

## MAXIMUM PRESSURE CARTRIDGE VALVES



Aron maximum pressure cartridge valves allow control of hydraulic circuit pressures up to 400 bar and 350 l/min maximum flow rate (NG25). Besides the normal manual pressure regulation mode, function like electrical command for discharge to drain, remote control, proportional pressure control or electrically selected dual pressure levels are also available.

Nominal size (max. diameter)	16mm / 25mm
Max. operating pressure	400 bar
Maximum nominal flow rate NG16	150 l/min
Maximum nominal flow rate NG25	350 l/min
Setting ranges	15 ÷ 400 bar

The CETOP 3/NG6 interface allows the mounting of a AD.3.E... valve. A standard cartridge valve DIN 24342 is used. A cover not according to DIN rules is also available.

The valve response specification may be modified by selection of different internal orifices according to the required application. **The standard version has calibrated orifices of Ø 1 mm in X and AP.**

### MAX. PRESSURE COVERS

KEC.16/25... WITH CMP	CH. V PAGE 10
C*.P.16/25...	CH. V PAGE 11
CETOP 3/NG06	CH. I PAGE 8
AD.3.E...	CH. I PAGE 11
AM.3.VM...	CH. IV PAGE 9
XP.3...	CH. VIII PAGE 26

### DIN STANDARDS COVER ORDERING CODE

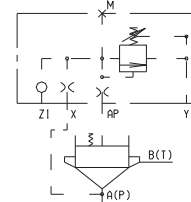
<b>KEC</b>	DIN standards cover
<b>**</b>	<b>16</b> = NG16 <b>25</b> = NG25
<b>**</b>	Type of cover <b>ME</b> = Max. pressure valve with interface CETOP 3 <b>MP</b> = Max. pressure valve <b>UE</b> = Exclusion valve with interface CETOP 3 <b>UN</b> = Exclusion valve <b>SL</b> = Sequencing valve
<b>*</b>	Setting ranges <b>1</b> = 15 ÷ 45 bar ( <b>white spring</b> ) <b>2</b> = 15 ÷ 145 bar ( <b>yellow spring</b> ) <b>3</b> = 60 ÷ 400 bar ( <b>green spring</b> )
<b>*</b>	Type of adjustment <b>M</b> = Plastic knob <b>C</b> = Grub screw
<b>**</b>	<b>00</b> = No variant <b>V1</b> = Viton
<b>3</b>	Serial No.

### PLATE MOUNTING COVERS ORDERING CODE

<b>C*P</b>	<b>M</b> = Cover with max. pressure valve <b>U</b> = Cover with exclusion valve <b>S</b> = Cover with sequencing valve
<b>*</b>	<b>E</b> = Presetting for solenoid valve (Omit if not required)
<b>**</b>	<b>16</b> = NG16 <b>25</b> = NG25
<b>*</b>	Type of adjustment <b>M</b> = Plastic knob <b>C</b> = Grub screw
<b>*</b>	Setting ranges <b>1</b> = 15 ÷ 45 bar ( <b>white spring</b> ) <b>2</b> = 15 ÷ 145 bar ( <b>yellow spring</b> ) <b>3</b> = 60 ÷ 400 bar ( <b>green spring</b> )
<b>**</b>	<b>00</b> = No variant <b>V1</b> = Viton
<b>2</b>	Serial No.

### MANUAL PRESSURE REGULATION

This regulation facility is incorporated in the cartridge closing cover. A Z1 port is provided on the cover for remote piloting via directional or pressure control valves.

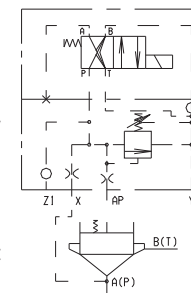


KEC. \*\*. MP. .  
CMP. \*\*. .

KEL. \*\*. U. .

### MANUAL PRESSURE REGULATION AND ELECTRICAL COMMAND FOR DISCHARGE TO DRAIN

This arrangement uses an electrically controlled valve type AD3E15.. which normally, in the de-energized position, allows discharge to drain of the controlled flow. When energized, the system operates at the pressure set on the piloting unit incorporated in the closing cover.



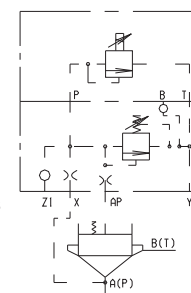
AD. 3. E.

KEC. \*\*. ME. .  
CMP. E. \*\*. .

KEL. \*\*. U. .

