

Bulmach



FLOW VALVES

CONTENTS:

Page

Check valves:

KO-...	1/30
CV08-2A...	2/30
CV08-2B...	3/30
CV10-2B...	4/30

Pilot operated check valves:

KOHU...-...	5/30
KOHU...-S	6/30
KOHU...-E...	7/30
KOHU...-SA	8/30
KOHU16P	9/30
CPV08-3A...	10/30
CPV08-3B...	11/30

Throttle check valves:

DROK...T/32-...	12/30
DROK...T/25	13/30
DROK16P	14/30
DROK-...	15/30

Adjustable throttle:

DR-...	16/30
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Flow control valves:

RD6/2P...	17/30
RD.../2...	18/30&19/30
RD.../3T...	20/30&21/30
FCV-G	22/30
FC08-2A...	23/30

Deviding and combining valves:

KDS-...	24/30
FDC.....-...	25/30

Hose bust check valve:

HC970-...	26/30
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Needle valve:

NV06-2A...	27/30
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Manual spring return valves:

MV08-2B...	28/30
MV08-2B-A...	29/30

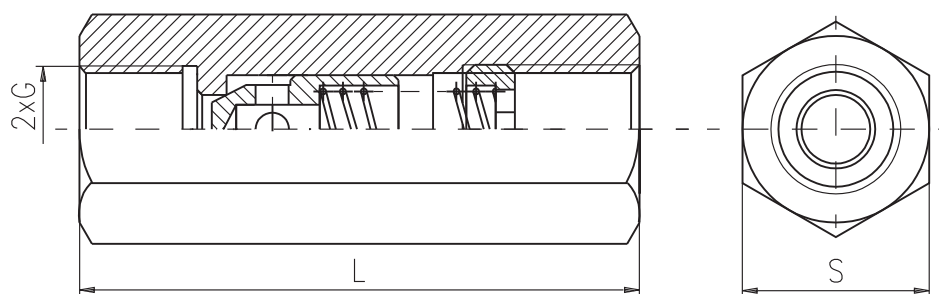
Piloted 2-way spool , external vent valve:

HV10-3A...	30/30
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DESCRIPTION

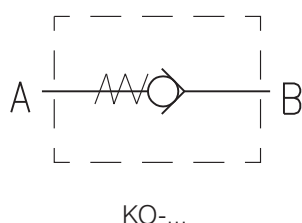
- ✓ Check valves for pipe mounting-KO-...
- ✓ Check valves give leak free closure in one direction and allow free flow in the other.

DIMENSIONS



G	1/8	1/4	3/8	1/2	3/4	1
L(mm)	38	56	65	68	80	100
S(mm)	14	19	24	27	36	46

SYMBOL



ORDERING CODE

KO	-	***	-	***
----	---	-----	---	-----

Check valve

Mounting thread:

G1/8 -1/8

G1/4 -1/4

G3/8 -3/8

G1/2 -1/2

G3/4 -3/4

G1 -1

Cracking pressure - (bar.) see table below*

*Other options on request

TECHNICAL DATA

Max. Pressure		320 bar
Rated flow ($\Delta p=5$ bar.)	-1/8	10 l/min
	-1/4	20 l/min
	-3/8	40 l/min
	-1/2	60 l/min
	-3/4	90 l/min
	-1	120 l/min
Cracking pressure	-1/8	1 bar
	-1/4	1 bar
	-3/8	0,5 bar
	-1/2	0,5 bar
	-3/4	0,5 bar
	-1	1,2 bar
Working liquid-hydraulic oils with characteristics:		
-viscosity		10...400 cSt
-degree of filtration		0,025 mm
-temperature		-20...+80°C

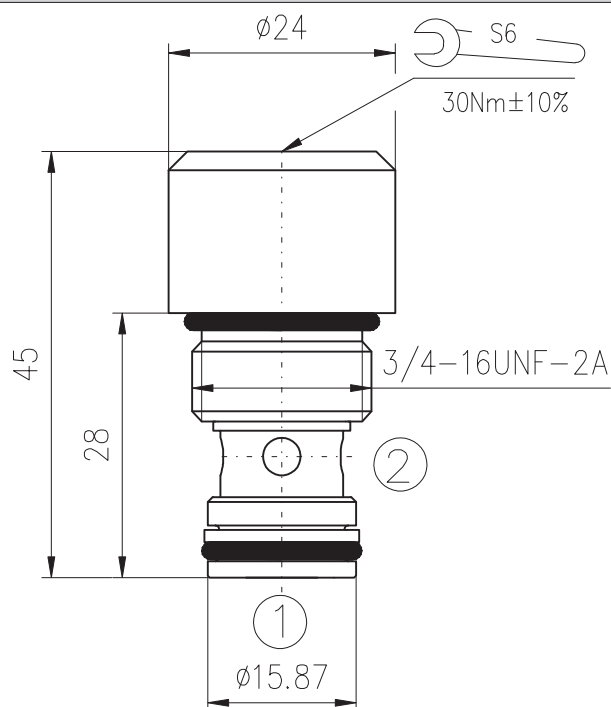
DESCRIPTION

A screw-in , cartridge-style , hydraulic check valve for use as a blocking or load-holding device.

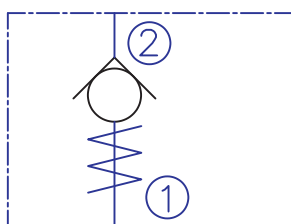
OPERATION

The CV08-2A allows flow passage from 2 to 1 , while normally blocking oil flow in the opposite direction. The cartridge has a fully guided poppet which is spring-biased closed until sufficient pressure is applied at 2 to open to 1.

DIMENSIONS



SYMBOL



ORDERING CODE

CV08-2A ***

Check valve

Seals:

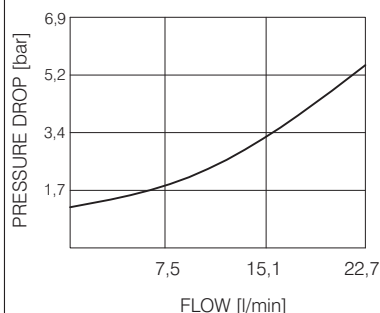
Buna N - N

Viton V - V

PERFORMANCE

Cartridge only

1 to 2
32cSt oil at 40°C



TECHNICAL DATA

Operating pressure	250bar
Rated flow - See Performance Chart	
Internal leakage:	0,25cc/minute max. at 250bar
Standard Bias Spring	1,2bar
Working liquid-hydraulic oils with characteristics: -viscosity -degree of filtration -temperature	10...400 cSt 0,025 mm -20...+80°C
Cavity: See "Cavities and bodies" brochure	CC08-2

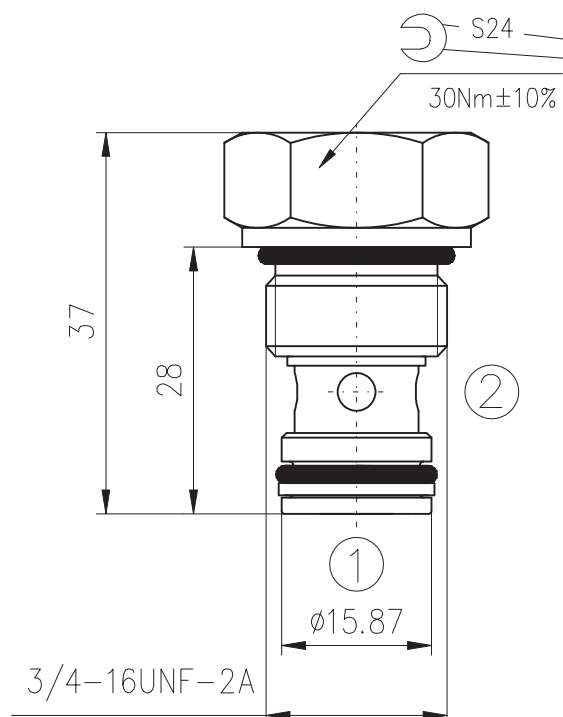
DESCRIPTION

A screw-in , cartridge-style , hydraulic check valve for use as a blocking or load-holding device.

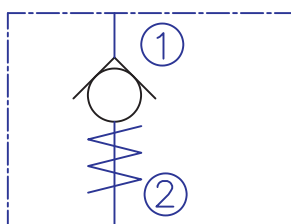
OPERATION

The CV08-2B allows flow passage from 1 to 2 , while normally blocking oil flow in the opposite direction. The cartridge has a fully guided poppet which is spring-biased closed until sufficient pressure is applied at 1 to open to 2.

DIMENSIONS



SYMBOL



ORDERING CODE

CV08-2B ***

Check valve

Seals:

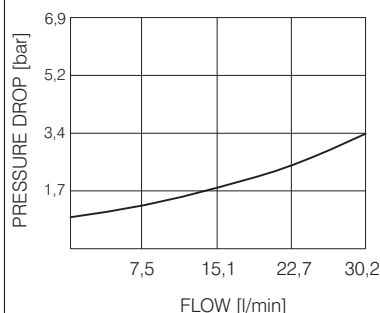
Buna N - N

Viton V - V

PERFORMANCE

Cartridge only

1 to 2
32cSt oil at 40°C



TECHNICAL DATA

Operating pressure	250bar
Rated flow - See Performance Chart	
Internal leakage:	0,25cc/minute max. at 250bar
Standard Bias Spring	1,2bar
Working liquid-hydraulic oils with characteristics: -viscosity -degree of filtration -temperature	10...400 cSt 0,025 mm -20...+80°C
Cavity: See "Cavities and bodies" brochure	CC08-2

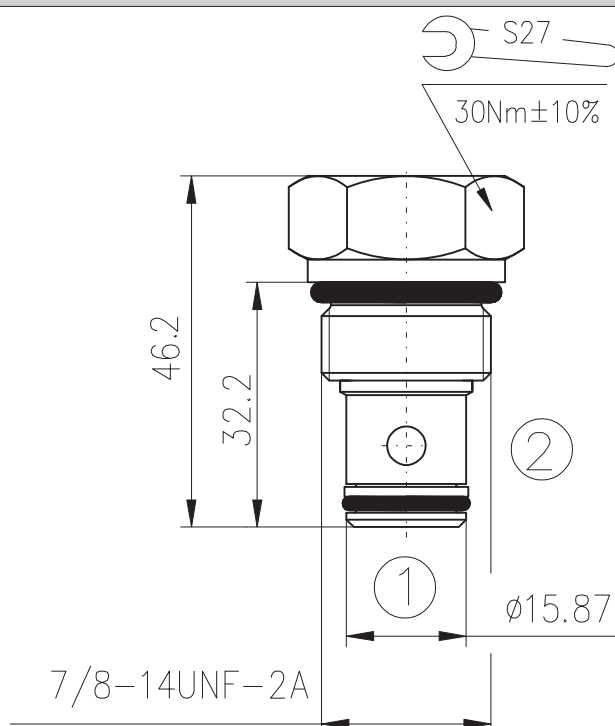
DESCRIPTION

A screw-in , cartridge-style , hydraulic check valve for use as a blocking or load-holding device.

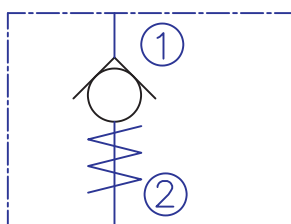
OPERATION

The CV10-2B allows flow passage from 1 to 2 , while normally blocking oil flow in the opposite direction. The cartridge has a fully guided poppet which is spring-biased closed until sufficient pressure is applied at 1 to open to 2.

