rexroth
A Bosch Company

Compact Hydraulics

Product Selection Guide

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BOSCH REXROTH

Compact Hydraulics

Bosch Rexroth has been standing out in the worldwide Compact Hydraulics (CH) market for more than 40 years, thanks to innovative technologies that grant improved performances and cost effective solutions.
CH is employing a vast amount of resources in developing technical and sales network channels, empowering area engineering, R&D and service in order to constantly supply to OEMs new solutions tailored to fit their needs, quick response timings and to improve overall service quality and to sensibly improve the time-to-market.
Compact Hydraulics has consolidated its position at international level through the direct management of each of the production phases, an added value in terms of quality which, together with the ability to adapt products to the needs of customers, is the key to success.

Applications

Compact Hydraulics designs, manufactures and markets compact hydraulic components for applications as: earthmoving, cranes, aerial platforms, agricultural machinery and industrial applications. Its five product lines, called “compact hydraulics” and the experience of a high customization of the solutions allow it to help each customer to identify the best solution for the required application.
The market requires unique and flexible hydraulic solutions, OEMs ask for swift response times and the support of a partner with over ten years of experience alongside the customer: Bosch Rexroth’s Compact Hydraulics perfectly fits in this role and stands out as unique compact hydraulics components supplier for mobile and industrial applications. From earth moving to lifting, through recycling and agriculture, there is not an application for which CH has not developed technologically advanced products.

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All the data included in this guide is available on the online CH Interactive Catalogue.
For the other product lines - Hydraulic integrated circuits, Compact directional valves and Compact power modules - head to:
boschrexroth.com/compacthydraulics

CH Interactive Catalogue:
www.boschrexroth.com/compacthydraulics

PRODUCT SELECTION GUIDE

Mechanical cartridge valves

Compact Hydraulics offers a complete range of screw-in type cartridge valves designed to meet any request of mobile and industrial applications such as construction, agriculture, material handling, commercial and municipal.

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Mechanical cartridge valves - Relief and Unloading

Direct acting poppet type

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VS-5-CN	041158X99Z	460 (6600)	1.5 (0.4)	Special 348	18318-19
	VS-5-CF	041157X99Z	460 (6600)	1.5 (0.4)	Special 348	18318-20

Direct acting guided poppet type

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VS-30	041118X99Z	350 (5000)	30 (8)	Special 008	18318-23
	VS-80	041105X99Z	350 (5000)	80 (21)	Special 009	18318-25
	VSBG-10A	041156X85Z	350 (5000)	50 (13)	CA-10A-2N	18318-06
	VSBN-08A	041149X56Z	350 (5000)	20 (5.3)	CA-08A-2N	18318-04
	VSBN-08F	041149X20Z	350 (5000)	20 (5.3)	Hydac 06020	18318-18
	VSBN-08S	041169X56Z	350 (5000)	20 (5.3)	Special 019-E	18318-40
	VSBN-10A	041155X85Z	350 (5000)	50 (13)	CA-10A-2N	18318-05

Direct acting guided poppet type hardened seat

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VS-30-NCF	041118X09Z	420 (6000)	30 (8)	Special 008	18318-24

Direct acting poppet type, differential area

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VSD-350	041504X99Z	210 (3000)	350 (93)	Special 004	18318-22
	VSDN-08A	041522X56Z	350 (5000)	50 (13)	CA-08A-2N	18318-02
	VSDN-10A	041523X85Z	350 (5000)	120 (32)	CA-10A-2N	18318-03

Bi-directional direct acting poppet type, differential area

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VSNG-10A	041159X85Z	240 (3500)	56 (15)	CA-10A-2N	18318-07

Direct acting poppet type, pressure compensated

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VS-30-CC	041127X99Z	350 (5000)	30 (8)	Special 008	18318-26

Pilot operated spool type

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VSPN-10A	041208X85Z	420 (6000)	3-120 (1-32)	CA-10A-2N	18318-08
	VSPN-12A	041210X57Z	420 (6000)	5-200 (1.3-53)	CA-12A-2N	18318-09
	VSPN-16A	041211X27Z	420 (6000)	8-300 (2-79)	CA-16A-2N	18318-10

Pilot operated poppet type

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VMP1-16	VMP1.100.NG	420 (6000)	100 (26)	Special FB	18318-36
	VSPC-10A	041209X85Z	350 (5000)	3-80 (1-21)	CA-10A-2N	18318-11

Pilot operated poppet type and anti-cavitation

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VMR1-16	VMR1.100.NG...	420 (6000)	100 (26)	Special, FB	18318-35
	VMR2-22-FC	VMR2.240.NG...	420 (6000)	240 (63)	Special, FC	18318-37
	VMR2-22-LG	VMR2.240.LG...	420 (6000)	240 (63)	Special, LG	18318-38
	VMR2-22-16A	VMR2.16A	420 (6000)	240 (63)	Size 16	18318-41
	VMR3-32-FK	VMR3.HFK.VG.010	420 (6000)	400 (106)	Special, FK	18318-44
	VMR3-32-LM	VMR3.HLM	420 (6000)	400 (106)	Special, LM	18318-45
	VBB1-16	VBB1.SFB.VG.000	420 (6000)	100 (26)	Special, FB	18319-13
	VBB2-22	VBB2.SFC/SLG	420 (6000)	240 (63)	Special, FC / LG	18319-14
	VBB3-32	VBB3.SFK/SLM	420 (6000)	400 (106)	Special, FK / LM	18319-15
	VBL1-16	VBL1.SFB.VG.000	420 (6000)	100 (26)	Special, FB	18319-10
	VBL2-22	VBL2.SFC/SLG	420 (6000)	240 (63)	Special, FC / LG	18319-11
	VBL3-32	VBL3.SFK/SLM	420 (6000)	400 (106)	Special, FK / LM	18319-12
	VMR1-16-E	VMR1.EFB.VG.000	420 (6000)	100 (26)	Special, FB	18319-16
	VMR2-22-E	VMR2.EFC/ELG	420 (6000)	240 (63)	Special, FC - LG	18319-17
	VMR3-32-E	VMR3.EFK/ELM	420 (6000)	400 (106)	Special, FK - LM	18319-18
	VMR2-Y	VMR2.YHC	420 (6000)	240 (63)	Special, YHC	18318-42
	VMR3-Y	VMR3.YHK.VG.000	420 (6000)	400 (106)	Special, YHK	18318-43

Pilot operated spool type external drain

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VSPY-10A	041305X85Z	420 (6000)	3-120 (1-32)	CA-10A-3N	18318-12
	VSPY-12A	041307X57Z	350 (5000)	5-200 (1.3-53)	CA-12A-3C	18318-13

Pilot operated spool type external pilot

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VSPX-12A	041308X57Z	350 (5000)	5-200 (1.3-53)	CA-12A-3C	18318-14

Pilot operated spool type pressure compensated

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VSP-CC-150	041801X99Z	420 (6000)	5-150 (1.3-40)	Special 065	18318-27
	VSPP-10A	041803X85Z	420 (6000)	3-120 (1-32)	CA-10A-2N	18318-39

Priority unloading pilot operated

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VMSN-08A	047521X56Z	350 (5000)	3 (1)	CA-08A-3N	18318-16
	VMSP-78	047510X99Z	350 (5000)	5-30 (1.3-8)	CA-10A-4N	18318-17

Pressure reducing and relieving

Direct acting spool type and fixed setting

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VRPR-07A	049508X99Z	420 (6000)	5 (1.3)	Special CA-07A-3N	18318-59
	VRPR-10A	049504X85Z	350 (5000)	30 (8)	CA-10A-3N	18318-53
	VRPR-08A	0495118356Z	350 (5000)	8 (2)	CA-08A-3N	18318-52
	MHDRDB	MHDRDB...	420 (6000)	15 (4)	Special R/LA	18318-55

Direct acting spool damped type and fixed setting

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VRPR-07A-S	049509X99Z	420 (6000)	5 (1.3)	Special CA-07A-3N	18318-60
	VRPR-10A-8	0495098385Z	350 (5000)	20 (5)	CA-10A-3N	18318-54

Pilot operated spool type

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VRPX-10A	049307X85Z	350 (5000)	60 (16)	CA-10A-3N	18318-56

Pilot controlled setting

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VRPE-10A	049507X85Z	350 (5000)	20 (5)	CA-10A-3N	18318-58

Pressure reducing

Pilot operated spool type

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VRPP-10A	049306X85Z	350 (5000)	60 (16)	CA-10A-3N	18318-50
	VRPP-12A	049308X57Z	350 (5000)	100 (26)	CA-12A-3N	18318-51

Check valves

Poppet type

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VUCN-04A	0431310054Z	350 (5000)	4 (1.1)	Special CA-04A-2N	18318-88
	VUCN-08A	0431200056Z	420 (6000)	50 (13)	CA-08A-2N	18318-89
	VUCN-08F	043138002000	420 (6000)	50 (13)	Hydac 06020	18319-04
	VUCN-10A	0431230085Z	350 (5000)	80 (21)	CA-10A-2N	18318-90
	VUCN-12A	0431280057Z	350 (5000)	120 (32)	CA-12A-2N	18318-91
	VUCN-16A	0431250027Z	350 (5000)	200 (53)	CA-16A-2N	18318-92
	VUCN-20A	0431320058Z	350 (5000)	360 (95)	CA-20A-2N	18318-93
	VU-N-38	0431190099Z	350 (5000)	30 (8)	Special 690	18318-99

Poppet type with thermal relief

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VUCN-10A-TR	043137X85Z	350 (5000)	80 (21)	CA-10A-2N	18318-94

Poppet reverse type

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VUR1-16	VUR110000	420 (6000)	100 (26)	Special FB	18319-01
	VUR2-22-FC	VUR2240FC	420 (6000)	240 (63)	Special FC	18319-02
	VUR2-22-LG	VUR2240LG	420 (6000)	240 (63)	Special LG	18319-03
	VURN-08A	0431210056Z	420 (6000)	25 (7)	CA-08A-2N	18318-96
	VURN-10A	0431270085Z	350 (5000)	60 (16)	CA-10A-2N	18318-97
	VURN-12A	0431360057Z	350 (5000)	90 (24)	CA-12A-2N	18318-98
	VUR-32-LM	VUR3.400.LM.010	420 (6000)	400 (106)	Special, LM	18319-06
	VUR3-32-FK	VUR3.400.FK.010	420 (6000)	400 (106)	Special, FK	18319-05

Check, pilot operated

Pilot to open

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VSOA-08A	043310X56Z	350 (5000)	30 (8)	CA-08A-3N	18319-34
	VSOA-10A	043310X85Z	350 (5000)	40 (11)	CA-10A-3N	18319-35
	VSON-08A	043306X56Z	350 (5000)	30 (8)	CA-08A-3C	18319-30
	VSON-08U	043306X20Z	350 (5000)	60 (16)	SUN T-11A	18319-39
	VSON-10A	043305X85Z	350 (5000)	60 (16)	CA-10A-3C	18319-31
	VSON-12A	043307X57Z	350 (5000)	120 (32)	CA-12A-3C	18319-32
	VSON-12U	043307X86Z	350 (5000)	120 (32)	SUN T-2A	18319-40
	VSON-16A	043308X27Z	350 (5000)	200 (53)	CA-16A-3C	18319-33
	VSON-16U	043309X47Z	350 (5000)	240 (63)	SUN T-17A	18319-41
	KED	KED0R2DA/HV	350 (5000)	120 (32)	SUN T-22A	18319-42

Dual pilot to open

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VSOD-10A	043603X85Z	350 (5000)	30 (8)	CA-10A-4N	18319-38

Pilot to close

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VUPC-10A	043404X85Z	350 (5000)	70 (18)	CA-10A-3C	18319-36
	VUPC-12A	043404X57Z	350 (5000)	120 (32)	CA-12A-3C	18319-37
	VUPC-25U	043404X50Z	350 (5000)	560 (148)	SUN T-19A	18319-29
	KGD	KGD0R2XA/HV	350 (5000)	160 (42)	SUN T-2A	18319-43

Directional poppet type, shuttle

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	SELB-08A	049405005600	350 (5000)	up to 10 (2.6)	CA-08A-3N	18319-80
	SELB-10A	049409008500	220 (3190)	up to 30 (8)	CA10A-3N	18319-79
	SELC-04A	049407005400	350 (5000)	up to 4 (1.1)	CA-04A-3Y	18319-82
	SELC-08A	049406X5600	350 (5000)	up to 10 (2.6)	CA-08A-2N	18319-81

Directional poppet type, shuttle double lock

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VUDN-08A	0439010056Z	350 (5000)	10 (2.6)	CA-08A-3N	18319-83

Directional hot oil, shuttle

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	SELO-10M	049410X99Z	380 (5510)	40 (11)	Special 1004	18320-95

Check, double lock, with mechanical pilot

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VU-DT-D7-CM	0443010000Z	350 (5000)	10 (2.6)	Special 748	18318-87

Counterbalance

Standard guided poppet type

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VBSN-08AA	045220X56Z	350 (5000)	30 (8)	CA-08A-3C	18320-01
	VBSN-07HH-TF	045250X18Z	350 (5000)	20 (5.3)	EATON 22903	18320-33

Standard guided poppet type, counterclockwise adj.

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VBSN-08UU-RS	045242X20Z	280 (4000)	30 (8)	SUN T-11A	18320-16

Standard poppet type differential area

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VBSN-08U-TF	045237X20Z	350 (5000)	60 (16)	SUN T11-A	18319-98
	VBSN-10A	045231X85Z	350 (5000)	60 (16)	CA-10A-3C	18320-02
	VBSN-12A	045228X57Z	350 (5000)	120 (32)	CA-12A-3C	18320-03
	VBSN-16A	045229X27Z	350 (5000)	200 (53)	CA-16A-3C	18320-04
	VBSN-16U-RF	045247X47Z	420 (6000)	240 (63)	SUN T-17A	18320-31
	VBSN-20A	045225X58Z	350 (6000)	320 (85)	CA-20A-3C	18320-05

Standard poppet type differential area, counterclockwise adj.

