

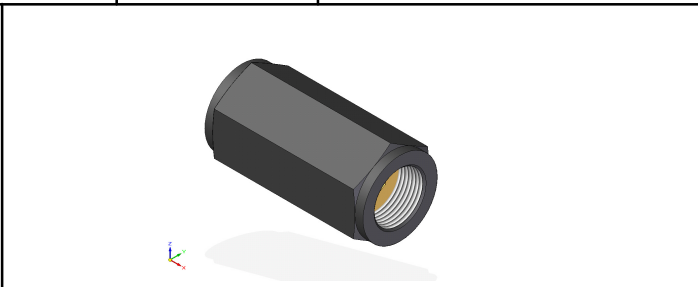


CMD NRT/12.23	Non Return valve type NRT			

Features :

- For in-line mounting
- Leakage-free in one direction
- Various cracking pressure, optional (see ordering code)

Symbols :   (without spring)



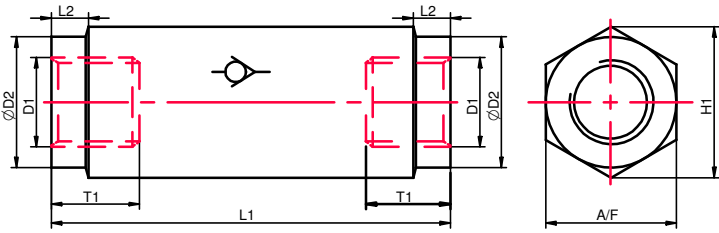
Ordering code

NRT					*
Nominal size 06	=06				Further details to specify
Nominal size 08	=08				
Nominal size 10	=10				Revision status index
Nominal size 15	=15				
Nominal size 20	=20				Cracking pressure in BAR
Nominal size 25	=25				
Nominal size 30	=30				
				0= Without spring	
				1= 1 Bar (Standard)	
				2= 2 Bar	
				3= 3 Bar	
				5= 5 Bar	

Technical data (for other sizes and special application, please contact mktg@cmhydraulics.com)

Maximum operating pressure	bar	315						
Cracking pressure	bar	0,1,2,3 & 5						
Maximum flow	Size	06	08	10	15	20	25	30
	L/min.	18	36	60	150	250	350	450
Pressure fluid		Mineral oil (HL,HLP) to DIN 51 524; Fast bio-degradable pressure fluids to VDMA 24 568;HTEG (rape seed oil); HEPG (polyglycol); HEES (synthetic ester); other fluids on request						
Pressure fluid - temperature range	°C	- 30 to + 80						
Viscosity range	mm ² /s	2.8 to 500						
Degree of contamination		Maximum permissible degree of contamination of the fluid is to NAS 1638 class 9.						
Weight	Size	06	08	10	15	20	25	30
	Kg.	0.1	0.2	0.3	0.5	1.0	2.0	2.5

Unit dimensions (Dimensions in mm)

		Size 06	Size 08	Size 10	Size 15	Size 20	Size 25	Size 30
	D1	G 1/4	G 3/8	G 1/2	G 3/4	G 1	G 1 1/4	G 1 1/2
	ØD2	19	24	30	36	46	60	65
	H1	22	28	34.5	41.5	53	69	75
	L1	58	58	72	85	98	120	132
	L2	5	5	5	5	5	5	5
	T1	16	14	16	18	22	24	26
	A/F	19	24	30	36	46	60	65

CMD
NRS/12.23

Non Return valve type NRS



Replaces : NRS 11.11

Size : 06 to 30

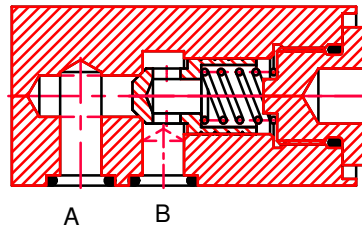
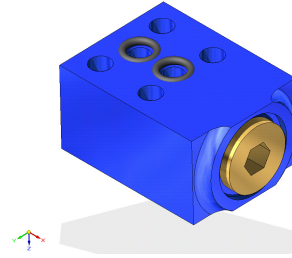
up to 315 bar

up to 450 L/min.

