸 Installation dimensions

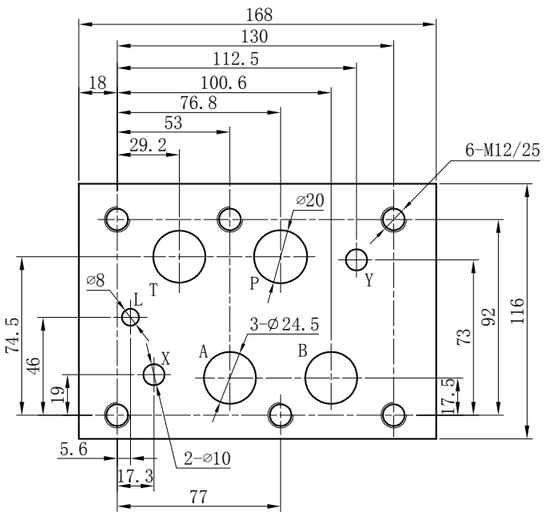
4DWHG10



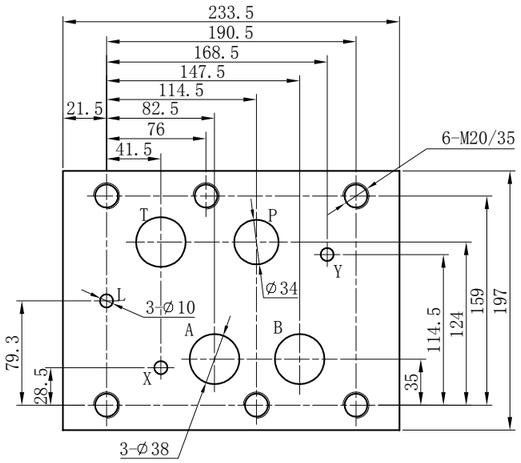
4DWHG16



4DWHG22/4DWHG25



4DWHG32



H | 4DWHG10 | * | E | 60 / * | DC24 | N | * / * | Z5L | * | * | * | *

无=28MPa
H=35MPa
No code=28MPa
H=35MPa

通径 10;16;22;25;32
Size 10;16;22;25;32

无=主阀弹簧对中
H=主阀液压对中
No code=spring return
H=Hydraulic return

见滑阀机能符号
See the function symbol of spool valve

系列30=10通径;系列60=16–32通径
Series 30=Size 10;Series 60=Size 16-32

O=导阀无复位弹簧
OF=导阀无复位弹簧，带定位器
O=Without spring return
OF=Without spring return,with detent

电压 Voltage
DC12;DC24 ;AC110;AC220

N=有故障检查按钮;无=没有故障检查按钮
N=With concealed manual override
No Code =Without concealed manual override

无=外供外排型 E=内供外排型
ET=内供内排型 T=外供内排型
No code=Externally pilot, externally drained
E=Internally pilot,externally drained
ET=Internally pilot internally drained
T=Externally pilot, internally drained

无=没有调节器
S=有调节器,进口节流 S2=有调节器,出口节流
No code=Without pilot adjustment
S=With meter-in pilot adjustment
S2=With meter-out pilot adjustment

Z5L=带灯大方形插头
Z5L=Large quadrate plug with light

无标记=不带插入式阻尼器
B0.8=节流孔径0.8 B10=节流孔径1.0
B12=节流孔径1.2 B15=节流孔径1.5
No coad if without plug-in throttleer
B0.8=Throttle orifice size 0.8
B10=Throttle orifice size 1.0
B12=Throttle orifice size 1.2
B15=Throttle orifice size 1.5

无标记=不带预压阀
P4.5=带预压阀；开启压力0.45MPa
No code=Without preload valve
P4.5=With preload valve cracking pressure is 0.45MPa

无=丁晴橡胶
V=氟橡胶
No code=NBR seals
V=FPM seals

附加说明
For further details

Hanshang Hydraulic

WHG型液动换向阀

WHG SERIES HYDRAULIC OPERATED DIRECTIONAL VALVES

WHG型液动换向阀是用控制油液发出的液讯号使主阀芯移动来实现的油路的换向。

WHG series hydraulic operated directional valves can be used to change the direction of hydraulic oil by moving the main spool when the valve receives a hydraulic signal from the pilot hydraulic oil.

连接尺寸与DWHG相同，详见第43页
Installation dimensions is the same with DWHG, refer to page 43

H | WHG | * | * | G | 20 / * | * | *

无=28MPa
H=35MPa
Omit if working pressure is 28MPa
H=35MPa

型号 Model

通径 10;16;25;32
Size 10;16;25;32

无=主阀弹簧对中
H=主阀液压对中
(仅通径10：C、D、K、Z、Y可带H)
No code=spring return
H=Hydraulic return
(Only size 10:C、D、K、Z、Ywith H)

机能符号
Function symbol

系列号 20=通径10; 50=通径16,25,32
series number 20=Size 10; 50=Size 16,25,32

无=不带调节器
S=带调节器，进口节流
S2=带调节器，出口节流
No code=Without pilot adjustment
S=With meter-in pilot adjustment
S2=With meter-out pilot adjustment

无=丁晴橡胶
V=氟橡胶
No code=NBR seals for petroleum oils
V=FPM seals for phosphate ester

附加说明
For further details

Hanshang Hydraulic

DWMG 型手动换向阀

DWMG SERIES MANUALLY OPERATED DIRECTIONAL VALVES

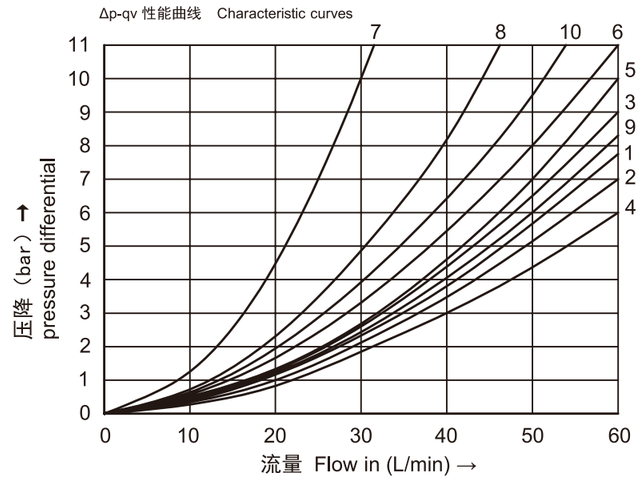
DWMG 型手动换向阀是通过手柄的操作使阀芯做轴向移动，从而对油路进行切换的直动式换向阀，采用定位器或弹簧复位装置。

DWMG series manually operated directional valves are direct type directional valves ,It can control the start ,stop & direction of fluid flow. This series with detent or return spring are available.

技术参数 Technical data

通径 Size	6	10	16	22	25	32
流量 Flow rate(L/min)	60	100	300	450	650	1100
工作压力(Mpa) Operating pressure(Mpa)	A、B、P 油口31.5 T油口16/A、B、P oil ports 31.5 T oil ports16					
重量(千克) Weight(KGS)	1.5	4.4	8.9	12.5	19.4	39.2
阀体（材料）表面处理 Valve body（Material）Surface treatment	铸件 表面磷化处理 casting phosphating surface					
油液清洁度/Oil cleanliness	NAS1638 9级和ISO4406 20/18/15级 NAS1638 class 9 and ISO4406 class 20/18/15					

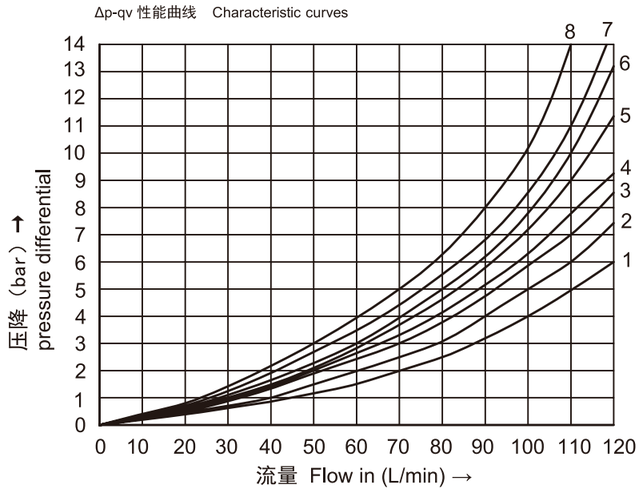
特性曲线 Characteristic curves DWMG6



7 机能符号"R" 处于控制位置b（A➡B）
Symbol "R" in spool position "b" (A → B)
8 机能符号"G" 和"T"处于中位（P➡T）
Symbols "G" and "T" in central position (P → T)

机能符号 Spool symbol	切换位置 Spool position			
	P–A	P–B	A–T	B–T
A	3	3	–	–
B	3	3	–	–
C	1	1	3	1
D	5	5	3	3
E	3	3	1	1
F	1	3	1	1
G	6	6	9	9
H	2	4	2	2
J	1	1	2	1
L	3	3	4	9
M	2	4	3	3
P	3	1	1	1
Q	1	1	2	1
R	5	5	4	–
T	10	10	9	9
U	3	3	9	4
V	1	2	1	1
W	1	1	2	2
Y	5	5	3	3

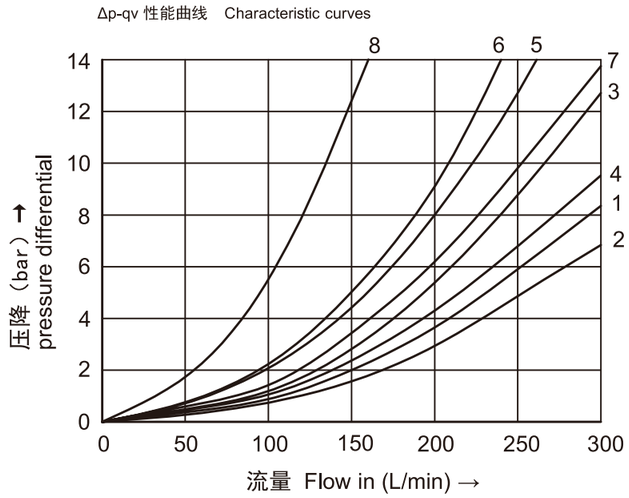
特性曲线 Characteristic curves DWMG10



8 机能符号"R" 处于控制位置b（B➡A）
Symbol "R" in spool position "b" (A → B)
8 机能符号"G" 和"T"处于中位（P➡T）
Symbols "G" and "T" in central position (P → T)

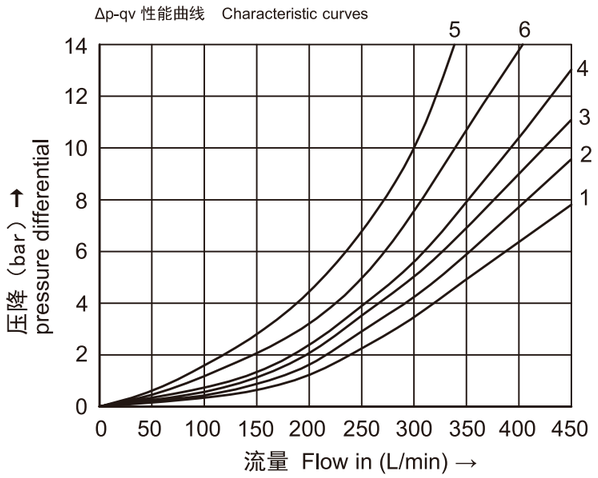
机能符号 Spool symbol	切换位置 Spool position			
	P–A	P–B	A–T	B–T
A	4	3	–	–
B	3	4	–	–
C	3	3	4	4
D	3	3	5	5
Y	4	4	6	6
E	2	2	4	4
F	1	2	3	4
G,T	4	4	7	7
H	1	1	5	5
J	2	2	3	3
L	3	3	2	4
M	1	1	4	4
P	3	1	5	5
Q	2	2	2	2
R	3	4	3	–
U	3	3	5	2
V	2	2	3	3
W	3	3	3	3

特性曲线 Characteristic curves DWMG16



机能符号 Spool symbol	切换位置 Spool position				
	P–A	P–B	A–T	B–T	P–T
E,D,Y	1	1	3	3	–
F	2	2	3	3	–
G,T	5	1	3	7	6
H,C,Q	2	2	3	3	–
V,Z	2	2	3	3	–
J,K,L	1	1	3	3	–
M,W	2	2	4	3	–
R	2	2	4	–	–
U	1	1	4	7	
S	4	4	4	–	8

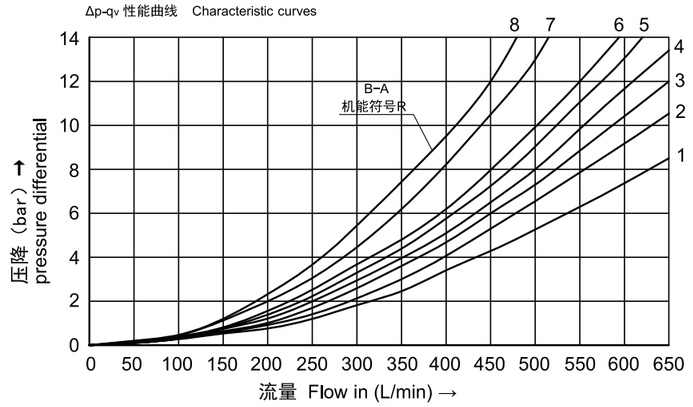
特性曲线 Characteristic curves DWMG22



机能符号 Spool symbol	切换位置 Spool position					
	P–A	P–B	A–T	B–T	P–T	B–A
E	2	2	1	4	–	–
F	1	2	1	2	4	–
G	2	2	2	4	6	–
H	2	2	1	3	2	–
J	2	2	1	3	–	–
L	2	2	1	2	–	–
M	2	2	1	4	–	–
P	2	2	1	4	6	–
Q	2	2	1	4	–	–
R	1	2	1	–	–	5
T	2	2	2	4	5	–
U	2	2	1	4	–	–
V	2	2	1	4	–	–
W	2	2	1	3	–	–

4 机能符号L Spool symbol L
中位A – T Central position A – T
6 机能符号U Spool symbol U
中位B – T Central position B – T

特性曲线 Characteristic curves 4DWMG25

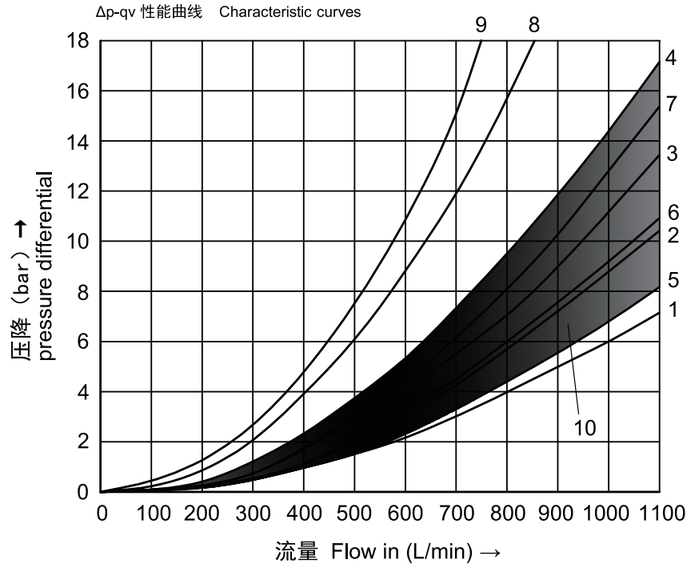


机能符号 Spool symbol	切换位置 Spool position			
	P–A	P–B	A–T	B–T
E	1	1	1	3
F	1	4	3	3
G	3	1	2	4
H	4	4	3	4
J,Q	2	2	3	5
L	2	2	3	3
M	4	4	1	4

机能符号 Spool symbol	切换位置 Spool position			
	P–A	P–B	A–T	B–T
P	4	1	1	5
R	2	1	1	–
U	4	1	1	6
V	2	4	3	6
W	1	1	1	3
T	3	1	2	4

7 机能符号G Spool symbols G
中位P–T Central position P–T
8 机能符号T Spool symbols T
中位P–T Central position P–T

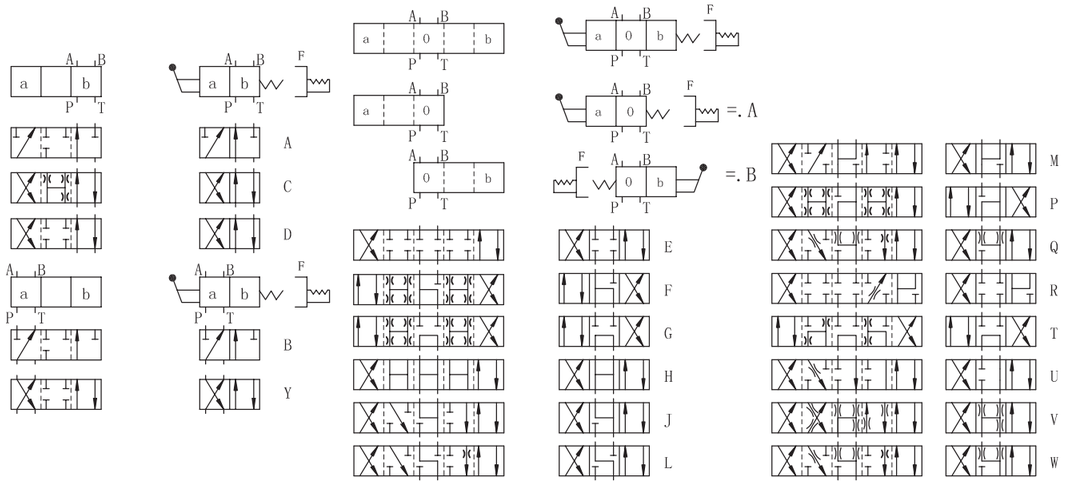
特性曲线 Characteristic curves 4DWMG32



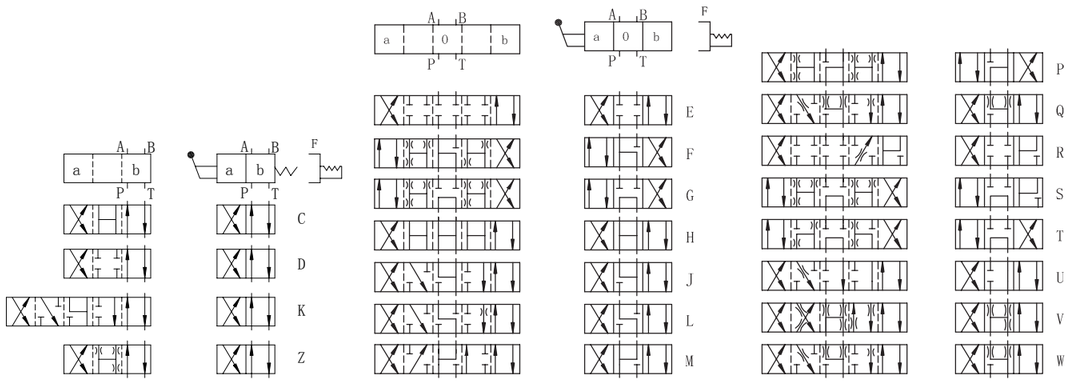
机能符号 Spool symbol	切换位置 Spool position					
	P–A	P–B	A–T	B–T	P–T	B–A
E	1	1	2	3	–	–
G	6	5	6	7	7	–
R	1	1	2	–	–	4
S	–	–	–	–	9	8
T	6	5	6	7	7	–
W	1	1	2	3	–	4

10 所有其它机能符号
All other spool symbols

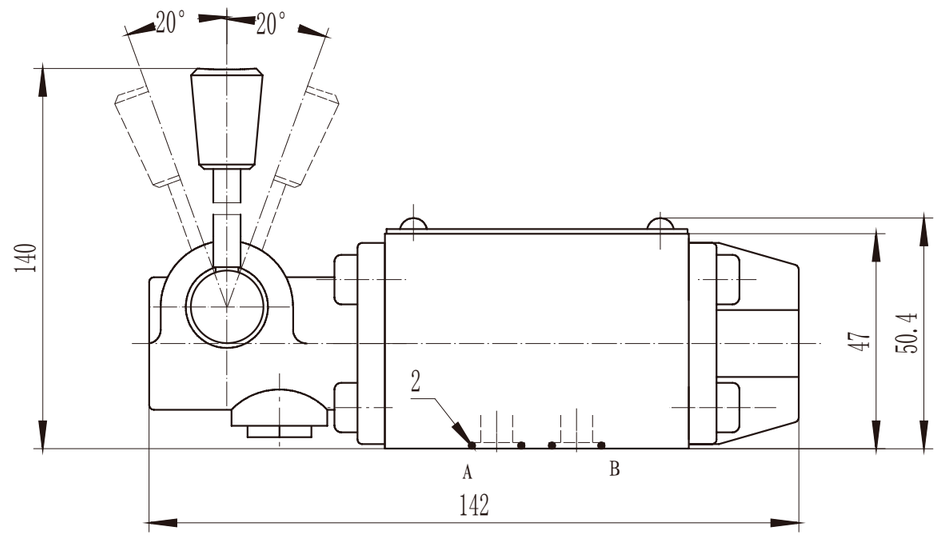
DWMG6/10 机能符号 DWMG6/10 Spool symbols

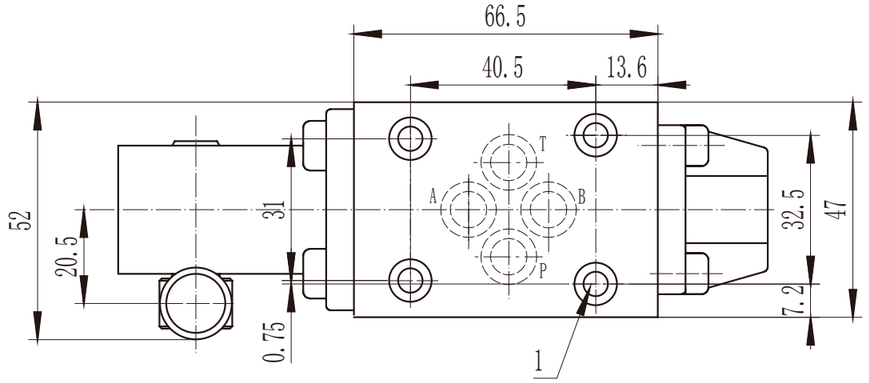


DWMG16/22/25/32 机能符号 DWMG16/22/25/32 Spool symbols



DWMG6 外型尺寸 DWMG6 Subplate Installation Dimensions

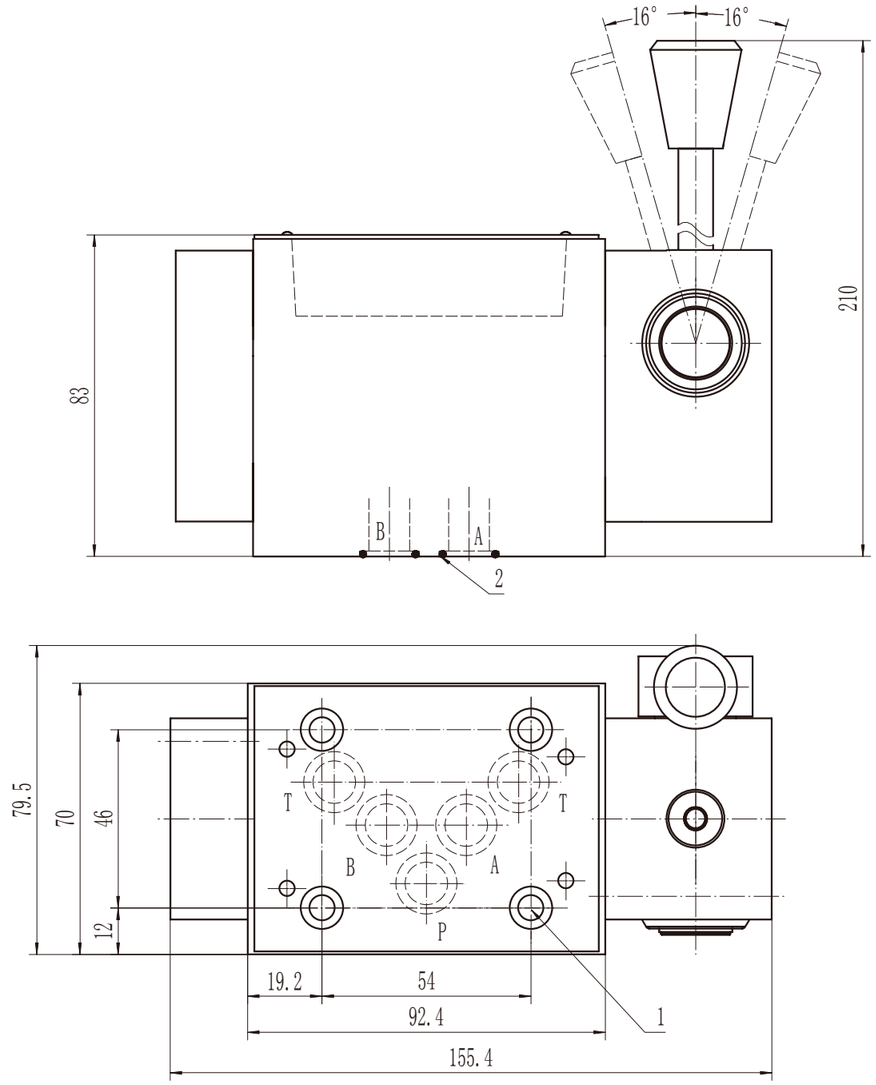




1、阀固定螺丝
4个M5X50 GB/T70.1–12.9级
拧紧扭矩Ma=9Nm
2、0型圈12.3X1.9

1.Valve’s set screw
4 of M5×50 GB/T70.1–12.9
Tightening torque Ma=9Nm.
2.O–ring φ12.3×1.9

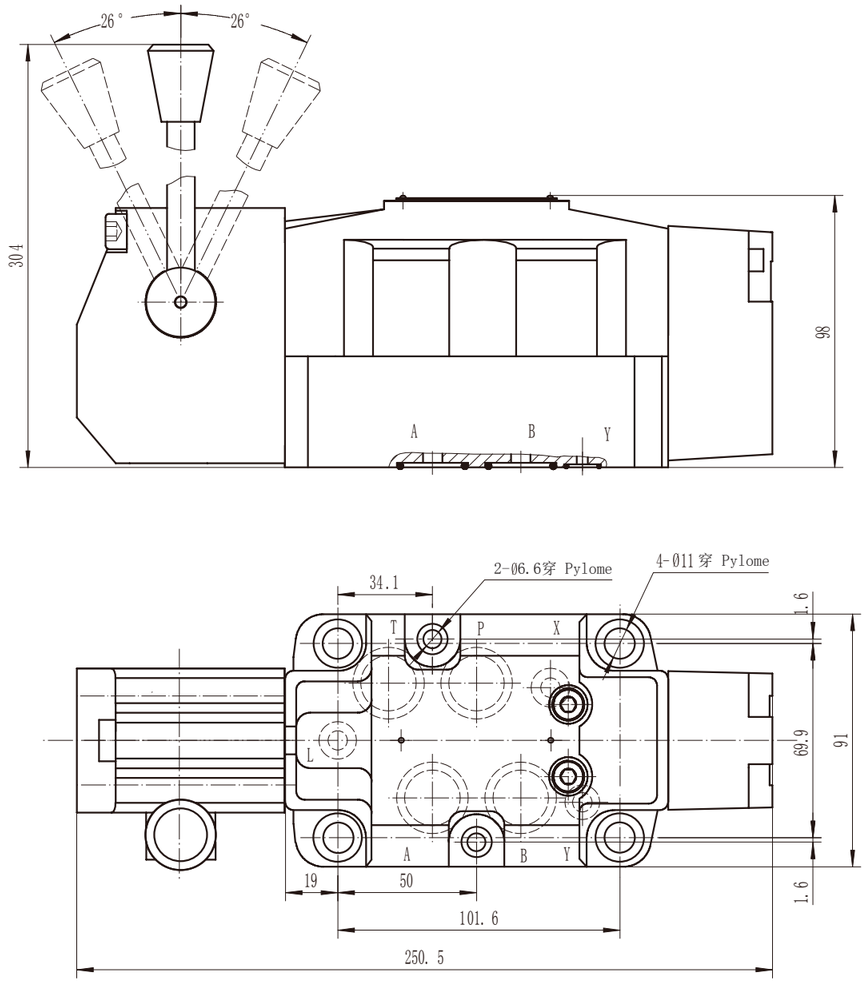
DWMG10 外型尺寸 DWMG10 Subplate Installation Dimensions



1、阀固定螺钉
4个M6X50 GB/T70.1–12.9级
拧紧扭矩Ma=15.5Nm
2、0型圈：Φ16X1.9

1.Valve’s set screw
4 of M6 ×50 GB/T70.1–12.9
Tightening torque Ma=15.5Nm.
2.O–ring ϕ16×1.9

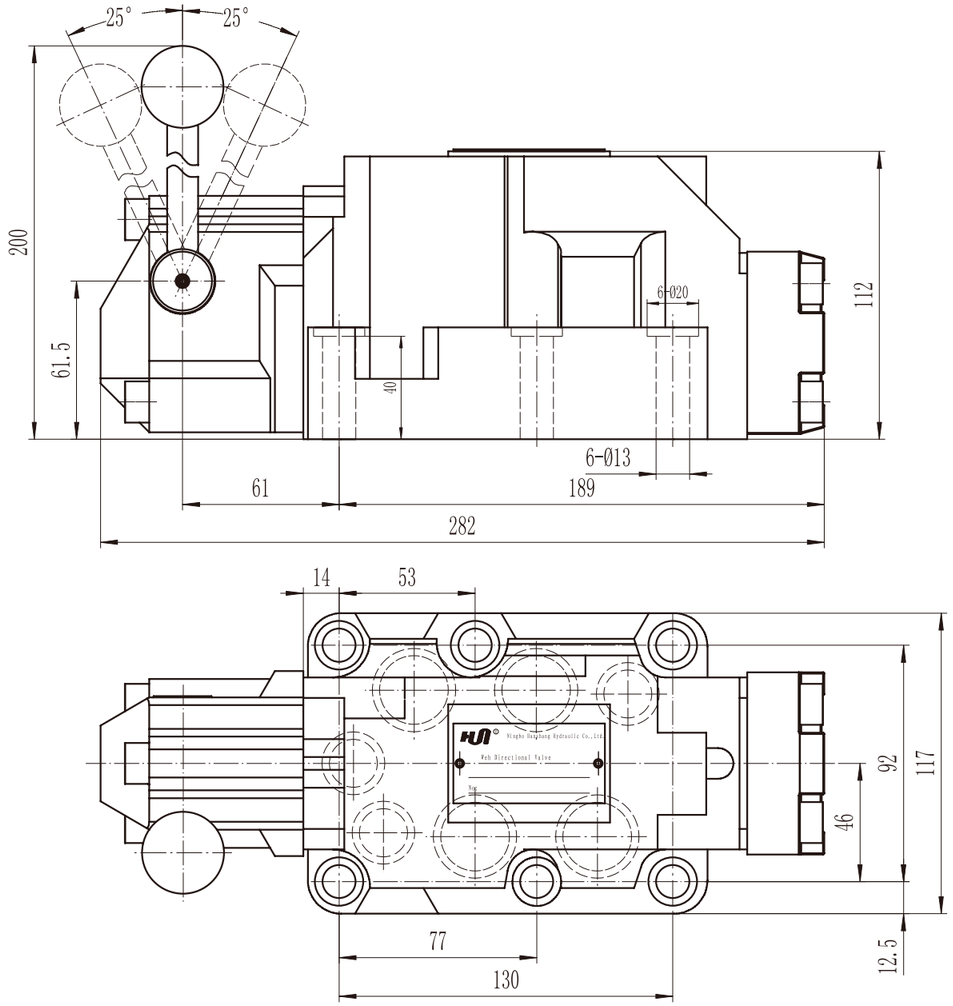
DWMG16 外型尺寸 DWMG16 Subplate Installation Dimensions



阀固定螺钉
4个M10X60GB/T 70.1–12.9级 拧紧扭矩Ma=75Nm
2个M6X60GB/T 70.1–12.9级 拧紧扭矩Ma=15.5Nm
P.T.A.B口0型圈：Φ26X2.4
X.Y.L口0型圈：Φ15X1.9

Valve’s set screw
4 of M10×60 GB/T70.1–12.9 Tightening torque Ma=75Nm.
2 of M6×60 GB/T70.1–12.9 Tightening torque Ma=15.5Nm.
O–ring for P.T.A.B Port: ϕ26×2.4
O–ring for X.Y.L Port: ϕ15×1.9

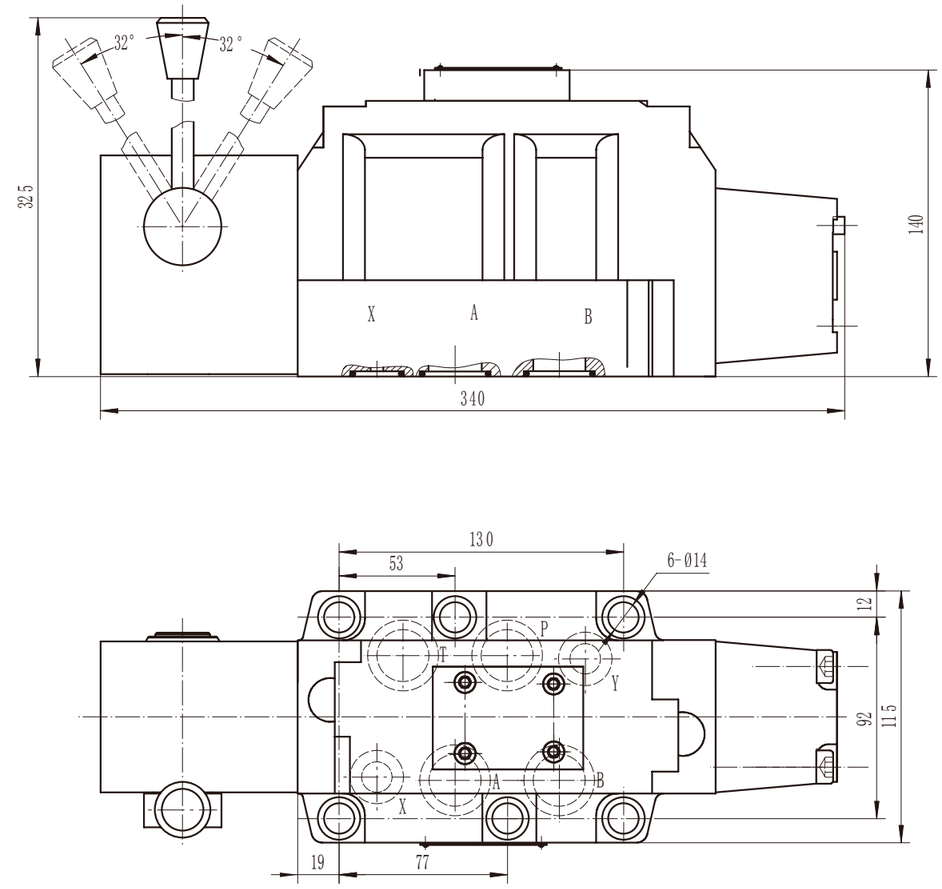
DWMG22 外型尺寸 DWMG22 Subplate Installation Dimensions



阀固定螺钉
6个M12X60 GB/T 70.1–2000–12.9级 拧紧扭矩Ma=130Nm
P.T.A.B口O型圈：Φ31X3.1
X.Y口O型圈：Φ25X3.1

Valve’s set screw
6 of M12×60 GB/T70.1–2000–12.9 Tightening torque Ma=130Nm.
O–ring for P.T.A.B Port: ϕ31×3.1
O–ring for X.Y Port: ϕ25×3.1