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VBSN-08U-RS	045243X20Z	350 (5000)	60 (16)	SUN T-11A	18320-17
	VBSN-12U-RS	045244X86Z	350 (5000)	120 (32)	SUN T-2A	18320-18
	VBSN-16U-RS	045245X47Z	420 (6000)	240 (63)	SUN T-17A	18320-19
	VBSN-25U-RS	045246X50Z	350 (5000)	480 (127)	SUN T-19A	18320-29

Standard poppet type zero differential area

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VBSZ-20A	045241X58Z	350 (5000)	320 (85)	CA-20A-3C	18319-99

Relief compensated guided poppet type

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VBSP-08AA	045404X56Z	350 (5000)	30 (8)	CA-08A-3C	18320-06

Relief compensated poppet type differential area

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VBSP-10A	045409X85Z	350 (5000)	60 (16)	CA-10A-3C	18320-07
	VBSP-12A	045408X57Z	350 (5000)	120 (32)	CA-12A-3C	18320-08
	VBSP-16A	045410X27Z	350 (5000)	200 (53)	CA-16A-3C	18320-09
	VBSP-16U-RF	045419X47Z	350 (5000)	240 (63)	SUN T-17A	18320-32
	VBSP-20A	045413X58Z	350 (5000)	320 (85)	CA-20A-3C	18320-10

Relief compensated poppet type differential area, counterclockwise adj.

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VBSP-08U-RS	045415X20Z	350 (5000)	60 (16)	SUN T-11A	18320-20
	VBSP-12U-RS	045416X86Z	350 (5000)	120 (32)	SUN T-2A	18320-21
	VBSP-16U-RS	045417X47Z	420 (6000)	240 (63)	SUN T-17A	18320-22
	VBSP-25U-RS	045418X50Z	420 (6000)	480 (127)	SUN T-19A	18320-30

Vented guided poppet type

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VBST-08AA	045908X56Z	350 (5000)	30 (8)	CA-08A-3C	18320-11
	VBST-10A	045916X85Z	350 (5000)	60 (16)	CA-10A-3C	18320-12
	VBST-12A	045926X57Z	350 (5000)	120 (32)	CA-12A-3C	18320-13
	VBST-16A	045927X27Z	350 (5000)	200 (53)	CA-16A-3C	18320-14
	VBST-20A	045918X58Z	350 (5000)	320 (85)	CA-20A-3C	18320-15

Vented guided poppet type counterclockwise adj.

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VBST-08U-RS	045929X20Z	280 (4000)	60 (16)	SUN T-11A	18320-23
	VBST-12U-RS	045930X86Z	350 (5000)	120 (32)	SUN T-2A	18320-24
	VBST-16U-RS	045931X47Z	350 (5000)	240 (63)	SUN T-17A	18320-25

4 ports vented poppet type external drain, counterclockwise adj.

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VBSY-08U-RS	045932X20Z	280 (4000)	60 (16)	SUN T-21A	18320-26
	VBSY-12U-RS	045933X86Z	350 (5000)	120 (32)	SUN T-22A	18320-27
	VBSY-16U-RS	045934X47Z	350 (5000)	240 (63)	SUN T-23A	18320-28
	VBSY-25U-RS	045932X50Z	420 (6000)	480 (127)	SUN T-24A	18320-36

Flow control

Cartridge restrictors

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	ST-C-06	OD2101X56	350 (5000)	40 (11)	CA-08A-2N	18321-26
	ST-C-10	OD2101X36	350 (5000)	70 (19)	CA-10A-2N	18321-27
	ST-C-12	OD2101X89	350 (5000)	150 (39)	CA-12A-2N	18321-28
	ST-C-16	OD2101X75	350 (5000)	150 (36)	CA-16A-2N	18321-29

Neddle restrictors, free reverse flow

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	STFU-08A	040106X5600	350 (5000)	40 (11)	CA-08A-2N	18321-09
	STVU-08A	040103X5600	350 (5000)	40 (11)	CA-08A-2N	18321-10
	STVU-10A	040105X8500	350 (5000)	80 (22)	CA-10A-2N	18321-11

2 way pressure compensated, fixed setting

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	MH2FR	MH2FR...	420 (6000)	1.2 (0.3)	Special R/MH2FR04K	18321-31
	VRFA-08A	0402010056Z	up to 210 (3000)	9 (2.4)	CA-08A-2N	18321-12
	VRFA-10A-TF	0402010085Z	up to 350 (5000)	19 (5)	CA-10A-2N	18321-13
	VRFA-12A-TF	0402030057Z	up to 350 (5000)	63 (17)	CA-12A-2N	18321-14
	VSRF-08S	040801X19Z	up to 420 (6000)	1.2 (0.3)	Special 019-E	18321-32

2 way pressure compensated, partially adjudtable

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VRFA-10A	040201X85Z	up to 350 (5000)	26 (7)	CA-10A-2N	18321-15

2 way pressure compensated, fully adjustable

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VRFB-10A	040202X85Z	up to 350 (5000)	30 (8)	CA-10A-2N	18321-16
	VRFE-12A	040701X57Z	up to 350 (5000)	50 (13	CA-12A-2N	18321-30

3 way pressure compensated, fixed setting

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VRFC-10A-TF	0404010085Z	up to 350 (5000)	19 (5)	CA-10A-3N	18321-18
	VRFC-12A-TF	0404030057Z	up to 350 (5000)	63 (17)	CA-12A-3N	18321-19

3 way pressure compensated, partially adjustable

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VRFC-10A	040401X85Z	up to 350 (5000)	26 (7)	CA-10A-3N	18321-17

3 way pressure compensated, fully adjustable

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VRFD-10A	040402X85Z	up to 350 (5000)	30 (8)	CA-10A-3N	18321-20
	VRFD-12A	040404X57Z	up to 350 (5000)	50 (13)	CA-12A-3N	18321-21

Flow divider

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	DSDN-10A	0405040085Z	up to 350 (5000)	54 (14)	CA-10A-4N	18321-22
	DSDN-16A	0405030027Z	up to 350 (5000)	165 (44)	CA-16A-4N	18321-23

Flow divider and combiner

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	DRFN-10A	0405010085Z	up to 350 (5000)	60 (16)	CA-10A-4N	18321-24
	DRFN-16A	040502X27Z	up to 350 (5000)	165 (44)	CA-16A-4N	18321-25
	DRFN-12A	040505005710000	up to 350 (5000)	120 (32)	Size 12	18321-33

Logic elements and compensators

Flow and pressure control with external pilot

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VLST-10A	048401X85Z	350 (5000)	60 (16)	CA-10A-3C	18321-60
	VLST-12A	048401X57Z	350 (5000)	120 (32)	CA-12A-3C	18321-61
	VLST-16A	048401X27Z	350 (5000)	200 (53)	CA-16A-3C	18321-62
	VLST-20A	048401X58Z	350 (5000)	360 (95)	CA-20A-3C	18321-63

Flow and pressure control with internal pilot

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VLSP-10A	048403X85Z	350 (5000)	60 (16)	CA-10A-3C	18321-64
	VLSP-12A	048403X57Z	350 (5000)	120 (32)	CA-12A-3C	18321-65
	VLSP-16A	048403X27Z	350 (5000)	200 (53)	CA-16A-3C	18321-66
	VLSP-20A	048403X58Z	350 (5000)	360 (95)	CA-20A-3C	18321-67

Flow control with external pilot

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VLSC-10A	048402X85Z	350 (5000)	30 (8)	CA-10A-3C	18321-68
	VLSC-10A-8-TF	048412X85Z	350 (5000)	25 (7)	CA-10A-3C	18321-71
	VLSC-12A	048402X57Z	350 (5000)	60 (16)	CA-12A-3C	18321-59
	VLSC-16A	048402X27Z	350 (5000)	120 (32)	CA-16A-3C	18321-69
	VLSC-20A	048402X58Z	350 (5000)	240 (63)	CA-20A-3C	18321-70

Pressure control with internal pilot

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VLSR-10A	048404X85Z	350 (5000)	40 (11)	CA-10A-3C	18321-72
	VLSR-12A	048404X57Z	350 (5000)	60 (16)	CA-12A-3C	18321-73
	VLSR-16A	048404X27Z	350 (5000)	120 (32)	CA-16A-3C	18321-74
	VLSR-20A	048404X58Z	350 (5000)	230 (61)	CA-20A-3C	18321-75

Pressure compensator

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VLSQ-10A	048405X85Z	350 (5000)	40 (11)	CA-10A-3N	18321-77
	VLSQ-12A	048504X57Z	350 (5000)	70 (18)	CA-12A-3N	18321-78
	VLSQ-16A	048405X27Z	350 (5000)	80 (21)	CA-16A-3N	18321-79

Pressure compensator combination type

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VCSQ-10A	048406X85Z	350 (5000)	60 (16)	CA-10A-4N	18321-80
	VCSQ-12A	048406X57Z	350 (5000)	120 (32)	CA-12A-4N	18321-81
	VCSQ-16A	048406X27Z	350 (5000)	200 (53)	CA-16A-4N	18321-82

Pressure compensator with static load sense

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VRLA-10A-S	0484090085Z	350 (5000)	45 (12)	CA-10A-4N	18321-86
	VRLA-12A-S	0484090057Z	350 (5000)	100 (26)	CA-12A-4N	18321-87
	VRLA-16A-S	0484090027Z	350 (5000)	160 (42)	CA-16A-4N	18321-88
	VRLA-20A-S	0484090058Z	350 (5000)	230 (60)	CA-20A-4N	18321-89

Pressure compensator with dynamic load sense

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VRLA-10A-D	048410X85Z	350 (5000)	45 (12)	CA-10A-4N	18321-90
	VRLA-12A-D	048410X57Z	350 (5000)	100 (26)	CA-12A-4N	18321-83
	VRLA-16A-D	048410X27Z	350 (5000)	160 (42)	CA-16A-4N	18321-84
	VRLA-20A-D	048410X58Z	350 (5000)	230 (60)	CA-20A-4N	18321-85

Directional control, poppet type

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VLDT-10A	048407X85Z	350 (5000)	80 (21)	CA-10A-3C	18321-76

Directional, spool type direct acting

External pilot, internal drain

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VDSA-10A	047732X85Z	350 (5000)	50 (13)	CA-10A-3N	18320-83
	VDSA-10A-6	047729X85Z	350 (5000)	30 (8)	CA-10A-3N	18320-73
	VDSA-16A	047732X27Z	350 (5000)	160 (43)	CA-16A-3N	18320-92
	VDSB-10A	047733X85Z	350 (5000)	50 (13)	CA-10A-3N	18320-84
	VDSB-10A-6	047723X85Z	350 (5000)	30 (8)	CA-10A-3N	18320-74
	VDSH-10A	047725X85Z	350 (5000)	40 (11)	CA-10A-4N	18320-75
	VDSH-16A	047725X27Z	350 (5000)	160 (43)	CA-16A-4N	18320-85
	VDSK-10A	047726X85Z	350 (5000)	40 (11)	CA-10A-4N	18320-76
	VDSK-16A	047726X27Z	350 (5000)	160 (43)	CA-16A-4N	18320-86

Internal pilot, external drain

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VDSR-10A-6	047717X85Z	350 (5000)	12 (3)	CA-10A-3N	18320-82

External pilot, external drain

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VDSE-10A-6	047737X85Z	350 (5000)	20 (5)	CA-10A-4N	18320-88

External pilot, external vent

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VDSC-10A	047721X85Z	350 (5000)	50 (13)	CA-10A-3N	18320-77
	VDSC-12A	047721X57Z	350 (5000)	120 (32)	CA-12A-3N	18320-91
	VDSC-16A	047720X27Z	350 (5000)	160 (43)	CA-16A-3N	18320-78
	VDSD-10A	047722X85Z	350 (5000)	50 (13)	CA-10A-3N	18320-79
	VDSD-16A	047722X27Z	350 (5000)	160 (43)	CA-16A-3N	18320-80
	VDSJ-10A	047719X85Z	350 (5000)	50 (13)	CA-10A-4N	18320-87
	VDSJ-16A	047719X27Z	350 (5000)	160 (43)	CA-16A-4N	18320-81

External pilot, port vented

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VDSJ-16A-RN	047742X27Z	350 (5000)	160 (43)	CA-16A-5C	18320-94

Piloted, 4 ways

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VDSP-20B	047735X93Z	350 (5000)	200 (53)	CA-20B-6C	18320-89

Directional, manual operated poppet type

2-way normally closed

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VMI-8A-2A-06-NC	OD55X1837Z	350 (5000)	40 (11)	CA-08A-2N	18326-01
	VMI-8A-2A-09-NC	OD55X1737Z	350 (5000)	70 (19)	Special 017-E	18326-05

2-way normally open

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VMI-8A-2A-06-NA	OD55X181700	350 (5000)	40 (11)	CA-08A-2N	18326-03
	VMI-8A-2A-09-NA	OD55X171700	350 (5000)	70 (19)	Special 017-E	18326-06

Directional, hydraulic operated poppet type

2-way normally closed

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VOI-8A-2A-06-NC	OD75X18Y00	350 (5000)	40 (11)	CA-08A-2N	18326-40
	VOI-8A-2A-09-NC	OD75X17Y00	350 (5000)	70 (19)	Special 017-E	18326-44
	VOI-8A-2A-12-NC	OD75X21Y00	350 (5000)	150 (39)	Special 021-E	18326-46

