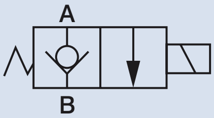
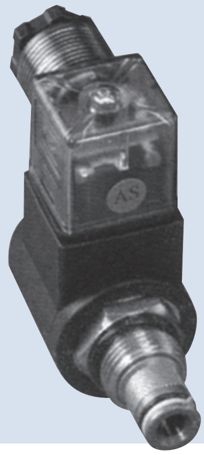
CARTRIDGE SOLENOID OPERATED CHECK VALVE





How to order

HV2066, HV3066 - NC - ※ - A22

1 2 3 4

1	Model HV2066: Size 08 HV3066: Size 10
2	NC: Normal closed NO: Normal open
3	None: Standard OM: With manual
4	Voltage A11: AC110V (50/60HZ) A22: AC220V (50/60HZ) D1: DC12V D2: DC24V

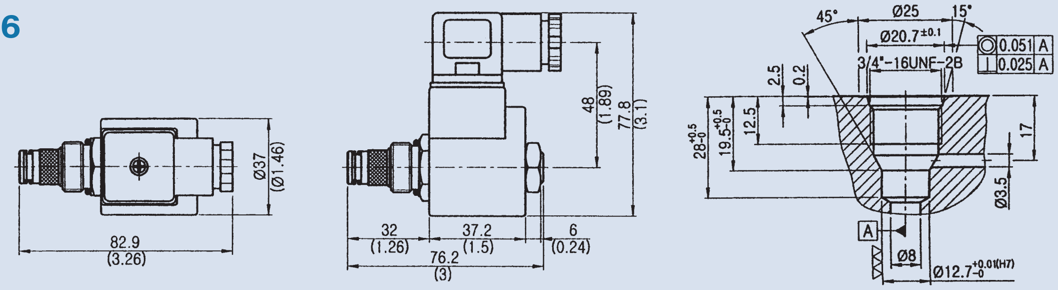
Specifications

Model	Max. Pressure (bar)	Rated Flow (lpm)	Max. Flow (lpm)	Weight (kg)
HV2066	250	15	20	0.28
HV3066		30	40	0.53

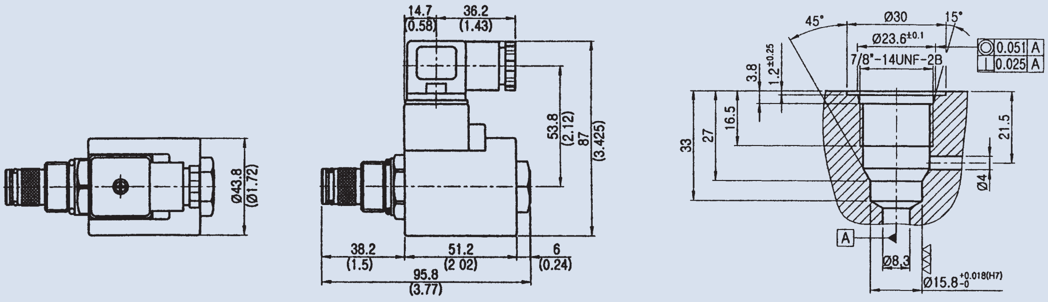
Dimensions

Unit: mm
(inch)

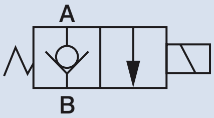
HV2066

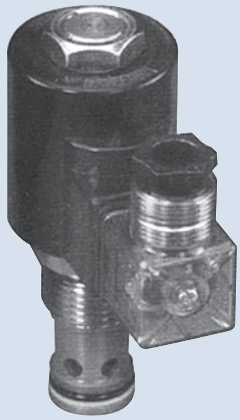


HV3066



CARTRIDGE SOLENOID OPERATED CHECK VALVE





How to order

HV6066, HV8066 - NC - ※ - A22

1 2 3 4

1	Model HV6066: Size 12 HV8066: Size 16
2	NC: Normal closed NO: Normal open
3	None: Standard OM: With manual
4	Voltage A11: AC110V (50/60HZ) A22: AC220V (50/60HZ) D1: DC12V D2: DC24V

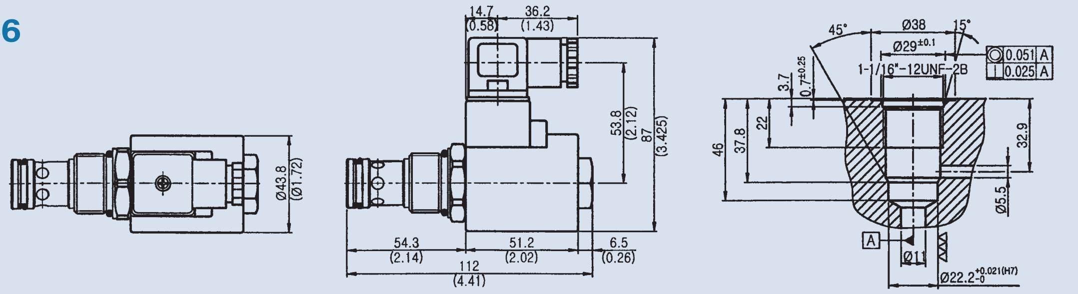
Specifications

Model	Max. Pressure (bar)	Rated Flow (lpm)	Max. Flow (lpm)	Weight (kg)
HV6066	250	80	80	0.58
HV8066		150	150	0.68

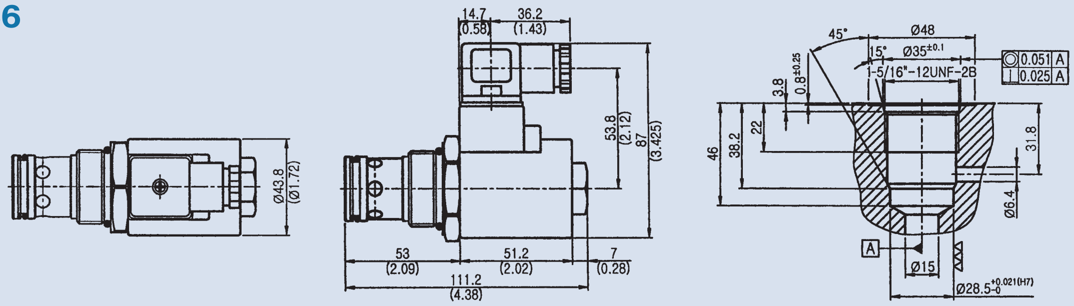
Dimensions

Unit: mm
(inch)

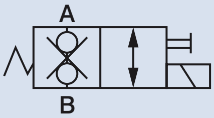
HV6066

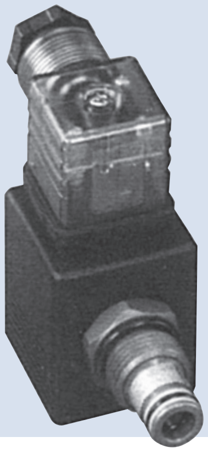


HV8066



CARTRIDGE SOLENOID OPERATED DOUBLE CHECK VALVE





How to order

HV2070, HV3070 - NC - ※ - A22
1 2 3 4

1	Model
2	NC: Normal closed NO: Normal open
3	None: Standard OM: With manual
4	Voltage A11: AC110V (50/60HZ) A22: AC220V (50/60HZ) D1: DC12V D2: DC24V

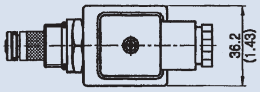
Specifications

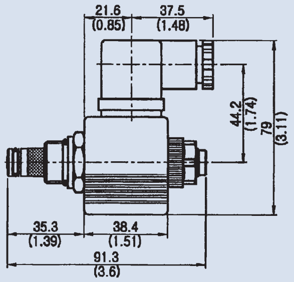
Model	Max. Pressure (bar)	Rated Flow (lpm)	Max. Flow (lpm)	Weight (kg)
HV2070	250	15	20	0.34
HV3070		20	30	0.5

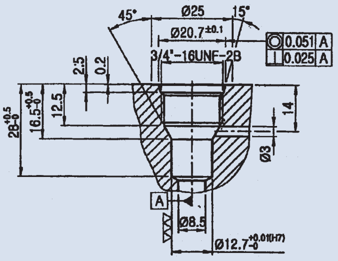
Dimensions

Unit: mm
(inch)

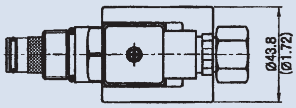
HV2070

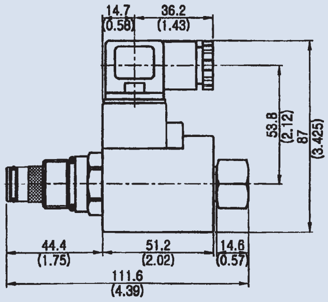


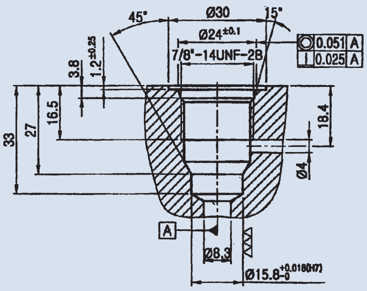




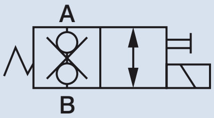
HV3070

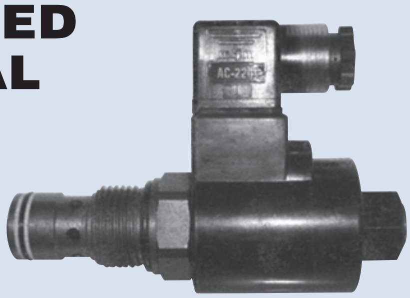






CARTRIDGE SOLENOID OPERATED DOUBLE CHECK VALVE, MANUAL CHECK VALVE





How to order

HV3570, HV6070 - NC - ※ - A22

1 2 3 4

1	Model
2	NC: Normal closed NO: Normal open
3	None: Standard OM: With manual
4	Voltage A11: AC110V (50/60HZ) A22: AC220V (50/60HZ) D1: DC12V D2: DC24V

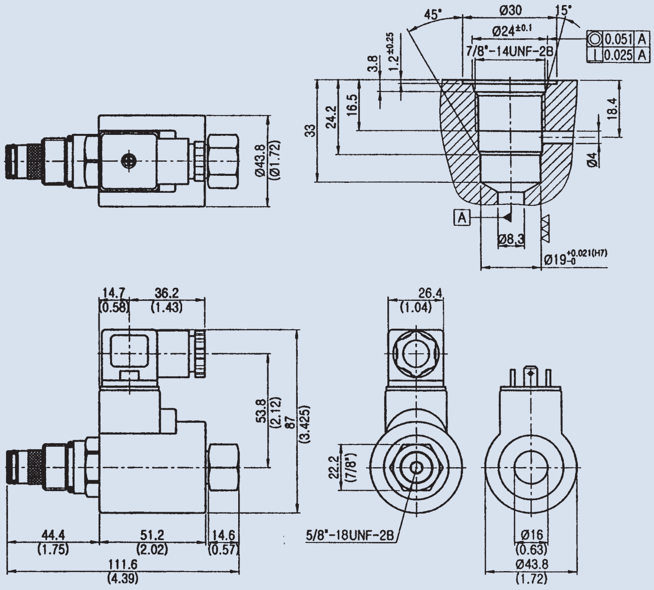
Specifications

Model	Max. Pressure (bar)	Rated Flow (lpm)	Max. Flow (lpm)	Weight (kg)
HV3570	250	25	35	0.51
HV6070		50	60	0.62

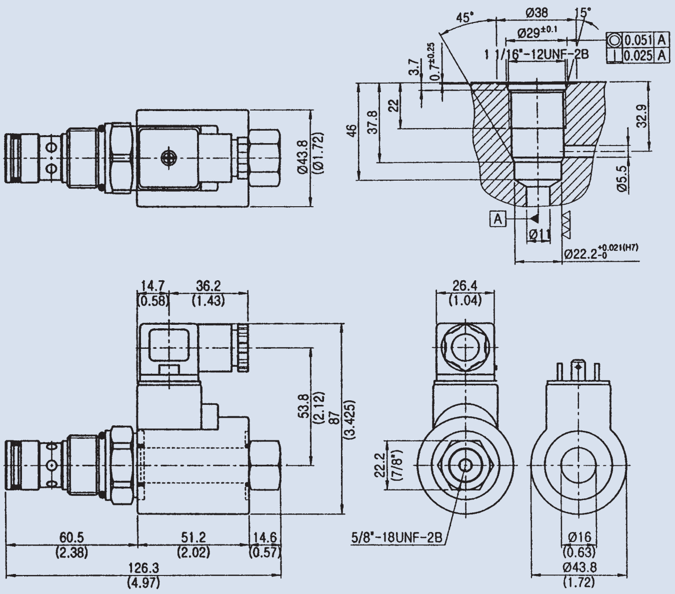
Dimensions

Unit: mm
(inch)

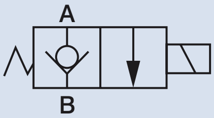
HV3570

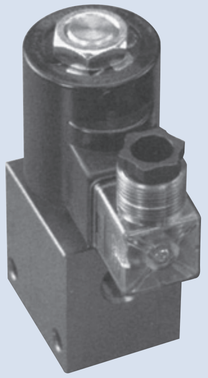


HV6070



CARTRIDGE SOLENOID OPERATED CHECK VALVE WITH BODY





How to order

HV 2068-02, HV 3068-03 - NC - ※ - A22

1	2	1	2	3	4	5
HV	2068-02,	HV	3068-03	NC	※	A22

1	Model HV2068: HV2066+body HV3068: HV3066+body
2	Port size 2068-02: 1/4" (normal) 2068-03: 3/8" 3068-03: 3/8" (normal) 3068-04: 1/2"
3	NC: Normal closed NO: Normal open
4	None: Standard OM: With manual
5	Voltage A11: AC110V (50/60HZ) A22: AC220V (50/60HZ) D1: DC12V D2: DC24V

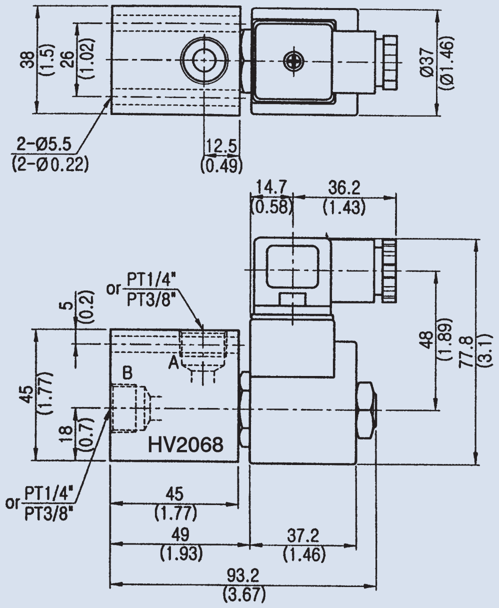
Specifications

Model	Max. Pressure (bar)	Rated Flow (lpm)	Max. Flow (lpm)	Weight (kg)
HV2068	250	15	20	0.46
HV3068		30	40	0.74

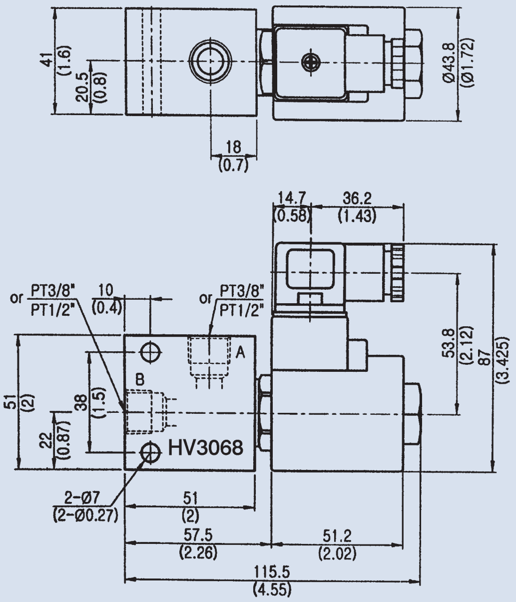
Dimensions

Unit: mm
(inch)

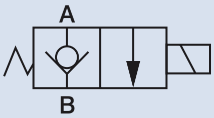
HV2068



HV3068



CARTRIDGE SOLENOID OPERATED CHECK VALVE WITH BODY



How to order

HV 6068, HV 8068 - NC - ※ - A22

1 2 1 2 3 4 5

1	Model HV6068: HV6066+body HV8068: HV8066+body
2	Port size 6068: PT3/4" 8068: PT1"
3	NC: Normal closed NO: Normal open
4	None: Standard OM: With manual
5	Voltage A11: AC110V (50/60HZ) A22: AC220V (50/60HZ) D1: DC12V D2: DC24V

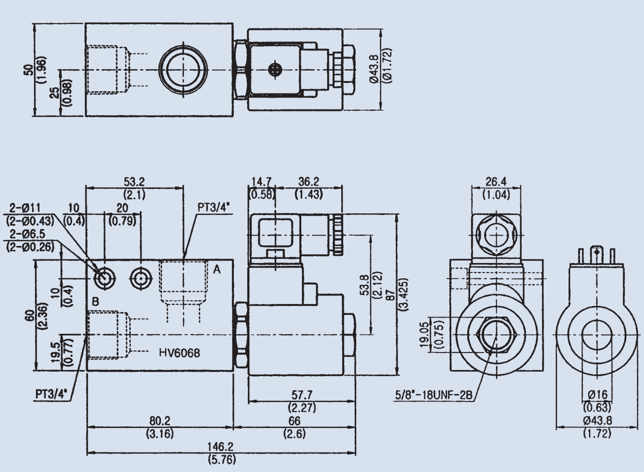
Specifications

Model	Max. Pressure (bar)	Rated Flow (lpm)	Max. Flow (lpm)	Weight (kg)
HV6068	250	80	80	1.08
HV8068		150	150	2.5

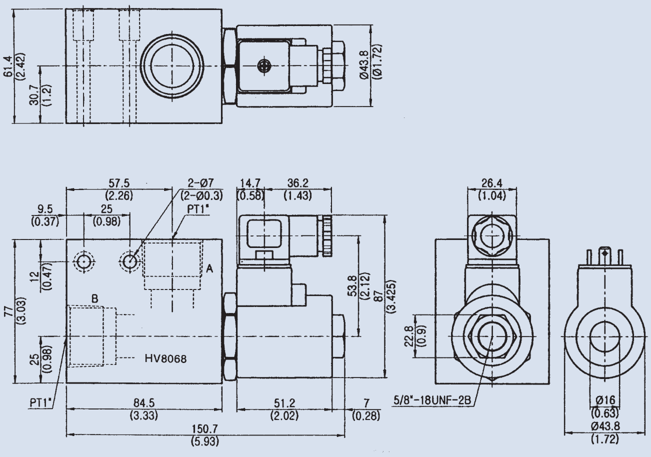
Dimensions

Unit: mm
(inch)

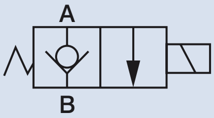
HV6068

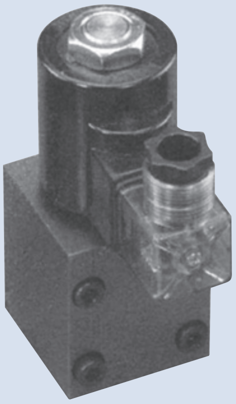


HV8068



CARTRIDGE SOLENOID OPERATED CHECK VALVE WITH BODY





How to order

HV2067, HV3067 - G 02 - NC - ※ - A11

1 2 3 4 5 6

1	Model HV2067: HV2066+body HV3067: HV3066+body
2	Sub-plate mounting type
3	Norminal valve size 02: 1/4" (ISO CETOP 3, NFPA D03, DIN NG 6) for HV2067 03: 3/8" for HV3067
4	NC: Normal closed NO: Normal open
5	None: Standard OM: With manual
6	Voltage A11: AC110V (50/60HZ) A22: AC220V (50/60HZ) D1: DC12V D2: DC24V

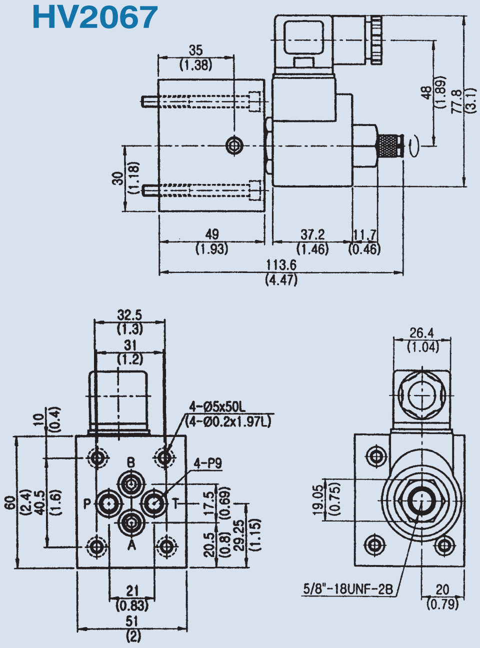
Specifications

Model	Max. Pressure (bar)	Rated Flow (lpm)	Max. Flow (lpm)	Weight (kg)
HV2067	250	15	20	0.69
HV3067		30	40	0.87