### MANUAL REGULATION AND PROPORTIONAL CONTROL OF THE PRESSURE

This arrangement uses a proportional pressure valve type XP3.. as the pilot, which allows proportional regulation of the controlled system pressure as a function of an electrical command signal.



XP. 3. .

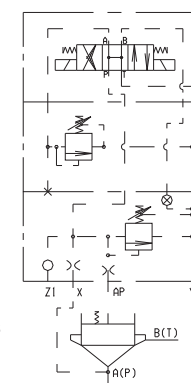
KEC. \*\*. ME. .  
CMP. E. \*\*. .

KEL. \*\*. U. .

### MANUALLY ADJUSTABLE AND ELECTRICALLY SELECTED TWO LEVEL PRESSURE UNIT

This arrangement uses a dual solenoid electrically controlled valve type AD3E02C.. and a modular maximum pressure valve type AM3VMA... which, when combined, allow implementation of an electrically selected two level pressure system.

Normally, with the solenoid valve de-energized, the controlled flow is discharged to drain.



AD. 3. E.

AM. 3. VM. . .

KEC. \*\*. ME. .  
CMP. E. \*\*. .

KEL. \*\*. U. .

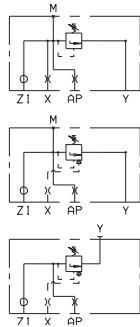
**MAXIMUM PRESSURE CARTRIDGE VALVES - COVERS**

**KEC.16.MP/UN/SL... WITH MAX. PRESSURE VALVE / EXCLUSION / SEQUENCING - IN LINE MOUNTING**



**DIN STANDARD**

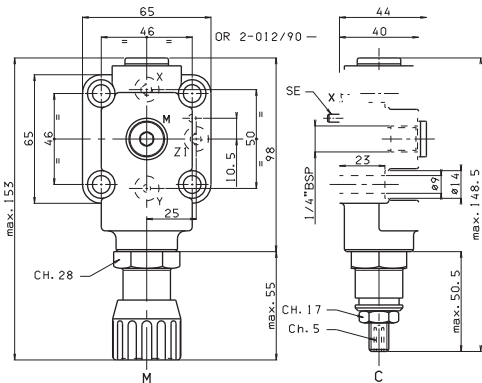
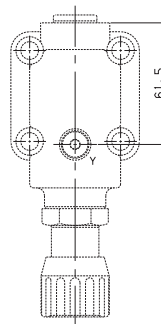
Weight: 1,3 Kg  
The covers are supplied with M8x35 UNI 5931 fixing screws and reference pins dia  $\varnothing$ 3x12 UNI 6874-71



KEC.16.MP...

KEC.16.UN...

KEC.16.SL...



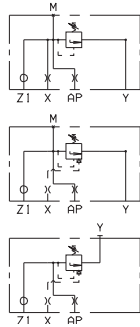
**KEC.25.MP/UN/SL... WITH MAX. PRESSURE / EXCLUSION / SEQUENCING - IN LINE MOUNTING**

**5**



**DIN STANDARD**

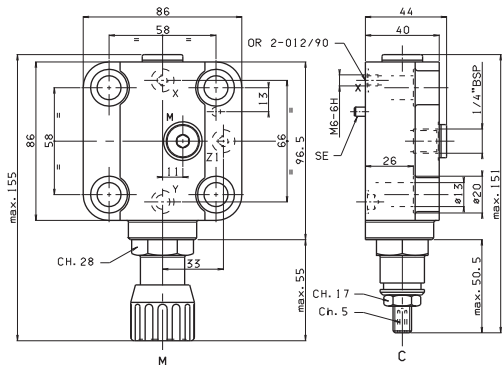
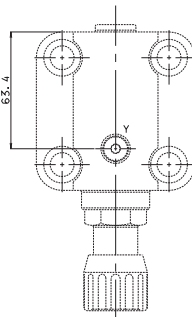
Weight: 1,8 Kg  
The covers are supplied with M12x45 UNI 5931 and reference pins dia  $\varnothing$ 5x12 UNI 6874-71



KEC.25.MP...

KEC.25.UN...

KEC.25.SL...