2-way normally open

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VOI-8A-2A-06-NA	OD75X18Y00	350 (5000)	40 (11)	CA-08A-2N	18326-42
	VOI-8A-2A-09-NA	OD75X17Y00	350 (5000)	70 (19)	Special 017-E	18326-45
	VOI-8A-2A-12-NA	OD75X21Y00	350 (5000)	150 (39)	Special 021-E	18326-47

Directional, pneumatic operated poppet type

2-way normally closed

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VPI-8A-2A-06-NC	OD65X181400	350 (5000)	40 (11)	CA-08A-2N	18326-70
	VPI-8A-2A-06-NC-VU	OD6511191400	350 (5000)	40 (11)	Special 019-E	18326-71
	VPI-8A-2A-09-NC	OD65X171400	350 (5000)	70 (19)	Special 017-E	18326-74
	VPI-8A-2A-12-NC	OD65X211400	350 (5000)	150 (39)	Special 021-E	18326-76

2-way normally open

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VPI-8A-2A-06-NA	OD65X181400	350 (5000)	40 (11)	CA-08A-2N	18326-72
	VPI-8A-2A-09-NA	OD65X171400	350 (5000)	70 (19)	Special 017-E	18326-75
	VPI-8A-2A-12-NA	OD65X211400	350 (5000)	150 (39)	Special 021-E	18326-77

Accessories

Automatic shut off, pilot to close

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VEM-5-SA	049806X99Z	350 (5000)	1 (0.26)	Special 348	18320-71

Hand pump

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	PM-06	PM5110001800	50 (725)	1 (0.26)	CA-08A-2N	18321-95

PRODUCT SELECTION GUIDE

Solenoid cartridge valves

21 On-off, pilot operated poppet type

24 On-off, direct acting

25 Electro-proportional

Compact Hydraulics improved the performances of its wide range of on-off valves developing the NEW top performing solenoid cartridge valves and coils. They incorporates a new solenoid concept providing excellent performance which enables new valves to work in severe environment conditions in terms of temperature and harsh operating conditions: salt water spray, agricultural chemicals...

On-off, pilot operated poppet type

2-way normally closed

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Coil	Data Sheet
	VEI-16-021-NC	OD15X21YZ	350 (5000)	up to 150 (40)	Special 021-E	D36	18323-37
	VEI-16-08A-NC	OD15X18YZ	350 (5000)	up to 40 (11)	CA-08A-2N	D36	18323-25
	VEI-16-08S-NC	OD15X19YZ	350 (5000)	up to 40 (11)	Special 019-E	D36	18323-27
	VEI-16-NC	OD15X17YZ	350 (5000)	up to 70 (18)	Special 017-E	D36	18323-34
	VEI-16-08A-NC_I	OD15X18YZ000I	350 (5000)	up to 40 (11)	Size 08	D36	18323-51
	VEI-16-08F-NC	OD15X39YZ	350 (5000)	up to 40 (11)	Special 039-E	D36	18323-42
	VEI-16-08F-NC	OD15X40YZ	350 (5000)	up to 40 (11)	Special 040-E	D36	18323-46
	VEI-16-021-NC	OD15X21YZ	350 (5000)	up to 150 (40)	Special 021-E	D36	18323-37
	VEI-16-08A-NC	OD15X18YZ	350 (5000)	up to 40 (11)	CA-08A-2N	D36	18323-25
	VEI-16-021-NC	OD15X21YZ	350 (5000)	up to 150 (40)	Special 021-E	D36	18323-37
	VEI-16-08A-NC	OD15X18YZ	350 (5000)	up to 40 (11)	CA-08A-2N	D36	18323-25
	VEI-16-08S-NC	OD15X19YZ	350 (5000)	up to 40 (11)	Special 019-E	D36	18323-27
	VEI-16-10A-NC	OD15X36YZ	350 (5000)	up to 70 (18)	CA-10A-2N	D36	18323-32
	VEI-16-NC	OD15X89YZ	350 (5000)	up to 150 (40)	CA-12A-2N	D36	18323-39
	VEI-16-NC	OD15X17YZ	350 (5000)	up to 70 (18)	Special 017-E	D36	18323-34
	VEI-16-08A-NC_I	OD15X18YZ000I	350 (5000)	up to 40 (11)	Size 08	D36	18323-51
	VEI-16-08F-NC	OD15X39YZ	350 (5000)	up to 40 (11)	Special 039-E	D36	18323-42
	VEI-16-08F-NC	OD15X40YZ	350 (5000)	up to 40 (11)	Special 040-E	D36	18323-46
	VEI-16-08F-NC_I	OD15X40YZ000I	350 (5000)	up to 40 (11)	Special 040-E	D36	18323-52
	VEI-16-10F-NC	OD15X32YZ	350 (5000)	up to 70 (18)	Hydac 10120	D36	18323-48
	VEI-16-16A-NC	OD15X75YZ	350 (5000)	up to 150 (40)	Size 16	D36	18323-41
	VEI-16-021-NC	OD15X21YZ	350 (5000)	up to 150 (40)	Special 021-E	D36	18323-37
	VEI-16-08A-NC	OD15X18YZ	350 (5000)	up to 40 (11)	CA-08A-2N	D36	18323-25
	VEI-16-10A-NC	OD15X36YZ	350 (5000)	up to 70 (18)	CA-10A-2N	D36	18323-32
	VEI-16-NC	OD15X89YZ	350 (5000)	up to 150 (40)	CA-12A-2N	D36	18323-39
	VEI-16-NC_004	OD150304YZ	350 (5000)	260 (69)	Special 004	D36	18323-30
	VEI-16-NC	OD15X17YZ	350 (5000)	up to 70 (18)	Special 017-E	D36	18323-34
	VEI-16-16A-NC	OD15X75YZ	350 (5000)	up to 150 (40)	Size 16	D36	18323-41
	VEI-8A-2B-16-NC-NSS	OD150304YS0	350 (5000)	260 (69)	Special 004	D36	18323-15
	VEI-16-08A-NC	OD15X18YZ	350 (5000)	up to 40 (11)	CA-08A-2N	D36	18323-25
	VEI-16-08S-NC	OD15X19YZ	350 (5000)	up to 40 (11)	Special 019-E	D36	18323-27
	VEI-16-021-NC	OD15X21YZ	350 (5000)	up to 150 (40)	Special 021-E	D36	18323-37
	VEI-16-08S-NC	OD15X19YZ	350 (5000)	up to 40 (11)	Special 019-E	D36	18323-27
	VEI-16-NC	OD15X17YZ	350 (5000)	up to 70 (18)	Special 017-E	D36	18323-34

	VEI-16-08S-NC	OD15X19YZ	350 (5000)	up to 40 (11)	Special 019-E	D36	18323-27
	VEI-16-021-NC	OD15X21YZ	350 (5000)	up to 150 (40)	Special 021-E	D36	18323-37
	VEI-16-08A-NC	OD15X18YZ	350 (5000)	up to 40 (11)	CA-08A-2N	D36	18323-25
	VEI-16-10A-NC	OD15X36YZ	350 (5000)	up to 70 (18)	CA-10A-2N	D36	18323-32
	VEI-16-NC	OD15X89YZ	350 (5000)	up to 150 (40)	CA-12A-2N	D36	18323-39
	VEI-16-NC	OD15X17YZ	350 (5000)	up to 70 (18)	Special 017-E	D36	18323-34
	VEI-16-08F-NC	OD15X40YZ	350 (5000)	up to 40 (11)	Special 040-E	D36	18323-46
	VEI-16-16A-NC	OD15X75YZ	350 (5000)	up to 150 (40)	Size 16	D36	18323-41
	VEI-16-12F-NC	OD15X33YZ	350 (5000)	up to 150 (40)	Hydac 12120	D36	18323-47

2-way normally open

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Coil	Data Sheet
	VEI-16-021-NA	OD15X21YZ00	350 (5000)	up to 150 (40)	Special 021-E	D36	18323-38
	VEI-16-08A-NA	OD15X18YZ00	350 (5000)	up to 40 (11)	CA-08A-2N	D36	18323-26
	VEI-16-08S-NA	OD15X19YZ00	350 (5000)	up to 40 (11)	Special 019-E	D36	18323-28
	VEI-16-NA	OD15X17YZ00	350 (5000)	up to 70 (18)	Special 017-E	D36	18323-35
	VEI-16-08F-NA	OD15X40YZ00	350 (5000)	up to 40 (11)	Special 040-E	D36	18323-45
	VEI-16-08A-NA	OD15X18YZ00	350 (5000)	up to 40 (11)	CA-08A-2N	D36	18323-26
	VEI-16-021-NA	OD15X21YZ00	350 (5000)	up to 150 (40)	Special 021-E	D36	18323-38
	VEI-16-08A-NA	OD15X18YZ00	350 (5000)	up to 40 (11)	CA-08A-2N	D36	18323-26
	VEI-16-08S-NA	OD15X19YZ00	350 (5000)	up to 40 (11)	Special 019-E	D36	18323-28
	VEI-16-10A-NA	OD15X36YZ00	350 (5000)	up to 70 (18)	CA-10A-2N	D36	18323-33
	VEI-16-NA	OD15X89YZ00	350 (5000)	up to 150 (40)	CA-12A-2N	D36	18323-40
	VEI-16-NA	OD15X17YZ00	350 (5000)	up to 70 (18)	Special 017-E	D36	18323-35
	VEI-16-08A-NA_I	OD15X18YZ000I	350 (5000)	up to 40 (11)	Size 08	D36	18323-50
	VEI-16-16A-NA	OD15X75YZ00	350 (5000)	up to 150 (40)	Size 16	D36	18323-43
	VEI-16-021-NA	OD15X21YZ00	350 (5000)	up to 150 (40)	Special 021-E	D36	18323-38
	VEI-16-08A-NA	OD15X18YZ00	350 (5000)	up to 40 (11)	CA-08A-2N	D36	18323-26
	VEI-16-10A-NA	OD15X36YZ00	350 (5000)	up to 70 (18)	CA-10A-2N	D36	18323-33
	VEI-16-NA_004	OD150404YZ	350 (5000)	260 (69)	Special 004	D36	18323-31
	VEI-16-NA	OD15X17YZ00	350 (5000)	up to 70 (18)	Special 017-E	D36	18323-35

	VEI-16-08A-NA	OD15X18YZ00	350 (5000)	up to 40 (11)	CA-08A-2N	D36	18323-26
	VEI-16-08S-NA	OD15X19YZ00	350 (5000)	up to 40 (11)	Special 019-E	D36	18323-28
	VEI-16-08S-NA	OD15X19YZ00	350 (5000)	up to 40 (11)	Special 019-E	D36	18323-28
	VEI-16-NA	OD15X17YZ00	350 (5000)	up to 70 (18)	Special 017-E	D36	18323-35
	VEI-16-021-NA	OD15X21YZ00	350 (5000)	up to 150 (40)	Special 021-E	D36	18323-38
	VEI-16-08A-NA	OD15X18YZ00	350 (5000)	up to 40 (11)	CA-08A-2N	D36	18323-26
	VEI-16-10A-NA	OD15X36YZ00	350 (5000)	up to 70 (18)	CA-10A-2N	D36	18323-33
	VEI-16-NA	OD15X89YZ00	350 (5000)	up to 150 (40)	CA-12A-2N	D36	18323-40
	VEI-16-NA	OD15X17YZ00	350 (5000)	up to 70 (18)	Special 017-E	D36	18323-35
	VEI-16-16A-NA	OD15X75YZ00	350 (5000)	up to 150 (40)	Size 16	D36	18323-43

2-way normally closed, proximity sensor

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Coil	Data Sheet
	VEI-8A-2T-09-NC-S-M-NSS	OD1531176501Z	350 (5000)	up to 70 (18)	Special 017-E	S8	18325-17
	VESP-08A-12A/00-2A05-N7	OD15051841YZ	350 (5000)	up to 40 (11)	CA-08A-2N	S8	18325-03
	VESP-16G-16A/00-2A-N7	OD15052165YZ	350 (5000)	up to 150 (40)	Special 021-E	S7	18325-05
	VESP-08A-12A/00-2A05-N7	OD15051841YZ	350 (5000)	up to 40 (11)	CA-08A-2N	S8	18325-03
	VESP-16G-16A/00-2A-N7	OD15052165YZ	350 (5000)	up to 150 (40)	Special 021-E	S7	18325-05
	VESP-12G-16A/00-2A05-N7	OD1505176504Z	350 (5000)	up to 70 (18)	Special 017-E	S7	18325-04

2-way normally open, proximity sensor

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Coil	Data Sheet
	VEI-8A-2A-06-NA-S-M-NSS	OD1506182DS2Z	350 (5000)	up to 40 (11)	CA-08A-2N	S8	18325-07
	VEI-8A-2A-09-NA-S-M-NSS	OD1506761DS2Z	350 (5000)	up to 70 (18)	Special 076-E	S8	18325-08
	VEI-8A-2A-09-NA-S-M-NSS	OD1506171DS0Z	350 (5000)	up to 70 (18)	Special 017-E	S8	18325-09
	VEI-8A-2A-12-NA-S-M-NSS	OD1506211DS2Z	350 (5000)	up to 150 (40)	Special 021-E	S8	18325-10
	VEI-8A-2T-06-NA-S-M-NSS	OD1532181DS2Z	350 (5000)	up to 40 (11)	CA-08A-2N	S8	18325-16
	VEI-8A-2T-09-NA-S-M-NSS	OD1532171DS2Z	350 (5000)	up to 70 (18)	Special 017-E	S8	18325-15