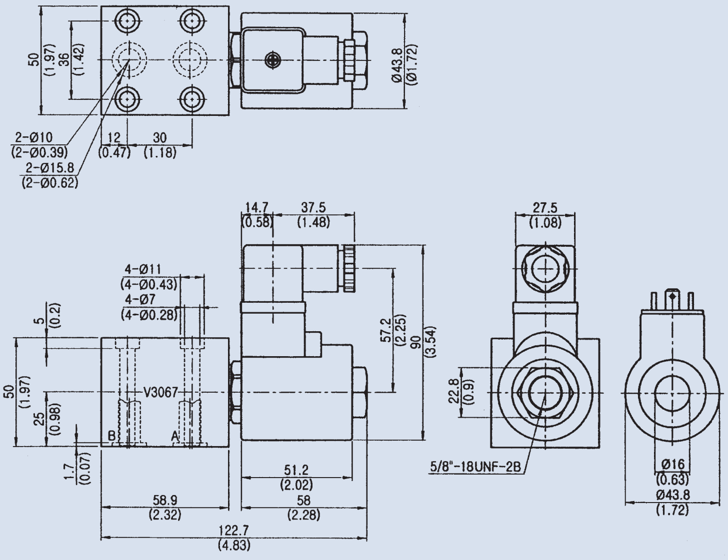
Dimensions

Unit: mm
(inch)

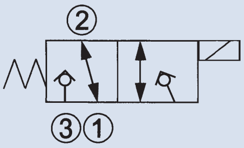
HV2067



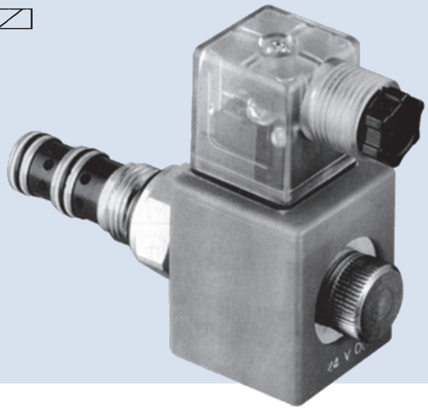
HV3067



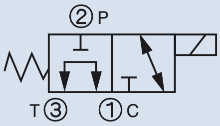
CARTRIDGE SOLENOID OPERATED VALVE SPOOL 3-WAY 2-POSITION



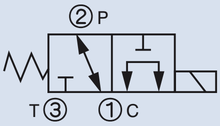
VWE-※-50 (poppet)



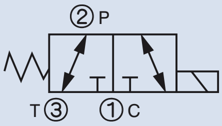
CONTROL PORTS



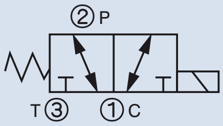
VWE-※-10



VWE-※-20



VWE-※-30



VWE-※-40

How to order

VWE - 08 - 10 - A1 - ※
1 2 3 4 5

1	Model
2	Mounting size 08: 08W-3 Cavity: CS08-3N (see page 163) 10: 10W-3 Cavity: CS10-3N (see page 163)
3	Control port
4	Voltage A1: RAC110V (50/60HZ) A2: RAC220V (50/60HZ) D1: DC12V D2: DC24V
5	Wiring type None: DIN plug X: Double lead

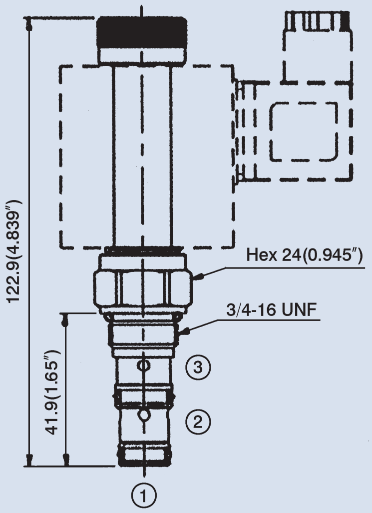
Specifications

Model	Max. Pressure (bar)	Max. Flow (lpm)	Weight (kg)
VWE-08-10	210	10	0.31
VWE-08-20			
VWE-08-30			
VWE-08-40			
VWE-08-50			
VWE-10-20		20	0.2
VWE-10-30			
VWE-10-40			

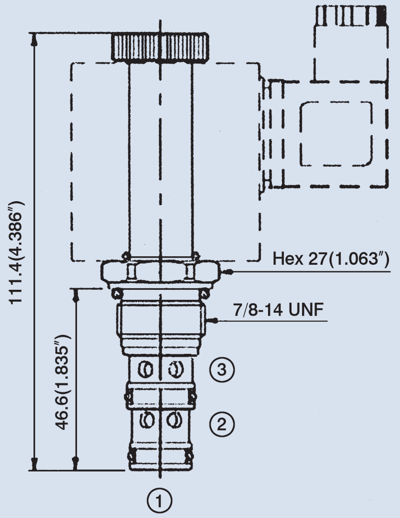
Dimensions

Unit: mm
(inch)

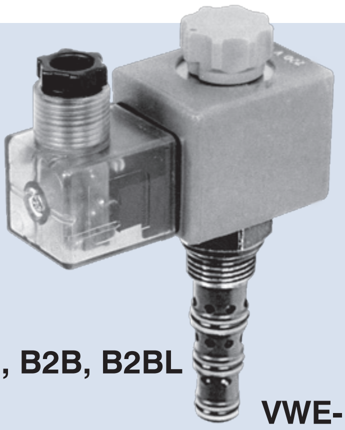
VWE-08



VWE-10



CARTRIDGE SOLENOID OPERATED VALVE SPOOL 4-WAY 2(3)-POSITION



VWE-※-B2, B2B, B2BL

VWE-※-C2, C4

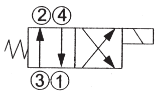
How to order

VWE - 08 - B2 - A1 - ※
1 2 3 4 5

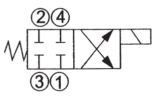
1 Model

2 Mounting Size 08:08W-4 Cavity: CS08-4N (see page 164) 10:10W-4 Cavity: CS10-4N (see page 164)

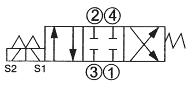
3 Control port



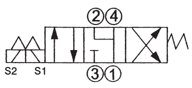
VWE-※-B2



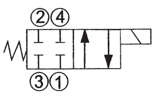
VWE-※-B2B



VWE-※-C2



VWE-※-C4



VWE-※-B2BL

4 Voltage A1: RAC110V (50/60HZ) A2: RAC220V (50/60HZ) D1: DC12V D2: DC24V

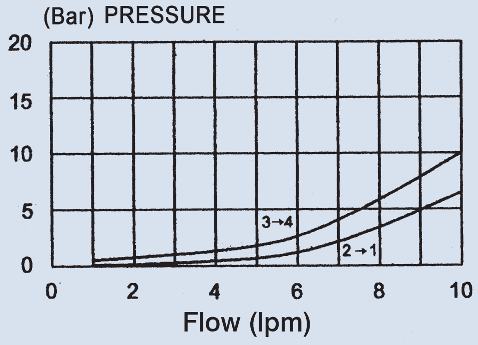
5 Wiring type None: DIN plug X: Double lead

Specifications

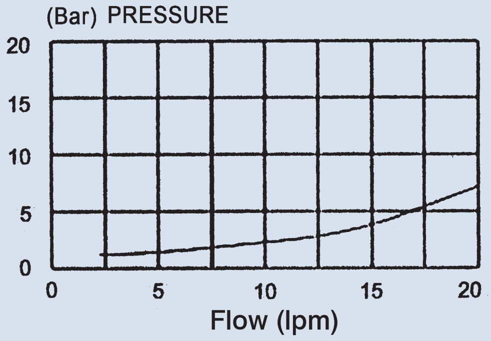
Model	Max. Pressure (bar)	Max. Flow (lpm)	Weight (kg)
VWE-08-B2	210	10	0.45
VWE-08-B2B			
VWE-08-B2BL			
VWE-08-C2			0.75
VWE-08-C4			
VWE-10-B2		20	0.45

Performance

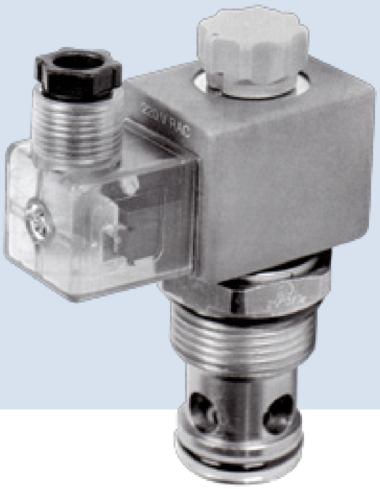
VWE-08



VWE-10



CARTRIDGE SOLENOID OPERATED CHECK VALVE



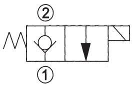
How to order

VSE - 10 - ※ - A2 - X - Y
1 2 3 4 5 6

1 Model

2 Mounting size 10: Cavity tooling E-017 Size CSE 017-2N (see page 165)
12: Cavity tooling E-021 Size CSE 021-2N (see page 166)

3 Control port

20 :


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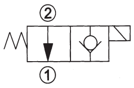
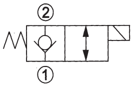
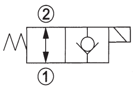
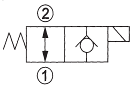
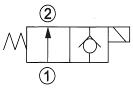
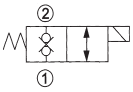


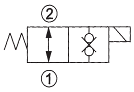
22 :


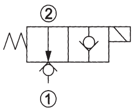
23 :


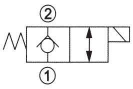
26 :


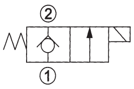
27 :


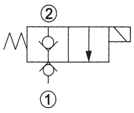
28 :


29 :


30:


31:


32:


33:


4 Voltage A1: RAC110V (50/60HZ) A2: RAC220V (50/60HZ) D1: DC12V D2: DC24V

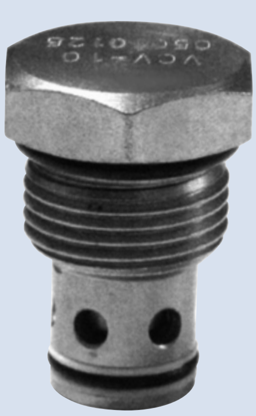
5 Wiring type None: DIN plug X: Double lead

6 Adjustment option None: Standard Y: Twist style manual override (for control ports 20, 22, 28, 31, 32, 33)
Push style manual override (for control ports 21, 23, 26, 27, 29, 30)

Specifications

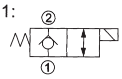
Model	Max. Pressure (bar)	Max. Flow (lpm)	Weight (kg)
VSE-10-※	350	70	0.4
VSE-12-※		150	0.63

CARTRIDGE SOLENOID OPERATED CHECK VALVE



How to order

VSE - **20** - **31** - **A2** - **X** - **Y**
1 2 3 4 5 6

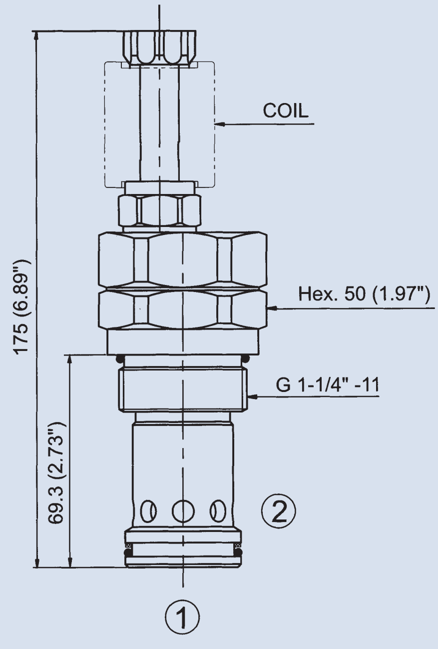
1	Model	
2	Mounting size	20: Size Cavity: E-04
3	Control port	31: 
4	Voltage	A1: RAC110V (50/60HZ) A2: RAC220V (50/60HZ) D1: DC12V D2: DC24V
5	Wiring type	None: DIN plug X: Double lead
6	Adjustment option	None: Standard Y: Twist style manual override

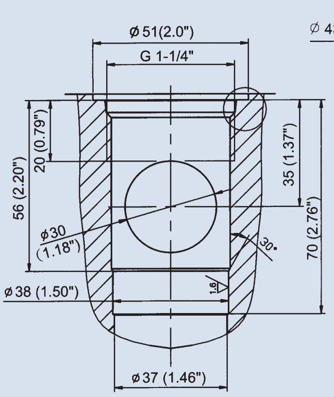
Specifications

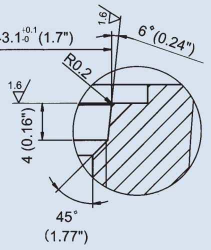
Model	Max. Pressure (bar)	Max. Flow (lpm)	Weight (kg)
VSE-20-31	350	260	1.14

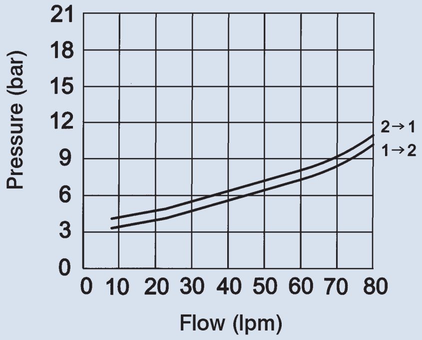
Dimensions/Performance curve

Unit: mm
(inch)

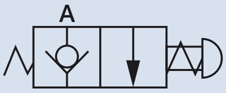




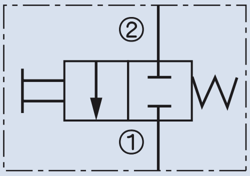




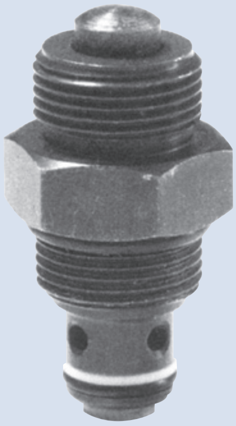
CARTRIDGE MANUAL RELEASE VALVE



HV2069



VMV-08



Specifications

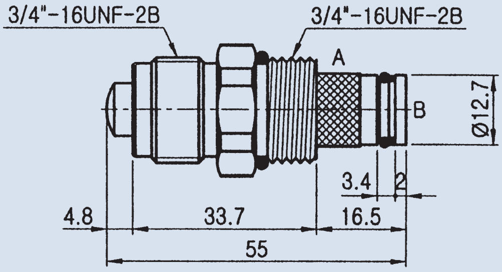
Model	Max. Pressure (bar)	Rated Flow (lpm)	Max. Flow (lpm)	Weight (kg)
HV2069	250	15	20	0.17

Model	Max. Pressure (bar)	Rated Flow (lpm)	Weight (kg)
VMV-08	250	15	0.35

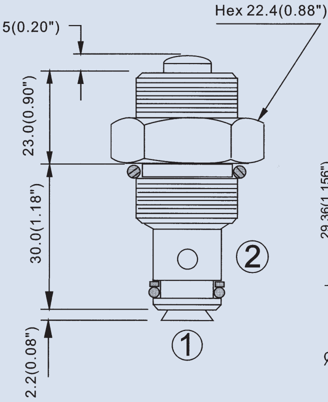
Dimensions / Performance curves

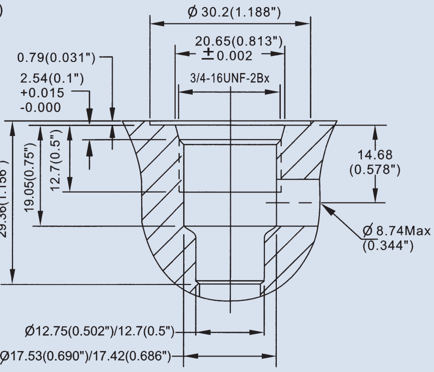
HV2069

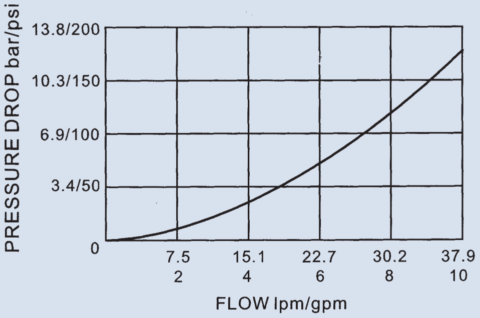
Unit: mm
(inch)



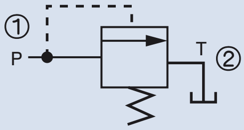
VMV-08

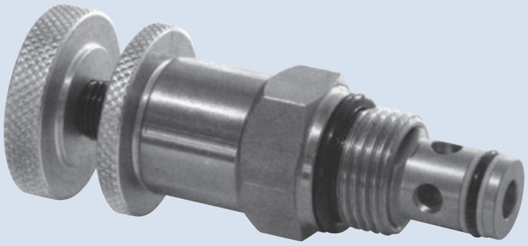






CARTRIDGE RELIEF VALVE





How to order

VNE - 04 - 20 - K
1 2 3 4

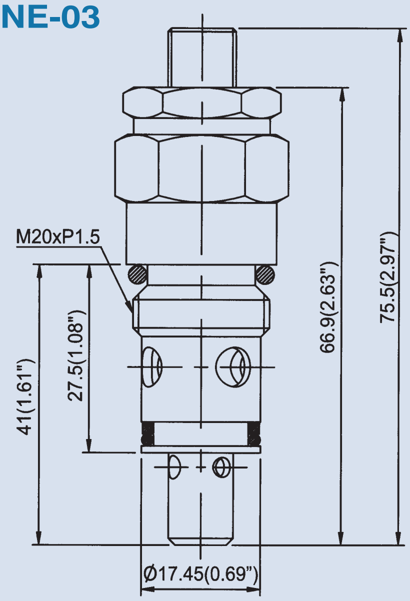
1	Model Direct type
2	Mounting size 04, 05: Size 08 Cavity CS08-2N (see page 163)
3	Pressure adjusting range
4	Adjustment option None: Tool adjustment K: Hand-bar adjustment

Specifications

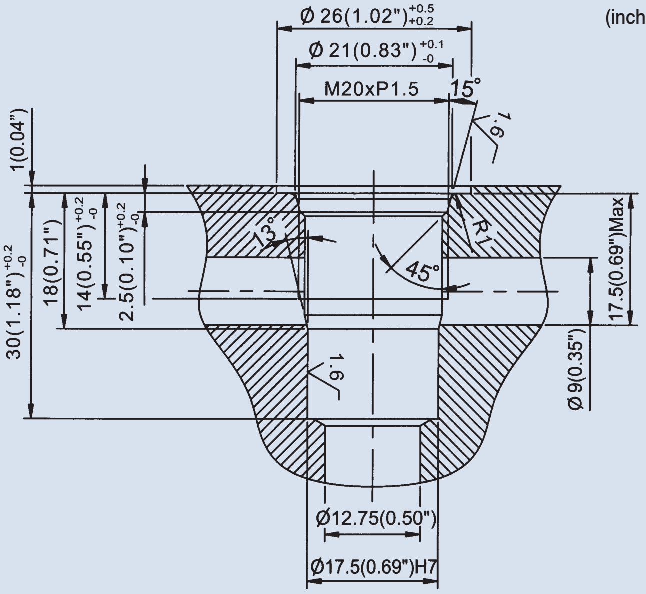
Model	Max. Pressure (bar)	Pressure Adjusting Range (bar)	Max. Flow (lpm)	Weight (kg)
VNE-03	315	28: 30~280 35: 80~350	60	0.18
VNE-04		03: ※~30 10: ※~100 20: 30~200 30: 40~300	20	0.1
VNE-05	250	10: ※~100 20: 30~250 35: 100~350	20	0.2
VNE-07	420	1: ※~100 2: ※~250 3: ※~400	60	1.8
VNE-08	315	1: ※~100 2: ※~315	120	1.8

Dimensions

VNE-03



Unit: mm
(inch)



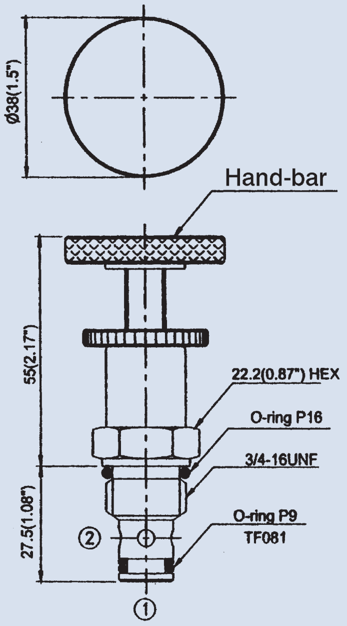
CARTRIDGE RELIEF VALVE

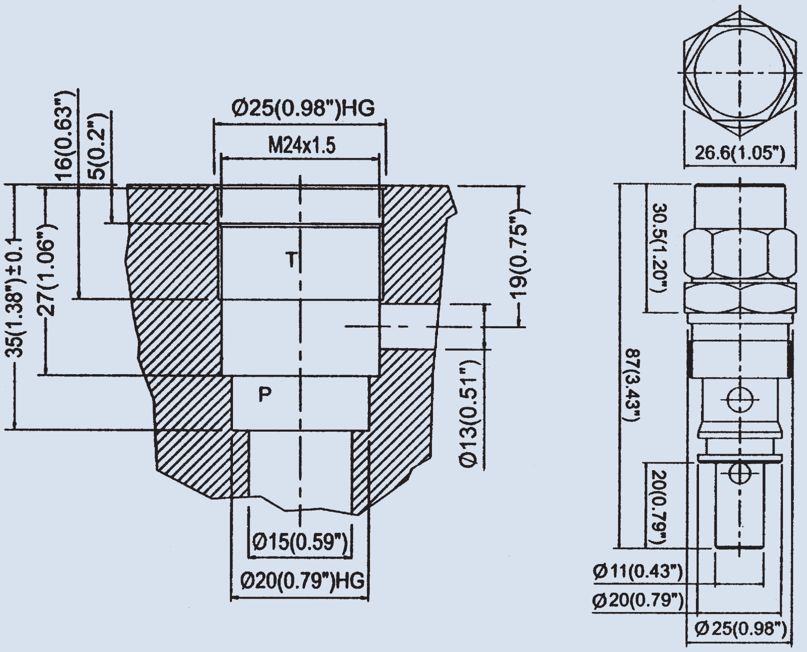
Dimensions

VNE-04

VNE-07

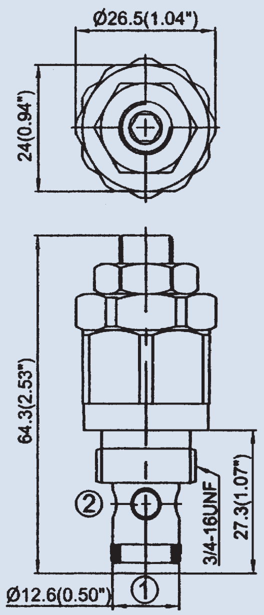
Unit: mm
(inch)

