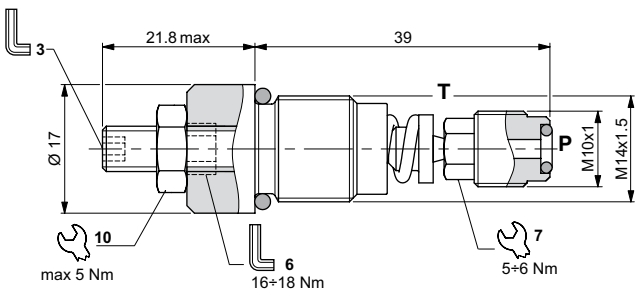
DIRECT ACTING PRESSURE RELIEF VALVES (FOR HPV VALVES)



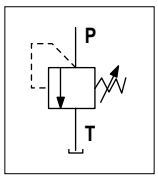
00012001	Spare seals kit

The direct acting relief valve limits the pressure in a hydraulic circuit to within the specified calibration range.
It has a galvanised steel body. The tapered poppet is in tempered steel.

HYDRAULIC FEATURES

Max. working pressure	400 bar
Max. Flow	5 l/min
Hydraulic fluid	DIN 51524 Mineral oils
Fluid viscosity	10 ÷ 500 mm²/s
Fluid temperature	-25°C ÷ 75°C
Ambient temperature	-25°C ÷ 60°C
Max. contamin. level class with filter	ISO 4406:1999 - class 19/17/14
Weight	0.038 kg
Tightening torque	see draw
Cavity (M14x1.5)	CN032005 (See section 15)

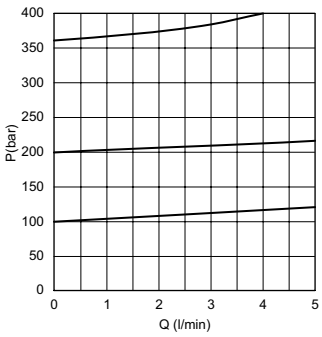
HYDRAULIC SYMBOL



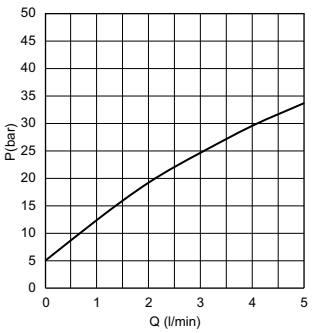
ORDERING CODE

Code	Description
RKVL1130002	Direct acting relief valve

PRESSURE-FLOW RATE

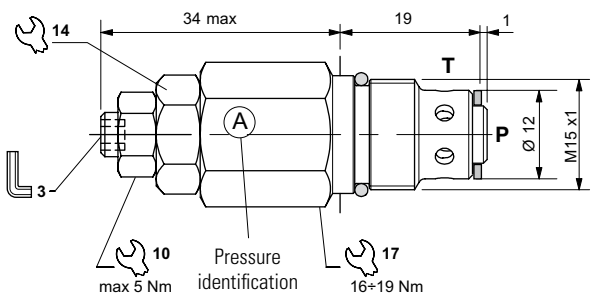


MIN.SETTING PRESSURE



Fluid used: mineral based oil with viscosity 46 mm²/s at 40°C.

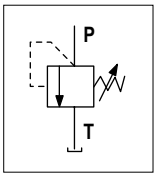
DIRECT ACTING PRESSURE RELIEF VALVES (FOR POWER PACKS SERIES MR/MW)



00012002	Spare seals kit

The direct acting relief valve limits the pressure in a hydraulic circuit.
It raises the safety level by making it impossible for the plant operators to set a higher pressure rating, than that specified in the catalogue. It has a pack spring with a mechanical stop.
It has a galvanised steel body. The guided ball poppet is in tempered and ground steel.

HYDRAULIC SYMBOL



HYDRAULIC FEATURES

Max. working pressure	220 bar
Setting range: Spring A Spring C Spring C	 25 ÷ 80 bar 75 ÷ 220 bar 5 ÷ 30 bar
Max. Flow	6 l/min
Hydraulic fluid	DIN 51524 Mineral oils
Fluid viscosity	10 ÷ 500 mm^2/s
Fluid temperature	-25°C ÷ 75°C
Ambient temperature	-25°C ÷ 60°C
Max. contamin. level class with filter	ISO 4406:1999 - class 19/17/14
Weight	0.05 kg
Tightening torque	see draw
Cavity (M15x1)	CN033001 (See section 15)

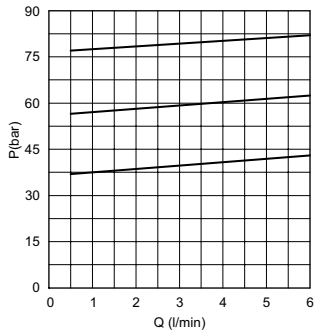
The minimum permissible setting pressure depending on the spring: see curves below

ORDERING CODE

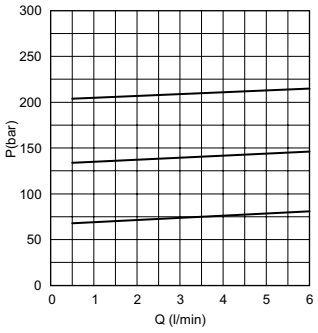
Code	Identification (see draw)	Setting range	Pressure increasing at each turn of screw
21000010.000	A	25 ÷ 80 bar	17 bar ± 10%
21000011.000	B	75 ÷ 220 bar	45 bar ± 10%
21000009.000	C	5 ÷ 30 bar	7 bar ± 10%

