

LINE MOUNTED VALVES



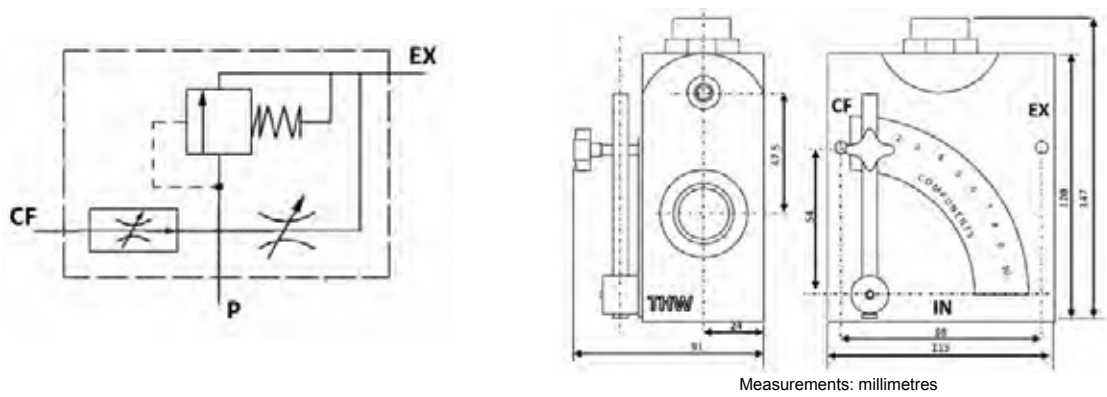
Make	Model
THW	Pressure Compensated Flow Control Valves
Tognella	Needle Valves
Gemels	Ball Valves
Gemels	Inline Check Valves
Fluid Press	Relief Valves
Fluid Press	Unloading Valves
Fluid Press	Sequence Valves
Fluid Press	Check Valves
Fluid Press	Overcentre Valves
Fluid Press	Flow Control Valves
Fluid Press	Solenoid Valves
Rexroth	Excavator Valves
Rexroth	Overcentre Valves

LINE MOUNTED VALVES

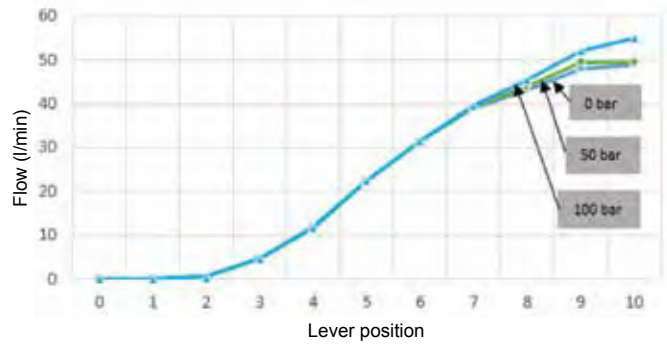


Pressure Compensated Flow Control Valves

Part Number	Max Pressure (bar)	Rated Flow (lpm)	Porting	Options
FCV-40-3/8	210	40	3/8" BSP	-
FCV-40-3/8-RV	210	40	3/8" BSP	Relief Valve
FCV-60-1/2	210	60	1/2" BSP	-
FCV-60-1/2-RV	210	60	1/2" BSP	Relief Valve
FCV-114-3/4	210	114	3/4" BSP	-
FCV-114-3/4-RV	210	114	3/4" BSP	Relief Valve



FCV-60 Flow Curve



- The THW Flow Control Valve is a full-range pressure compensating variable flow control
- Designed so that the orifice area varies as the lever is rotated
- The outlet flow is smooth and constant regardless of the pressure on the control flow or excess flow ports
- An adjustable ball spring relief allows for pressure compensated flow up to the pressure setting on the relief
- Relief valves are pre-set at 1500 psi (100 bar) and field adjustable from 750 to 3000 psi (50 – 207 bar)

LINE MOUNTED VALVES



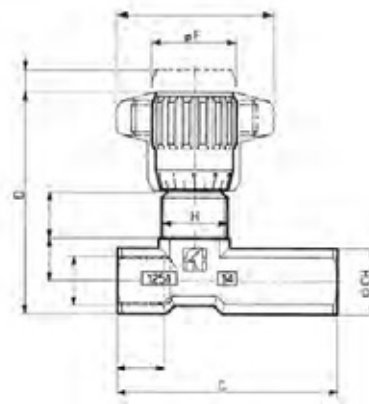
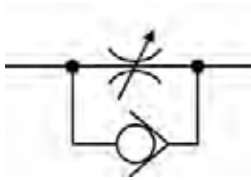
Inline Needle Valves