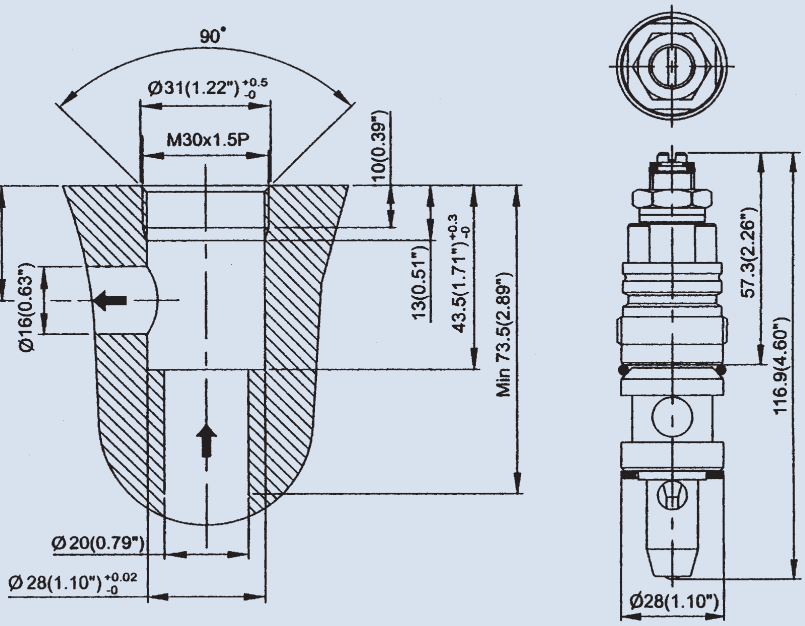




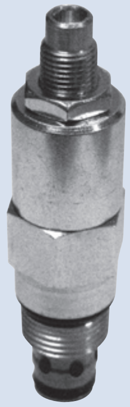
VNE-05

VNE-08

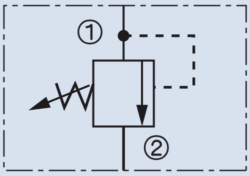




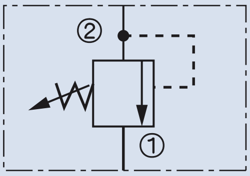
CARTRIDGE RELIEF VALVE



CONTROL PORTS



NO: 20, 26



NO: 22

How to order

VRV	-	10	-	24	-	※	-	20
1		2		3		4		5

1 Model Direct type: VRV-01-※-※-20, VRV-03 (04)-※-※-20, VRV-08-※-※-20 (22), VRV-10-※-※-20 (22)

2 Mounting size

Model	Size	Cavity	See Page
VRV-01	08	CS08-2N	163
VRV-03	E019	CSE019-2N	165
VRV-04	E019	CSE019-2N	165
VRV-08	08	CS08-2N	163

Model	Size	Cavity	See Page
VRV-10	10	CS10-2N	163
VRV-12	12	CS12-2N	163
VRV-16	16	CS16-2N	163

3 Pressure adjusting range

4 Adjustment option None: Tool adjustment K: Hand-bar adjustment

5 Control port 20, 22, 26

Specifications

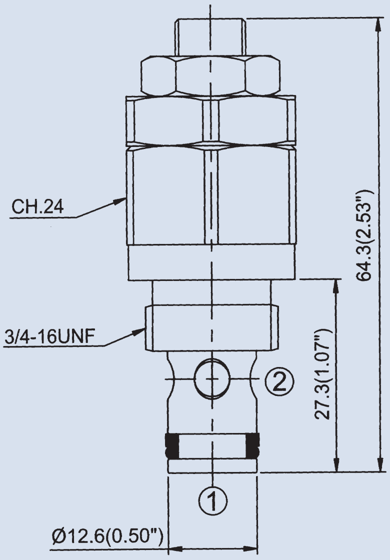
Model	Max. Pressure (bar)	Pressure Adjusting Range (bar)	Max. Flow (lpm)	Weight (kg)
VRV-01-※-※-20	250	10: ※~100 20: ※~250	2	0.15
VRV-03-※-※-20	315	28: 30~280 38: 38~380	60	0.18
VRV-04-※-※-20	420	30: 150~300 40: 300~420	15	0.18
VRV-08-※-※-20	320	06: 4~60 12: 7~120 24: 7~220 31: 27~315	20	0.23
VRV-08-※-※-22			30	0.22
VRV-10-※-※-20	340	08: 10~80 15: 17~150 24: 20~220 34: 34~340	35	0.23
VRV-10-※-※-22			70	0.23
VRV-10-※-※-26		02: ※~25 10: 10~100 24: 20~240 34: 20~340	110	0.25
VRV-12-※-※-26			180	0.34
VRV-16-※-※-26			265	0.73

CARTRIDGE RELIEF VALVE

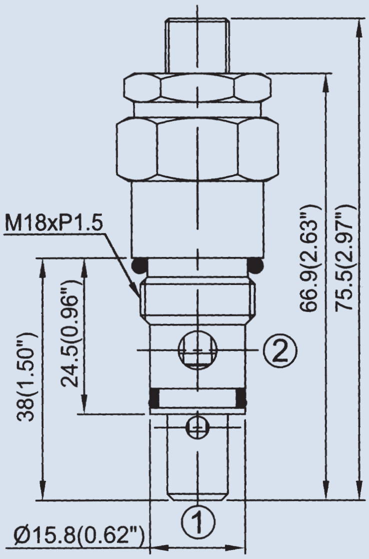
Dimensions

Unit: mm
(inch)

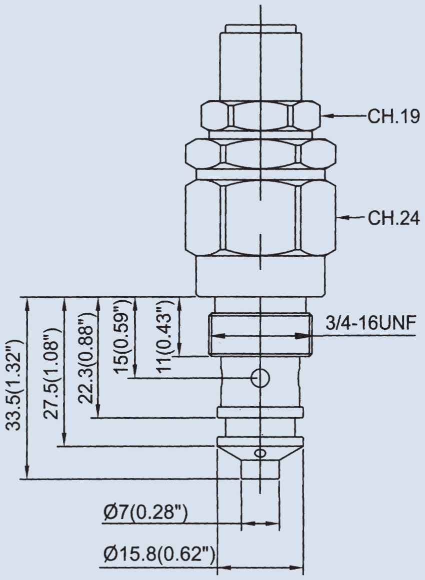
VRV-01



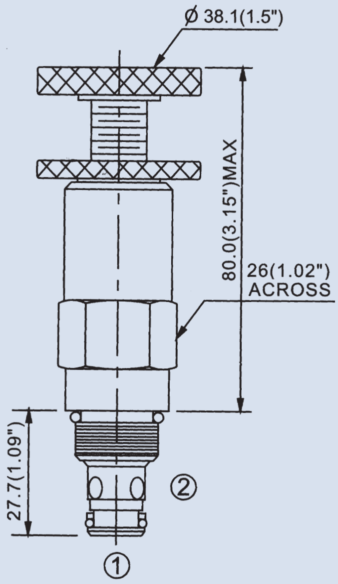
VRV-03



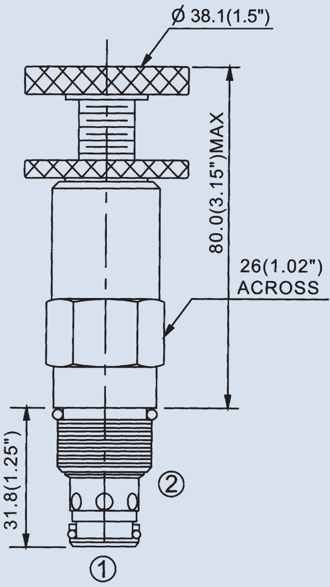
VRV-04



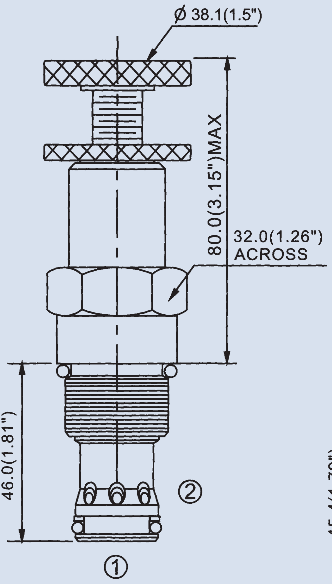
VRV-08



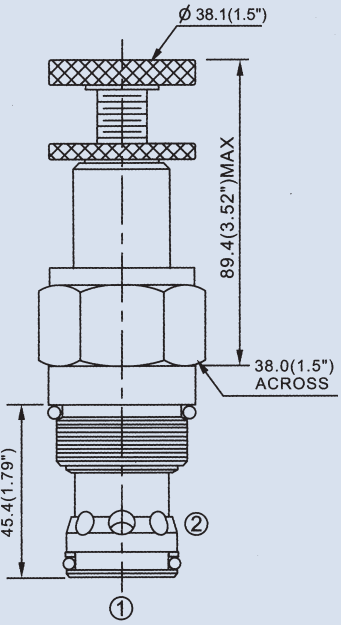
VRV-10



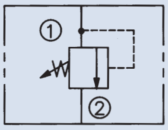
VRV-12



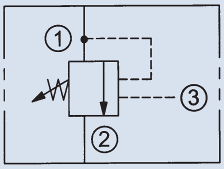
VRV-16



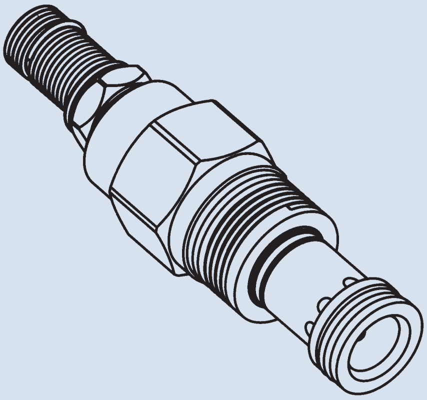
CARTRIDGE RELIEF VALVE



VRC



VRA



How to order

VRC
VRA - 02 - 20 - ※
1 2 3 4

1 Model VRA: Remote control included

2 Mounting size

Model	Size	Cavity	See Page	Model	Size	Cavity	See Page
VRC-02	T-10A	CST-10A	166	VRA-02	T-11A	CST-11A	167
VRC-03	T-3A	CST-3A	166	VRA-03	T-2A	CST-2A	166
VRC-06	T-16A	CST-16A	167	VRA-06	T-17A	CST-17A	167
VRC-10	T-18A	CST-18A	167	VRA-10	T-19A	CST-19A	167

3 Pressure adjusting range

4 Adjustment option None: Tool adjustment K: Hand-bar adjustment

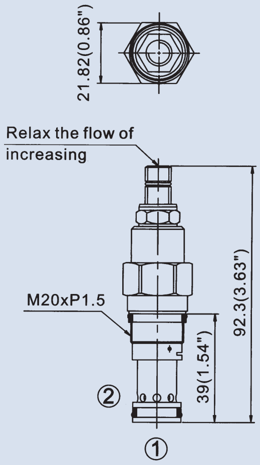
Specifications

Model	Max. Pressure (bar)	Pressure Adjusting Range (bar)	Max. Flow (lpm)	Weight (kg)
VRC-02	420	06: ※~60 10: ※~100 20: 8~210 40: 12~420	100	0.15
VRC-03			200	0.27
VRC-06			380	0.55
VRC-10			760	0.9
VRA-02			60	0.18
VRA-03			120	0.3
VRA-06			240	0.7
VRA-10			480	1.1

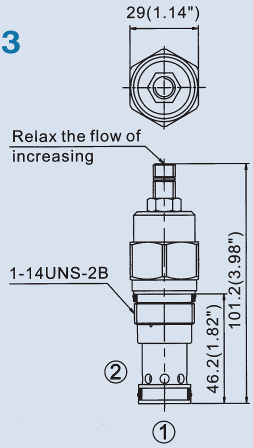
Dimensions

Unit: mm
(inch)

VRC-02



VRC-03

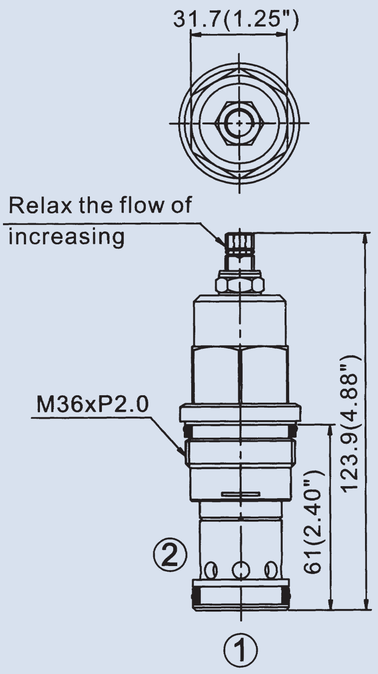


CARTRIDGE RELIEF VALVE

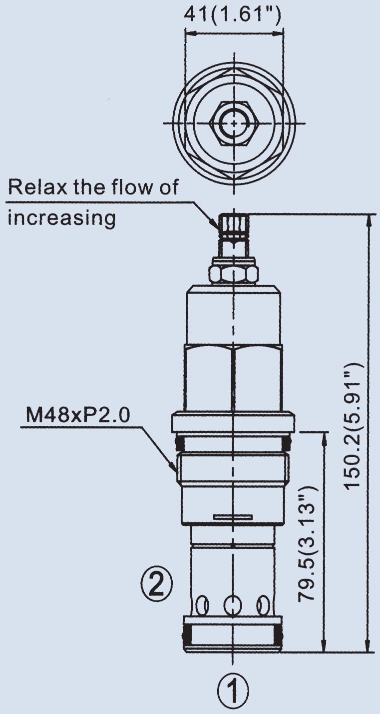
Dimensions

Unit: mm
(inch)

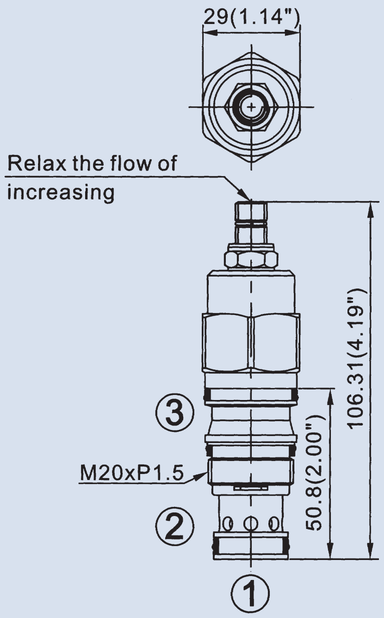
VRC-06



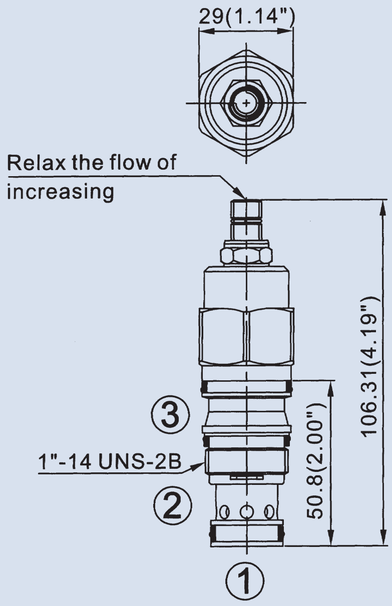
VRC-10



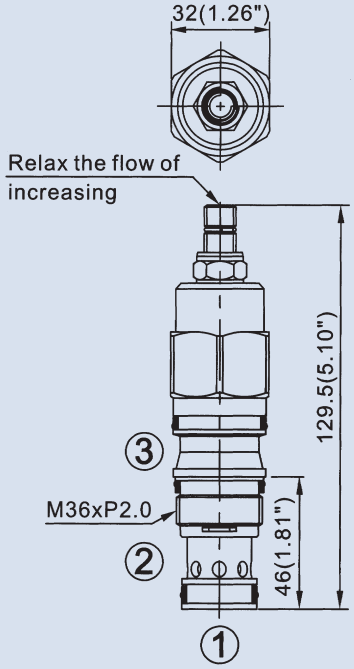
VRA-02



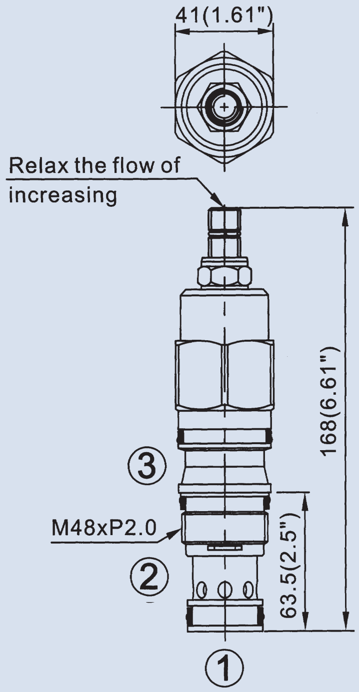
VRA-03



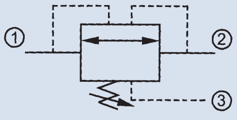
VRA-06



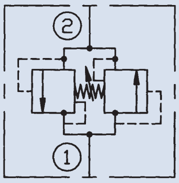
VRA-10



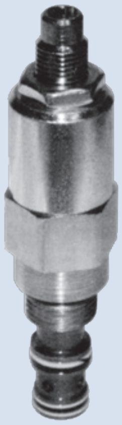
CARTRIDGE BRAKE VALVE



VDR-08



VDR-10



How to order

VRD - 08 - 09 - ※
1 2 3 4

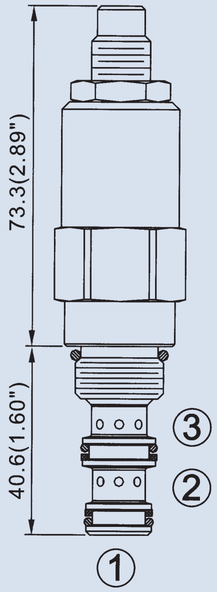
1	Model	
2	Mounting size	08: Size 08 Cavity: CS08-3N (see page 163) 10: Size 10 Cavity: CS10-2N (see page 163)
3	Pressure adjusting range	
4	Adjustment option	None: Tool adjustment K: Hand-bar adjustment

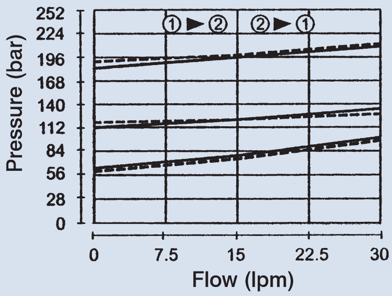
Specifications

Model	Max. Pressure (bar)	Pressure Adjusting Range (bar)	Max. Flow (lpm)	Weight (kg)
VRD-08	240	02: 4~20 04: 7~40 09: 11~89 16: 21~165	18	0.3
VRD-10	340	16: 14~168 20: 160~210	60	0.27

Dimensions/Performance curves

VRD-08

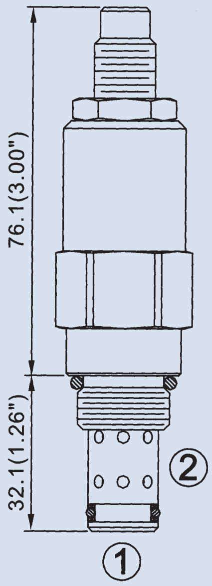


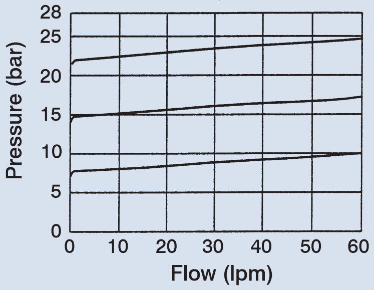


VRD-10

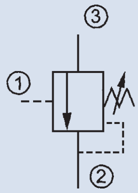
Test Conditions
Oil Temperature: 50 °C (122 °F)
Viscosity: 35 cSt (163 SSU)

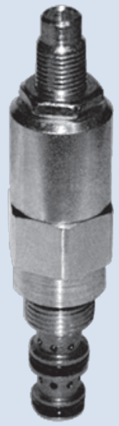
Unit: mm
(inch)





CARTRIDGE UNLOADING VALVE





How to order

VSQ - 08 - 16 - ※
1 2 3 4

1	Model	
2	Mounting size	08: Size 08 Cavity: CS08-3N (see page 163) 10: Size 10 Cavity: CS10-3N (see page 163)
3	Pressure adjusting range	
4	Adjustment option	None: Tool adjustment K: Hand-Bar adjustment

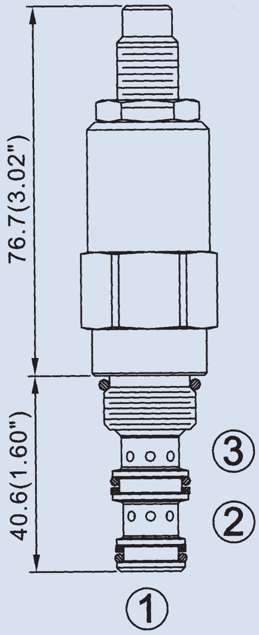
Specifications

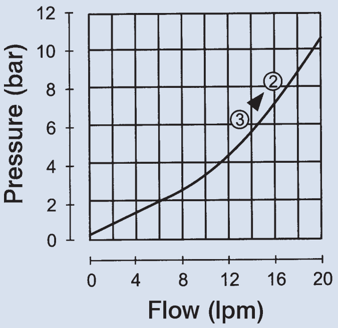
Model	Max. Pressure (bar)	Pressure Adjusting Range (bar)	Max. Flow (lpm)	Weight (kg)
VSQ-08	350	02: 4~20 04: 7~40 09: 11~89 16: 21~165	18	0.3
VSQ-10		02: 6~27 04: 14~55 10: 21~103 14: 28~145	38	0.3