DIMENSIONS



SYMBOL



ORDERING CODE

CV10-2B ***

Check valve

Seals:

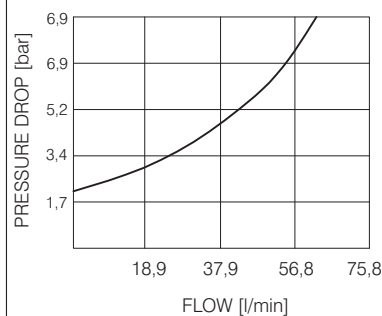
Buna N - N

Viton V - V

PERFORMANCE

Cartridge only

1 to 2
32cSt oil at 40°C



TECHNICAL DATA

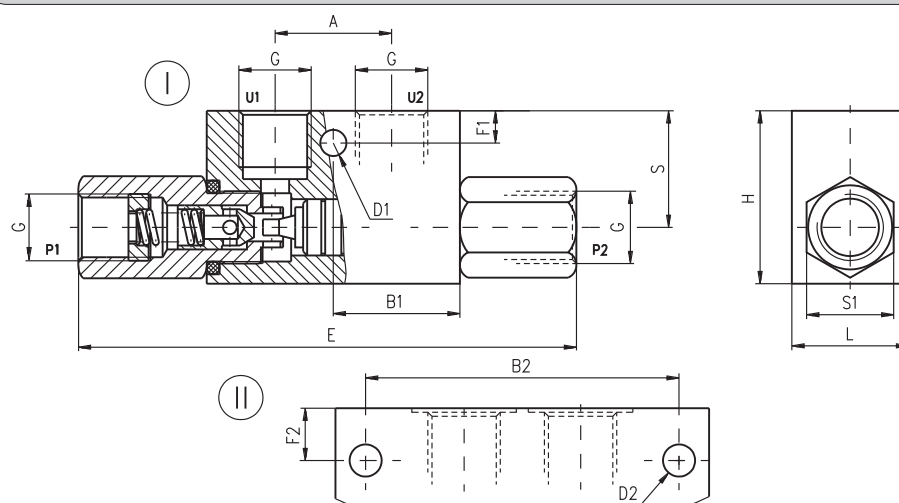
Operating pressure	250bar
Rated flow - See Performance Chart	
Internal leakage:	0,25cc/minute max. at 250bar
Standard Bias Spring	2,1bar
Working liquid-hydraulic oils with characteristics: -viscosity -degree of filtration -temperature	10...400 cSt 0,025 mm -20...+80°C
Cavity: See "Cavities and bodies" brochure	CC10-2

DESCRIPTION

✓ Check valves with hydraulic operation for pipe mounting-KOHU...

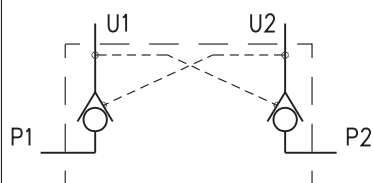
✓ Hydraulically operated check valve is designed to allow working liquid passing in one direction freely (U_1 to P_1 , U_2 to P_2) and at availability of control signal in the opposite direction (P_1 to U_1 , P_2 to U_2). The valve ensures hydraulic "locking" of the hydraulic cylinders, i.e. Providing their stability under load at neutral position of the directional control valve.

DIMENSIONS



TYPE	fig.	A	B1	B2	D1	D2	E	F1	F2	G	H	L	S	S1
mm														
KOHU 1/4	I	29	31,5	75	6,5	127	8	G1/4	43	29	29	22		
KOHU 3/8	I	29	31,5	75	6,5	127	8	G3/8	43	29	29	22		
KOHU 1/2	II	40		75	8,5	174	17	G1/2	60	39	40	32		
KOHU 1/4-K1	I	29	31,5		6,5	106	8	G1/4	43	29	29	22		
KOHU 3/8-L	I	38	40		6,5	128	8	G3/8	40	29	26	24		

SYMBOL



ORDERING CODE

KOHU *** - ***

Check valve with hydraulic operation

Connecting threads: G1/4 - 1/4
G3/8 - 3/8
G1/2 - 1/2

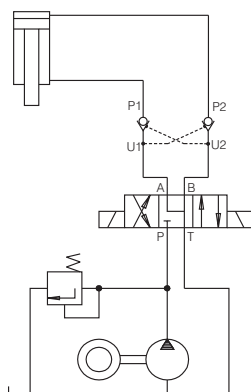
Modification: normal version - omit

K1

see table of dimensions

L

APPLICATIONS



TECHNICAL DATA

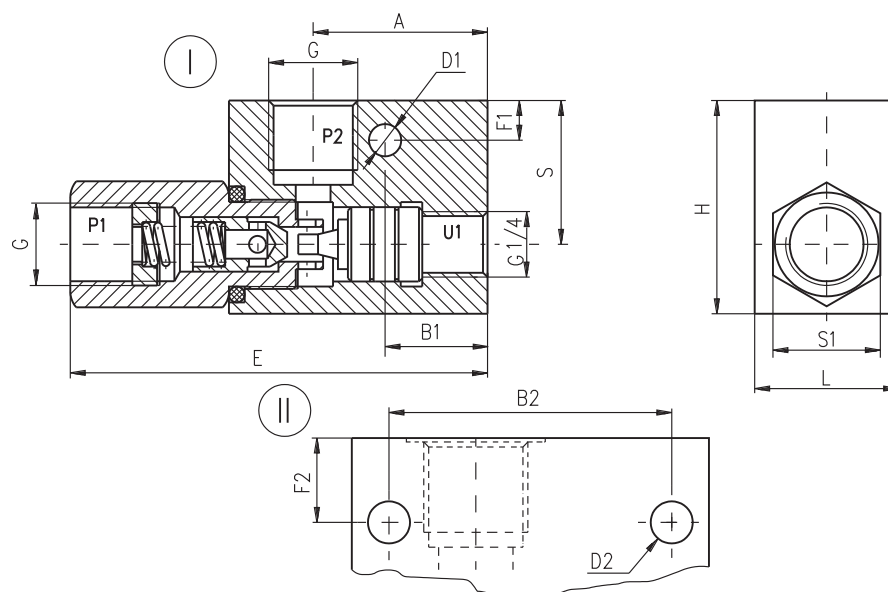
Max. Pressure		320 bar
Rated flow	KOHU1/4	12 l/min
	KOHU3/8	20 l/min
	KOHU1/2	45 l/min
	KOHU1/4-K1	12 l/min
	KOHU3/8-L	20 l/min
Cracking pressure (for check valve)	for all types	0,5 bar
Area ratio (check valve seat/pilot piston)	for all types	1/4
Working liquid-hydraulic oils with characteristics:		
-viscosity		10...400 cSt
-degree of filtration		0,025 mm
-temperature		-20...+80°C

DESCRIPTION

✓ Check valves with hydraulic operation for pipe mounting-KOHU...-S

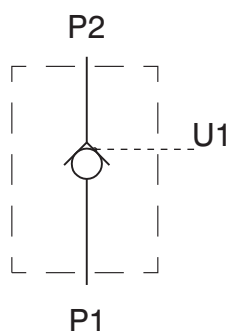
✓ Hydraulically operated check valve is designed to allow working liquid passing in one direction freely (P_2 to P_1) and at availability of control signal in the opposite direction (P_1 to P_2). The valve ensures hydraulic "locking" of the hydraulic cylinders, i.e. providing their stability under load at neutral position of the directional control valve.

DIMENSIONS



TYPE	fig.	A	B1	B2	C	D1	D2	E	F1	F2	G	H	L	S	S1
mm															
KOHU 1/4-S	I	37	22,5	15	15	ø6,5	86	8	8	G1/4	43	29	29	22	22
KOHU 3/8-S	I	37	22,5	15	15	ø6,5	86	8	8	G3/8	43	29	29	22	22
KOHU 1/2-S	II	47	57	24	24	ø8,5	114	17	17	G1/2	60	39	40	32	32

SYMBOL



ORDERING CODE

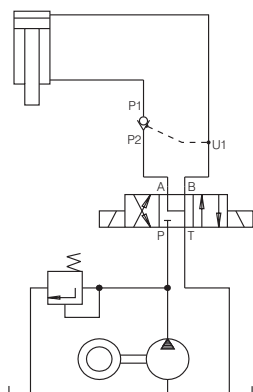
KOHU *** - S

Check valve with hydraulic operation

Connecting threads: G1/4 - 1/4
G3/8 - 3/8
G1/2 - 1/2

Modification

APPLICATIONS



TECHNICAL DATA

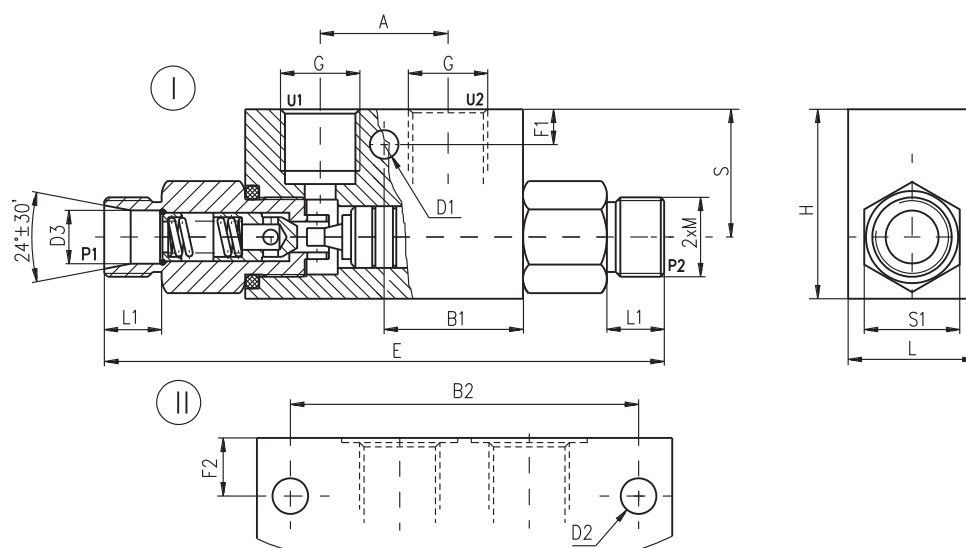
Max. Pressure		320 bar
Rated flow	KOHU1/4-S	12 l/min
	KOHU3/8-S	20 l/min
	KOHU1/2-S	45 l/min
Cracking pressure (for check valve)	for all types	0,5 bar
Area ratio (check valve seat/pilot piston)	for all types	1/4
Working liquid-hydraulic oils with characteristics:		
-viscosity		10...400 cSt
-degree of filtration		0,025 mm
-temperature		-20...+80°C

DESCRIPTION

✓ Check valves with hydraulic operation for pipe mounting-KOHU...-E...

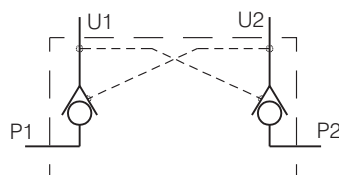
✓ Hydraulically operated check valve is designed to allow working liquid passing in one direction freely (U_1 to P_1 , U_2 to P_2) and at availability of control signal in the opposite direction (P_1 to U_1 , P_2 to U_2). The valve ensures hydraulic "locking" of the hydraulic cylinders, i.e. Providing their stability under load at neutral position of the directional control valve.