FT1251 Silver Series

Single Acting with Reverse Free Flow

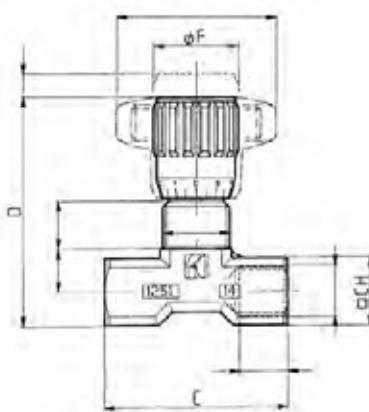
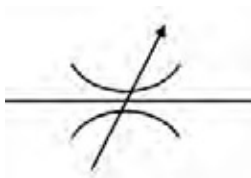


Part Number	Port Size	C (mm)	CH (mm)	D (mm)	ØF (mm)	Max Pressure (bar)
FT1251/5-14	G1/4	56	18	57	22	210
FT1251/5-38	G3/8	64.5	22	69	27	210
FT1251/5-12	G1/2	87	27	82	33	210
FT1251/5-34	G3/4	115	34	100	38	210



Double Acting

Part Number	Port Size	C (mm)	CH (mm)	D (mm)	ØF (mm)	Max Pressure (bar)
FT1251/2-14	G1/4	46	18	57	22	210
FT1251/2-38	G3/8	55	22	69	27	210
FT1251/2-12	G1/2	70	27	82	33	210



LINE MOUNTED VALVES



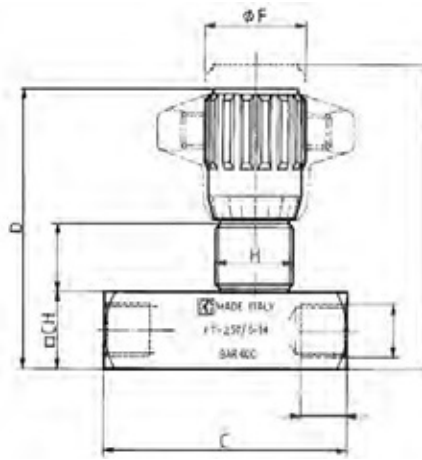
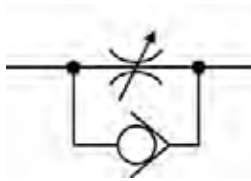
Inline Needle Valves

FT257 Gold Series

Single Acting with Reverse Free Flow

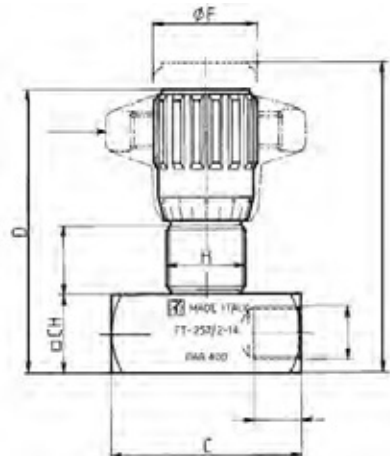
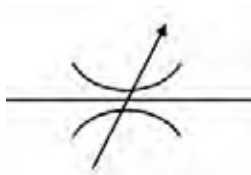


Part Number	Port Size	C (mm)	CH (mm)	D (mm)	ØF (mm)	Max Pressure (bar)
FT257/5-14	G1/4	66	20	71	27	400
FT257/5-38	G3/8	79	25	84	33	400
FT257/5-12	G1/2	94.5	30	97	38	400
FT257/5-34	G3/4	115	40	120.5	47	400



Double Acting

Part Number	Port Size	C (mm)	CH (mm)	D (mm)	ØF (mm)	Max Pressure (bar)
FT257/2-18	G1/8	38	16	59	22	400
FT257/2-14	G1/4	49	20	71	27	400
FT257/2-38	G3/8	59	25	84	33	400
FT257/2-12	G1/2	68	30	97	38	400
FT257/2-34	G3/4	86	40	120.5	47	400
FT257/2-100	G1	105	50	151.5	58	320



