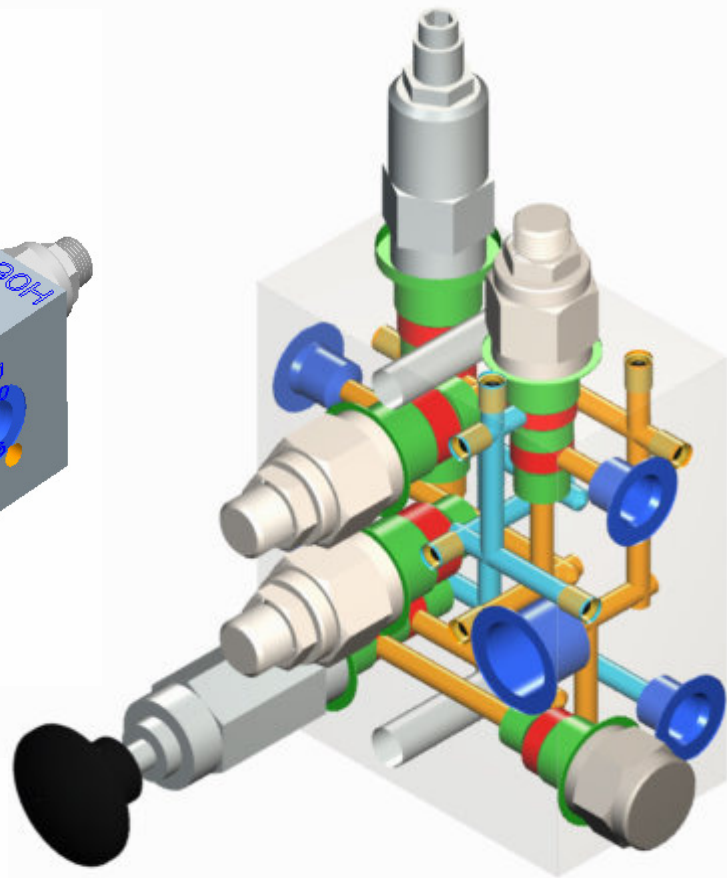
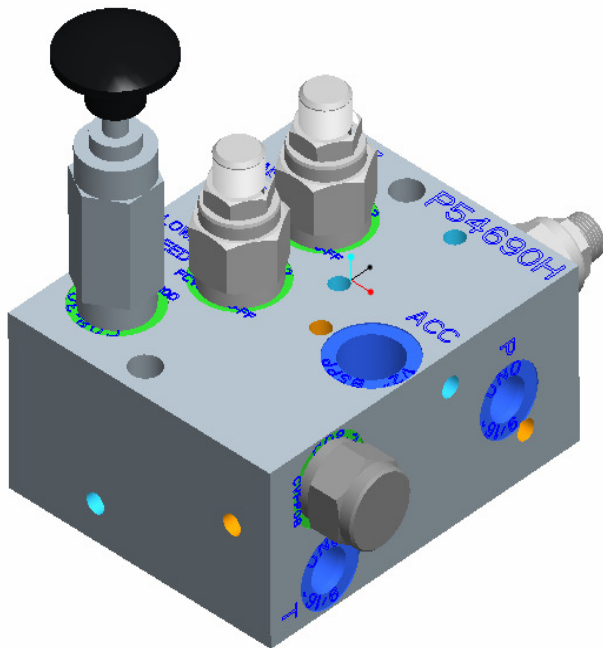
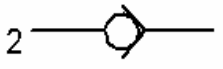
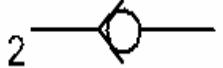
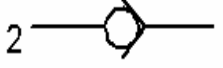




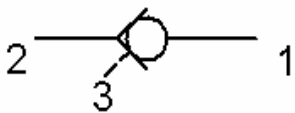
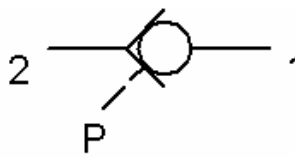
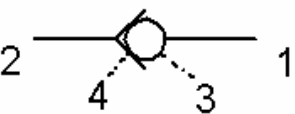
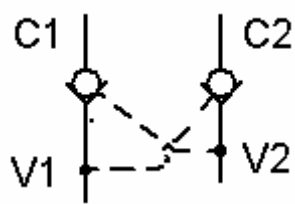
Cartridge valves, Housings