DIMENSIONS



TYPE	fig.	A	B1	B2	D1	D2	D3	F1	F2	L	L1	G	M	H	S	S1	E
mm																	
KOHU1815-E	I	29	31,5		ø6,5		ø12	8		30	13	G3/8"	M18x1,5	43	29	24	130
KOHU1815-EL	I	38	40		M8x20		ø12	8		30	13	G3/8"	M18x1,5	40	26	24	130
KOHU1815-EN	I	29	31,5		ø6,5		ø12	8		30	13	G3/8"	M18x1,5	43	29	24	130
KOHU2615-E	II	40		75	ø8,5	ø18			17	40	14	G1/2"	M26x1,5	60	40	32	174

SYMBOL



ORDERING CODE

KOHU *** - E ***

Check valve with hydraulic operation

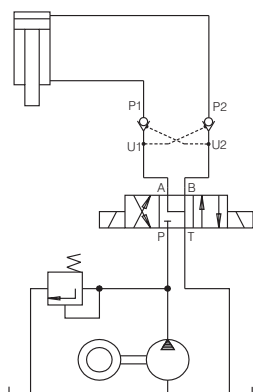
Connecting threads: M18x1,5 - 1815
M26x1,5 - 2615

Modification

Versions:
see table of dimensions

L
N

APPLICATIONS



TECHNICAL DATA

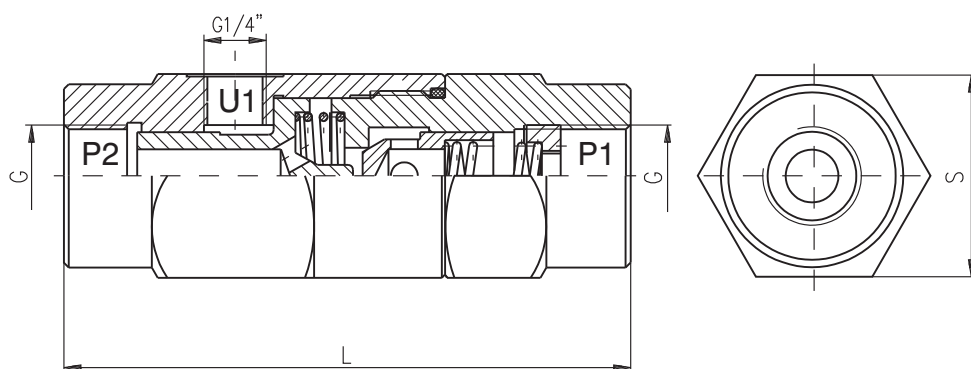
Max. Pressure	320 bar
Rated flow	KOHU1815-E 20 l/min
	KOHU1815-EL 20 l/min
	KOHU1815-EN 30 l/min
	KOHU2615-E 45 l/min
Cracking pressure (for check valve)	for all types 0,5 bar
Area ratio (check valve seat/pilot piston)	for all types 1/4
Working liquid-hydraulic oils with characteristics:	
-viscosity	10...400 cSt
-degree of filtration	0,025 mm
-temperature	-20...+80°C

DESCRIPTION

✓ Check valves with hydraulic operation for pipe mounting-KOHU...-SA

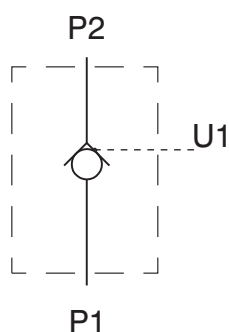
✓ Hydraulically operated check valve is designed to allow working liquid passing in one direction freely (P_2 to P_1), and at availability of control signal in the opposite direction (P_1 to P_2). The valve ensures hydraulic "locking" of the hydraulic cylinders, i.e. providing their stability under load at neutral position of the directional control valve.

DIMENSIONS



TYPE	G	S	L
	mm		
KOHU 1/4-SA	G1/4"	36	98
KOHU 3/8-SA	G3/8"	40	106
KOHU 1/2-SA	G1/2"	42	118

SYMBOL



ORDERING CODE

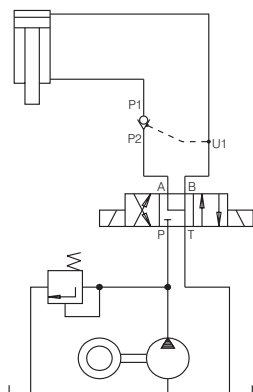
KOHU	***	-	SA
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Check valve with hydraulic operation

Connecting threads: G1/4 - 1/4
G3/8 - 3/8
G1/2 - 1/2

Modification

APPLICATIONS



TECHNICAL DATA

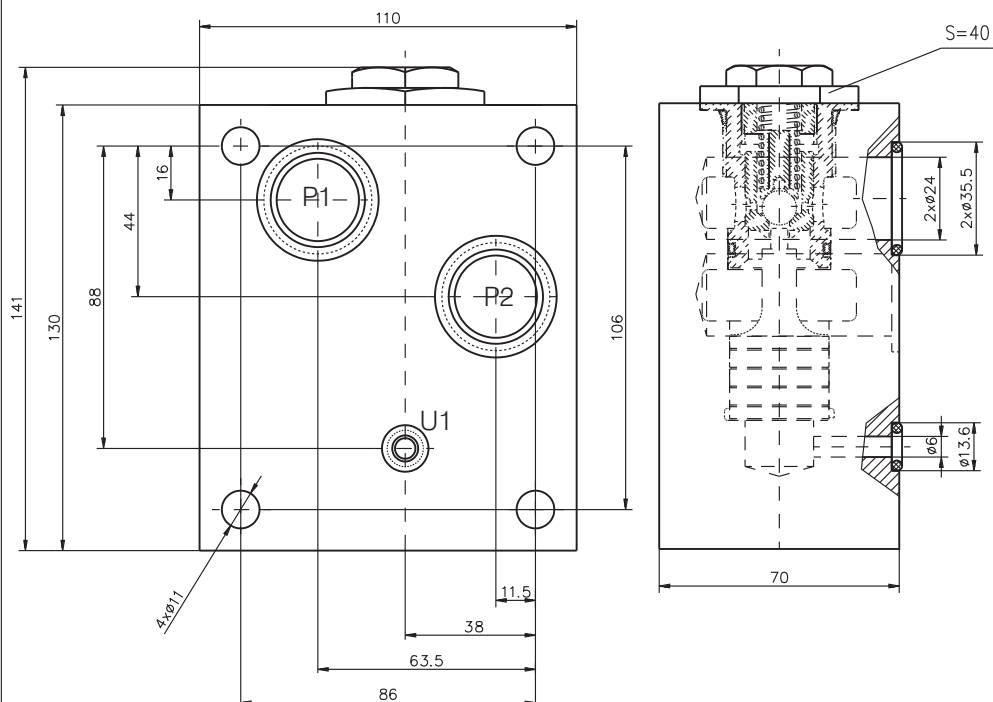
Max. Pressure		320 bar
Rated flow	KOHU1/4-SA	12 l/min
	KOHU3/8-SA	20 l/min
	KOHU1/2-SA	45 l/min
Cracking pressure (for check valve)	for all types	0,5 bar
Area ratio (check valve seat/pilot piston)	KOHU1/4-SA	1/7
	KOHU3/8-SA	1/6
	KOHU1/2-SA	1/5
Working liquid-hydraulic oils with characteristics:		
-viscosity		10...400 cSt
-degree of filtration		0,025 mm
-temperature		-20...+80°C

DESCRIPTION

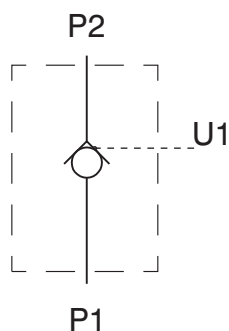
✓ Check valves with hydraulic operation for plate mounting-KOHU16P

✓ Hydraulically operated check valve is designed to allow working liquid passing in one direction freely (P_2 to P_1), and at availability of control signal in the opposite direction (P_1 to P_2). The valve ensures hydraulic "locking" of the hydraulic cylinders, i.e. providing their stability under load at neutral position of the directional control valve.

DIMENSIONS



SYMBOL



ORDERING CODE

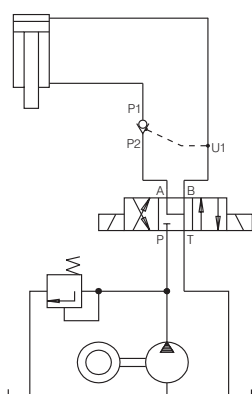
KOHU	16	P
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Check valve with
hydraulic operation

Nominal bore-16 mm

Pipe mounting

APPLICATIONS



TECHNICAL DATA

Max. Pressure	320 bar
Rated flow	160 l/min
Cracking pressure (for check valve)	0,8 bar
Area ratio (check valve seat/pilot piston)	1/1,5
Working liquid-hydraulic oils with characteristics:	
-viscosity	10...400 cSt
-degree of filtration	0,025 mm
-temperature	-20...+80°C

DESCRIPTION

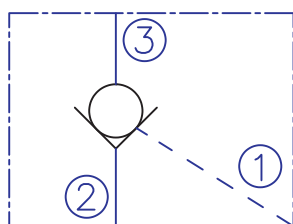
A screw-in , cartridge-style , hydraulic check valve for use as a blocking or load-holding device.

OPERATION

The CPV08-3A allows flow passage from 2 to 3 , while normally blocking flow from 3 to 2. Flow will be allowed from 3 to 2 when sufficient pressure is applied at 1. The cartridge has a 3:1 pilot ratio , meaning that at least one-third of the load pressure held at 3 is required at 1 to open the valve.

The check is spring-biased to assure holding in static or no-load conditions. A sealed pilot piston option is available.

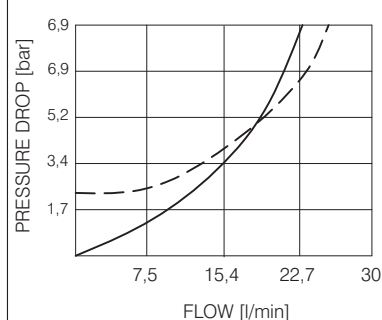
SYMBOL



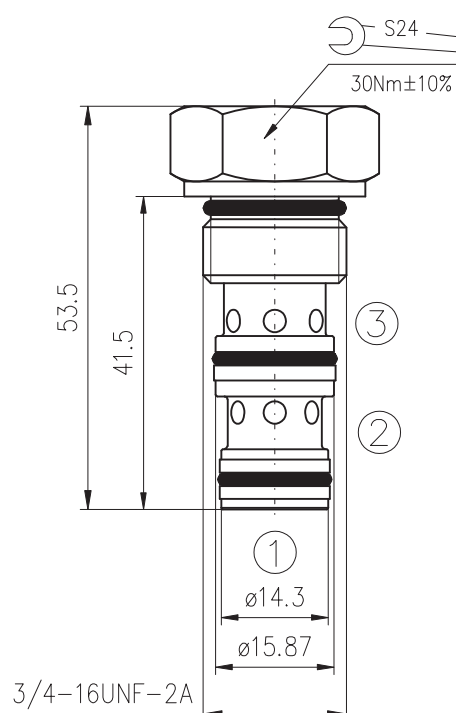
PERFORMANCE

Cartridge only

— 3 to 2 - - 2 to 3
32cSt oil at 40°C



DIMENSIONS



ORDERING CODE

CPV08-3A ***

Pilot to open check valve

Seals:

Buna N - N

Viton V - V

TECHNICAL DATA

Operating pressure	250bar
Rated flow - See Performance Chart	
Internal leakage:	1 to 2
	2 to 1 (without sealed piston)
	0,25cc/minute max. at 250bar
	115cc/minute max. at 250bar
Check spring bias	2bar
Pilot ratio	3:1
Working liquid-hydraulic oils with characteristics:	
-viscosity	10...400 cSt
-degree of filtration	0,025 mm
-temperature	-20...+80°C
Cavity: See "Cavities and bodies" brochure	CC08-3

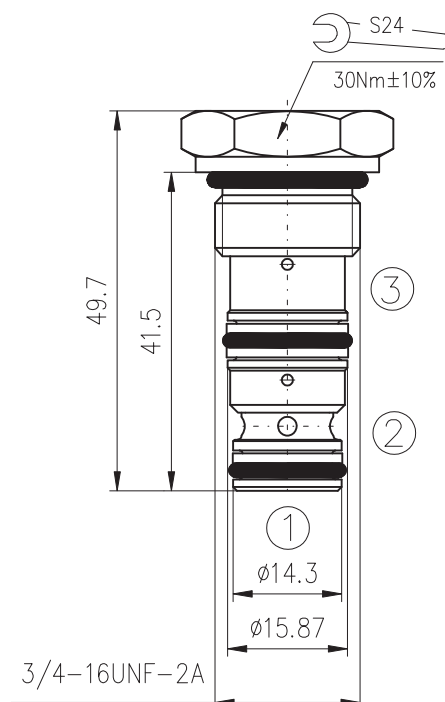
DESCRIPTION

A screw-in , cartridge-style , pilot operated , hydraulic check valve for use in blocking or load-holding circuits.