DWMG25 外型尺寸 DWMG25 Subplate Installation Dimensions

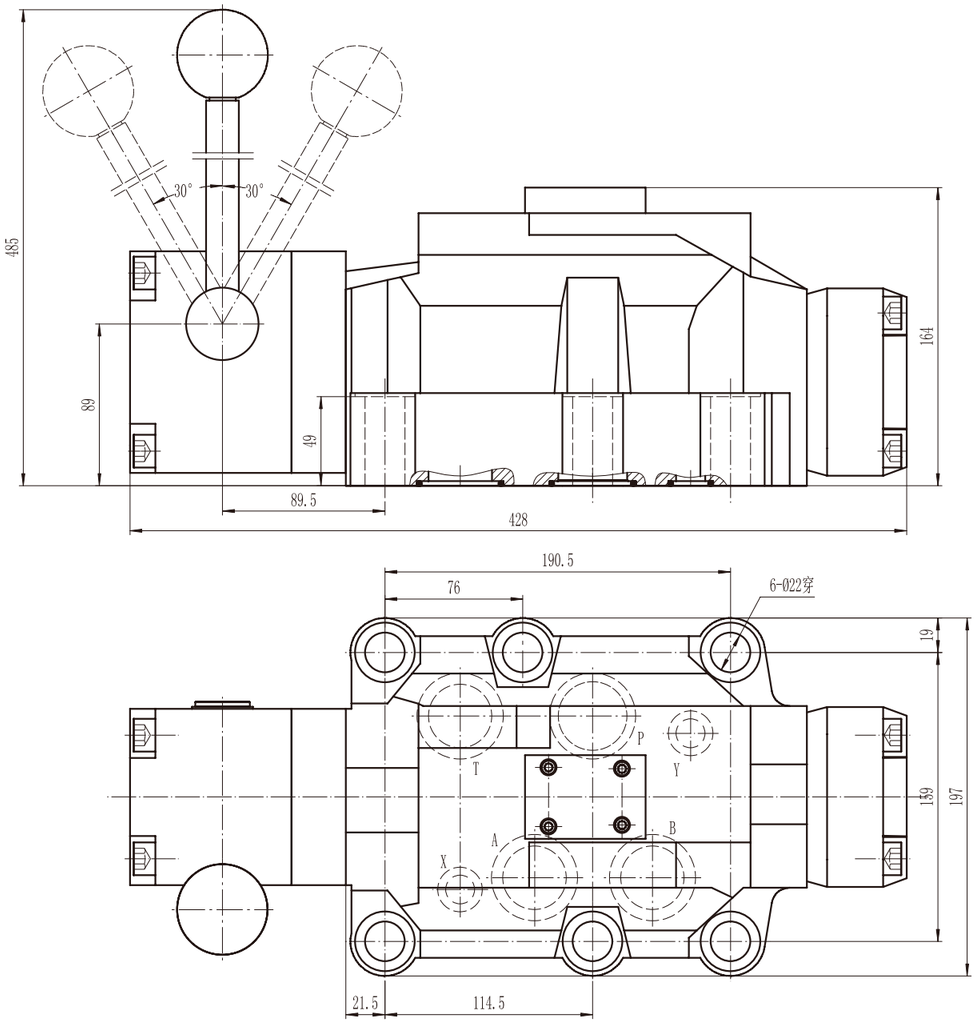


阀固定螺钉
6个M12X60 GB/T 70.1–12.9级 拧紧扭矩Ma=130Nm
P.T.A.B口O型圈：Φ34X3.1
X.Y口O型圈：Φ25X3.1

Valve’s set screw
6 of M12×60 GB/T70.1–12.9 Tightening torque Ma=130Nm.
O–ring for P.T.A.B Port: ϕ34×3.1
O–ring for X.Y Port: ϕ25×3.1

Hanshang Hydraulic

DWMG32 外型尺寸 DWMG32 Subplate Installation Dimensions



阀固定螺钉
6个M20X80 GB/T 70.1–2000–12.9级 拧紧扭矩
Ma=430Nm
P.T.A.B口0型圈：Φ42X3
X.Y口0型圈：Φ18.5×3.1

Valve’s set screw
6 of M20×80 GB/T70.1–2000–12.9 Tightening torque Ma=430Nm.
O–ring for P.T.A.B Port: ϕ42×3
O–ring for X.Y Port: ϕ18.5×3.1

4	DWMG	6	E	60	F	*	*

3=三油口
4=四油口
3=3 Oil ports
4=4 Oil ports

型号
Model

通径: 6/10/16/22/25/32
Size: 6/10/16/22/25/32

机能符号
Spool type

附加说明
For further details

无=丁晴橡胶
V=氟橡胶
No code=NBR seals
V=FPM seals

无=弹簧复位 F=带定位器
No code= Spring return
F=With detent

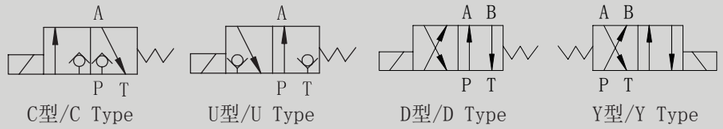
系列号
6通径=50;10通径=10;16通径=30
Series number
Size 6=50 Size10=10 Size16=30

Hanshang Hydraulic

QDE型电磁球阀

QDE SERIES DIRECTIONAL BALL VALVES

符号 SYMBOL



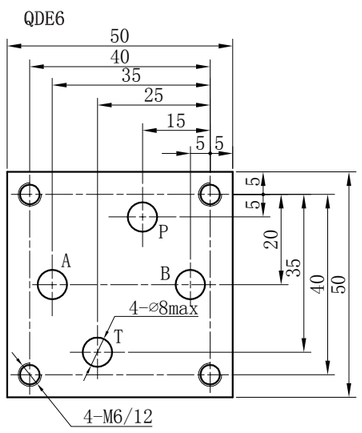
QDE型方向阀是电磁铁操作的钢球式换向阀，用于控制油液的开启、停止和液流的方向。常用于保压回路。

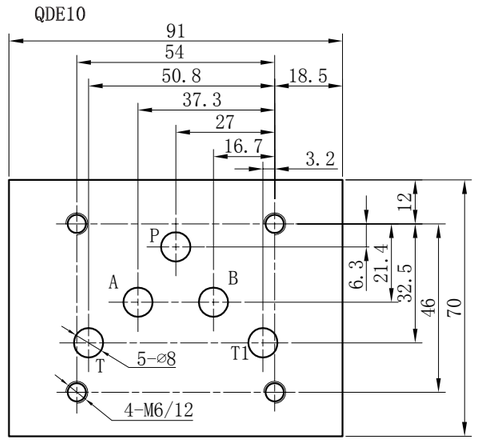
QDE series are solenoid are solenoid operated poppet valves, they are used to control the start ,stop and direction of flow.

技术参数 Technical data

规格 Size	6U	6C	6D	6Y	10U	10C	10D	10Y
额定流量(L/min) Rated flow(L/min)	16	16	12	12	30	24	30	24
工作压力(Mpa) Operating pressure(Mpa)	31.5							
重量(千克) Weight(KGS)	1.2	1.2	1.2	1.2	2.8	2.8	2.8	2.8
阀体（材料）表面处理 Valve body（Material）Surface treatment	钢件 表面发黑处理 Steel Body Surface Black Oxide							
油液清洁度/Oil cleanliness	NAS1638 9级和ISO4406 20/18/15级 NAS1638 class 9 and ISO4406 class 20/18/15							

底板连接尺寸 Subplate Installation dimensions





M 3 QDE 6 U 20 315 DC24 N Z5L P B0.8

矿物质液压油
Mineral hydraulic oil

3=三油口 4=四油口
3=3 actuator ports
4=4 actuator ports

型号
Model

通径 6；10
Size 6; 10

U=二位三通常开，C=二位三通常闭
D=二位四通；Y=二位四通
U=2/3 way normally open
C=2/3 way normally closed
D=2/4 way; Y=2/4 way

系列号
Series number

工作压力
Operating pressure

电压 Voltage
DC12;DC24 ;AC110;AC220

N=有故障检查按钮;无=没有故障检查按钮
N =With concealed manual override
No Code =Without concealed manual override

无=不带节流器
B0.8=节流孔径0.8
B10=节流孔径1.0
B12=节流孔径1.2
B14=节流孔径1.4
B15=节流孔径1.5
B18=节流孔径1.8
B20=节流孔径2.0
B22=节流孔径2.2
No code=Without throttle insert
B0.8=Throttle 0.8
B10=Throttle 1.0
B12=Throttle 1.2
B14=Throttle 1.4
B15=Throttle 1.5
B18=Throttle 1.8
B20=Throttle 2.0
B22=Throttle 2.2

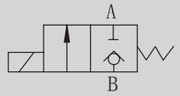
无=不带插装单向阀
P=带插装单向阀
No code=Without cartridge check valves
P=With cartridge check valves

Z5L=带灯大方形插头
Z5L=Large quadrate plug with light

QE型电磁卸荷球阀

QE SERIES SOLENOID OPERATED UNLOADING BALL VALVES

符号 SYMBOL



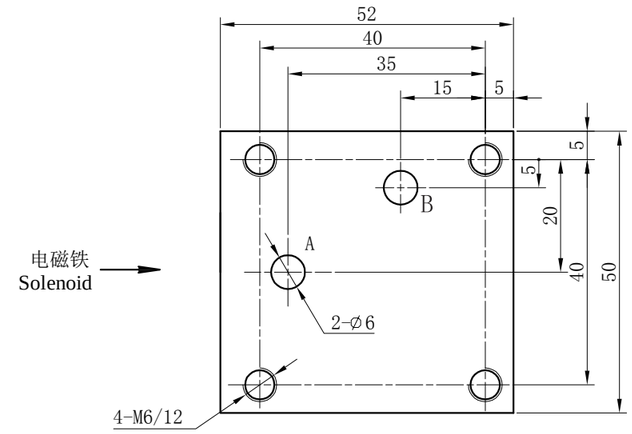
QE型电磁卸荷球阀用于控制回路的开启和关闭，主要用于保压回路的泄压。

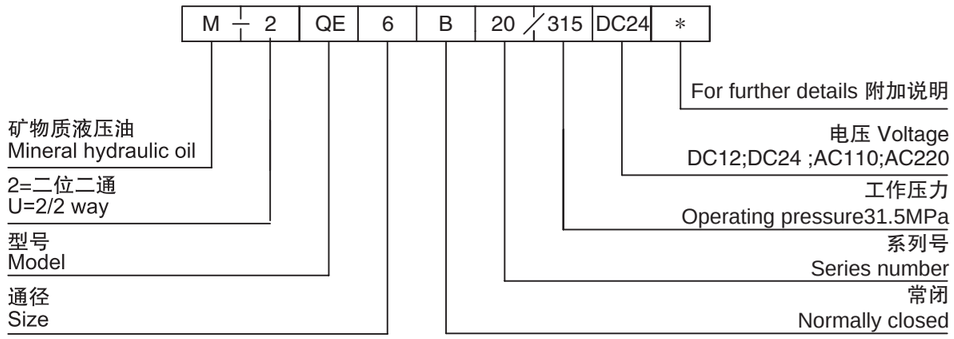
QE series solenoid operated unloading ball valve is used to control the opening and closing in pilot return lines.
It is often used for releasing the pressure in pressure-maintaining return lines

技术参数 Technical data

最大工作压力(Mpa) Max. operating pressure(Mpa)	31.5
最大流量(L/min) Max .flow rate(L/min)	16
重量(千克) Weight(KGS)	1.3
阀体（材料）表面处理 Valve body（Material）Surface treatment	钢件 表面发黑处理 Steel Body Surface Black Oxide
油液清洁度/Oil cleanliness	NAS1638 9级和ISO4406 20/18/15级 NAS1638 class 9 and ISO4406 class 20/18/15

底板安装尺寸 Subplate mounting Installation dimensions



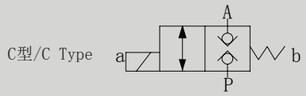


Hanshang Hydraulic

M–2SED型电磁球阀

M-2SED SERIES DIRECTIONAL BALL VALVES

符号 SYMBOL



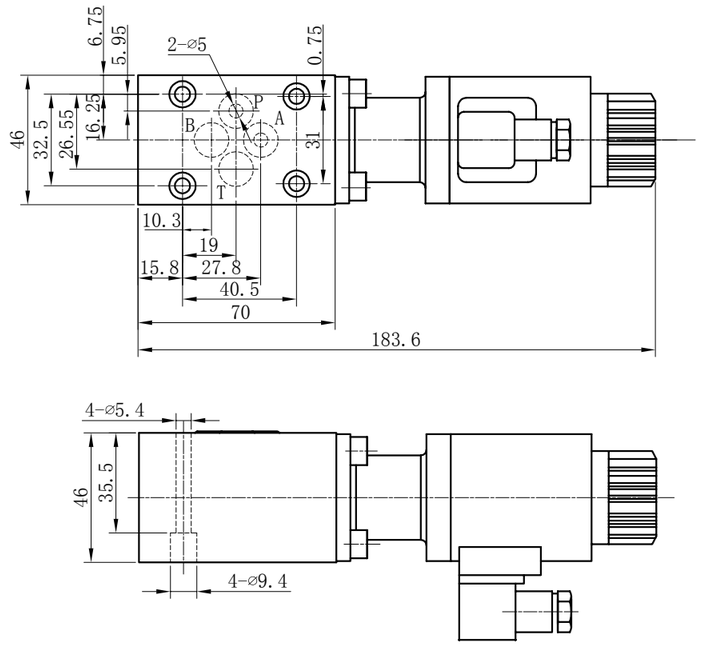
M–2SED型方向阀是电磁截止式方向阀，用于控制油液的流动、停止和方向。

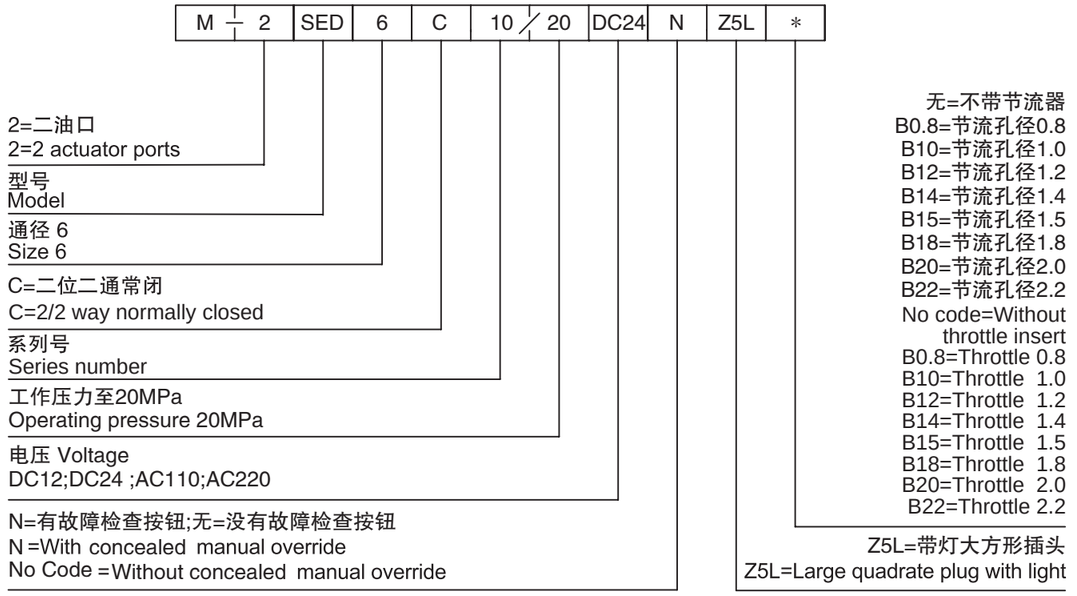
M-2SED series direction valves are solenoid directional loose valves,these valves are used to control the oil flow, stop and direct.

技术参数 Technical data

型号 Size	M–2SED
工作压力(Mpa) Operating pressure(Mpa)	20
流量(L/min) Flow rate(L/min)	20
阀体（材料）表面处理 Valve body（Material）Surface treatment	铸件 表面磷化处理 casting phosphating surface
油液清洁度/Oil cleanliness	NAS1638 9级和ISO4406 20/18/15级 NAS1638 class 9 and ISO4406 class 20/18/15

底板连接尺寸 Subplate Installation dimensions



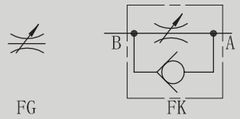


Hanshang Hydraulic

FG 型节流阀/FK单向节流阀

FG THROTTLE VALVES/FK THROTTLE CHECK VALVES

符号 SYMBOL



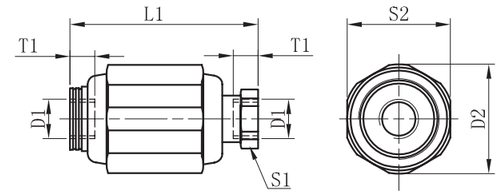
FG/FK型阀是直接安装在管路上的节流阀/单向节流阀。FG型节流阀只要旋转调节套就可以改变节流口通流面积从而实现流量调节，为双向节流。FK型节流阀带有单向阀，可实现单向节流。

FG/FK series throttle/throttle check valves mounted on the oil pipe lines di-rectly.FG throttle valve is used to regulate flow by turning adjustment sleeve.FK throttle check valve is used to control flow in one direction and allow free flow in the opposite.

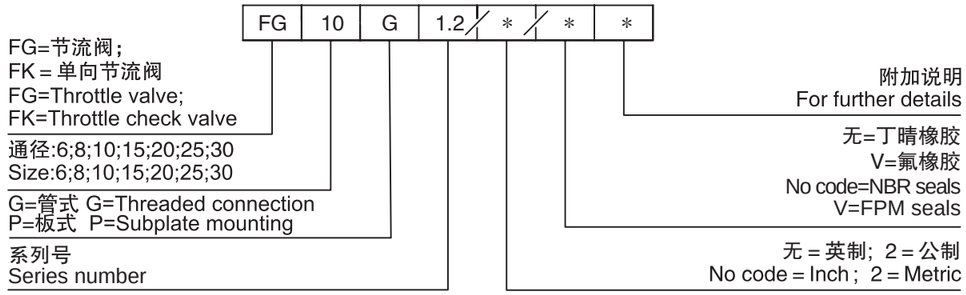
技术参数 Technical data

通径 Size		6	8	10	15	20	25	30
工作压力(Mpa) Operating pressure(Mpa)		31.5	31.5	31.5	31.5	31.5	31.5	31.5
流量(L/min) Flow rate(L/min)		15	30	50	125	200	300	400
英制 Inch		G1/4"	G3/8"	G1/2"	G3/4"	G1"	G1 1/4"	G1 1/2"
公制 Metric		M14 x 1.5	M18 x 1.5	M22 x 1.5	M27 x 2	M33 x 2	M42 x 2	M48 x 2
单向阀开启压力 Cracking pressure of check valve		0.05MPa						
重量(千克) Weight(KGS)	FK	0.3	0.4	0.7	1.3	2.3	3.8	4.8
	FG							
阀体（材料）表面处理 Valve body（Material）Surface treatment		钢件 表面发黑处理 Steel Body Surface Black Oxide						
油液清洁度/Oil cleanliness		NAS1638 9级和ISO4406 20/18/15级 NAS1638 class 9 and ISO4406 class 20/18/15						

FG/FK 管式图 FG/FK Drawing



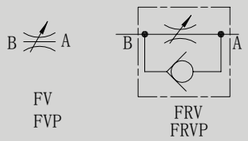
通径 Size	D1		D2	L1	S1	S2	T1
	公制 Metric	英制 Inch					
6	M14X1.5	G1/4"	34	65	22	32	12
8	M18X1.5	G3/8"	38	65	24	36	12
10	M22X1.5	G1/2"	48	80	30	46	14
15	M27X2	G3/4"	58	100	41	55	16
20	M33X2	G1"	72	110	46	70	18
25	M42X2	G1 1/4"	87	130	55	85	20
30	M48X2	G1 1/2"	93	150	60	90	22



FV/FRV型节流阀/单向节流阀

FV/FRV SERIES THROTTLE VALVES/THROTTLE CHECK VALVES

符号 SYMBOL



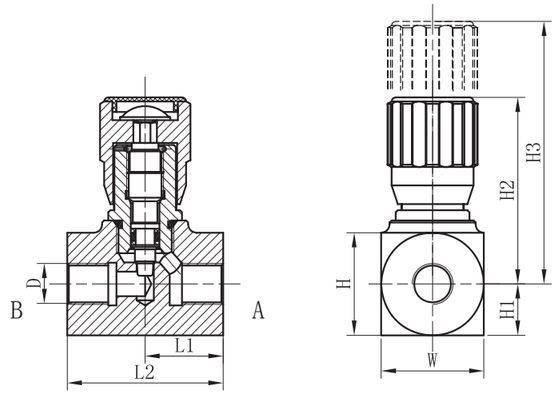
FV/FRV型节流阀/单向节流阀是一种比较简单而又精确地调节执行元件速度的流量控制阀，完全关闭时，它又是截止阀。

FV/FRV; FVP/FRVP series throttle check valves are used to regulate the speed of actuators simply and precisely.

技术参数 Technical data

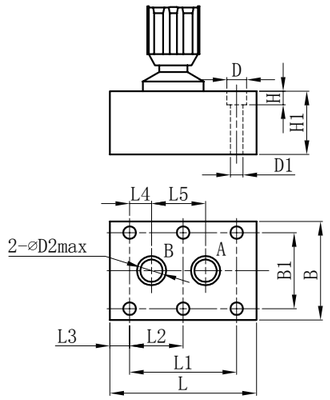
通径 Size		6	8	10	12	16	20	25	30
工作压力(Mpa) Operating pressure(Mpa)		35	35	35	35	35	35	35	35
流量(L/min) Flow rate(L/min)		16	24	35	45	60	100	150	210
英制 Inch		G1/8"	G1/4"	G3/8"	G1/2"	G3/4"	G1"	G1 1/4"	G1 1/2"
公制 Metric		M10 x 1	M14 x 1.5	M18 x 1.5	M22 x 1.5	M27 x 2	M33 x 2	M42 x 2	M48 x 2
单向阀开启压力 Cracking pressure of check valve		0.05MPa							
管式面板安装 Pipeline type panel connection		M12 x 1.5	M18 x 1.5	M18 x 1.5	M22 x 1.5	M22 x 1.5	M33 x 1.5	M36 x 1.5	M36 x 1.5
重量(千克) Weight(KGS)	FV	0.4	0.3	0.5	0.8	1.1	2.3	4.4	3.8
	FRV	0.4	0.3	0.5	0.8	1.1	2.3	4.4	5.3
	FVP	0.25	0.7	1	1.2	2.5	4.3	8.3	11.2
	FRVP	0.26	0.7	1	1.4	2.7	4.7	8.8	12.2
阀体（材料）表面处理 Valve body (Material) Surface treatment	FV/FRV	钢件 表面镀彩锌 STEEL BODY SURFACE Color zinc plating							
	FVP/FRVP	钢件 表面发黑处理 Steel Body Surface Black Oxide							
油液清洁度/Oil cleanliness		NAS1638 9级和ISO4406 20/18/15级 NAS1638 class 9 and ISO4406 class 20/18/15							

FV/FRV外形尺寸 FV/FRV Unit Dimensions



通径 Size	D		W x H	H1	H2	H3	L1		L2	
							FV	FRV	FV	FRV
6	G1/8"	M10X1	16X16	8	50	55	19	26	38	45
8	G1/4"	M14X1.5	33X28	12.5	69.5	76.5	32.5	40	63.5	63.5
10	G3/8"	M18X1.5	35X37	15	82	89	32.5	41	65	70
12	G1/2"	M22X1.5	35X37	17.5	84	94	44	44	73	73
16	G3/4"	M27X2	45X50	22.5	91	101	44	57	88	88
20	G1"	M33X2	56X56	26	129	146	49	79	98	127
25	G1 1/4"	M42X2	63X63	30	135	152	54	91	108	143
30	G1 1/2"	M48X2	73X73	35	140	157	54	91	108	143

FVP/FRVP安装尺寸/FVP/FRVP Installation dimensions



型号Model	D	D1	D2	H	H1	L	L1	L2	L3	L4	L5	B	B1
FVP6/FRVP6	4–Φ11	4–Φ6.6	5	7	20/24	41.5	19	/	6.4	1.6	16	41.5	28.5
FVP8/FRVP8	4–Φ11	4–Φ6.6	8	7	25/26	63	35	/	14.2	4.5	25.5	46	33.5
FVP10/FRVP10	4–Φ11	4–Φ6.6	10	7	28/32	70	33.5	/	18	4	25.5	51	38
FVP12/FRVP12	4–Φ11	4–Φ6.6	35X37	7	28/35	80	38	/	21	4	30	57.5	44.5
FVP16/FRVP16	6–Φ14	6–Φ9	45X50	7	54	104	76	38	14	11.4	54	70	54
FVP20/FRVP20	6–Φ14	6–Φ9	56X56	11	58.5	127	95	47.5	16	19	57	76.5	60
FVP25/FRVP25	6–Φ17	6–Φ11	63X63	13	68.5	165	120	60	15	20.6	79.5	100	76
FVP30/FRVP30	6–Φ19	6–Φ13	73X73	18	79	186	143	71.5	15	23.8	95	115	92

FV | 10 | * | 1 | 10 | * | * | *

FV=节流截止阀
FRV=单向节流截止阀
FVP=板式节流截止阀
FRVP=板式单向节流截止阀
FV=Throttle shut-off valve
FRV=Throttle check shut-off valve
FVP=Subplate type throttle shut-off valve
FRVP= Subplate type throttle check shut-off valve

通径:6,10,12,16,20,25,30,40
Size:6,10,12,16,20,25,30,40

无 = 管式安装；S = 面板安装
No code=Threaded connection
S=Subplate mounting

1=钢
1=Steel

系列号
Series number

无=丁晴橡胶
V=氟橡胶
No code=NBR seals
V=FPM seals

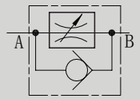
无 = 英制;2 = 公制
No code=Inch;
2=Metric

附加说明
For further details

2MRB 型流量控制阀

2MRB SERIES FLOW CONTROL VALVES

符号 SYMBOL



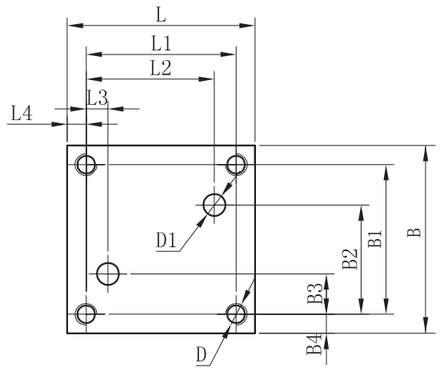
2MRB 型流量控制阀是带节流口式节流器的精密节流阀，不受压力和温度的影响。

2MRB series flow control valves are restrictive style flow regulators, without affected by pressure and temperature.

技术参数 Technical data

通径 Size	5							10				16		
最大流量(A – B)(L/min) Max.flow rate(A – B)(L/min)	0.2	0.6	1.2	3	6	10	15	10	16	25	50	60	100	160
△P值(B–A)(Mpa) △P Value(B–A)(Mpa)	0.05	0.05	0.06	0.09	0.18	0.36	0.67	0.2	0.25	0.35	0.6	0.28	0.43	0.73
工作压力(Mpa) Operating pressure(Mpa)	21							31.5				31.5		
最小压力损失 Min.pressure loss	0.3–0.5							0.3–0.7				0.5–1.2		
过滤(延长使用寿命)(μm) Filtering to prolong service life(μm)	25（Q<5L/min);10(Q<0.5L/min）													
重量(千克) Weight(KGS)	1.38							3.4				7.57		
阀体（材料）表面处理 Valve body（Material）Surface treatment	铸件 表面磷化处理 casting phosphating surface													
油液清洁度/Oil cleanliness	NAS1638 9级和ISO4406 20/18/15级 NAS1638 class 9 and ISO4406 class 20/18/15													

2MRB 底板连接尺寸 2MRB Subplate Installation dimensions



型号Model	B	B1	B2	B3	B4	L	L1	L2	L3	L4	D	D1
2MRB5	60	48	35	13	6	60	48	41	7	6	4–M5/12	2–Φ6
2MRB10	101.5	82.5	71.6	30.1	9.5	95	76	55.1	9.6	8.5	4–M8/13	2–Φ12
2MRB16	123.5	101.5	90.5	15	11	123.5	101.5	75	20.5	11	4–M10/25	2–Φ20

2MRB | 5 | 30 | 15 | * | *

型号
Model

通径：5；10；16
Size:5;10;16

系列号
Series number
30=通径5;20=通径10；50=通径16；
30=Size5;20=Size10;50=Size16;

流量（流动方向A–B详见表格）
See the form table for flow rate (direction A–B)

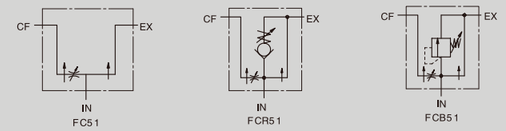
附加说明
For further details

无=丁晴橡胶
V=氟橡胶
No code=NBR seals
V=FPM seals

FC 51流量阀

FC51 FULL RANGE PRESSURE COMPENSATING VARIABLE FLOW CONTROL VALVE

符号 SYMBOL



技术参数 Technical data

工作压力(Mpa) Operating pressure(Mpa)	20.7
最大流量(L/min) Max .flow rate(L/min)	114
介质温度(℃) Fluid temperature(℃)	–20 ~ 70
转轴扭矩 Torque to turn side lever spool	EX口压力为20.7MPa时转轴扭矩为3.9Nm 3.9Nm with 20.7MPa on EX port
阀体（材料）表面处理 Valve body（Material）Surface treatment	铸件表面磷化处理 casting phosphating surface

FC | * | 51 | G3/8

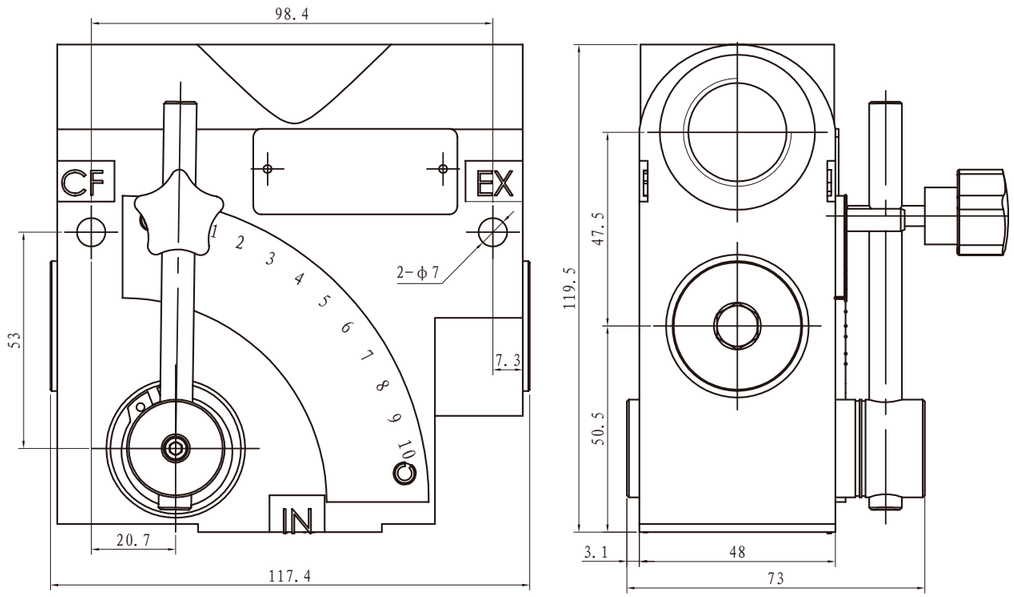
型号：Model

无=标准型不带溢流阀
R=带有球溢流阀(标准设定压力10.3MPa)
B=带有可调节溢流阀(标准设定压力10.3MPa)
Omit=No relief
R=Adj.ball spring relief
(Standard 10.3MPa setting)
B=Adj.high–lift spring relief
(Standard 10.3MPa setting)

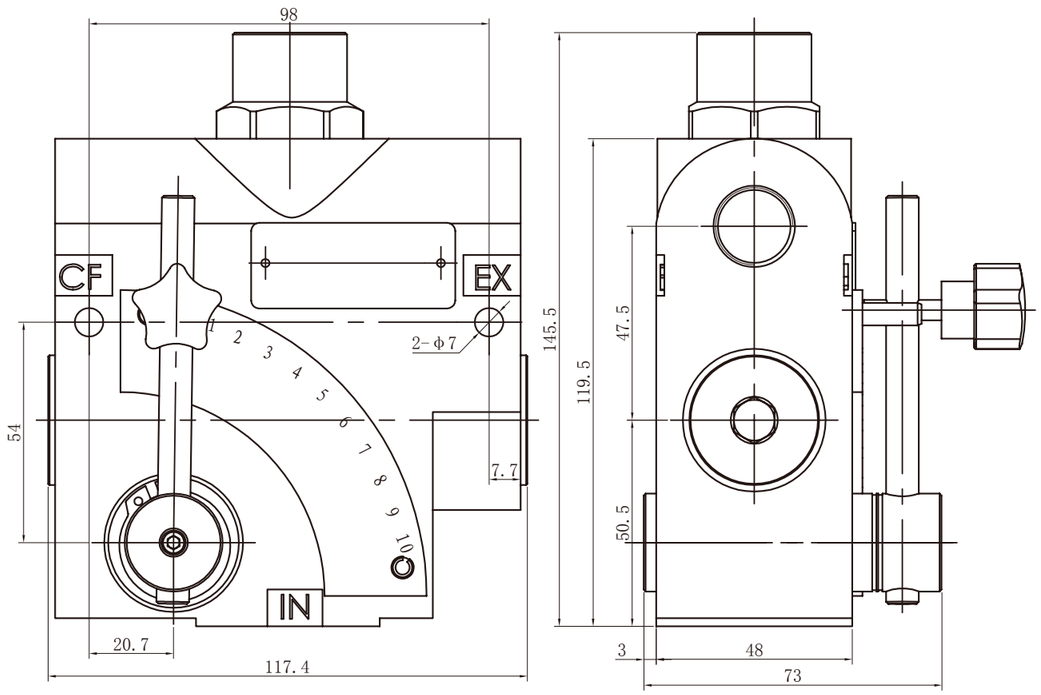
螺纹连接 Threaded Connection
标准优先流量范围 standard
G3/8 (0–30L/min)
G1/2 (0–61L/min)
G3/4 (0–114L/min)
NPT1/2 (0–61L/min)
NPT3/4 (0–114L/min)

51=标准型
51–Standard flow control

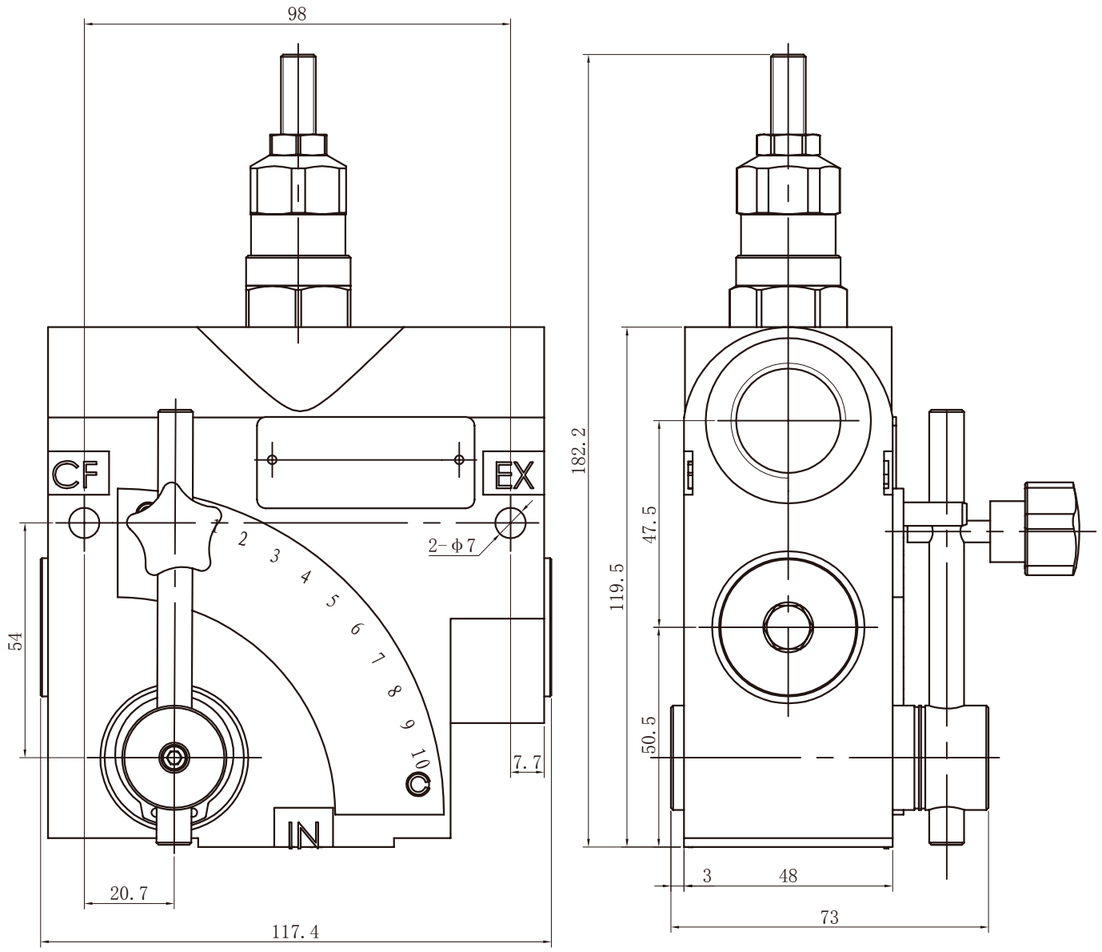
FC51安装尺寸/Installation dimensions



FCR51安装尺寸/Installation dimensions



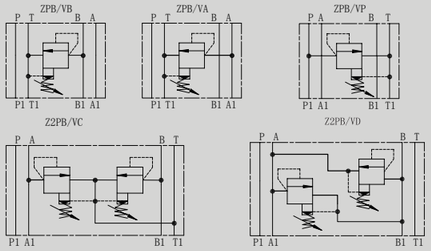
FCB51安装尺寸/Installation dimensions



ZPB/Z2PB型叠加式溢流阀

ZPB/Z2PB SERIES MODULAR RELIEF VALVES

符号 SYMBOL



ZPB/Z2PB型压力控制阀是叠加板结构的先导式溢流阀。

Pressure relief valves of ZPB/Z2PB series are pilot operated style modular valves.