Check Valves

	Flow rate - MAX	Port size	pressure	Cart. Part no	Housing no.	
Forward guided poppet type 	38 l/min	3/8" BSPP	210 bar	CVFP-08	PH08-2A	
			350 bar	CVFP-08	PH08-2S	
	68L/MIN	1/2" BSPP	210 bar	CVFP-10	PH10-2A	
			350 bar	CVFP-10	PH10-2S	
	136L/MIN	3/4" BSPP	210 bar	CVFP-12	PH12-2CA	
			350 bar	CVFP-12	PH12-2CS	
	189L/MIN	1" BSPP	210 bar	CVFP-16	PH16-2A	
			350 bar	CVFP-16	PH16-2S	
	Reverse guided poppet type 	38 l/min	3/8" BSPP	210 bar	CVRP-08	PH08-2A
				350 bar	CVRP-08	PH08-2S
		68L/MIN	1/2" BSPP	210 bar	CVRP-10	PH10-2A
				350 bar	CVRP-10	PH10-2S
136L/MIN		3/4" BSPP	210 bar	CVRP-12	PH12-2CA	
			350 bar	CVRP-12	PH12-2CS	
189L/MIN		1" BSPP	210 bar	CVRP-16	PH16-2A	
			350 bar	CVRP-16	PH16-2S	
Forward guided ball type 		9,5L/MIN	1/4" BSPP	210 bar	CVFP-04	PH04-2A
				350 bar	CVFP-04	PH04-2S
		38L/MIN	3/8" BSPP	210 bar	CVFP-08	PH08-2A
				350 bar	CVFP-08	PH08-2S

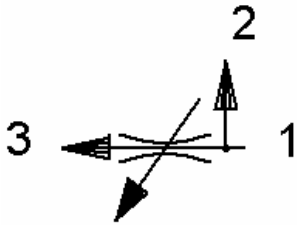

Check Valves

	Flow rate - MAX	Port size	pressure	Cart. Part no	Housing no.
Pilot operated check, Internal pilot 	38 l/min	3/8" BSPP	210 bar	POCI-08	PH08-2A
			350 bar	POCI-08	PH08-2S
	68L/MIN	1/2" BSPP	210 bar	POCI-10	PH10-2A
			350 bar	POCI-10	PH10-2S
	136L/MIN	3/4" BSPP	210 bar	POCI-12	PH12-2CA
			350 bar	POCI-12	PH12-2CS
Pilot operated check, External pilot 	38 l/min	3/8" BSPP	210 bar	POCX-08	PH08-2A
			350 bar	POCX-08	PH08-2S
	68L/MIN	1/2" BSPP	210 bar	POCX-10	PH10-2A
			350 bar	POCX-10	PH10-2S
	136L/MIN	3/4" BSPP	210 bar	POCX-12	PH12-2CA
			350 bar	POCX-12	PH12-2CS
Pilot operated check, vented type 	68L/MIN	1/2" BSPP	210 bar	POCV-10	PH10-4A
			350 bar	POCV-10	PH10-4S
	136L/MIN	3/4" BSPP	210 bar	POCV-12	PH12-4CA
			350 bar	POCV-12	PH12-4CS
Dual pilot operated check 	38 l/min	3/8" BSPP	210 bar	DPOC-08	PH08-25A
			350 bar	DPOC-08	PH08-25S
	68L/MIN	1/2" BSPP	210 bar	DPOC-10	PH10-25A
			350 bar	DPOC-10	PH10-25S
	136L/MIN	3/4" BSPP	210 bar	DPOC-12	PH12-25CA
			350 bar	DPOC-12	PH12-25CS

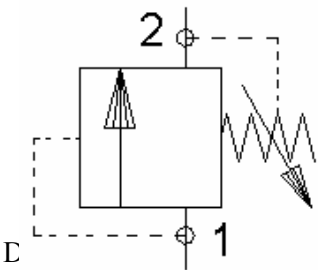
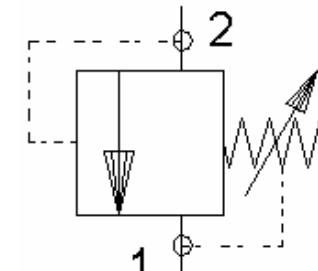
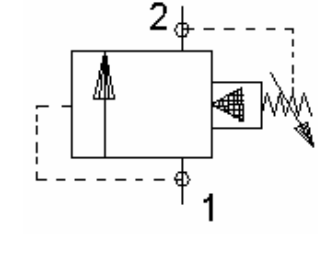
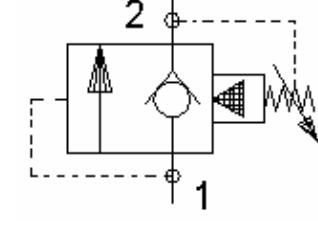
Flow Control Valves