OPERATION

The CPV08-3B allows flow from 2 to 1 , while normally blocking flow from 1 to 2. Flow will be allowed from 1 to 2 when sufficient pressure is applied at 3. The cartridge has a 3:1 pilot ratio , meaning that at least one-third of the load pressure held at 1 is required at 3 to open the valve.

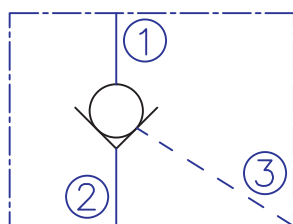
DIMENSIONS



ORDERING CODE

CPV08-3B ***

SYMBOL



Pilot to open check valve

Seals:

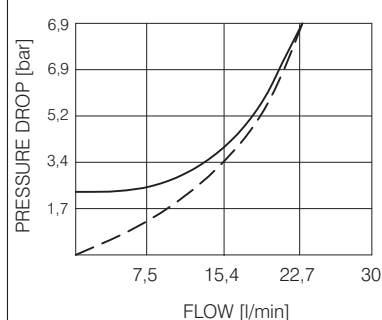
Buna N - N

Viton V - V

PERFORMANCE

Cartridge only

— free flow - - - piloted open
32cSt oil at 40°C



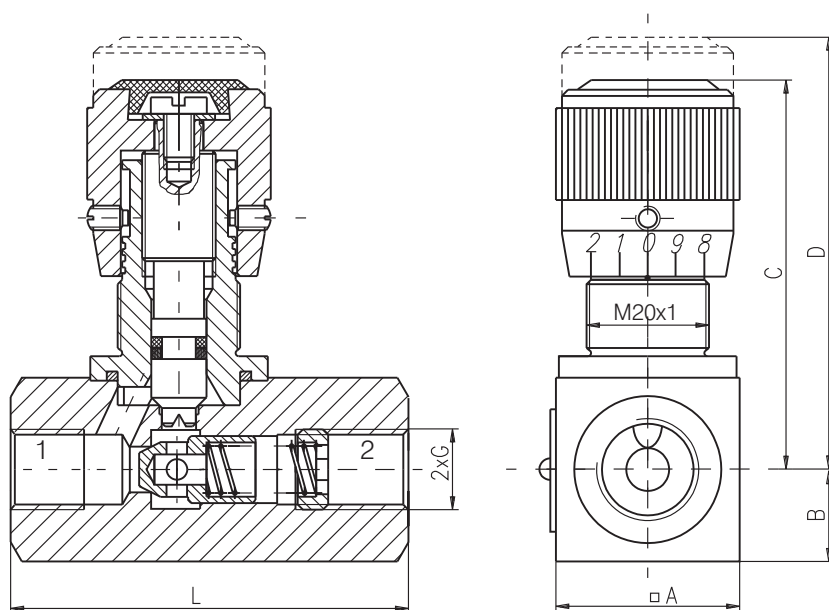
TECHNICAL DATA

Operating pressure	210bar
Rated flow - See Performance Chart	
Internal leakage: 1 to 2	0,25cc/minute max. at 210bar
Check spring bias	4,8bar
Pilot ratio	3:1
Working liquid-hydraulic oils with characteristics: -viscosity -degree of filtration -temperature	10...400 cSt 0,025 mm -20...+80°C
Cavity: See "Cavities and bodies" brochure	CC08-3

DESCRIPTION

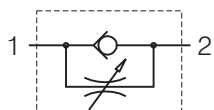
- ✓ Adjustable throttles with check valves for pipe mounting-DROK...T/32-...
- ✓ The throttle check valves limit the flow by adjustable throttling spool at one direction, and allow free return passing on the other.

DIMENSIONS



TYPE	L	A	B	C	D
DROK6T/32-1/4"	65	30	15	63	70
DROK6T/32-3/8"	65	30	15	63	70
DROK10T/32-1/2"	79	32	13,5	66,5	73,5

SYMBOL



ORDERING CODE

DROK *** T / 32 - ***

Adjustable throttle with
check valve

Nominal bore: 6mm - 6
10mm - 10

Pipe mounting

Rated pressure: up to 320 bar.-32

Mounting threads: G1/4 - 1/4
G3/8 - 3/8
G1/2 - 1/2

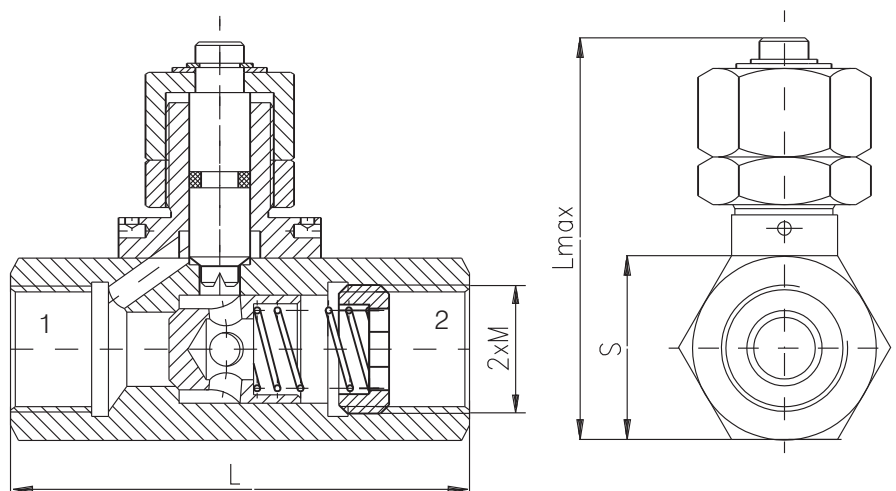
TECHNICAL DATA

Max. Pressure	320 bar
Rated flow ($\Delta p=2,5$ bar.) DROK6T/32-...	20 l/min
Rated flow ($\Delta p=2,5$ bar.) DROK10T/32-1/2	40 l/min
Cracking pressure (for check valve)	0,3 bar
Working liquid-hydraulic oils with characteristics:	
-viscosity	10...400 cSt
-degree of filtration	0,025 mm
-temperature	-20...+80°C

DESCRIPTION

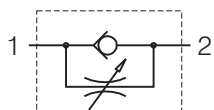
- ✓ Adjustable throttles with check valves for pipe mounting-DROK...T/25
- ✓ The throttle check valves limit flow by adjustable throttling spool at one direction , and allow free return passing on the other.

DIMENSIONS



TYPE	L	Lmax	S	M
	mm.			
DROK12T/25	68	59	27	18x1,5
DROK16T/25	82	62	30	22x1,5
DROK20T/25	92	68	36	27x2

SYMBOL



ORDERING CODE

DROK *** T / 25

Adjustable throttle with
check valve

Nominal bore: 12mm - **12**
16mm - **16**
20mm - **20**

Pipe mounting

Rated pressure: up to 250 bar.-**25**

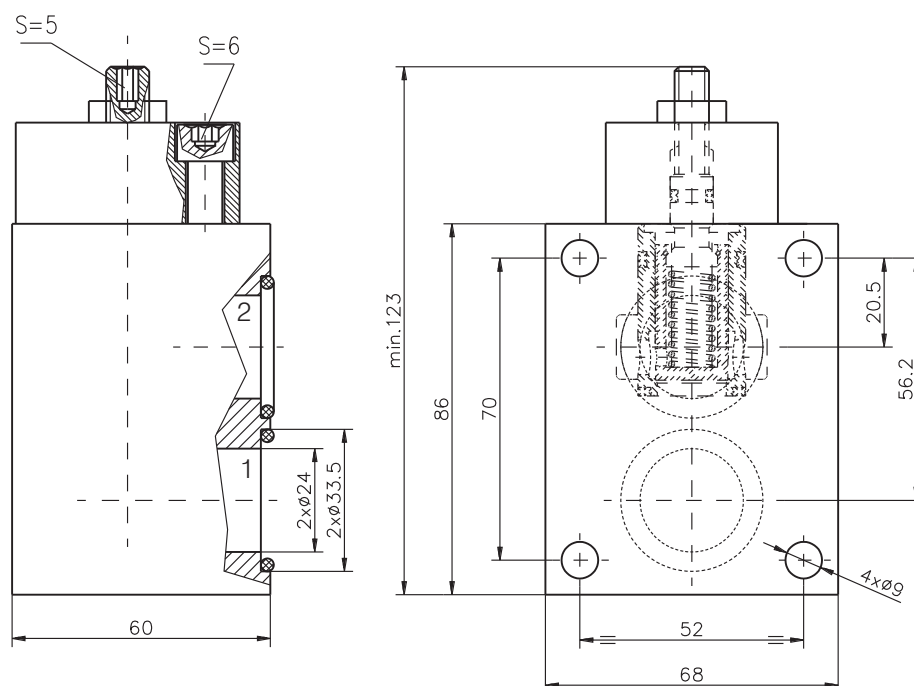
TECHNICAL DATA

Max. Pressure		250 bar
Rated flow ($\Delta p=2,5$ bar.)	DROK12T/25	25 l/min
	DROK16T/25	40 l/min
	DROK20T/25	63 l/min
Cracking pressure (for check valve)		0,3 bar
Working liquid-hydraulic oils with characteristics:		
-viscosity		10...400 cSt
-degree of filtration		0,025 mm
-temperature		-20...+80°C

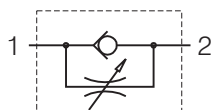
DESCRIPTION

- ✓ Adjustable throttles with check valves for pipe mounting-DROK16P
- ✓ The throttle check valves limit flow by adjustable throttling spool at one direction , and allow free return passing on the other.

DIMENSIONS



SYMBOL



ORDERING CODE

DROK	16	P
------	----	---

Adjustable throttle with
check valve

Nominal bore - 16 mm.

Pipe mounting

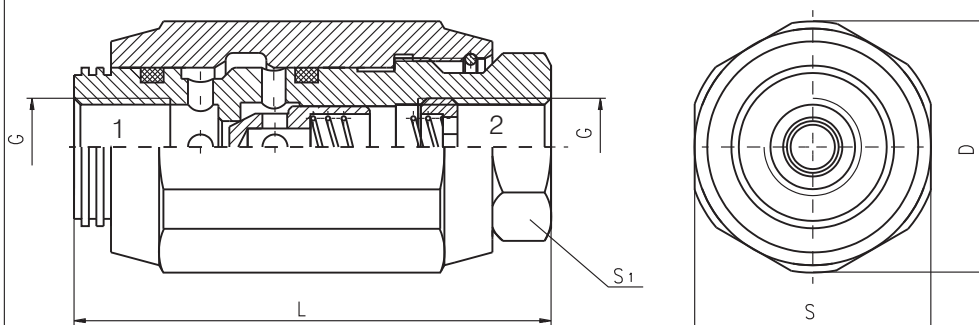
TECHNICAL DATA

Max. Pressure	320 bar
Rated flow ($\Delta p=2,5$ bar.)	160 l/min
Cracking pressure (for check valve)	0,5 bar
Working liquid-hydraulic oils with characteristics:	
-viscosity	10...400 cSt
-degree of filtration	0,025 mm
-temperature	-20...+80°C

DESCRIPTION

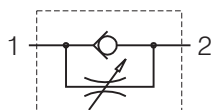
- ✓ Adjustable throttles with check valves for pipe mounting-DROK...
- ✓ The throttle check valves limit flow by adjustable throttling spool at one direction, and allow free return passing on the other.