Dimensions / Performance curves

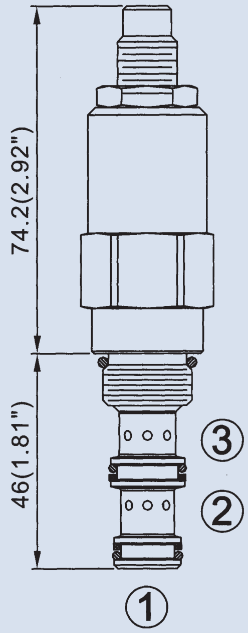
Unit: mm
(inch)

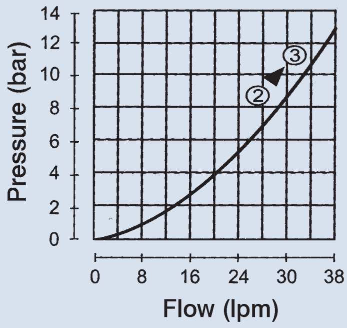
VSQ-08



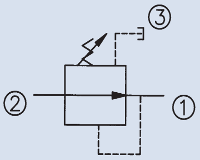


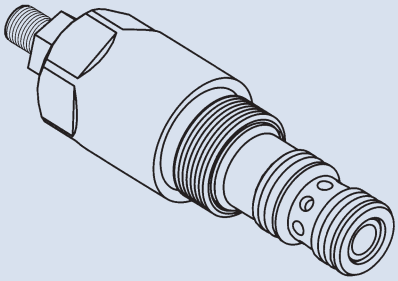
VSQ-10





CARTRIDGE PRESSURE REDUCING VALVE





How to order

VBP
VBR - 10 - ※ - ※
1 2 3 4

1 Model

2 Mounting size

Model	Size	Cavity	See Page
VBP-10	10	CS10-3N	163
VBP-12	12	CS12-3N	164

Model	Size	Cavity	See Page
VBR-02	T-11A	CST-11A	167
VBR-03	T-2A	CST-2A	166
VBR-06	T-17A	CST-17A	167
VBR-10	T-19A	CST-19A	167

3 Pressure adjusting range

4 Adjustment option None: Tool adjustment K: Hand-bar adjustment

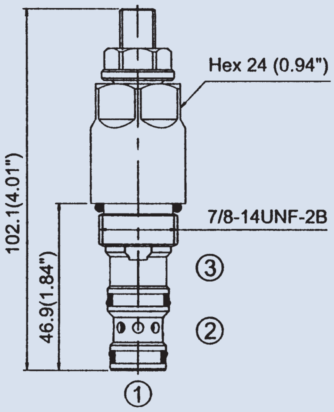
Specifications

Model	Max. Pressure (bar)	Pressure Adjusting Range (bar)	Max. Flow (lpm)	Weight (kg)
VBP-10	350	07: 6~70 14: 10~140 28: 70~280 35: 140~350	60	0.22
VBP-12			120	0.29
VBR-02		02: 4~20 04: 4~60 09: 4~100 20: 7~210	40	0.2
VBR-03			80	0.33
VBR-06			160	0.6
VBR-10		04: 4~60 09: 4~100 20: 7~210 31: 10~315	320	1.3

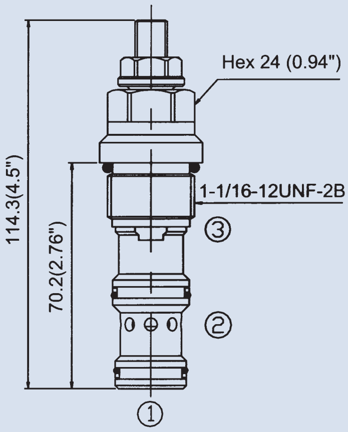
Dimensions

Unit: mm
(inch)

VBP-10



VBP-12

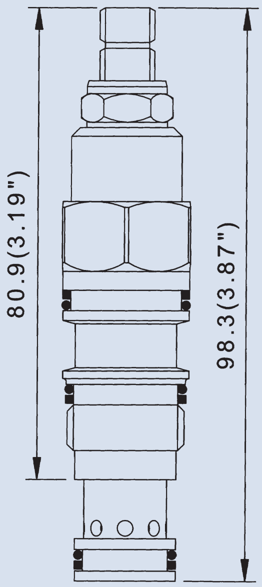


CARTRIDGE PRESSURE REDUCING VALVE

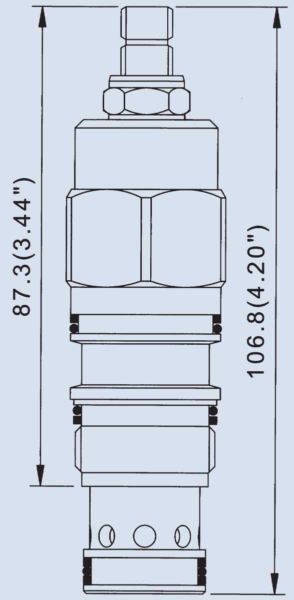
Dimensions

Unit: mm
(inch)

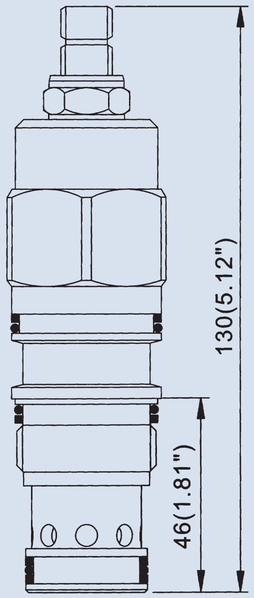
VBR-02



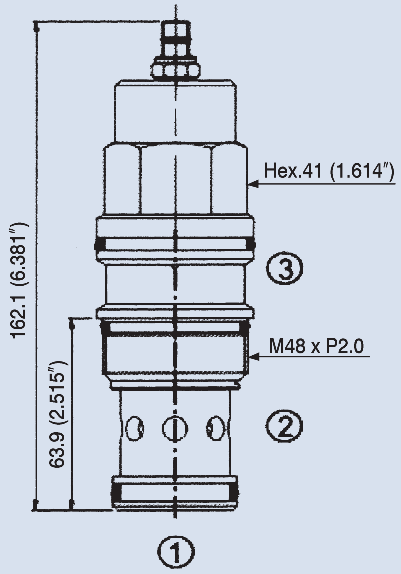
VBR-03



VBR-06

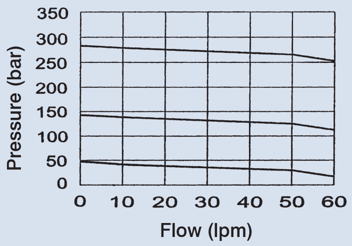


VBR-10

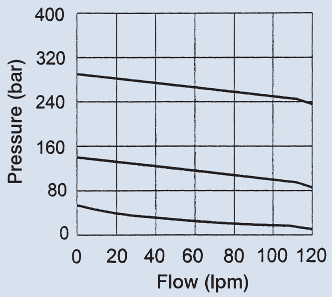


Performance curves

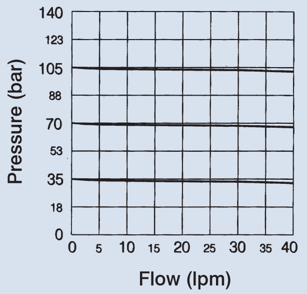
VBP-10



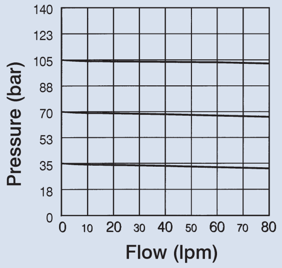
VBP-12



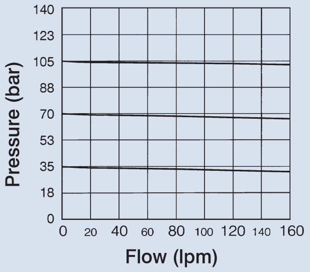
VBR-02



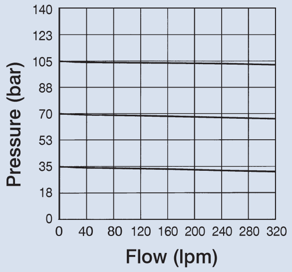
VBR-03



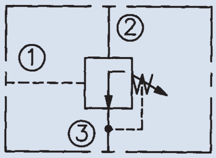
VBR-06



VBR-10



CARTRIDGE SEQUENCE VALVE



How to order

VS - **08** - **16** - **※**
1 2 3 4

1	Model				
2	Mounting size	08: Size 08	Cavity: CS08-3N (see page 163)	10: Size 10	Cavity: CS10-3N (see page 163)
3	Pressure adjusting range				
4	Adjustment option	None: Tool adjustment	K: Hand-bar adjustment		

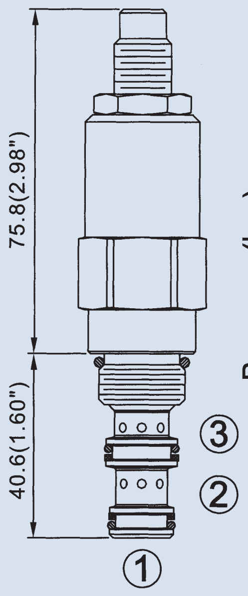
Specifications

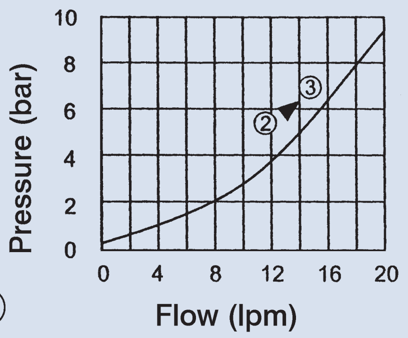
Model	Max. Pressure (bar)	Pressure Adjusting Range (bar)	Max. Flow (lpm)	Weight (kg)
VS-08	240	02: 4~20 04: 7~40 09: 11~89 16: 21~165	18	0.3
VS-10			37	0.35

Dimensions/Performance curves

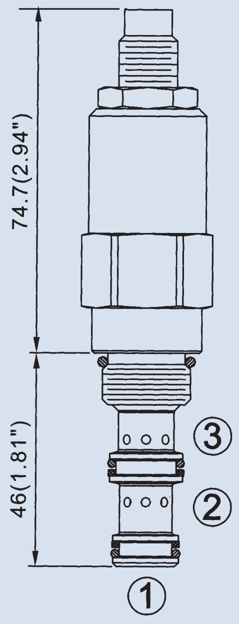
Unit: mm
(inch)

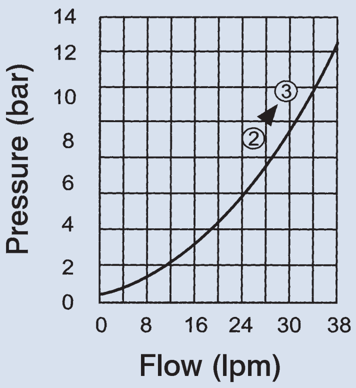
VS-08



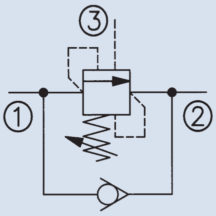


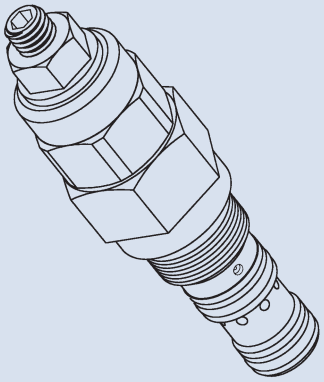
VS-10





CARTRIDGE COUNTERBALANCE VALVE





How to order

VCQ - 08 - 20 - ※ - 4A

1 2 3 4 5

1 Model

2 Mounting size

Model	Size	Cavity	See Page
VCQ-08	08	CS08-3S	164
VCQ-08N	08	CS08-3N	163
VCQ-10	10	CS10-3S	165

Model	Size	Cavity	See Page
VCQ-12	12	CS12-3S	165
VCQ-16	16	CS16-3S	165
VCQ-20	20	CS20-3S	165

3 Pressure adjusting range

Model	Pilot Ratio	Code	Pressure Adjusting Range (bar)
VCQ-08 VCQ-08N	4: 1	20	100~210
		35	200~350
VCQ-10	3: 1 8: 1	20	70~210
		35	140~350

Model	Pilot Ratio	Code	Pressure Adjusting Range (bar)
VCQ-12	4: 1 8: 1	20	70~210
		35	140~350
VCQ-16 VCQ-20	4: 1 8: 1	20	70~210
		35	140~350
		40	140~420

4 Adjustment option None: Tool adjustment K: Hand-bar adjustment

5 Pilot ratio 3A: 3:1 4A: 4:1 8A: 8:1

Specifications

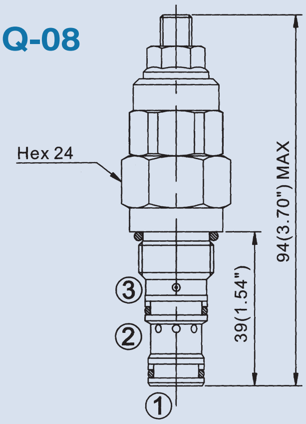
Model	Max. Pressure (bar)	Pressure Adj. Range (bar)	Pilot Ratio	Max. Flow (lpm)	Weight (kg)
VCQ-08	350	20: 100~210 35: 200~350	4: 1	30	0.19
VCQ-08N					
VCQ-10		20: 70~210 35: 140~350	3: 1 8: 1	60	0.22
VCQ-12			4: 1 8: 1	120	0.38
VCQ-16	420	20: 70~210 35: 140~350 40: 140~420	4: 1 8: 1	200	0.6
VCQ-20				320	0.87

CARTRIDGE COUNTERBALANCE VALVE

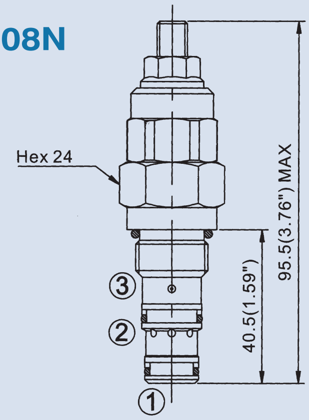
Dimensions

Unit: mm
(inch)

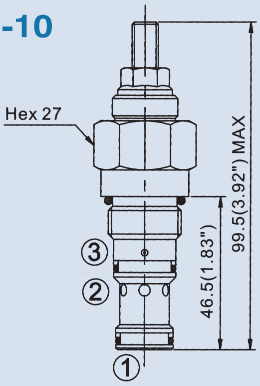
VCQ-08



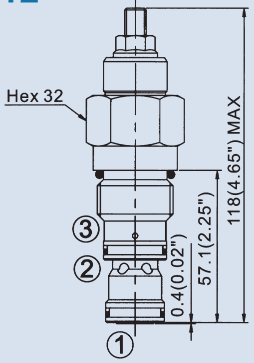
VCQ-08N



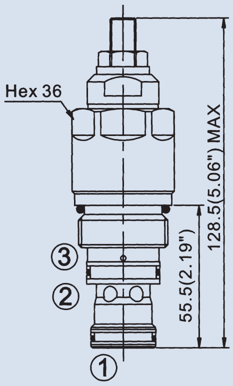
VCQ-10



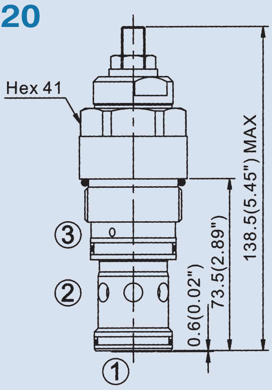
VCQ-12



VCQ-16

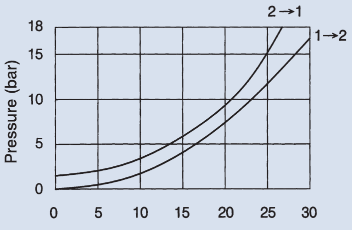


VCQ-20

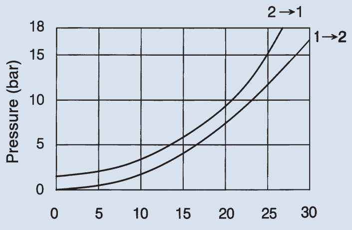


Performance curves

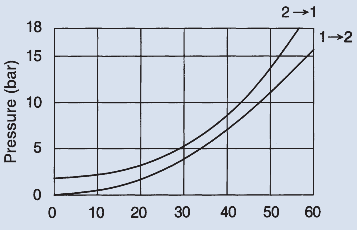
VCQ-08



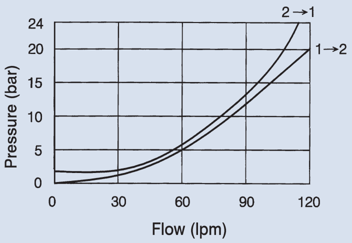
VCQ-08N



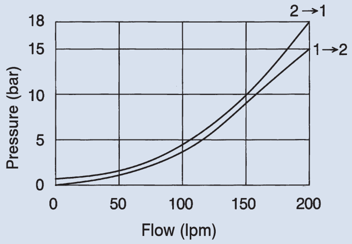
VCQ-10



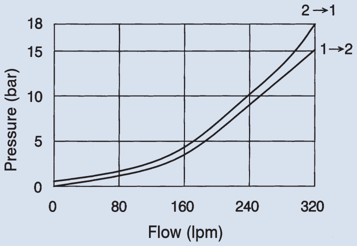
VCQ-12



VCQ-16

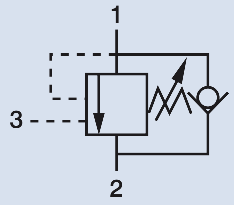


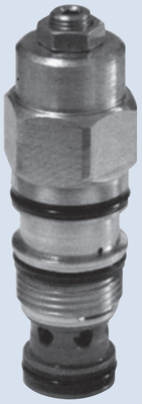
VCQ-20



CARTRIDGE COUNTERBALANCE VALVE

CONTROL PORT





How to order

VCB - 02 - 28 - 3A

VCB	02	28	3A
1	2	3	4

1 Model VCB: Overcentre valve pilot assisted relief with check

2 Mounting size

Model	Size	Cavity	See Page
VCB-02	T-11A	CST-11A	167
VCB-03	T-2A	CST-2A	166
VCB-06	T-17A	CST-17A	167
VCB-10	T-19A	CST-19A	167

3 Pressure adjusting range

Check Spring Pressure 1.8 bar

Pilot Ratio	Code	Pressure Adjusting Range (bar)
3: 1	10	30~105
	28	70~280
4.5: 1	17	70~175
10: 1	35	140~350

Check Spring Pressure 0.3 bar

Pilot Ratio	Code	Pressure Adjusting Range (bar)
3: 1	25	25~105
	70	70~280
4.5: 1	80	70~175
10: 1	14	140~350

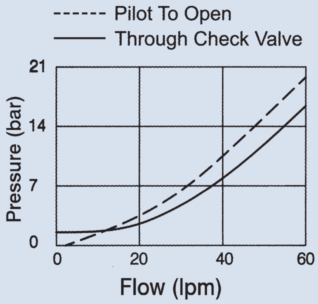
4 Pilot ratio 3A: 3:1 4A: 4.5:1 10A: 10:1

Specifications

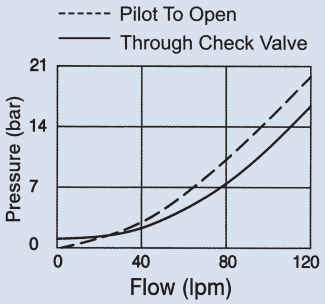
Model	Max. Pressure (bar)	Pressure Adj. Range (bar)	Pilot Ratio	Max. Flow (lpm)	Weight (kg)
VCB-02	350	10: 30~105 14: 140~350	3: 1 4.5: 1 10: 1	60	0.2
VCB-03		17: 70~175 25: 25~105		120	0.3
VCB-06		28: 70~280 35: 140~350		240	0.61
VCB-10		70: 70~280 80: 70~175		480	1.6

Performance curves

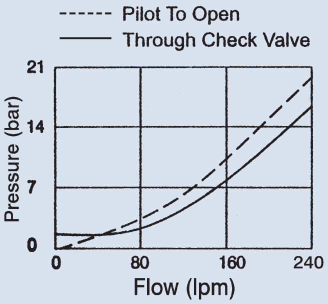
VCB-02



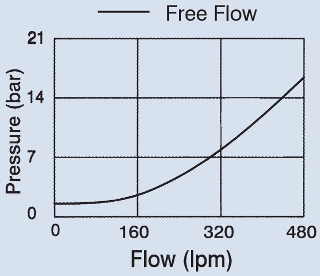
VCB-03



VCB-06



VCB-10

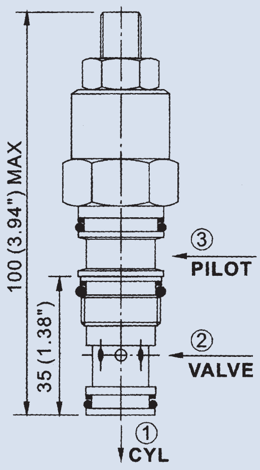


CARTRIDGE COUNTERBALANCE VALVE

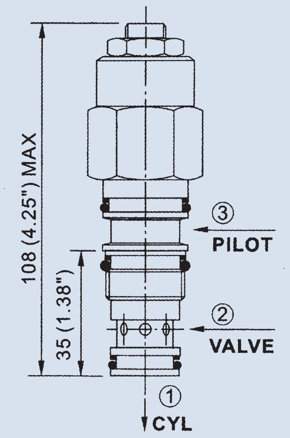
Dimensions

Unit: mm
(inch)