	Flow rate - MAX	Port size	pressure	Cart. Part no	Housing no.
Bi-directional needle valve 	38 l/min	3/8" BSPP	210 bar	NFCV-08	PH08-2A
			350 bar	NFCV-08	PH08-2S
	68L/MIN	1/2" BSPP	210 bar	NFCV-10	PH10-2A
			350 bar	NFCV-10	PH10-2S
Forward guided poppet type  (F)	38 l/min	3/8" BSPP	210 bar	FCVL-08	PH08-2A
			350 bar	FCVL-08	PH08-2S
	68L/MIN	1/2" BSPP	210 bar	FCVL-10	PH10-2A
			350 bar	FCVL-10	PH10-2S
 (N)	136L/MIN	3/4" BSPP	210 bar	FCVL-12	PH12-2CA
			350 bar	FCVL-12	PH12-2CS
Press comp fixed orifice restrict 	45L/MIN	1/2" BSPP	210 bar	PCFC-10	PH10-2A
			350 bar	PCFC-10	PH10-2S
	90L/MIN	3/4" BSPP	210 bar	PCFC-12	PH12-2CA
			350 bar	PCFC-12	PH12-2CS

Flow Control Valves

	Flow rate - MAX	Port size	pressure	Cart. Part no	Housing no.
Press comp fixed orifice priority 	45L/MIN	1/2" BSPP	210 bar	BFCV-10	PH10-3A
			350 bar	BFCV-10	PH10-3S
	76L/MIN	3/4" BSPP	210 bar	BFCV-12	PH12-3CA
			350 bar	BFCV-12	PH12-3CS
	30 l/min	3/8" BSPP	210 bar	FDCV-08	PH08-4A
			350 bar	FDCV-08	PH08-4S
	60L/MIN	1/2" BSPP	210 bar	FDCV-10	PH10-4A
			350 bar	FDCV-10	PH10-4S
	120L/MIN	3/4" BSPP	210 bar	FDCV-12	PH12-4CA
			350 bar	FDCV-12	PH12-4CS
Manual rotary flow control 	68L/MIN	1/2" BSPP	210 bar	MRFC-10	PH10-2A
			350 bar	MRFC-10	PH10-2S

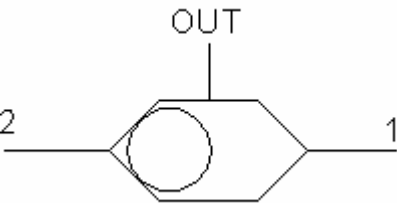
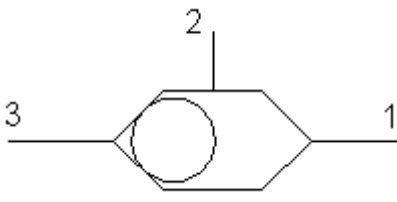
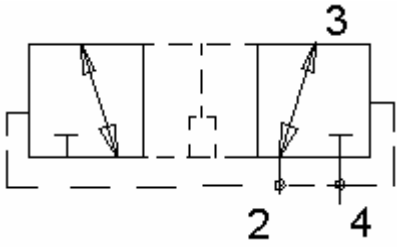
Relief Valves

	Flow rate - MAX	Port size	pressure	Cart. Part no	Housing no.	
Direct acting pilot control 	7.5 l/min	3/8" BSPP	210 bar	RVPD-08	PH08-2A	
			350 bar	RVPD-08	PH08-2S	
	7.5L/MIN	1/2" BSPP	210 bar	RVPD-08	PH10-2A	
			350 bar	RVPD-08	PH10-2S	
	38L/MIN	3/4" BSPP	210 bar	RVDI-10	PH10-2A	
			350 bar	RVDI-10	PH10-2S	
Differential area poppet type 	38 l/min	3/8" BSPP	210 bar	RVDA-08	PH08-2A	
			350 bar	RVDA-08	PH08-2S	
	76L/MIN	1/2" BSPP	210 bar	RVDA-10	PH10-2A	
			350 bar	RVDA-10	PH10-2S	
	Pilot operated spool type 	56 l/min	3/8" BSPP	210 bar	RVPS-08	PH08-2A
				350 bar	RVPS-08	PH08-2S
98L/MIN		1/2" BSPP	210 bar	RVPS-10	PH10-2A	
			350 bar	RVPS-10	PH10-2S	
227L/MIN		3/4" BSPP	210 bar	RVPS-12	PH12-2CA	
			350 bar	RVPS-12	PH12-2CS	
Pilot operated poppet type 	98 l/min	3/8" BSPP	210 bar	RVPP-08	PH08-2A	
			350 bar	RVPP-08	PH08-2S	