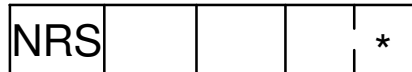
Features :

- For Subplate mounting
- Leakage-free in one direction
- Various cracking pressure, optional (see ordering code)

Symbols :  
(without spring)



Ordering code



Nominal size 06 =06
 Nominal size 10 =10
 Nominal size 20 =20
 Nominal size 30 =30

Further details to specify

Revision status index

- | | | |
|----|------------------|---------------------|
| 0= | Without spring | } Cracking pressure |
| 1= | 1 Bar (Standard) | |
| 2= | 2 Bar | |
| 3= | 3 Bar | |
| 5= | 5 Bar | |

Technical data (for other sizes and special application, please contact mktg@cmhydraulics.com)

Maximum operating pressure	bar	315			
Cracking pressure	bar	0,1,2,3 & 5			
Maximum flow	Size	06	10	20	30
	L/min.	18	60	250	450
Pressure fluid		Mineral oil (HL,HLP) to DIN 51 524; Fast bio-degradable pressure fluids to VDMA 24 568;HTEG (rape seed oil); HEPG (polyglycol); HEES (synthetic ester); other fluids on request			
Pressure fluid - temperature range	°C	- 30 to + 80			
Viscosity range	mm ² /s	2.8 to 500			
Degree of contamination		Maximum permissible degree of contamination of the fluid is to NAS 1638 class 9.			
Weight	Size	06	10	20	30
	Kg.	0.3	0.9	2.6	9

CMD
NRS/12.23

Non Return valve type NRS

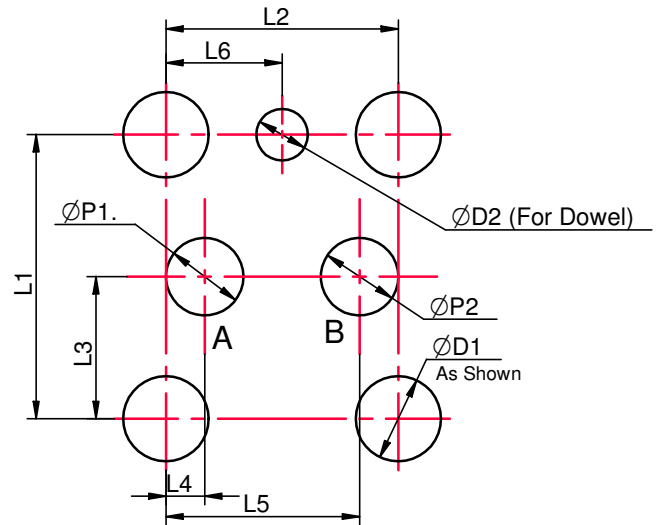
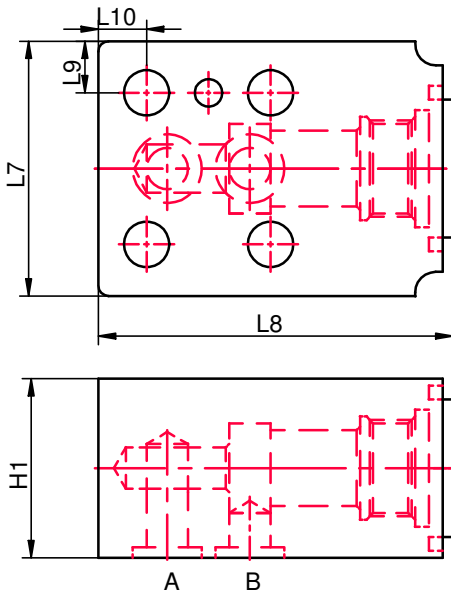


Replaces : NRS 11.11

Size : 06 to 30

up to 315 bar

up to 450 L/min.