技术参数 Technical data

通径 Size		6	10
工作压力(MPa) Operating pressure (MPa)		31.5	31.5
流量(L/min) Flow rate (L/min)		60	100
油温范围(℃) Oil temperature range(℃)		-20 ~ 70	-20 ~ 70
重量(千克) Weight(KGS)	ZPB	1.3	2.6
	Z2PB	1.9	3.1
阀体（材料）表面处理 Valve body（Material）Surface treatment		铸件 表面磷化处理 casting phosphating surface	
油液清洁度/Oil cleanliness		NAS1638 9级和ISO4406 20/18/15级 NAS1638 class 9 and ISO4406 class 20/18/15	

Z	2	PB	6	VA	1	40	315	V	*

叠加式
Modular type

无=单溢流阀（只有VA,VB,VP）
2=双溢流阀（只有VC,VD）
No code=Single relief cartridge
（Only for VA,VB,VP）
2=Two relief cartridges
（Only for VC,VD）

型号
Model

通径:6;10
Size:6;10

溢流方向 Relief from
VA:A→T
VB:B→T
VP:P→T
VC:A→T B→T
VD:A→B B→A

1=手柄
1= handwheel

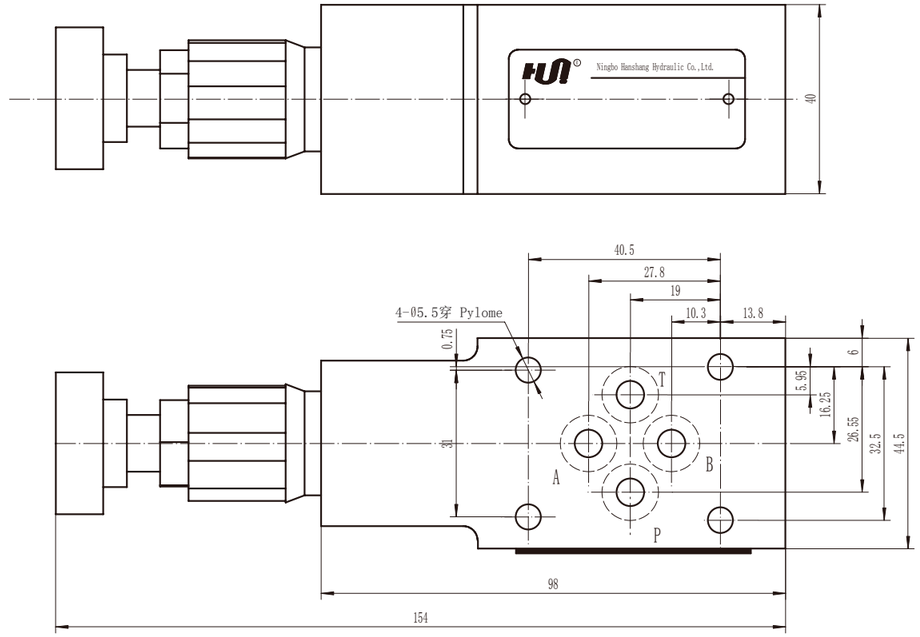
系列号
Series number

Pressure range 压力等级
50 = 5Mpa
100 = 10Mpa
200 = 20Mpa
315 = 31.5Mpa

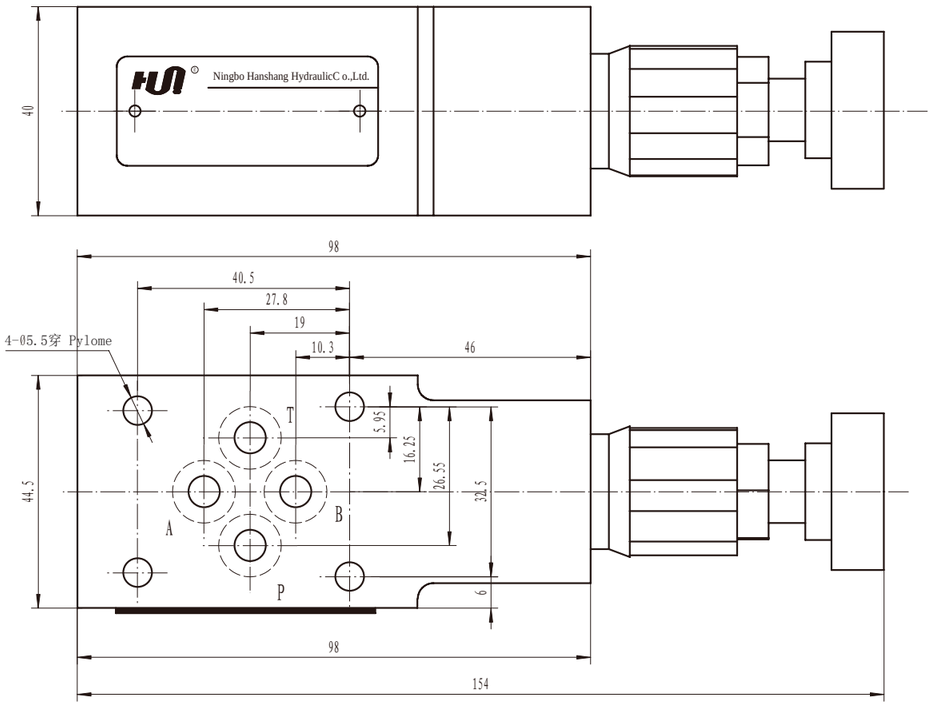
无=丁晴橡胶
V=氟橡胶
No code=NBR seals for petroleum oils
V=FPM seals for phosphate ester

附加说明
For further details

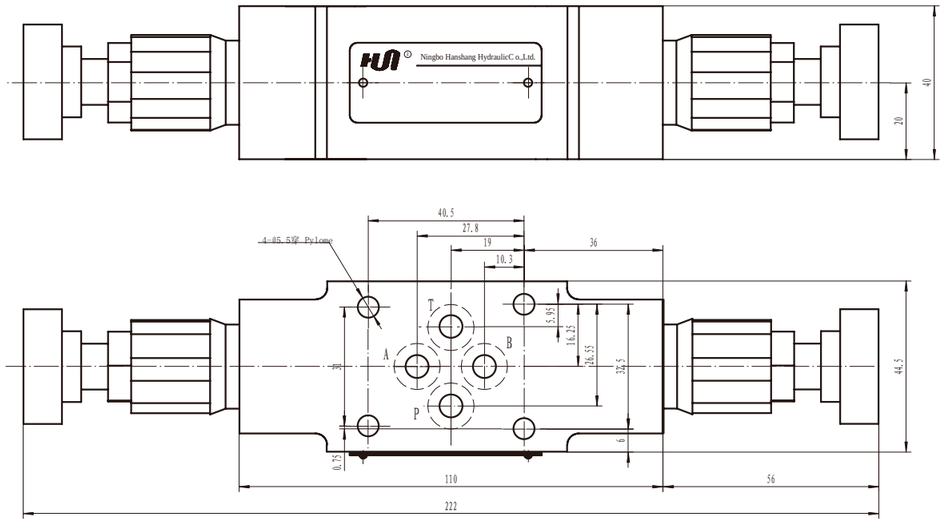
ZPB6VA外形尺寸和安装 ZPB6VA External Dimensions and Fittings



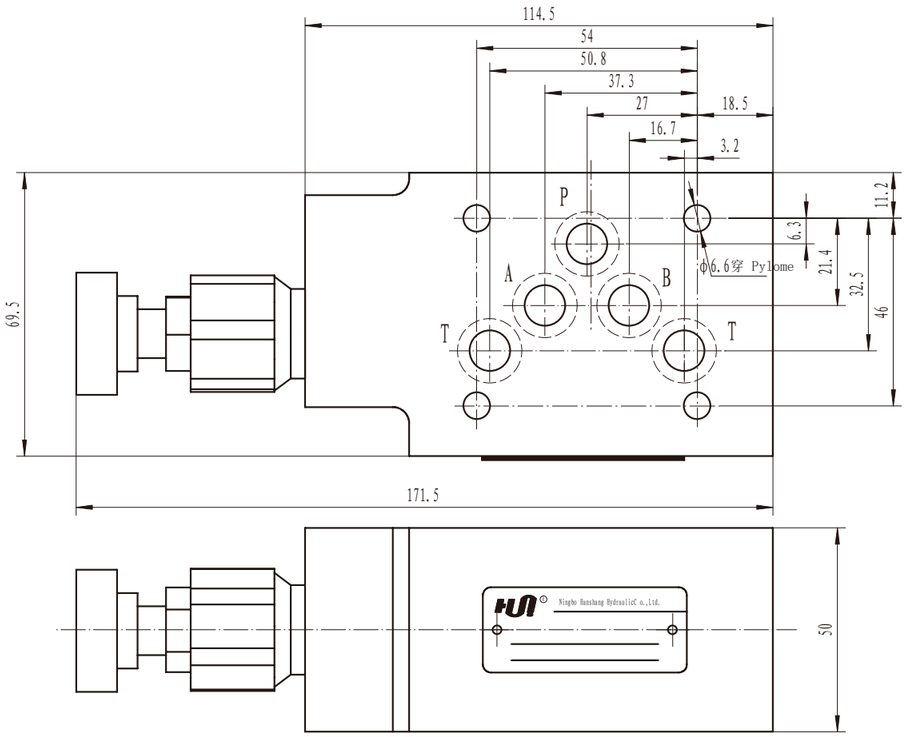
ZPB6VP VB外形尺寸和安装 ZPB6VP VB External Dimensions and Fittings



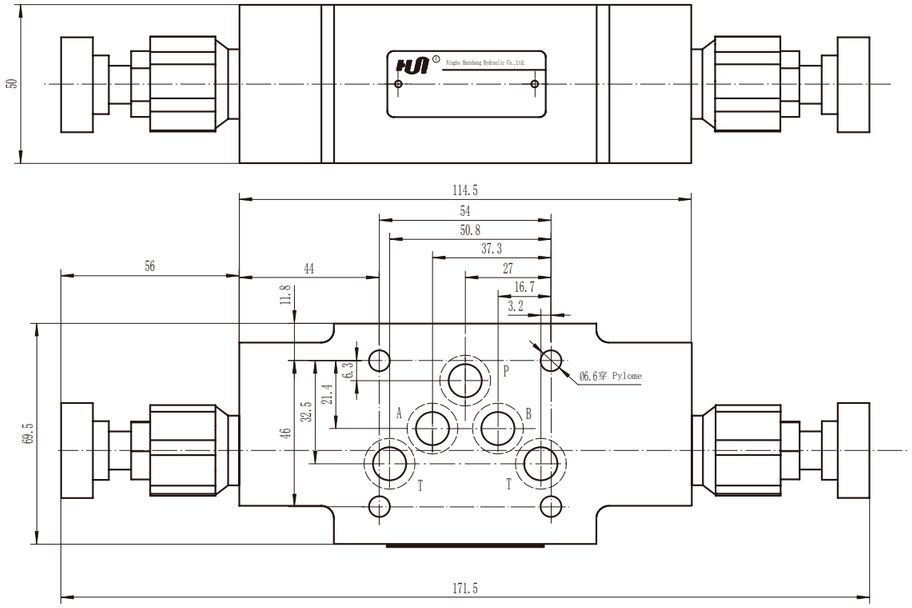
Z2PB6VC VD外形尺寸和安装 Z2PB6VC VD External Dimensions and Fittings



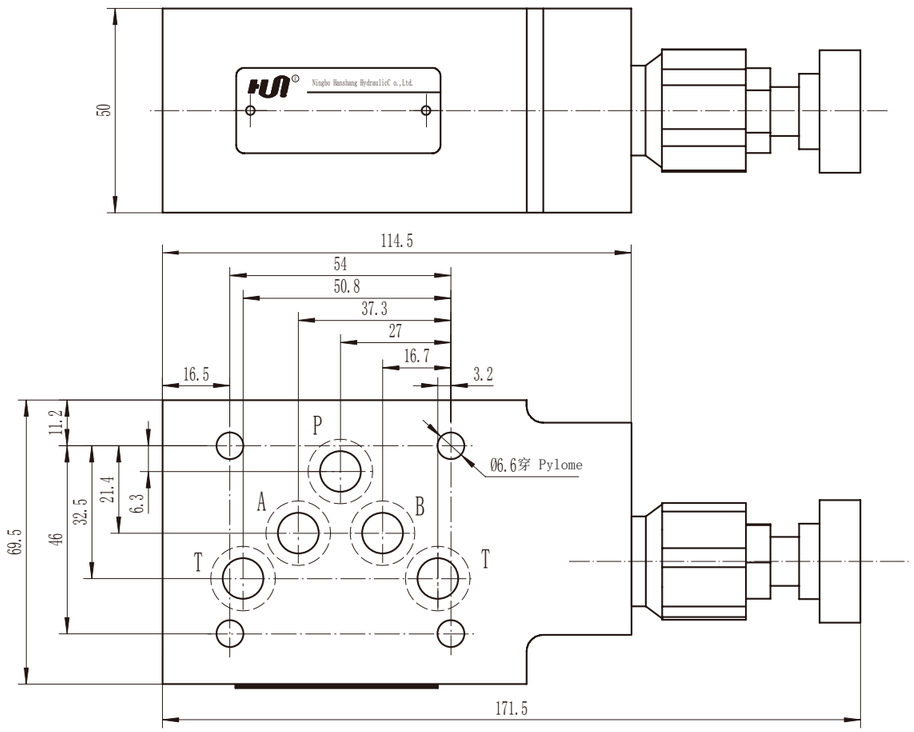
ZPB10VA外形尺寸和安装 ZPB10VA External Dimensions and Fittings



Z2PB10VC VD外形尺寸和安装 Z2PB10VC VD External Dimensions and Fittings



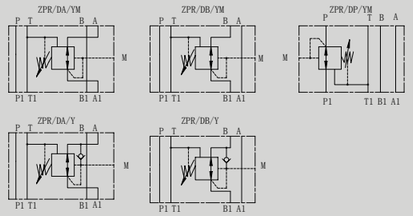
ZPB10VP VB外形尺寸和安装 ZPB10VP VB External Dimensions and Fittings



ZPR–D 型叠加式直动减压阀

ZPR-D SERIES DIRECT MODULAR REDUCING VALVES

符号 SYMBOL



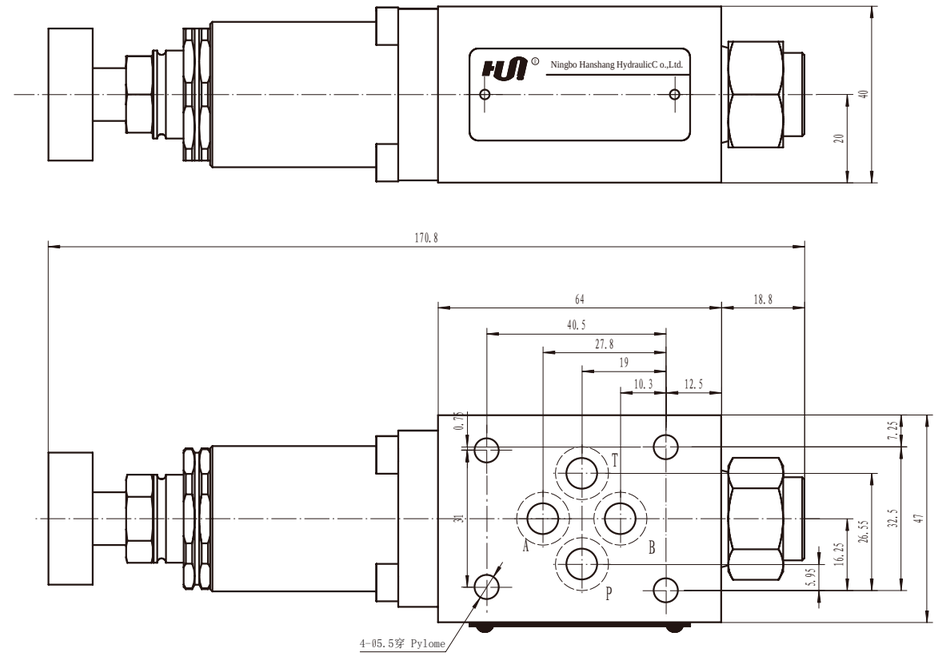
ZPR–D型减压阀是叠加式直动三通减压阀，具有二次压力保护装置，主要用来降低系统某一回路的压力。

ZPR-D series are 3-way direct operated pressure reducing valves, which are used to reduce the pressure in a certain circuit lower than of the main circuit.

技术参数 Technical data

通径 Size	6	10
工作压力(Mpa) Operating pressure(Mpa)	31.5	31.5
次工作压力(Mpa) Second working pressure(Mpa)	21	21
背压(MPa) Back pressure(MPa)	6	6
流量(L/min) Flow rate(L/min)	30	60
介质温度(℃) Fluid temperature(℃)	-20 ~ 80	-20 ~ 80
重量(千克) Weight(KGS)	1.3	2.8
阀体（材料）表面处理 Valve body（Material）Surface treatment	铸件 表面磷化处理 casting phosphating surface	
油液清洁度/Oil cleanliness	NAS1638 9级和ISO4406 20/18/15级 NAS1638 class 9 and ISO4406 class 20/18/15	

ZPR6D外形尺寸和安装 ZPR6D External Dimensions and Fittings



Z | PR | 6 | D | A | 2 | 30 | 25 | Y | M | *

叠加式
Modular

型号
Model

通径 6;10
Size 6;10

直动式
Direct type

控制油口
A=A 油口
B=B 油口
P=P 油口
Pilot oil port
A=A oil port B=B oil port P=P oil port

1 = 手轮
2 = 调节螺栓
1=Adjustable handwheel
2=Adjustable screw

附加说明
For further details

无：带单向阀
M=不带单向阀
No code=With check valve
M=Without check valve

Y=内控制外泄
Y=Internal pilot;external drain

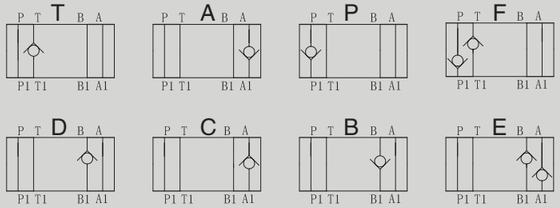
压力等级
Pressure range
25 = 2.5Mpa
75 = 7.5Mpa
150 = 15Mpa
210 = 21Mpa

系列号
Series number

Z1DS型叠加式单向阀

Z1DS SERIES MODULAR CHECK VALVES

符号 SYMBOL



Z1DS型单向阀是叠加式结构的单向阀。

Z1DS series are direct operated check valves.

技术参数 Technical data

通径 Size	6	10
工作压力(Mpa) Operating pressure(Mpa)	31.5	31.5
流量(L/min) Flow rate(L/min)	40	100
油温温度(℃) Oil temperature range（℃）	-20～70	-20～70
重量(千克) Weight(KGS)	0.9	2.3
阀体（材料）表面处理 Valve body（Material）Surface treatment	铸件 表面磷化处理 casting phosphating surface	
油液清洁度/Oil cleanliness	NAS1638 9级和ISO4406 20/18/15级 NAS1638 class 9 and ISO4406 class 20/18/15	

Z1DS | 6 | * | 1 | 30 | * | *

型号 Model

通径:6;10 Size:6;10

油口液流形式见符号图
See the symbol for flow type

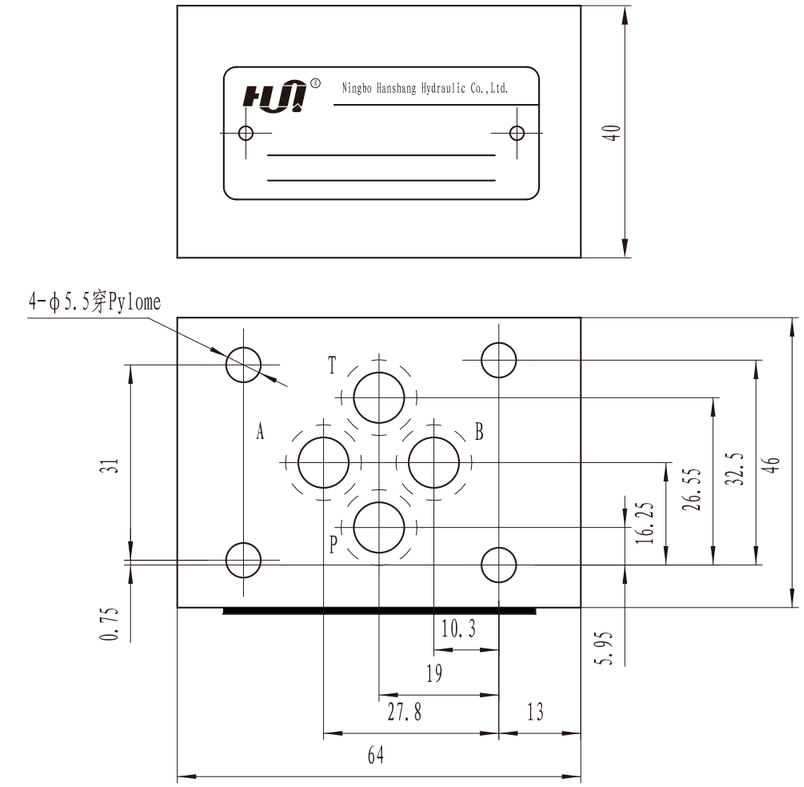
开启压力 Cracking pressure
1= 0.05MPa
2= 0.3MPa
3= 0.5MPa

附加说明
For further details

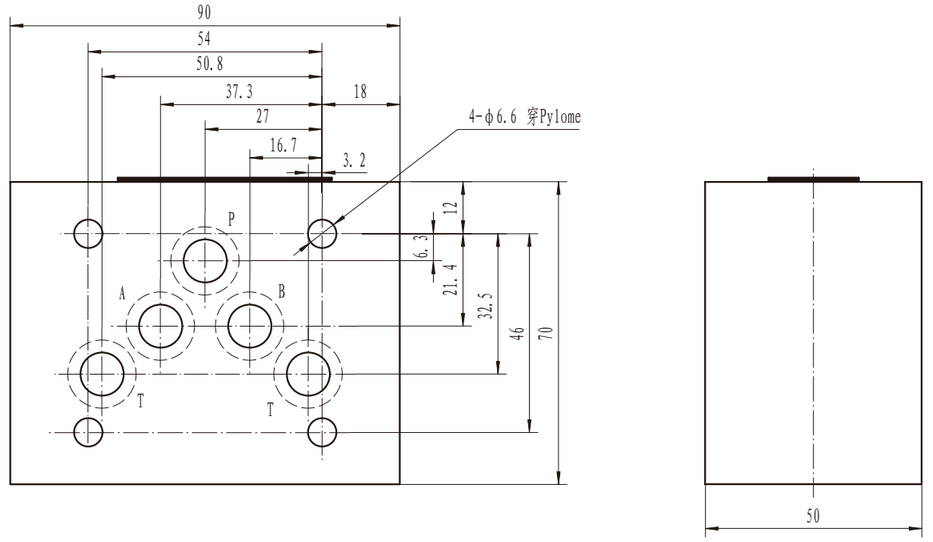
无 = 丁腈橡胶 V = 氟橡胶
No code=NBR seals
V=FPM seals

系列号
Series number

Z1DS6外形尺寸和安装 Z1DS6 External Dimensions and Fittings



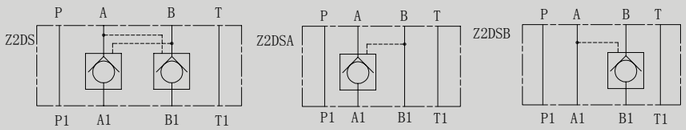
Z1DS10外形尺寸和安装 Z1DS10 External Dimensions and Fittings



Z2DS型叠加式单向阀

Z2DS SERIES PILOT CONTROLLED MODULAR CHECK VALVES

符号 SYMBOL

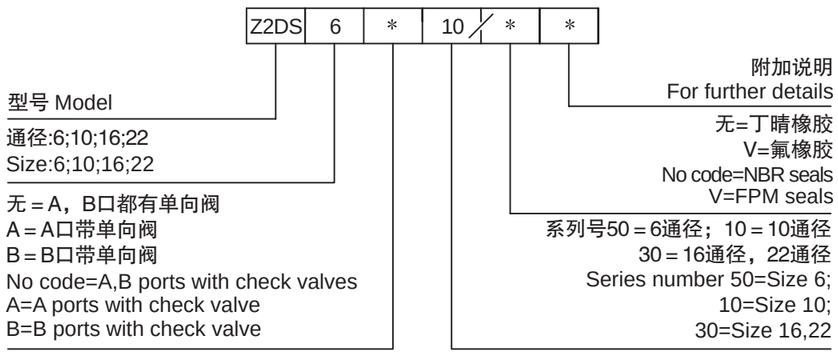


Z2DS型单向阀是叠加式液控单向阀，它可用于关闭一个或两个工作油口且无泄漏持续工作时间长，稳定性好。

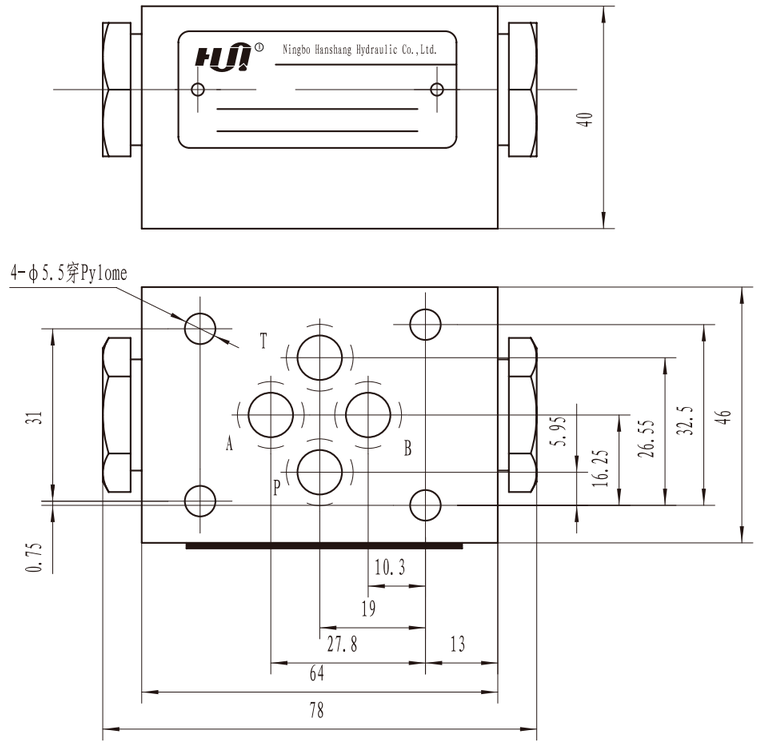
Z2DS series are pilot operated style sandwich valves. These valves used to close one or two actuator ports.

技术参数 Technical data

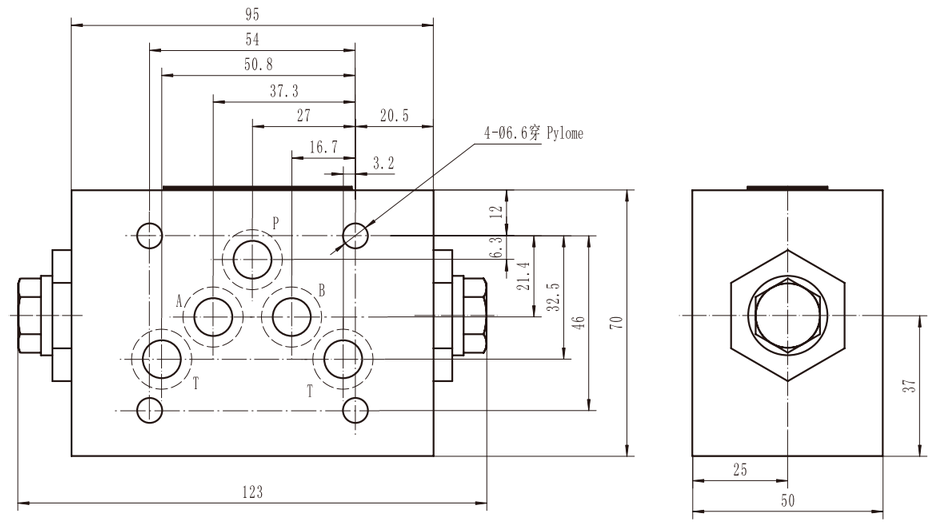
通径 Size	6	10	16	22
工作压力(MPa) Operating pressure (MPa)	31.5	31.5	31.5	31.5
流量(L/min) Flow rate (L/min)	50	80	200	300
介质温度范围（℃）Fluid temperature range（℃）	-30～80℃	-30～80℃	-30～80℃	-30～80℃
重量(千克) Weight(KGS)	1	2.2	6.8	12.8
阀体（材料）表面处理 Valve body（Material）Surface treatment	铸件 表面磷化处理 casting phosphating surface			
油液清洁度/Oil cleanliness	NAS1638 9级和ISO4406 20/18/15级 NAS1638 class 9 and ISO4406 class 20/18/15			



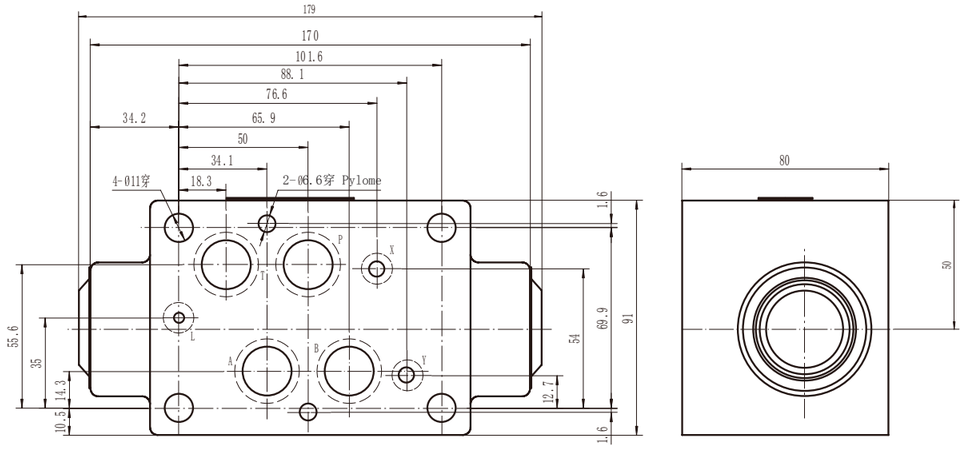
Z2DS6外形尺寸和安装 Z2DS6 External Dimensions and Fittings



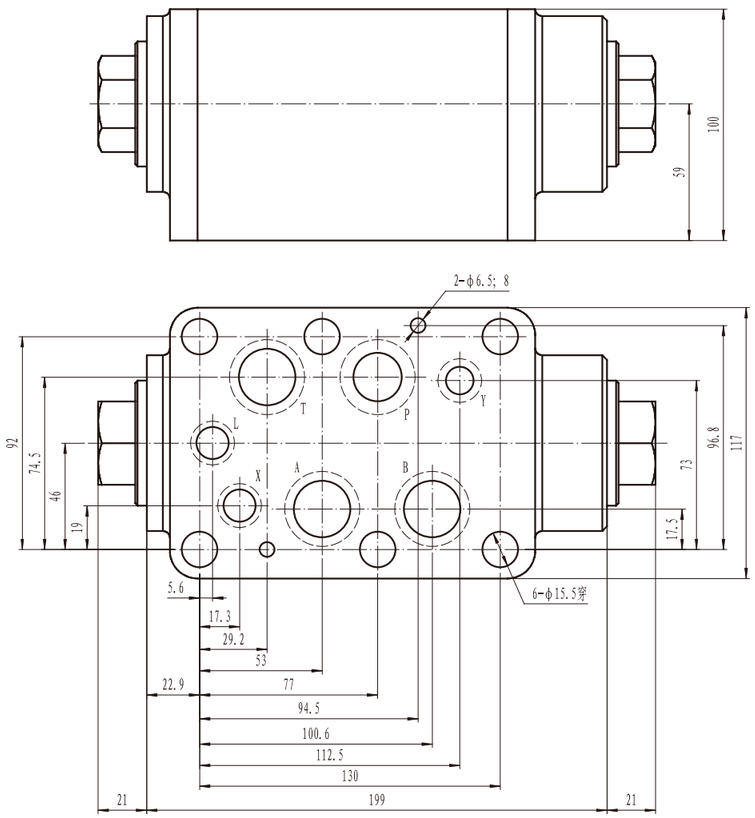
Z2DS10外形尺寸和安装 Z2DS10 External Dimensions and Fittings



Z2DS16外形尺寸和安装 Z2DS16 External Dimensions and Fittings



Z2DS22外形尺寸和安装 Z2DS22 External Dimensions and Fittings

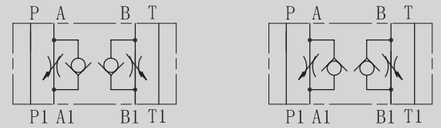


Hanshang Hydraulic

Z2FDS 型叠加式双单向节流阀

Z2FDS SERIES DOUBLE THROTTLE CHECK VALVES

符号 SYMBOL



Z2FDS 型叠加式双单向节流阀通过改变节流口断面大小来调节油路流量，从而实现流量控制，在反向时，液压油直接通过单向阀回油。

Z2FDS series double throttle/check valves are used to restrict flow in one direction while allowing free-flow in the opposite direction as check valves.