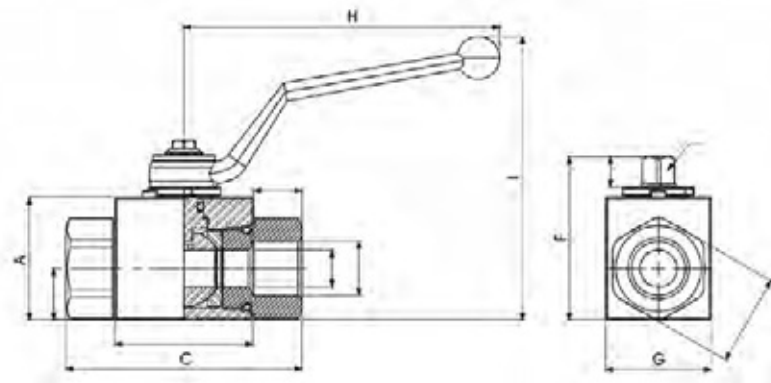
LINE MOUNTED VALVES



2 Way Ball Valves Standard

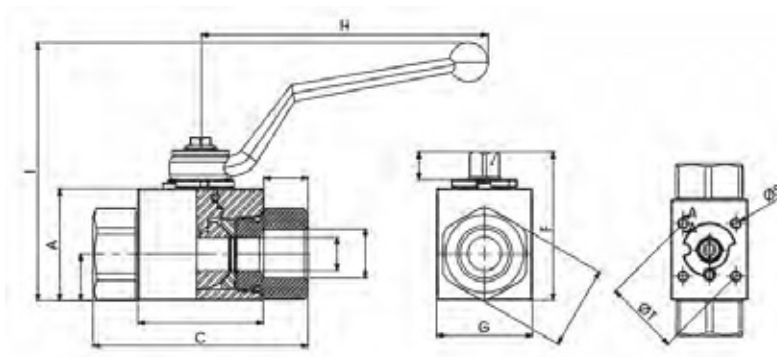


Part Number	Port Size	Bore Size (mm)	A (mm)	C (mm)	F (mm)	G (mm)	H (mm)	I (mm)	Max Pressure (bar)
HBV04B	G1/4	6	35	71	49	30	110	91.5	500
HBV06B	G3/8	10	40	73	54.25	35	110	96.5	500
HBV08B	G1/2	13	43	83	57	37	110	99.5	500
HBV12B	G3/4	20	57	95	73.5	49	180	106.5	400
HBV16B	G1	25	65	112	83.5	55	180	116.5	350
HBV20B	G1-1/4	30	65	120	83.5	55	180	116.5	350
HBV24B	G1-1/2	38	65	124	83.5	55	180	116.5	350



Panel Mount

Part Number	Port Size	A (mm)	C (mm)	F (mm)	G (mm)	H (mm)	I (mm)	ØS (mm)	ØT (mm)	Max Pressure (bar)
PHBV04B	G1/4	35	71	49	30	110	91.5	M4	35	500
PHBV06B	G3/8	40	73	54.25	35	110	96.5	M5	36	500
PHBV08B	G1/2	43	83	57	37	110	99.5	M5	36	500
PHBV16B	G1	65	112	83.5	55	180	116.5	M6	50	350