PRESSURE-FLOW RATE

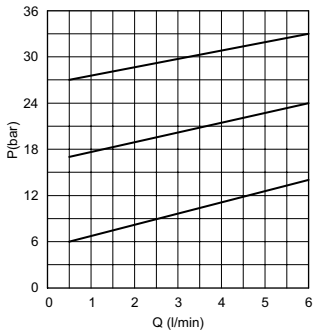
25 ÷ 80 bar



75 ÷ 220 bar

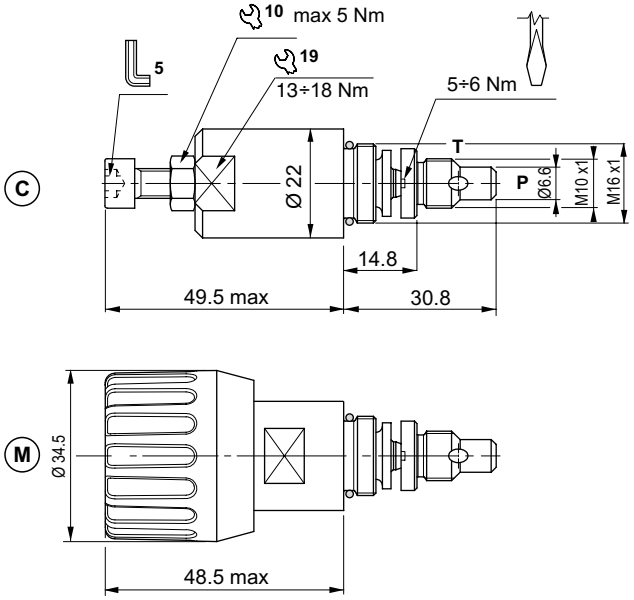


5 ÷ 30 bar



Fluid used: mineral based oil with viscosity 32 mm^2/s at 50°C.

DIRECT ACTING PRESSURE RELIEF VALVES



Q25830021	O-ring spare part

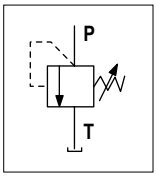
The direct acting relief valve limits the pressure in a hydraulic circuit.
It raises the safety level by making it impossible for the plant operators to set a higher pressure rating, than that specified in the catalogue. This is limited by a pack spring with a mechanical stop (only standard screw and nut), which prevents temporary P closures caused by pressure peaks.
It has a galvanised steel body. The guided ball poppet is in tempered and ground steel.

HYDRAULIC FEATURES

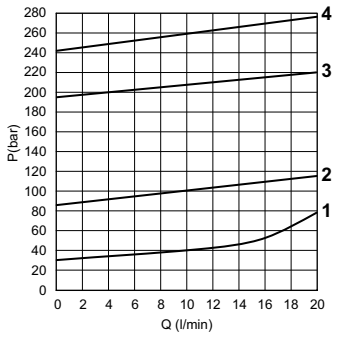
Max. working pressure	250 bar
Setting range: Spring 1 (white) Spring 2 (yellow) Spring 3 (green) Spring 4 (orange)	 max 30 bar max 90 bar max 180 bar max 250 bar
Max. Flow	20 l/min
Hydraulic fluid	DIN 51524 Mineral oils
Fluid viscosity	10 ÷ 500 mm²/s
Fluid temperature	-25°C ÷ 75°C
Ambient temperature	-25°C ÷ 60°C
Max. contamin. level class with filter	ISO 4406:1999 - class 19/17/14
Weight	0.1 kg
Tightening torque	see draw
Cavity (M16x1)	CN036001 (See section 15)

The minimum permissible setting pressure depending on the spring: see curves below

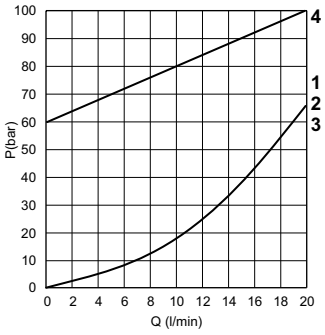
HYDRAULIC SYMBOL



PRESSURE-FLOW RATE



MIN.SETTING PRESSURE



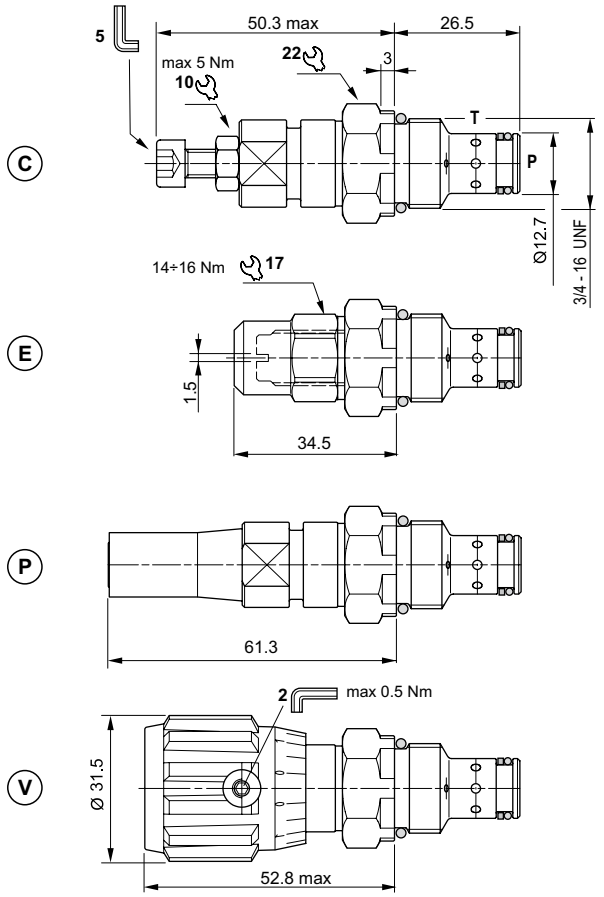
1 = CMP02C1.. - **2** = CMP02C2.. - **3** = CMP02C3.. - **4** = CMP02C4..
Fluid used: mineral based oil with viscosity 46 mm²/s at 40°C.