技术参数 Technical data

通径 Size	6	10	16	22
工作压力(MPa) Operating pressure (MPa)	31.5	31.5	31.5	31.5
流量(L/min) Flow rate (L/min)	80	160	250	350
介质温度范围（℃）Fluid temperature range（℃）	-30 ~ 80℃	-30 ~ 80℃	-30 ~ 80℃	-30 ~ 80℃
重量(千克) Weight(KGS)	1	2.2	4.7	8
阀体（材料）表面处理 Valve body（Material）Surface treatment	铸件 表面磷化处理 casting phosphating surface			
油液清洁度/Oil cleanliness	NAS1638 9级和ISO4406 20/18/15级 NAS1638 class 9 and ISO4406 class 20/18/15			

Z2FDS	6	30	/	S	V	*

型号
Model

通径：6；10；16；22
Size: 6,10,16,22

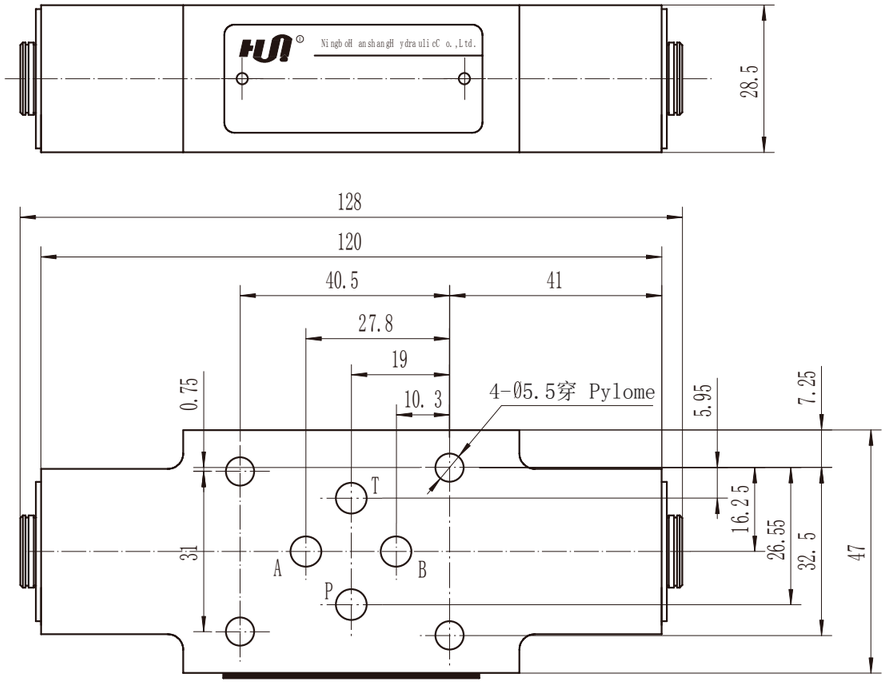
系列号30＝通径6、16、22；20＝通径10
Series number 30=Size6,16,22; 20=Size10

附加说明
For further details

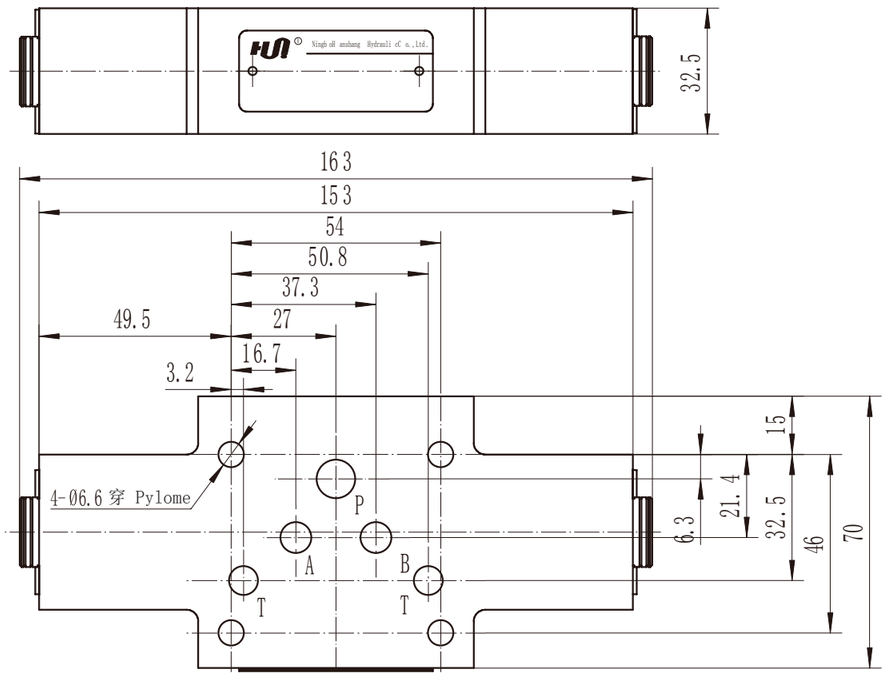
无=丁晴橡胶
V=氟橡胶
No code=NBR seals for petroleum oils
V=FPM seals for phosphate ester

S=进口节流；S2＝出口节流
S=Meter-in control; S2=Meter-out control

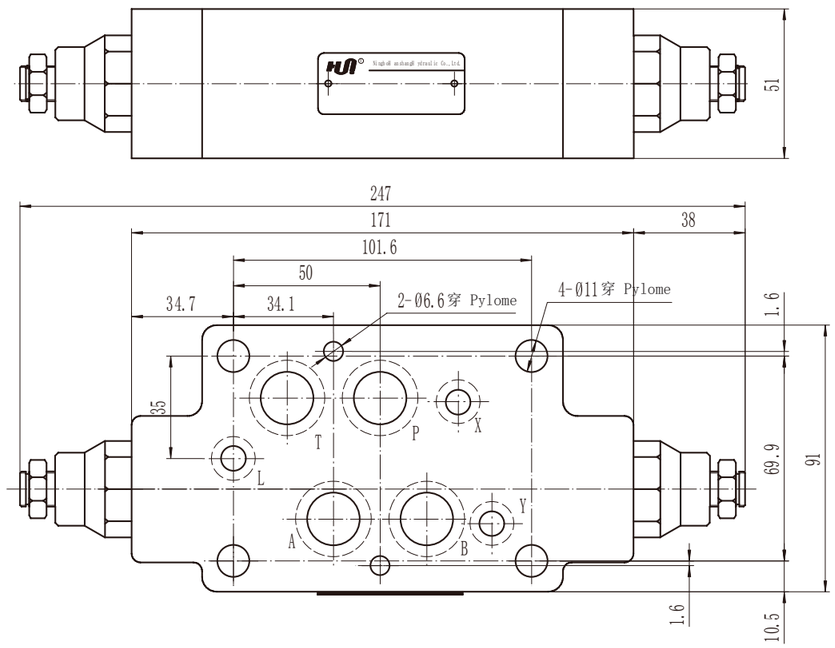
Z2FDS6外形尺寸和安装 Z2FDS6 External Dimensions and Fittings



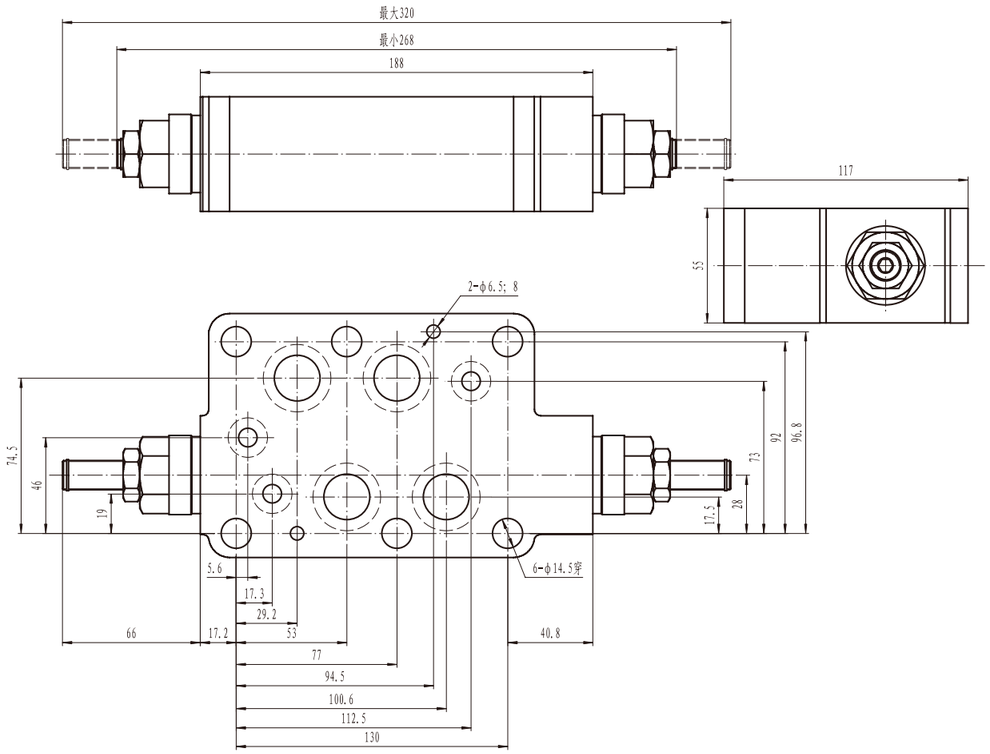
Z2FDS10外形尺寸和安装 Z2FDS10 External Dimensions and Fittings



Z2FDS16外形尺寸和安装 Z2FDS16 External Dimensions and Fittings



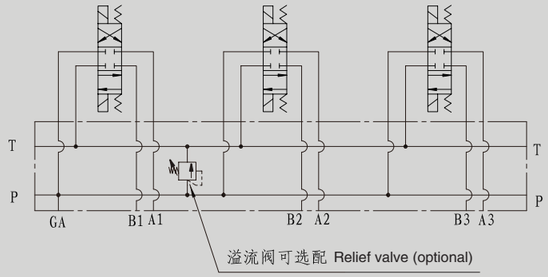
Z2FDS22外形尺寸和安装 Z2FDS22 External Dimensions and Fittings



HSD(A)ZVB6P 阀板系列

HSD(A)ZVB6P SERIES MANIFOLD

符号 SYMBOL



HSZVB16P 阀板 MANIFOLD

HS | A | ZVB6 | P | 1 | B | C | *

A=铝LD7最高压力20.7MPa
D=钢45#最高压力31.5MPa
A=Aluminum max pressure 20.7MPa
D=Steel max pressure 31.5MPa

ZVB6=6通径阀板
ZVB6=NG6 manifold

P=并联油路块
P=Parallel connection

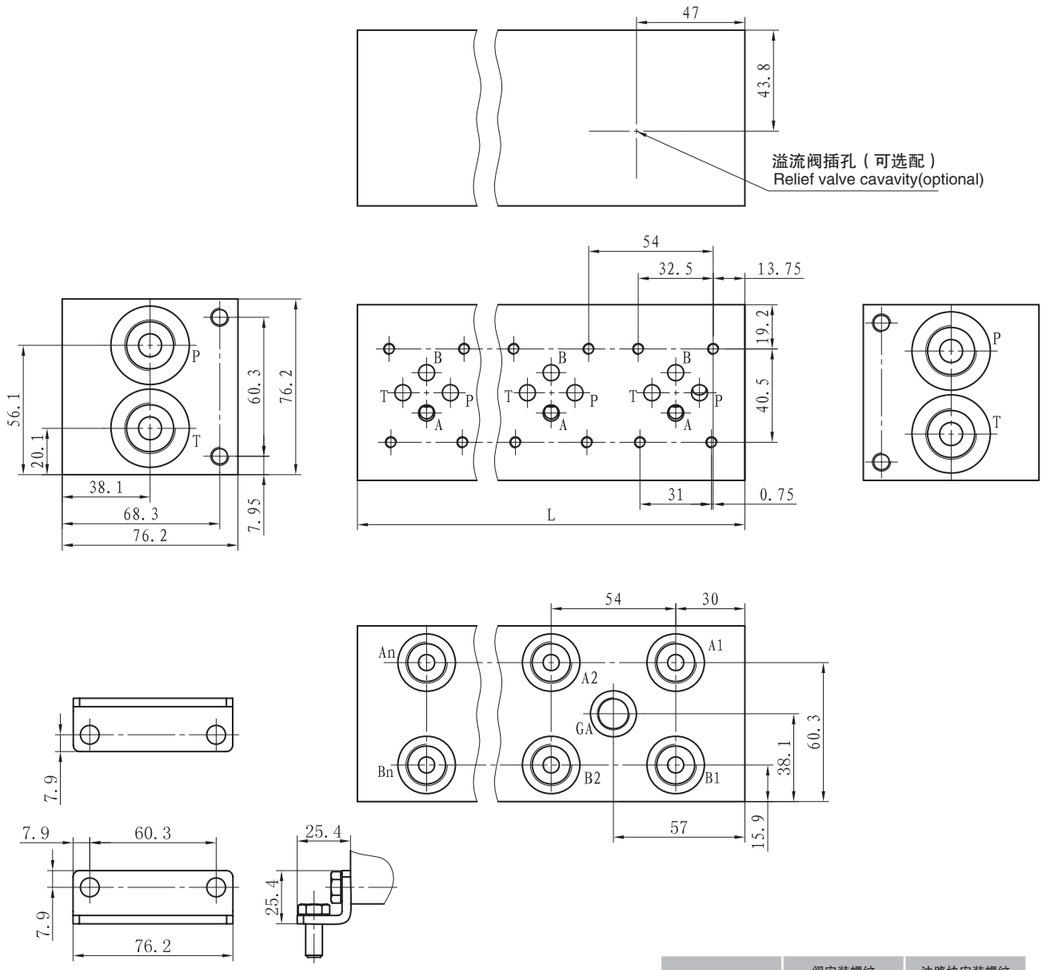
并联数量 Stations number
1–2–3–4–5–6–7–8–9–10

附加说明
For further details

Cavity
省略=无溢流阀插孔
C=海德福斯插孔10–2
No code=Without cavity of relief valve
C=With cavity of relief valve 10–2

油路块螺纹 Thread type		P.T	A.B	GA
P	NPT(Z)	NPT1/2	NPT3/8	NPT1/4
S	SAE	SAE10	SAE8	SAE6
B	BSP(G)	BSP1/2	BSP3/8	/
M	M	M22X1.5	M18X1.5	/

HSZVB6P阀板 外形尺寸 HSZVB6P Installation Dimensions



油口种类 Thread type	阀安装螺纹 Valve Installation thread	油路块安装螺纹 Manifold Installation thread
P.S	#10–24UNCx15DP	5/16–18UNCx15DP
B.M	M5 ISO 6Hx12DP	M8 ISO 6Hx15DP

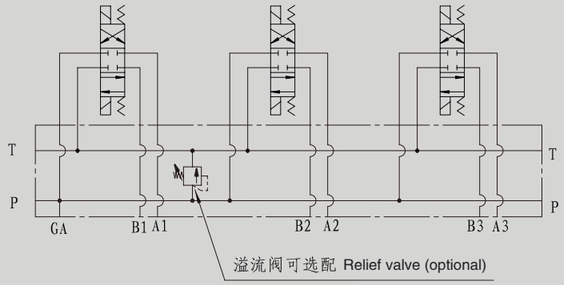
并联数量 Stations number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L(mm)	60	114	168	222	276	330	384	438	492	546	600	654	708	762	816	870

注：1联带溢流阀的油路块长度为79.2mm。1联不带压力表接口。
Attention: The length of 1 station manifold with relief valve is 79.22mm,1 station manifold without oil port for pressure gauge.

HSD(A)ZVB10P 阀板系列

HSD(A)ZVB10P SERIES MANIFOLD

符号 SYMBOL



HSZVB16P 阀板 MANIFOLD

HS	A	ZVB10	P	1	B	C	*

A=铝LD7最高压力20.7MPa
D=钢45#最高压力31.5MPa
A=Aluminum max pressure 20.7MPa
D=Steel max pressure 31.5MPa

ZVB10=10通径阀板
ZVB10=NG10 manifold

P=并联油路块
P=Parallel connection

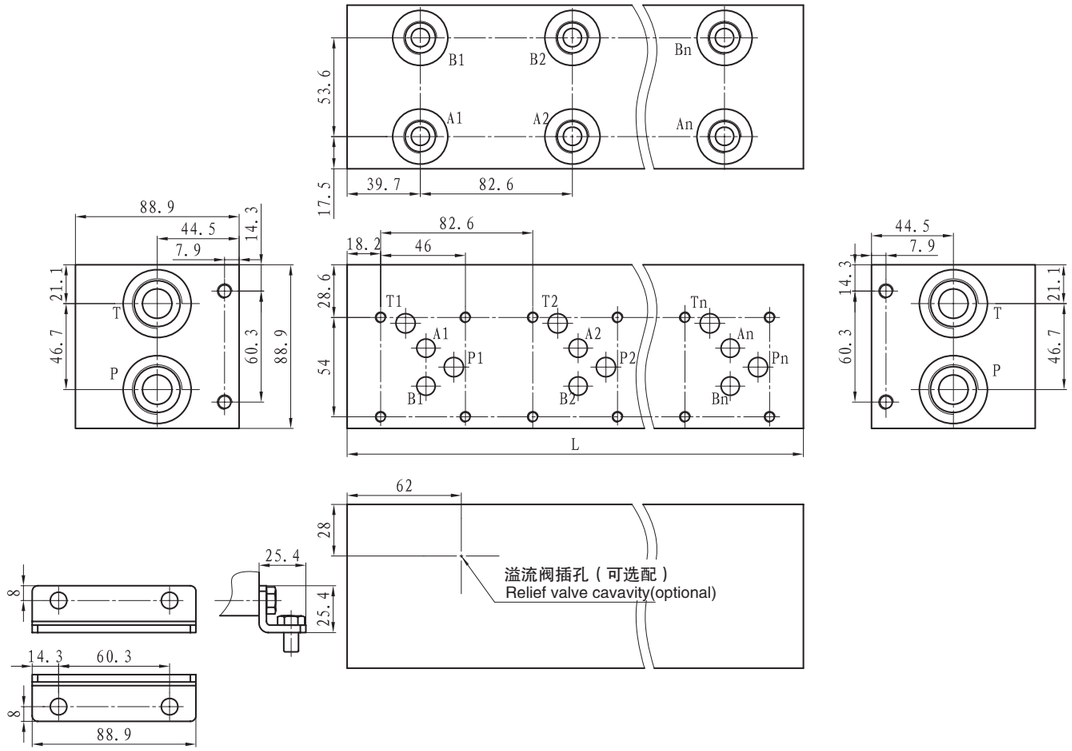
并联数量 Stations number
1–2–3–4–5–6–7–8–9–10

附加说明
For further details

省略=无溢流阀插孔
C=海德福斯插孔10–2
No code=Without cavity of relief valve
C=With cavity of relief valve 10–2

油路块螺纹 Thread type		P.T	A.B	GA
P	NPT(Z)	NPT3/4	NPT1/2	NPT1/4
S	SAE	SAE12	SAE8	SAE6
B	BSP(G)	BSP3/4	BSP1/2	/
M	M	M27X2	M18X1.5	/

HSZVB10P阀板 外形尺寸 HSZVB10P Installation Dimensions



油口种类 Thread type	阀安装螺纹 Valve Installation thread	油路块安装螺纹 Manifold Installation thread
P.S	1/4–20UNCx19DP	5/16–18UNCx12DP
B.M	M6 ISO H6x19DP	M8 ISO H6x12DP

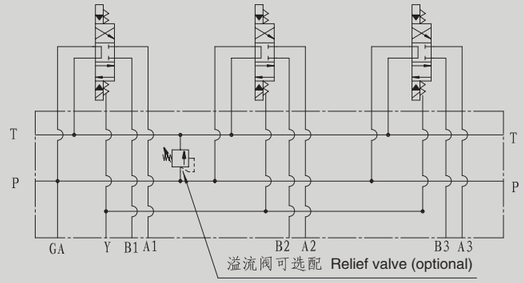
并联数量 Stations number	1	2	3	4	5	6	7	8	9	10
L(mm)	82.6	165.1	247.7	330.2	412.8	495.3	577.9	660.4	743	825.5

注：1联带溢流阀的油路块长度为101.6mm。1联不带压力表接口。
Attention: The length of 1 station manifold with relief valve is 101.6mm,1 station manifold without oil port for pressure gauge.

HSDZVB16P 阀板系列

HSDZVB16P SERIES MANIFOLD

符号 SYMBOL



HSZVB16P 阀板 MANIFOLD

HS | D | ZVB16 | P | 1 | B | C | *

附加说明
For further details

省略=无溢流阀插孔
C=海德福斯插孔10–2
No code=Without cavity of relief valve
C= With cavity of relief valve 10–2

油路块螺纹 Thread type		P.A.B	T	Y	GA
P	NPT(Z)	NPT3/4	NPT1	NPT3/8	NPT1/4
S	SAE	SAE12	SAE16	SAE6	SAE6
B	BSP(G)	BSP3/4	BSP1	BSP3/8	/
M	M	M27X2	M33X2	M14X1.5	/

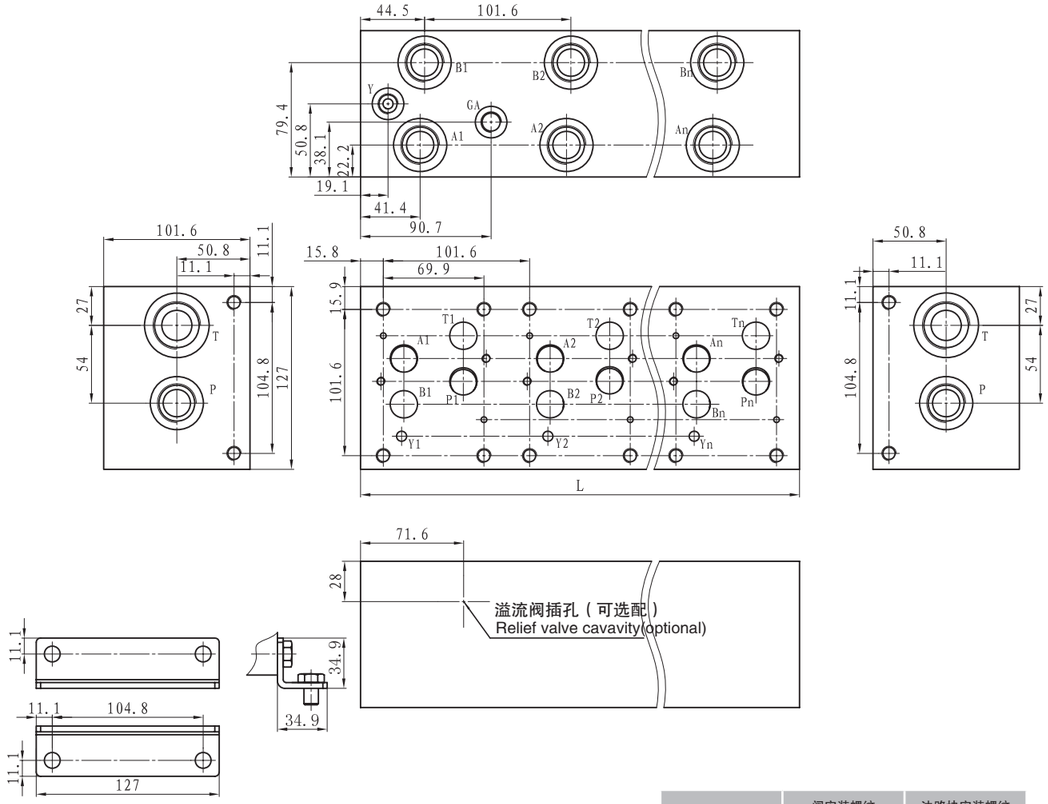
D=钢45#最高压力31.5MPa
D=Steel max pressure 31.5MPa

ZVB16=16通径阀板
ZVB16=NG16 manifold

P=并联油路块
P=Parallel connection

并联数量 Stations number
1–2–3–4–5–6–7–8

HSZVB16P阀板 外形尺寸 HSZVB16P Installation Dimensions



油口种类 Thread type	阀安装螺纹 Valve Installation thread	油路块安装螺纹 Manifold Installation thread
P.S	3/8–16UNCx25DP 1/4–20UNCx19DP	3/8–16UNCx19DP
B.M	M10 ISO H6x25DP M6 ISO H6x19DP	M10 ISO H6x19DP

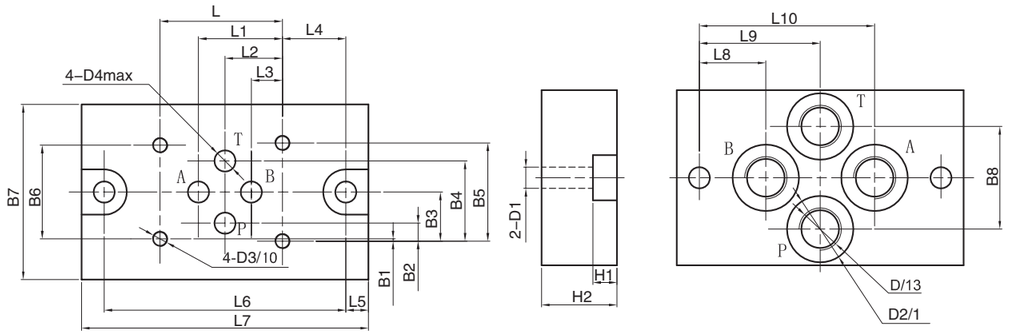
并联数量 Stations number	1	2	3	4	5	6	7	8
L(mm)	101.6	203.2	304.8	406.4	508	609.6	711.2	812.8

注：1联带溢流阀的油路块长度为119.7mm。1联不带压力表接口。
Attention: The length of 1 station manifold with relief valve is 119.7mm,1 station manifold without oil port for pressure gauge.

Hanshang Hydraulic

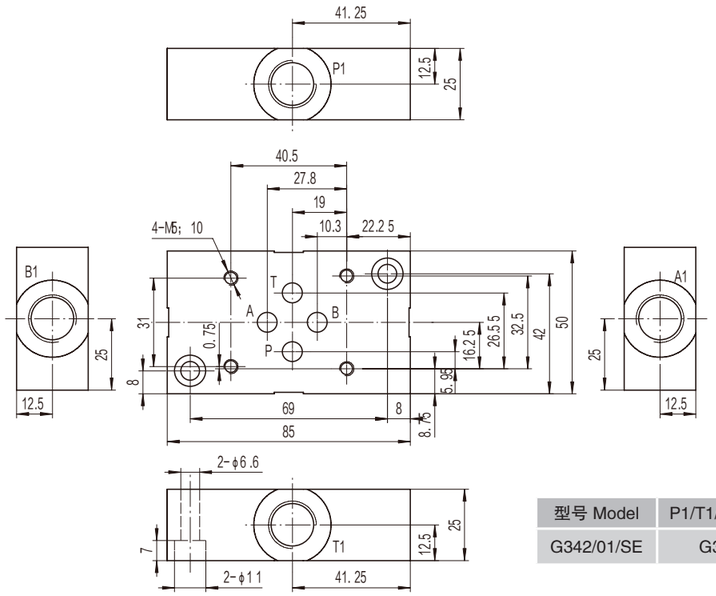
G 阀板系列

规格 6 Size 6



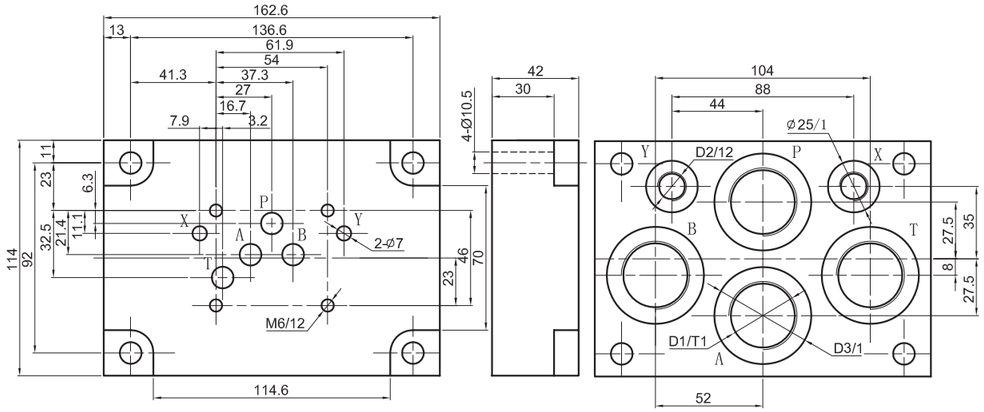
型号 Model	L	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	B1	B2
G34 10/01	40.5	27.8	19	10.3	21	7.5	80	95	22	40	58	0.75	5.95
G34 10/02	40.5	27.8	19	10.3	21	7.5	80	95	22	40	58	0.75	5.95
G34 42/01	40.5	27.8	19	10.3	26	7.5	90	105	21	45	69	0.75	5.95
G34 42/02	40.5	27.8	19	10.3	26	7.5	90	105	21	45	69	0.75	5.95
G50 02/01	40.5	27.8	19	10.3	36	7.5	110	125	27.5	55	82.5	0.75	5.95
G50 02/02	40.5	27.8	19	10.3	36	7.5	110	125	27.5	55	82.5	0.75	5.95

型号 Model	B3	B4	B5	B6	B7	B8	H1	H2	D	D1	D2	D3	D4
G34 10/01	16.25	26.55	32.5	31	58	34	8	25	G1/4	ϕ7	ϕ22	M5	ϕ7.6
G34 10/02	16.25	26.55	32.5	31	58	34	8	25	M14X1.5	ϕ7	ϕ22	M5	ϕ7.6
G34 42/01	16.25	26.55	32.5	31	80	44	8	29	G3/8	ϕ7	ϕ28	M5	ϕ7.6
G34 42/02	16.25	26.55	32.5	31	80	44	8	29	M18X1.5	ϕ7	ϕ28	M5	ϕ7.6
G50 02/01	16.25	26.55	32.5	31	102	58	8	34	G1/2	ϕ7	ϕ34	M5	ϕ7.6
G50 02/02	16.25	26.55	32.5	31	102	58	8	34	M22X1.5	ϕ7	ϕ34	M5	ϕ7.6

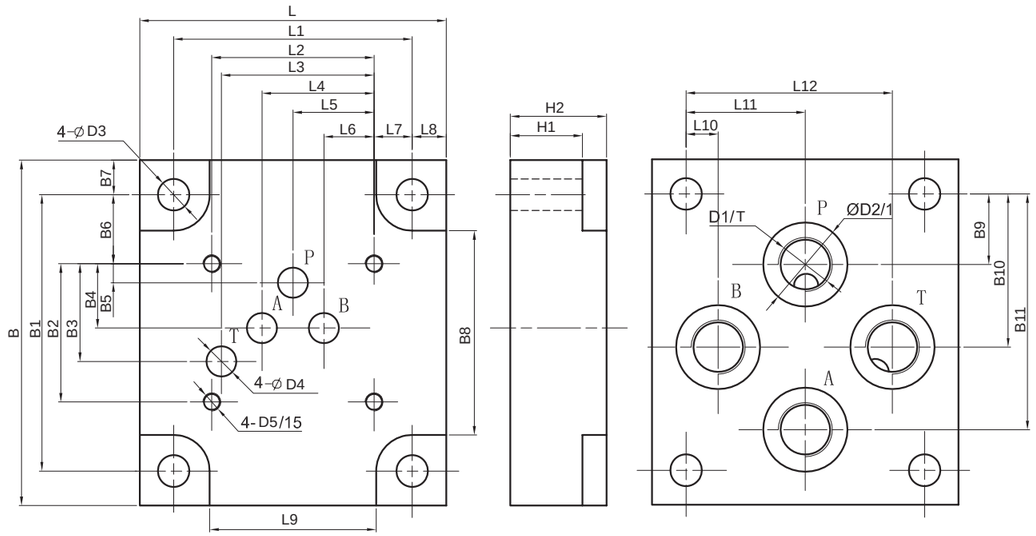


型号 Model	P1/T1/A1/B1
G342/01/SE	G3/8

规格10 Size 10



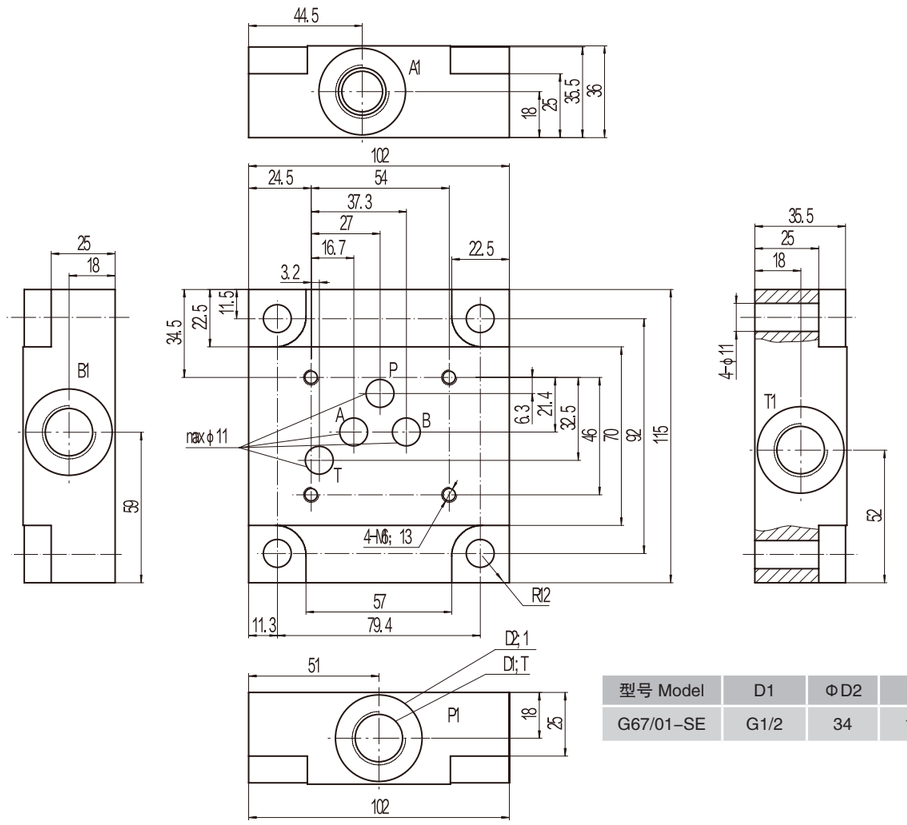
型号 Model	D1	D2	ΦD3	T1
G535/01	G3/4	G1/4	42	16
G535/02	M27X2	M14X1.5	42	16
G536/01	G1	G1/4	47	18
G536/02	M33X2	M14X1.5	47	18



型号 Model	L	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12	B	B1	B2	B3
G292/01	102	79.4	54	50.8	37.3	27	16.7	12.7	11.3	55.4	10.7	39.7	68.7	115	92	46	32.5
G308/01	102	79.4	54	50.8	37.3	27	16.7	12.7	11.3	55.4	10.7	39.7	68.7	115	92	46	32.5
G377/01	102	79.4	54	50.8	37.3	27	16.7	12.7	11.3	55.4	10.7	39.7	68.7	115	92	46	32.5
G378/01	102	79.4	54	50.8	37.3	27	16.7	12.7	11.3	55.4	10.7	39.7	68.7	115	92	46	32.5
G534/01	120	79.4	54	50.8	37.3	27	16.7	12.7	20.3	61.4	3.2	39.7	76.2	115	92	46	32.5
G66/01	102	79.4	54	50.8	37.3	27	16.7	12.7	11.3	55.4	10.7	39.7	68.7	115	92	46	32.5
G67/01	102	79.4	54	50.8	37.3	27	16.7	12.7	11.3	55.4	10.7	39.7	68.7	115	92	46	32.5
G66/02	102	79.4	54	50.8	37.3	27	16.7	12.7	11.3	55.4	10.7	39.7	68.7	115	92	46	32.5
G67/02	102	79.4	54	50.8	37.3	27	16.7	12.7	11.3	55.4	10.7	39.7	68.7	115	92	46	32.5

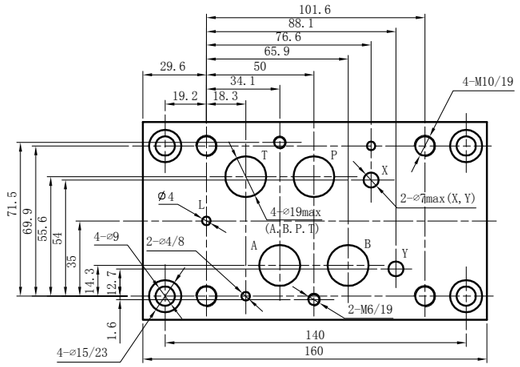
型号 Model	B4	B5	B6	B7	B8	B9	B10	B11	H1	H2	D1	D2	D3	D4	D5	T
G292/01	21.4	6.3	23	11.5	68	23.5	51	78.5	24	32	G1/2	34	10.5	10.5	M8	12
G308/01	21.4	6.3	23	11.5	68	23.5	51	78.5	24	32	G3/8	28	10.5	10.5	M8	12
G377/01	21.4	6.3	23	11.5	68	23.5	51	78.5	24	32	G3/8	28	10.5	10.5	M8	12
G378/01	21.4	6.3	23	11.5	68	23.5	51	78.5	24	32	G1/2	34	10.5	10.5	M8	12
G534/01	21.4	6.3	23	11.5	74	12	46	80	27	39	G3/4	42	10.5	10.5	M6	16
G66/01	21.4	6.3	23	11.5	68	23.5	51	78.5	24	32	G3/8	28	10.5	10.5	M6	12
G67/01	21.4	6.3	23	11.5	68	23.5	51	78.5	24	32	G1/2	34	10.5	10.5	M6	14
G66/02	21.4	6.3	23	11.5	68	23.5	51	78.5	24	32	M18X1.5	28	10.5	10.5	M6	12
G67/02	21.4	6.3	23	11.5	68	23.5	51	78.5	24	32	M22X1.5	34	10.5	10.5	M6	14