DIMENSIONS



TYPE	L	S	S1	D	G
	mm.				
DROK-1/4"	65	32	22	34	1/4"
DROK-3/8"	65	36	24	38	3/8"
DROK-1/2"	82	42	29	44	1/2"
DROK-3/4"	100	52	36	55	3/4"
DROK-1"	126	65	45	70	1"

SYMBOL



ORDERING CODE

DROK	-	***
------	---	-----

Adjustable throttle with check valve

Mounting threads:

G1/4-1/4"
G3/8-3/8"
G1/2-1/2"
G3/4-3/4"
G1-1"

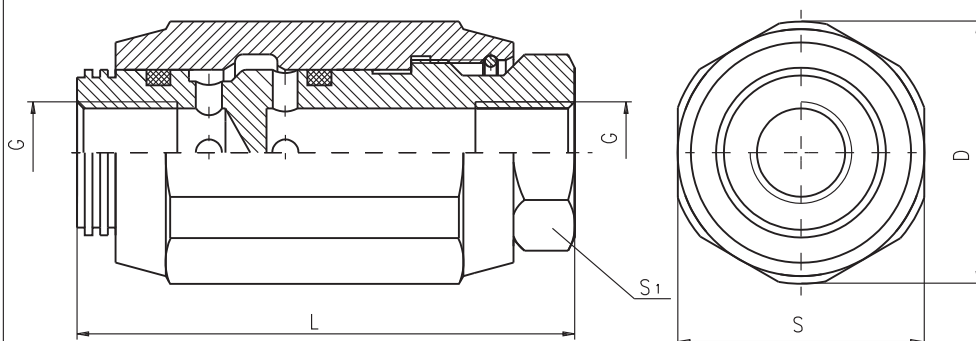
TECHNICAL DATA

Max. Pressure	320 bar
Rated flow ($\Delta p=2,5$ bar.)	-1/4 12 l/min
	-3/8 20 l/min
	-1/2 45 l/min
	-3/4 80 l/min
	-1 160 l/min
Working liquid-hydraulic oils with characteristics:	
-viscosity	10...400 cSt
-degree of filtration	0,025 mm
-temperature	-20... +80°C

DESCRIPTION

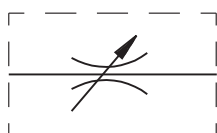
- ✓ Adjustable throttle for pipe mounting-DR-...
- ✓ The valve throttles, or completely stops the flow in any direction, so creating resistance to flow regulation and support in the hydraulic system.

DIMENSIONS



TYPE	L	S	S1	D	G
DR-1/4"	65	32	22	34	1/4"
DR-3/8"	65	36	24	38	3/8"
DR-1/2"	82	42	29	44	1/2"
DR-3/4"	100	55	36	59	3/4"
DR-1"	126	65	45	70	1"

SYMBOL



ORDERING CODE

DR	-	***
----	---	-----

Adjustable throttle

Mounting thread:

G1/4 -1/4

G3/8 -3/8

G1/2 -1/2

G3/4 -3/4

G1 -1

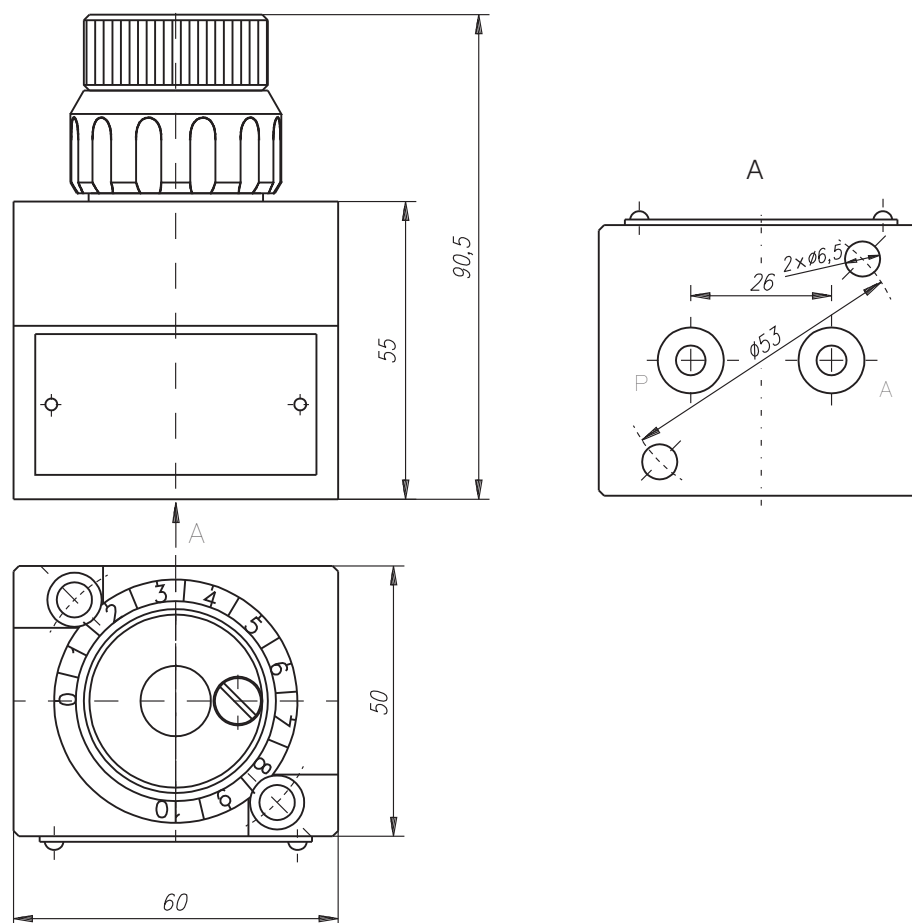
TECHNICAL DATA

Max. Pressure	320 bar
Rated flow ($\Delta p=2,5$ bar.)	-1/4 12 l/min
	-3/8 20 l/min
	-1/2 45 l/min
	-3/4 80 l/min
	-1 160 l/min
Working liquid-hydraulic oils with characteristics:	
-viscosity	10...400 cSt
-degree of filtration	0,025 mm
-temperature	-20...+80°C

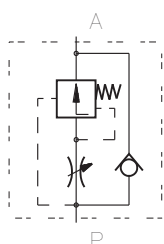
DESCRIPTION

- ✓ Flow control valves for plate mounting - RD6/2P...
- ✓ The flow control valves are designed to regulate the flow rate in the hydraulic system, independently of the inlet flow and pressure variations in it.

DIMENSIONS



SYMBOL



ORDERING CODE

RD 6 / 2 P

Flow control valve
Nominal bore 6mm.
2 - way valve
Plate mounting

TECHNICAL DATA

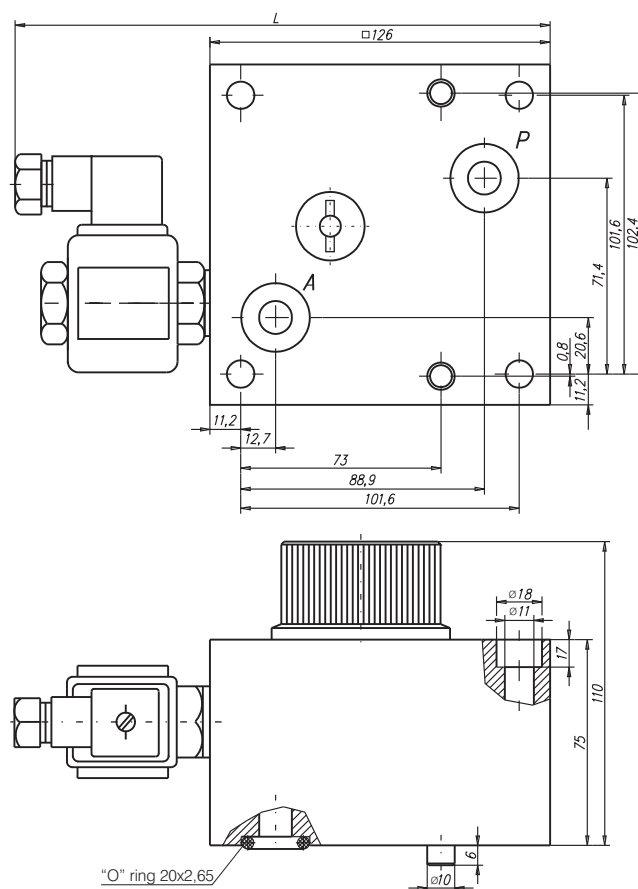
Weight	1,240 kg
Max. Pressure	320 bar
Rated flow ($\Delta p=2,5$ bar.)	10 l/min
Minimum flow	0,06 l/min
Working liquid-hydraulic oils with characteristics:	
-viscosity	10...400 cSt
-degree of filtration	0,025 mm
-temperature	-20...+80°C

DESCRIPTION

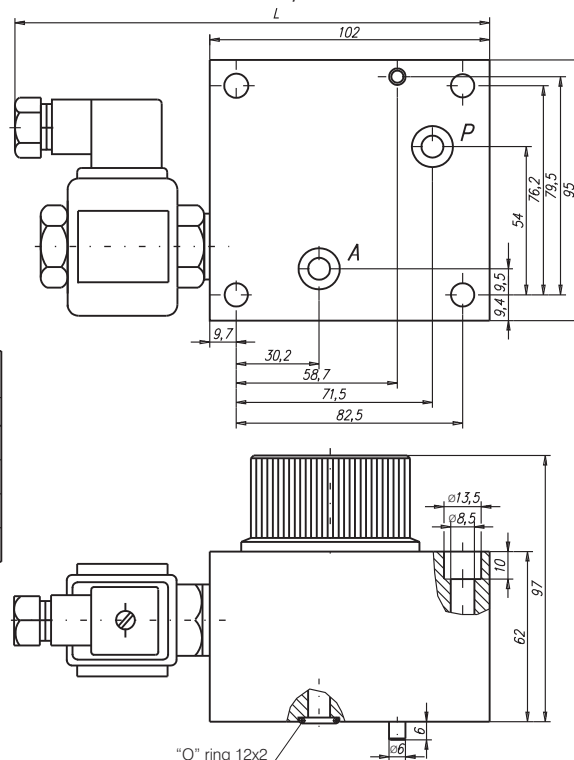
- ✓ Flow control valves for plate mounting- RD.../2...
- ✓ The flow control valves are designed to regulate the flow rate in the hydraulic system , independently of the inlet flow and pressure variations in it.
- ✓ Flow Control Valve with solenoid controlled check valve (channel A or channel B) ensures two different speeds of movement.

DIMENSIONS

RD16/2...



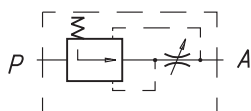
RD10/2...



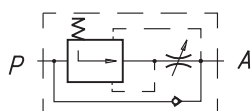
TYPE	Range of regulation	L
	grad.	mm.
RD 10/2	4x360°	102
RD 10/2...	4x360°	175,5
RD 16/2	4x360°	126
RD 16/2...	4x360°	197,5

SYMBOL

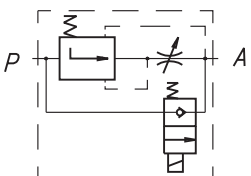
ORDERING CODE



RD.../2



RD.../2A



RD.../2...