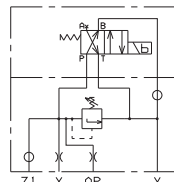


**KEC.16.ME/UE WITH MAX. PRESSURE VALVE / EXCLUSION WITH INTERFACE CETOP 3 - IN LINE MOUNTING**

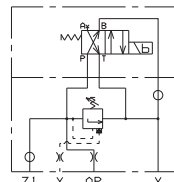


**DIN STANDARD**

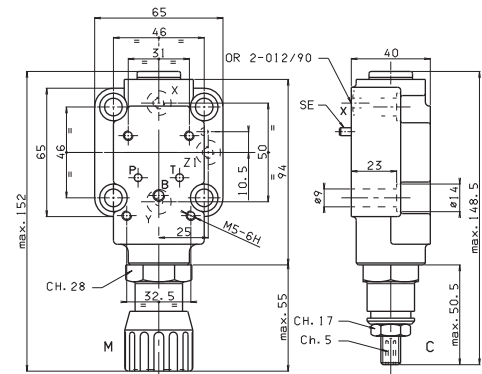
Weight: 1,3 Kg  
The covers are supplied with M8x35 UNI 5931 fixing screws and reference pins dia  $\varnothing$ 3x12 UNI 6874-71



KEC.16.ME...



KEC.16.UE...

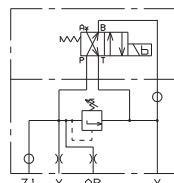


**KEC.25.ME/UE WITH MAX. PRESSURE VALVE / EXCLUSION WITH INTERFACE CETOP 3 - IN LINE MOUNTING**

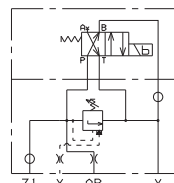


**DIN STANDARD**

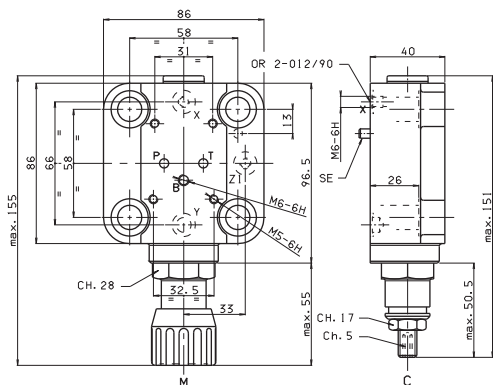
Weight: 1,8 Kg  
The covers are supplied with M12x45 UNI 5931 fixing screws and reference pins dia  $\varnothing$ 5x12 UNI 6874-71



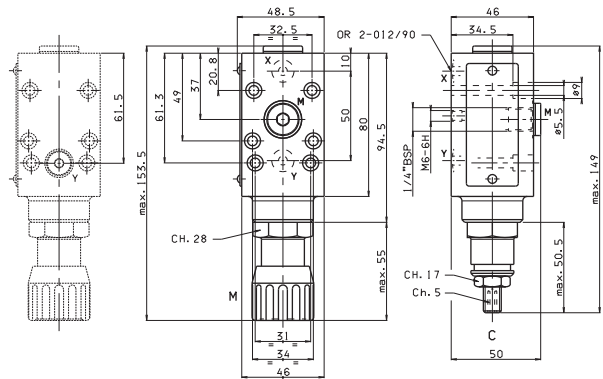
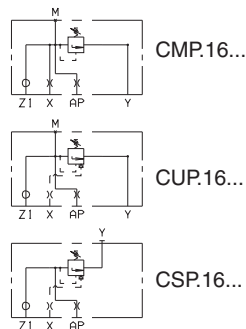
KEC.25.ME...



KEC.25.UE...

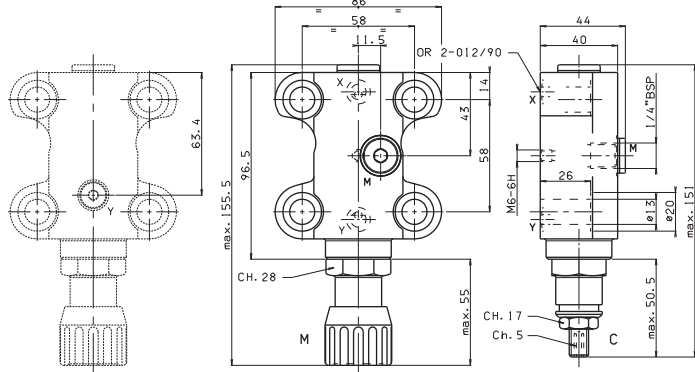
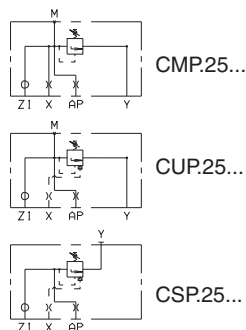