ORDERING CODE

CMP	02	*	*	**	1

- **CMP** = Pressure relief valve (Series)
- **02** = M16 x 1 (Size)
- **C** = Screw, **M** = Plastic knob (Adjustment)
- **00** = No variants, **V1** = Viton (Variants)
- **1** = Max 30 bar (white spring), **2** = Max 90 bar (yellow spring), **3** = Max 180 bar (green spring), **4** = Max 250 bar (orange spring) (Setting ranges)
- **1** = Serial No.

DIRECT ACTING PRESSURE RELIEF VALVES



00012003	Spare seals kit

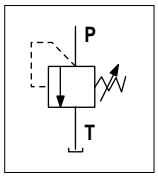
The direct acting relief valve limits the pressure in a hydraulic circuit.
It raises the safety level by making it impossible for the plant operators to set a higher pressure rating, than that specified in the catalogue. It has a pack spring with a mechanical stop (only standard screw and nut).
It has a galvanised steel body. The guided ball poppet is in tempered and ground steel.

HYDRAULIC FEATURES

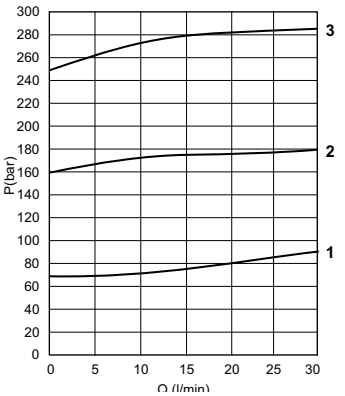
Max. working pressure	330 bar
Setting range: Spring 1 (white) Spring 2 (yellow) Spring 3 (green)	 max 70 bar max 160 bar max 330 bar
Max. Flow	30 l/min
Hydraulic fluid	DIN 51524 Mineral oils
Fluid viscosity	10 ÷ 500 mm²/s
Fluid temperature	-25°C ÷ 75°C
Ambient temperature	-25°C ÷ 60°C
Max. contamin. level class with filter	ISO 4406:1999 - class 19/17/14
Weight	0.092 kg
Tightening torque	25 ÷ 30 Nm
Cavity (3/4 - 16 UNF)	CD018006 (See section 15)

The minimum permissible setting pressure depending on the spring: see curves below

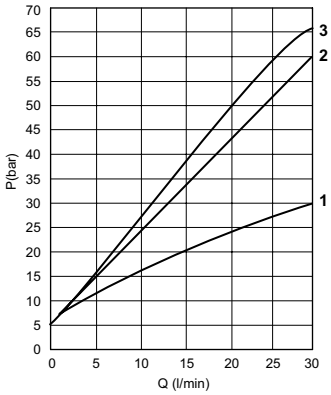
HYDRAULIC SYMBOL



PRESSURE-FLOW RATE



MIN.SETTING PRESSURE



1 = CMP04*1.. - **2** = CMP04*2.. - **3** = CMP04*3..
Fluid used: mineral based oil with viscosity 32 mm²/s at 40°C.

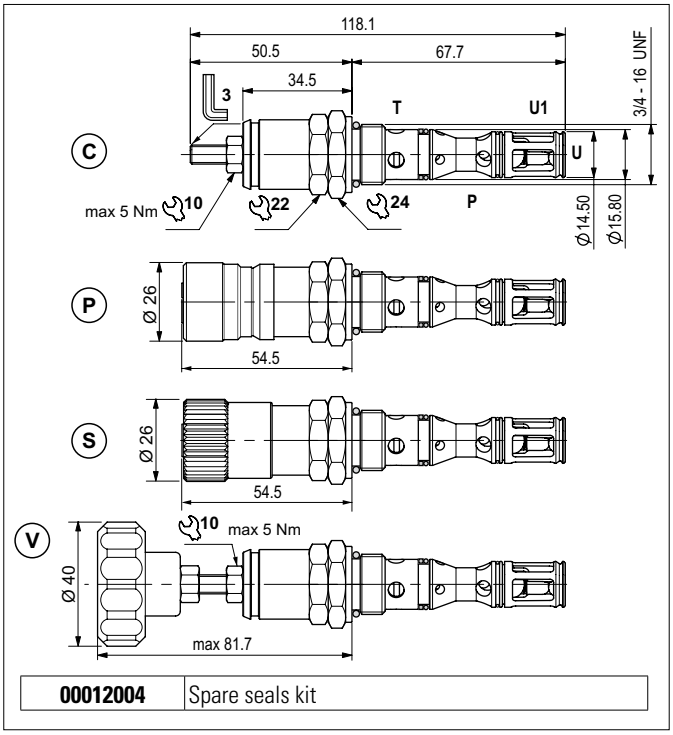
ORDERING CODE

CMP	04	*	*	00	1

- **CMP** = Pressure relief valve (Series)
- **04** = 3/4 - 16 UNF (Size)
- **C** = Screw
  E = Short screw
  P = **C +** Sealed cap
  V = Plastic knob (Adjustment)
- **00** = No variants (Variants)
- **1** = Max 70 bar (white spring)
  2 = Max 160 bar (yellow spring)
  3 = Max 330 bar (green spring)
  (Setting ranges)
- **1** = Serial No.

CMPR04

DIRECT ACTING PRESSURE RELIEF VALVES WITH ONE-WAY CHECK VALVE



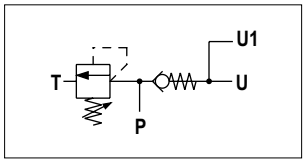
00012004	Spare seals kit

The valve has a combined function in a single cartridge. It consists of a direct acting maximum pressure valve and a unidirectional check valve.
The relief valve raises the safety level by making it impossible for the plant operators to set a higher pressure rating, than that specified in the catalogue.
It has a pack spring with a mechanical stop.
The spring in the check valve enables the cartridge to be mounted in any position.
It has a galvanised steel body. The tapered poppet of the relief valve and the guided ball poppet are made from tempered and ground steel.