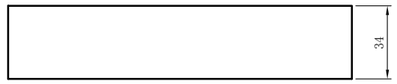
注：油口B不存在于底板G292/01和G308/01

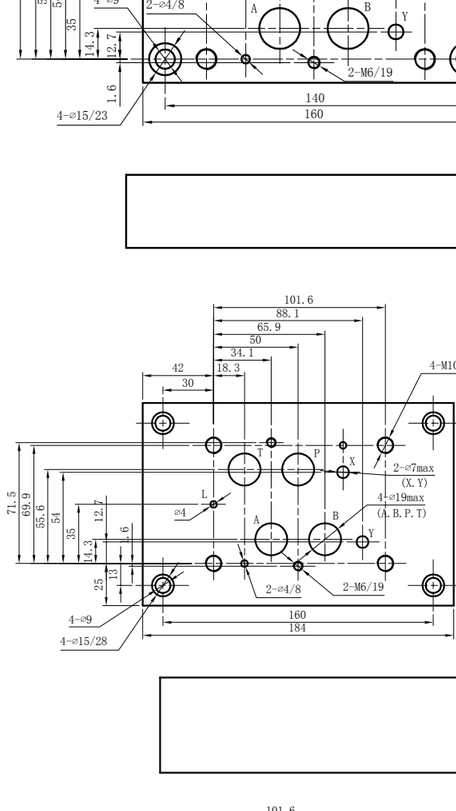


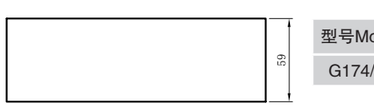
型号 Model	D1	ΦD2	T
G67/01-SE	G1/2	34	15

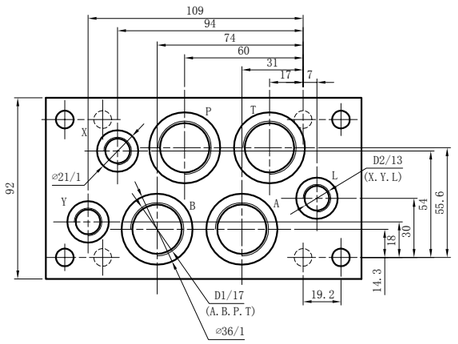
规格16 Size 16



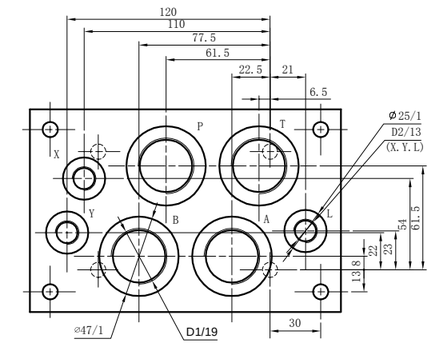




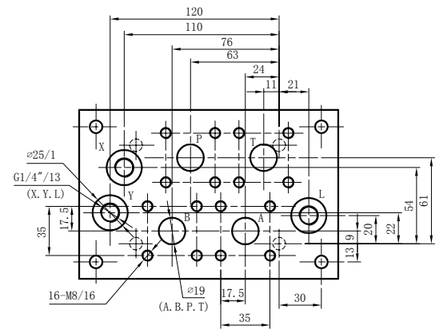




型号 Model	D1	D2
G172/01	G3/4	G1/4
G172/02	M27X2	M14X1.5

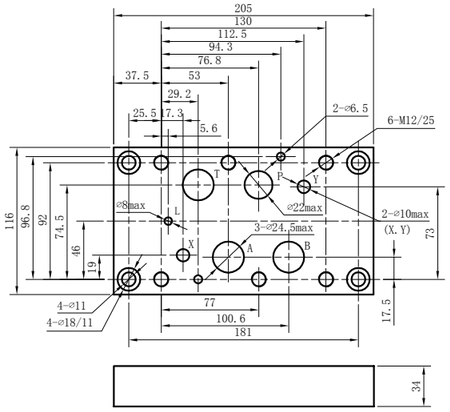


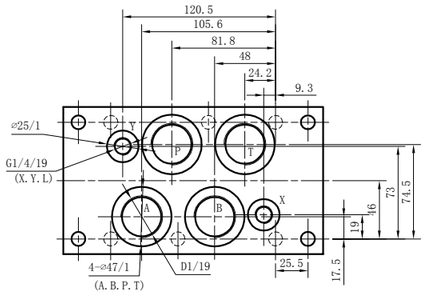
型号 Model	D1	D2
G174/01	G1	G1/4
G174/02	M33X2	M14X1.5



型号Model	连接法兰 Connecting flange	至25MPa	件号 Part number	009 271	重量(千克) Weight(Kgs)
G174/08		至40MPa		009 272	5.5

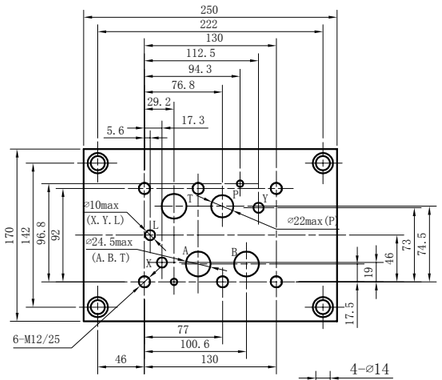
规格25 Size 25

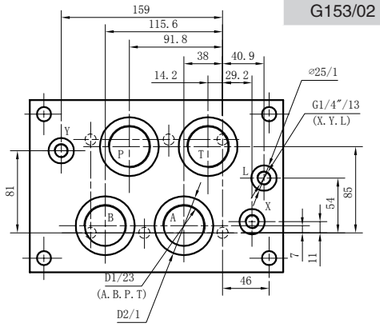


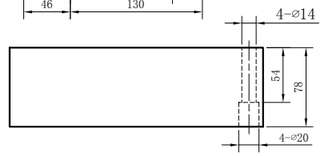


仅G153/01和G153/02 上有L孔
（用于液压对中）
L port is only for G 153/01 and
G 153/02 (Hydraulic return)

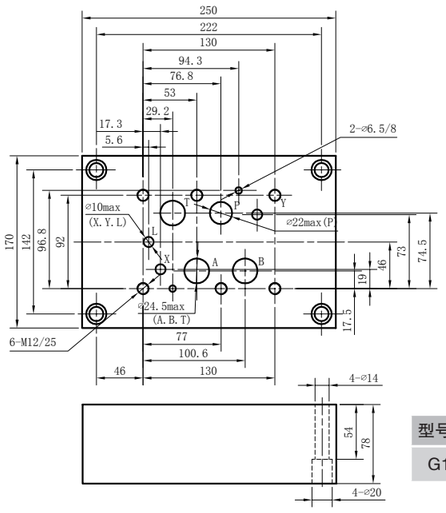
型号 Model	D1
G151/01	G1
G153/01	G1
G151/02	M33X2
G153/02	M33X2

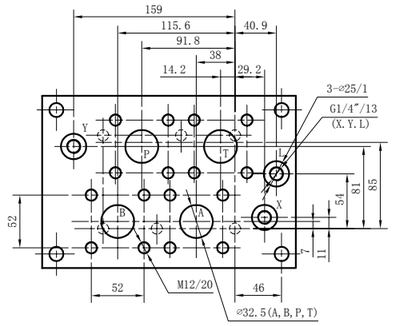






型号 Model	D1	D2
G154	G11/4	58
G156	G11/2	65
G154	M42X2	58
G156	M48X2	65

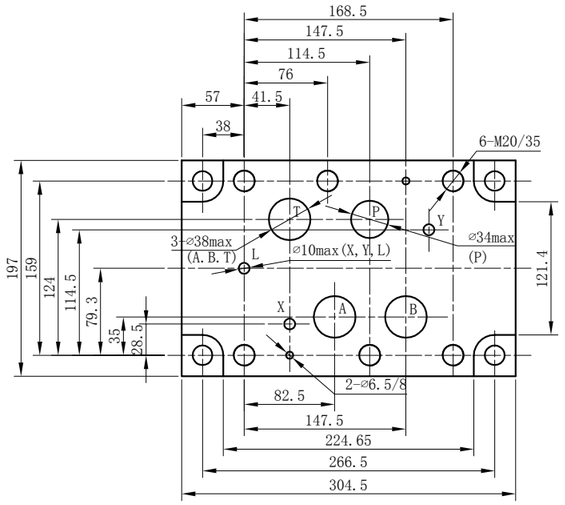


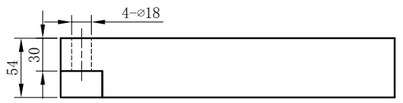


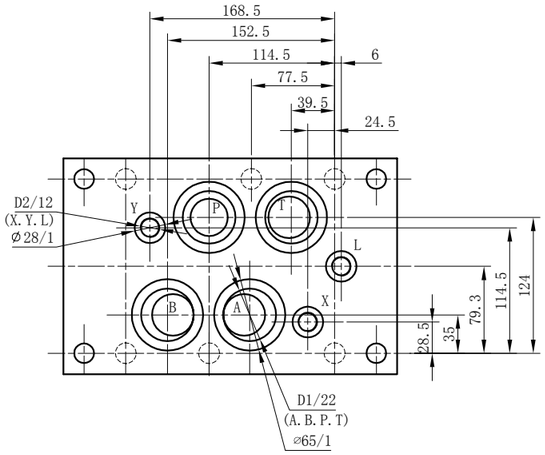
型号 Model	重量(千克) Weight(Kgs)
G154/08	20

连接法兰 Connecting flange	D1
25MPa	009 176
40MPa	009 177

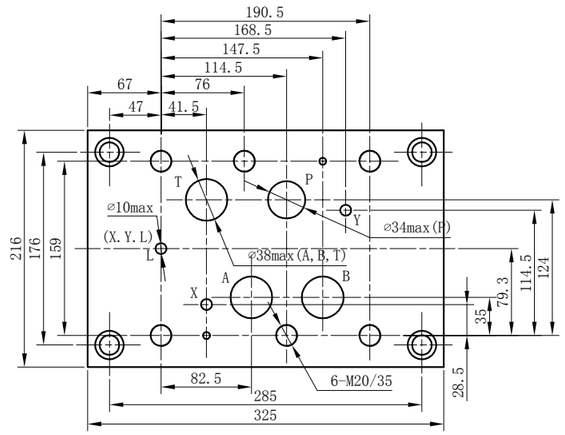
规格32 Size 32

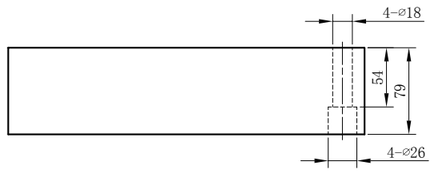


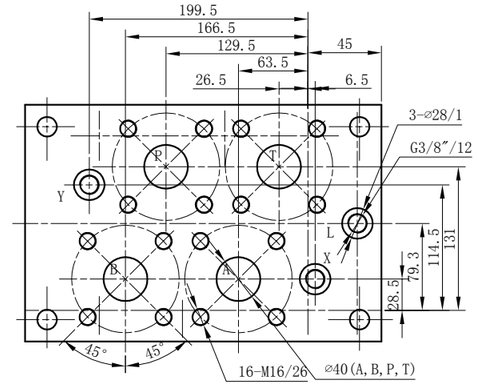




型号Model	D1	D2
G157/01	G1 1/2	G3/8
G157/02	M48X2	M18X1.5







连接法兰用于底板G158/10
Subplate G158/10 for connecting flange

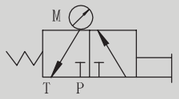
压力额定值 Working pressure	件 号 Part number
16MPa	303 901
32MPa	303 921
40MPa	303 931

Hanshang Hydraulic

AM1E型压力表隔离阀

AM1E SERIES PRESSURE GAUGE SHUTTER

符号 SYMBOL



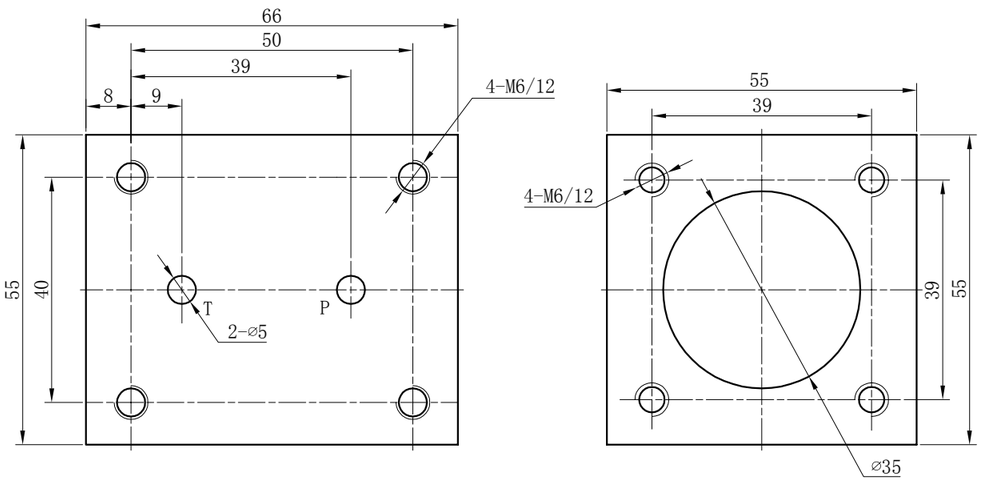
AM1E型压力表隔离阀是手动操作的三通滑阀，它用于偶尔检查主要工作压力。

AM1E series valve is a three-way slide valve operated manually, This series are used for checking a working pressure in hydraulic systems occasionally.

技术参数 Technical data

工作压力(Mpa) Operating pressure(Mpa)	至30 / To 30
压力表显示范围(Mpa) Pressure Gauge Indicating(Mpa)	6.3；10；16；25；40
介质温度(℃) Fluid temperature(℃)	–20 ~ 80
重量(千克) Weight(KGS)	1.4
阀体（材料）表面处理 Valve body（Material）Surface treatment	铸件 表面磷化处理 casting phosphating surface
油液清洁度/Oil cleanliness	NAS1638 9级和ISO4406 20/18/15级 NAS1638 class 9 and ISO4406 class 20/18/15

固定底板安装尺寸 Subplate Installation dimensions



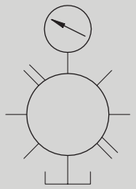
A	M	1	E	A	30	X	40	*	*

- 隔离阀 Shutter
- M=弹簧复位 M=Spring rebounding
- 1=通径6 1=Size 6
- E=单个阀 E=Single valve
- A=螺纹连接M14X1.5,G1/4,P=板式连接 A=Thread connection M14X1.5,G1/4, P=Subplate connection
- Series number 系列号
- X=不带附件；Y=带附件 X=Without accessories;Y=With accessories
- 压力表显示范围 Pressure gauge indicating range
- 无=丁晴橡胶 V=氟橡胶 No code=NBR seals V=FPM seals
- 附加说明 For further details

AM6E型六点压力表开关

AM6E SERIES PRESSURE GAUGE SWITCH WITH 6 POINTS

符号 SYMBOL



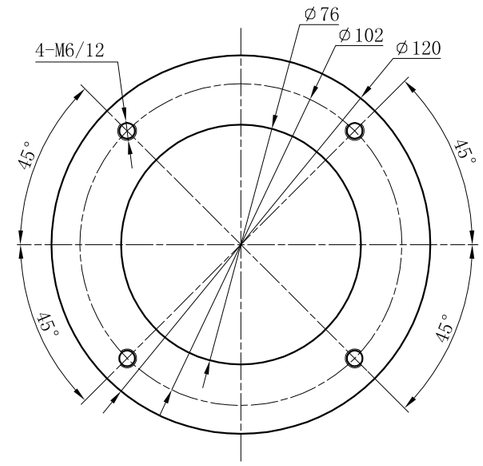
AM6E型压力开关为转阀式开关，借助于旋转的阀套，用于一个压力表可读出六个油路的压力。

AM6E series pressure gauge switch is a turned type switch.Only one can show the pressure in six oil lines by turning the valve bush.

技术参数 Technical data

最高允许工作压力(Mpa) Max.working pressure allowed (Mpa)	31.5
回油口最高允许背压(Mpa) Max. back pressure allowed in return oil ports(Mpa)	1
压力表显示范围(MPa) pressure gauge indicating range (MPa)	2.5，6，10，16，25，40
管接头螺纹规格 Union joint thread size	G1/4",Z1/4",M14X1.5
压力表接头螺纹 pressure gauge connection thread	G1/4",Z1/4",M14X1.5
介质温度范围(℃) Fluid temperature range (℃)	–20 ~ 80
重量(千克) Weight(KGS)	2.2
阀体（材料）表面处理 Valve body（Material）Surface treatment	钢件 表面发黑处理 Steel Body Surface Black Oxide
油液清洁度/Oil cleanliness	NAS1638 9级和ISO4406 20/18/15级 NAS1638 class 9 and ISO4406 class 20/18/15

固定底板安装尺寸 Installation dimensions



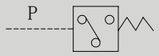
AM	6E	A	20 / 40	V	2	*

- 内装压力表的开关 Switch with the pressure gauge
- 有 6 个测压口 6 ports to measure the pressure
- A=螺纹连接 P=板式 A=Thread connection P=Subplate connection
- 系列号 Series number
- 压力表显示范围 Indicating range of Pressure (Mpa) 2.5;6;10;16;25;40
- 附加说明 For further details
  - 无=圆柱管螺纹 2=公制螺纹；5=圆锥管螺纹 NO code=columnar pipe thread 2=Metric thread 5=Conical pipe thread
  - 无=矿物质液压油 V=磷脂酸液压油 No code=NBR seals for petroleum oils V=FPM seals for phosphate ester

AED4型压力继电器/ZAED4型压力继电器

AED4 SERIES PRESSURE SWITCH/ZAED4 SERIES PRESSURE SWITCH

符号 SYMBOL



AED4型压力继电器作用和用途同AED1型压力继电器相同。

The function and usage of AED4 series pressure switch are equivalent to AED1 series pressure switch.

技术参数 Technical data

工作压力(Mpa) Operating Pressure range(Mpa)		5；10；35
开关频率(次/分) Switching frequency(Time/min)		120
油温范围(℃) Fluid temperature range(℃)		–20 ~ 80
重量(千克) Weight(KGS)	AED4OA	0.7
	AED4OP	0.9
阀体（材料）表面处理 Valve body（Material）Surface treatment		钢件 表面发黑处理 Steel Body Surface Black Oxide
油液清洁度/Oil cleanliness		NAS1638 9级和ISO4406 20/18/15级 NAS1638 class 9 and ISO4406 class 20/18/15

AED4O	P	10 / 10	Z14 / 2	V	*

型号 Model

P=板式；A=管式；H=叠加式
P=Subplate mounting
A=Threaded connection
H=Modular mounting

系列号 Series number

压力等级 Pressure range (Mpa) 5;10;35

小插头 Small plug

无=英制 2=公制
No code=Inch
2=Metric

无=丁晴橡胶
V=氟橡胶
No code=NBR seals for petroleum oils
V=FPM seals for phosphate ester

附加说明 For further details

作用与用途参照AED1型柱塞式压力继电器 For function and usage see the AED1 series piston pressure switch

Z	AED4O	A	OH	6

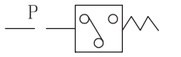
叠加式 Modular

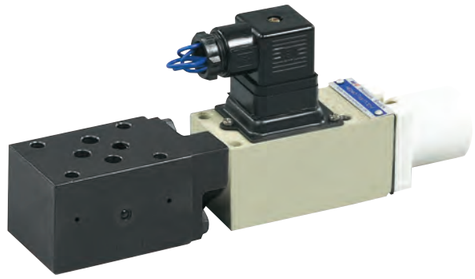
型号 Model

A=A口控制 B=B口控制P=P口控制
A、B=A、B双头控制
A=A port pilot B=B port pilot
P=P port pilot A.B=A.B port pilot

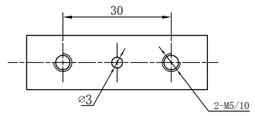
以下规格与AED40参数相同
This specification is the same as AED40

6=6通径；10=10通径 6=Size 6；10=Size 10

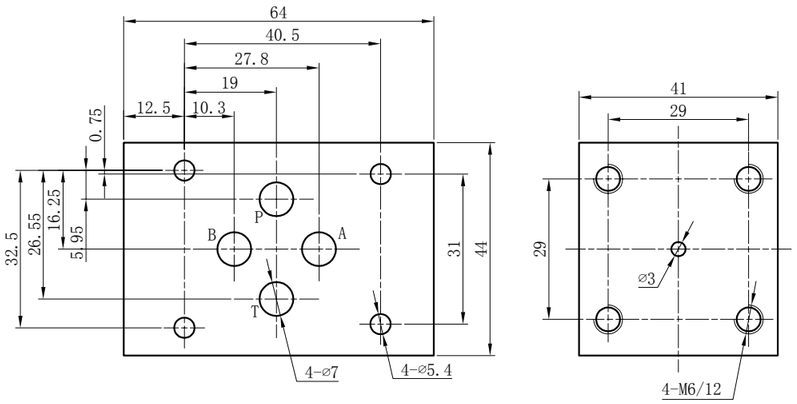




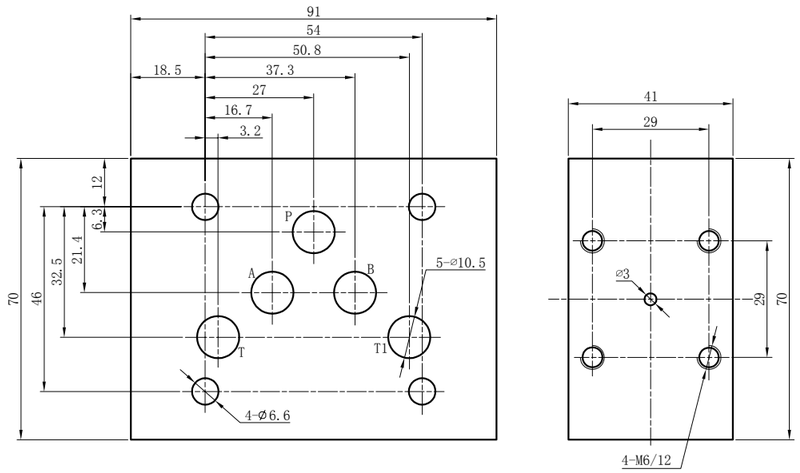
OP安装尺寸 OP Installation Dimensions



ZAED通径6叠加板 ZAED Size 6 subplate



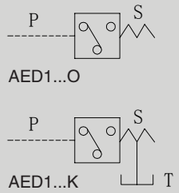
ZAED通径10叠加板 ZAED Size 10 subplate

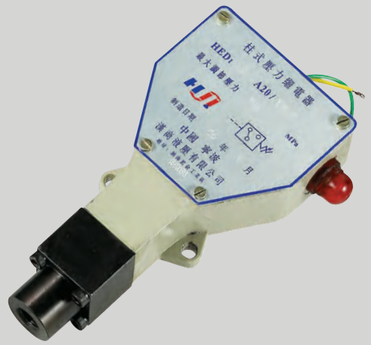


AED1型柱塞式压力继电器

AED1 SERIES PISTON PRESSURE SWITCH

符号 SYMBOL



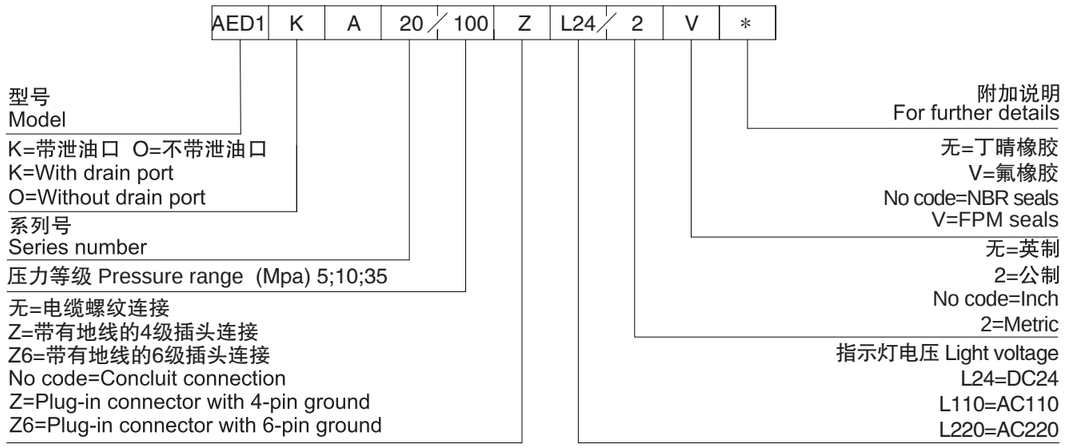


AED1型柱塞式压力继电器为液一电压力继电器，用于某段油路达到调定压力时，压力继电器即发出电讯号，控制某些电气元件的通、断。实现系统的顺序动作或做安全保护。

AED1 series piston pressure switches with normally closed contacts, are used to activate an electrical contact at an adjustable pressure setting.

技术参数 Technical data

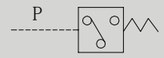
型号 Model		AED1 K		AED1 O	
工作压力等级(Mpa) Operating Pressure range(Mpa)		5,10,35		5,10,35	
泄油口压力(Mpa) Drain port pressure(Mpa)		0.2		—	
开关频率(次/分) Switching frequency(Time/min)		至300 To 300		至50 短时间至100 To 50 Up To100	
连接尺寸 Installation dimensions		M14X1.5	G1/4	M14X1.5	G1/4
重量(千克) Weight(KGS)	AED1OA	0.9			
	AED1KA	0.8			
阀体（材料）表面处理 Valve body（Material）Surface treatment		钢件 表面发黑处理 Steel Body Surface Black Oxide			
油液清洁度/Oil cleanliness		NAS1638 9级和ISO4406 20/18/15级 NAS1638 class 9 and ISO4406 class 20/18/15			



LPS型压力继电器

LPS-01 PRESSURE SWITCH

符号 SYMBOL

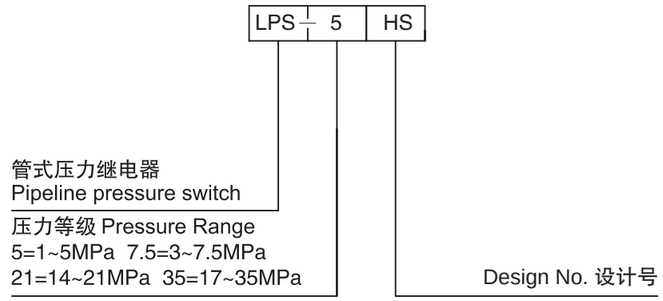


LPS型柱塞式压力继电器，采用微动开关发讯，用于控制带电器的液压元件通断，使执行机构工作或停止。该型号压力继电器电器压力控制范围大、操作方便、安装简单。

LPS-01 series piston pressure switches are adopted micro-switch to control the start or stop of hydraulic components, it has characteristic of large pressure control range ,easy operation and installation.

技术参数 Technical data

型号 Model	LPS
工作压力(Mpa) Operating Pressure(Mpa)	0.5–31.5
连接螺纹 Connection threaded	Z1/4
最高使用电压(V) Max.operating pressure(V)	240
开关频率(次/分) Switching frequency(Time/min)	至300 / To 300
重量(千克) Weight(KGS)	0.8
油液清洁度/Oil cleanliness	NAS1638 9级和ISO4406 20/18/15级 NAS1638 class 9 and ISO4406 class 20/18/15

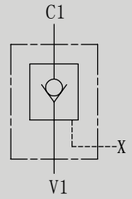


Hanshang Hydraulic

HPLK 型液控单向阀

HPLK PILOT OPERATED CHECK VALVES

符号 SYMBOL



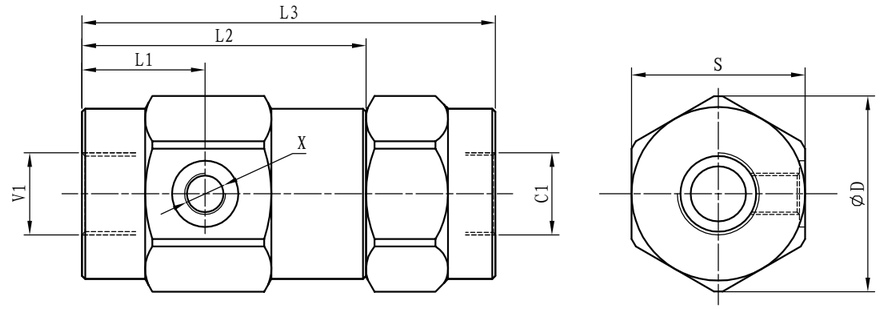
当V1口压力升高至弹簧设定压力时，阀芯被顶起脱离阀座，油液从V1到C1可以自由流动，正常状态下从C1到V1阀是关闭的，当X口的先导压力足够大时，先导油作用在先导活塞上推动阀芯脱离阀座油液可以从C1到V1自由流动，在阀处于截止状态时，阀为零泄漏。

Flow is allowed to pass from V1 to C1 when pressure at V1 rises above the spring bias pressure and the poppet is pushed from its seat. The valve is normally closed (checked) from C1 to V1; when sufficient pilot pressure is present at X port, the pilot piston acts to push the poppet from its seat and flow is allowed from C1 to V1. Precision machining and hardening processes allow virtually leak-free performance in the checked condition.

技术参数 Technical data

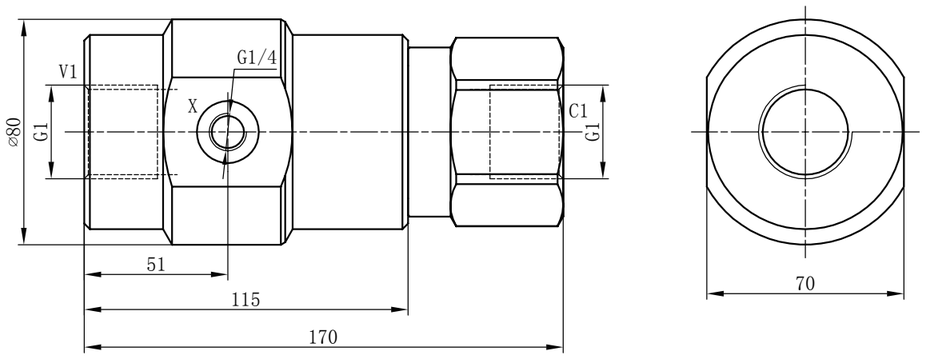
型号 Model	HPLK–1/4–20	HPLK–3/8–35	HPLK–1/2–50	HPLK–3/4–100	HPLK–1–150
最大流量（L/min）Max Flow rate（L/min）	20	35	50	100	150
最大工作压力（Mpa) Max operating pressure（MPa）	31.5				
控制比/Pilot ratio	4.7:1	4.4:1	4.6:1	3.8:1	3.2:1
阀体（材料）表面处理 Valve body（Material）Surface treatment	（钢体）表面镀白锌处理 （Steel body）Surface clear zinc plating				
油液清洁度 Oil cleanliness	NAS1638 9级和ISO4406 20/18/15级 NAS1638 class 9 and ISO4406 class 20/18/15				

HPLK安装尺寸 HPLK Installation Dimensions



型号 Model	L1	L2	L3	V1 C1	X	S	ϕ D
HPLK–1/4–20	29	78	101.5	G1/4"	G1/4"	40	44
HPLK–3/8–35	31.5	82	106	G3/8"	G1/4"	41	45
HPLK–1/2–50	36	85	120	G1/2"	G1/4"	42	47
HPLK–3/4–100	39	90	131	G3/4"	G1/4"	55	62

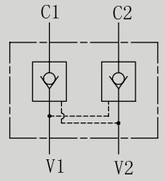
HPLK–1–150安装尺寸 HPLK–1–150 Installation Dimensions

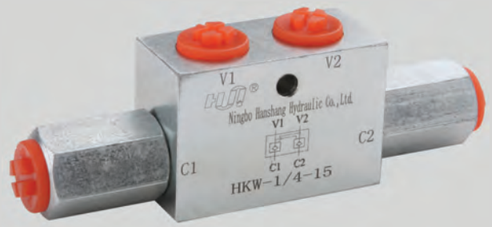


HKW 双向液压锁

HKW DOUBLE-DIRECTION HYDRAULIC LOCK

符号 SYMBOL





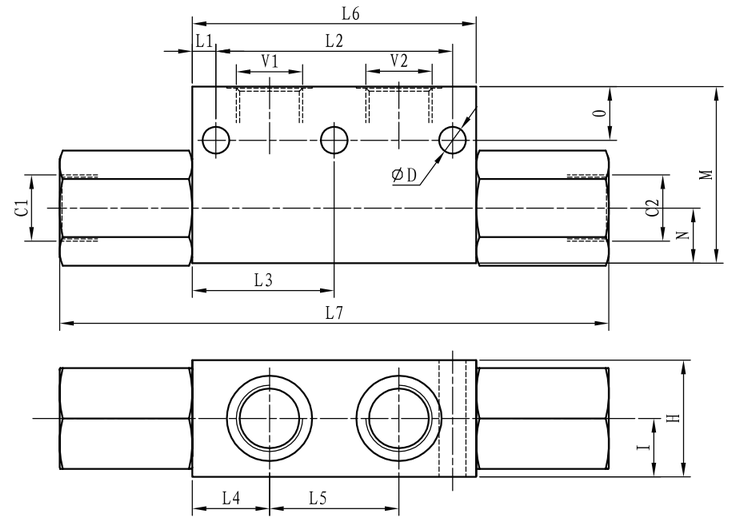
油液从V1口到C1口或V2口到C2口可以自由流动， 为了保证液压缸或其它执行器锁定在固定的位置，油液由C1流向V1或C2流向V2时，阀处于关闭状态，当作用在V2口或V1口的先导压力足够大时，相对应的V1到C1或V2到C2是导通的。

Flow is allowed to pass in one direction (V1 to C1 or V2 to C2), then the valve remains closed (checked) in both reverse directions (C1 to V1 or C2 to V2) in order to hold and lock in position the cylinder or other actuators; reverse flow is possible only when sufficient pilot pressure is applied at V2 or V1,which act as cross connected pilot ports, and the pilot piston lifts the poppet from its seat overcoming cylinder port pressure.