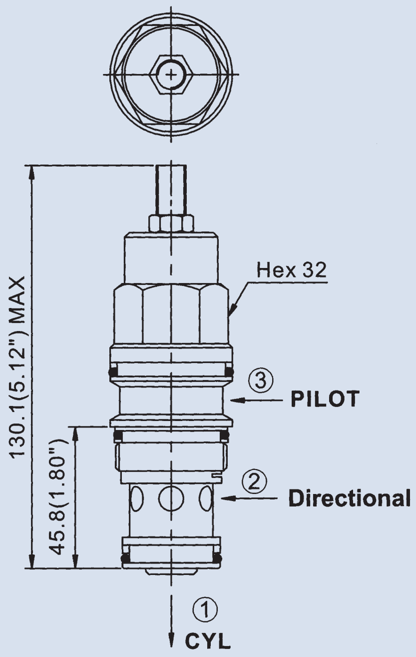
VCB-02



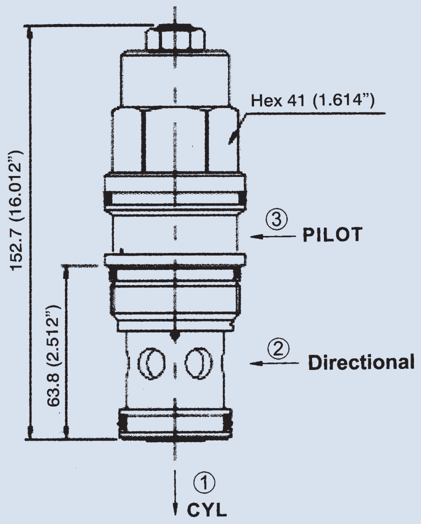
VCB-03



VCB-06

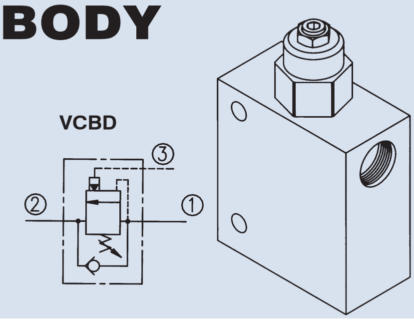


VCB-10

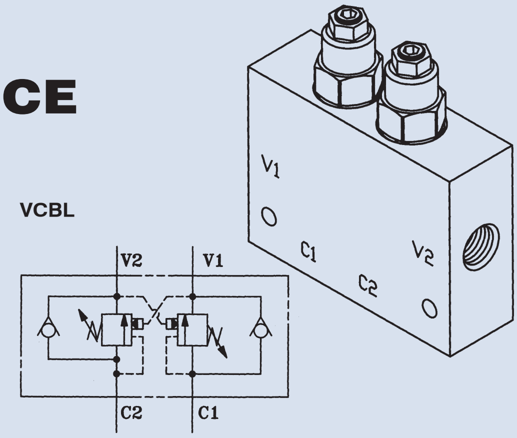


CARTRIDGE COUNTERBALANCE VALVE WITH BODY

VCBD



VCBL



How to order

VCBD
VCBL - 02 - 28 - A - 1P - 3A - AL
1 2 3 4 5 6 7

1 Model VCBD: Single valve VCBL: Double valve

2 Valve size (see model VCB)

3 Pressure adjusting range

Check Spring Pressure 1.8 bar

Pilot Ratio	Code	Pressure Adjusting Range (bar)
3: 1	10	30~105
	28	70~280
4.5: 1	17	70~175
10: 1	35	140~350

Check Spring Pressure 0.3 bar

Pilot Ratio	Code	Pressure Adjusting Range (bar)
3: 1	25	25~105
	70	70~280
4.5: 1	80	70~175
10: 1	14	140~350

4 Port size

VCBD-02	A: 1/4, B: 3/8	VCBD-03	A: 3/8, B: 1/2	VCBD-06	A: 3/4, B: 1
VCBL-02	A: 3/8, B: 1/2	VCBL-03	A: 3/4, B: 1/2	VCBL-06	A: 1, B: 3/4

5 Port thread 1P: PT 2N: NPT 3G: PF (G) 4A: SAE

6 Pilot ratio 3A: 3:1 4A: 4.5:1 10A: 10:1

7 Body material AL: Aluminum (normal) S: Steel

Specifications

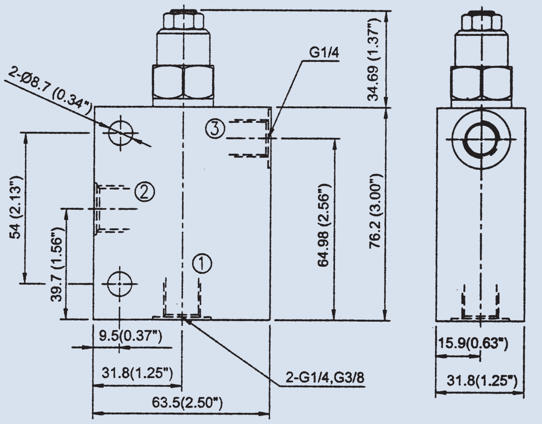
Model	Max. Pressure (bar)		Adjusting Pressure Range (bar)	Pilot Ratio	Max. Flow (lpm)	Weight (kg)	
	Aluminum Body	Steel Body				Aluminum Body	Steel Body
VCBD-02-※-AL (S)	240	350	10: 30~105 14: 140~350 17: 70~175 25: 25~105 28: 70~280 35: 140~350 70: 70~280 80: 70~175	3: 1 4.5: 1 10: 1	60	0.63	1.35
VCBD-03-※-AL (S)					120	0.93	2.1
VCBD-06-※-AL (S)					240	2.37	5.32
VCBL-02-※-AL (S)					60	1.09	2.2
VCBL-03-※-AL (S)					120	1.61	3
VCBL-06※-AL (S)					240	3.91	7.3

CARTRIDGE COUNTERBALANCE VALVE WITH BODY

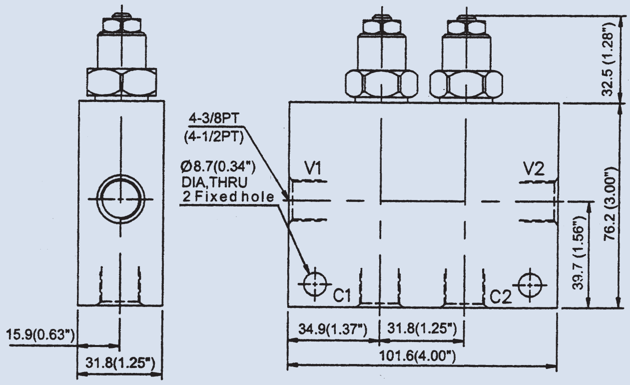
Dimensions

Unit: mm
(inch)

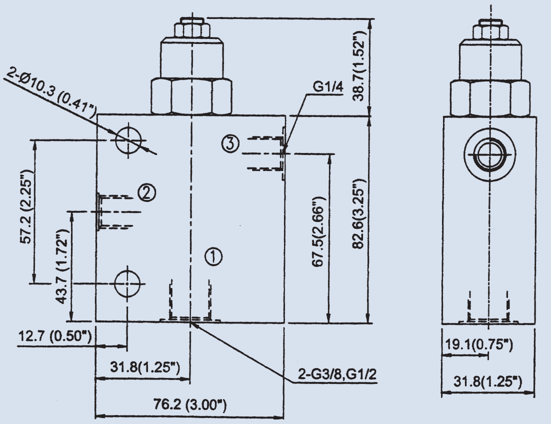
VCBD-02



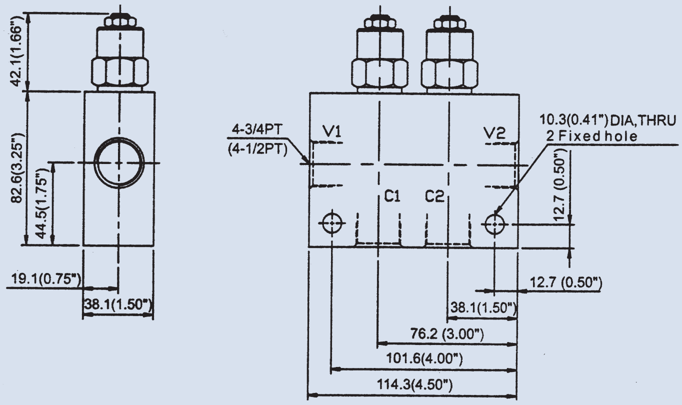
VCBL-02



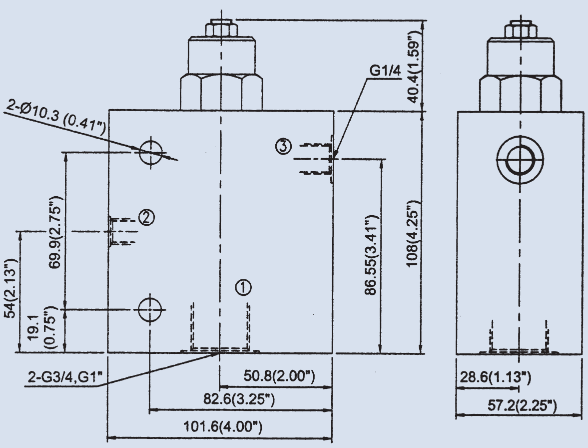
VCBD-03



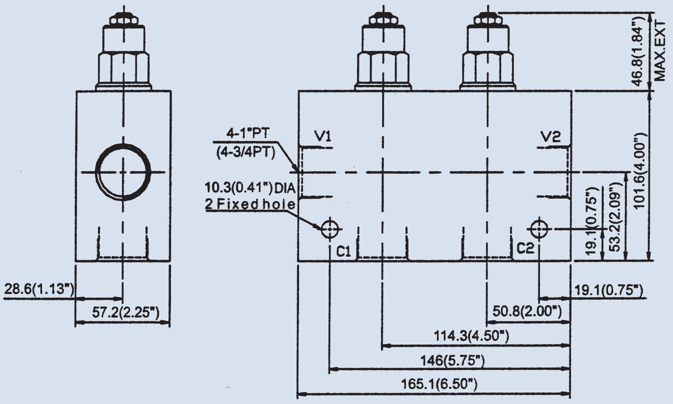
VCBL-03



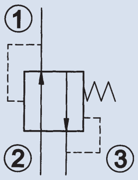
VCBD-06

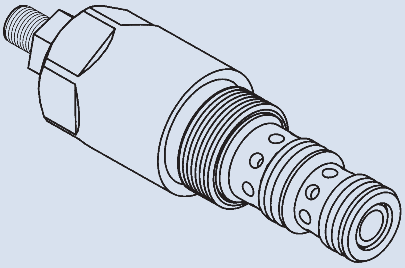


VCBL-06



CARTRIDGE BALANCE VALVE





How to order

VGR - 10 - 28 - ※
1 2 3 4

1	Model	
2	Mounting size	10: Size 10 Cavity: CS10-3N (see page 163) 12: Size 12 Cavity: CS12-3N (see page 164)
3	Pressure adjusting range	
4	Adjustment option	None: Tool adjustment K: Hand-bar adjustment

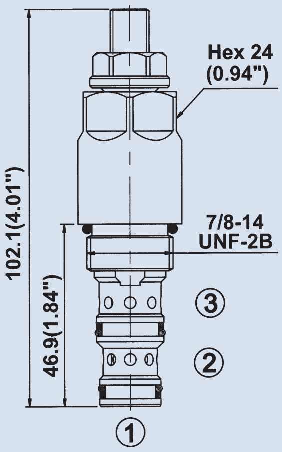
Specifications

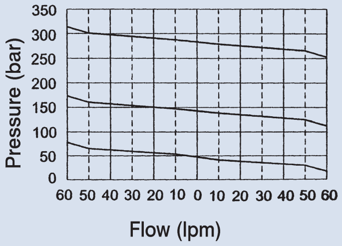
Model	Max. Pressure (bar)	Pressure Adjusting Range (bar)	Max. Flow (lpm)	Weight (kg)
VGR-10	350	07: 6~70 14: 10~140	60	0.22
VGR-12		28: 70~280 35: 140~350	120	0.29

Dimensions / Performance curves

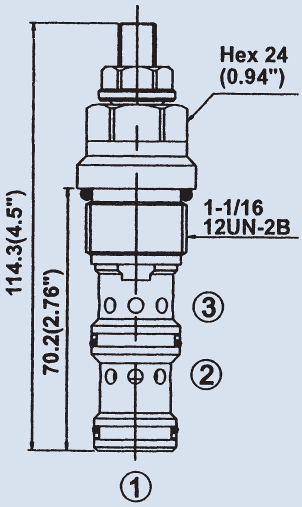
Unit: mm
(inch)

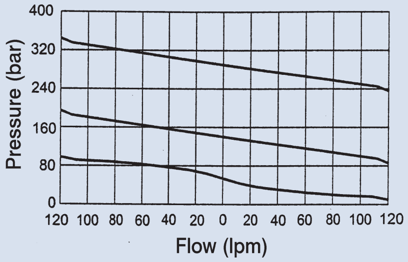
VGR-10



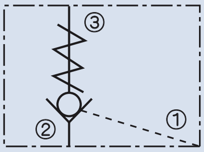


VGR-12





CARTRIDGE CHECK, PILOT TO OPEN



How to order

VPN - 08 - 30
1 2 3

1	Model				
2	Mounting size	08: Size 08	Cavity CS08-3N (see page 163)	10: Size 10	Cavity CS10-3N (see page 163)
3	Design no				

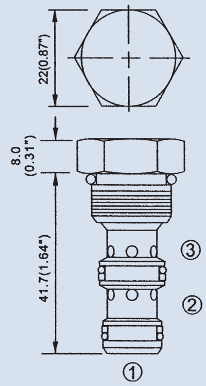
Specifications

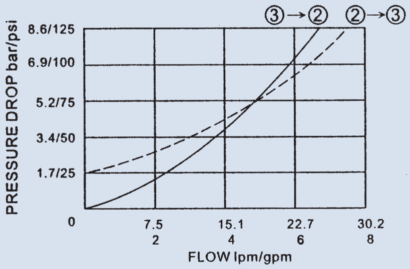
Model	Max. Pressure (bar)	Flow (lpm)	Weight (kg)
VPN-08	250	23	0.1
VPN-10		25	0.1

Dimensions / Performance curves

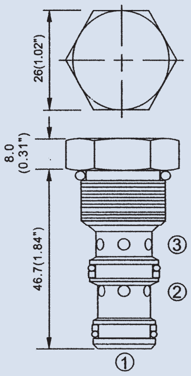
Unit: mm
(inch)

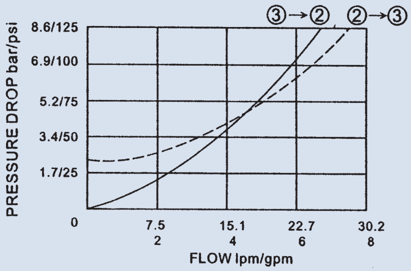
VPN-08



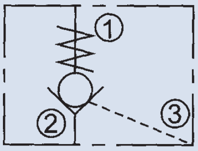


VPN-10





CARTRIDGE CHECK, PILOT TO OPEN



How to order

VCK - **03**
1 2

1	Model
2	Mounting size

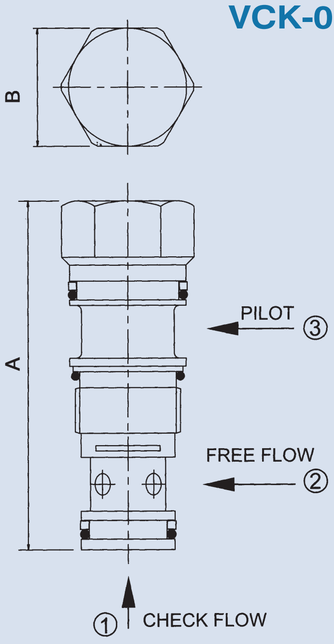
Model	Size	Cavity	See Page
VCK-02	T-11A	CST-11A	167
VCK-03	T-2A	CST-2A	166
VCK-06	T-17A	CST-17A	167
VCK-10	T-19A	CST-19A	167

Specifications

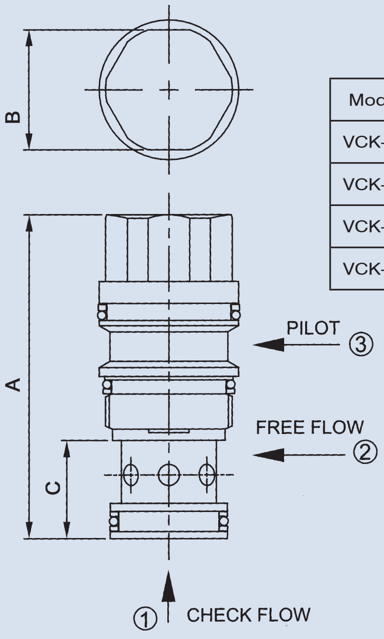
Model	Max. Pressure (bar)	Max. Flow (lpm)	Weight (kg)
VCK-02	315	60	0.13
VCK-03		120	0.23
VCK-06	350	200	0.53
VCK-10		460	1.18

Dimensions

VCK-02, 03



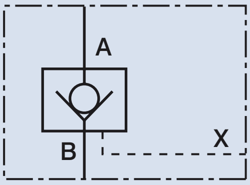
VCK-06, 10

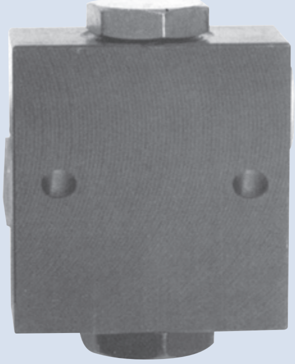


Unit: mm
(inch)

Model	A	B	C
VCK-02	65 (2.56")	22 (0.87")	-
VCK-03	70 (2.76")	29 (1.14")	-
VCK-06	91.8 (3.61")	34 (1.34")	27.8 (1.09")
VCK-10	121.7 (4.79")	42 (1.65")	39.7 (1.56")

CARTRIDGE CHECK, PILOT TO OPEN WITH BODY





How to order

VPC - **10** - **※** - **10**
1 2 3 4

1	Model
2	Port size 10: 1/2" 16: 1"
3	Port thread 1: PT 2: NPT 3: SAE 4: BSP
4	Design no

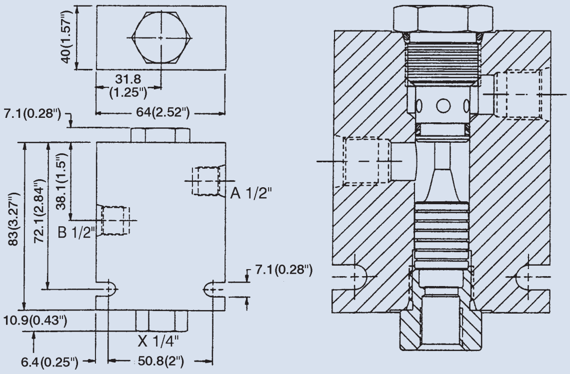
Specifications

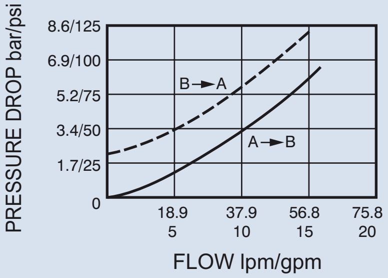
Model	Max. Pressure (bar)	Flow (lpm)	Weight (kg)
VPC-10	350	70	2.2
VPC-16		150	5.8

Dimensions / Performance curves

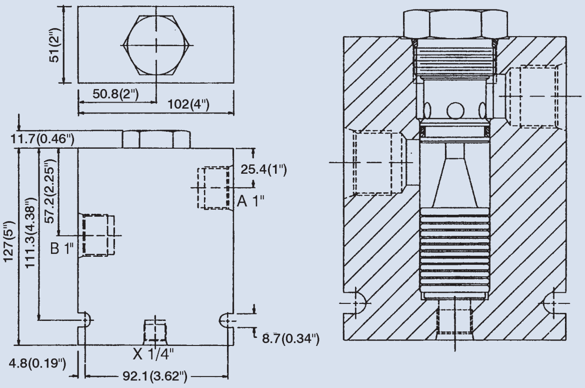
Unit: mm
(inch)

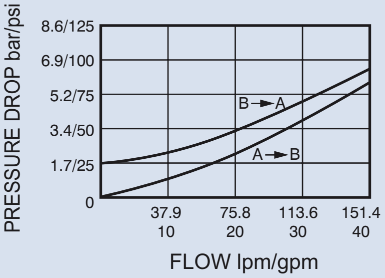
VPC-10



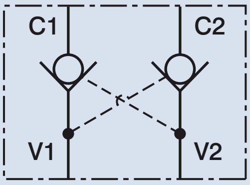


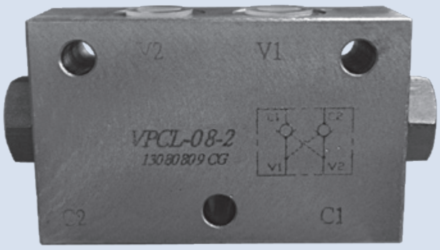
VPC-16





CARTRIDGE DOUBLE PILOT OPERATED CHECK VALVE WITH BODY





How to order

VPCL - **08** - ※
1 2 3

1	Model	
2	Port size	08: 3/8" 10: 1/2" 12: 3/4"
3	Port thread	1: PT 2: NPT 3: SAE 4: BSP

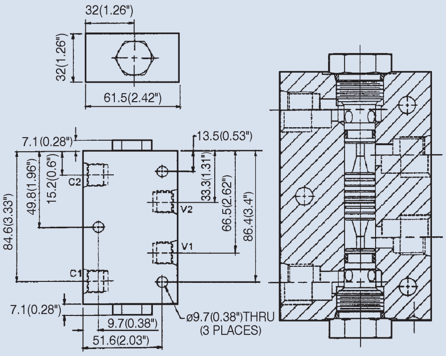
Specifications

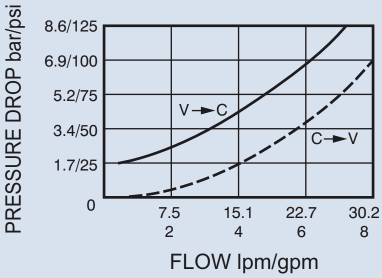
Model	Max. Pressure (bar)	Flow (lpm)	Weight (kg)
VPCL-08	350	30	2.5
VPCL-10		75	3.0
VPCL-12		95	7.5