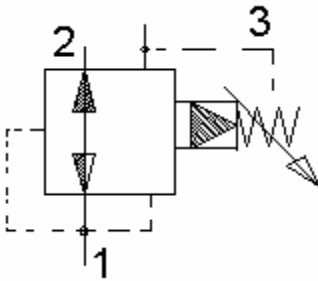
Relief Valves

	Flow rate - MAX	Port size	pressure	Cart. Part no	Housing no.
Bi-directional poppet type 	38 l/min	3/8" BSPP	210 bar	RVPS-08	PH08-2A
			350 bar	RVPS-08	PH08-2S
	78L/MIN	1/2" BSPP	210 bar	RVPS-10	PH10-2A
			350 bar	RVPS-10	PH10-2S
	151L/MIN	3/4" BSPP	210 bar	RVPS-12	PH12-2CA
			350 bar	RVPS-12	PH12-2CS
Breaker pilot operated spool type 	98 l/min	1/2" BSPP	210 bar	RVBS-10	PH10-2A
			350 bar	RVBS-10	PH10-2S
Differential area unloading relief 	3.8 l/min	1/2" BSPP	210 bar	PUVA-10	PH10-3A
			350 bar	PUVA-10	PH10-3S
Solenoid vented relief valve, N.O. 	98 l/min	1/2" BSPP	210 bar	ESRV-10	PH10-2A
			350 bar	ESRV-10	PH10-2S

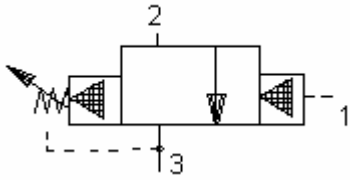
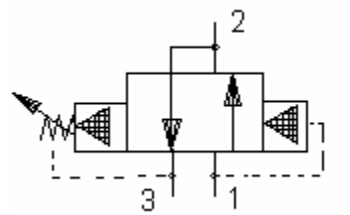
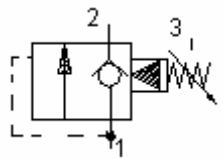
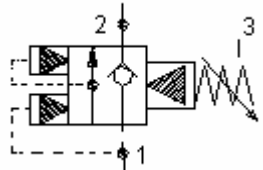
Shuttle Valves

	Flow rate - MAX	Port size	pressure	Cart. Part no	Housing no.	
Shuttle valve, ball type, 2-way cavity 	23 l/min	1/2" BSPP	210 bar	BDSV-10-X-2	PH10-2A	
			350 bar	BDSV-10-X-2	PH10-2S	
Shuttle valve, ball type, 3-way cavity 	5.5 l/min	1/4" BSPP	210 bar	BDSV-04-X-3	PH04-3A	
			350 bar	BDSV-04-X-3	PH04-3S	
	11 l/min	3/8" BSPP	210 bar	BDSV-08-X-2	PH08-3A	
			350 bar	BDSV-08-X-2	PH08-3S	
Hot oil shuttle, closed crossover 	60 l/min	1/2" BSPP	210 bar	HOSV-10-X-C	PH10-4A	
			350 bar	HOSV-10-X-C	PH10-4S	

Pressure reducing valves

	Flow rate - MAX	Port size	pressure	Cart. Part no	Housing no.
Pressure reducing/relieving valves 	22 L/MIN	3/8" BSPP	210 bar	PRRS-08	PH08-3A
			350 bar	PRRS-08	PH08-3S
	45 L/MIN	1/2" BSPP	210 bar	PRRS-10	PH10-3A
			350 bar	PRRS-10	PH10-3S
	90 L/MIN	3/4" BSPP	210 bar	PRRS-12	PH12-3CA
			350 bar	PRRS-12	PH12-3CS