HYDRAULIC FEATURES

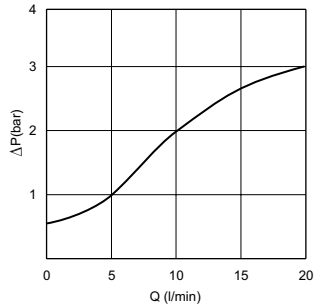
Max. working pressure	320 bar
Max. Flow	20 l/min
Setting ranges (spring)	**1** = 10 ÷ 60 bar (green) **2** = > 60 ÷ 180 bar (yellow) **3** = > 180 ÷ 320 bar (blue)
One-way check	0,5 bar (standard)
Check valve leakage (0 ÷ 5 drops/min)	0 ÷ 0.25 cm^3/min
Hydraulic fluid	DIN 51524 Mineral oils
Fluid viscosity	10 ÷ 500 mm^2/s
Fluid temperature	-25°C ÷ 75°C
Ambient temperature	-25°C ÷ 60°C
Max. contamin. level class with filter	ISO 4406:1999 - class 19/17/14
Weight	0.18 kg
Tightening torque	25 ÷ 30 Nm
Cavity (3/4 - 16 UNF)	CD018013 (See section 15)

HYDRAULIC SYMBOL



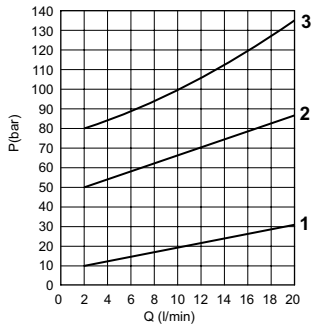
PRESSURE DROPS (P → U)

Check valve



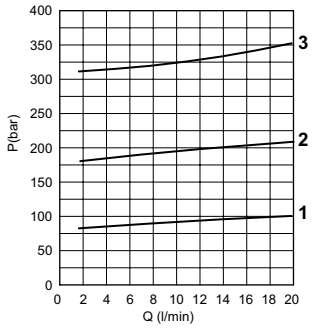
MIN. SETTING PRESSURE (P → T)

Relief valve



PRESSURE - FLOW (P → T)

Relief valve



Fluid used: mineral based oil with viscosity 32 mm^2/s at 50°C.

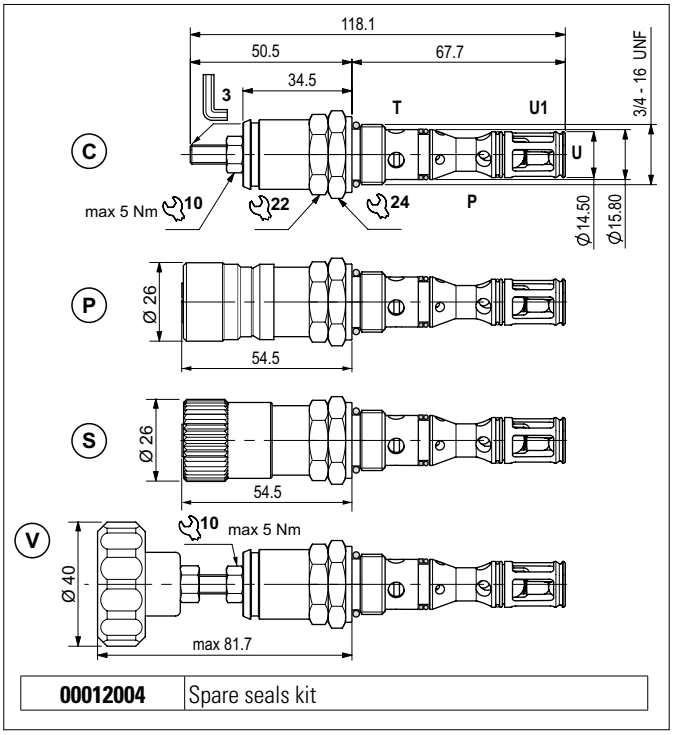
ORDERING CODE

CMP	R	04	*	*	*	00	1

- Series: **CMP** = Pressure relief valve
- **R** = With check valve
- Size: **04** = 3/4 - 16 UNF
- Setting: **C** = Screw; **P** = **C** + Plug no detachable closing (unremovable version); **S** = **C** + Plug detachable closing; **V** = Handwheel
- Setting ranges: **1** = 10 ÷ 60 bar (green spring); **2** = > 60 ÷ 180 bar (yellow spring); **3** = > 180 ÷ 320 bar (blue spring)
- **0** = With standard check-valve; **S** = Without standard check-valve
- Variants: **00** = No variants
- **1** = Serial No.

CMPHR04

DIRECT ACTING HIGH PRESSURE RELIEF VALVES WITH ONE-WAY CHECK VALVE



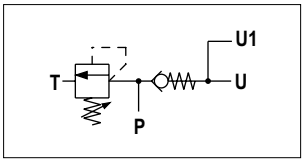
00012004	Spare seals kit

The valve has a combined function in a single cartridge. It consists of a direct acting maximum pressure valve and a unidirectional check valve.
The relief valve raises the safety level by making it impossible for the plant operators to set a higher pressure rating, than that specified in the catalogue.
It has a pack spring with a mechanical stop.
The spring in the check valve enables the cartridge to be mounted in any position.
It has a galvanised steel body. The tapered poppet of the relief valve and the guided ball poppet are made from tempered and ground steel.