Size	L1	L2	L3	L4	L5	L6	ØP1	ØP2	ØD1	ØD2	L7	L8	L9	L10	H1
06	22	18	11	3	15	9	6	6	6.6	4	37	52	7.5	7	26
10	36	33	18	6	27	16.5	10	10	9	4	55	79	9.5	9	38
20	50	55	25	10	45	27.5	20	20	11	6.3	70	103	10	10	55
30	75	85	37.5	20	65	42.5	30	30	14	7	105	162	15	15	82

CMD
NRPM/12.23

Pilot operated Non Return Valve Type NRPM



Replaces : NRPM 11.11

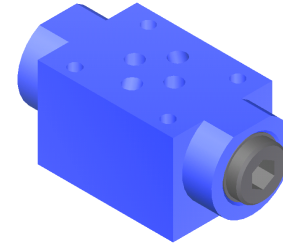
Size : 06 & 10

up to 315 bar

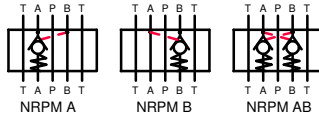
up to 80 L/min.

Features :

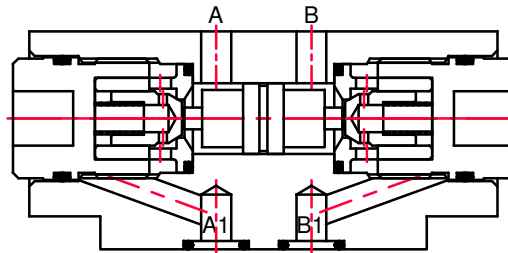
- Sandwich plate type valve
- Check valve facility on A,B or both A & B ports
- Free flow in reverse direction is achieved by means of pilot pressure in other working port
- Various cracking pressure, optional (see ordering code)



Symbol :



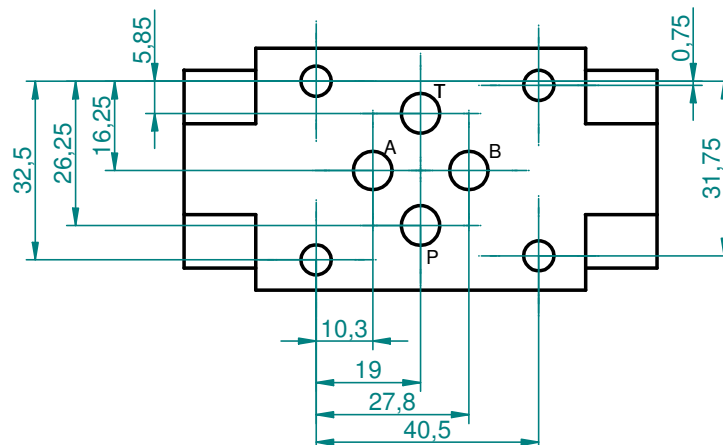
Sectional view



Ordering code

NRPM		*
Pilot operated Non Return valve (Modular construction)		Further details to specify
Nominal size 06	=06	Revision status index
Nominal size 10	=10	
Pilot optd. check facility		0= Without spring 1= Standard 2= 3= 5= } Cracking pressure in bar
on port A & B	=AB	
on port A	=A	
on port B	=B	
For NBR seals	=No code	
For FPM seals	=N	