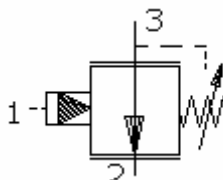
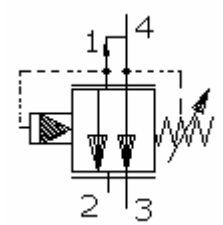
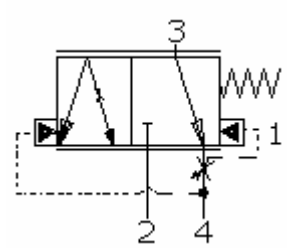
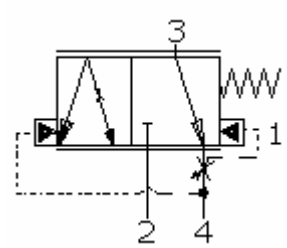
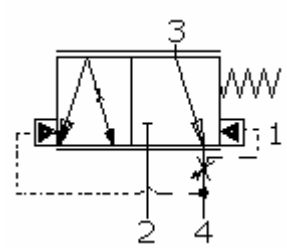
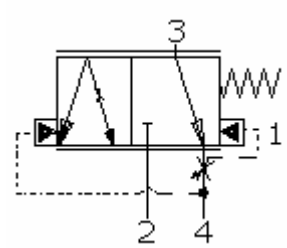
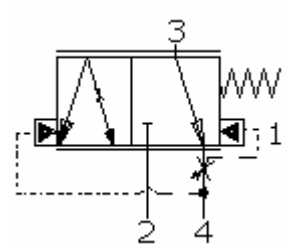
Pressure Sequence valves

	Flow rate - MAX	Port size	pressure	Cart. Part no	Housing no.
Pilot operated spool type 	22 L/MIN	3/8" BSPP	210 bar	PSXS-08	PH08-3A
			350 bar	PSXS-08	PH08-3S
	45 L/MIN	1/2" BSPP	210 bar	PSXS-10	PH10-3A
			350 bar	PSXS-10	PH10-3S
Pilot operated spool type 	22 L/MIN	3/8" BSPP	210 bar	PSCS-08	PH08-3A
			350 bar	PSCS-08	PH08-3S
Pressure sequence poppet type 	75 L/MIN	1/2" BSPP	210 bar	PSVP-10	PH10-2.5A
			350 bar	PSVP-10	PH10-2.5S
Breaker sequence poppet type 	75 L/MIN	1/2" BSPP	210 bar	PBVP-10	PH10-2.5A
			350 bar	PBVP-10	PH10-2.5S

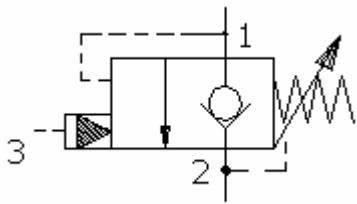
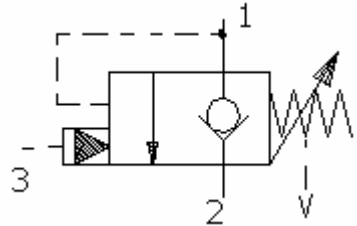
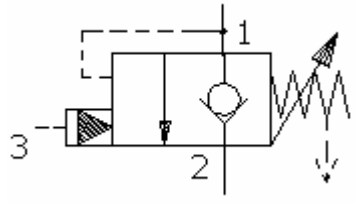
Logic and compensator

	Flow rate - MAX	Port size	pressure	Cart. Part no	Housing no.	
Spool type, pilot to close, spool "A" 	75 L/MIN	1/2" BSPP	210 bar	LCEF-10A	PH10-2.5A	
			350 bar	LCEF-10A	PH10-2.5S	
	136 L/MIN	1/2" BSPP	210 bar	LCEF-12A	PH10-2.5A	
			350 bar	LCEF-12A	PH10-2.5S	
Spool type, pilot to close, spool "C" 	75 L/MIN	1/2" BSPP	210 bar	LCEF-10C	PH10-2.5A	
			350 bar	LCEF-10C	PH10-2.5S	
	136 L/MIN	3/4" BSPP	210 bar	LCEF-12C	PH10-2.5A	
			350 bar	LCEF-12C	PH10-2.5S	
Spool type, pilot to close, spool "F" 	38 L/MIN	3/8" BSPP	210 bar	LCEF-08F	PH08-2.5A	
			350 bar	LCEF-08F	PH08-2.5S	
	75 L/MIN	1/2" BSPP	210 bar	LCEF-10F	PH10-2.5A	
			350 bar	LCEF-10F	PH10-2.5S	
	136 L/MIN	3/4" BSPP	210 bar	LCEF-12F	PH12-2.5A	
			350 bar	LCEF-12F	PH12-2.5S	