HYDRAULIC FEATURES

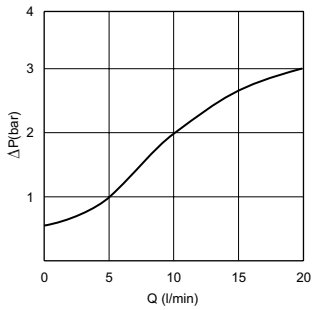
Max. working pressure	360 bar
Max. Flow	15 l/min
Setting ranges (spring)	**1** = > 320 ÷ 360 bar (blue)
One-way check	0.5 bar (standard)
Check valve leakage (0 ÷ 5 drops/min)	0 ÷ 0.25 cm^3/min
Hydraulic fluid	DIN 51524 Mineral oils
Fluid viscosity	10 ÷ 500 mm^2/s
Fluid temperature	-25°C ÷ 75°C
Ambient temperature	-25°C ÷ 60°C
Max. contamin. level class with filter	ISO 4406:1999 - class 19/17/14
Weight	0.18 kg
Tightening torque	25 ÷ 30 Nm
Cavity (3/4 - 16 UNF)	CD018013 (See section 15)

HYDRAULIC SYMBOL



PRESSURE DROPS (P → U)

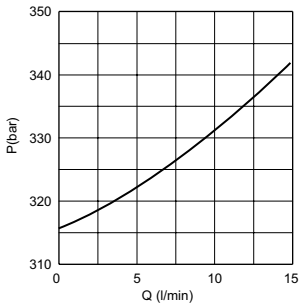
Check valve



Fluid used: mineral based oil with viscosity 32 mm^2/s at 50°C.

PRESSURE - FLOW (P → T)

Relief valve



Fluid used: mineral based oil with viscosity 32 mm^2/s at 50°C.

ORDERING CODE

CMPH	R	04	*	*	1	00	1

Series
CMPH = High pressure relief valve
R = With check valve

Size
04 = 3/4 - 16 UNF

Setting
C = Screw
P = **C** + Plug no detachable closing (unremovable version)
S = **C** + Plug detachable closing
V = Handwheel

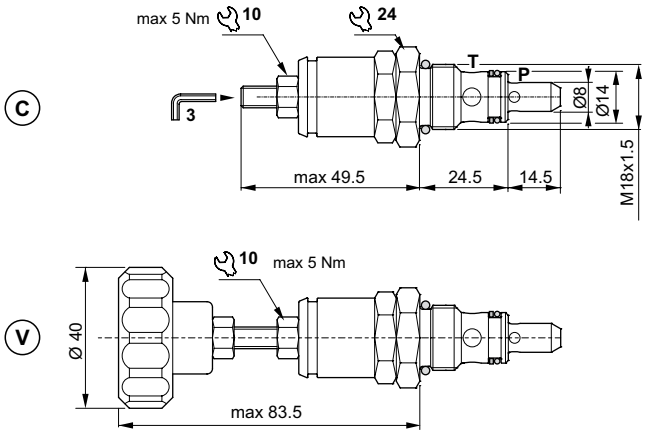
Setting ranges
1 = > 320 ÷ 360 bar (blue spring)

0 = With standard check-valve
S = Without standard check-valve

Variants
00 = No variants

1 = Serial No.

DIRECT ACTING PRESSURE RELIEF VALVES (FOR POWER PACKS SERIES MC/MS)



00012005	Spare seals kit

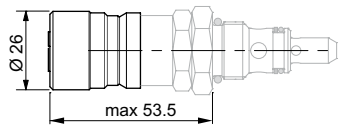
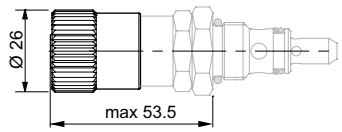
The direct acting relief valve limits the pressure in a hydraulic circuit. It raises the safety level by making it impossible for the plant operators to set a higher pressure rating, than that specified in the catalogue. It has a pack spring with a mechanical stop. It has a galvanised steel body. The guided ball poppet is in tempered and ground steel.

HYDRAULIC FEATURES

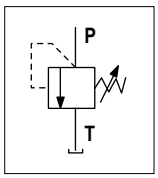
Max. working pressure	290 bar
Setting range: Spring 0 (white) Spring 1 (green) Spring 2 (yellow) Spring 3 (red)	 max 50 bar max 90 bar max 190 bar max 290 bar
Max. Flow	20 l/min
Hydraulic fluid	DIN 51524 Mineral oils
Fluid viscosity	10 ÷ 500 mm^2/s
Fluid temperature	-25°C ÷ 75°C
Ambient temperature	-25°C ÷ 60°C
Max. contamin. level class with filter	ISO 4406:1999 - class 19/17/14
Weight	0,12 kg
Tightening torque	28 ÷ 32 Nm
Cavity (M18x1.5)	CN041009 (See section 15)

The minimum permissible setting pressure depending on the spring: see curves below

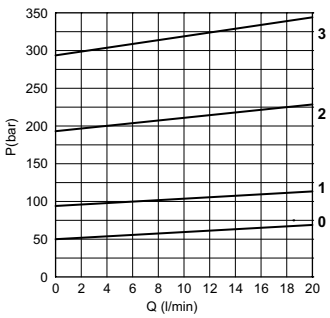
ACCESSORIES

Detachable plug	Code
Unremovable version 	**60309200**
Removable version 	**60309100**