## C\*P.16... With MAX. PRESSURE VALVE / EXCLUSION / SEQUENCING - PLATE MOUNTING



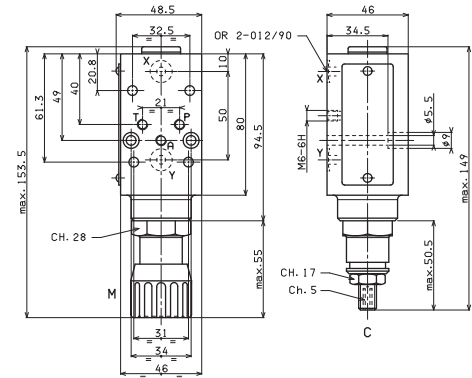
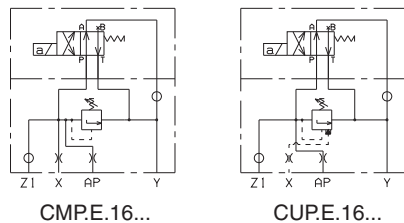
Weight: 1,3 Kg  
The covers are supplied with  
M5x45 UNI 5931 fixing screws

## C\*P.25... With MAX. PRESSURE VALVE / EXCLUSION / SEQUENCING - PLATE MOUNTING



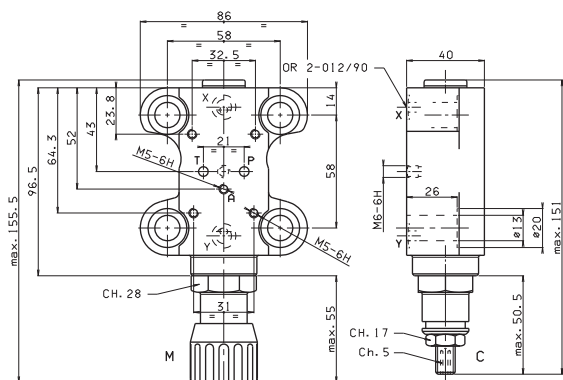
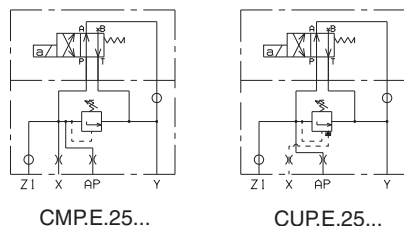
Weight: 1,5 Kg  
The covers are supplied with  
M12x45 UNI 5931 fixing screws

## C\*P.E.16 With MAX. PRESSURE VALVE / EXCLUSION WITH INTERFACE CETOP 3 - PLATE MOUNTING



Weight: 1,3 Kg  
The covers are supplied with  
M5x45 UNI 5931 fixing screws

## C\*P.E.25 With MAX. PRESSURE VALVE / EXCLUSION WITH INTERFACE CETOP 3 - PLATE MOUNTING



Weight: 1,5 Kg  
The covers are supplied with  
M12x45 UNI 5931 fixing screws

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**CMP.10... DIRECT OPERATION  
MAXIMUM PRESSURE VALVES**



CMP.10...

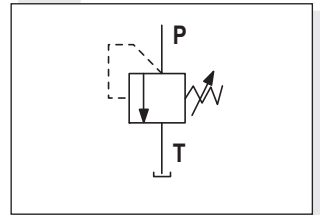
The direct acting relief valve limits the pressure in a hydraulic circuit. It raises the safety level by making it impossible for the plant operators to set a higher pressure rating, than that specified in the catalogue. This is limited by a pack spring with a mechanical stop, which prevents temporary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

Max. operating pressure	320 bar
Setting ranges:	Spring 0 max. 15 bar
	Spring 1 max. 50 bar
	Spring 2 max. 150 bar
	Spring 3 max. 320 bar
Max. flow	40 l/min
Hydraulic fluids	Mineral oils DIN 51524
Fluid viscosity	10 ÷ 500 mm <sup>2</sup> /s
Fluid temperature	-25°C ÷ 75°C
Ambient temperature	-25°C ÷ 60°C
Max. contamination level	class 10 in accordance with NAS 1638 with filter $\beta_{25} \geq 75$
Weight	0,2 Kg
Tightening torque	60 ÷ 70 Nm (6 ÷ 7 Kgm)
<b>• The minimum permissible setting pressure depending on the screw: see curves below</b>	