Ball Valve Locking Kits

Part Number	Port Size
LK6-F	G1/4, G3/8, G1/2
LK20-F	G3/4, G1



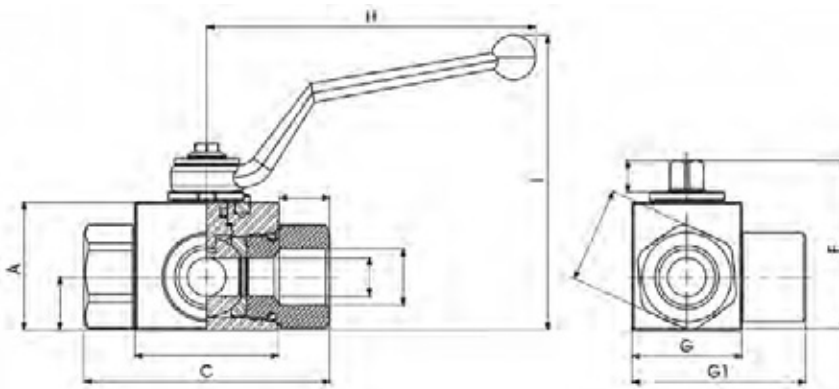
LINE MOUNTED VALVES



3 Way Ball Valves (L Type)

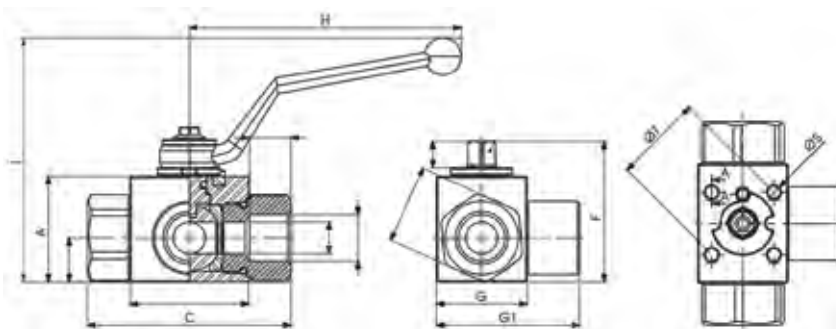
Standard

Part Number	Port Size	A (mm)	C (mm)	F (mm)	G (mm)	G1 (mm)	H (mm)	I (mm)	Max Pressure (bar)
3HBV04B	G1/4	35	71	49	30	48.5	110	91.5	400
3HBV06B	G3/8	40	73	54.25	35	54.5	110	96.5	400
3HBV08B	G1/2	43	83	57	37	58.5	110	99.5	350
3HBV12B	G3/4	57	95	73.5	49	75	180	106.5	350
3HBV16B	G1	65	112	83.5	55	89	180	116.5	350
3HBV24B	G1-1/2	65	124	83.5	55	89	180	116.5	350



Panel Mount

Part Number	Port Size	A (mm)	C (mm)	F (mm)	G (mm)	G1 (mm)	H (mm)	I (mm)	ØS	ØT (mm)	Max Pressure (bar)
3PHBV04B	G1/4	35	71	49	30	48.5	110	91.5	M4	35	500
3PHBV06B	G3/8	40	73	54.25	35	54.5	110	96.5	M5	36	500
3PHBV08B	G1/2	43	83	57	37	58.5	110	99.5	M5	36	500
3PHBV16B	G1	65	112	83.5	55	89	180	116.5	M6	50	350



Ball Valve Locking Kits

Part Number	Port Size
LK6-F	G1/4, G3/8, G1/2
LK20-F	G3/4, G1



Package not included

LINE MOUNTED VALVES

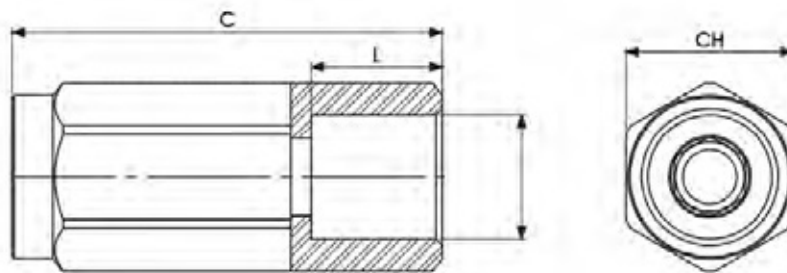


Inline Check Valves

5 psi Cracking Pressure



Part Number	Port Size	Max Pressure (bar)	C (mm)	L (mm)	CH (mm)	Max Rated Flow (lpm)
CV2A05	G1/4	500	62	15.52	19	20
CV3A05	G3/8	500	68	15.5	24	35
CV4A05	G1/2	500	77	17	30	55
CV6A05	G3/4	400	88	21	36	95
CV8A05	G1	350	105	24	41	150
CV10A05	G1-1/4	350	135	24	55	265
CV12A05	G1-1/2	350	145	24	60	380



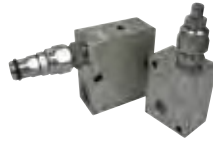
65 psi Cracking Pressure

Part Number	Port Size	Max Pressure (bar)	C (mm)	L (mm)	CH (mm)	Max Rated Flow (lpm)
CV2A65	G1/4	500	62	15.52	19	20
CV3A65	G3/8	500	68	15.5	24	35
CV4A65	G1/2	500	77	17	30	55
CV6A65	G3/4	400	88	21	36	95
CV8A65	G1	350	105	24	41	150
CV10A65	G1-1/4	350	135	24	55	265

LINE MOUNTED VALVES



FLUID-PRESS



Relief Valves

Line Mounted, Pilot Operated, Sliding Spool Relief Valve

Schematic	Part Number	Rated Flow (lpm)	Adjusted Range (bar)	Port Sizes
	FPM-P-150-CB-P-3/4-20	150	15-250	G3/4