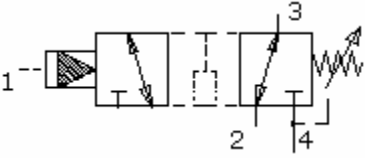
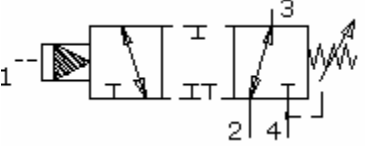
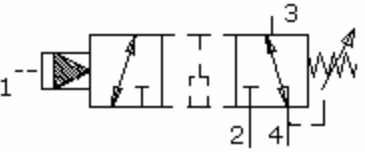
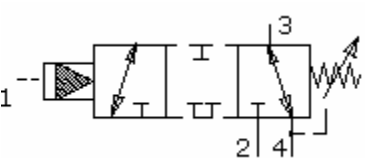
Logic and compensator

	Flow rate - MAX	Port size	pressure	Cart. Part no	Housing no.
Pressure compensator, inline type 	136 L/MIN	1/2" BSPP	210 bar	PCEI-12	PH12-2.5A
			350 bar	PCEI-12	PH12-2.5S
Pressure compensator, priority type 	68 L/MIN	1/2" BSPP	210 bar	PCEB-10	PH10-2.5A
			350 bar	PCEB-10	PH10-2.5S
Priority on demand, spool type 	121 L/MIN	3/4" BSPP	210 bar	PCEB-12	PH12-2.5A
			350 bar	PCEB-12	PH12-2.5S
Priority on demand, spool type 	30 L/MIN	3/8" BSPP	210 bar	PODS-08	PH08-4A
			350 bar	PODS-08	PH08-4S
Priority on demand, spool type 	60 L/MIN	1/2" BSPP	210 bar	PODS-10	PH10-4A
			350 bar	PODS-10	PH10-4S
Priority on demand, spool type 	90 L/MIN	3/4" BSPP	210 bar	PODS-12	PH12-4CA
			350 bar	PODS-12	PH12-4CS
Priority on demand, spool type 	136 L/MIN	1" BSPP	210 bar	PODS-16	PH16-4A
			350 bar	PODS-16	PH16-4S


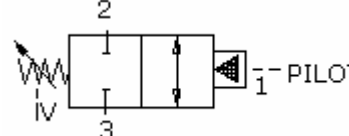
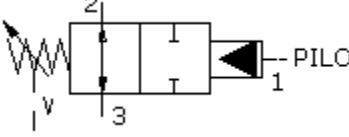
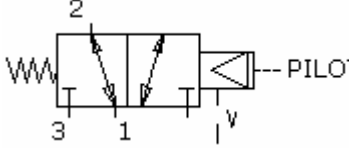
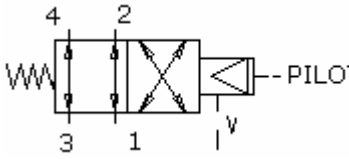
Counter Balance Valves

	Flow rate - MAX	Port size	pressure	Cart. Part no	Housing no.
Counterbalance valve, free reverse 	38 L/MIN	3/8" BSPP	210 bar	CBPA-08	PH08-2.5A
			350 bar	CBPA-08	PH08-2.5S
	75 L/MIN	1/2" BSPP	210 bar	CBPA-10	PH10-2.5A
			350 bar	CBPA-10	PH10-2.5S
	132 L/MIN	3/4" BSPP	210 bar	CBPA-12	PH12-2.5A
			350 bar	CBPA-12	PH12-2.5S
Counterbalance valve, free reverse vented 	75 L/MIN	1/2" BSPP	210 bar	CBPG-10	PH10-2.5A
			350 bar	CBPG-10	PH10-2.5S
	132 L/MIN	3/4" BSPP	210 bar	CBPG-12	PH12-2.5A
			350 bar	CBPG-12	PH12-2.5S
Counterbalance valve, free reverse vented 	75 L/MIN	1/2" BSPP	210 bar	CBPG-20M	T-11A
			350 bar	CBPG-20M	T-11S

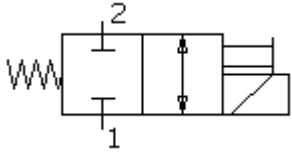
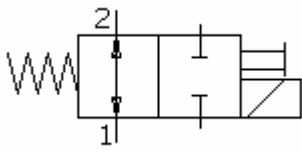
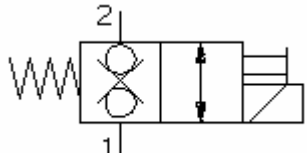
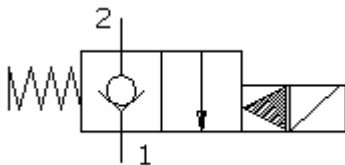
Directional control Valves