Unit dimensions NG 06



CMD
NRPM/12.23

Pilot operated Non Return
Valve Type NRPM



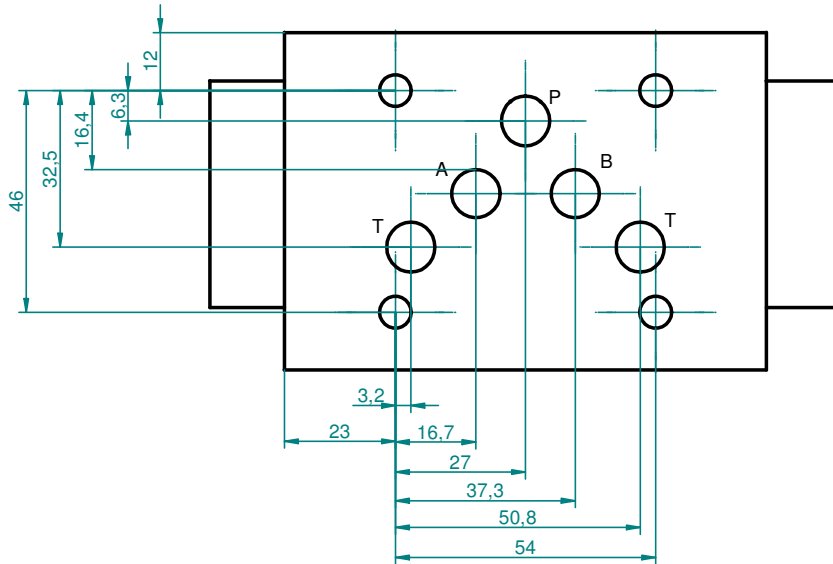
Replaces : NRPM 11.11

Size : 06 & 10

up to 315 bar

up to 80 L/min.

Unit dimensions NG 10



Technical data (for other sizes and special application, please contact mktg@cmhydraulics.com)

Mounting style	Sandwich type valve		
Mounting position	optional		
Cracking pressure	bar	0,1,2,3 & 5	
Maximum operating pressure	bar	315	
Flow Direction	From A to A1 or B to B1 free flow, pilot flow in other direction		
Maximum flow	Size	06	10
	L/min.	35	80
Pressure fluid	Mineral oil (HL,HLP) to DIN 51 524; Fast bio-degradable pressure fluids to VDMA 24 568;HTEG (rape seed oil); HEPG (polyglycol); HEES (synthetic ester); other fluids on request		
Pressure fluid - temperature range	°C	- 30 to + 80	
Viscosity range	mm ² /s	2.8 to 500	
Degree of contamination	Maximum permissible degree of contamination of the fluid is to NAS 1638 class 9.		
Weight	Size	06	10
	Kg.	0.86	2.05

CMD
NRP-I/12.23

Pilot operated Non Return Valve Type NRP-I



Replaces : NRP-I 11.11

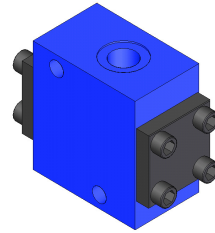
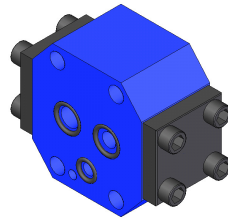
Size : 10,20 & 30

up to 315 bar

up to 350 L/min.

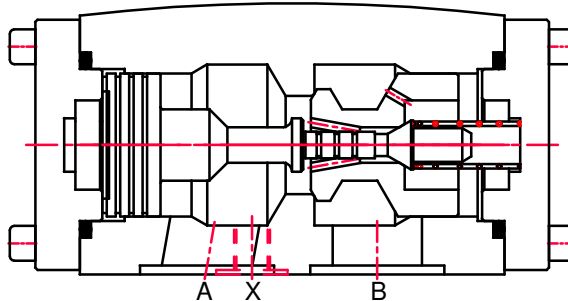
Features :

- Seat type with decompression poppet
- Internal drain construction
- Free flow in one direction
- Pilot flow in another direction
- Various cracking pressure, optional (see ordering code)



Symbol :

Sectional view



Ordering code

NRP-I 10 T 1 *

Pilot operated Non Return valve
(Internal drain)