Line Mounted, Direct Acting, Guided Poppet Relief Valve

Schematic	Part Number	Rated Flow (lpm)	Adjusted Range (bar)	Port Sizes
	FPM-D-40-CB-P-3/8-35	40	80-350	G3/8
	FPM-D-40-CB-P-1/2-05	40	5-50	G1/2
	FPM-D-40-CB-P-1/2-20	40	50-220	G1/2
	FPM-D-70-CB-P-1/2-20	80	80-280	G1/2
	FPM-D-70-CB-P-3/4-20	80	80-280	G3/4
	FPM-D-40-CB-P-3/8-05	40	5-50	G3/8
	FPM-D-40-CB-P-3/8-20	40	50-220	G3/8
	FPM-D-70-CB-P-1/2-05	70	5-50	G1/2

Line Mounted, Dual Cross, Direct Acting, Relief Valve

Schematic	Part Number	Rated Flow (lpm)	Adjusted Range (bar)	Port Sizes
	FPM-D-40-IL-3/8-20	40	50-220	G3/8
	FPM-D-70-IL-1/2-20	80	80-280	G1/2

Unloading Valves

Line Mounted, Pilot Operated Unloading Valve

Schematic	Part Number	Rated Flow (lpm)	Adjusted Range (bar)	Port Sizes
	FPMS-P-1/2-20	150	50-220	G1/2
	FPMS-P-3/4-20	150	50-220	G3/4

Sequence Valves

Line Mounted, Direct Acting Sequence Valve

Schematic	Part Number	Rated Flow (lpm)	Adjusted Range (bar)	Port Sizes
	FPSQ-D-30-CB-P-3/8-10	40	30-100	G3/8
	FPSQ-D-30-CB-P-3/8-20	40	50-220	G3/8

Line Mounted, Fully Balanced, Direct Acting Sequence Valve

Schematic	Part Number	Rated Flow (lpm)	Adjusted Range (bar)	Port Sizes
	FPSQB-D-30-CB-1/2-10	40	30-100	G1/2
	FPSQB-D-30-CB-1/2-20	40	50-220	G1/2

LINE MOUNTED VALVES



FLUID-PRESS



Check Valves

Single Acting Check Valve, Insert Type

Schematic	Part Number	Rated Flow (lpm)	Adjusted Range (bar)	Port Sizes
	FPRI-1/4	15	350	G1/4
	FPRI-3/4	80	300	G3/4

Line Mounted, Single Pilot Operated Check Valve

Schematic	Part Number	Rated Flow (lpm)	Adjusted Range (bar)	Port Sizes
	FPSL-1/2-5-G	45	210	G1/2
	FPD-L-1/2-5-G	45	250	G1/2

Line Mounted Shuttle Valve

Schematic	Part Number	Rated Flow (lpm)	Adjusted Range (bar)	Port Sizes
	FPT-1/4	25	350	G1/4
	FPT-3/8	50	350	G3/8
	FPT-1/2	80	350	G1/2

Line Mounted, Double Pilot Operated Check Valve

Schematic	Part Number	Rated Flow (lpm)	Adjusted Range (bar)	Port Sizes
	FPD-L-3/8	25	250	G3/8
	FPD-L-1/2	45	250	G1/2
	FPD-L-1/2-5	45	250	G1/2

Line Mounted, Double Pilot Operated Check Valve

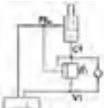
Schematic	Part Number	Rated Flow (lpm)	Adjusted Range (bar)	Port Sizes
	FPD-1/2-5	45	300	G1/2
	FPD-1/4	12	350	G1/4
	FPD-1/4-5	12	350	G1/4

LINE MOUNTED VALVES

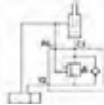


Over Centre Valves

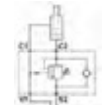
Over Centre Valve, Cartridge Version

Schematic	Part Number	Rated Flow (lpm)	Adjusted Range (bar)	Cavity Size
	FPO-50-C-35	50	80-350	33123

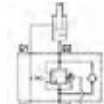
Line Mounted, Single Over Centre Valve

Schematic	Part Number	Rated Flow (lpm)	Adjusted Range (bar)	Port Sizes
	FPO-50-S-3/8-L-20	30	60-210	G3/8 / G1/4
	FPO-50-S-3/8-L-35	30	80-350	G3/8 / G1/4
	FPO-50-S-1/2-L-20	50	60-210	G1/2 / G1/4

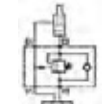
Line Mounted, Partially Balanced Single Over Centre Valve, External Pilot

Schematic	Part Number	Rated Flow (lpm)	Adjusted Range (bar)	Port Sizes
	FPO-50-S-1/2-L-35	50	80-350	G1/2 / G1/4

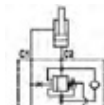
Line Mounted, Partially Balanced Single Over Centre Valve, Internal Pilot