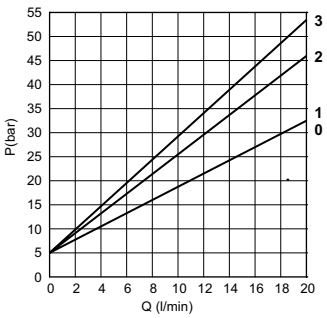
HYDRAULIC SYMBOL



PRESSURE-FLOW RATE



MIN.SETTING PRESSURE



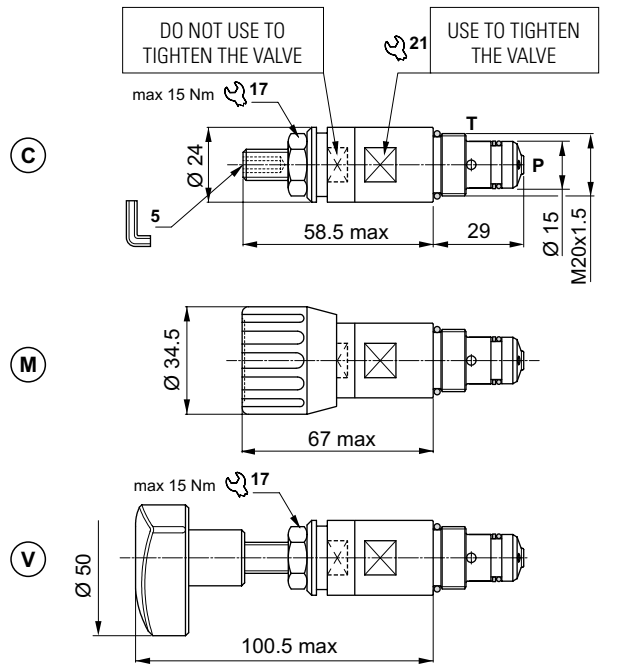
0 = 0 ÷ 50 bar - **1** = 35 ÷ 90 bar - **2** = 75 ÷ 190 bar - **3** = 160 ÷ 290 bar
Fluid used: mineral based oil with viscosity 46 mm^2/s at 40°C.

ORDERING CODE

Adjustment	Setting ranges	Code
C Screw	0 ÷ 50 bar (white spring)	**21000016.000**
	35 ÷ 90 bar (green spring)	**21000000.000**
	75 ÷ 190 bar (yellow spring)	**21000001.000**
	160 ÷ 290 bar (red spring)	**21000002.000**

Adjustment	Setting ranges	Code
V Handwheel	0 ÷ 50 bar (white spring)	**21000017.000**
	35 ÷ 90 bar (green spring)	**210000 03.000**
	75 ÷ 190 bar (yellow spring)	**21000004.000**
	160 ÷ 290 bar (red spring)	**21000005.000**

DIRECT ACTING PRESSURE RELIEF VALVES



00012006	Spare seals kit

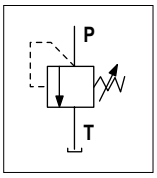
The direct acting relief valve limits the pressure in a hydraulic circuit.
It raises the safety level by making it impossible for the plant operators to set a higher pressure rating, than that specified in the catalogue. This is limited by a pack spring with a mechanical stop, which prevents temporary P closures caused by pressure peaks.
It has a galvanised steel body. The guided ball poppet is in tempered and ground steel.

HYDRAULIC FEATURES

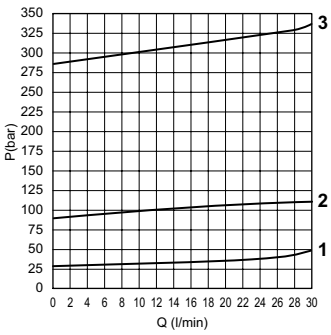
Max. working pressure	290 bar
Setting range: Spring 1 (white) Spring 2 (yellow) Spring 3 (green)	 max 30 bar max 90 bar max 290 bar
Max. Flow	30 l/min
Hydraulic fluid	DIN 51524 Mineral oils
Fluid viscosity	10 ÷ 500 mm²/s
Fluid temperature	-25°C ÷ 75°C
Ambient temperature	-25°C ÷ 60°C
Max. contamin. level class with filter	ISO 4406:1999 - class 19/17/14
Weight	0.17 kg
Tightening torque	30 ÷ 35 Nm
Cavity (M20x1.5)	CN044001 (See section 15)

The minimum permissible setting pressure depending on the spring: see curves below

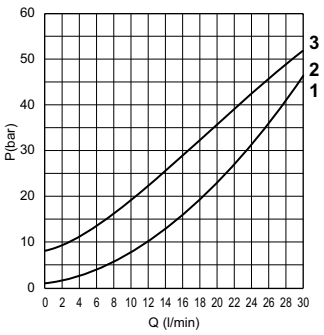
HYDRAULIC SYMBOL



PRESSURE-FLOW RATE



MIN.SETTING PRESSURE



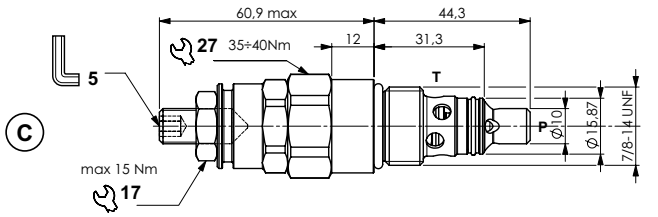
1 = CMP06.1.. - **2** = CMP06.2.. - **3** = CMP06.3..
Fluid used: mineral based oil with viscosity 46 mm²/s at 40°C.