技术参数 Technical data

型号 Model	HKW–1/4–15	HKW–3/8–35	HKW–1/2–50	HKW–3/4–100
最大流量（L/min）Max Flow rate（L/min）	15	35	50	100
最大工作压力（Mpa) Max operating pressure（MPa）	31.5			
控制比 Pilot ratio	4:1	5.2:1	4.3:1	3.9:1
阀体（材料）表面处理 Valve body（Material）Surface treatment	（钢体）表面镀白锌处理 （Steel body）Surface clear zinc plating			
油液清洁度 Oil cleanliness	NAS1638 9级和ISO4406 20/18/15级 NAS1638 class 9 and ISO4406 class 20/18/15			

HKW安装尺寸 HKW Installation Dimensions

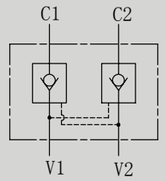


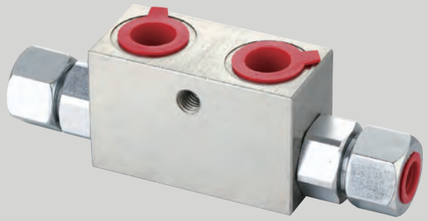
型号 Model	L1	L2	L3	L4	L5	L6	L7	O	N	M	I	H	ϕD	V1 C1 V2 C2
HKW–1/4–15	–	–	32.2	17.5	29	63	130	8	14.5	43	14.5	29	6.4	G1/4"
HKW–3/8–35	–	–	32	17	30	64	120	9	13	40	15	30	6	G3/8"
HKW–1/2–50	7.5	75	–	24.5	41	90	174	17	17.5	56	18.5	37	8.5	G1/2"
HKW–3/4–100	8	104	–	30	60	120	213	16	25	70	25	50	9	G3/4"

VBPDE–38 双向液压锁

VBPDE-38 DOUBLE-DIRECTION HYDRAULIC LOCK

符号 SYMBOL

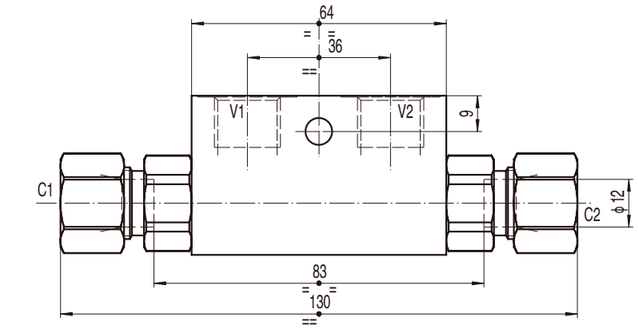


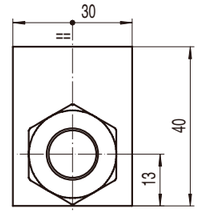


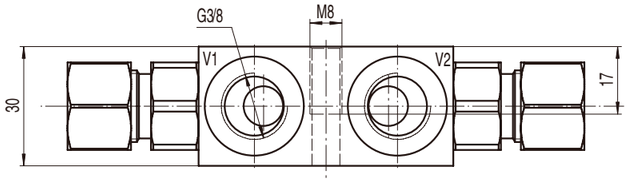
技术参数 Technical data

型号 Model	VBPDE–38
工作压力(Mpa) Operating pressure(Mpa)	31.5
最大流量(L/min) Max .flow rate(L/min)	30
介质温度(℃) Fluid temperature(℃)	–20 ~ 70
控制比 Pilot ratio	5.2:1
油液清洁度 Oil cleanliness	NAS1638 9级和ISO4406 20/18/15级 NAS1638 class 9 and ISO4406 class 20/18/15
阀体（材料）表面处理 Valve body（Material）Surface treatment	（钢体）表面镀白锌处理 （Steel body）Surface clear zinc plating

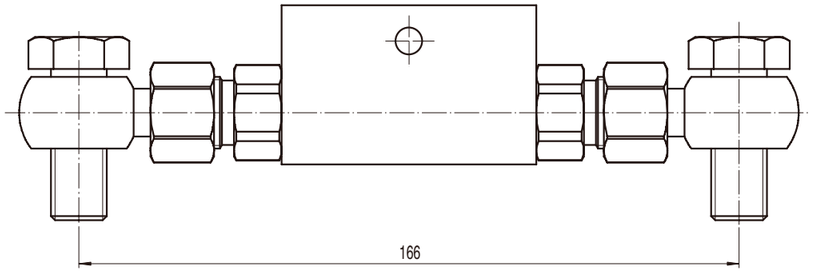
VBPDE–38 安装尺寸/Installation dimensions







油口尺寸Size of oil port	
V1、V2	G3/8
C1、C2	Φ12mm

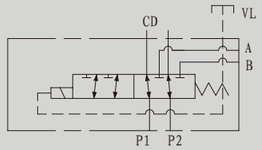


Hanshang Hydraulic

MOP.06.6 多回路选择阀

MOP.06.6 FLOW DIVERTERS

符号 SYMBOL



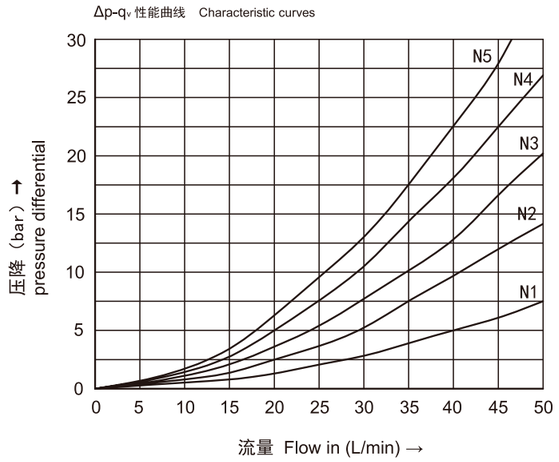
MOP.06.6管式连接的多回路选择阀，最多可以5个元件连接在一起，供给6个回路工作。这种阀可以以最小的压力损失控制系统的油路。

The stackable circuit selector valves, type MOP.06.6,allows one single drive of 6 users with 5 elements connected in series. As they are moved from high performances solenoids they don't need the external drainage .
This valves can manage high hydraulic powers with a minimal pressure drop.

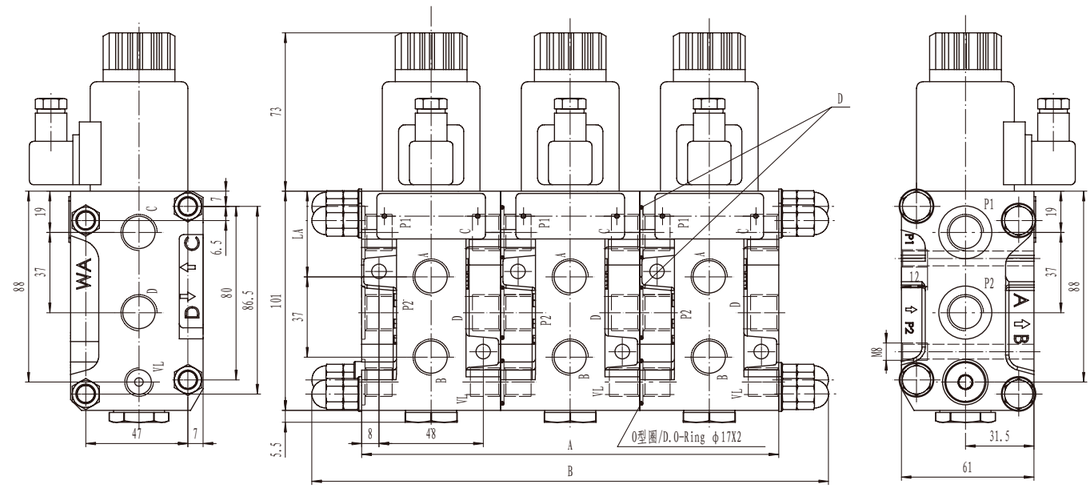
技术参数 Technical data

型号 Model	MOP.06.6
最大流量（L/min）Max Flow rate（L/min）	50
最大工作压力（Mpa) Max operating pressure（MPa）	25
阀体（材料）表面处理 Valve body（Material）Surface treatment	（铸件）表面磷化处理/（casting）phosphating surface
油液清洁度 Oil cleanliness	NAS1638 9级和ISO4406 20/18/15级 NAS1638 class 9 and ISO4406 class 20/18/15

特性曲线（在使用 HLP46，ϑ油=40℃±5℃时测得）
Characteristic curves（measured with HLP46，Voil=40℃±5℃）



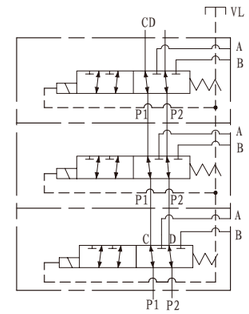
安装尺寸 Installation Dimensions

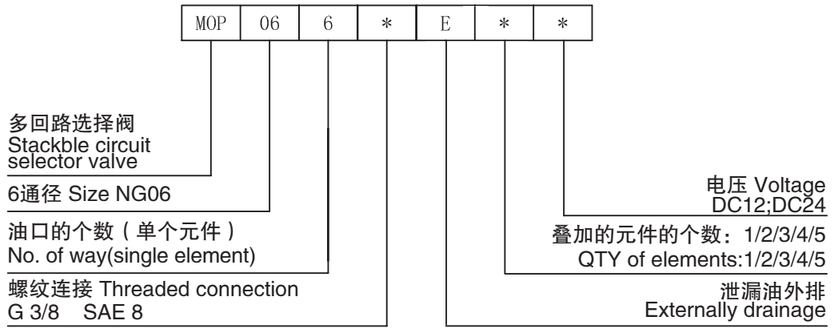


LA=39.5(G3/8,M18X1.5)
38.5(SAE8)
37.5(G1/2,M22X1.5)

D.O 型圈 / D.O-Ring:
M18X1.5/G3/8=Φ21X2
M22X1.5/G1/2=Φ23.5X2
SAE8=Φ 26X2

元件 elements	通路 way	A	B
个数 No . of		长度(mm) Lengths (mm)	
1	6	64	–
2	8	128	174
3	10	192	238
4	12	256	302
5	14	320	366

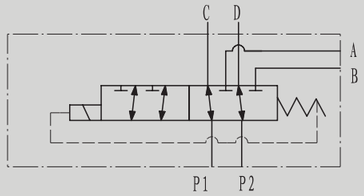




MOPRN–06 多回路选择阀

MOPRN-06 FLOW DIVERTERS

符号 SYMBOL

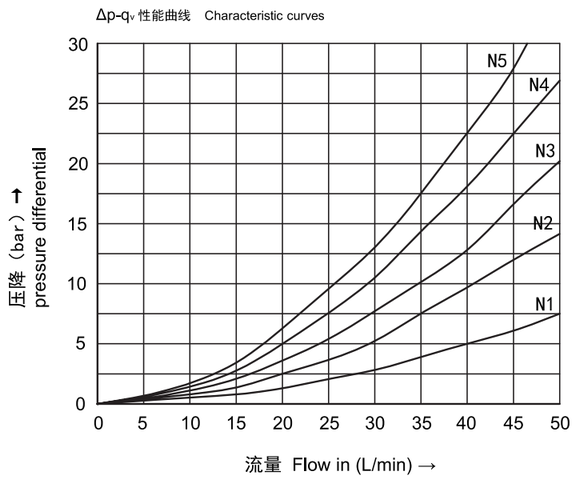


技术参数 Technical data

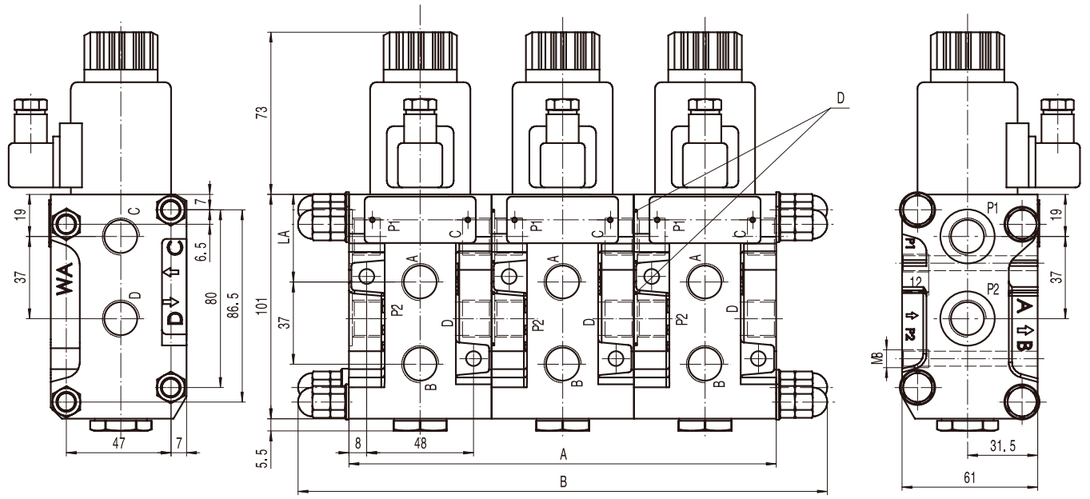
型号 Model	MOPRN–06
最大流量（L/min）Max Flow rate（L/min）	50
最大工作压力（Mpa) Max operating pressure（MPa）	25
阀体（材料）表面处理 Valve body（Material）Surface treatment	（铸件）表面磷化处理/（casting）phosphating surface
油液清洁度 Oil cleanliness	NAS1638 9级和ISO4406 20/18/15级 NAS1638 class 9 and ISO4406 class 20/18/15

特性曲线（在使用 HLP46，$\vartheta_{油}$=40℃±5℃时测得）

Characteristic curves（measured with HLP46，Voil=40℃±5℃）



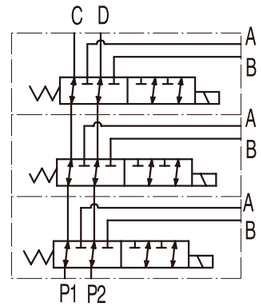
MOPRN–06 安装尺寸/Installation dimensions

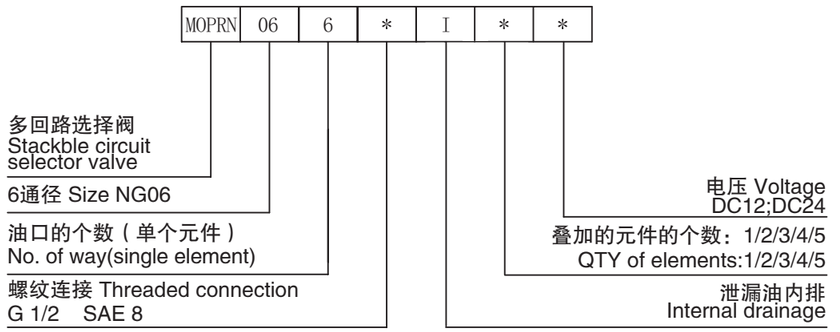


LA=39.5(G3/8,M18X1.5)
38.5(SAE8)
37.5(G1/2,M22X1.5)

D.O 型圈 / D.O–Ring:
M18X1.5/G3/8=Φ21X2
M22X1.5/G1/2=Φ23.5X2
SAE8=Φ 26X2

元件 elements	通路 way	A	B
个数 No . of		长度(mm) Lengths (mm)	
1	6	64	–
2	8	128	174
3	10	192	238
4	12	256	302
5	14	320	366



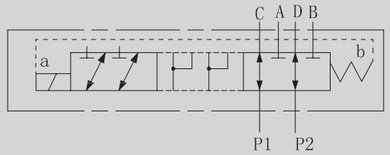


Hanshang Hydraulic

ZVH6 多回路选择阀

ZVH6 FLOW DIVERTERS

符号 SYMBOL

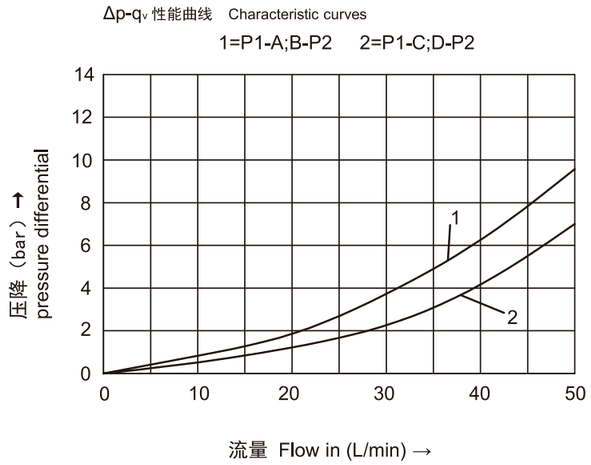


技术参数 Technical data

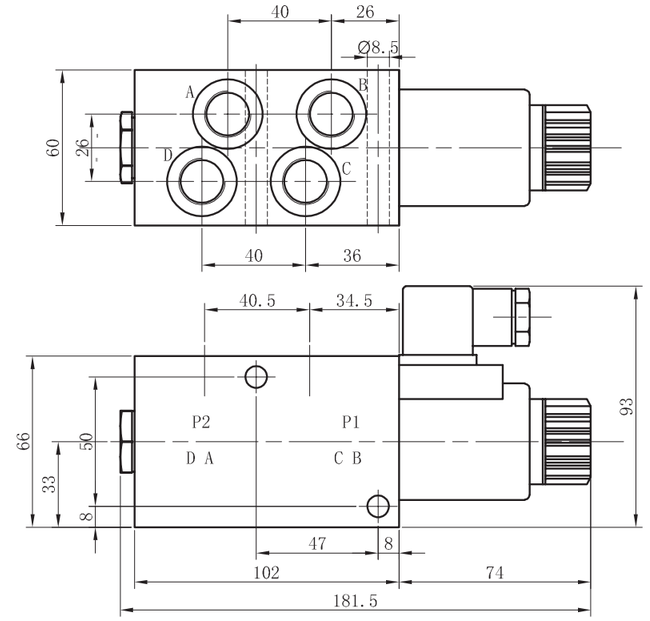
型号 Model	ZVH6
最大流量（L/min）Max Flow rate（L/min）	50
最大工作压力（Mpa) Max operating pressure（MPa）	21
阀体（材料）表面处理 Valve body（Material）Surface treatment	（铸件）表面磷化处理/（casting）phosphating surface
油液清洁度 Oil cleanliness	NAS1638 9级和ISO4406 20/18/15级 NAS1638 class 9 and ISO4406 class 20/18/15

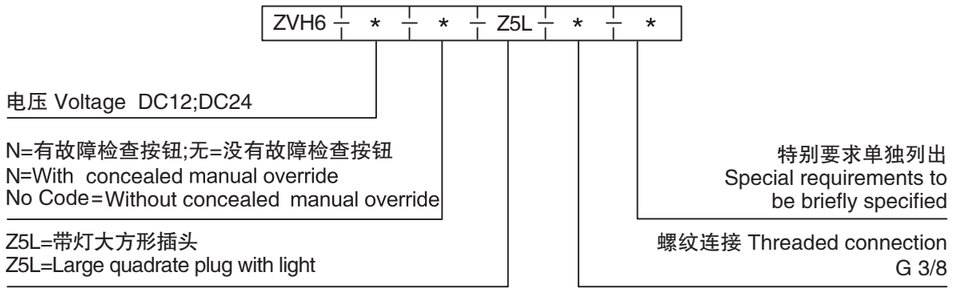
特性曲线（在使用 HLP46，ϑ油=40℃±5℃时测得）

Characteristic curves（measured with HLP46，Voil=40℃±5℃）



安装尺寸 Installation Dimensions

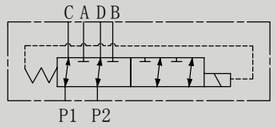




KVH6 多回路选择阀

KVH6 FLOW DIVERTERS

符号 SYMBOL

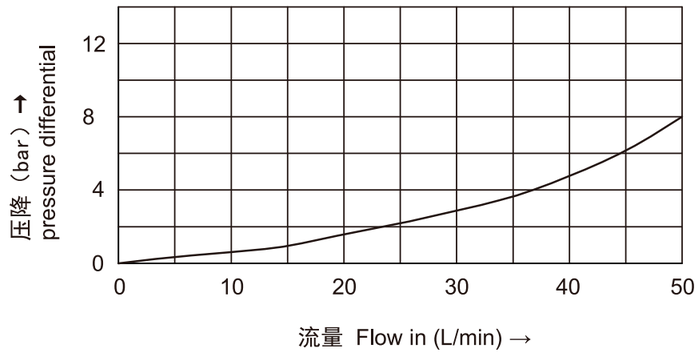


技术参数 Technical data

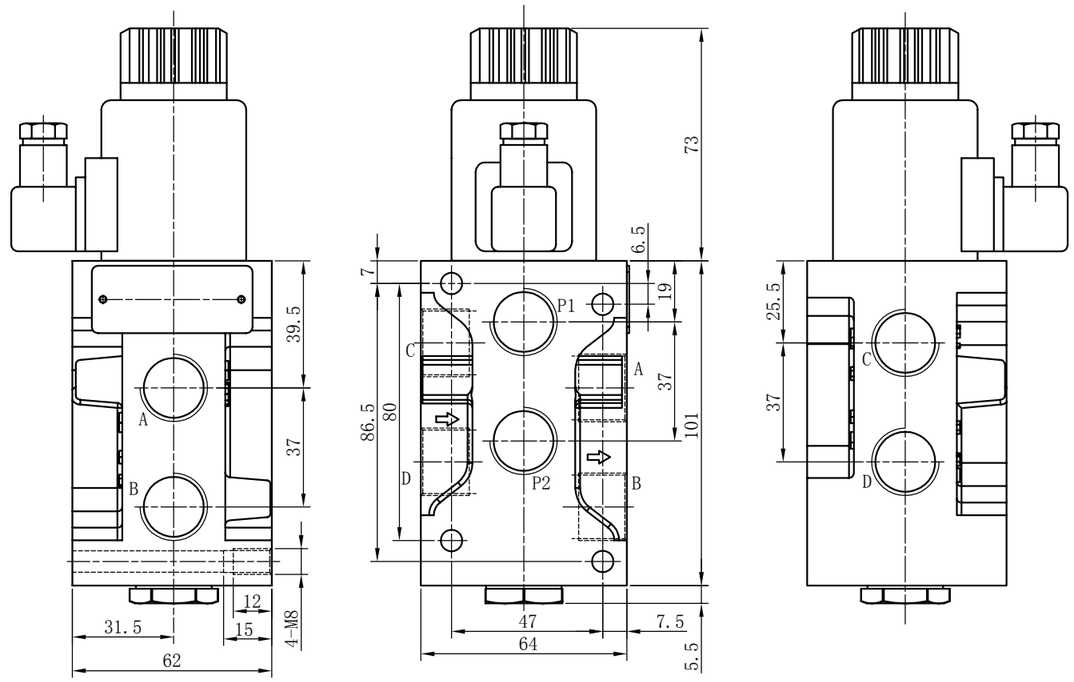
型号 Model	KVH6
最大流量（L/min）Max Flow rate（L/min）	50
最大工作压力（Mpa) Max operating pressure（MPa）	25
阀体（材料）表面处理 Valve body（Material）Surface treatment	（铸件）表面磷化处理/（casting）phosphating surface
油液清洁度 Oil cleanliness	NAS1638 9级和ISO4406 20/18/15级 NAS1638 class 9 and ISO4406 class 20/18/15

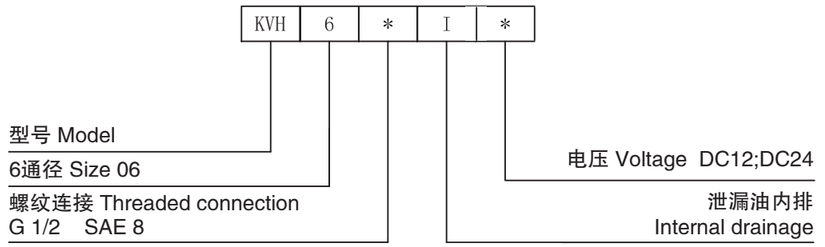
特性曲线（在使用 HLP46，$\vartheta_{油}$=40℃±5℃时测得）
Characteristic curves（measured with HLP46，Voil=40℃±5℃）

Δp-q_v 性能曲线 Characteristic curves



安装尺寸 Installation Dimensions

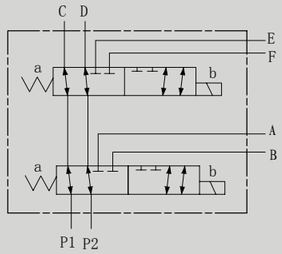




2KVH 多回路选择阀

2KVH FLOW DIVERTERS

符号 SYMBOL

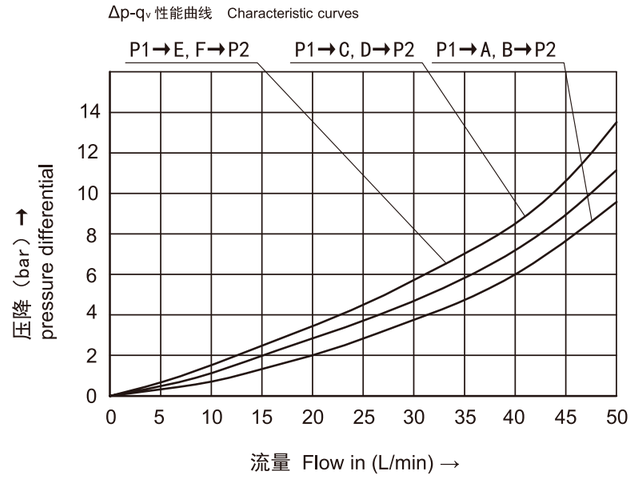


技术参数 Technical data

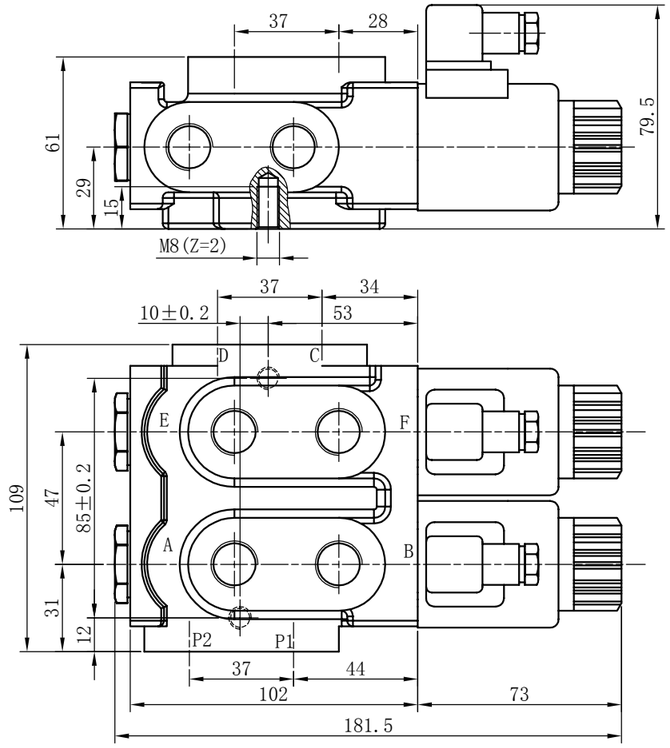
型号 Model	2KVH
最大流量（L/min）Max Flow rate（L/min）	50
最大工作压力（Mpa) Max operating pressure（MPa）	25
阀体（材料）表面处理 Valve body（Material）Surface treatment	（铸件）表面磷化处理/（casting）phosphating surface
油液清洁度 Oil cleanliness	NAS1638 9级和ISO4406 20/18/15级 NAS1638 class 9 and ISO4406 class 20/18/15

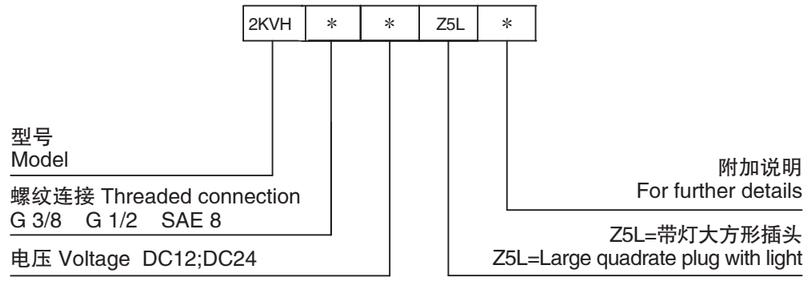
特性曲线（在使用 HLP46，$\vartheta_{油}$=40℃±5℃时测得）

Characteristic curves（measured with HLP46，Voil=40℃±5℃）



安装尺寸 Installation Dimensions

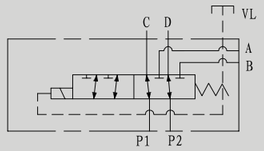




SVK10 多回路选择阀

SVK10 FLOW DIVERTERS

符号 SYMBOL

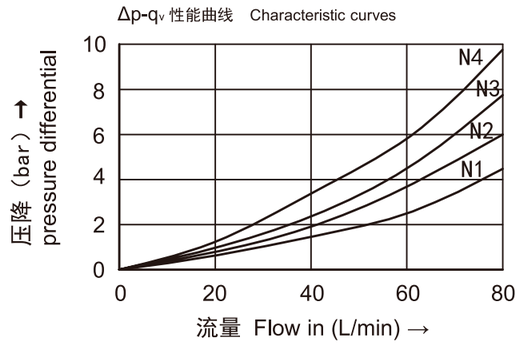


技术参数 Technical data

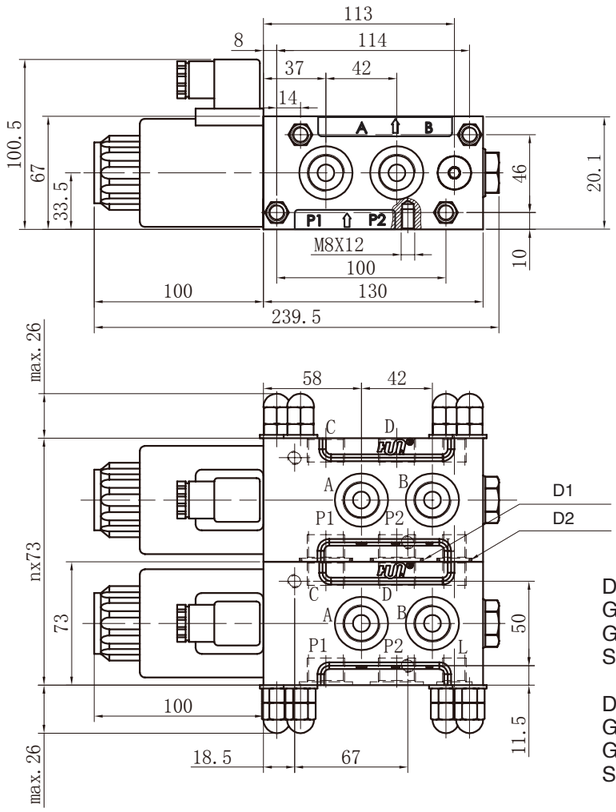
型号 Model	SVK10
最大流量（L/min）Max Flow rate（L/min）	80
最大工作压力（Mpa) Max operating pressure（MPa）	25
阀体（材料）表面处理 Valve body（Material）Surface treatment	（铸件）表面磷化处理/（casting）phosphating surface
油液清洁度 Oil cleanliness	NAS1638 9级和ISO4406 20/18/15级 NAS1638 class 9 and ISO4406 class 20/18/15

特性曲线（在使用 HLP46，$\vartheta_{油}$=40℃±5℃时测得）

Characteristic curves（measured with HLP46，Voil=40℃±5℃）



安装尺寸 Installation Dimensions



D1.0型圈/D1.0–Ring
G1/2、M22X1.5=Φ26.5X2.65
G3/4、M27X2=Φ32X2
SAE10=Φ29X2.65

D2.0型圈/D2.0–Ring
G1/2、M22X1.5=Φ17X2
G3/4、M27X2=Φ17X2
SAE10=Φ16X1.5

SVK10 — * * Z5L — * *

型号 Model

螺纹连接 Threaded connection
G 1/2 G 3/4 SAE 10

电压 Voltage DC12;DC24

Z5L=带灯大方形插头
Z5L=Large quadrate plug with light

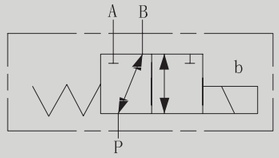
特别要求单独列出
Special requirements to be briefly specified

叠加的元件的个数 QTY of units
N1=1个(one unit) N2=2个(two units)
N3=3个(three units) N4=4个(four units)

HVC–3/2–10 二位三通电磁换向阀

HVC-3/2-10 DIRECTIONAL VALVES LINE MOUNTING

符号 SYMBOL



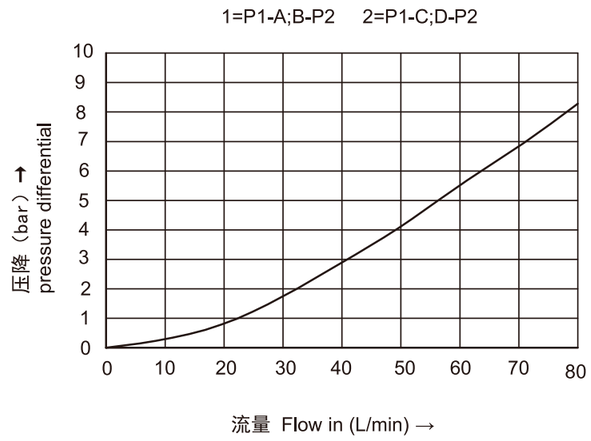
技术参数 Technical data

型号 Model	HVC–3/2–10
最大流量（L/min）Max Flow rate（L/min）	80
最大工作压力（Mpa) Max operating pressure（MPa）	21
阀体（材料）表面处理 Valve body（Material）Surface treatment	（铸件）表面磷化处理/（casting）phosphating surface
油液清洁度 Oil cleanliness	NAS1638 9级和ISO4406 20/18/15级 NAS1638 class 9 and ISO4406 class 20/18/15

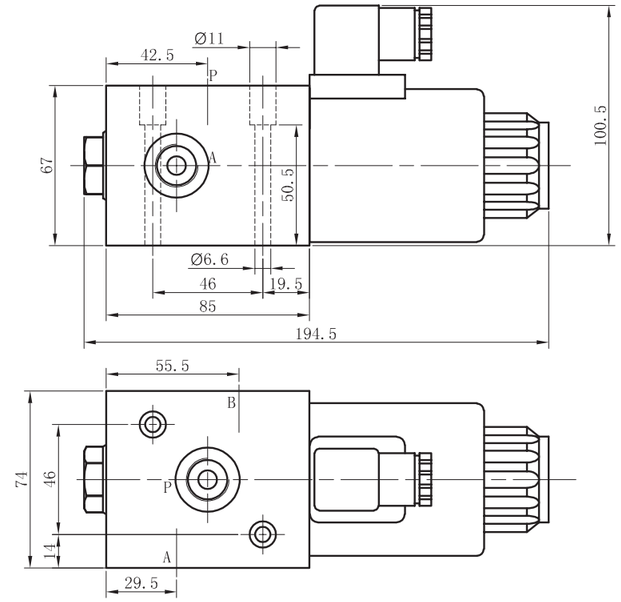
特性曲线（在使用 HLP46，$\vartheta_{油}$=40℃±5℃时测得）

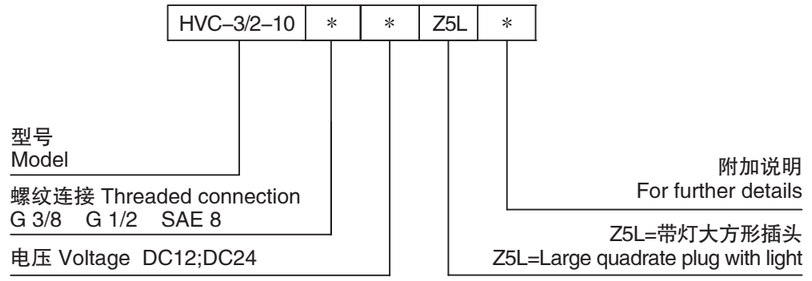
Characteristic curves（measured with HLP46，Voil=40℃±5℃）

Δp-q_v 性能曲线 Characteristic curves



安装尺寸 Installation Dimensions

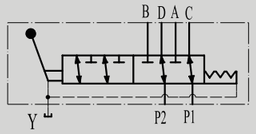




KVH6–MB 手动式多回路选择阀

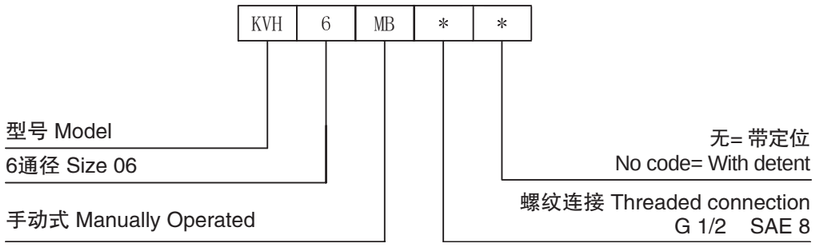
KVH6-MB MANNUALLY OPERATED FLOW DIVERTER

符号 SYMBOL

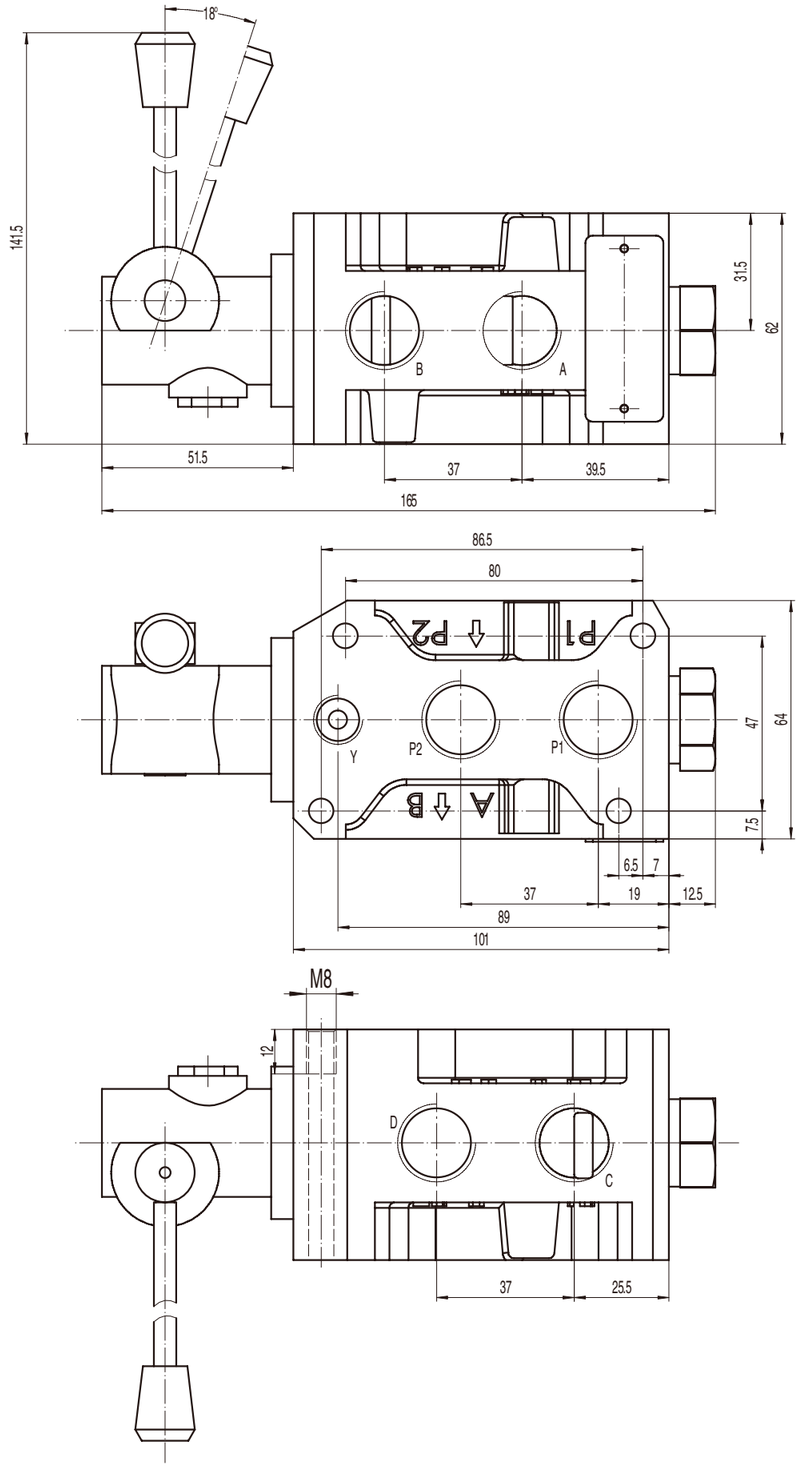


技术参数 Technical data

工作压力(Mpa) Operating pressure(Mpa)	P1.P2.A.B.C.D: 25　Y: 5
最大流量(L/min) Max .flow rate(L/min)	50
油液清洁度 Oil cleanliness	NAS1638 9级和ISO4406 20/18/15级　NAS1638 class 9 and ISO4406 class 20/18/15
阀体（材料）表面处理 Valve body（Material）Surface treatment	铸件 表面磷化处理 casting phosphating surface



KVH6–MB 安装尺寸/Installation dimensions

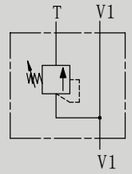


Hanshang Hydraulic

HDR 带遥控的直动式溢流阀

HDR DIRECT OPERATED PRESSURE RELIEF VALVES

符号 SYMBOL



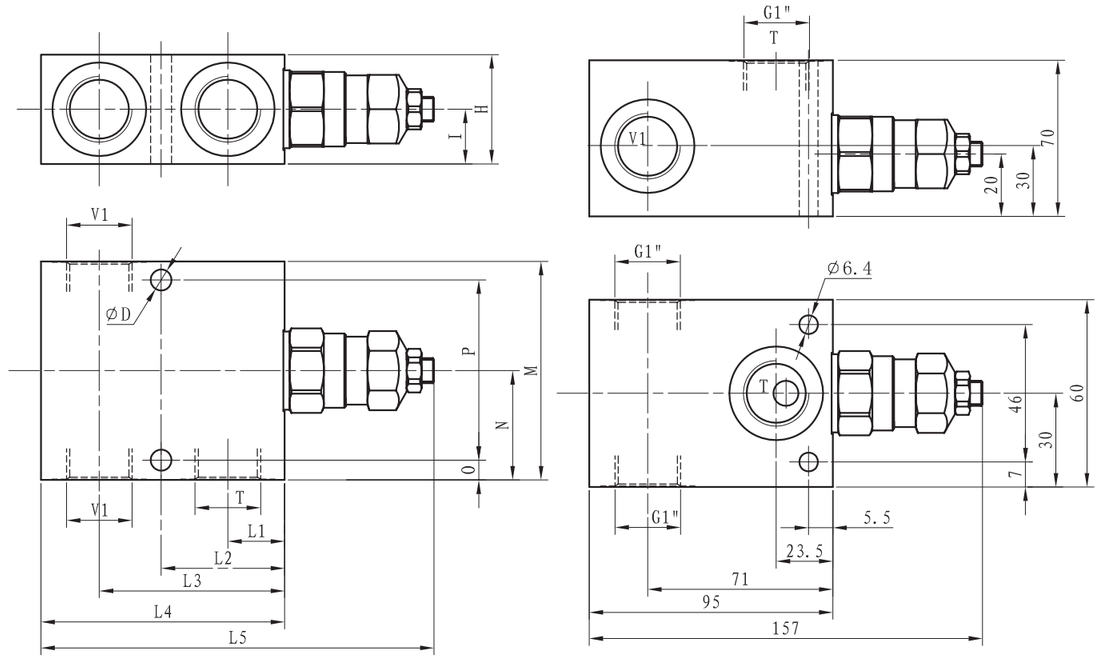
HDR系列带遥控口的溢流阀是一种直动式的溢流阀，用来限制系统的压力，它具有结构紧凑、性能优良、工作可靠、低噪音和使用寿命长等特点，被广泛运用于小流量系统。

HDR Series relief valves, with remote control port, are direct operated poppet type used to limit pressure in a hydraulic system. It has characteristics of compact structure, high performance, reliable work, low noise, and long service life. These series are widely applied to many lower flow systems.