On-off, direct acting

On-Off relief, adjustable

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Coil	Data Sheet
	VER-10A	OD100436Y00	350 (5000)	120 (32)	CA-10A-2N	D36	18324-15

2-way poppet type, normally closed

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Coil	Data Sheet
	VED-16-08A-NC	OD11X18YZ	350 (5000)	1.5 (0.4)	CA-08A-2N	D36	18324-16
	VED-16-08A-NC	OD11X18YZ	350 (5000)	1.5 (0.4)	CA-08A-2N	D36	18324-16

2-way poppet type, normally open

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Coil	Data Sheet
	VED-16-08A-NA	OD11X18YZ00	350 (5000)	1.5 (0.4)	CA-08A-2N	D36	18324-17
	VED-16-08A-NA	OD11X18YZ00	350 (5000)	1.5 (0.4)	CA-08A-2N	D36	18324-17

2-way poppet type, double lock

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Coil	Data Sheet
	VEDT-16-NC	OD11X39YZ	up to 250 (3600)	up to 15 (4)	Bosch cavity	D36	18324-13
	VEDT-16-NC-08F	OD11X40YZ	up to 250 (3600)	up to 15 (4)	Hydac cavity	D36	18324-14
	VEDT-16-08A-NC	OD11X18YZ	up to 250 (3600)	up to 15 (4)	CA-08A-2N	D36	18324-02
	VEDT-08F-A-16	OD11X40Y00	250 (3600)	25 (7)	Hydac cavity	S7	18324-04
	VEDT-08A-A-16-NC	OD1131186Y00	250 (3600)	25 (7)	Size 08	S7	18324-03
	VEDT-16-08A-NC	OD11X18YZ	up to 250 (3600)	up to 15 (4)	CA-08A-2N	D36	18324-02

3-way 2-position poppet type

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Coil	Data Sheet
	VEDT-08A-32	OD130151Y00	250 (3600)	15 (4)	CA-08A-2N	S7	18324-05

3-way 2-position spool type

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Coil	Data Sheet
	VED-16-08A-32	OD13X51YZ	up to 280 (4000)	up to 20 (5)	CA-08A-3N	D36	18324-08
	VED-10A-32	OD13X77Y00	210 (3000)	20 (5)	Size 10	S7	18324-58
	VEDS-12A-32	OD13X12Y00	315 (4500)	60 (16)	CA-12A-3N	C45	18324-56

4-way 2-position spool type

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Coil	Data Sheet
	VED-16-08A-42	OD14X58YZ	up to 280 (4000)	up to 20 (5)	CA-08A-4N	D36	18324-09
	VED-16-08A-42	OD14X58YZ	up to 280 (4000)	up to 20 (5)	CA-08A-4N	D36	18324-09

4-way 3-position spool type

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Coil	Data Sheet
	VED-16-08A-43	OD14X58YZ00	up to 280 (4000)	up to 15 (4)	CA-08A-4N	D36	18324-10
	VEDS-10A-43	OD14X78KK2Y00	350 (5000)	35 (9)	CA-10A-4N	GZ37	18324-64
	VED-16-08A-43	OD14X58YZ00	up to 280 (4000)	up to 15 (4)	CA-08A-4N	D36	18324-10
	VEDS-10A-43	OD14X78KK2Y00	350 (5000)	35 (9)	CA-10A-4N	GZ37	18324-64
	VED-16-08A-43	OD14X58YZ00	up to 280 (4000)	up to 15 (4)	CA-08A-4N	D36	18324-10
	VEDS-10A-43	OD14X78KK2Y00	350 (5000)	35 (9)	CA-10A-4N	GZ37	18324-64
	VEDS-10A-43	OD14X78KK2Y00	350 (5000)	35 (9)	CA-10A-4N	GZ37	18324-64

5-way 3-position spool type

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Coil	Data Sheet
	VEDS-10A-53	OD53X54KK2Y00	250 (3600)	25 (7)	CA-10A-5N	GZ37	18324-65

Electro-proportional

Direct acting relief

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Coil	Data Sheet
	VEP-5B-2S-D	OD940118YZ	350 (5000)	5 (1.3)	CA-08A-2N	S5	18323-65

Pilot operated relief

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Coil	Data Sheet
	VEP-5B-2S-10A-P	OD940536YZ	350 (5000)	120 (32)	CA-10A-2N	S5	18323-66
	VEP-5B-2S-P	OD940561YZ	350 (5000)	150 (40)	Special 065	S5	18323-67

Direct acting pressure reducing

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Coil	Data Sheet
	VEP-5A-3R-06	OD910177Y00	210 (3000)	10 (3)	CA-10A-3N	S5	18323-60

Pilot operated pressure reducing

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Coil	Data Sheet
	VEP-5A-2R-06-P	OD910677Y00	280 (4000)	60 (16)	CA-10A-3N	S5	18323-61

2-way double lock, normally closed

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Coil	Data Sheet
	VEPN-08A-16	OD95311854Y00	250 (3600)	20 (5)	CA-10A-2N	R7	18323-70
	VEP-5A-2T-06-NC	OD953118Y00	210 (3000)	20 (5)	CA-10A-2N	S5	18323-68
	VEPN-19E-16	OD95311954Y00	250 (3600)	20 (5)	Special 019-E	R7	18323-71

Flow regulator not compensated

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Coil	Data Sheet
	VEP-5A-2Q-09	OD92X77YZ	210 (3000)	up to 40 (11)	CA-10A-3N	S5	18323-63
	VEP-5A-2Q-14	OD92X12Y00	210 (3000)	up to 60 (16)	CA-12A-3N	S5	18323-62
	VEP-5A-2Q-09	OD92X77YZ	210 (3000)	up to 40 (11)	CA-10A-3N	S5	18323-63
	VEP-5A-2Q-14	OD92X12Y00	210 (3000)	up to 60 (16)	CA-12A-3N	S5	18323-62
	VEP-5A-2Q-09	OD920277YZ	210 (3000)	up to 40 (11)	CA-10A-3N	S5	18323-64

Flow regulator poppet type not compensated

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Coil	Data Sheet
	VEPN-12A	OD9506897200	210 (3000)	up to 60 (16)	CA-12A-2N	R7	18323-69

4-way 3-position directional spool type direct operated

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Coil	Data Sheet
	VEPS-10A-43	OD14X78KP2Y00	350 (5000)	25 (7)	CA-10A-4N	GP37	18324-66
	VEPS-10A-43	OD14X78KP2Y00	350 (5000)	25 (7)	CA-10A-4N	GP37	18324-66

5-way 3-position directional spool type direct operated

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Coil	Data Sheet
	VEPS-10A-53	OD53X54KP2Y00	350 (5000)	25 (7)	CA-10A-5N	GP37	18324-67
	VEPS-10A-53	OD53X54KP2Y00	350 (5000)	25 (7)	CA-10A-5N	GP37	18324-67

Pilot operated poppet type, 2-way flow regulator not compensated

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Coil	Data Sheet
	KSVS.1	KSVSR1AA/FYV	350 (5000)	50 (13)	CA-10A-2N	GP37	18323-73
	KSVS.2	KSVSR2AA/FYV	350 (5000)	85 (22)	CA-12A-2N	GP37	18323-74
	KSVS.3	KSVSR3AA/FYV	350 (5000)	100 (26)	CA-16A-2N	GP37	18323-75

Proportional, 3/2 directional valve with solenoid actuation

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Coil	Data Sheet
	FTWE2K	FTWE2K..	100 (1450)	2 (0.5)	Special M18x1.5		58007
	FTWE4K	FTWE4K..	210 (3000)	7 (1.9)	Special M22x1.5		58008

Proportional pressure reducing

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Coil	Data Sheet
	FTDRE2K	FTDRE2K..	100 (1450)	2 (0.5)	Special M18x1.5		58032
	FTDRE4K	FTDRE4K..	100 (1450)	5 (1.2)	Special M22x1.5		58038

Proportional pressure reducing, direct operated, rising characteristic curve

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	DRE05SK	DRE05..	30 (450)	30 (8)	Special R/A-01	64659
	MHDRE06FK	MHDRE06FK..	30 (450)	40 (11)	Special M24x1.5	64656
	MHDRE06SK	MHDRE06SK..	30 (450)	40 (11)	Special M24x1.5	64655
	DRET5SK	DRET5SK1X/...	160 (2300)	15 (4)	Special, R/DRET5SK	64667
	DRE05FK	DRE05FK1X/...	30 (450)	50 (13)	Special, R/DRE 05	64660

PRODUCT SELECTION GUIDE

High pressure cartridge valves (mechanical, solenoid and electro-proportional)

29 High pressure - mechanical

30 High pressure - solenoid and electro-proportional

Optimized to suit the performance needs of most important OEMs worldwide, Compact Hydraulics designs and produces high pressure proportional cartridge valves suitable in mobile and industrial applications.

High pressure - mechanical

Pressure relief, pilot operated

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Coil	Data Sheet
	MHDBV.Y, XY..	MHDBV.Y, XY..	420 (6000)	up to 800 (211)	Special M28x1.5 Special M39x1.5		64606
	MHDBN...Y	MHDBN...Y..	420 (6000)	400 (106)	Special M28x1 Special M33x1		64600

Pressure relief and anti-cavitation valve, pilot operated

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Coil	Data Sheet
	MHDBN	MHDBN..	420 (6000)	400 (106)	Special M24x1.5 Special M33x1 Special M36x1.5		64602

Pressure relief valve, pilot operated, with pulling function

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Coil	Data Sheet
	MHDBN..Y..02	MHDBN..Y..02..	420 (6000)	400 (106)	Special M24x1 Special M28x1 Special M33X1 Special M30x1.5		64599

Shuttle

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Coil	Data Sheet
	MHSU	MHSU..	420 (6000)	10 (3)	Special M8x1 Special M10x1		18205

Pressure relief, pilot operated, sequence with cut-off stage

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Coil	Data Sheet
	MHDBB, MHDBL	MHDBB, MHDBL..	420 (6000)	400 (106)	Special M24x1.5 Special M33x1 Special M36x1.5		64612

Anti-cavitation valve

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Coil	Data Sheet
	MHSV	MHSV..	420 (6000)	400 (106)	Special FB,FC,FK		64609

CE-Safety valve

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Coil	Data Sheet
	0532 VA	0532VA..	up to 333 (4750)	up to 130 (34)	M35X1.5		50153

Check valve

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Coil	Data Sheet
	M-SR	M-SR..	420 (6000)	400 (106)	Size 6..30		20380

High pressure - solenoid and electro-proportional

2/2 directional poppet valves, direct operated with solenoid actuation

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Coil	Data Sheet
	KSDER8	KSDER8..	350 (5000)	5 (1.3)	Special R/T-8A	GZ37	18136-12
	KSDEU8	KSDEU8..	500 (7250)	3 (0.8)	Special R/T-8A	GZ37	18136-12

2/2 directional seat valves, direct operated with solenoid actuation

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Coil	Data Sheet
	KSDER0 N/P	KSDER0..	350 (5000)	20 (5)	Special R/B, R/C	GZ37	18136-23
	KSDER1 N/P	KSDER1..	350(5000)	20 (5)	Special R/T-13A	GZ37	18136-20
	KSDEU1 N/P	KSDEU1..	500 (7250)	12 (3)	Special R/T-13A	GZ37	18136-20

3/2 directional seat valves, direct operated with solenoid actuation

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Coil	Data Sheet
	KSDER1 C/U	KSDER1..	350 (5000)	12 (3)	Special T-11A	GZ37	18136-21
	KSDEU1 C/U	KSDEU1..	500 (7250)	6 (2)	Special T-11A	GZ37	18136-21

2/2 directional spool valves, direct operated with solenoid actuation

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Coil	Data Sheet
	KKDER1 N/P	KKDER1..	350 (5000)	55 (15)	Special T-13A	GZ37	18136-06
	KKDER8 N/P	KKDER8..	350 (5000)	42 (12)	Special T-8A	GZ37	18136-08
	KKDER1 N/P	KKDER1..	350 (5000)	55 (15)	Special T-13A	GZ37	18136-06
	KKDER8 N/P	KKDER8..	350 (5000)	42 (12)	Special T-8A	GZ37	18136-08

3/2 directional spool valves, direct operated with solenoid actuation

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Coil	Data Sheet
	KKDER1 C/U/G	KKDER1..	350 (5000)	60 (16)	Special T-11A	GZ37	18136-04
	KKDER8 C/U/G	KKDER8..	350 (5000)	30 (8)	Special T-9A	GZ37	18136-09
	KKDER1 C/U/G	KKDER1..	350 (5000)	60 (16)	Special T-11A	GZ37	18136-04
	KKDER8 C/U/G	KKDER8..	350 (5000)	30 (8)	Special T-9A	GZ37	18136-09
	KKDER1 C/U/G	KKDER1..	350 (5000)	60 (16)	Special T-11A	GZ37	18136-04
	KKDER8 C/U/G	KKDER8..	350 (5000)	30 (8)	Special T-9A	GZ37	18136-09

4/2 directional spool valves, direct operated with solenoid actuation

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Coil	Data Sheet
	KKDER1 D/E/F	KKDER1..	350 (5000)	40 (11)	Special T-31A	GZ37	18136-05
	KKDER1 D/E/F	KKDER1..	350 (5000)	40 (11)	Special T-31A	GZ37	18136-05
	KKDER1 D/E/F	KKDER1..	350 (5000)	40 (11)	Special T-31A	GZ37	18136-05

Proportional pressure relief, direct operated, rising characteristic curve

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Coil	Data Sheet
	KBVS.1A	KBVS..	420 (6000)	80 (21)	R/UNF10-01-0-06	GP37	18160
	KBVS.3A	KBVS..	350 (5000)	200 (53)	R/ISO 7789-33-01-0-98	GP37	18139-08
	KBPS.8A	KBPS..	420 (6000)	2 (0.5)	SUN T-8A	GP37	18139-04