Nominal size 10

=10

Nominal size 20

=20

Nominal size 30

=30

For subplate mounting

=S

For threaded connection

=T

Further details to specify

Revision status index

0= Without spring

1= Standard

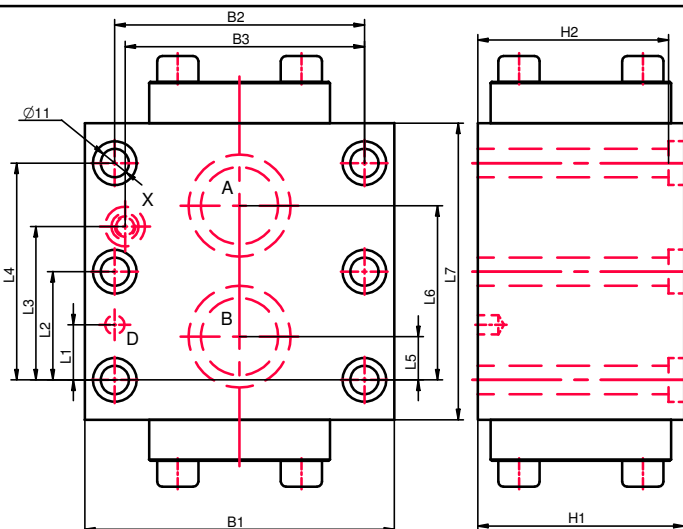
2=

3=

5=

Cracking pressure
in bar

Subplate mounting body



	Size 10	Size 20	Size 30
L1	31.8	44.5	31.8
L2	-	-	42.1
L3	21.5	20.6	24.6
L4	42.9	60.3	84.2
L5	35.8	49.2	67.5
L6	7.2	11.1	16.7
L7	116	135	173

	Size 10	Size 20	Size 30
L8	18.5	17.5	15.5
B1	85	100	120
B2	66.7	79.4	96.8
B3	58.8	73	92.8
H1	47	57	80
H2	-	-	74

CMD
NRP-I/12.23

Pilot operated Non Return
Valve Type NRP-I



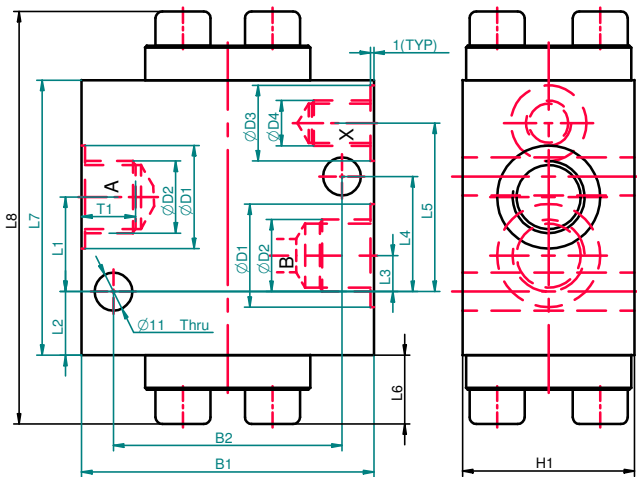
Replaces : NRP-I 11.11

Size : 10,20 & 30

up to 315 bar

up to 350 L/min.

Threaded port body



Size	L1	L2	L3	L4	L5	L6	L7	L8
10	27.5	18.5	10.5	33.5	49	18	80	116
20	36.7	17.3	13.5	50.5	67.7	20	95	135
30	54.5	15.5	20.5	73.5	89.5	29	115	173

Size	B1	B2	ØD1	ØD2	ØD3	ØD4	H1	T1
10	66.5	85	30	G 1/2	G 1/4	22	47	14
20	79.5	100	44	G 1	G 1/4	22	57	18
30	97	120	60	G 1 1/2	G 1/4	22	80	22

Technical data (for other sizes and special application, please contact mktg@cmhydraulics.com)