技术参数 Technical data

型号 Model	HDR–1/4–25	HDR–3/8–50	HDR–1/2–80	HDR–3/4–120	HDR–1–220
最大流量（L/min）Max Flow rate（L/min）	25	50	80	120	220
最大工作压力（Mpa) Max operating pressure（MPa）	31.5				
阀体（材料）表面处理 Valve body（Material）Surface treatment	（钢体）表面镀白锌处理/（Steel body）Surface clear zinc plating				
油液清洁度 Oil cleanliness	NAS1638 9级和ISO4406 20/18/15级 NAS1638 class 9 and ISO4406 class 20/18/15				

安装尺寸 Installation Dimensions

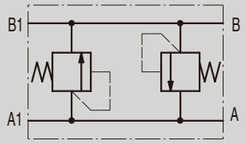


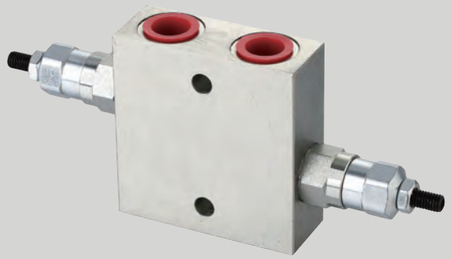
型号 Model	L1	L2	L3	L4	L5	O	P	N	M	I	H	ϕD	V1 T
HDR–1/4–25	14	30	46	60	90	6	48	30	60	15	30	6.8	G1/4"
HDR–3/8–50	18	35	52	70	115	6.25	48	32	60.5	17.75	35.5	6.6	G3/8"
HDR–1/2–80	18	39.5	58	78	127	6	58	35	70	17.5	35	6.6	G1/2"
HDR–3/4–120	20	45	70	90	149	8	54	40	70	20	40	8.6	G3/4'

IHDR 双向溢流阀

IHDR DUAL CROSS RELIEF VALVE

符号 SYMBOL

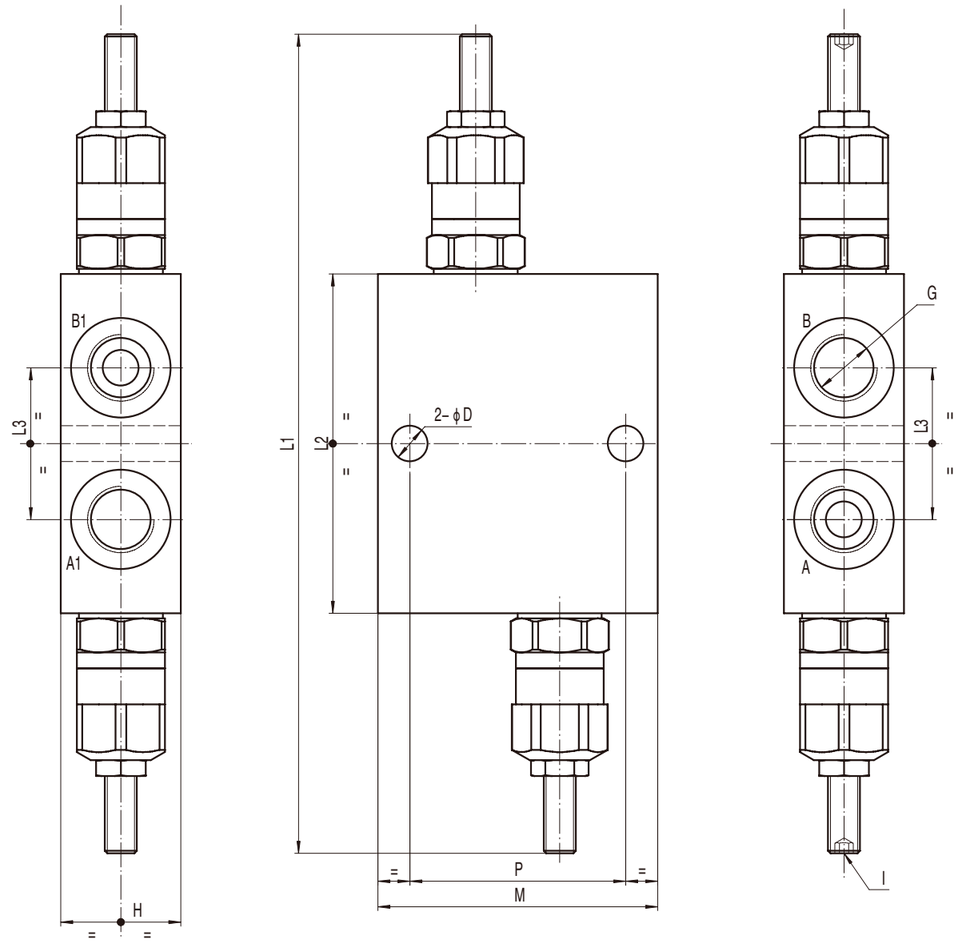




技术参数 Technical data

型号	IHDR–3/8	IHDR–1/2
最大流量(L/min) Max .flow rate(L/min)	45	60
工作压力(Mpa) Operating pressure(Mpa)	31.5	
油液清洁度	MAS1638 9级和ISO4406 20/18/15级	
阀体（材料）表面处理 Valve body（Material）Surface treatment	（钢体）表面镀白锌处理 （Steel body）Surface clear zinc plating	

IHDR 安装尺寸/Installation dimensions



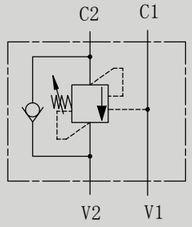
型号 Model	G	L1	L2	L3	H	P	M	D	I
IHDR–3/8	G3/8	205	85	38	30	54	70	9	S4
IHDR–1/2	G1/2	216	85	44	32	60	88	9	S4

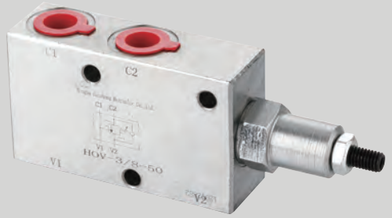
Hanshang Hydraulic

HOV 型平衡阀(开式平衡)

HOV SERIES COUNTERBALANCE VALVES FOR OPEN CENTRE

符号 SYMBOL





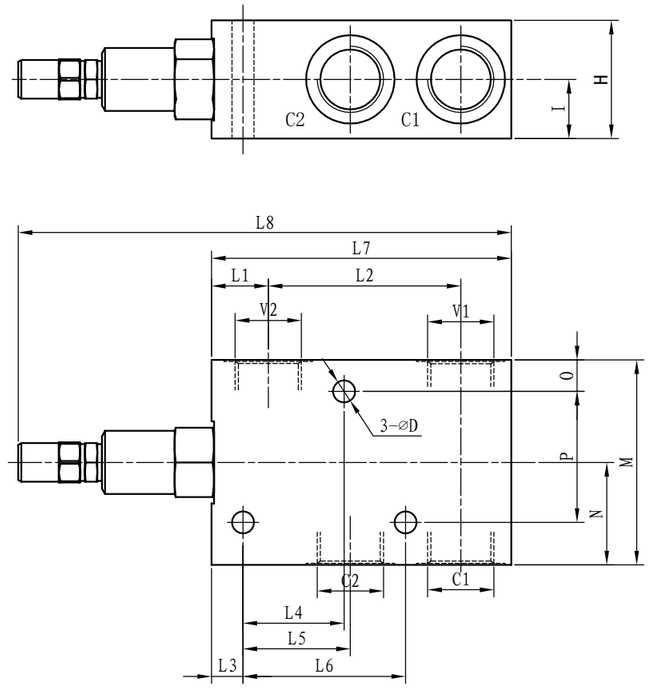
当V2口的压力升高到单向阀调定的压力时,阀芯被推离阀座，油液可以从V2到C2自由流动,当作用在C2口的负载压力足够大时,作用在阀芯环形面积差上的力大于弹簧设定的力时,油液可以从C2口流向V2口,阀起溢流作用。根据阀所具有的先导压力比，V1–C1的先导压力与弹簧的设定压力相比被比例的减小直到阀芯打开,油液可以C2口到V2口自由流动,弹簧腔与V2口相通，V2口的背压要附加到弹簧设定压力上。

When pressure at V2 rises above the spring bias pressure, the check seat is pushed away from the piston and flow is allowed from V2 to C2. When load pressure at C2 rises above the pressure setting, the direct operated, differential area, relief function is activated and flow is relieved from C2 to V2. With pilot pressure at V1-C1, the pressure setting is reduced in proportion to the stated ratio of the valve, until opening and allowing flow from C2 to V2. The spring chamber is drained to V2,and any back-pressure at V2 is additive to the pressure setting in all functions.

技术参数 Technical data

型号 Model	HOV–3/8–50	HOV–1/2–80	HOV–3/4–120
最大流量（L/min）Max Flow rate（L/min）	50	80	120
最大工作压力 （Mpa) Max operating pressure（MPa）	31.5		
先导比/Pilot ratio	4.3:1	4.3:1	6.8:1
阀体（材料）表面处理 Valve body（Material）Surface treatment	（钢体）表面镀白锌处理/（Steel body）Surface clear zinc plating		
油液清洁度 Oil cleanliness	NAS1638 9级和ISO4406 20/18/15级 NAS1638 class 9 and ISO4406 class 20/18/15		

安装尺寸 Installation Dimensions



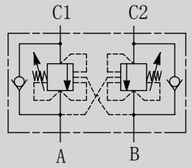
型号 Model	L1	L2	L3	L4	L5	L6	L7	L8	O	P	N	M	I	H	ϕD	V1 C1 V2 C2
HOV–3/8–50	18	61	10	32	34	48	95	145.5	5.5	41	28	56	15	30	7	G3/8"
HOV–1/2–80	18	61	10	32	34	51.5	95	147.5	10	41.5	32.5	65	18.75	32.5	7	G1/2"
HOV–3/4–120	30	84	10	–	30.5	70	130	192.5	10	70	45	90	22.5	45	10.5	G3/4"

Hanshang Hydraulic

HOW型双向平衡阀(开式平衡)

HOW SERIES DUAL COUNTERBALANCE VALVES FOR OPEN CENTRE

符号 SYMBOL



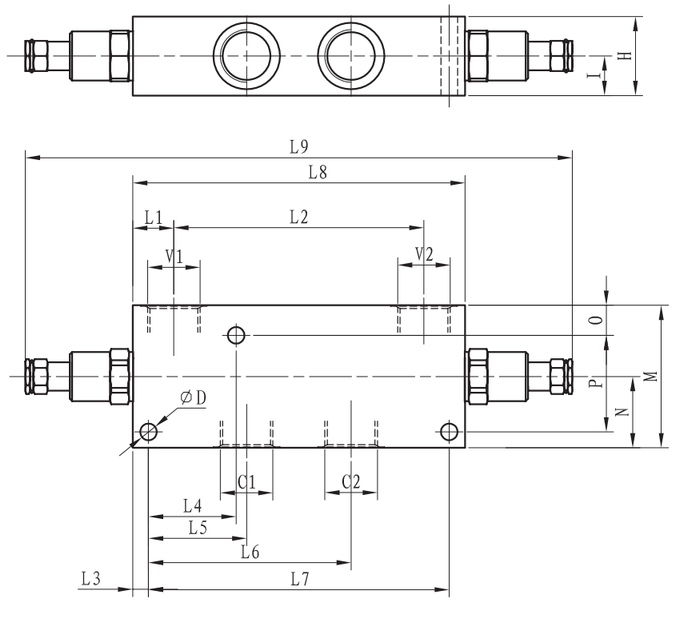
HOW系列双向平衡阀 通过对C1口和C2口的控制来调节进出执行器的流量,从而达到对负载进行动态与静态的控制,这类阀包含两部分,每部分都由一个单向阀和一个带先导相互控制的溢流阀组成,单向阀允许油液正向自由流向执行器,反向则截止,先导压力相互交叉控制,溢流阀的设定压力被比例的减小,直到阀口被打开允许油液反向流动,V1口或V2口的背压会附加到弹簧设定压力上。

It provides static and dynamic control of load by regulating the flow IN and OUT of the actuator, through ports C1 and C2.This valve module includes 2 sections, each one composed by a check and a relief valve pilot assisted by pressure in the opposite line: the check section allows free flow into the actuator, then holds the load against reverse movement; with pilot pressure applied at the line across, the pressure setting of the relief is reduced in proportion to the stated ratio until opening and allowing controlled reverse flow. Back-pressure at V1 or V2 is additive to the pressure setting in all functions.

技术参数 Technical data

型号 Model	HOW–3/8–50	HOW–1/2–80	HOW–3/4–120	HOW–1–160
流量范围 (l/min) Flow Range (l/min)	50	80	120	160
最大压力 (MPa) Max.Peak Pressure (MPa)	31.5			
先导比例 Pilot Ratio	4.3:1	4.3:1	6.8:1	3:1
阀体（材料）表面处理 Valve body（Material）Surface treatment	（钢体）表面镀白锌处理/（Steel body）Surface clear zinc plating			
油液清洁度 Oil cleanliness	NAS1638 9级和ISO4406 20/18/15级 NAS1638 class 9 and ISO4406 class 20/18/15			

安装尺寸 Installation Dimensions



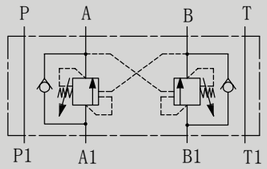
型号Model	L1	L2	L3	L4	L5	L6	L7	L8	L9	O	P	N	M	I	H	ϕD	V1 C1 V2 C2
HOW–3/8–50	18	94	10	32	34	76	110	130	229	6	40	28	56	15	30	7	G3/8"
HOW–1/2–80	18	94	9.5	32.3	34.5	76.5	106.5	130	237	9.7	41.3	33	65	19	38	6.6	G1/2"
HOW–3/4–120	23	109	10	–	32.5	102.5	135	155	280	10	70	45	90	22.5	45	10.5	G3/4"
HOW–1–160	26	158	10	–	62	128	190	210	345.5	10	70	45	90	25	50	10.5	G1"

Hanshang Hydraulic

OCBW型板式双作用平衡阀(开式平衡)

OCBW SERIES FLANGEABLE DUAL COUNTERBALANCE VALVE FOR OPEN CENTRE

符号 SYMBOL



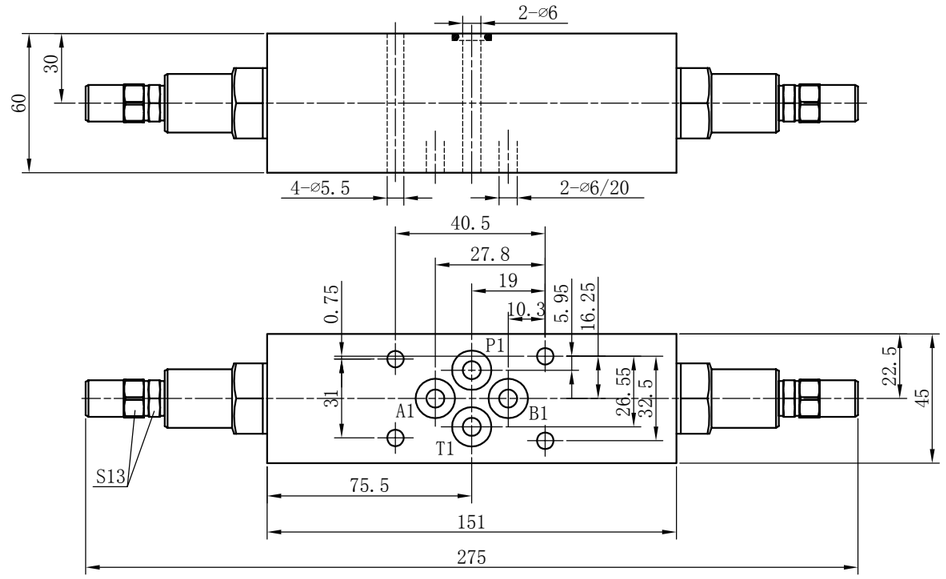
钢体阀。A→A1，B→B1通过单向阀自由开启；A1→A，B1→B通过单向阀密闭，由可调先导阀控制开启。连接方式：ISO CETOP3 建议应用于开式平衡控制。

Flangeable dual counterbanlance valve. Free flow A towards A1 and B towards B1, perfect seal A1 towards A and B1 towards B through adjustable check valves and operated pilot valve. Flanging: ISO CETOP 3 Recommended for open centre controls.

技术参数 Technical data

型号 Model	OCBW–43
先导比例 Pilot Ratio	4.3:1
压力调节范围(MPa) Adjustance Pressure Range (MPa)	10–35
标准设定(MPa) Standard Setting(MPa)	35
流量范围 (l/min) Flow Range (l/min)	5–45
最大压力 (MPa) Max.Peak Pressure (MPa)	35
阀体（材料）表面处理 Valve body（Material）Surface treatment	（铸件）表面镀镍处理/（Casting）Surface nickel plated
油液清洁度 Oil cleanliness	NAS1638 9级和ISO4406 20/18/15级 NAS1638 class 9 and ISO4406 class 20/18/15

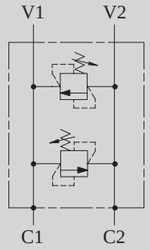
安装尺寸 Installation Dimensions

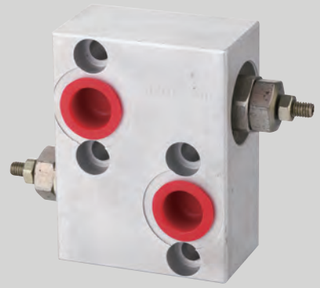


HSDI–OMP 双向溢流阀

HSDI-OMP DUAL CROSS OVER RELIEF, FLANGEABLE TO MOTOR

符号 SYMBOL





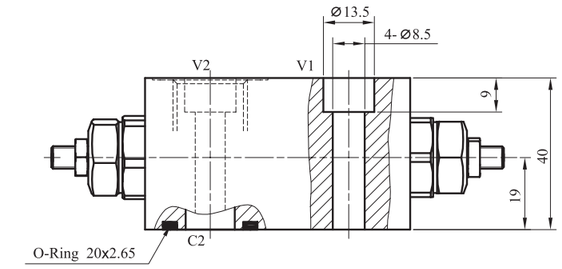
HSDI–OMP 双向溢流阀可以直接安装在丹佛斯OMP–OMR系列摆线马达上。

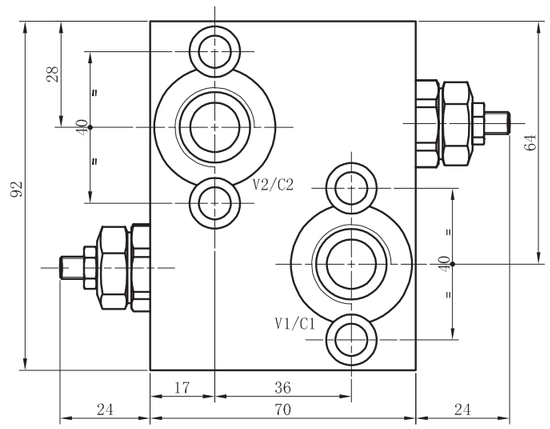
HSDI-OMP flangeable on SAUER-DANFOSS orbital motors OMP-OMR series.

技术参数 Technical Data

型号/Model	HSDI–OMP
最大工作压力/ Max operating pressure (MPa)	20
最大流量/ Max flow rate (L/min)	30
阀体（材料）表面处理 Valve body（Material）Surface treatment	（铝体）表面氧化处理/（Aluminum body）Surface oxidation treatment
油液清洁度 Oil cleanliness	NAS1638 9级和ISO4406 20/18/15级 NAS1638 class 9 and ISO4406 class 20/18/15

安装尺寸 Installation Dimensions





弹簧 Springs	油口尺寸 Port Size	
压力调节范围 Adj.press. range MPa(psi)	V1–V2	G1/2"
5–22(725–3000)	C1–C2	Φ13

模块式电磁换向阀 MDWE6 系列

MANIFOLD SOLENOID DIRECTIONAL VALVES MDWE6 SERIES

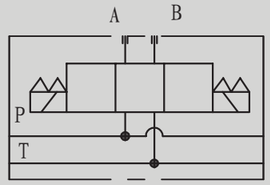
MDWE6阀组系列是一种新型的模块式换向阀组，主要由泵侧模块，换向阀模块，叠加阀，侧盖模块以及相应的安装配件组成。模块式阀组可以不通过油路块而直接与油管连接，这种紧凑的结构设计使阀组安装尺寸更小，同时也节省了油路块的成本。

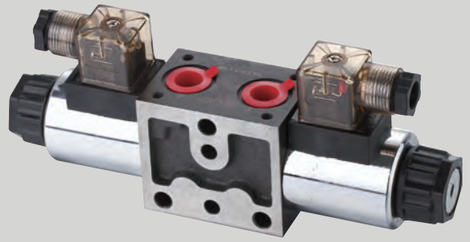
MDWE6 series modular directional valves is a new design including Pump side inlet element,directional valve element,modular valve element,side outlet element and mounting kit. Hose can be connected with MDWE6 valve directly without manifold,the compact design of the structure make the mounting size smaller and save the cost of manifold .

换向阀模块 MWE6

MODULAR DIRECTIONAL VALVE ELEMENTS MWE6

符号 SYMBOL





MWE6型方向控制阀是电磁铁操纵的换向阀，用以油液控制的开启、停止和换向。

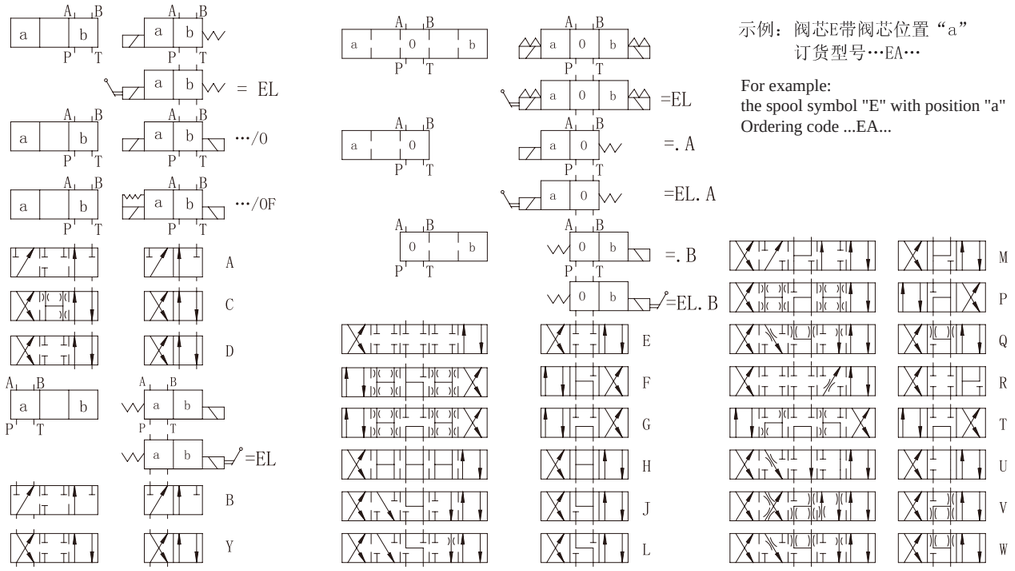
MWE6 series directional control valves are soleniod operated directional spool valves,these valves are used to the start,stop and direct fiow.

技术参数 Technical data

通径/ Size	6
最大流量/ Max flow rate (L/min)	40
工作压力/ Operating pressure (MPa)	31
阀体（材料）表面处理 Valve body（Material）Surface treatment	铸件表面磷化处理 casting phosphating surface
油液清洁度 Oil cleanliness	NAS 1638级和ISO4406 20/18/15级 NAS class 1638和ISO4406 class 20/18/15

Hanshang Hydraulic

机能符号 Spool symbols



示例：阀芯E带阀芯位置“a”
订货型号…EA…

For example:
the spool symbol "E" with position "a"
Ordering code ...EA...

订单选型 Ordering Details

MWE | 6 | * | E | 60 / * | * | DC24 | N | Z5L / * | * | *

型号 Model

通径 6 Size 6

1、无=不带手动换向模块
2、EL=带手动换向模块
1.No code=Without hand lever
2.EL=With hand lever

机能符号 Spool type

系列号 60=60螺纹连接电磁铁
Series 60=60 Solenoid coils with thread connection

无=弹簧复位;O=无复位弹簧;OF=带定位器
No code=With spring return;O=Without spring return
OF=Without spring return with detent

螺纹连接 Threaded connection
无=G3/8 No code=G3/8

电压 Voltage DC12;DC24 ;AC110;AC220

For further details 附加说明

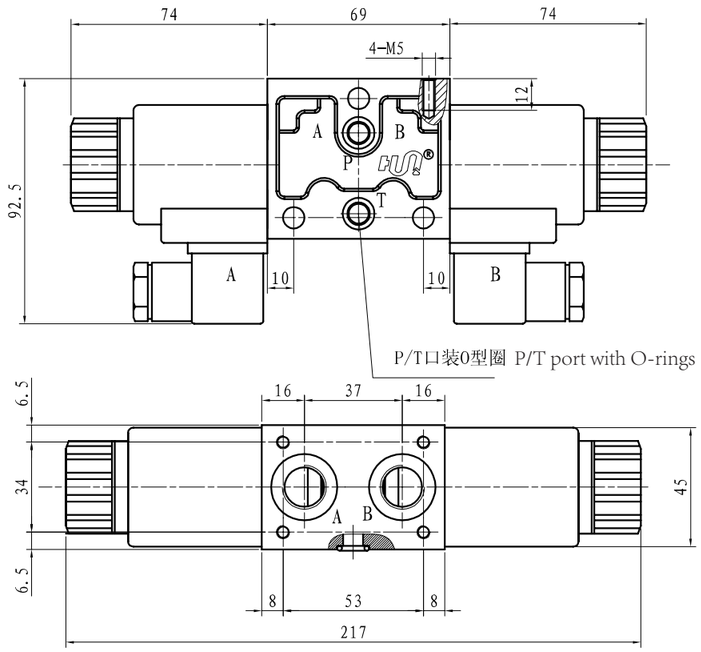
无=丁晴橡胶 V=氟橡胶
No code=NBR seals
V=FPM seals

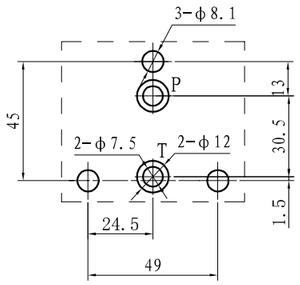
无=无插装节流器 B0.8=节流孔径0.8
B10=节流孔径1.0;B12=节流孔径1.2
No code=Without orifice insert
B08=Orifice size0.8mm
B10=Orifice size1.0mm
B12=Orifice size1.2mm

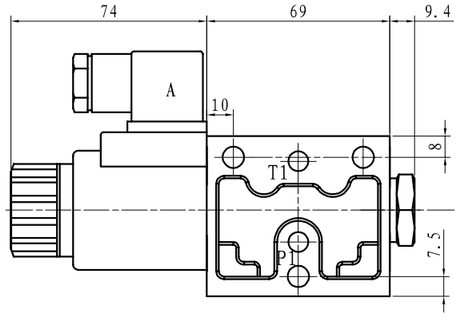
Z5L=带灯大方形插头
ZC=防水插头
Z5L=Large quadrate plug with light
ZC=Waterproof connector

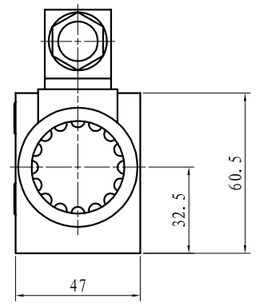
N=有故障检查按钮;无=没有故障检查按钮
N =With concealed manual override
No Code =Without concealed manual override

外形及安装尺寸 External Dimensions and Fittings

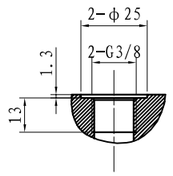




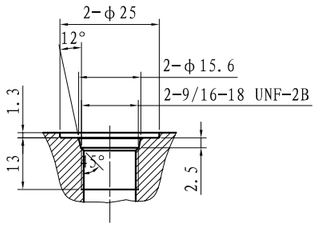




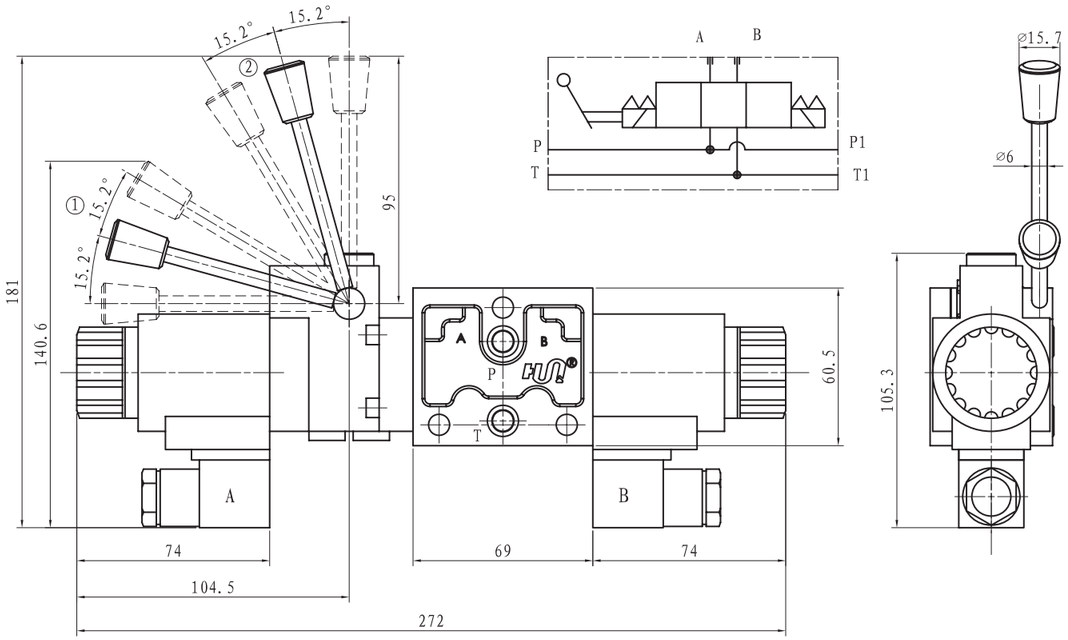
当油口A,B为G3/8时剖视图
Sectional view of A,B oil port G3/8



当油口A,B为SAE8时剖视图 1.5:1
Sectional view of A,B oil port SAE8 1.5:1



安装尺寸 Installation Dimensions



订单选型 Order details:

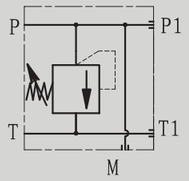
① 手柄位置：HA (安装A端) 或HB (安装B端)
① handle position: HA (installed in A) or HB (installed in B)
② 手柄位置：VA (安装A端) 或VB (安装B端)
② handle position: VA (installed in A) or VB (installed in B)
③ 手柄位置：H1 (安装A端) 或H9 (安装B端)
③ handle position: H1 (installed in A) or H9 (installed in B)
④ 手柄位置：V1 (安装A端) 或V9 (安装B端)
④ handle position: V1(installed in A) or V9 (installed in B)