Dimensions / Performance curves

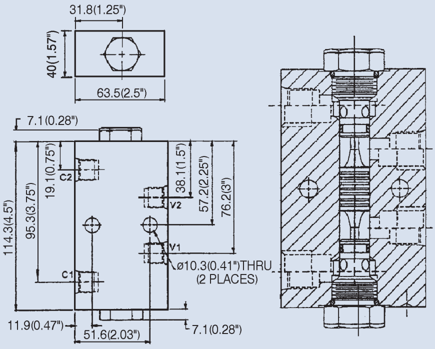
Unit: mm
(inch)

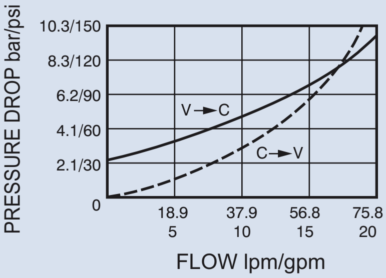
VPCL-08



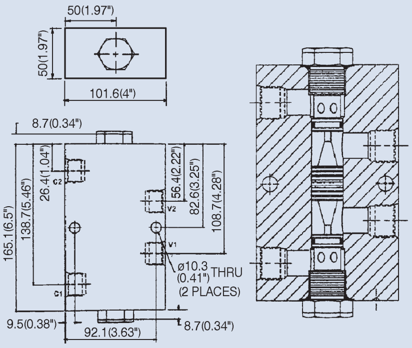


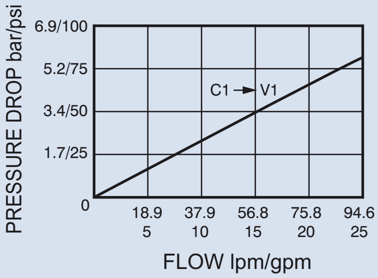
VPCL-10





VPCL-12





CARTRIDGE CHECK VALVE

How to order

VCV - 08 - 05 - 10
1 2 3 4

1 Model

2 Mounting size

Model	Size	Cavity	See Page
VCV-08	08	CS08-2N	163
VCV-10	10	CS10-2N	163
VCV-12	12	CS12-2N	163
VCV-16	16	CS16-2N	163
VCV-42	42	CS42-2N	163

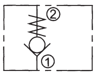
3 Cracking pressure

Model	Cracking Pressure	
VCV-08-※-10	0.5: 0.5 bar	50: 4 bar
VCV-10-※-10	0.5: 0.3 bar	50: 4 bar
VCV-12-※-10	0.5: 0.5 bar	50: 4 bar
VCV-16-※-10	0.5: 0.35 bar	50: 4 bar
VCV-42-※-10	0.5: 0.35 bar	50: 4 bar

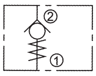
Model	Cracking Pressure
VCV-08-※-21	20: 2 bar
VCV-10-※-21	0.5: 0.3 bar 20: 1.7 bar 50: 3.9 bar
VCV-12-※-21	0.5: 0.5 bar 20: 1.8 bar 50: 3.8 bar

4 Control port

10 :



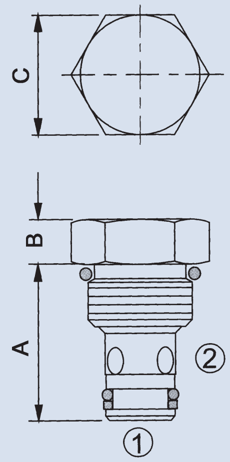
21 :



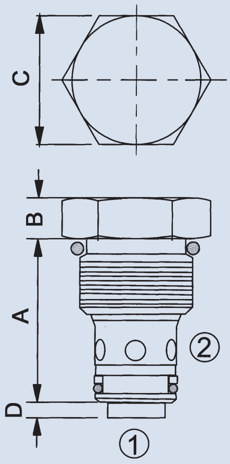
Specifications

Model	Max. Pressure (bar)	Flow (lpm)	Weight (kg)
VCV-08-※-10	350	30	0.06
VCV-10-※-10		75	0.08
VCV-12-※-10		94	0.18
VCV-16-※-10		150	0.26
VCV-42-※-10		380	0.43
VCV-08-※-21	250	30	0.06
VCV-10-※-21		50	0.1
VCV-12-※-21		100	0.2

Dimensions



Model	A	B	C
VCV-08-※-10	27.7 (1.09")	8 (0.31")	22 (0.87")
VCV-10-※-10	31.8 (1.25")	8 (0.31")	26 (1.02")
VCV-12-※-10	46 (1.81")	10 (0.39")	32 (1.26")
VCV-16-※-10	44.5 (1.75")	13 (0.51")	38 (1.5")
VCV-42-※-10	55.6 (2.19")	20.3 (0.83")	48 (1.89")
VCV-08-※-21	27.7 (1.09")	8 (0.31")	22.4 (0.88")



Unit: mm
(inch)

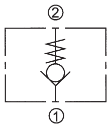
Model	A	B	C	D
VCV-10-※-21	34.5 (1.36")	8 (0.31")	26 (1.02")	2.3 (0.9)
VCV-12-※-21	48 (1.89")	10 (0.39")	32 (1.26")	4 (0.16")

CARTRIDGE CHECK VALVE

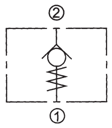
How to order

VCX
VCXE - 02 - 05
1 2 3

1 Model VCX



VCXE



2 Mounting size

Model	Size	Cavity	See Page
VCX (VCXE)-02	T-13A	CST-13A	167
VCX (VCXE)-03	T-5A	CST-5A	166

Model	Size	Cavity	See Page
VCX (VCXE)-06	T-16A	CST-16A	167
VCX (VCXE)-10	T-18A	CST-18A	167

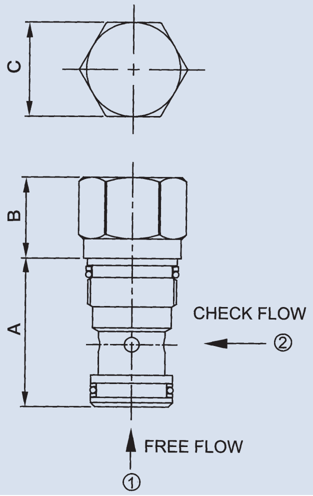
3 Cracking pressure 0.5: 0.35 bar 50: 5 bar

Specifications

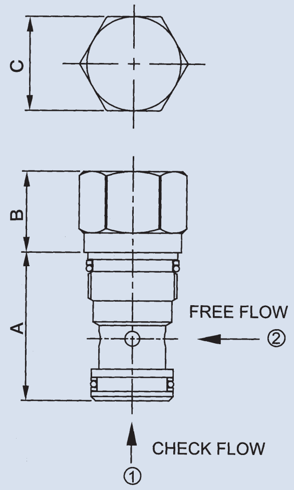
Model	Max. Pressure (bar)	Flow (lpm)	Weight (kg)
VCX-02	350	80	0.15
VCX-03		140	0.19
VCX-06		320	0.63
VCX-10		640	1.3
VCXE-02		60	0.15
VCXE-03		100	0.19
VCXE-06		210	0.63
VCXE-10		420	1.3

Dimensions

VCX



VCXE

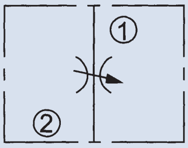


Unit: mm
(inch)

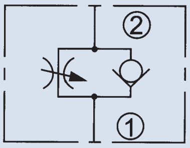
Model	A	B	C
VCX-02	34.9 (1.37")	19.1 (0.75")	22.2 (0.87")
VCX-03	41.3 (1.63")	17.5 (0.69")	28.6 (1.13")
VCX-06	61.9 (2.44")	24.6 (0.97")	31.8 (1.25")
VCX-10	79.5 (3.13")	30.2 (1.19")	41 (1.61")
VCXE-02	34.9 (1.37")	19.1 (0.75")	22.2 (0.87")
VCXE-03	41.3 (1.63")	17.5 (0.69")	28.6 (1.13")
VCXE-06	61.9 (2.44")	24.6 (0.97")	31.8 (1.25")
VCXE-10	79.5 (3.13")	30.2 (1.19")	41 (1.61")

CARTRIDGE FLOW CONTROL VALVE

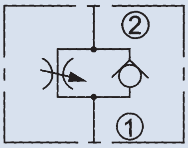
Control Port



VTV-※-※



VTC-※-※-20



VTC-※-※-22

How to order

VTV
VTC - 08 - ※ - ※
1 2 3 4

1 Model VTV: Without check VTC: With check

2 Mounting size

Model	Size	Cavity	See Page
VTV (VTC)-08	08	CS08-2N	163
VTV (VTC)-10	10	CS10-2N	163
VTV (VTC)-12	12	CS12-2N	163

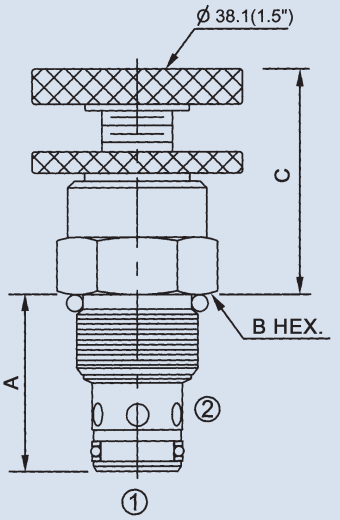
3 Adjustment option None: Tool adjustment K: Hand-bar adjustment

4 Control port 20, 22: For model VTC only

Specifications

Model	Max. Pressure (bar)	Max. Flow (lpm)	Weight (kg)
VTV-08	350	45	0.13
VTV-10		56	0.18
VTV-12		128	0.32
VTC-08-※-20		45	0.14
VTC-10-※-20	240	45	0.17
VTC-10-※-22		57	0.17
VTC-12-※-20		130	0.2

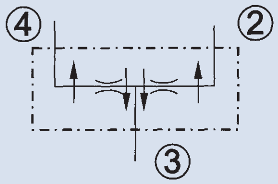
Dimensions



Unit: mm
(inch)

Model	A	B	C
VTV-08	27.7 (1.09")	22 (0.87")	40 (1.57")
VTV-10	31.8 (1.25")	25 (0.98")	40 (1.57")
VTV-12	46 (1.81")	32 (1.26")	49 (1.93")
VTC-08-※-20	27.7 (1.09")	22 (0.87")	40 (1.57")
VTC-10-※-20	31.8 (1.25")	26 (1.02")	40.1 (1.58")
VTC-10-※-22	34.5 (1.36")	26 (1.02")	40.1 (1.58")
VTC-12-※-20	46 (1.81")	32 (1.26")	47.9 (1.89")

CARTRIDGE FLOW DIVIDER



How to order

VFD - 10 - 45
1 2 3

1	Model	
2	Mounting size	10: Size 10 Cavity: CS10-4N (see page 164) 12: Size 12 Cavity: CS12-4N (see page 164) 16: Size 16 Cavity: CS16-4N (see page 164)
3	Flow range	

Model	Flow Range (lpm)
VFD-10-※	07: 2.3~7.6 15: 4.5~15 22: 6.8~22.7 30: 9~30 37: 11~37 45: 13.5~45
VFD-12-※	60: 30~60 70: 43~74 90: 53~90
VFD-16-※	90: 90 110: 110 150: 150 190: 194

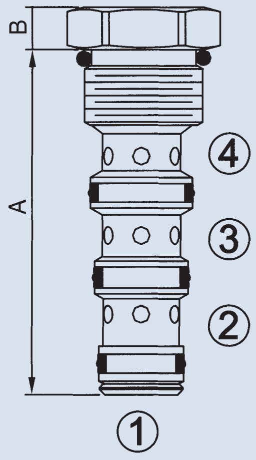
Division or combination ratio 50%-50%

Specifications

Model	Max. Pressure (bar)	Max. Flow (lpm)	Weight (kg)
VFD-10	350	45	0.15
VFD-12		90	0.3
VFD-16		194	0.4

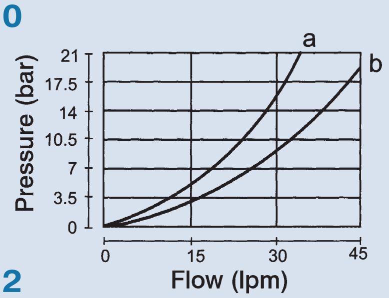
Dimensions / Performance curves

Unit: mm
(inch)

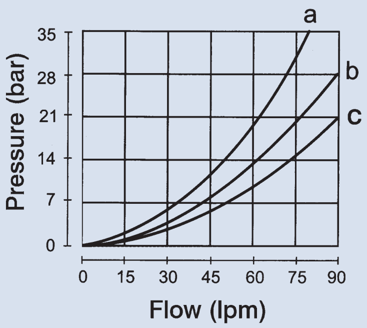


Model	A	B
VFD-10	64 (2.52")	7.9 (0.31")
VFD-12	98.6 (3.88")	9.5 (0.37")
VFD-16	104.6 (4.12")	12.5 (0.49")

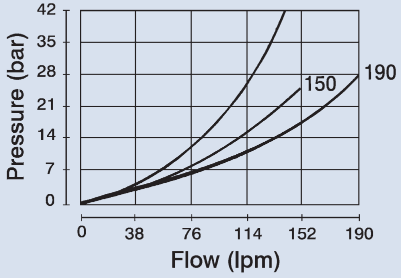
VFD-10



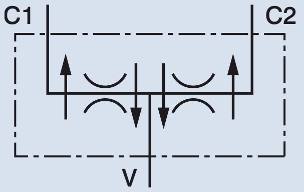
VFD-12

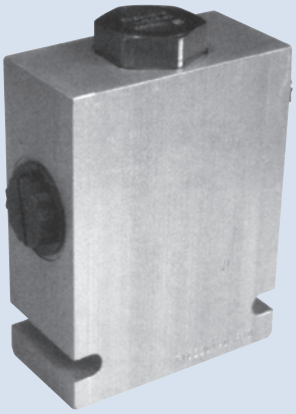


VFD-16



CARTRIDGE FLOW DIVIDER WITH BODY





How to order

VFD - 04 - 11 - ※

1	2	3	4

1 Model

2 Port size 03: 3/8" 04: 1/2" 05: 3/4" 06: 3/4" 08: 1"

3 Flow range

Model	Flow Range (lpm)					
VFD-03	07: 2.3~7.6	15: 4.5~15	22: 6.8~22.7	30: 9~30	37: 11~37	45: 13.5~45
VFD-04	11: 6.5~11	25: 10~25	38: 25~38			
VFD-05	60: 30~60	70: 43~74	90: 53~90			
VFD-06	90: 90	110: 110	150: 150			
VFD-08	90: 90	110: 110	150: 150	190: 194		

Division or combination ratio 50%-50%

4 Port thread 1P: PT 2N: NPT 3G: PF (G) 4A: SAE

Specifications

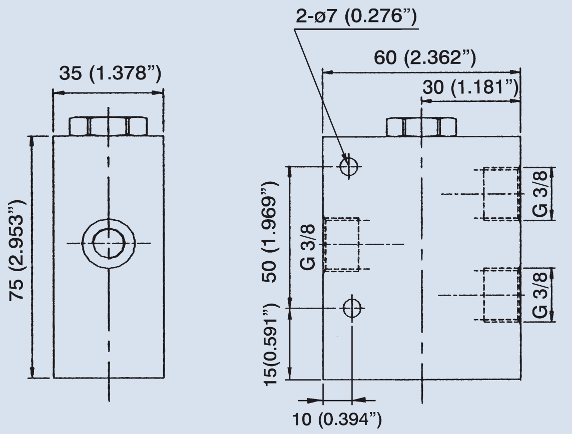
Model	Max. Pressure (bar)	Max. Flow (lpm)	Weight (kg)
VFD-03	250	45	0.6
VFD-04	210	38	0.8
VFD-05	250	90	2.05
VFD-06		150	2
VFD-08		194	2

CARTRIDGE FLOW DIVIDER WITH BODY

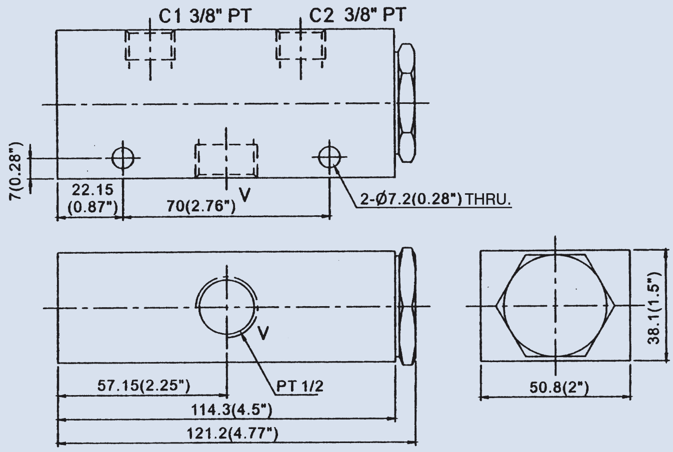
Dimensions

Unit: mm
(inch)

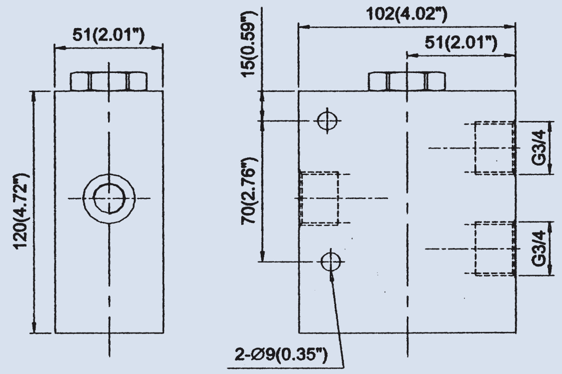
VFD-03



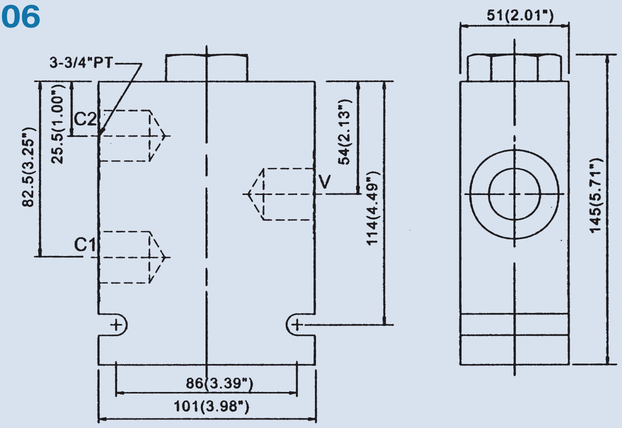
VFD-04



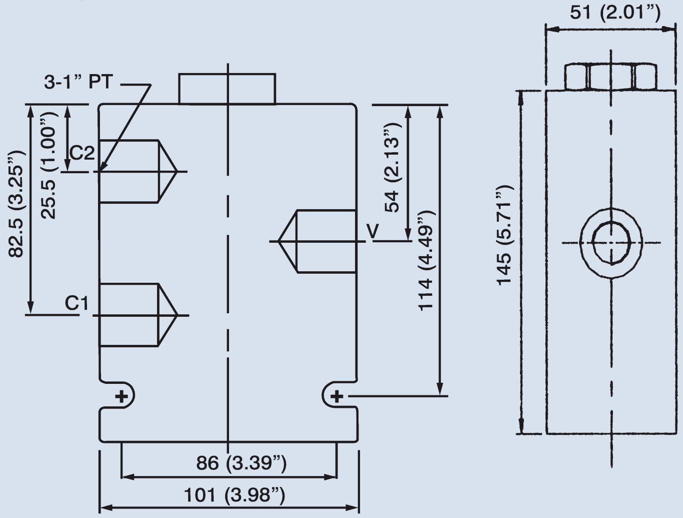
VFD-05



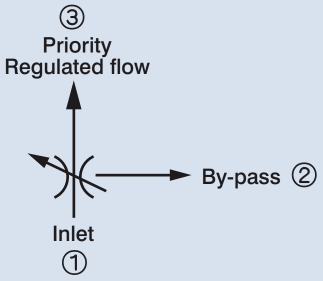
VFD-06



VFD-08



CARTRIDGE PRIORITY FLOW DIVIDER



How to order

VF - 10 - ※
1 2 3

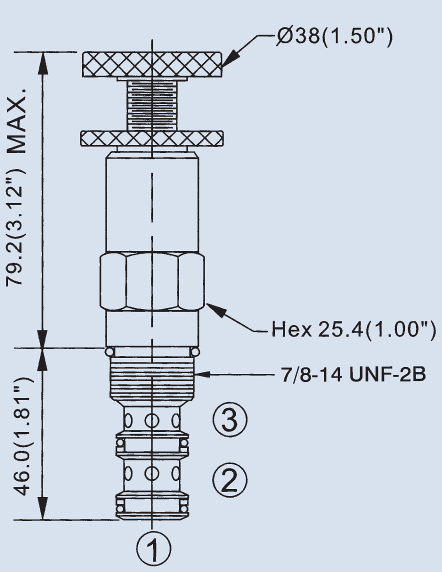
1	Model	
2	Mounting size	10: Size 10 Cavity CS10-3N (see page 163) 12: Size 12 Cavity CS12-3N (see page 164)
3	Adjustment option	None: Tool adjustment K: Hand-bar adjustment