RD	***	/	2	***
----	-----	---	---	-----

Flow control valve

Nominal bore:

10mm - **10**

16mm - **16**

2-way valve

Modifications:

- standard modification - **omit**

-with build in check valve - **A**

-with build in solenoid check valve : operated voltage-12VDC - **1**

operated voltage-24VDC - **2**

-operated voltage 110VAC - **3**

-operated voltage 220VAC - **4**

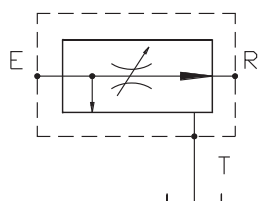
TECHNICAL DATA

Max. Pressure		320 bar
Rated flow ($\Delta p=5$ bar.)	RD10/2...	24 l/min
Rated flow ($\Delta p=8$ bar.)	RD16/2...	80 l/min
Minimum flow	RD10/2...	0,05 l/min
Minimum flow	RD16/2...	0,1 l/min
Working liquid-hydraulic oils with characteristics:		
-viscosity		10...400 cSt
-degree of filtration		0,025 mm
-temperature		-20...+80°C

DESCRIPTION

- ✓ Three way flow control valves for pipe mounting -RD10/3T... and RD12/3T...
- ✓ The flow control valves are designed to regulate the flow rate in the hydraulic system, independently of the inlet flow and pressure variations in it. Priority flow regulator gives priority of the adjusted flow to pass entirely to bypass, tank or a separate system.

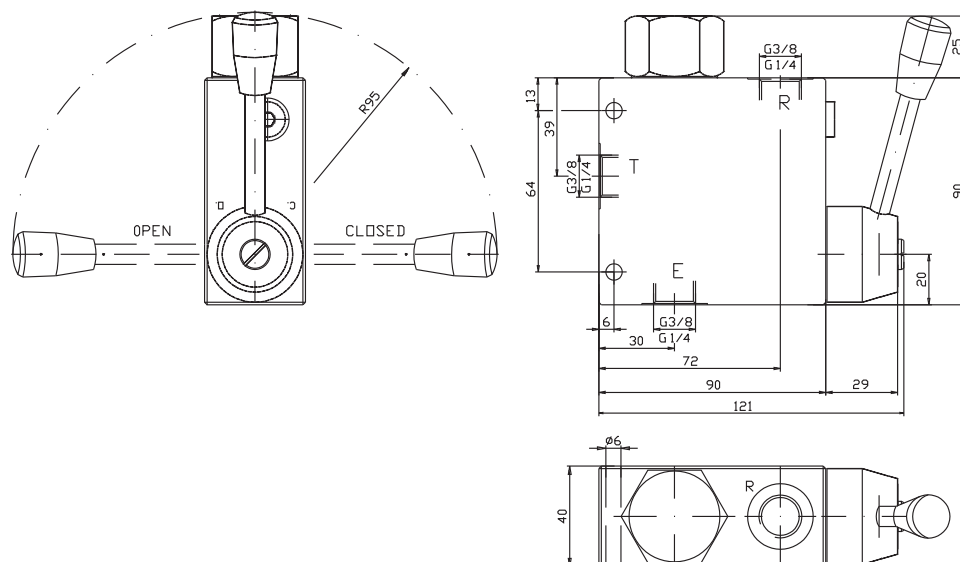
SYMBOL



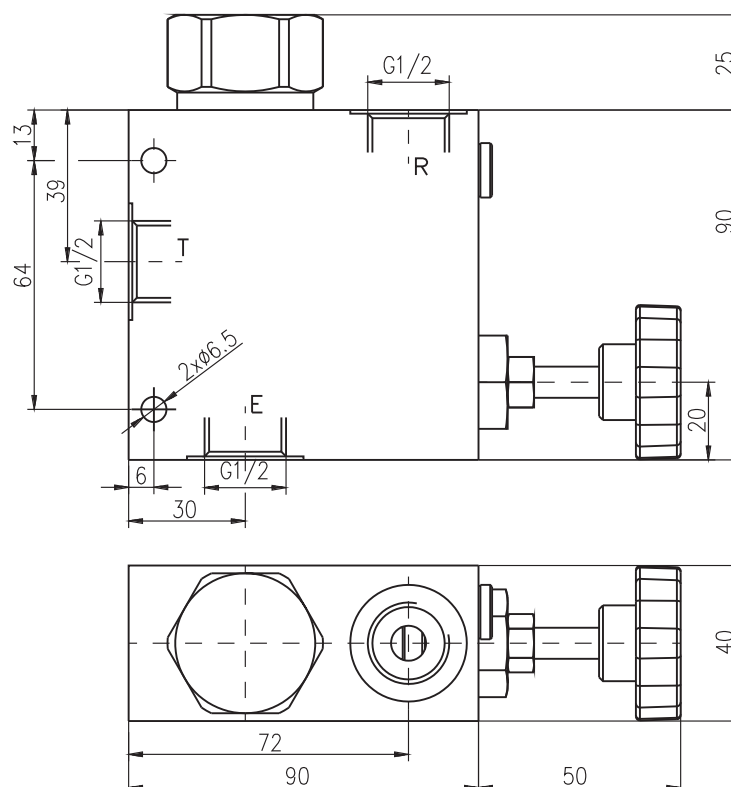
DIMENSIONS

RD10/3T38

RD10/3T14



RD12/3TV12



FLOW CONTROL VALVE

RD.../3T...

ORDERING CODE

RD *** / 3 T - *****

Flow control valve

Nominal bore:

10mm - 10

12mm - 12

3 - way valve

Pipe mounting

Type of handle:

standard(see RD10/3T) - omit

"V" type(see RD12/3TV - V

Backing of
the housing:

N - Normal

T - Tropical

Body material:

Al - Aluminum

St - Steel

Threads:

14 - G1/4"

38 - G3/8"

12 - G1/2"

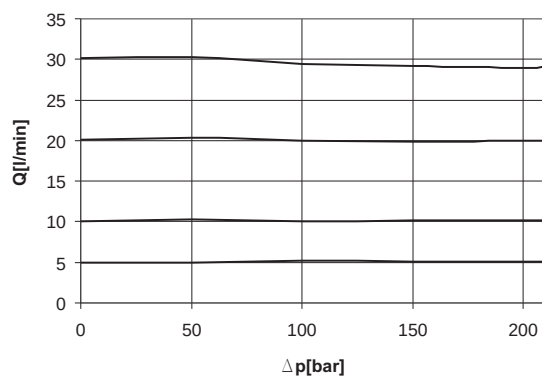
TECHNICAL DATA

Max. admitted inlet flow "E"	RD12/3T...	90 l/min
	RD10/3T...	50 l/min
Max. delivery in regulated flow "R"	RD12/3T...	50 l/min
	RD10/3T...	30 l/min
Minimum flow	RD12/3T...	10 l/min
	RD10/3T...	4 l/min
Nominal pressure		210 bar
Working liquid-hydraulic oils with characteristics:		
-viscosity		10...400 cSt
-degree of filtration		0,025 mm
-temperature		-20...+80°C

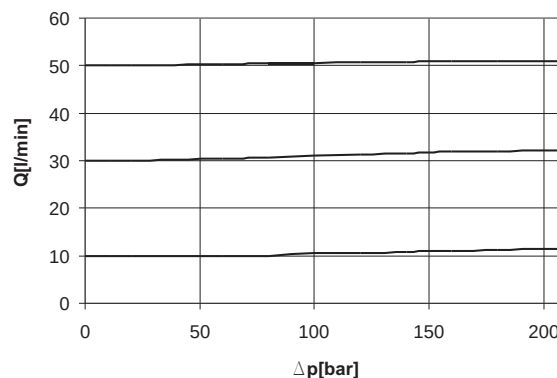
CHARACTERISTICS

RD10/3T38

RD10/3T14



RD12/3TV12



We reserve the right to change specifications without notice.

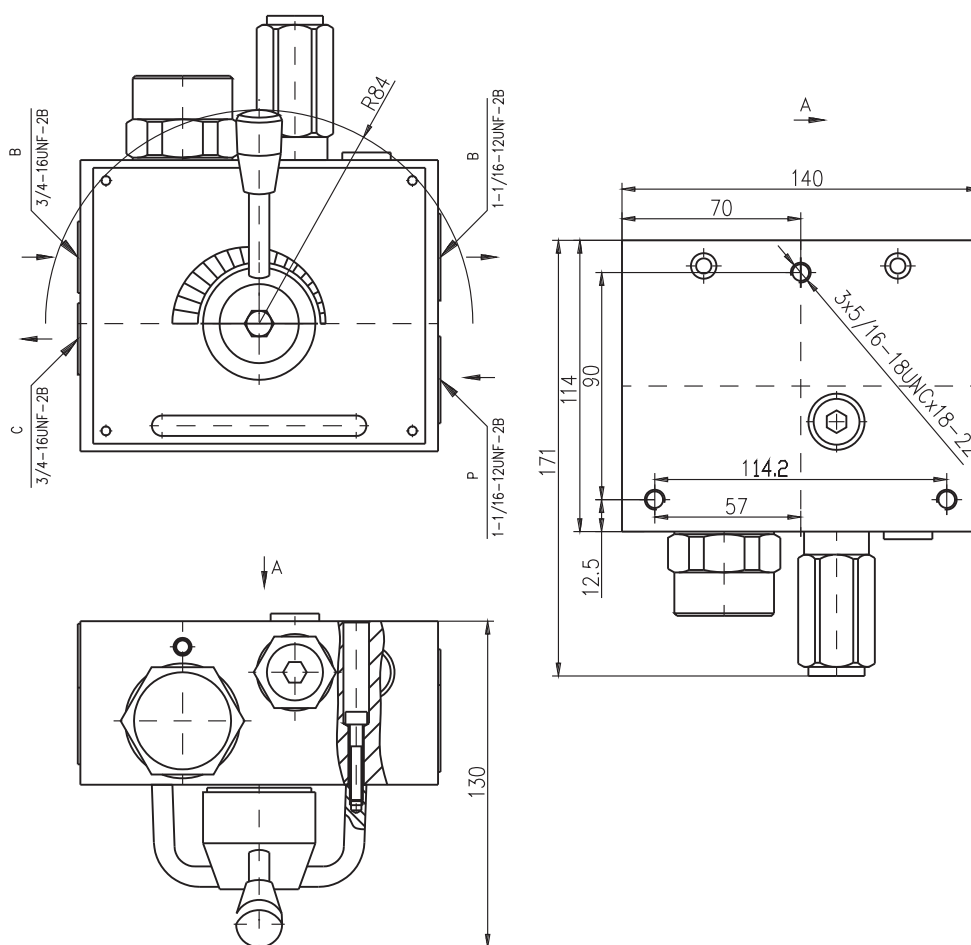
www.bulmach.pl

FV-1-July 2013

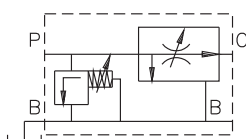
DESCRIPTION

- ✓ Three way flow control valves for pipe mounting -FCV-G
- ✓ The flow control valves are designed to regulate the flow rate in the hydraulic system, independently of the inlet flow and pressure variations in it. Priority flow regulator gives priority of the adjusted flow to pass entirely to bypass, tank or a separate system.

DIMENSIONS



SYMBOL



TECHNICAL DATA

Max. admitted inlet flow	113 l/min
Max. delivery in regulated flow	40 l/min
Max. admitted inlet pressure	210 bar
Nominal pressure	150 bar
Nominal port size	Ø16 mm
Working liquid-hydraulic oils with characteristics:	
-viscosity	10...400 cSt
-degree of filtration	0,025 mm
-temperature	-20... +80°C

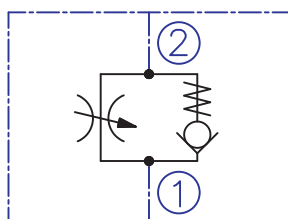
DESCRIPTION

A screw-in , cartridge-style , variable orifice , hydraulic flow control valve with reverse flow check.