Mounting style	Threaded port or subplate				
Mounting position	optional				
Cracking pressure	bar	0,1,2,3 & 5			
Maximum operating pressure	bar	315			
Flow Direction	From A to B free, from B to A through pilot				
Control Areas	Size	10	20	30	
	Main Poppet	3.1 cm ²	8.0 cm ²	12.5 cm ²	
	Pilot piston	0.7 cm ²	3.8 cm ²	6.1 cm ²	
	Decompression Poppet	0.2 cm ²	0.5 cm ²	0.7 cm ²	
Maximum flow	Size	10	20	30	
	L/min.	80	160	350	
Pressure fluid	Mineral oil (HL,HLP) to DIN 51 524; Fast bio-degradable pressure fluids to VDMA 24 568;HTEG (rape seed oil); HEPG (polyglycol); HEES (synthetic ester); other fluids on request				
Pressure fluid - temperature range	°C	- 30 to + 80			
Viscosity range	mm ² /s	2.8 to 500			
Degree of contamination	Maximum permissible degree of contamination of the fluid is to NAS 1638 class 9.				
Weight	Size	10	20	30	
	Subplate	Kg	2.5	4.1	8.5
	Threaded body	Kg	2.4	4.0	8.4

CMD
SV/12.23

Shuttle Valve type SV



Replaces : STL 11.11

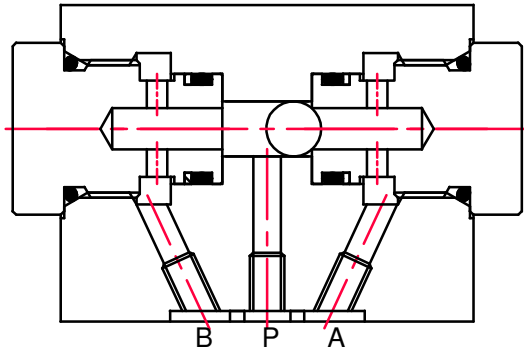
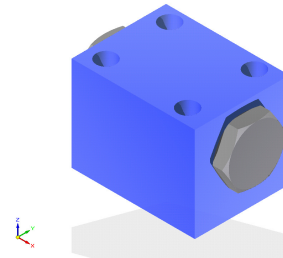
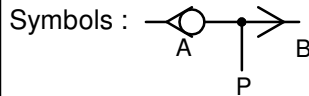
Size : 06

up to 315 bar

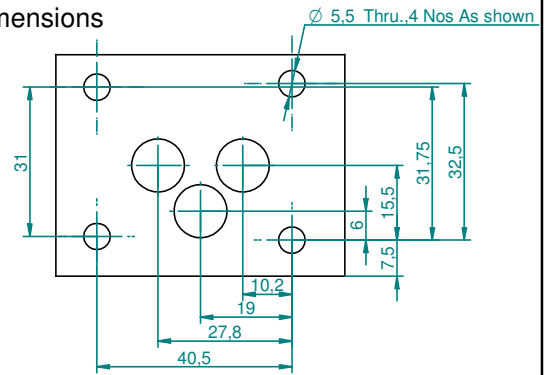
up to 18 L/min.

Features :

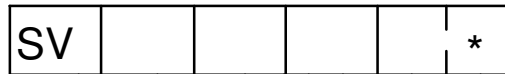
- Port P connected to both A & B
- Isolates Port A & Port B from each other
- Available in subplate & threaded construction (see ordering code)



Mounting Dimensions



Ordering code



Nominal size 06

=06

Subplate type

=S

Further details to specify
Revision status index

Port Connection (for threaded)

- 1= 1/4" BSP
- 2= 3/8" BSP

Technical data (for other sizes and special application, please contact mktg@cmhydraulics.com)

Maximum operating pressure	bar	315
Maximum flow	Size	06
	L/min.	18
Pressure fluid		Mineral oil (HL,HLP) to DIN 51 524; Fast bio-degradable pressure fluids to VDMA 24 568;HTEG (rape seed oil); HEPG (polyglycol); HEES (synthetic ester); other fluids on request
Pressure fluid - temperature range	°C	- 30 to + 80
Viscosity range	mm ² /s	2.8 to 500
Degree of contamination		Maximum permissible degree of contamination of the fluid is to NAS 1638 class 9.