Schematic	Part Number	Rated Flow (lpm)	Adjusted Range (bar)	Port Sizes
	FPOB-50-S-1/2-LP-35	50	80-350	G3/8

Line Mounted, Single Over Centre Valve, Internal Pilot - E Series

Schematic	Part Number	Rated Flow (lpm)	Adjusted Range (bar)	Port Sizes
	FPOE-70-S-1/2-LPA-35	70	120-350	G1/2

Line Mounted, Partially Balanced Over Centre Valve - E Series

Schematic	Part Number	Rated Flow (lpm)	Adjusted Range (bar)	Port Sizes
	FPOEB-70-S-1/2-LPA-35	70	120-350	G1/2

LINE MOUNTED VALVES



Over Centre Valves (continued)

Inline Mounted, Dual Over Centre Valve - E Series

Schematic	Part Number	Rated Flow (lpm)	Adjusted Range (bar)	Port Sizes
	FPOE-40-D-3/8-LA-20-B	40	60-210	G3/8
	FPOE-40-D-3/8-LA-20	40	60-210	G3/8
	FPOE-40-D-3/8-LA-35	40	120-350	G3/8
	FPOE-70-D-1/2-LA-20-B	70	60-210	G1/2
	FPOE-70-D-1/2-LA-35-B	70	120-350	G1/2

Line Mounted, Partially Balanced Dual Over Centre Valve - E Series

Schematic	Part Number	Rated Flow (lpm)	Adjusted Range (bar)	Port Sizes
	FPOEB-70-D-1/2-LA-35	70	120-350	G1/2
	FPOEB-70-D-1/2-LA-35-B	70	120-350	G1/2

Line Mounted, Dual Over Centre Valve

Schematic	Part Number	Rated Flow (lpm)	Adjusted Range (bar)	Port Sizes
	FPO-50-D-3/8-L-20	30	60-210	G3/8

Line Mounted, Dual Over Centre Valve with Brake Release Port

Schematic	Part Number	Rated Flow (lpm)	Adjusted Range (bar)	Port Sizes
	FPO-50-D-1/2-L-U-20	50	60-210	G1/2

Manifold Mounted, Dual Over Centre Valve

Schematic	Part Number	Rated Flow (lpm)	Adjusted Range (bar)	Port Sizes
	FPO-50-D-3/8-2F-20	30	60-210	G3/8

Line Mounted, Dual Over Centre Valve with Manual Override

Schematic	Part Number	Rated Flow (lpm)	Max Pressure (bar)	Port Sizes
	FP-111-0008	40	250	G3/8

LINE MOUNTED VALVES



Flow Control Valves

Single Acting Line Mounted, Barrel Type Flow Restrictor

Schematic	Part Number	Rated Flow (lpm)	Max Pressure (bar)	Port Sizes
	FPMU-3/8	30	350	G3/8

Double Acting Needle Valve, Cartridge Version

Schematic	Part Number	Rated Flow (lpm)	Max Pressure (bar)	Cavity Size
	FPBC-S08-P	40	350	23081

Hose Burst Insert

Schematic	Part Number	Rated Flow (lpm)	Max Pressure (bar)	Port Sizes
	FPP-3/8	16-50	350	G3/8
	FPP-1/2	25-80	350	G1/2

Housing for Hose Burst Insert

Part Number	Max Pressure (bar)	Port Sizes
FPP-3/8-FF	350	G3/8
FPP-1/2-FF	350	G1/2

Line Mounted, Flow Divider/ Combiner

Schematic	Part Number	Rated Flow (lpm)	Max Pressure (bar)	Port Sizes
	FPFD-S10-CB-1/2-3/8-M	20-40	250	G1/2 / G3/8
	FPFD-S12-CB-3/4-1/2-A	50-75	250	G3/4 / G1/2
	FPFD-S12-CB-3/4-1/2-B	75-100	250	G3/4 / G1/2
	FPFD-S16-CB-1-3/4-E	115-150	250	G1 / G3/4

Line Mounted, 2 Way Pressure Compensated Flow Regulator

Schematic	Part Number	Rated Flow (lpm)	Max Pressure (bar)	Port Sizes
	FPRBC-3/8-G	30	250	G3/8
	FPRBC-1/2-G	50	250	G1/2
	FPRBC-3/4-G	90	250	G3/4

Inline, 3 Way Pressure Compensated Flow Regulator

Schematic	Part Number	Rated Flow (lpm)	Max Pressure (bar)	Port Sizes
	FPVP-1/2-G	50	250	G1/2
	FPVP-3/4-G	90	250	G3/4