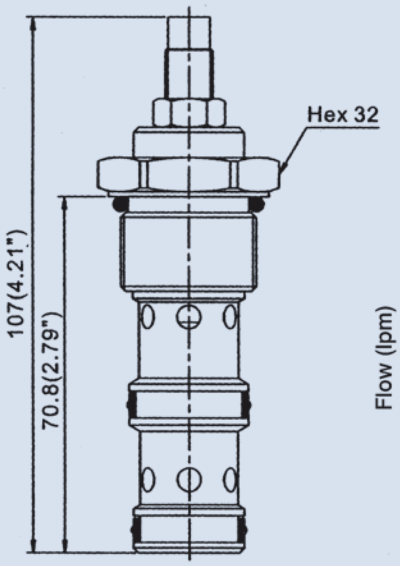
Specifications

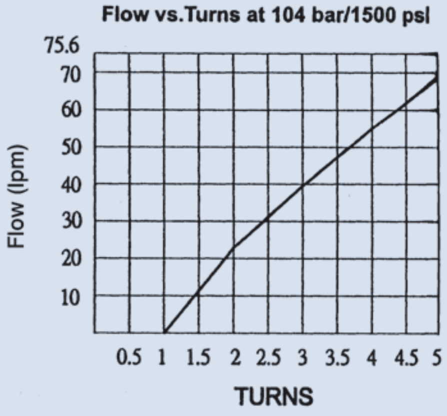
Model	Max. Pressure (bar)	Max. Flow (lpm)	Weight (kg)
VF-10	210	57	0.24
VF-12	240	75	0.4

Dimensions

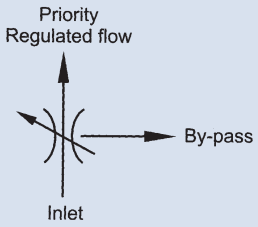
Unit: mm
(inch)







CARTRIDGE PRIORITY FLOW DIVIDER



How to order

VF - 50 - 30 - T
1 2 3

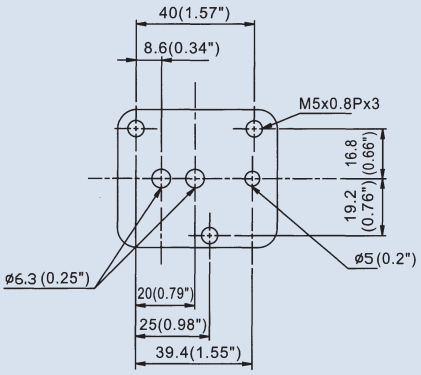
1	Model		
2	Flow adjusting range	15: 0~16 lpm	30: 0~32 lpm
3	Mounting type	T: Thread connecting	G: Sub-plate mounting

Specifications

Model	Max. Pressure (bar)	Max. Flow (lpm)	Weight (kg)
VF-50	248	49	0.75

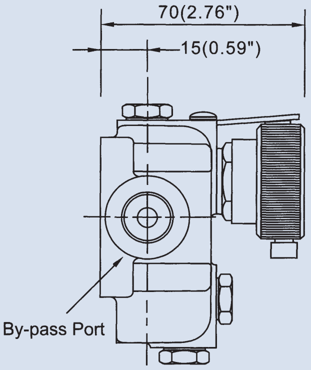
Dimensions

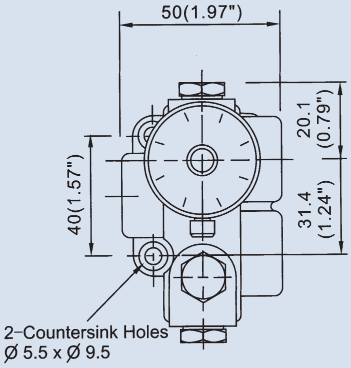
SUBPLATE

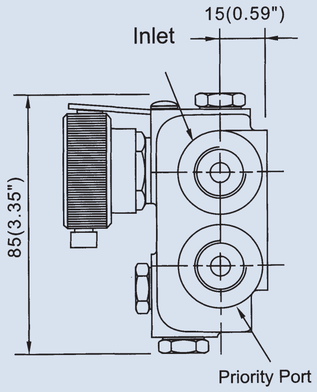


Unit: mm
(inch)

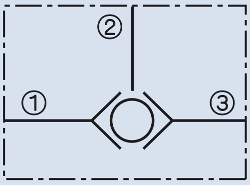
DIMENSIONS







CARTRIDGE SHUTTLE VALVE



How to order

VLS - 04
1 2

1	Model	
2	Mounting size	04: Size 04 Cavity CS04 (see page 163) 08: Size 08 Cavity CS08-3N (see page 163) 10: Size 10 Cavity CS10-3N (see page 163)

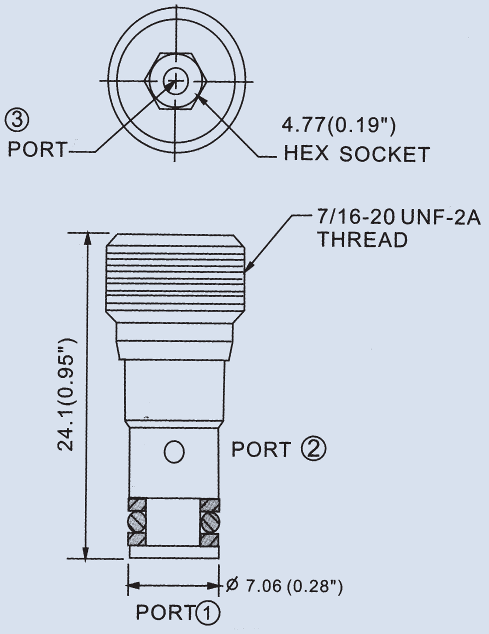
Specifications

Model	Max. Pressure (bar)	Max. Flow (lpm)	Weight (kg)
VLS-04	350	6	0.01
VLS-08		19	0.07
VLS-10		30	0.09

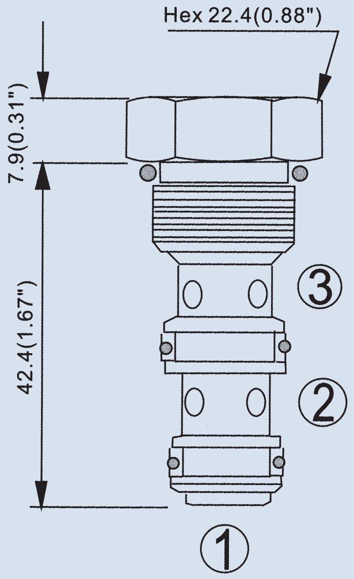
Dimensions

Unit: mm
(inch)

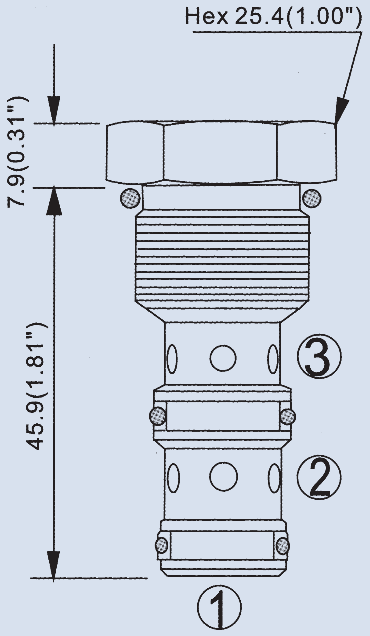
VLS-04



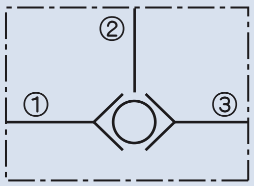
VLS-08



VLS-10



SHUTTLE VALVE



How to order

SH - 02 G
1 2 3

1	Model
2	Valve size 02: 1/4" 03: 3/8"
3	Mounting type G: Sub-plate mounting T: Thread connection

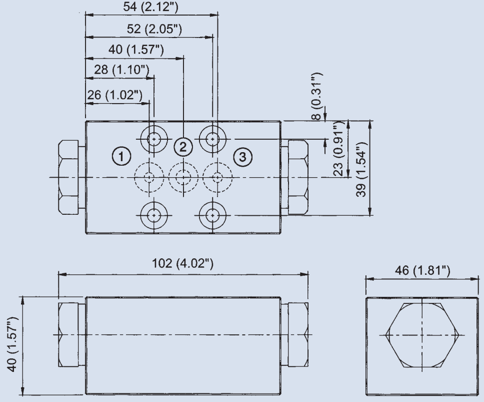
Specifications

Model		Max. Pressure (bar)	Max. Flow (lpm)	Weight (kg)	
Sub-Plate Mounting	Thread Connection			SH-02G	SH-02T SH-03T
SH-02G	SH-02T	250	20	1.08	0.2
	SH-03T		25		0.8

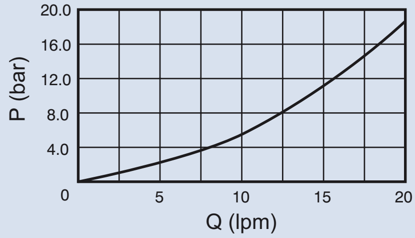
Dimensions / Performance curves

Unit: mm
(inch)

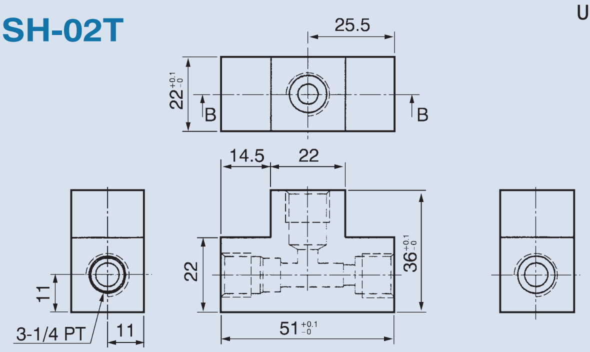
SH-02G



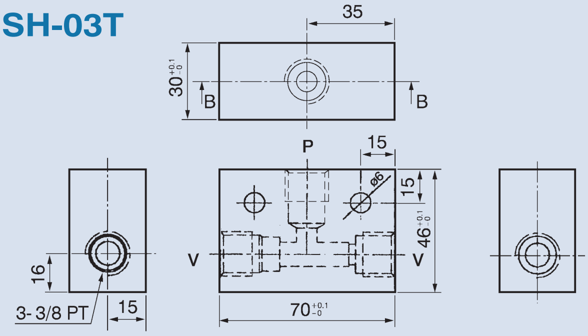
Typical Pressure Drop



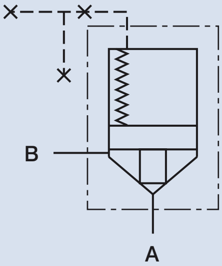
SH-02T



SH-03T



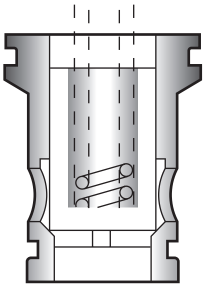
LOGIC VALVE



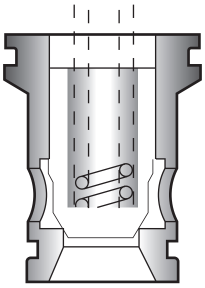
How to order

LCV - 16 - 05 - E - NC
1 2 3 4 5

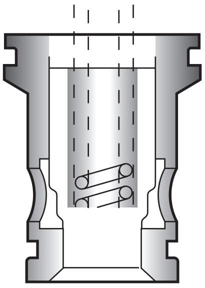
1	Model	
2	Valve size	
3	Cracking pressure	05: 0.5 bar 20: 2 bar 50: 5 bar
4	Valve type	B: Pressure control E: Directional / flow control D: Directional / flow control with cushion
5	Control type	NC: Normal closed NO: Normal open



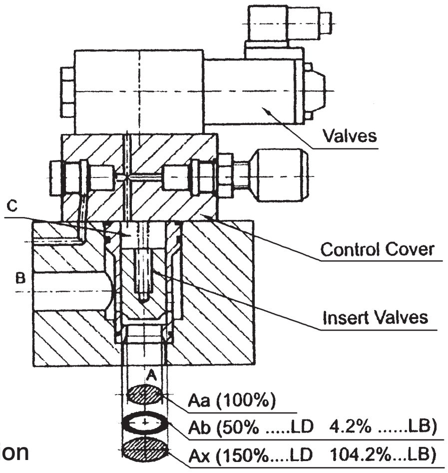
B: Pressure

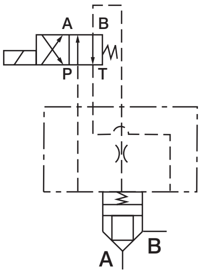


E: Directional / Flow



D: Directional / Flow With Cushion





Specifications

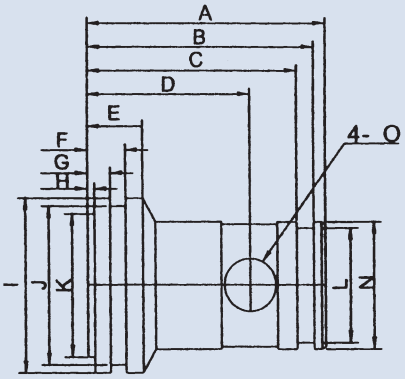
Model	Max. Flow (lpm)	Rated Flow (lpm)	Max. Pressure (bar)	Cracking Pressure (bar)	Ratio of Poppet Area	Weight (kg)
LCV-16	200	130	315	05: 0.5 20: 2 50: 5	2 : 1	0.18
LCV-20	310	230				0.32
LCV-25	450	350				0.43
LCV-32	700	500				0.87
LCV-40	1100	850				1.59
LCV-50	1700	1400				2.74
LCV-63	2800	2100				5.80

LOGIC VALVE

Dimensions / Performance curves

LCV

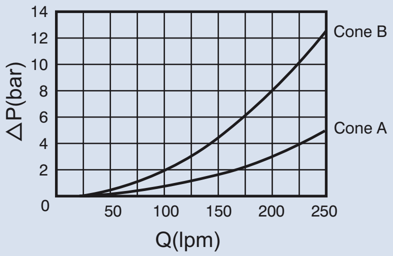
Unit: mm
(inch)



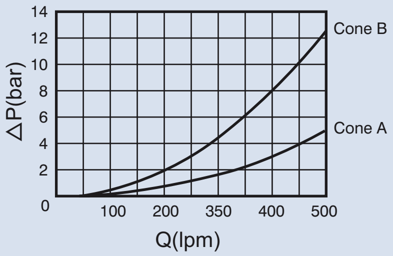
Size	A	B	C	D	E	F	G	H	I	J	K	L	N	O
16	56 (2.20")	52 (2.05")	46.5 (1.83")	37 (1.46")	16 (0.63")	10.5 (0.41")	7 (0.28")	2.4 (0.09")	32 (1.26")	29.2 (1.15")	23.7 (0.93")	22.2 (0.87")	25 (0.98")	10 (0.39")
20	64 (2.52")	61 (2.40")	53.5 (2.11")	40 (1.57")	14 (0.55")	11.4 (0.45")	6 (0.24")	2.3 (0.09")	40 (1.57")	35 (1.38")	26 (1.02")	25 (0.98")	30 (1.18")	11 (0.43")
25	72 (2.83")	69 (2.72")	62.6 (2.46")	43 (1.69")	16 (0.63")	13.5 (0.53")	8.8 (0.35")	1.8 (0.07")	45 (1.77")	40.8 (1.61")	37 (1.46")	29.8 (1.17")	34 (1.34")	14 (0.55")
32	85 (3.35")	81 (3.19")	74.6 (2.94")	58 (2.28")	20 (0.79")	13.6 (0.54")	8 (0.31")	2.4 (0.09")	60 (2.36")	55 (2.17")	47.5 (1.87")	40.8 (1.61")	45 (1.77")	18 (0.71")
40	105 (4.13")	97 (3.82")	90.6 (3.57")	66.5 (2.62")	24 (0.94")	15.6 (0.61")	10 (0.39")	2.4 (0.09")	75 (2.95")	70 (2.76")	62 (2.44")	50.8 (2")	55 (2.17")	23.5 (0.93")
50	122 (4.8")	114 (4.49")	107.6 (4.24")	83 (3.27")	20 (0.79")	14.6 (0.57")	9 (0.35")	2.4 (0.09")	90 (3.54")	85 (3.35")	76.8 (3.02")	63.8 (2.51")	68 (2.68")	28 (1.10")
63	155 (6.10")	145.5 (5.73")	134 (5.28")	115 (4.53")	27 (1.06")	21 (0.83")	12 (0.47")	4.6 (0.18")	120 (4.72")	110 (4.33")	94 (3.7")	80 (3.15")	90 (3.54")	25 (0.98")

Test conditions: Without spring
Oil temperature: 50°   Viscosity: 35 cst

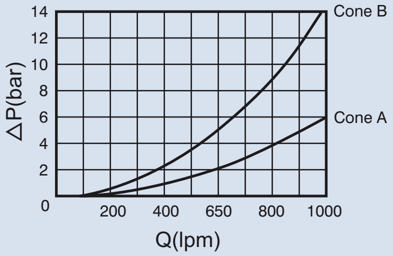
LCV-16



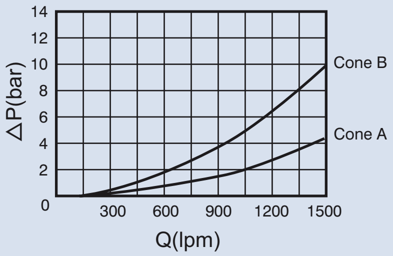
LCV-25



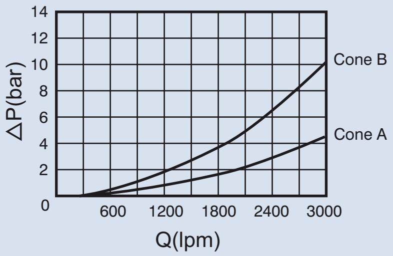
LCV-32



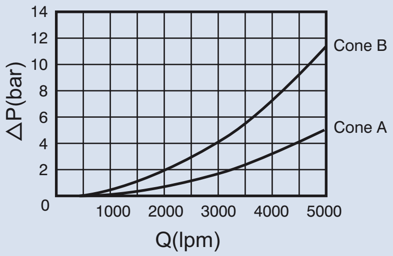
LCV-40



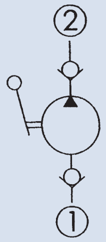
LCV-50

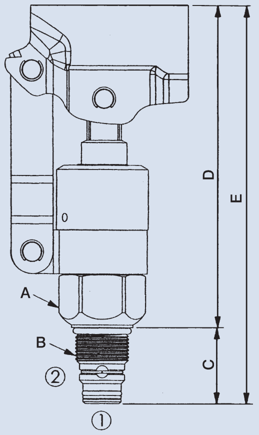


LCV-63



CARTRIDGE HAND PUMP





How to order

HP - 10W - 20 - A - N

HP	10W	20	A	N
1	2	3	4	5

1	Model
2	Mounting size 10W: 10W-2 Cavity CS10-2N (see page 163) 16W: 16W-2 Cavity CS16-2N (see page 163)
3	Operation 20: Push to pressurize
4	Output cc/stroke 10W A: 7.4 B: 10.6 16W A: 21.3
5	N: Non-adjustable

※ Lever must be ordered separately. Code no: 7G YAG001 Length: 405 mm

Specifications

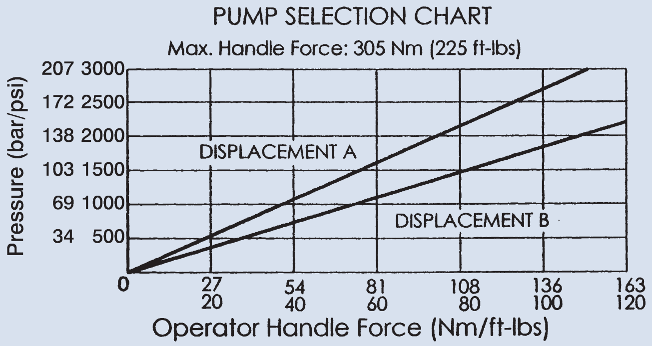
Model	Max. Pressure (bar)	Displacement Per Stroke (cc)		Installation Torque (nm)	Weight (kg)
		A	B		
HP-10W	210	7.4	10.6	35~45	0.83
HP-16W		21.3	-	60~70	1.35

Dimensions

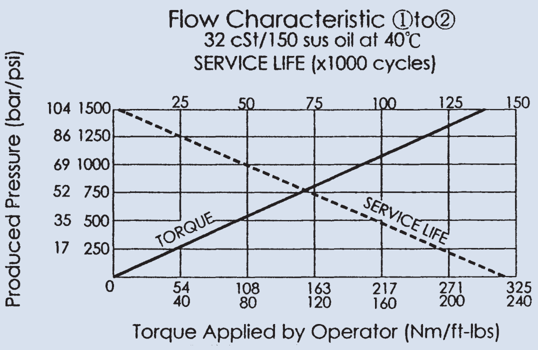
Model	Dimensions (mm)	B	Dimensions (mm)		
	A		C	D	E
HP-10W	25.4 Hex.	7/8"-14 UNF-2A	32	130	162
HP-16W	38 Hex.	1-5/16"-12 UNF-2A	44.5	144	189