Proportional pressure relief, direct operated, falling characteristic curve

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Coil	Data Sheet
	KBVS.1B	KBVS0..	420 (6000)	80 (21)	R/UNF10-01-0-06	GP37	18152
	KBVS.3B	KBVS..	350 (5000)	200 (53)	R/ISO 7789-33-01-0-98	GP37	18139-07
	KBPS.8B	KBPS..	420 (6000)	2 (0.5)	SUN T-8A	GP37	18139-05
	KBVS.2DB	KBVS..	420 (6000)	240 (63)	Special R/FC - R/LG	GP37	18377

Proportional flow control, with integrated pressure compensator

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Coil	Data Sheet
	KUDSR	KUDSR..	350 (5000)	120 (32)	R/UNF-16-03-0-06	CP45	18702

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Insert valves

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Relief

Direct acting poppet type

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VSA1.050	0TM201X99ZW	380 (5500)	50 (13)	Special 730-A	18329-01

Direct acting and anti-cavitation function

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VMA1.025	0TM405X99ZW	300 (4350)	30 (8)	Special 869	18329-11
	VMA1.050	0TM406X99ZW	380 (5500)	60 (16)	Special 730	18329-12
	VMA1.060	0TM407X99ZW	380 (5500)	75 (20)	Special 808	18329-13
	VMA1.080	0TM408X99ZW	400 (5800)	90 (24)	Special 870	18329-14
	VMA1.130	0TM410X99ZW	400 (5800)	130 (34)	Special 924	18329-15
	VMA1.180	0TM409X99ZW	400 (5800)	180 (48)	Special 871	18329-16
	VRA1.025	0TM601X99Z	210 (3000)	30 (8)	Special 869	18329-31
	VRA1.050	0TM602X99Z	380 (5500)	60 (16)	Special 730	18329-32
	VRA1.060	0TM603X99Z	380 (5500)	60 (16)	Special 808	18329-33
	VRA1.080	0TM604X99Z	400 (5800)	90 (24)	Special 870	18329-34

Flow control

2-way pressure compensated partially adj.

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Data Sheet
	VCD1	0TF301XYZ	315 (4500)	up to 150 (40)	18329-80

2-way pressure compensated, fixed setting

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Data Sheet
	SFC1	0TF10100YZ	210 (3000)	40 (10.6)	18329-75

Hose burst

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Data Sheet
	VPN1	0TF401XYZ	315 (4500)	up to 150 (40)	18329-85

Restrictor with reverse flow check

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Data Sheet
	GSU1	GSU1..	300 (4300)	70 (18)	18329-83

Check

Poppet type

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VUH1	0TU50100YZ	350 (5000)	up to 80 (21)		18329-61
	VUM1.025	0TU6030099Z	380 (5500)	40 (11)	Special 869	18329-51
	VUM1.050	0TU6010099Z	380 (5500)	80 (21)	Special 730	18329-52
	VUM1.060	0TU6020099Z	380 (5500)	90 (24)	Special 808	18329-53
	VUB1	0TU30100YZ	350 (5000)	80 (21)		18329-65

PRODUCT SELECTION GUIDE

Sleeve valves for line mounting

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Compact Hydraulics offers a complete range of sleeve valves for line mounting which are used in a variety of mobile applications of the different areas of mobile market.

Flow Control

Fixed orifice restrictors with reverse flow check

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	GSU	GSU..	300 (4350)	up to 70 (18)	G1/4-G3/8-G1/2	18316-02
	VF-MF	04460300YZ	350 (5000)	10 (3)	G1/4	18316-01

Adjustable bi-directional flow restrictors

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	RD	RD..	350 (5000)	up to 140 (37)	G1/4-G3/8-G1/2-G3/4	18316-04

Adjustable barrel type bi-directional restrictors

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	SD	SD..	up to 350 (5000)	up to 250 (66)	G1/4-G3/8-G1/2-G3/4-G1-G1 1/4-M18x1.5	18316-06

Adjustable barrel type restrictors with poppet type reverse flow check

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	FO	FO..	350 (5000)	160 (42)	G1/2-G3/4-G1-G1 1/4	18316-09

Adjustable restrictors with ball type reverse flow check

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	SU	SU..	up to 350 (5000)	up to 140 (37)	G1/4-G3/8-G1/2-G3/4-G1-M18x1.5	18316-08
	SUM38	OE21010402	up to 210 (3000)	up to 25 (6.6)	G3/8	18316-07

Adjustable restrictors with poppet type reverse flow check

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	RU	RU..	350 (5000)	up to 140 (37)	G1/4-G3/8-G1/2-G3/4	18316-10

Pressure compensated fixed setting flow regulators

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	SFC-FF	OEF10101YZ	210 (3000)	up to 45 (12)	G1/4-G/38-G1/2	18316-12
	SFC-MF	OEF101XYZ	210 (3000)	up to 45 (12)	G1/4-G3/8-G1/2	18316-13

Pressure compensated partially adjustable flow regulators

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VCDC-H-MC	OE220301YZ	315 (4500)	up to 150 (40)	G1/2-G3/4	18316-15
	VCDC-H-MC	OE220301YZ	315 (4500)	up to 25 (7)	G1/4-G3/8	18316-14
	VCDC-H-MF	OE2203XYZ	315 (4500)	up to 150 (40)	G1/2-G3/4	18316-17
	VCDC-H-MF	OE2203XYZ	315 (4500)	up to 25 (7)	G1/4-G3/8	18316-16

Pressure compensated adjustable flow regulators with reverse flow check

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VCD-RU-38	OE22010402	210 (3000)	up to 18 (5)	G3/8	18316-21
	VCST	VCST..	250 (3600)	up to 33 (9)	G1/2	18316-20
	VCST	VCST..	250 (3600)	up to 10 (3)	G1/4	18316-18
	VCST	VCST..	250 (3600)	up to 18 (5)	G3/8	18316-19

Hose burst valves

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VPN-FF	OEF40101YZ	315 (4600)	up to 150 (40)	G1/4-G3/4	18316-86
	VPN-FF	OEF40101YZ	315 (4600)	up to 50 (13)	G1/4-G3/8	18316-85
	VPN-MF	OEF40102YZ	315 (4600)	up to 150 (40)	G1/2-G3/4	18316-88
	VPN-MF	OEF40102YZ	315 (4600)	up to 50 (13)	G1/4-G3/8	18316-87

Check and pilot operated check

Poppet type with insert

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VUH-FF	OEU50101YZ	350 (5000)	up to 80 (21)	G1/4-G3/8-G1/2	18316-34
	VUH-MF	OEU50102YZ	350 (5000)	up to 80 (21)	G1/4-G3/8-G1/2	18316-33

Ball type with insert

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VULN-FF	OEU401YZ	210 (3000)	up to 80 (21)	G1/4-G3/8-G1/2-G3/4	18316-31
	VULN-MF	OEU40102YZ	210 (3000)	up to 80 (21)	G1/4-G3/8-G1/2-G3/4	18316-32

Poppet type with threaded sleeve

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	CA	CA..	up to 350 (5000)	up to 700 (185)	G1/4, up to G2-M18x1.5	18316-35
	VU-MF	04311700YZ	350 (5000)	up to 130 (34)	G1/2-G3/4	18316-36
	VU-MF	04311700YZ	350 (5000)	up to 350 (93)	G1/2-G1-1/4	18316-37

Poppet type with adjustable cracking pressure

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	LCA	LCA..	250 (3600)	up to 80 (21)	G1/2-G/34	18316-39
	LCA	LCA..	350 (5000)	up to 30 (8)	G1/4-G38	18316-38

Bi-directional check valves

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	CAB	CAB..	up to 350 (5000)	up to 80 (21)	G3/8-G1/2-G3/4	18316-45

Single poppet p.o. check

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	OV	OV..	up to 350 (5000)	up to 150 (40)	G1/4-G3/8-G1/2-G3/4-G1-G1-1/4	18316-50

Poppet type p.o. check with pre-opening

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	OVP	OVP..	250 (3600)	up to 150 (40)	G3/4-G1	18316-51

Sequence

Direct acting poppet type

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VSQ-20-LM	0TS1010002ZW	350 (5000)	50 (13)	G3/8	18316-60
	VSQ-30-LM	0521160003Z	350 (5000)	80 (21)	G1/2	18316-62
	VSQ-30-LM	0521160004Z	350 (5000)	80 (21)	G3/4	18316-63
	VSQ-60-LM	0TS1030003ZW	350 (5000)	60 (16)	7/8 14-UNF JIC	18316-61

Direct acting poppet type pressure compensated

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VSQ-CC-LM	05211700YZ	350 (5000)	100 (27)	G1/2	18316-65
	VSQ-CC-LM	05211900YZ	350 (5000)	60 (16)	G3/8	18316-64

PRODUCT SELECTION GUIDE

Load Holding Motion Control valves

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The series of „parts in body“ motion control valves is formed by a standard or customer tailored manifold, incorporating the proper internal elements and fitted to a flange directly on the actuator or connected in pipeline. Good stability during load lowering control is by far the primary and most commonly required feature of a motion control valve. The concept and the production process of the „parts in body“ modules allow highly customized solutions, both in term of performances and clearance, in co-design with the machine original manufacturer.

Pilot operated check valves

Single, standard configuration

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VSO-SE	055279XYZ	210 (3000)	30 (8)	G 3/8	18307-01
	VSO-SE	055201X03Z	210 (3000)	50 (13)	G 1/2	18307-02
	VSO-SE	055201X04Z	210 (3000)	100 (26)	G 3/4	18307-03
	VSO-SE-FC1	055286XYZ	210 (3000)	30 (8)	Flangeable	18307-04
	VSO-SE-FC1	055202XYZ	210 (3000)	50 (8)	Flangeable	18307-05
	VSO-SE-DL	055211X09Z	210 (3000)	20 (5)	G 1/4	18307-06
	VSO-SE-DL	055211X02Z	210 (3000)	20 (5)	G 3/8	18307-07
	VSO-SE-DL	055211X03Z	210 (3000)	50 (13)	G 1/2	18307-08
	VSO-SE-DL-FCV	055239XYZ	210 (3000)	30 (8)	G 3/8	18307-09
	A-VSO-SE-LB	085291XYZ	350 (5000)	20 (5)	G 1/4	18307-10

Single, vented pilot piston

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VSO-SE-PS	055224XYZ	up to 210 (3000)	30 (8)	G3/8	18307-11

Single, manual shut-off

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VSO-SE-DL-SX	055226XYZ	210 (3000)	up to 60 (16)	G 3/8 - G 1/2	18307-12
	VSO-SE-DL-DX	055227XYZ	210 (3000)	up to 60 (16)	G 3/8 - G 1/2	18307-13
	VSO-SE-DL-FCV-SX	0552KXYZ	210 (3000)	30 (8)	G 3/8	18307-14
	VSO-SE-DL-FCV-DX	0552KXYZ	210 (3000)	30 (8)	G 3/8	18307-15

Dual, standard configuration

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VSO-DE	055343XYZ	210 (3000)	30 (8)	G 3/8	18307-16
	VSO-DE	055301X03Z	210 (3000)	50 (13)	G 1/2	18307-17
	VSO-DE	055301X04Z	210 (3000)	100 (26)	G 3/4	18307-18
	VSO-DE-FC2	055344XYZ	210 (3000)	30 (8)	Flangeable	18307-19
	VSO-DE-FC2	055302XYZ	210 (3000)	50 (13)	Flangeable	18307-20
	VSO-DE-DL	055303X09Z	350 (5000)	20 (5)	G 1/4	18307-21
	VSO-DE-L	055303X02Z	350 (5000)	50 (13)	G 3/8	18307-22
	VSO-DE-L	055303X03Z	350 (5000)	50 (13)	G 1/2	18307-23
	VSO-DE-LB	085357XYZ	350 (5000)	20 (5)	G 1/4	18307-24

Counterbalance valves

Single, standard configuration

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	A-VBSO-SE-78	083520XYZ	350 (5000)	40 (11)	G 1/4	18307-34
	A-VBSO-SE-78-PL	084985XYZ	350 (5000)	40 (11)	G 1/4	18307-35
	A-VBSO-SE-78-PL-FC2	084968XYZ	350 (5000)	40 (11)	Flangeable	18307-36
	A-VBSO-SE-30	084101XYZ	350 (5000)	60 (16)	G1/4-G3/8-G1/2	18307-37
	A-VBSO-SE-30-FC1	084102XYZ	350 (5000)	60 (16)	Flangeable	18307-38
	A-VBSO-SE30-FC1	083962XYZ	410 (5945)	60 (16)	Flangeable	18307-31
	A-VBSO-SE-30-PI-PL	083959XYZ	350 (5000)	60 (16)	G 3/8 - G 1/2	18307-32
	A-VBSO-SE-30-FC2-PI-PL	083960XYZ	350 (5000)	60 (16)	Flangeable	18307-33
	A-VBSO-SE-30-SAF	084772XYZ	350 (5000)	80 (21)	G 1/2	18307-42
	A-VBSO-SE-90-PL	083928XYZ	350 (5000)	90 (24)	G 1/2	18308-45
	VBSO-SE	054101XYZ	210 (3000)	up to 140 (37)	G 1/2 - G3/4	18307-43
	A-VBSO-SE-33-PL	084585XYZ	350 (5000)	150 (40)	G 1/2 - G3/4	18307-44
	A-VBSO-SE-33-PL-FC1	084587XYZ	350 (5000)	150 (40)	Flangeable	18307-45
	A-VBSO-SE-33-PL-FC2	084594XYZ	350 (5000)	150 (40)	Flangeable	18307-46
	A-VBSO-SE-42	083930XYZ	350 (5000)	350 (92)	G 1	18308-46