LINE MOUNTED VALVES



Flow Control Valves (continued)

Line Mounted, 3 Way Pressure Compensated Flow Regulator

Schematic	Part Number	Rated Flow (lpm)	Max Pressure (bar)	Port Sizes
	FPRF-3/8-G	30	250	G3/8
	FPRF-1/2-G	50	250	G1/2
	FPRF-1/2-H	50	250	G1/2
	FPRF-3/4-G	90	250	G3/4
	FPRF-1-G	150	250	G1

Flow, Check and Metering Valve for Boom Lifts

Schematic	Part Number	Rated Flow (lpm)	Max Pressure (bar)	Port Sizes
	FPEXC-150-S-3/4-L-DX-05-50	150	420	G3/4 / G1/4

Flow, Check and Metering Valve for Boom Lifts

Schematic	Part Number	Rated Flow (lpm)	Max Pressure (bar)	Port Sizes
	FPEXC-250-S-3/4-1F-SAE-6000-05-50	250	420	3/4" Code 62 / G1/4
	FPEXC-400-S-1-1F-SAE-6000-05-50	400	420	1" Code 62 / G1/4
	FPEXC-500S-1-1/4-1F-SAE-6000-05-50	500	420	1-1/4" Code 62 / G1/4

LINE MOUNTED VALVES



Solenoid Valves

2 Way, Double Lock Normally Closed Poppet Valve

Schematic	Part Number	Rated Flow (lpm)	Max Pressure (bar)	Cavity
	FP-22-PD-G3/4-02	2-70	350	21261
	FP-22-PD-G1-02	4-150	350	21331
	FP-22-PD-S08-02	2-70	350	23081

2 Way, Normally Closed Poppet Valve

Schematic	Part Number	Rated Flow (lpm)	Max Pressure (bar)	Cavity
	FP-22-CP-G3/4-06	2-70	350	21261
	FP-22-CP-G1-06	4-150	350	21331

2 Way, Normally Open Poppet Valve

Schematic	Part Number	Rated Flow (lpm)	Max Pressure (bar)	Cavity
	FP-22-CP-S08-16	2-70	350	23081
	FP-22-CP-S08-16-P	4-150	350	23081

Housings for Solenoid Valves

Part Number	Material	Cavity	Port Sizes
23081-G14-A1	Aluminium	23081	G1/4
23081-G38-A1	Aluminium	23081	G3/8
21331-G34-A1	Aluminium	21331	G3/4
21331-G1-A1	Aluminium	21331	G1
21261-G12-A1	Aluminium	21261	G1/2
21261-G34-A1	Aluminium	21261	G3/4

Coils for Solenoid Valves

Part Number	Connections	Voltage	Power (w)
C-13-A-18-H-A	DIN 43650	12 DC	18
C-13-B-18-H-A	DIN 43650	24 DC	18

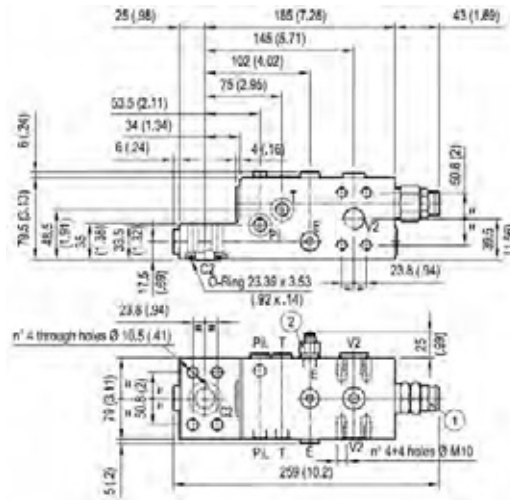
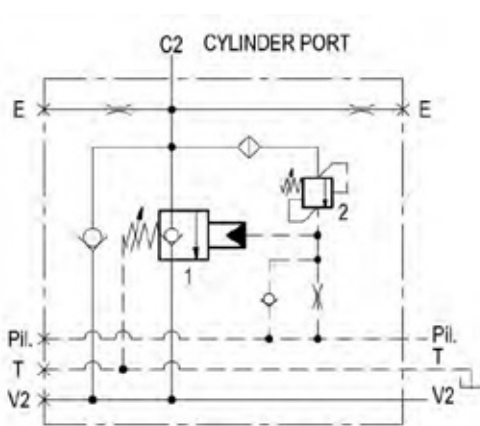
LINE MOUNTED VALVES