Performance curves

HP-10W



HP-16W

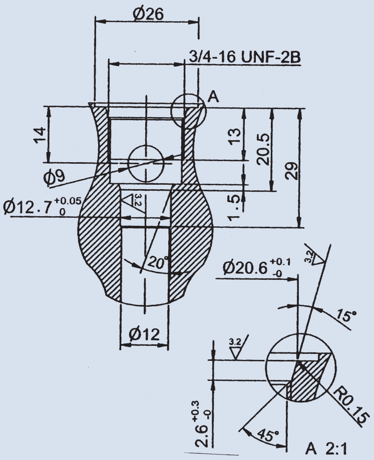


CAVITY DIMENSIONS FOR CARTRIDGE VALVE

Dimensions

Unit: mm
(inch)

CS08-2N



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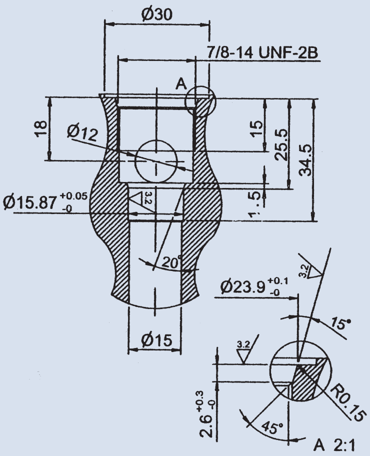
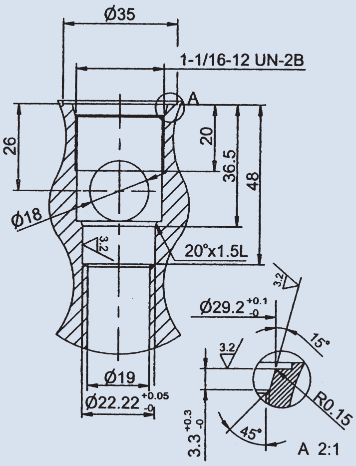
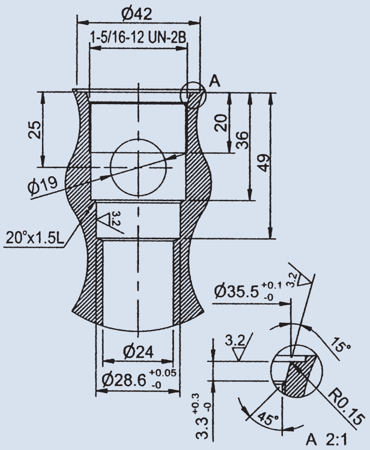


CS12-2N



CS16-2N



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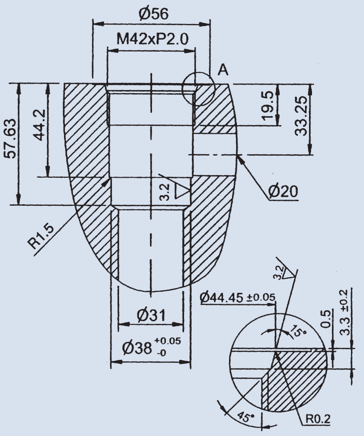
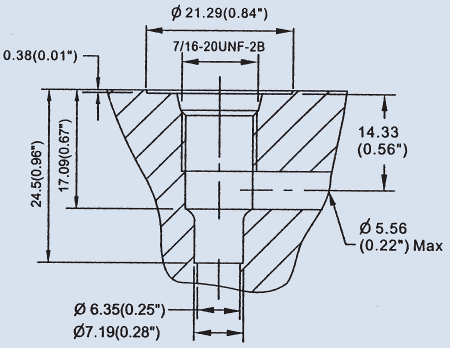
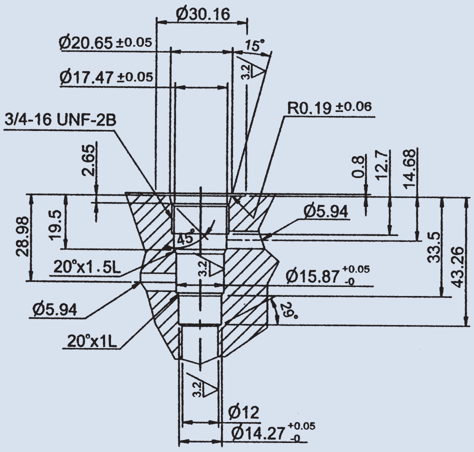


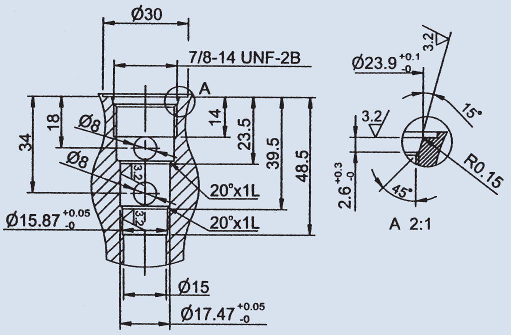
CS04



CS08-3N



CS10-3N

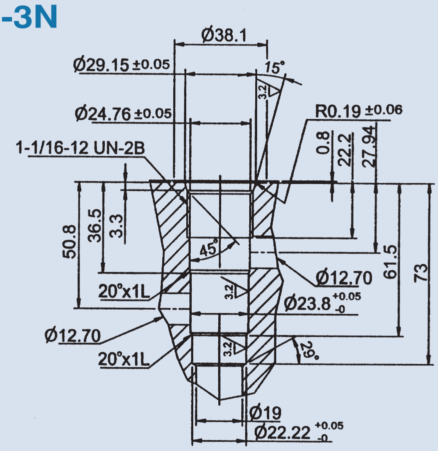


CAVITY DIMENSIONS FOR CARTRIDGE VALVE

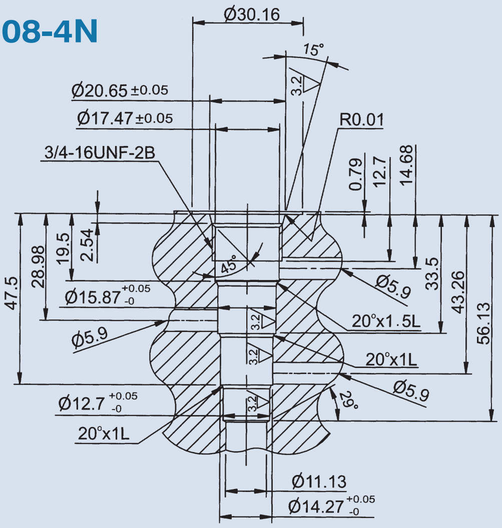
Dimensions

Unit: mm

CS12-3N



CS08-4N



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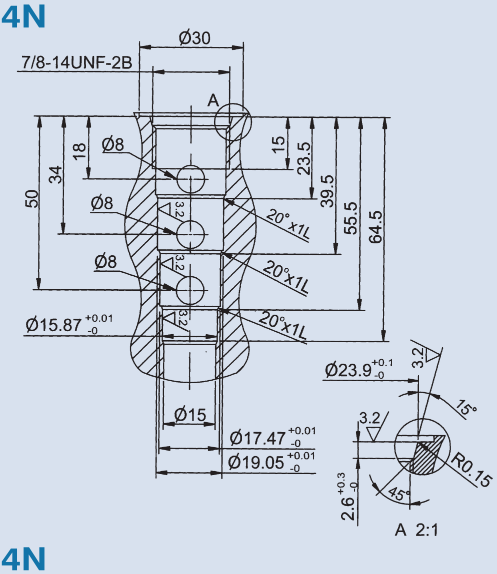

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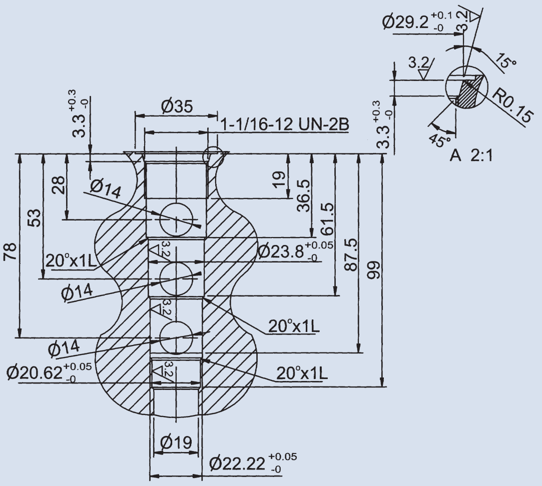
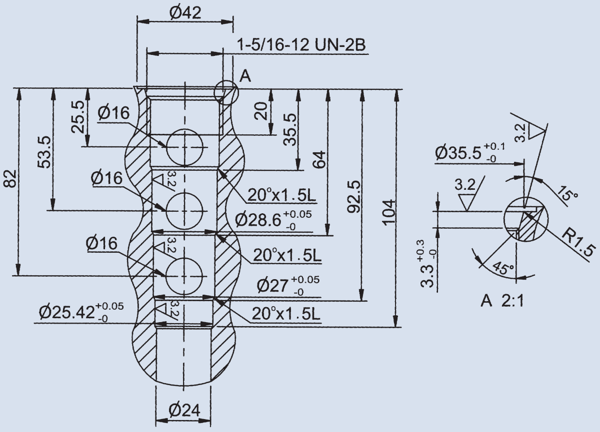
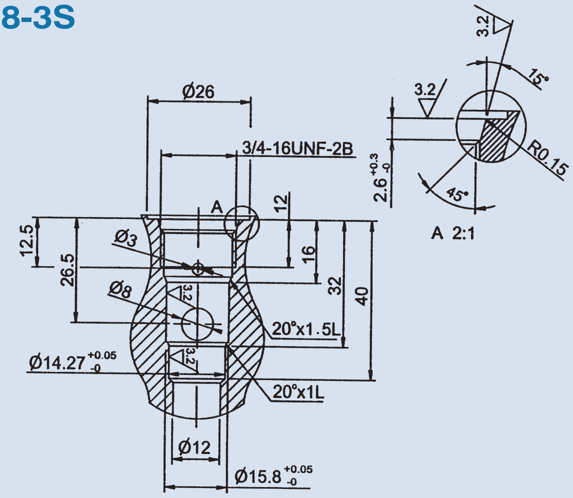


CS16-4N



CS08-3S

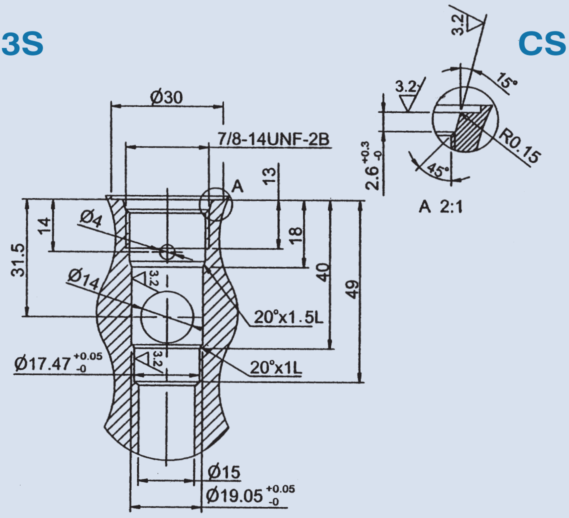


CAVITY DIMENSIONS FOR CARTRIDGE VALVE

Dimensions

Unit: mm

CS10-3S



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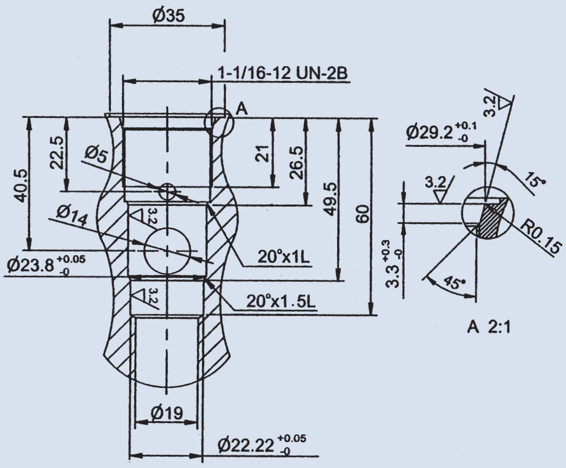
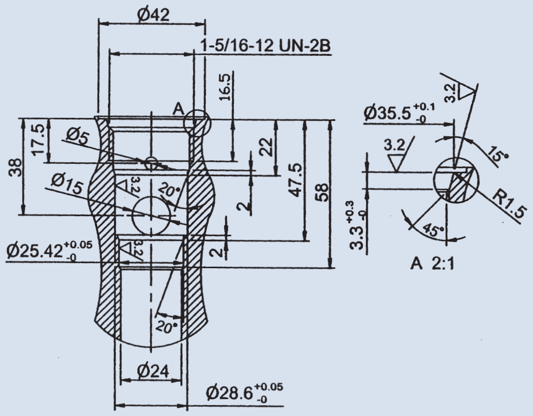
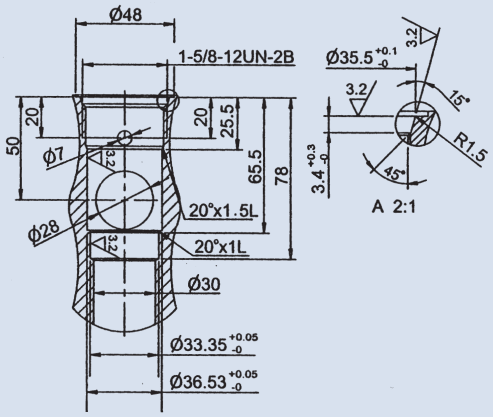


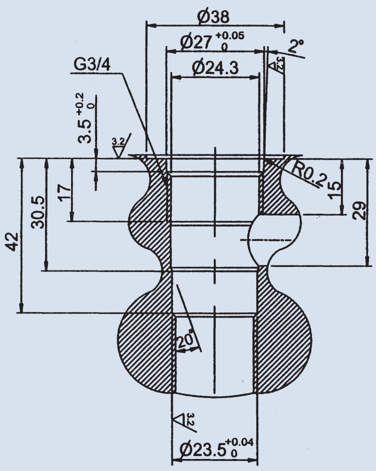
CS16-3S



CS20-3S



CSE017-2N



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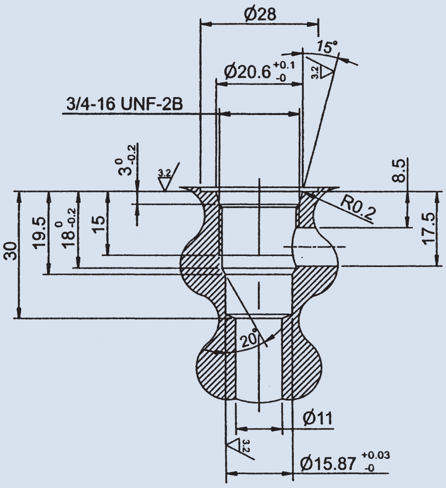
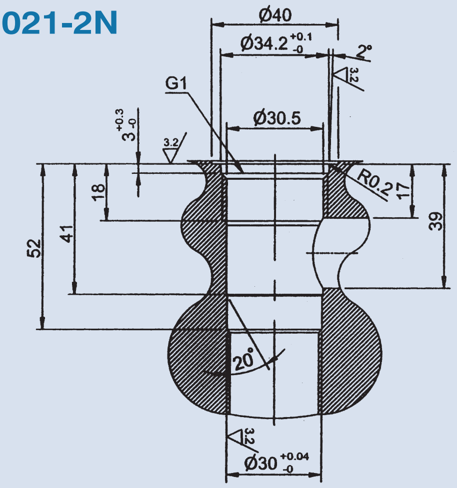


CAVITY DIMENSIONS FOR CARTRIDGE VALVE

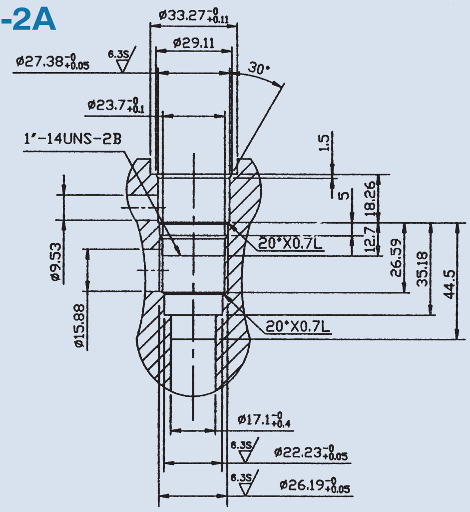
Dimensions

Unit: mm

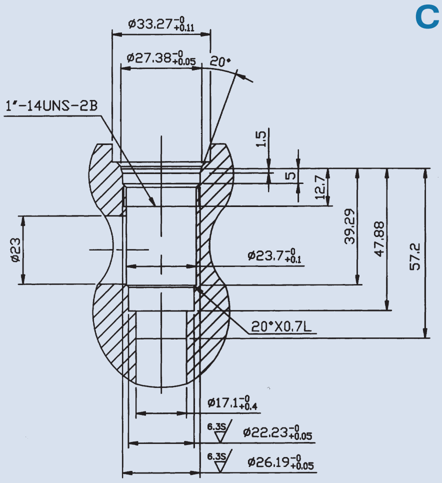
CSE021-2N



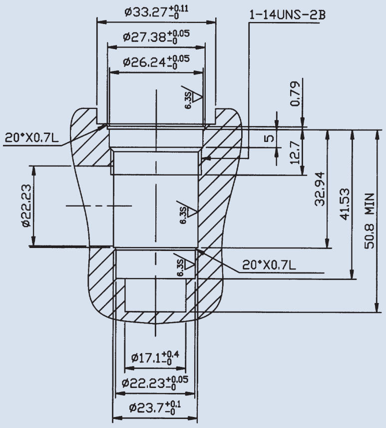
CST-2A



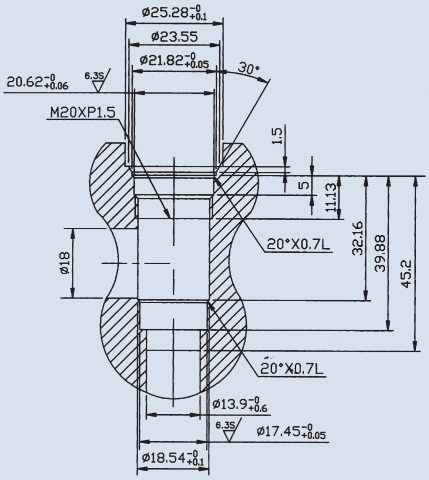
CST-3A



CST-5A



CST-10A

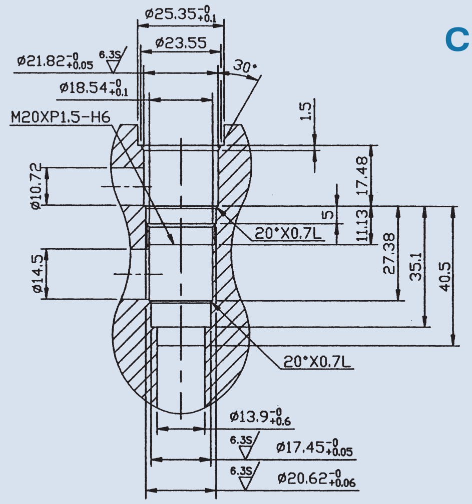


CAVITY DIMENSIONS FOR CARTRIDGE VALVE

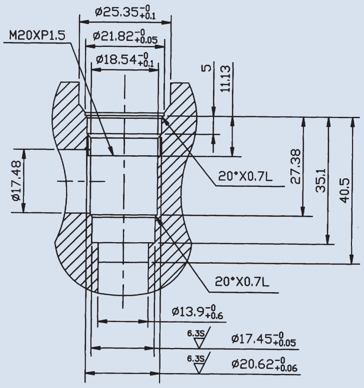
Dimensions

Unit: mm

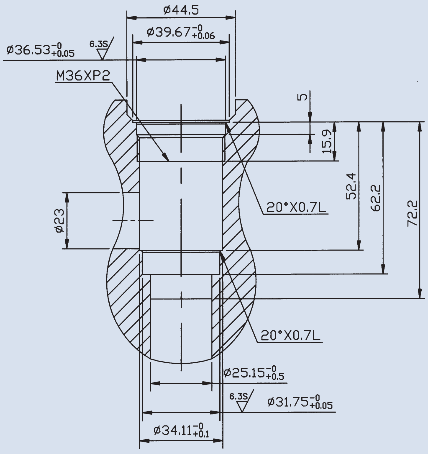
CST-11A



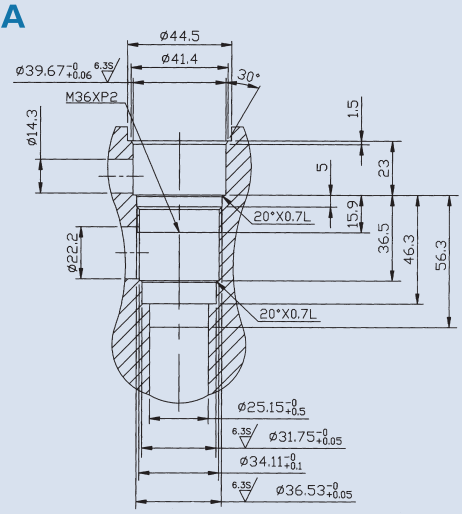
CST-13A



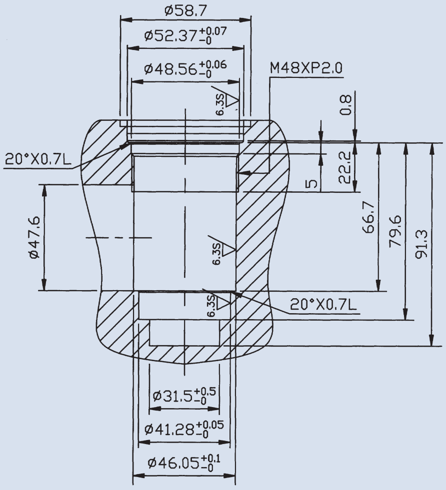
CST-16A



CST-17A



CST-18A



CST-19A