	Flow rate - MAX	Port size	pressure	Cart. Part no	Housing no.
P.O. Directional, 3-way, spool "A" 	45 L/MIN	1/2" BSPP	210 bar	DCPS-10-X-A	PH10-4A
			350 bar	DCPS-10-X-A	PH10-4S
	90 L/MIN	1" BSPP	210 bar	DCPS-16-X-A	PH16-4A
			350 bar	DCPS-16-X-A	PH16-4S
P.O. Directional, 3-way, spool "B" 	45 L/MIN	1/2" BSPP	210 bar	DCPS-10-X-B	PH10-4A
			350 bar	DCPS-10-X-B	PH10-4S
P.O. Directional, 3-way, spool "C" 	45 L/MIN	1/2" BSPP	210 bar	DCPS-10-X-C	PH10-4A
			350 bar	DCPS-10-X-C	PH10-4S
	90 L/MIN	1" BSPP	210 bar	DCPS-16-X-C	PH16-4A
			350 bar	DCPS-16-X-C	PH16-4S
P.O. Directional, 3-way, spool "D" 	45 L/MIN	1/2" BSPP	210 bar	DCPS-10-X-D	PH10-4A
			350 bar	DCPS-10-X-D	PH10-4S
	90 L/MIN	1" BSPP	210 bar	DCPS-16-X-D	PH16-4A
			350 bar	DCPS-16-X-D	PH16-4S

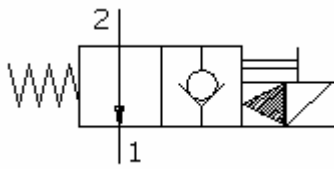
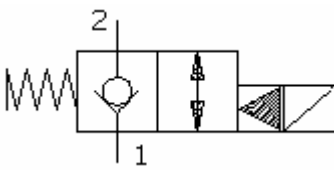
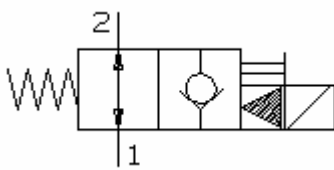
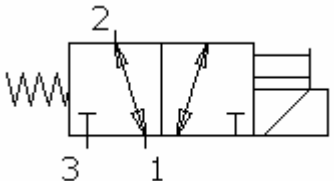
Directional control Valves

	Flow rate - MAX	Port size	pressure	Cart. Part no	Housing no.
P.O. Directional, 3-way, spool "A" 	45 L/MIN	1/2" BSPP	210 bar	DCPS-10-X-G	PH10-4A
			350 bar	DCPS-10-X-G	PH10-4S
	90 L/MIN	1" BSPP	210 bar	DCPS-16-X-G	PH16-4A
			350 bar	DCPS-16-X-G	PH16-4S
P.O. Directional, 3-way, spool  	45 L/MIN	1/2" BSPP	210 bar	DCPV-10-X-C	PH10-4A
			350 bar	DCPV-10-X-O	PH10-4S
A.O. Directional, 3-way, spool "A" 	36 L/MIN	1/2" BSPP	210 bar	AODV-10-X-3A	PH10-4A
			350 bar	AODV-10-X-3A	PH10-4S
	72 L/MIN	3/4" BSPP	210 bar	AODV-12-X-3A	PH12-4A
			350 bar	AODV-12-X-3A	PH12-4S
A.O. Directional, 4-way, spool "A" 	36 L/MIN	1/2" BSPP	210 bar	AODV-10-X-4A	PH10-4A
			350 bar	AODV-10-X-4A	PH10-4S
	72 L/MIN	3/4" BSPP	210 bar	AODV-12-X-4A	PH12-4A
			350 bar	AODV-12-X-4A	PH12-4S

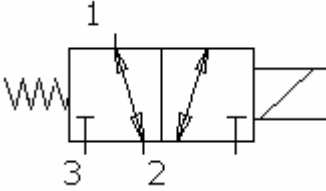
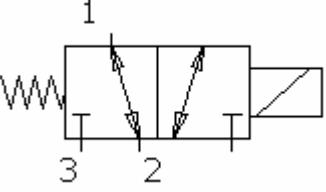
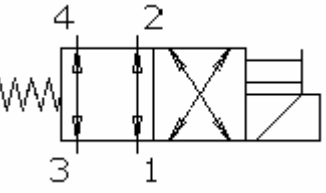
Solenoid Valves