Single, relief compensated

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	A-VBSO-SE-CC-78	083927XYZ	350 (5000)	40 (11)	G 1/4	18308-44
	A-VBSO-SE-CC-30	084396XYZ	350 (5000)	60 (16)	G 3/8 - G 1/2	18307-47
	A-VBSO-SE-CC-30-PL	084517XYZ	350 (5000)	60 (16)	G 3/8 - G 1/2	18307-48
	A-VBSO-SE-CC-30-PL-FC1	084519XYZ	350 (5000)	60 (16)	Flangeable	18307-49
	A-VBSO-SE-CC-30-PL-FC2	084521XYZ	350 (5000)	60 (16)	Flangeable	18307-50
	VBSO-SE-CC	054106XYZ	210 (3000)	up to 140 (37)	G 1/2 - G 3/4	18307-51

Single, vented

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	A-VBSO-SE-CCAP-78	084598XYZ	350 (5000)	40 (11)	G 1/4	18308-48
	A-VBSO-SE-CCAP-33-PL	084586XYZ	350 (5000)	150 (40)	G 1/2 - G 3/4	18307-52
	A-VBSO-SE-CCAP-33-PL-FC1	084588XYZ	350 (5000)	150 (40)	Flangeable	18307-53
	A-VBSO-SE-CCAP-33-PL-FC2	084592XYZ	350 (5000)	150 (40)	Flangeable	18307-54
	A-VBSO-SE-CCAP-42	084991XYZ	350 (5000)	350 (92)	G 1	18308-47

Dual, standard configuration

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	A-VBSO-DE-78	084611XYZ	350 (5000)	40 (11)	G 1/4	18307-55
	A-VBSO-DE-78-FC2	084636XYZ	350 (5000)	40 (11)	Flangeable	18307-56
	A-VBSO-DE-30-PI	084811XYZ	350 (5000)	60 (16)	G 3/8 - G 1/2	18307-72

	A-VBSO-DE-30-FC1	084430XYZ	350 (5000)	60 (16)	Flangeable	18307-60
	A-VBSO-DE-30-FCB-PI	084812XYZ	350 (5000)	60 (16)	Flangeable	18307-73
	A-VBSO-DE-SAF	084460XYZ	350 (5000)	80 (21)	G 1/2	18307-62
	A-VBSO-DE-90-FC2	084489XYZ	350 (5000)	90 (24)	Flangeable	18308-63
	VBSO-DE	054201XYZ	210 (3000)	140 (37)	G 1/2 - G 3/4	18307-63
	VBSO-DE-FC2	054206XYZ	210 (3000)	up to 140 (37)	Flangeable	18307-64
	VBSO-DE-33	054432XYZ	210 (3000)	150 (40)	G 1/2 - G 3/4	18307-65
	VBSO-DE-33	05443213YZ	210 (3000)	150 (40)	G 1/2 - G 3/4	18308-65
	VBSO-DE-33-FC2	054433XYZ	210 (3000)	150 (40)	Flangeable	18307-66
	A-VBSO-DE33-FC2	084433XYZ	410 (5945)	150 (40)	Flangeable	18308-04

Dual, relief compensated

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	A-VBSO-DE-CC-30	084404XYZ	350 (5000)	60 (16)	G 3/8 - G 1/2	18307-67
	VBSO-DE-CC	054205XYZ	210 (3000)	up to 140 (37)	G 1/2 - G 3/4	18307-68
	A-VBSO-DE-CC	084205XYZ	350 (5000)	140 (37)	G 3/4	18307-69

Dual, vented

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	A-VBSO-DE-CCAP-33	084494XYZ	350 (5000)	150 (40)	G 3/4	18307-70
	VBSO-DE-CCAP-33-FC2	054431XYZ	210 (3000)	150 (40)	Flangeable	18307-71
	A-VBSO-DE-CCAP-78-FC2	084431XYZ	350 (5000)	40 (11)	Flangeable	18308-64

Counterbalance valves with regenerative function

Dual, standard configuration

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VBSO-DE-CR-78	054458XYZ	210 (3000)	40 (11)	G 3/8	18307-90
	VBSO-DE-CR-30	054483XYZ	210 (3000)	60 (16)	G 1/2	18307-91
	VBSO-DE-CR-33	054413XYZ	210 (3000)	100 (26)	G 1/2	18307-92

Dual, pressure sensitive

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VBSO-DE-CR-EA-33	07062051	210 (3000)	100 (26)	G 1/2	18307-93

Dual, solenoid controlled

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VBSO-DE-CR-EE-33	054481XYZ	210 (3000)	100 (26)	G 3/4	18307-94

Pressure controlled

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	A-VBSO-CR-EA-42	07067399	350 (5000)	220 (58)	Flangeable	18307-95
	A-VBSO-CR-EA-42	07067030	350 (5000)	400 (106)	Flangeable	18307-96

Valves for motors - Dual cross over relief

Direct acting

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VSDI-30	051603XYZ	210 (3000)	30 (8)	G 3/8 - G 1/2	18308-15
	VSDI-30-FM	051633XYZ	210 (3000)	30 (8)	on SAUER-DANFOSS OMP-OMR series	18308-16
	VSDI-30-FM	051617XYZ	210 (3000)	30 (8)	on SAUER-DANFOSS OMS series	18308-17
	VSDI-80	051601XYZ	210 (3000)	80 (21)	G 1/2 - G 3/4	18308-19

Direct acting with anti-cavitation check valve

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VSDI-VA-30-FM	051648XYZ	210 (3000)	30 (8)	on SAUER-DANFOSS OMS series	18308-18
	VSDI-VA-80	051605XYZ	210 (3000)	80 (8)	G 1/2 - G 3/4	18308-20
	VSDI-VA-80-FM	051615XYZ	210 (3000)	80 (8)	on REXROTH motors A2FE-28-32 series	18308-21

Pilot operated with anti-cavitation check valve

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	A-VAA-CC-150	088111XYZ	350 (5000)	150 (40)	G 1/2 - G 3/4 - G 1	18308-24
	A-VAA-CC-42-FM	088116XYZ	350 (5000)	200 (53)	on REXROTH motors A2FE-45-56-63 series	18308-25

Valves for motors - Single counterbalance with brake release port

In-line

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	A-VBSO-SE-LA-33	083769XYZ	350 (5000)	150 (40)	G 1/2 - G 3/4	18308-35
	A-VBSO-SE-LA-42	083770XYZ	350 (5000)	350 (93)	G 3/4 - G 1	18308-36

Flangeable

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VBSO-SE-FA-30	054570XYZ	210 (3000)	60 (16)	on SAUER-DANFOSS OMP-OMR	18308-37
	VBSO-SE-FA-30	054571XYZ	210 (3000)	60 (16)	on SAUER-DANFOSS OMS	18308-38
	VBSO-SE-FA-33	054981XYZ	210 (3000)	170 (45)	on REXROTH motors A2FE-45-56-63	18308-39
	VBSO-SE-FA-RD-30	054524XYZ	210 (3000)	60 (16)	on SAUER-DANFOSS OMP-OMR	18308-40
	VBSO-SE-FA-RD-90	053501XYZ	210 (3000)	90 (24)	on SAUER-DANFOSS OMS-OMSW-OMSS	18308-41
	A-VBSO-SE-FA-42	084538XYZ	350 (5000)	350 (93)	SAE 6000	18308-42
	A-VBSO-SE-FA-42	084539XYZ	350 (5000)	550 (145)	SAE 6000	18308-43

Valves for motors - Dual counterbalance with brake release port

Standard configuration

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	A-VBSO-DE-VF-30	084410XYZ	350 (5000)	60 (16)	G 3/8 - G 1/2	18308-53
	VBSO-DE-VF-30-FM	060208052	210 (3000)	60 (16)	on REXROTH motors A2FE-28-32 series	18308-54
	VBSO-DE-VF-30-VSDI-FM	060301X	210 (3000)	60 (16)	on SAUER-DANFOSS OMP-OMR series	18308-55
	VBSO-DE-VF-30-FM	060301X	210 (3000)	60 (16)	on SAUER-DANFOSS OMS series	18308-56

With dual cross over relief

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VBSO-DE-VF-30-VSDI-FM	060301X	210 (3000)	60 (16)	on SAUER-DANFOSS OMP-OMR	18308-57
	VBSO-DE-VF-30-VSDI-FM	060301X	210 (3000)	60 (16)	on SAUER-DANFOSS OMS	18308-58

With pressure reducer for brake release

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VBSO-DE-VF-30-FM	060208061	210 (3000)	60 (16)	on REXROTH motors A2FE-28-32	18308-59
	A-VBSN-DE-VF-12A-FM	084635XYZ	350 (5000)	120 (32)	on REXROTH motors A2FE-45-56-63	18308-60
	A-VBSN-DE-VF-20A-FM	084632XYZ	350 (5000)	320 (85)	on REXROTH motors A2FE-80-90	18308-61
	A-VBSN-DE-VF-20A-FM	084633XYZ	350 (5000)	320 (85)	on REXROTH motors A2FE-107-125	18308-62

Valves for motors - Motion control

Standard configuration

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VAA-B-SIC50-38	057109X02Z	210 (3000)	40 (11)	G 3/8	18308-85
	VAA-B-SICN-ST-50	057144X02Z	210 (3000)	40 (11)	G 3/8	18308-72
	VAA-B-SICN-ST-150	057144X04Z	210 (3000)	120 (32)	G 3/4	18308-73
	VAA-B-SICN-ST-250	057144X05Z	210 (3000)	200 (53)	G 1	18308-74

With brake release port

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VAA-B-SICN-ST-VF-50	057145X02Z	210 (3000)	40 (11)	G 3/8	18308-75
	VAA-B-SICN-ST-VF-150	057145X04Z	210 (3000)	120 (32)	G 3/4	18308-76
	VAA-B-SICN-ST-VF-250	057145X05Z	210 (3000)	200 (53)	G 1	18308-77

Dual setting

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VAA-B-SICN-PDRM-50	057146X02Z	210 (3000)	40 (11)	G 3/8	18308-78
	VAA-B-SICN-PDRM-150	057146X04Z	210 (3000)	120 (32)	G 3/4	18308-79
	VAA-B-SICN-PDRM-250	057146X05Z	210 (3000)	200 (53)	G 1	18308-80

Dual setting with brake release port

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VAA-B-SICN-PDRM-VF-50	057147X02Z	210 (3000)	40 (11)	G 3/8	18308-81
	VAA-B-SICN-PDRM-VF-150	057147X04Z	210 (3000)	120 (32)	G 3/4	18308-82
	VAA-B-SICN-PDRM-VF-250	057147X05Z	210 (3000)	200 (53)	G 1	18308-83

Load lowering and relief

In-line

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VRBC90-VS30	054975XYZ	210 (3000)	90 (24)	G 1/2	18310-30

Flangeable

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VRBC90-VS30-CC-FC2	053738XYZ	210 (3000)	90 (24)	Flangeable	18310-31

Check and metering valves

In-line

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	A-VBC-78-DX	084929XYZ	420 (6000)	40 (11)	G 3/8	18309-01
	A-VBC-78-SX	084930XYZ	420 (6000)	40 (11)	G 3/8	18309-02
	A-VBC-90-DX	084797XYZ	420 (6000)	100 (26)	G 1/2	18309-03
	A-VBC-90-SX	084796XYZ	420 (6000)	100 (26)	G 1/2	18309-04
	A-VBC-33-DX	084924XYZ	420 (6000)	150 (40)	G 3/4	18309-05
	A-VBC-33-SX	084925XYZ	420 (6000)	150 (40)	G 3/4	18309-06

Flangeable

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	A-VBC-90-FC	084783XYZ	420 (6000)	120 (32)	SAE 6000	18309-07
	A-VBC-33-FC	084926XYZ	420 (6000)	150 (40)	SAE 6000	18309-08
	A-VBC-33-FC	084784XYZ	420 (6000)	250 (66)	SAE 6000	18309-09
	A-VBC-42-FC	084785X72Z	420 (6000)	350 (93)	SAE 6000	18309-10
	A-VBC-42-FC	084785X73Z	420 (6000)	400 (106)	SAE 6000	18309-11
	A-VBC-42-FC	084785X64Z	420 (6000)	500 (132)	SAE 6000	18309-12
	A-VBCN-15-FC	08352307YZ	420 (6000)	200 (53)	SAE 6000	18309-13
	A-VBCN-18-FC	08371818YZ	420 (6000)	300 (79)	SAE 6000	18309-14

Flangeable with oil recovery

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	A-VBCN-15-DX-RE-FC	083964XYZ	420 (6000)	200 (53)	SAE 6000	18309-15
	A-VBCN-15-SX-RE-FC	083965XYZ	420 (6000)	200 (53)	SAE 6000	18309-16
	A-VBCN-22-DX-RE-FC	083938XYZ	420 (6000)	400 (106)	SAE 6000	18309-18
	A-VBCN-22-SX-RE-FC	083937XYZ	420 (6000)	400 (106)	SAE 6000	18309-17

Control plus

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	A-VBC14-FC2	083990XYZ	350 (5000)	150 (40)	G 3/4	18308-99

E-valve

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	E-valve 2.5	0G.E2	420 (6090)	250 (66)	SAE 6000	18309-23
	E-valve 5.0	0G.E5	420 (6090)	500 (132)	SAE 6000	18309-24

H-valve

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	H-valve 2.5	0G.H2	460 (6672)	250 (66)	SAE 6000	18309-26
	H-valve 5.0	0G.H5	460 (6672)	500 (132)	SAE 6000	18309-27