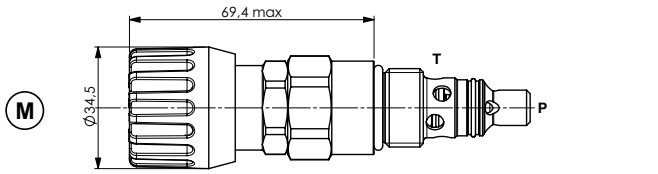
ORDERING CODE

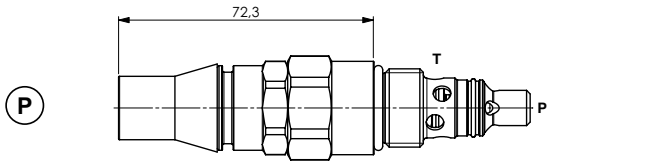
CMP	06	*	*	**	4

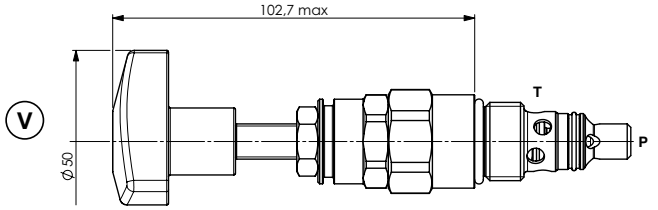
- Series: **CMP** = Pressure relief valve
- Size: **06** = M20 x 1.5
- Adjustment: **C** = Screw; **M** = Plastic knob; **V** = Handwheel
- Setting ranges: **1** = Max 30 bar (white spring); **2** = Max 90 bar (yellow spring); **3** = Max 290 bar (green spring)
- Variants: **00** = No variants; **V1** = Viton
- **4** = Serial No.

DIRECT ACTING PRESSURE RELIEF VALVES









00012034	Spare seals kit

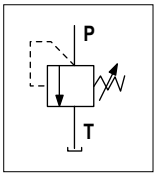
The direct acting relief valve limits the pressure in a hydraulic circuit.
It raises the safety level by making it impossible for the plant operators to set a higher pressure rating, than that specified in the catalogue. This is limited by a pack spring with a mechanical stop.
It has a galvanised steel body. The guided ball poppet is in tempered and ground steel.

HYDRAULIC FEATURES

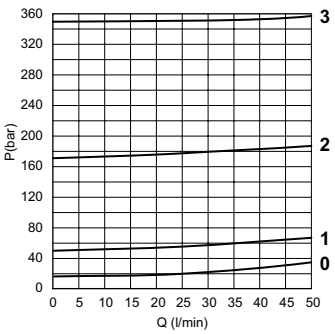
Max. working pressure	350 bar
Setting range: Spring 1 (orange) Spring 1 (white) Spring 2 (yellow) Spring 3 (neutral)	 max 15 bar max 50 bar max 170 bar 70 ÷ 350 bar
Max. Flow	50 l/min
Hydraulic fluid	DIN 51524 Mineral oils
Fluid viscosity	10 ÷ 500 mm²/s
Fluid temperature	-25°C ÷ 75°C
Ambient temperature	-25°C ÷ 60°C
Max. contamin. level class with filter	ISO 4406:1999 - class 19/17/14
Weight	0.22 kg
Tightening torque	35 ÷ 40 Nm
Cavity (7/8 - 14 UNF)	CD019011 (See section 15)

The minimum permissible setting pressure depending on the spring: see curves below

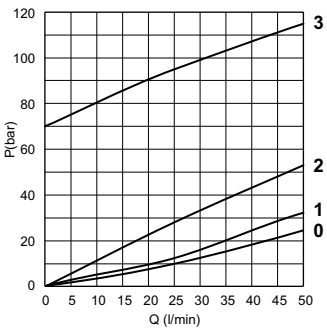
HYDRAULIC SYMBOL



PRESSURE-FLOW RATE



MIN.SETTING PRESSURE



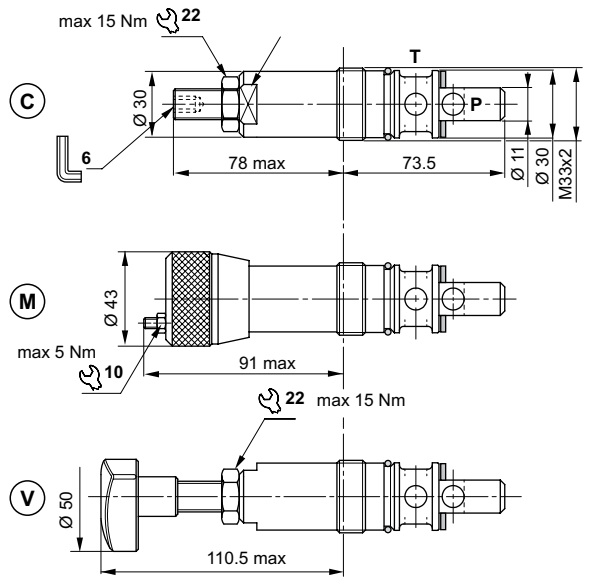
0 = CP06.0.. - **1** = CP06.1.. - **2** = CP06.2.. - **3** = CP06.3..
Fluid used: mineral based oil with viscosity 46 mm²/s at 40°C.

ORDERING CODE

CP	06	*	*	**	1

- Series: **CP** = Pressure relief valve
- Size: **06** = 7/8 - 14 UNF
- Adjustment: **C** = Screw; **M** = Plastic knob; **P** = **C** + Sealed cap; **V** = Handwheel
- Setting ranges: **0** = Max 15 bar (orange spring); **1** = Max 50 bar (white spring); **2** = Max 170 bar (yellow spring); **3** = 70÷350 bar (neutral spring)
- Variants: **00** = No variants; **V1** = Viton
- **1** = Serial No.

DIRECT ACTING PRESSURE RELIEF VALVES



00012009	Spare seals kit

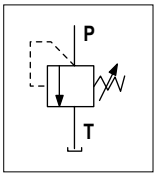
The direct acting relief valve limits the pressure in the hydraulic circuit to the calibration levels specified in the catalogue.
It has a galvanised steel body. The guided ball poppet is in tempered and ground steel.