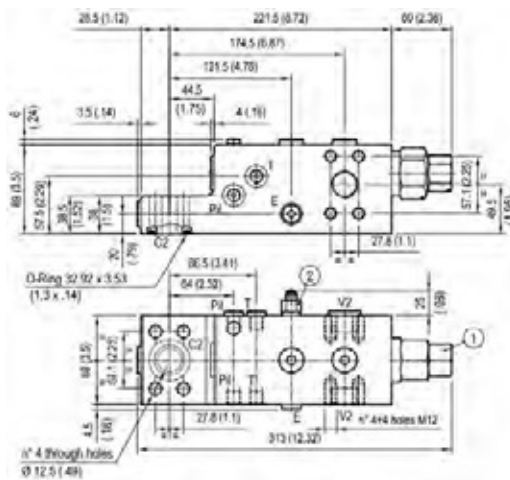
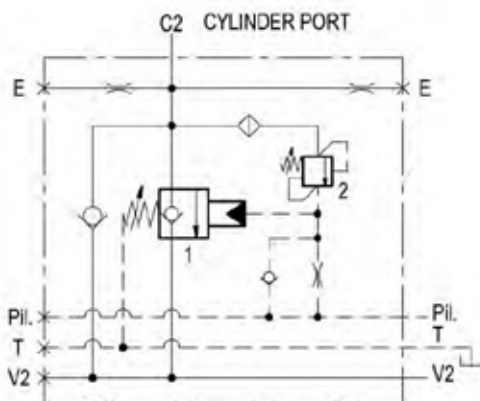
Excavator Valves

Load Holding - Check and Metering Valve Flangeable

Part Number	Rated Flow (lpm)	Max Pressure (bar)	Port Sizes
08.47.84.03.72.40	250	420	3/4" SAE 6000 / G1/4"



Part Number	Rated Flow (lpm)	Max Pressure (bar)	Port Sizes
08.47.85.03.73.40	400	420	1" SAE 6000 / G1/4"



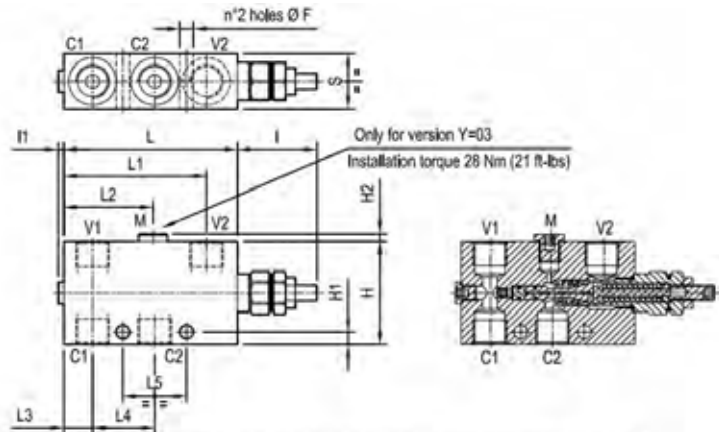
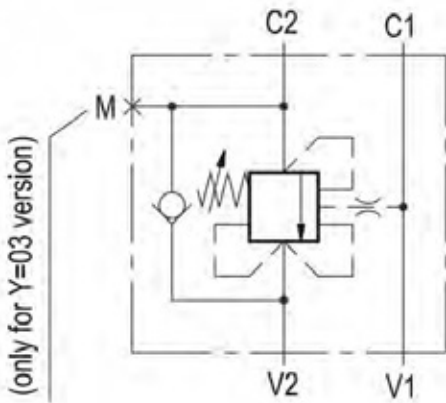
LINE MOUNTED VALVES



Overcentre Valves

Single Counterbalance, Relief Compensated

Part Number	Rated Flow (lpm)	Max Pressure (bar)	Port Sizes
08.45.17.03.03.35	60	100-350	G1/2" / G1/4"



35 (1.38)	40 (1.58)	39.3 (1.55)	18 (0.71)	55.3 (2.18)	89.8 (3.54)	100 (4.29)	3.5 (0.14)	50 (1.97)	5 (0.2)	8 (0.32)	65 (2.56)	8.5 (0.34)		G 1/2	1.85 (4.08)
S	L5	L4	L3	L2	L1	L	II	I	H2	H1	H	F		Y	Weight kg (lbs)

Flangeable Pilot Controlled Overcentre

Part Number	Rated Flow (lpm)	Max Pressure (bar)	Port Sizes
08.45.65.03.53.35	250	100-350	3/4" SAE 3000 / G1/2"