Flow regulators

2-way, pressure compensated

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VRFC2	0M2203X97	210 (3000)	20 (5)	G 3/8	18309-32
	VRFC2	0M2203XY	210 (3000)	up to 190 (50)	G 3/8 - G 1/2- G 3/4 - G 1	18309-33
	VRFC2-L	0M220350Y	210 (3000)	up to 90 (24)	G 3/8 - G 1/2 - G 3/4	18309-34
	A-VRFC2	0MB203XY	350 (5000)	up to 190 (50)	G 3/8 - G 1/2 - G 3/4 - G 1	18309-35

2-way, pressure compensated with check valve for free reverse flow

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VRFC2-VU	0M2403XY	210 (3000)	up to 190 (50)	G 3/8 - G 1/2- G 3/4 - G 1	18309-36

3-way, pressure compensated

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VRFC3	0M3203X97	210 (3000)	25 (7)	G 3/8	18309-37
	VRFC3	0M3203XY	210 (3000)	up to 90 (24)	G 3/8 - G 1/2 - G 3/4	18309-38
	VRFC3	0M3203X05	210 (3000)	190 (50)	G 1	18309-39
	VRFC3-L	0M320350Y	210 (3000)	up to 90 (24)	G 3/8 - G 1/2 - G 3/4	18309-40
	A-VRFC3	0MC203XY	350 (5000)	up to 90 (24)	G 1/2 - G 3/4	18309-41
	A-VRFC3	0MC203X05	350 (5000)	190 (50)	G 1	18309-42

3-way, pressure compensated with check valve for free reverse flow

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VRFC3-VU	0M3903XY	210 (3000)	up to 55 (15)	G 3/8 - G 1/2	18309-43
	VRFC3-VU	0M3903X04	210 (3000)	90 (24)	G 3/4	18309-44

3-way, pressure compensated with relief

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VRFC3-VS	0M3303XY	210 (3000)	up to 190 (50)	G 3/8 - G 1/2- G 3/4 - G 1	18309-45
	VRFC3-VS	0M330350Y	210 (3000)	up to 90 (24)	G 3/8 - G 1/2 - G 3/4	18309-46

3-way, pressure compensated with relief and solenoid control

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VRFC3-VS-VEI	0M3603XY	210 (3000)	up to 190 (50)	G 1/2 - G 3/4 - G1	18309-47

3-way, pressure compensated with relief and solenoid by-pass

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VRFC3-VS-BPE	0M3803XY	210 (3000)	up to 55 (15)	G 3/8 - G 1/2	18309-48
	VRFC3-VS-BPE	0M3803X04	210 (3000)	up to 90 (24)	G 3/4	18309-49

3-way,combination type pressure compensated

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VRFC3C	0M4203XY	210 (3000)	up to 190 (50)	G 3/8 - G 1/2 - G 3/4 - G 1	18309-50
	A-VRFC3C	0MD203XY	350 (5000)	up to 190 (50)	G 3/4 - G 1	18309-51
	VRFC3C	0M420350Y	210 (3000)	up to 90 (24)	G 3/8 - G 1/2 - G 3/4	18309-52

3-way, heavy duty flow control, with pressure compensated and solenoid controlled priority flow

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	A-VRFC3C-VEI-VS	0M432080YZ	350 (5000)	up to 300 (80)	G 1/2 - G 3/4 - G 1 - G 1 1/4	18309-53

5-way, heavy duty flow control, with pressure compensated and solenoid controlled priority flow, for two pumps system

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	A-VRFC3C-VEI-VS	0M431280YZ	350 (5000)	up to 390 (103)	G 1/2 - G 3/4 - G 1	18309-54

3-way, heavy duty flow control, with pressure compensated, solenoid and load sensing controlled priority flow

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	A-VRFC3C-VEI-VS-LS	0M432180YZ	350 (5000)	140 (37)	1 1/16-12 UN-2B	18309-63

2-way, heavy duty flow control, with pressure compensated, solenoid and load sensing controlled priority flow

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	A-VRFC2C-VEI-VS-LS	0M280380YZ	350 (5000)	140 (37)	1 1/16-12 UN-2B	18309-64

Flow dividers, combiners

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	DRF	0M51039002Z	210 (3000)	up to 38 (10)	G 3/8	18309-55
	DRF	0M51039003Z	210 (3000)	up to 38 (10)	G 1/2 - G 3/8	18309-56
	DRF	0M51039004Z	210 (3000)	up to 150 (40)	G 3/4 - G 1/2	18309-57
	DRF	0M51039005Z	210 (3000)	up to 150 (40)	G 3/4 - G 1	18309-58
	A-DRF	0ME1219002Z	350 (5000)	up to 16 (4)	G 3/8	18309-59
	A-DRF	0ME1219003Z	350 (5000)	up to 50 (13)	G 1/2 - G 3/8	18309-60
	A-DRF	0ME1039004Z	350 (5000)	up to 95 (25)	G 3/4 - G 1/2	18309-61
	A-DRF	0ME1039005Z	350 (5000)	up to 150 (40)	G 3/4 - G 1	18309-62

Auxiliary valves - Pressure reducing

Pressure reducing and relieving

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VRP-R	059027XYZ	210 (3000)	20 (5)	G 3/8	18309-72

Pressure reducing and relieving, direct acting spool type, with free flow check

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VRP-R-VU	059019XYZ	210 (3000)	20 (5)	G 3/8	18309-73

Pressure reducing, pilot operated spool type

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VRPC-150	059033XYZ	210 (3000)	120 (32)	G 1/2 - G 3/4	18309-74

Auxiliary valves - Sequence

Direct acting poppet type

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VSQ-10	052106XYZ	210 (3000)	10 (3)	G 1/4	18309-84
	VSQ-30	052107XYZ	210 (3000)	30 (8)	G 3/8 - G 1/2	18309-85

Direct acting poppet type, compensated

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VSQ-CC-30	052111XYZ	210 (3000)	30 (8)	G 3/8 - G 1/2	18309-87

Pilot operated spool type

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VSQP-150	052115XYZ	210 (3000)	150 (40)	G 1/2 - G 3/4	18309-86

Pilot operated spool type, compensated

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VSQP-CC-150	052406XYZ	210 (3000)	150 (40)	G 1/2 - G 3/4	18309-88

Auxiliary valves - Shuttle

Shuttle

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VFC	05990500Y	210 (3000)	50 (13)	G 1/4	18309-98

Special valves

Automatic shut-off

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VEM	059803XYZ	210 (3000)	15 (4)	G 1/4	18310-10

Pilot operated unloading

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	BM-N	059304XYZ	210 (3000)	200 (53)	G 1/2 - G 3/4	18310-11

Pump unloading

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	VEP-VSP2	059006XYZ	210 (3000)	30 (8)	G 3/4	18310-13

Purge valve for hydrostatic trasmission

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	A-VSL-R-100-R	08640500Y	350 (5000)	90 (24)	G 3/4 - G 1	18310-18
	A-VSL-R-34-R	0864050004	350 (5000)	90 (24)	G 1/2 - G 3/4	18310-25

Automatic directional

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	V.LC2-IA12	L5235...	250 (3600)	10-100 (3-26)	F10	18310-24

By-pass valve

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Cavity	Data Sheet
	A-VALV-BY-PASS	08911100K	350 (5000)	up to 250 (66)	G3/4 - G1 - G1-1/4	18309-66

PRODUCT SELECTION GUIDE

CDV - Compact Directional Valves

53 ED Inlet elements

55 Directional valve elements:
ED series

56 Directional valve elements:
EDB series

58 Directional valve elements:
EDD series

58 Directional valve elements:
EDC series LUDV (Post-Compensated)

60 ED Intermediate elements

61 ED Flangeable elements

63 ED Outlet elements

Inlet Elements basic

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Port size	Data Sheet
	TE00	TE-00-...	250/310 (3600/4500)	50 (13)	G 3/8 - G 1/2 - SAE8	18300-01

Inlet Elements with Primary Pressure Relief Valve

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Port size	Data Sheet
	TE01	TE-01-...	250/310 (3600/4500)	50 (13)	G 3/8 - G 1/2 - SAE8	18300-02

Inlet Elements with LS connections

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Port size	Data Sheet
	TE03	TE-03-...	250/310 (3600/4500)	50 (13)	G 3/8 - G 1/2 - SAE8	18300-03

Inlet Elements with Primary Pressure Relief Valve and with LS connections

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Port size	Data Sheet
	TE04	TE-04-...	250 (3600)	50 (13)	G 3/8 - G 1/2 - SAE8	18300-04

Inlet Elements with Primary Pressure Relief Valve and with Solenoid Unloading Cartridge

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Port size	Data Sheet
	TE05	TE-05-...	250/310 (3600/4500)	50 (13)	G 3/8 - G 1/2 - SAE8	18300-05

Inlet Elements with limitation of primary pressure in the system and LS controlled unloading of the excess flow

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Port size	Data Sheet
	TE06	TE-06-...	250 (3600)	90 (24)	G 3/8 - G 1/2	18300-06

Inlet Elements with limitation of primary pressure, LS compensated flow control and solenoid operated unloading

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Port size	Data Sheet
	TE07	TE-07-...	250 (3600)	90 (24)	G 1/2	18300-07

Inlet Elements with primary pressure relief valve and proportional LS controlled 3-way flow regulator

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Port size	Data Sheet
	TE10	TE-10-...	210 (3000)	40 (11)	G 3/8 - G 1/2 - SAE8	18300-09

Inlet Elements with Pressure Reducing Valve on the P line

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Port size	Data Sheet
	TE11	TE-11-...	250 (3600)	50 (13)	G 3/8 - G 1/2 - SAE8	18300-10

Inlet Elements with by-pass compensator, LS relief for open center control block and solenoid operated unloading

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Port size	Data Sheet
	TE13	TE-13-...	310 (4500)	up to 120 (32)	G 1/2 - G 3/4 - SAE10	18300-13

Inlet Elements with LS connections and double pressure relief valve (P and LS line)

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Port size	Data Sheet
	TE16	TE-16-...	310 (4500)	120 (32)	G 1/2 - G 3/4 - SAE10	18300-14

4/3 - 4/2 Directional valve elements with or without secondary relief valves, with or without LS connections

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Port size	Data Sheet
	EDB-A	B8_0A	310 (4500)	25 (7)	G 3/8 - SAE 6 - M16x1.5	18300-56

4/3 Directional valve elements with or without secondary relief valves, with or without LS connections, and with 2/2 solenoid cartridge valve

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Port size	Data Sheet
	EDB-A-VEI	B8_5A	310 (4500)	25 (7)	G 3/8 - SAE 6 - M16x1.5	18300-58

4/3 Directional valve elements with or without secondary relief valves, with or without LS connections, and with PO check valves

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Port size	Data Sheet
	EDB-A-VR	B8_4A	250 (3600)	20 (5)	G 3/8 - SAE 6 - M16x1.5	18300-57

4/3 - 4/2 Directional valve elements with proportional control and with or without LS connections

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Port size	Data Sheet
	EDB-P	B8_80...	310 (4500)	up to 17 (4.5)	G 3/8 - SAE 6 - M16x1.5	18300-55

4/3 - 4/2 Directional valve elements with or without secondary relief valves, with or without LS connections

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Port size	Data Sheet
	ED1-Z	L8_10...	310 (4500)	30 (8)	G 3/8 - SAE 6	18301-01

4/3 - 4/2 Directional valve elements with or without secondary relief valves, with or without LS connections

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Port size	Data Sheet
	ED2-DZ	L8_11...	310 (4500)	50 (13)	G 3/8 - G 1/2 - SAE 6 - SAE 8	18301-02

4/3 - 4/2 Directional valve elements with soft-shift

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Port size	Data Sheet
	ED2S-DZ	L8011...	310 (4500)	50 (13)	G 3/8	18301-03

4/3 - 4/2 Directional valve elements with proportional control and with or without LS connections

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Port size	Data Sheet
	ED4-P1	L8_81...	310 (4500)	40 (11)	G 3/8 - G 1/2 - SAE6 - SAE8	18301-16

Directional valve elements with proportional control of Tank unloaded excess flow

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Port size	Data Sheet
	ED4-PT1	L808103P...	310 (4500)	35 (9)	-	18301-13

Directional valve elements with compensated proportional control of Tank unloaded excess flow

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Port size	Data Sheet
	ED4-PTC1	L808103C...	250 (3600)	40 (11)	-	18301-18

4/3 Directional valve elements with proportional control and with or without LS connections

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Port size	Data Sheet
	ED-IP	L8_P5...	310 (4500)	45 (12)	G 3/8 - SAE 6 - G 1/2 - SAE 8	18301-07

4/3 Directional valve elements with manual lever operated control and with or without LS connections

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Port size	Data Sheet
	ED-LV	L8_L1...	310 (4500)	60 (16)	G 3/8 SAE 6 - G 1/2 - SAE 8	18301-08

4/3 and 4/2 on-off directional valve elements with or without secondary relief valves and with or without LS connections

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Port size	Data Sheet
	EDD-XZ	D8_5...	380 (5500)	80 (21)	G 1/2 - SAE 10 - Flangeable	18301-12

4/3 and 4/2 on-off directional valve elements with flow sharing control (LUDV concept)

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Port size	Data Sheet
	EDC-Z	L8510...	310 (4500)	up to 25.5 (7)	G 3/8 - SAE8 and Flangeable	18301-10
	EDC-DZ	L8511...	310 (4500)	up to 55 (15)	G 1/2 - SAE8 and Flangeable	18301-11

4/3 Proportional directional valve elements with proportional hydraulic control and flow sharing control (LUDV concept)