OPERATION

The FC08-2A increases its orifice value from fully closed to fully open with counterclockwise adjustment rotation.

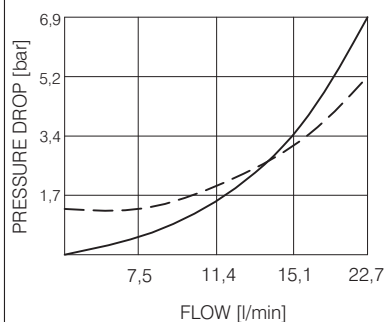
SYMBOL



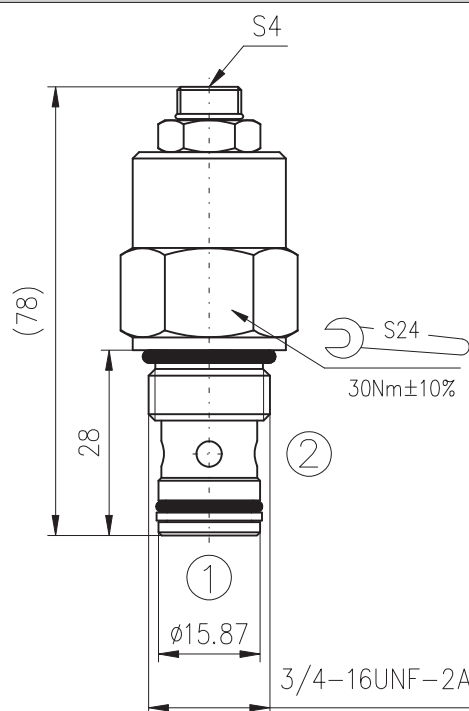
PERFORMANCE

Cartridge only

— full open — rev. flow
32cSt oil at 40°C



DIMENSIONS



ORDERING CODE

FC08-2A ***

Flow control valve

Seals: Buna N - N
Viton V - V

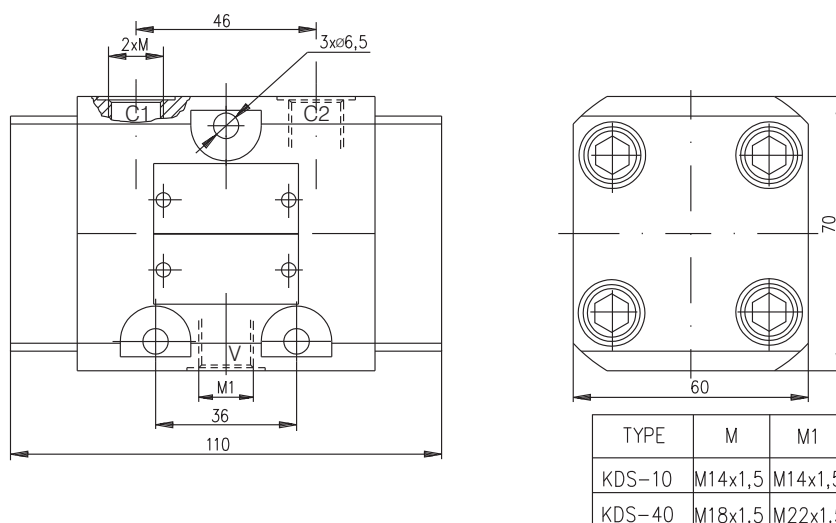
TECHNICAL DATA

Operating pressure	240bar
Flow:	45 l/min (at 10bar pressure differential) at full open
Internal leakage:	0,5cc/minute max. at shut-off
Working liquid-hydraulic oils with characteristics: -viscosity -degree of filtration -temperature	10...400 cSt 0,025 mm -20...+80°C
Cavity: See "Cavities and bodies" brochure	CC08-2

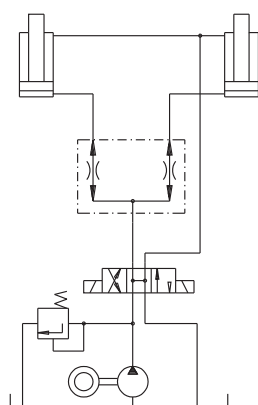
DESCRIPTION

- ✓ Dividing and combining valves for pipe mounting-KDS-.....
- ✓ The dividing and combining valves are designed to separate the flow in the hydraulic system on two equal passages which pass equally in the return line. In that way synchronized movement is obtained for operating the actuator in both directions.

DIMENSIONS



APPLICATIONS



ORDERING CODE

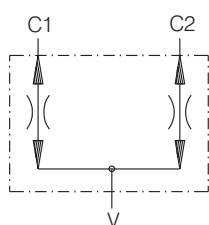
KDS - *** **

Dividing and combining valve

Nominal bore: 10mm - **10**
40mm - **40**

Flow rate range: bore size - 10 5...7 l/min - **A**
7...12 l/min - **B**
12...16 l/min - **C**
bore size - 40 16...21 l/min - **A**
21...28 l/min - **B**
28...37 l/min - **C**
37...49 l/min - **D**
49...63 l/min - **E**

SYMBOL



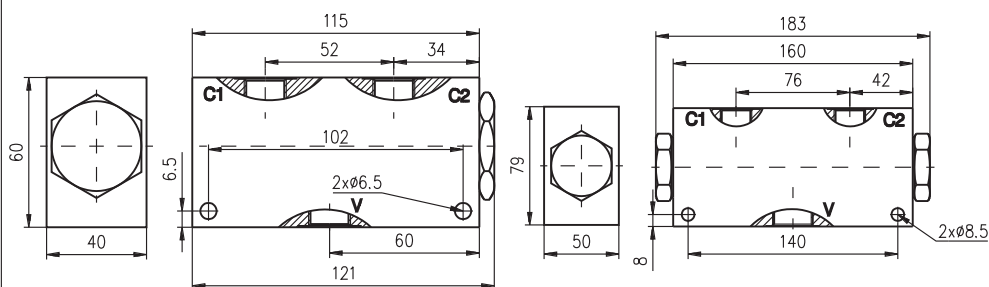
TECHNICAL DATA

Max. Pressure	320 bar	
Rated flow (Dp=2,5 bar.)	KDS-10A	5...7 l/min
	KDS-10B	7...12 l/min
	KDS-10C	12...16 l/min
	KDS-40A	16...21 l/min
	KDS-40B	21...28 l/min
	KDS-40C	28...37 l/min
	KDS-40D	37...49 l/min
	KDS-40E	49...63 l/min
Accuracy - ΔQ	±4%	
Working liquid-hydraulic oils with characteristics:		
-viscosity	10...400 cSt	
-degree of filtration	0,025 mm	
-temperature	-20...+80°C	

DESCRIPTION

- ✓ Dividing and combining valves for pipe mounting- FDC.....-...
- ✓ The dividing and combining valves are designed to separate the flow in the hydraulic system on two equal passages which pass equally in the return line. In that way synchronized movement is obtained for operating the actuator in both directions.

DIMENSIONS



TYPE FDC10	V	C1	C2
FDC10 38-12	G3/8"	G3/8"	G3/8"
FDC10 38-24	G3/8"	G3/8"	G3/8"
FDC10 12-40	G1/2"	G3/8"	G3/8"

TYPE FDC20	V	C1	C2
FDC20 34-90	G3/4"	G1/2"	G1/2"
FDC20 100-150	G1"	G3/4"	G3/4"

ORDERING CODE

FDC *** ** - ***

Dividing and combining valve

Modifications:

-10

-20

Connection "V" threads:

G3/8"-38

G1/2"-12

G3/4"-34

G1"-100

Flow rate range: modification - 10

4...12 l/min - 12

12...24 l/min - 24

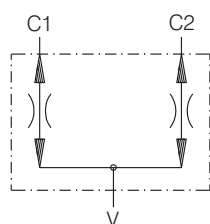
24...40 l/min - 40

modification - 20

40... 90 l/min - 90

80...150 l/min - 150

SYMBOL



TECHNICAL DATA

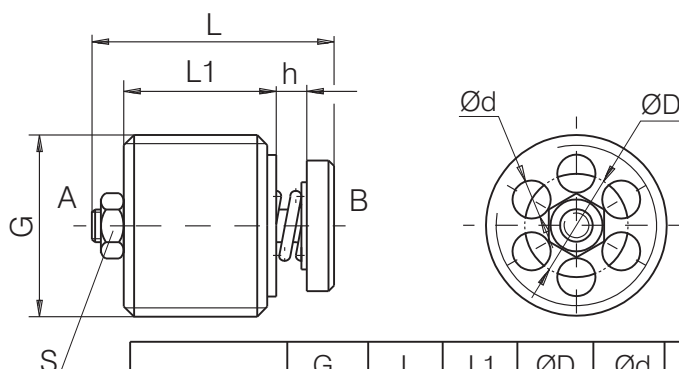
Max. Pressure		210 bar
Input flow	FDC10 38-12	4...12 l/min
	FDC10 38-24	12...24 l/min
	FDC10 12-40	24...40 l/min
	FDC20 34-90	40... 90 l/min
	FDC20 100-150	80...150 l/min
Accuracy at pressure diff. 12 MPa between C1 and C2 - ΔQ		±5%
Working liquid-hydraulic oils with characteristics:		
-viscosity		10...400 cSt
-degree of filtration		0,025 mm
-temperature		-20... +80°C

DESCRIPTION

- ✓ Hose burst check valves for pipe mounting-HC970...
- ✓ Hose burst check valves prevent against an uncontrollable, accelerated movement of a loaded hydraulic actuator, when the back pressure is lost (as a result of damage or rupture in the pressurized line or pipe connections).

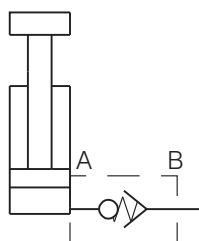
The valve is screwed directly into the pressurized inlet port of the hydraulic actuator.

DIMENSIONS



TYPE	G	L	L1	ØD	Ød	S
mm						
HC970-1/4	G1/4"	21	12	8	2,4	5,5
HC970-3/8	G3/8"	23	14	9,5	3,5	7
HC970-1/2	G1/2"	27	16	13	4,5	7
HC970-3/4	G3/4"	36	24	16	6	7

APPLICATIONS



ORDERING CODE

HC 970 - ***

Hose burst check valve
Modification

Mounting thread:

G1/4 -1/4

G3/8 -3/8

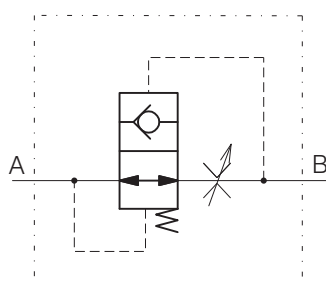
G1/2 -1/2

G3/4 -3/4

*Other available threads: (metric) on request

SYMBOL

detailed



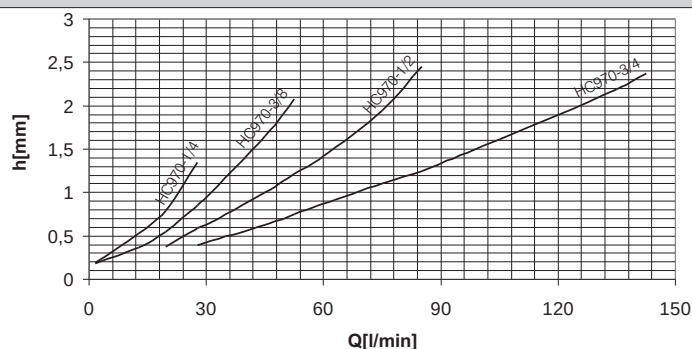
TECHNICAL DATA

Max. Pressure	320 bar
Rated flow - see characteristics	
Working liquid-hydraulic oils with characteristics:	
-viscosity	10...400 cSt
-degree of filtration	0,025 mm
-temperature	-20...+80°C

SETTING CURVES

Measured at
50°C and 46cSt

Deviation from
the flow is 10%



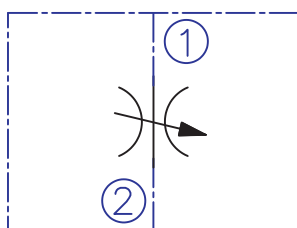
DESCRIPTION

A screw-in , cartridge-style , variable orifice , hydraulic flow restrictor valve.