HYDRAULIC FEATURES

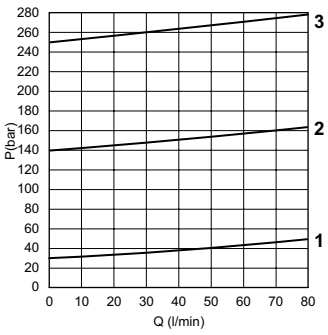
Max. working pressure	250 bar
Setting range: Spring 1 (white) Spring 2 (yellow) Spring 3 (green)	 max 30 bar max 140 bar max 250 bar
Max. Flow	80 l/min
Hydraulic fluid	DIN 51524 Mineral oils
Fluid viscosity	10 ÷ 500 mm²/s
Fluid temperature	-25°C ÷ 75°C
Ambient temperature	-25°C ÷ 60°C
Max. contamin. level class with filter	ISO 4406:1999 - class 19/17/14
Weight	0.5 kg
Tightening torque	80 ÷ 90 Nm
Cavity (M33x2)	CN070001 (See section 15)

The minimum permissible setting pressure depending on the spring: see curves below

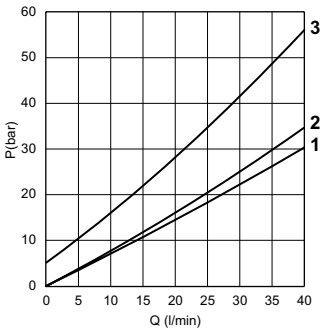
HYDRAULIC SYMBOL



PRESSURE-FLOW RATE



MIN.SETTING PRESSURE



1 = CMP20.1.. - **2** = CMP20.2.. - **3** = CMP20.3..
Fluid used: mineral based oil with viscosity 46 mm²/s at 40°C.

ORDERING CODE

CMP	20	*	*	**	2

Series
CMP = Pressure relief valve

Size
20 = M33 x 2

Adjustment
C = Screw
M = Knob
V = Handwheel

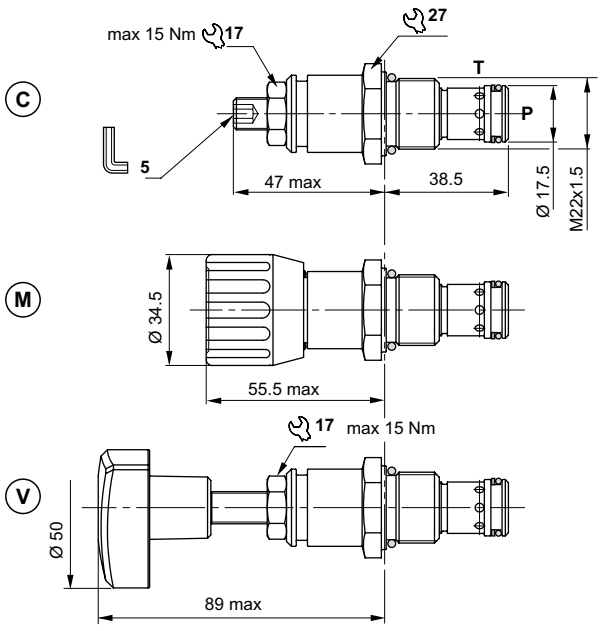
Setting ranges
1 = Max 30 bar (white spring)
2 = Max 140 bar (yellow spring)
3 = Max 250 bar (green spring)

Variants
00 = No variants
V1 = Viton

2 = Serial No.

CMP30

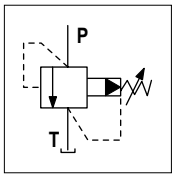
PILOT OPERATED PRESSURE RELIEF VALVES



00012010	Spare seals kit

The pilot-operated relief valve limits the pressure in the hydraulic circuit.
Slight leakage is tolerated for this type of valve.
It raises the safety level by making it impossible for the plant operators to set a higher pressure rating, than that specified in the catalogue. It has a pack spring with a mechanical stop.
It has a galvanised steel body. The tapered pilot poppet and cylindrical main plunger are made from tempered and ground steel.

HYDRAULIC SYMBOL

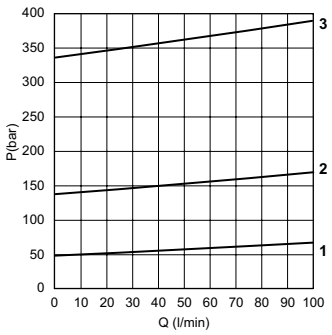


HYDRAULIC FEATURES

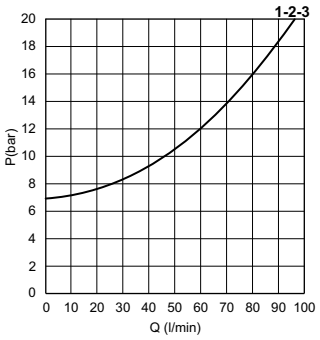
Max. working pressure	350 bar
Setting range: Spring 1 (white) Spring 2 (yellow) Spring 3 (green)	 max 50 bar max 140 bar max 350 bar
Max. Flow	100 l/min
Hydraulic fluid	DIN 51524 Mineral oils
Fluid viscosity	10 ÷ 500 mm^2/s
Fluid temperature	-25°C ÷ 75°C
Ambient temperature	-25°C ÷ 60°C
Max. contamin. level class with filter	ISO 4406:1999 - class 19/17/14
Weight	0.18 kg
Tightening torque	30 ÷ 40 Nm
Cavity (M22x1.5)	CN047003 (See section 15)

The minimum permissible setting pressure depending on the spring: see curves below

PRESSURE-FLOW RATE



MIN.SETTING PRESSURE



1 = CMP30.1.. - **2** = CMP30.2.. - **3** = CMP30.3..
Fluid used: mineral based oil with viscosity 46 mm^2/s at 40°C.

ORDERING CODE

CMP	30	*	*	**	1

Series
CMP = Pilot operated relief valve

Size
30 = M22 x 1.5

Adjustment
C = Screw
M = Plastic knob
V = Handwheel

Setting ranges
1 = Max 50 bar (white spring)
2 = Max 140 bar (yellow spring)
3 = Max 350 bar (green spring)

Variants
00 = No variants
V1 = Viton

1 = Serial No.