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Port size	Data Sheet
	EDC-IP	L85P5...	310 (4500)	up to 58 (15)	G 3/8 - G 1/2 - SAE8	18301-14

4/3 Directional valve elements with manual lever operated control with flow sharing control (LUDV concept)

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Port size	Data Sheet
	EDC-LV	L85L1...	350 (5000)	up to 78 (21)	G 3/8 - G 1/2 - SAE8	18301-17

4/3 and 4/2 Proportional directional valve elements with flow sharing control (LUDV concept)

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Port size	Data Sheet
	EDC-P1	L8581...	310 (4500)	up to 65 (17)	G 3/8 - G 1/2 - SAE8	18301-15

Intermediate elements with double acting hand pump

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Port size	Data Sheet
	EPM-DE-18	L88710000000000 L88710000000001 L88710000000002	310 (4500)	-	-	18301-20

Intermediate elements with check valves for emergency pump

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Port size	Data Sheet
	TI-00	TI-00-...	250 (3600)	50 (13)	-	18301-25

Intermediate elements with pressure reducer, and relieving

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Port size	Data Sheet
	TI-03	TI-03-...	250 (3600)	50 (13)	-	18301-26

Intermediate elements with flow regulator on P line

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Port size	Data Sheet
	TI-04	TI-04-...	250 (3600)	50 (13)	-	18301-27

Intermediate Elements with 2 way compensator, and with LS connections

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Port size	Data Sheet
	TI-C2	TI-C2_...	310 (4500)	30 (8)	-	18301-28

Flangeable elements with Cross Piloted Counterbalance Valves

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Port size	Data Sheet
	EDM-VB	L8835...	250 (3600)	40 (11)	G 3/8 SAE 6 - SAE 8	18301-43

Flangeable elements with 2/2 solenoid cartridges valves

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Port size	Data Sheet
	EDM-VEI	L8875...	250 (3600)	40 (11)	G 3/8 - SAE 6	18301-44

Flangeable elements with unidirectional flow controls for meter-in or meter-out

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Port size	Data Sheet
	EDM-VF	L8850...	250 (3600)	50 (13)	G 3/8 - SAE 8	18301-42

Flangeable elements with unidirectional flow controls for meter-in or meter-out

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Port size	Data Sheet
	EDM-VM	L8860...	250 (3600)	50 (13)	G 3/8 - SAE 6 - SAE 8	18301-41

Flangeable elements with unidirectional flow controls for meter-in or meter-out

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Port size	Data Sheet
	EDM-VR	L8840...	250 (3600)	50 (13)	G 3/8 - SAE 6 - SAE 8	18301-40

Flangeable elements with single or double secondary pressure relief valves and anti-cavitation function

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Port size	Data Sheet
	EDCM/EDCMF-VM	L8565...	310 (4500)	30 (8)	G 3/8 - G 1/2 - SAE 8	18301-45

Flangeable elements with secondary pressure relief valves single or double

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Port size	Data Sheet
	EDCM/EDCMF-VM5	L8561...	310 (4500)	50 (13)	G 3/8 - G 1/2	18301-47

Flangeable elements with single or double acting. Cross Piloted Check Valves

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Port size	Data Sheet
	EDCM/EDCMF-VR	L8541...	310 (4500)	70 (19)	G 3/8 - G 1/2 - SAE 8	18301-46

Flangeable elements with different type of ports

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Port size	Data Sheet
	EDCMF	EDCMF...	310 (4500)	60 (16)	G 3/8 - G 1/2 - SAE 8	18301-48

End Elements basic

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Port size	Data Sheet
	TC-00-00-00-AL-F-A	TC-00-...	250/310 (3600/4500)	-	-	18301-60

Outlet Elements additional tank port T1

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Port size	Data Sheet
	TC-01-02-00-AL-F-C	TC-01-...	250 (3600)	50 (13)	G 3/8 - G 1/2	18301-61

Outlet Elements with additional inlet port P1

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Port size	Data Sheet
	TC-02-02-00-AL-F-B	TC-02-...	250/310 (3600/4500)	50 (13)	G 3/8 - G 1/2	18301-62

Outlet Elements with additional inlet port P1 and tank port T1

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Port size	Data Sheet
	TC-03	TC-03-...	250/310 (3600/4500)	50 (13)	G 3/8 - G 1/2	18301-63

Outlet Elements with Pressure Relief Valve and with P, T and M ports for downstream operators

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Port size	Data Sheet
	TC-04	TC-04-...	250 (3600)	35 (9)	G 3/8	18301-64

PRODUCT SELECTION GUIDE

EDG LS Directional Valves (Pre-compensated)

65 EDG Inlet Elements:
TEG 00
TEG 13
TEG 16

65 EDG Directional Valve Elements:
EDG-DO
EDG-DO...B1-R1
EDG-DP
EDG-DP...B1-R1

67 EDG Outlet element
TCG 00

Inlet Elements

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Port size	Data Sheet
	TEG-00	TEG-00/20...	350 (5000)	up to 120 (32)	G 3/8 - G 1/2 - SAE 6 - SAE 8 (P)	18300-17

Inlet Elements with by-pass compensator, LS relief for open/closed center control block and solenoid operated unloading

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Port size	Data Sheet
	TEG-13	TEG-13..	350 (5000)	up to 120 (32)	G 1/2 - G 3/4 - SAE 10 (P)	18300-16

Inlet Elements with LS connections and double pressure relief valve (P and LS line)

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Port size	Data Sheet
	TEG-16	TEG-16/00...	350 (5000)	120 (32)	G 1/2 - G 3/4 - SAE10 (P)	18300-15

4/3 and 4/2 on-off directional valve elements with LS

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Port size	Data Sheet
	EDG Direct Acting On-Off	EDG-DO...	350 (5000)	40 (11)	G 3/8 - G 1/2 - SAE 6 - SAE 8	18301-21

4/3 and 4/2 on-off directional valve elements with LS

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Port size	Data Sheet
	EDG Direct Acting On-Off	EDG-DO...B1 EDG-DO...R1	350 (5000)	40 (10.6)	G 3/8 - G 1/2 - SAE6 - SAE8	18301-23

4/3 and 4/2 Proportional directional valve elements with LS

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Port size	Data Sheet
	EDG Direct Acting Proportional	EDG-DP...	350 (5000)	40 (11)	G 3/8 - G 1/2 - SAE 6 - SAE 8	18301-19

4/3 and 4/2 Proportional directional valve elements with LS

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Port size	Data Sheet
	EDG Direct Acting Proportional	EDG-DP...B1 EDG-DP...R1	350 (5000)	40 (10.6)	G 3/8 - G 1/2 - SAE6 - SAE8	18301-22

End Elements basic

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Port size	Data Sheet
	TCG-0_/00	TCG-00/..	up to 350 (5000)	-	-	18301-65

PRODUCT SELECTION GUIDE

Flow diverters

69 3-ways / 2-positions

69 6-ways / 2-positions

70 6/14-ways / 2 positions

70 6 to 12 ways / 2 positions

71 6 to 14 ways / 2 positions

71 8-ways / 2-positions

3/2 ways/positions flow diverters

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Port size	Data Sheet
	VS70A	L700_	310 (4500)	20 (5)	G 1/4	18302-14

3/2 ways/positions flow diverters

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Port size	Data Sheet
	VS81	L705_	310 (4500)	60 (16)	G 3/8	18302-02
	VS82	L705_	310 (4500)	60 (16)	G 1/2	18302-02
	VS84	L705_	310 (4500)	60 (16)	SAE6	18302-02
	VS85	L705_	310 (4500)	60 (16)	SAE8	18302-02

3/2 ways/positions flow diverters

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Port size	Data Sheet
	VS91	L706_	310 (4500)	140 (37)	G 1/2	18302-03
	VS92	L706_	310 (4500)	140 (37)	G 3/4	18302-03
	VS95	L706_	310 (4500)	140 (37)	SAE 12	18302-03

6/2 ways/positions flow diverters

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Port size	Data Sheet
	VS120A	L710...	310 (4500)	25 (7)	G 1/4	18302-16
	VS125A	L710...	310 (4500)	25 (7)	SAE4	18302-16
	VS129A	L710...	310 (4500)	25 (7)	JIS B 1/4	18302-16

6/2 ways/positions flow diverters

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Port size	Data Sheet
	VS151	L721_	310 (4500)	60 (16)	G 3/8	18302-05
	VS152	L721_	310 (4500)	60 (16)	G 1/2	18302-05
	VS155	L721_	310 (4500)	60 (16)	SAE 8	18302-05

6/2 ways/positions flow diverters with ports C1, C2, C3 and C4 single side

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Port size	Data Sheet
	VS161	L725_	310 (4500)	60 (16)	G 3/8	18302-06
	VS165	L725_	310 (4500)	60 (16)	SAE 8	18302-06

6/2 ways/positions flow diverters

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Port size	Data Sheet
	VS311	L753_	310 (4500)	140 (37)	G 1/2	18302-07
	VS312	L753_	310 (4500)	140 (37)	G 3/4	18302-07
	VS315	L753_	310 (4500)	140 (37)	SAE 12	18302-07

6/2 ways/positions piloted flow diverters - Size 16

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Port size	Data Sheet
	VS400	L755_	310 (4500)	220 (58)	G 1	18302-11
	VS400	L755F	310 (4500)	220 (58)	G 1	18302-11

6 to 12/2 ways/positions bankable flow diverters flangeable

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Port size	Data Sheet
	VS120AF	L711...	310 (4500)	20 (5)	G 1/4	18302-15
	VS125AF	L711...	310 (4500)	20 (5)	SAE4	18302-15

6 to 14/2 ways/positions bankable flow diverters flangeable

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Port size	Data Sheet
	VS241F	L732_	310 (4500)	50 (13)	G 3/8	18302-09
	VS245F	L732_	310 (4500)	50 (13)	SAE 8	18302-09
	VS246F	L732_	310 (4500)	50 (13)	M18x1.5	18302-09

6 to 14/2 ways/positions bankable flow diverters flangeable

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Port size	Data Sheet
	VS270F	L739_	310 (4500)	80 (21)	G 3/8 - G 1/2 - SAE 10	18302-12

6 to 14/2 ways/positions bankable flow diverters flangeable

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Port size	Data Sheet
	VS281F	L745_	310 (4500)	90 (24)	G 1/2	18302-10
	VS285F	L745_	310 (4500)	90 (24)	SAE 10	18302-10
	VS286F	L745_	310 (4500)	90 (24)	M18x1.5	18302-10
	VS287F	L745_	310 (4500)	90 (24)	JIS B 1/2	18302-10
	VS289F	L745_	310 (4500)	90 (24)	M22x1.5	18302-10

8/2 ways/positions flow diverters

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Port size	Data Sheet
	VS570-VS575	L765_	210 (3000)	10 (3)	G 1/4 - SAE 4	18302-13

PRODUCT SELECTION GUIDE

Stand alone directional valves

73 4/3 - 4/2 direct acting

73 4/3 - 4/2 solenoid operated FAN DRIVE

73 Steering mode valve with electromechanical detent: SVM

Stand alone 4/3 - 4/2 direct acting directional valve

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Port size	Data Sheet
	LC1F-DZ	LF1_2_	310 (4500)	70 (19)	G 3/8 - G 1/2 - SAE 8	18305-02
	LC1F-Z	LF1_1_	310 (4500)	35 (9)	G 3/8 - SAE 8	18305-01
	LC2F-DZ	LF2_1_	250 (3600)	90 (24)	G 1/2 - SAE 10	18305-03

Stand alone 4/3 - 4/2 solenoid operated directional valve FAN DRIVE

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Port size	Data Sheet
	LF1 (FAN DRIVE)	LF1	310 (4500)	60 (16)	G 3/8 - SAE 8	18305-04
	LF2 (FAN DRIVE)	LF2	250 (3600)	90 (24)	G 1/2 - SAE 10	18305-04

Steering mode selection valve with electromechanical detent

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Port size	Data Sheet
	SMV2.0	LF1_1STR3_	210 (3000)	50 (13)	G 3/8 - G 1/2 - SAE 8	18305-10

PRODUCT SELECTION GUIDE

Cetop 2 Solenoid Valves

75 4/3 - 4/2 Directional valves solenoid operated

75 4/3 - 4/2 directional valves lever operated

75 4/3 - 4/2 proportional directional valves solenoid operated

75 2 or 3 way pressure compensated flow regulators

75 Modular direct and pilot operated check valves

4/3 - 4/2 Directional valves solenoid operated

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Port size	Data Sheet
	LC04-A	L50A0_	310 (4500)	25 (7)	CETOP 2 - P02	18305-11
	LC02-A	L54A0_	310 (4500)	25 (7)	CETOP 2 - R02	18305-12

4/3 - 4/2 directional valves lever operated

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Port size	Data Sheet
	LC04-LV	L50L0_	310 (4500)	25 (7)	CETOP 2 - P02	18303-02

4/3 - 4/2 proportional directional valves solenoid operated

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Port size	Data Sheet
	LC04P	L5080_	310 (4500)	12 (3) @ 10bar Dp	CETOP 2 - P02	18303-03

2 or 3 way pressure compensated flow regulators

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Port size	Data Sheet
	LC04M-CBL	L6090_	310 (4500)	12 (3)	CETOP 2 - P02	18303-04
	LC04M-CBD	L6095_	310 (4500)	20 (5)	CETOP 2 - P02	18303-04

Modular direct and pilot operated check valves

Symbol	Type	Code	P_{max} bar (psi)	Q_{max} l/min (gpm)	Port size	Data Sheet
	LC04M-VR	L6040_	310 (4500)	25 (7)	CETOP RP 121	18305-07

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RE 98385/05.2022