OPERATION

The NV06-2A increases its orifice value from fully closed to fully open with counterclockwise adjustment rotation.

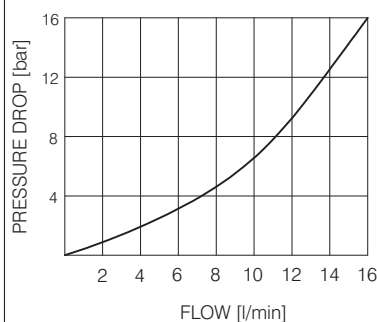
SYMBOL



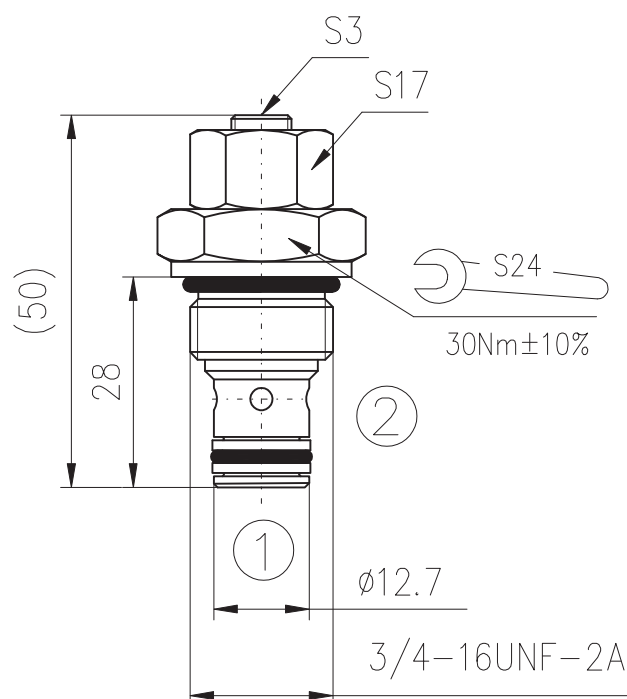
PERFORMANCE

Cartridge only

full open 2 to 1 or 1 to 2
32cSt oil at 40°C



DIMENSIONS



ORDERING CODE

NV06-2A ***

Needle valve

Seals: Buna N - N
Viton V - V

TECHNICAL DATA

Operating pressure	250bar
Flow:	11 l/min (at 7bar pressure differential) at full open
Internal leakage:	0,05cc/minute max. at shut-off
Working liquid-hydraulic oils with characteristics: -viscosity -degree of filtration -temperature	10...400 cSt 0,025 mm -20...+80°C
Cavity: See "Cavities and bodies" brochure	CC06-2

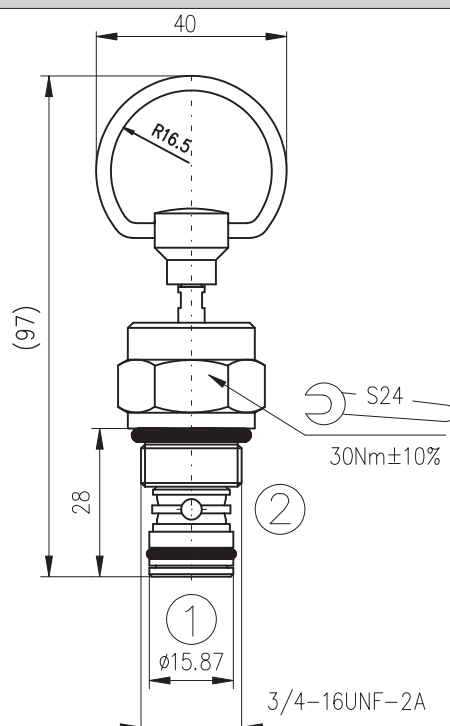
DESCRIPTION

A manual , 2-way , pull-to-open , screw-in , hydraulic directional control valve.

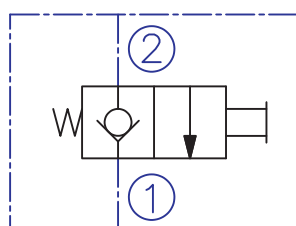
OPERATION

The MV08-2B blocks flow from 2 to 1 until an operator pulls the shaft outward.
 Note: Pressure at port 1 will directly act on the spool and spring. Port 1 is intended to be a tank port only.
 The bias spring allows for up to 12,4bar back-pressure at 1 before the valve will open.

DIMENSIONS



SYMBOL



ORDERING CODE

MV08-2B ***

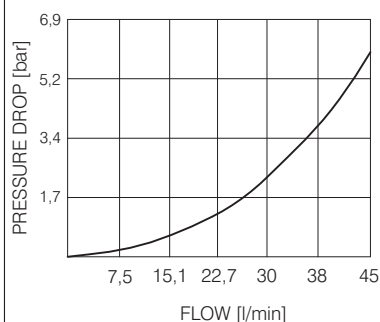
Manual spring return valve

Seals: Buna N - N
 Viton V - V

PERFORMANCE

Cartridge only

2 to 1
 32cSt oil at 40°C



TECHNICAL DATA

Operating pressure:	port 2 port 1	250bar 14bar
Flow:	See Performance Cart	
Internal leakage:	2 to 1	0,25cc/minute max. at 250bar
Mechanical Pull Effort Required at rated pressure	4,5kg initial 7kg full shift	
Working liquid-hydraulic oils with characteristics:	10...400 cSt 0,025 mm -20...+80°C	
-viscosity -degree of filtration -temperature		
Cavity:	See "Cavities and bodies" broshure	CC08-2

DESCRIPTION

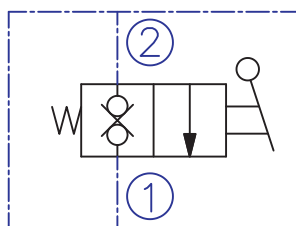
A manual , 2-way , pull-to-open , screw-in , hydraulic directional control valve.

OPERATION

The MV08-2B-A blocks flow from 2 to 1 until an operator pulls the lever outward.

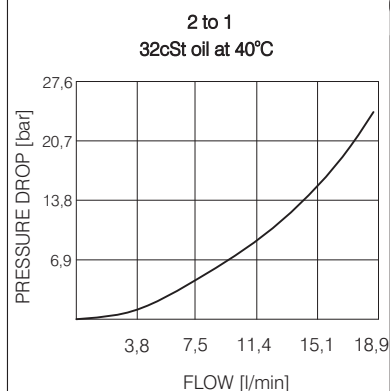
Note: Port 1 is intended to be a tank port only.

SYMBOL

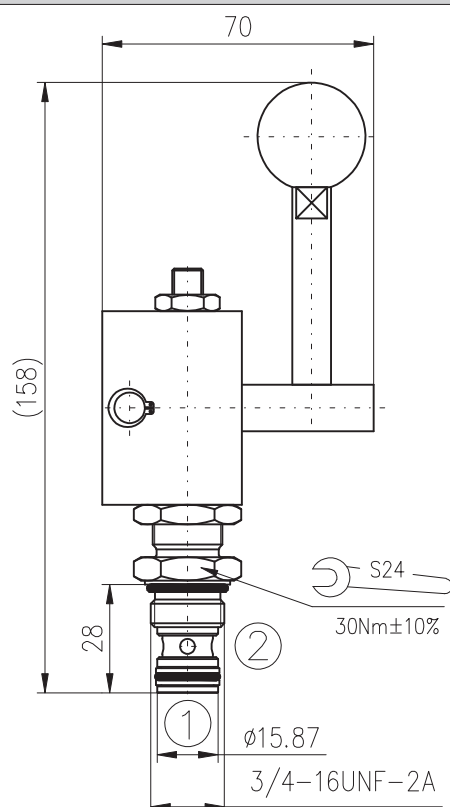


PERFORMANCE

Cartridge only



DIMENSIONS



ORDERING CODE

MV08-2B-A ***

Manual spring return valve

Seals: Buna N - N
 Viton V - V

TECHNICAL DATA

Operating pressure:	250bar
Flow: See Performance Cart	
Internal leakage:	0,25cc/minute max. at 250bar
Working liquid-hydraulic oils with characteristics: -viscosity -degree of filtration -temperature	10...400 cSt 0,025 mm -20...+80°C
Cavity: See "Cavities and bodies" brochure	CC08-2

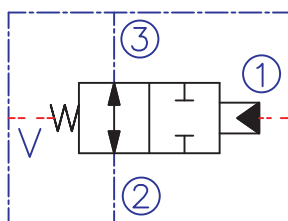
DESCRIPTION

A screw-in , cartridge-style , pilot-operated , spool-type , normally open , hydraulic directional valve for two-way circuit requiring remote pilot actuation.

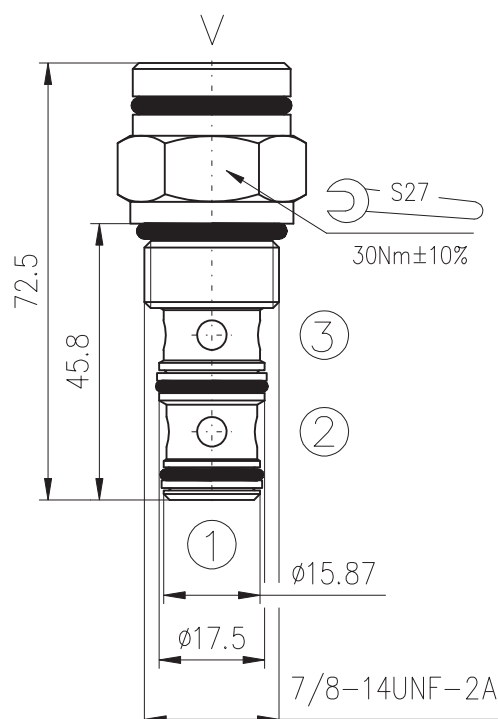
OPERATION

In neutral (unpiloted) , the HV10-3A allows flow from 3 to 2 bidirectionally. "V" is a spring chamber vent-to-atmosphere , which is internally O-ring sealed from the cartridge flow paths. On remote pilot signal at 1 , the valve shifts to block 3 to 2 bidirectionally.

SYMBOL



DIMENSIONS



ORDERING CODE

HV10-3A ***

Piloted 2-way spool ,
external vent

Seals:

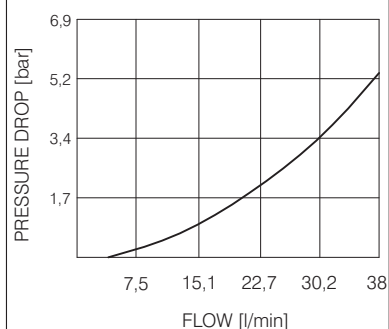
Buna N - N

Viton V - V

PERFORMANCE

Cartridge only

3 to 2
32cSt oil at 40°C



TECHNICAL DATA

Operating pressure:	240bar
Flow: See Performance Cart	
Internal leakage:	82cc/minute max. at 240bar
Pilot Pressure Required: to full spool shift	for 4,1bar spring for 7,6bar spring 4,7bar 8,6bar
Working liquid-hydraulic oils with characteristics: -viscosity -degree of filtration -temperature	10...400 cSt 0,025 mm -20...+80°C
Cavity: See "Cavities and bodies" brochure	CC10-3

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