	Flow rate -	Port size	pressure	Cart. Part no	Housing no.
Direct acting spool type 2-way 	19 L/MIN	3/8" BSPP	210 bar	EMDV-08-X-C6	PH08-2A
			350 bar	EMDV-08-X-C6	PH08-2S
	121 L/MIN	3/4" BSPP	210 bar	EMDV-12-X-C1	PH12-2A
			350 bar	EMDV-12-X-C1	PH12-2S
Direct acting spool type 2-way N.O 	19 L/MIN	3/8" BSPP	210 bar	EMDV-08-X-O6	PH08-2A
			350 bar	EMDV-08-X-O6	PH08-2S
	30 L/MIN	1/2" BSPP	210 bar	EMDV-10-X-O1	PH10-2A
			350 bar	EMDV-10-X-O1	PH10-2S
Direct acting poppet type 	19 L/MIN	3/8" BSPP	210 bar	EMDV-08-X-C3	PH08-2A
			350 bar	EMDV-08-X-C3	PH08-2S
	22 L/MIN	1/2" BSPP	210 bar	EMDV-10-X-C3	PH10-2A
			350 bar	EMDV-10-X-C3	PH10-2S
Pilot oper. Poppet type 2-way N.C 	68 L/MIN	1/2" BSPP	210 bar	EMDV-10-X-C2	PH10-2A
			350 bar	EMDV-10-X-C2	PH10-2S
	136 L/MIN	3/4" BSPP	210 bar	EMDV-12-X-C2	PH12-2A
			350 bar	EMDV-12-X-C2	PH12-2S

Solenoid Valves

	Flow rate -	Port size	pressure	Cart. Part no	Housing no.	
Pilot oper. Poppet type 2-way N.O. 	38 L/MIN	3/8" BSPP	210 bar	EMDV-08-X-O7	PH08-2A	
			350 bar	EMDV-08-X-O7	PH08-2S	
	68 L/MIN	1/2" BSPP	210 bar	EMDV-10-X-02	PH10-2A	
			350 bar	EMDV-10-X-02	PH10-2S	
	136 L/MIN	3/4" BSPP	210 bar	EMDV-12-X-O2	PH12-2A	
			350 bar	EMDV-12-X-O2	PH12-2S	
Pilot oper. Poppet type 2-way N.C free reverse 	38 L/MIN	3/8" BSPP	210 bar	EMDV-08-X-C8	PH08-2A	
			350 bar	EMDV-08-X-C8	PH08-2S	
	68 L/MIN	3/4" BSPP	210 bar	EMDV-12-X-C4	PH12-2A	
			350 bar	EMDV-12-X-C4	PH12-2S	
	189 L/MIN	1" BSPP	210 bar	EMDV-16-X-C4	PH16-2A	
			350 bar	EMDV-16-X-C4	PH16-2S	
P.O. Poppet 2-way N.O. Free reverse 	136 L/MIN	3/4" BSPP	210 bar	EMDV-12-X-O4	PH12-2A	
			350 bar	EMDV-12-X-O4	PH12-2S	
	189 L/MIN	1" BSPP	210 bar	EMDV-16-X-O4	PH16-2A	
			350 bar	EMDV-16-X-O4	PH16-2S	
	Spool type 3-way closed crossover 	30 L/MIN	3/8" BSPP	210 bar	EMDV-10-X-3A	PH10-2A
				350 bar	EMDV-10-X-3A	PH10-2S
68 L/MIN		3/4" BSPP	210 bar	EMDV-12-X-3A	PH12-2A	
			350 bar	EMDV-12-X-3A	PH12-2S	

Solenoid Valves

	Flow rate - MAX	Port size	pressure	Cart. Part no	Housing no.	
Spool type 3-way closed crossover 	19 L/MIN	3/8" BSPP	210 bar	EMDV-08-X-3J	PH08-3A	
			350 bar	EMDV-08-X-3J	PH08-3S	
	30 L/MIN	1/2" BSPP	210 bar	EMDV-10-X-3B	PH10-3A	
			350 bar	EMDV-10-X-3B	PH10-3S	
	Spool type 3-way open crossover 	19 L/MIN	3/8" BSPP	210 bar	EMDV-08-X-3K	PH08-3A
				350 bar	EMDV-08-X-3K	PH08-3S
Spool type 4-way closed crossover 		30 L/MIN	3/8" BSPP	210 bar	EMDV-10-X-4A	PH10-4A
				350 bar	EMDV-10-X-4A	PH10-4S
		60 L/MIN	3/4" BSPP	210 bar	EMDV-12-X-4A	PH12-4A
				350 bar	EMDV-12-X-4A	PH12-4S