Hanshang Hydraulic

泵侧模块 PMWE6–G 3/8

PUMP SIDE INLET ELEMENTS WITH PRIMARY PRESSURE RELIEF VALVE PMWE6

符号 SYMBOL

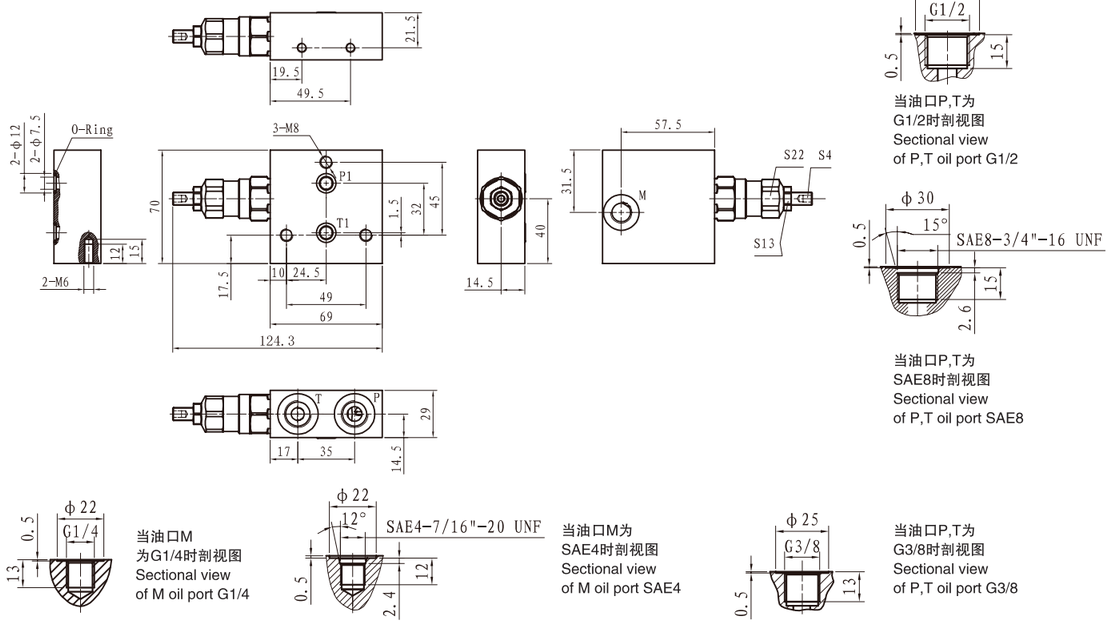


技术参数 Technical data

工作压力/ 0perating pressure(MPa)	31.5
最大流量/ Max flow rate (L/min)	50

油口 Port	螺纹 Threaded connection	
P,T	英制 Inch	G3/8,G1/2
	美制 American	SAE8(3/4"16 UNF)
M	英制 Inch	G1/4
	美制 American	SAE4(7/16"20 UNF)

外形尺寸和安装 External Dimensions and Fittings

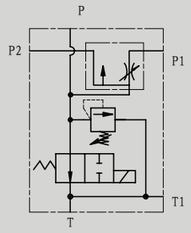


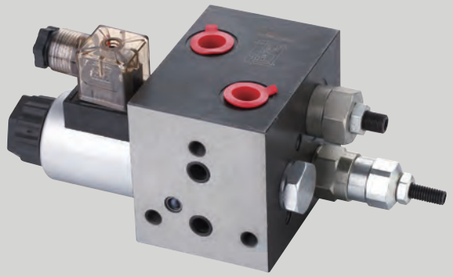
Hanshang Hydraulic

泵侧模块 POH–MDWE6–1312–G 3/8–DC 12

PUMP SIDE INLET ELEMENTS MANIFOLD SOLENOID DIRECTIONAL VALVES POH-MDWE6-1312

符号 SYMBOL



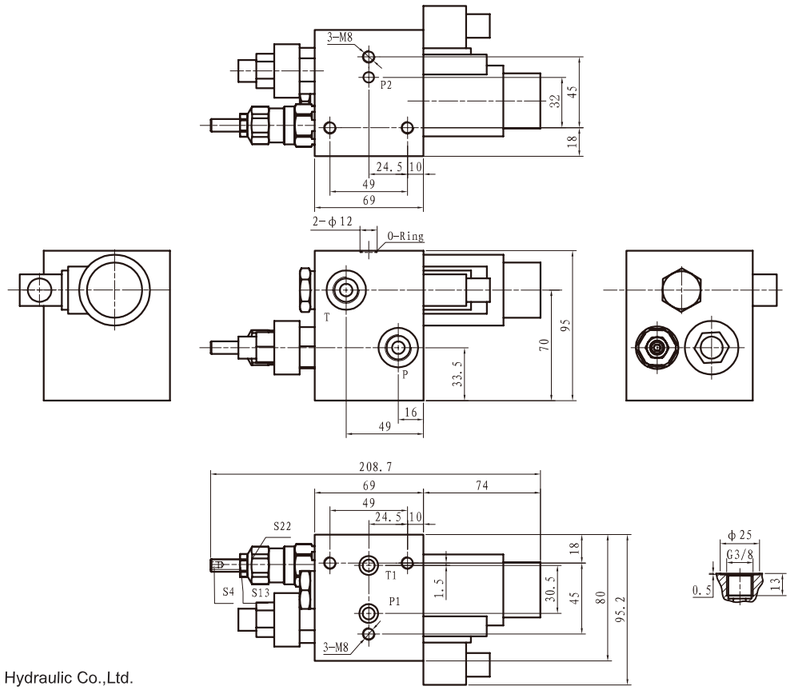


技术参数 Technical data

工作压力/ 0perating pressure(MPa)	31.5
P最大流量/ P Max flow rate (L/min)	80
P1最大流量/ P1 Max flow rate (L/min)	40
P2最大流量/ P2 Max flow rate (L/min)	40

油口 Port	尺寸 Size
P,T(英制 Inch)	G3/8

外形尺寸和安装 External Dimensions and Fittings

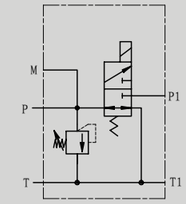


当油口P,T为
G3/8时剖视图
Sectional view
of P,T oil port G3/8

泵侧模块 TWMDE6–G 1/2–DC 12

PUMP SIDE INLET ELEMENTS TWMDE6

符号 SYMBOL

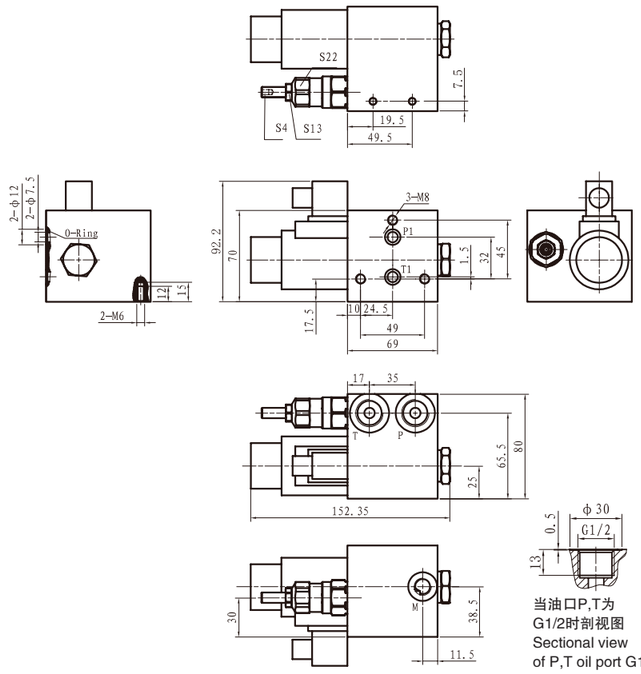


技术参数 Technical data

最大流量 (L/min) Max flow rate (L/min)	50
工作压力 (Mpa) 0perating pressure (Mpa)	31.5

油口 Port	尺寸 Size
P,T(英制 Inch)	G1/2
M(英制 Inch)	G1/4

外形尺寸和安装 External Dimensions and Fittings



当油口P,T为
G1/2时剖视图
Sectional view
of P,T oil port G1/2

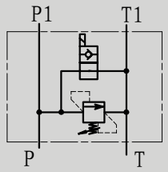
当油口M为
G1/4时剖视图
Sectional view
of M oil port G1/4

www.nshpv.com

泵侧模块 PSRMWE6–G 3/8–DC 12

PUMP SIDE INLET ELEMENTS WITH PRIMARY PRESSURE RELIEF VALVE PSRMWE6

符号 SYMBOL

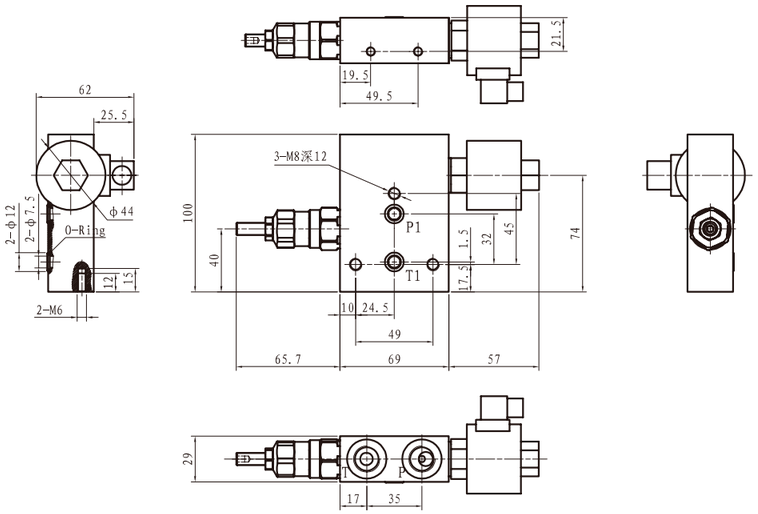


技术参数 Technical data

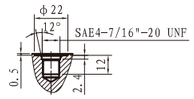
工作压力/ 0perating pressure(MPa)	31.5
最大流量/ Max flow rate (L/min)	50

油口 Port	尺寸的Size	
P,T	英制 Inch	G3/8,G1/2
	美制 American	SAE8(3/4"16 UNF)
M	英制 Inch	G1/4
	美制 American	SAE4(7/16"20 UNF)

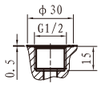
外形尺寸和安装 External Dimensions and Fittings



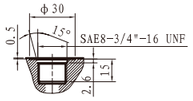
当油口M为
G1/4时剖视图
Sectional view
of M oil port G1/4



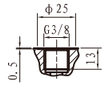
当油口M为
SAE4时剖视图
Sectional view
of M oil port SAE4



当油口P,T为
G1/2时剖视图
Sectional view
of P,T oil port G1/2



当油口P,T为
SAE8时剖视图
Sectional view of
P,T oil port SAE8

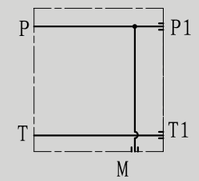


当油口P,T为
G3/8时剖视图
Sectional view
of P,T oil port G3/8

泵侧模块 PTMWE6–G 3/8

PUMP SIDE INLET ELEMENTS PTMWE6

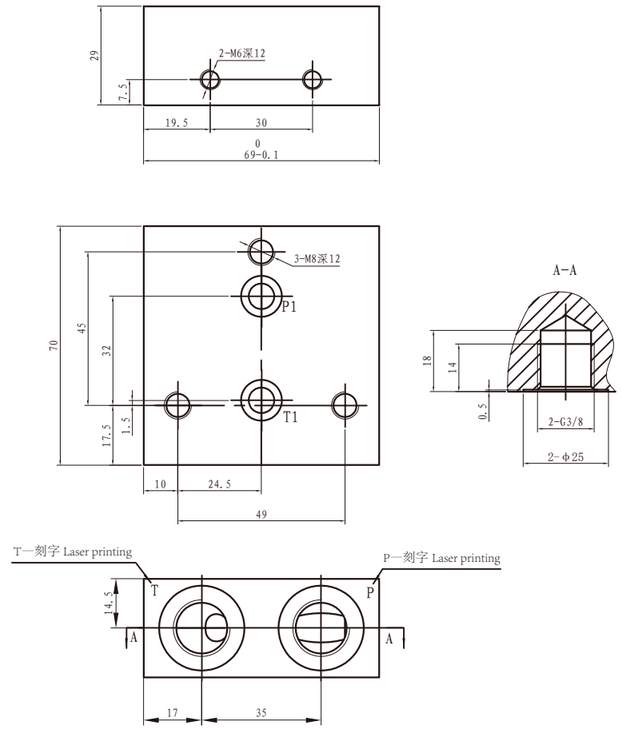
符号 SYMBOL



技术参数 Technical data

最大流量 (L/min) Max.flow rate (L/min)	50
工作压力 (Mpa) 0perating pressure (Mpa)	25
油液清洁度 / 0il cleanliness	NAS 1638级和ISO4406 20/18/15级 NAS class 1638级和ISO4406 class 20/18/15

外形尺寸和安装 External Dimensions and Fittings

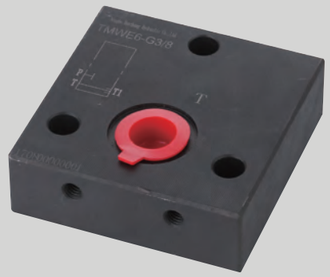


Hanshang Hydraulic

侧盖模块 TMWE6–G 3/8

OUTLET ELEMENTS TMWE6

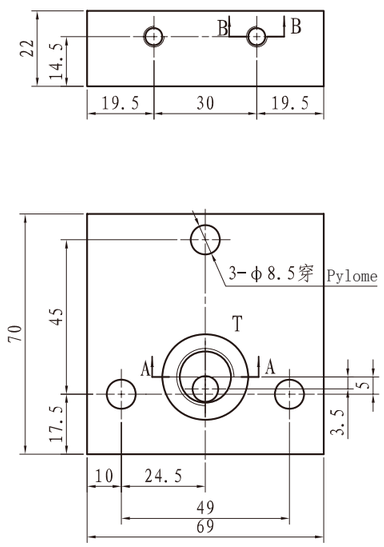
符号 SYMBOL

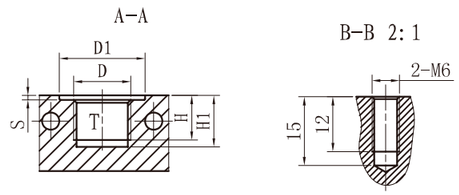


技术参数 Technical data

最大流量 (L/min) Max.flow rate (L/min)	50
工作压力 (Mpa) 0perating pressure (Mpa)	25
油液清洁度 / 0il cleanliness	NAS 1638级和ISO4406 20/18/15级 NAS class 1638级和ISO4406 class 20/18/15

安装尺寸 Installation Dimensions



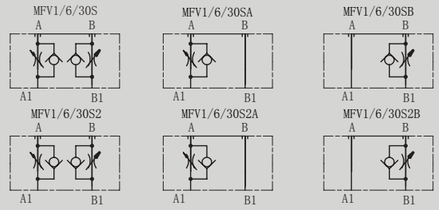


D	D1	H	H1	S
G3/8	Φ25	13	15	1.3
G1/2	Φ30	15	17	0.2

MFV 型叠加式单向节流阀

MFV SERIES MODULAR THROTTLE CHECK VALVES

符号 SYMBOL



叠加式节流阀通过改变节流口断面大小来调节油路流量，从而实现流量控制。

MFV series modular check/throttle valves are used to restrict flow in one direction while allowing free-flow .

技术参数 Technical data

型号 Model	MFV
最大流量/ Max flow rate (L/min)	40
工作压力/ Operating pressure (MPa)	31.5
阀体（材料）表面处理 Valve body（Material）Surface treatment	铸件表面磷化处理 casting phosphating surface
油液清洁度 Oil cleanliness	NAS 1638级和ISO4406 20/18/15级 NAS class 1638和ISO4406 class 20/18/15

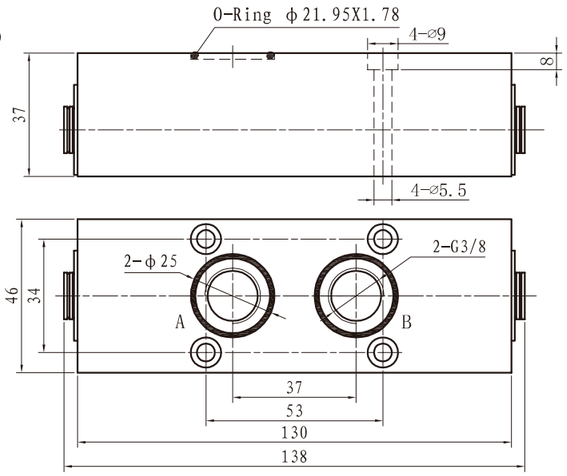
订单选型 Ordering Details

MFV | 1 | 6 | 30 | * | * | * | *

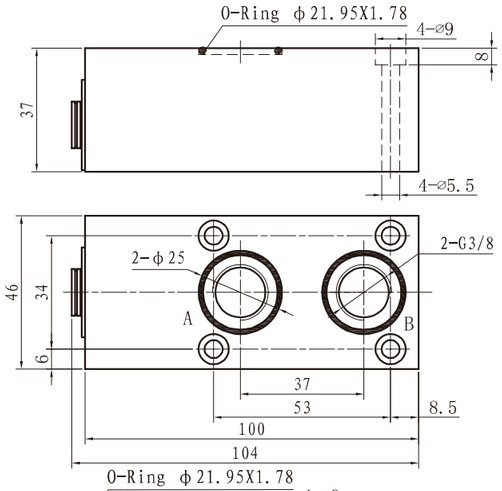
- 型号 Model
- 螺纹转接 Threaded connections 1=G3/8
- 通径：6 Size：6
- 系列号30 = 通径6
  Series number 30 = Size6
- S=进口节流；S2=出口节流
  S=Meter–in control;S2=Meter–out control
- 无 = A，B口都有节流阀
  A = A口带节流阀
  B = B口带节流阀
  No code = A and B ports with throttle valves
  A = A ports with throttle valve
  B = B ports with throttle valve
- 无=丁晴橡胶 V=氟橡胶
  No code=NBR seals
  V=FPM seals
- 附加说明 For further detials

外形尺寸和安装 External Dimensions and Fittings

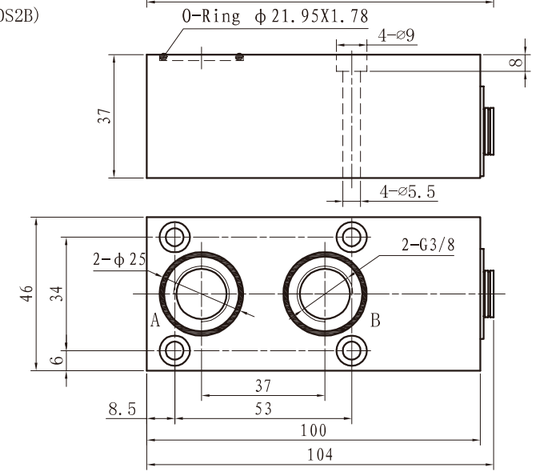
MFV1/6/30S(MFV1/6/30S2)



MFV1/6/30SA(MFV1/6/30S2A)



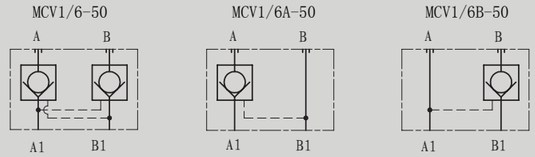
MFV1/6/30SB(MFV1/6/30S2B)



MCV 型叠加式液控单向阀

MCV SERIES MODULAR PILOT CONTROLLED CHECK VALVES

符号 SYMBOL



MCV型叠加式液控单向阀，它可用于关闭一个或两个工作油口且无泄漏持续工作时间长，稳定性好。

MCV series are pilot operated style sandwich valves. These valves used to close one or two actuator ports.

技术参数 Technical data

型号 Model	MCV
最大流量/ Max flow rate (L/min)	40
工作压力/ Operating pressure (MPa)	31.5
先导比 Pilot ratio	3:1
阀体（材料）表面处理 Valve body（Material）Surface treatment	铸件表面磷化处理 casting phosphating surface
油液清洁度 Oil cleanliness	NAS 1638级和ISO4406 20/18/15级 NAS class 1638和ISO4406 class 20/18/15

订单选型 Ordering Details

MCV | 1 | 6 | * | 50 | * | *

型号 Model

螺纹转接 Threaded connections 1=G3/8

通径：6 Size：6

无＝A，B口都有单向阀
A＝A口带单向阀
B＝B口带单向阀
No code＝A and B ports with check valves
A＝A ports with check valve
B＝B ports with check valve

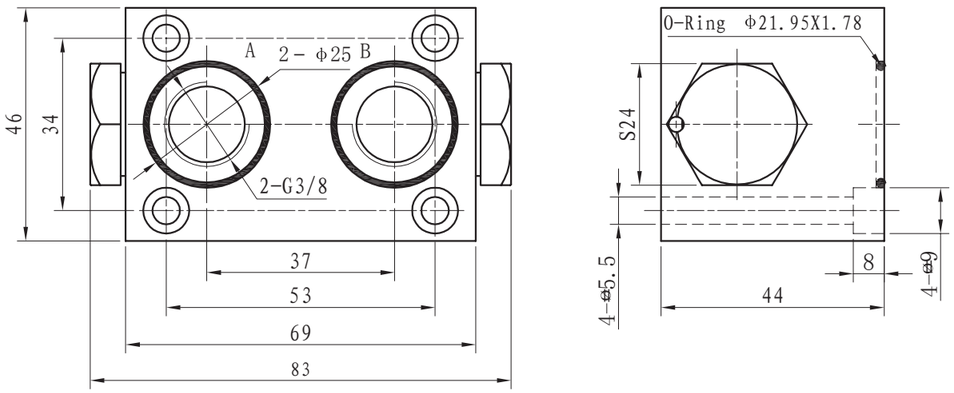
系列号50＝通径6
Series number 50＝Size 6

无=丁晴橡胶 V=氟橡胶
No code=NBR seals
V=FPM seals

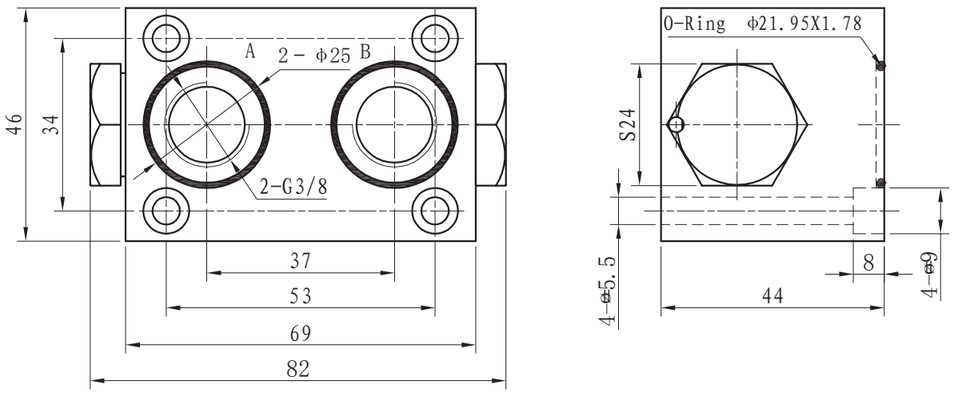
附加说明 For further detials

外形尺寸和安装 External Dimensions and Fittings

MCV1/6-50



MCV1/6A-50(MCV1/6B-50)

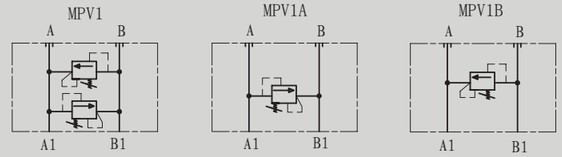


Hanshang Hydraulic

MPV 型叠加式溢流阀

MPV SERIES MODULAR PRESSURE RELIEF VALVES DIRECT ACTING

符号 SYMBOL



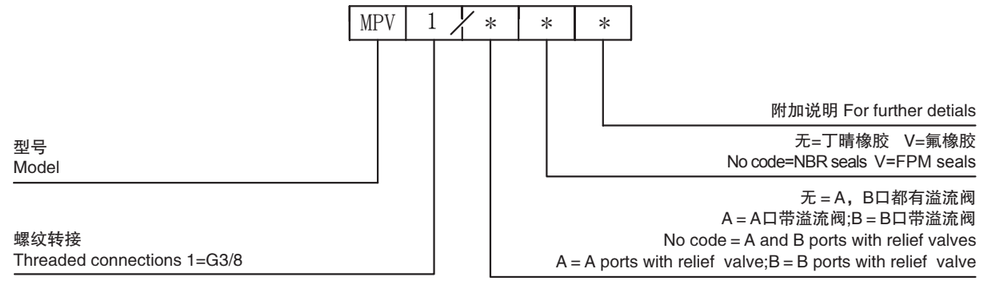
MPV型叠加式溢流阀为直动式溢流阀，可为系统提供过载保护。

MPV series pressure relief valves are direct operated poppet type,it can supply overload protection for hydraulic systems.

技术参数 Technical data

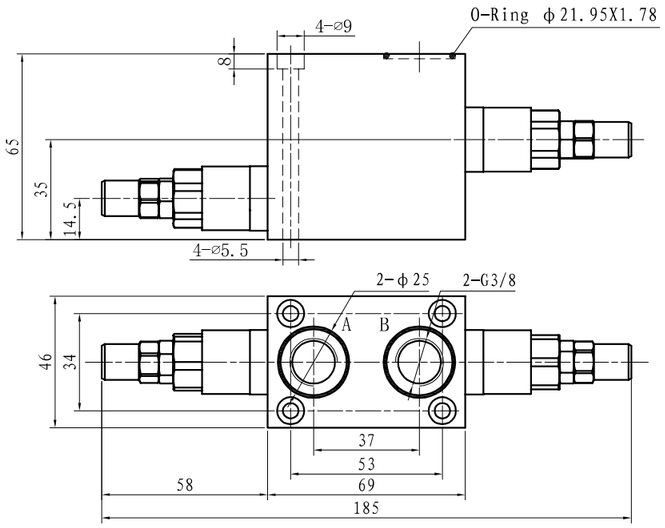
型号 Model	MPV
最大流量/ Max flow rate (L/min)	40
工作压力/ Operating pressure (MPa)	31.5
阀体（材料）表面处理 Valve body（Material）Surface treatment	铸件表面磷化处理 casting phosphating surface
油液清洁度 Oil cleanliness	NAS 1638级和ISO4406 20/18/15级 NAS class 1638和ISO4406 class 20/18/15

订单选型 Ordering Details

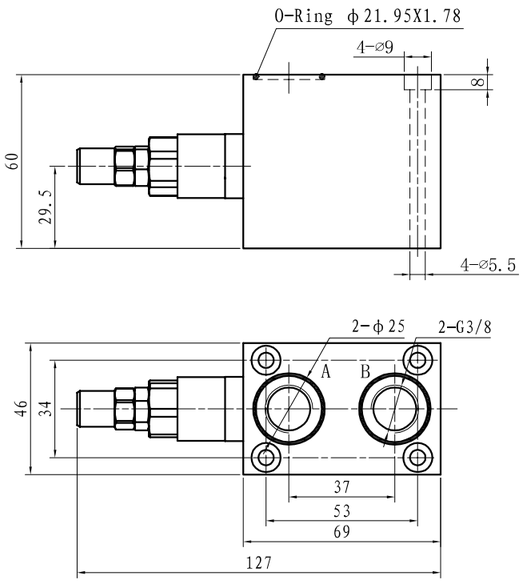


外形尺寸和安装 External Dimensions and Fittings

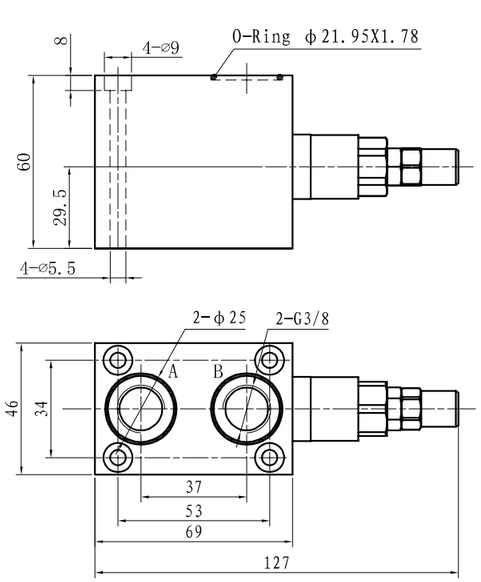
MPV1



MPV1A



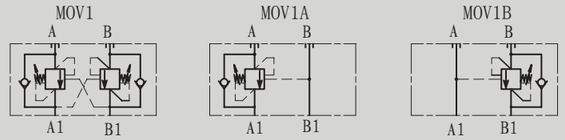
MPV1B



MOV 型叠加式平衡阀

MOV SERIES MODULAR COUNTERBALANCE VALVES FOR OPEN CENTER

符号 SYMBOL



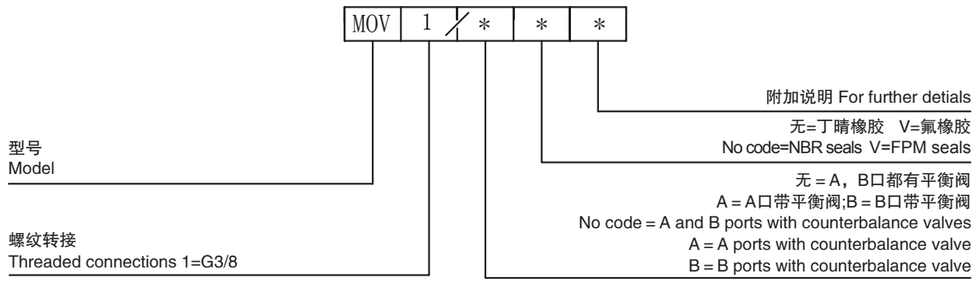
MOV型叠加式平衡阀 通过对A口和B口的控制来调节进出执行器的流量,从而达到对负载进行动态与静态的控制,这类阀包含两部分,每部分都由一个单向阀和一个带先导相互控制的溢流阀组成,单向阀允许油液正向自由流向执行器,反向则截止,先导压力相互交叉控制,溢流阀的设定压力被比例的减小,直到阀口被打开允许油液反向流动,A1口或B1口的背压会附加到弹簧设定压力上。

It provides static and dynamic control of load by regulating the flow IN and OUT of the actuator, through ports A and B.This valve module includes 2 sections,each one composed by a check and a relief valve pilot assisted by pressure in the opposite line: the check section allows free flow into the actuator, then holds the load against reverse movement; with pilot pressure applied at the line across,the pressure setting of the relief is reduced in proportion to the stated ratio until opening and allowing controlled reverse flow. Back-pressure at A1 or B1 is additive to the pressure setting in all functions.

技术参数 Technical data

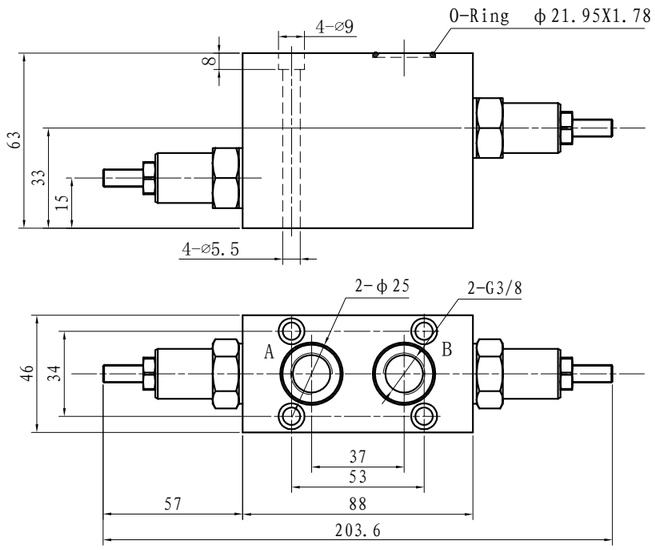
型号 Model	MOV
最大流量/ Max flow rate (L/min)	40
工作压力/ Operating pressure (MPa)	31.5
先导比 Pilot ratio	4.3:1
阀体（材料）表面处理 Valve body（Material）Surface treatment	铸件表面磷化处理 casting phosphating surface
油液清洁度 Oil cleanliness	NAS 1638级和ISO4406 20/18/15级 NAS class 1638和ISO4406 class 20/18/15

订单选型 Ordering Details

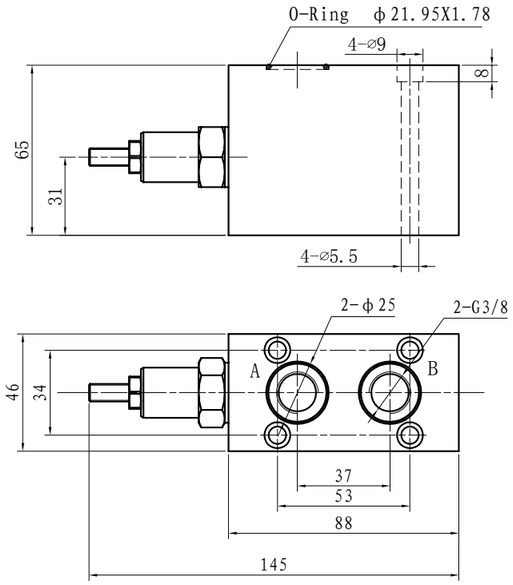


外形尺寸和安装 External Dimensions and Fittings

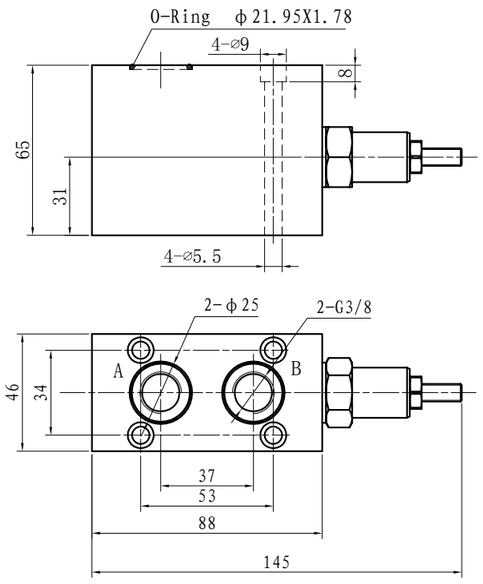
MOV1



MOV1A



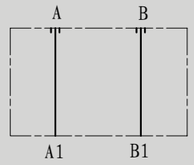
MOV1B

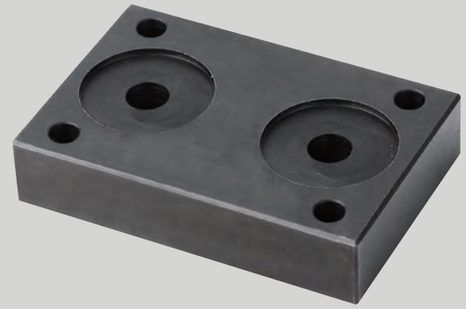


过渡板 MFV1–02

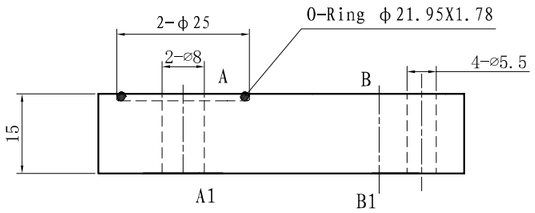
MFV1-02 is the transition part, only used for the below situation:
Directional valve with manual+Transition part+Modular check throttle valve.(Direct stacking)
For item code is MWE6**EL+MFV1-02+MFV

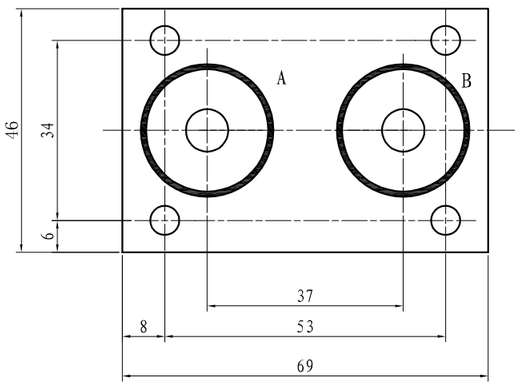
符号 SYMBOL





外形尺寸和安装 External Dimensions and Fittings





Hanshang Hydraulic

Note

Note