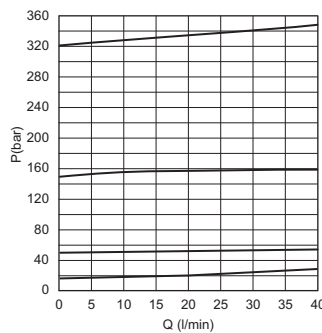
**ORDERING CODE**

<b>CMP</b>	Max. pressure cartridge
<b>10</b>	Size (M24 x 2)
<b>*</b>	Type of adjustment <b>M</b> = Plastic knob <b>C</b> = Grub screw <b>V</b> = Handwheel
<b>*</b>	Setting ranges <b>0</b> = max. 15 bar ( <b>orange spring</b> ) <b>1</b> = max. 50 bar ( <b>white spring</b> ) <b>2</b> = max. 150 bar ( <b>yellow spring</b> ) <b>3</b> = max. 320 bar ( <b>green spring</b> )
<b>**</b>	<b>00</b> = No variant <b>V1</b> = Viton
<b>2</b>	Serial No.

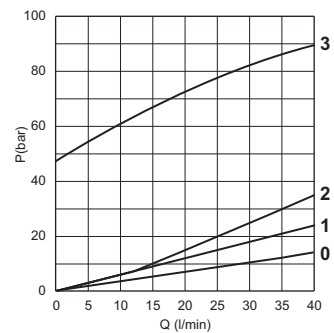
**HYDRAULIC SYMBOL**



**PRESSURE-FLOW RATE**



**MIN. SETTING PRESSURE**



**0 = CMP10.0.. - 1 = CMP10.1.. - 2 = CMP10.2.. - 3 = CMP10.3..**  
Fluid used: mineral based oil with viscosity 32 mm<sup>2</sup>/s at 40°C.

**OVERALL DIMENSIONS**

Type of adjustment		
<b>M</b> Plastic knob		
<b>C</b> Grub screw		
<b>V</b> Handwheel		
<p><b>00012008</b> Spare seals kit</p>		<p>Valve seat plug code <b>R78.30.0564</b></p>

**CMP.20... DIRECT OPERATION  
MAXIMUM PRESSURE VALVES**



**CMP.20...**

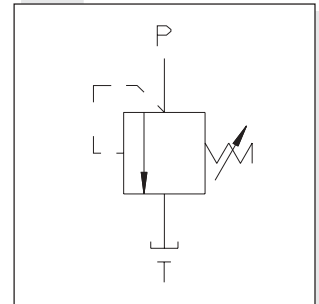
Direct action pressure relief valves type CMP.20 are used to limit the maximum system pressure within their adjustable range (see diagram).

Max. operating pressure	250 bar	
Setting ranges:	Spring 1	max. 30 bar
	Spring 2	max. 140 bar
	Spring 3	max. 250 bar
Max. flow	80 l/min	
Hydraulic fluids	Mineral oils DIN 51524	
Fluid viscosity	10 ÷ 500 mm <sup>2</sup> /s	
Fluid temperature	-25°C ÷ 75°C	
Ambient temperature	-25°C ÷ 60°C	
Max. contamination level	class 10 in accordance with NAS 1638 with filter $\beta_{25} \geq 75$	
Weight	0,5 Kg	
Tightening torque	80 ÷ 90 Nm (8 ÷ 9 Kgm)	
• The minimum permissible setting pressure depending on the spring: see curves below		

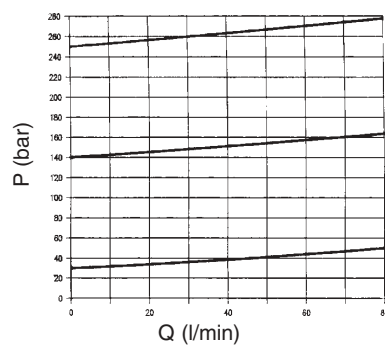
**ORDERING CODE**

<b>CMP</b>	Max. pressure cartridge valve
<b>20</b>	Size
<b>*</b>	Type of adjustment <b>M</b> = Plastic knob <b>C</b> = Grub screw <b>V</b> = Handwheel
<b>*</b>	Setting ranges <b>1</b> = max. 30 bar ( <b>white spring</b> ) <b>2</b> = max. 140 bar ( <b>yellow spring</b> ) <b>3</b> = max. 250 bar ( <b>green spring</b> )
<b>**</b>	<b>00</b> = No variant <b>V1</b> = Viton
<b>2</b>	Serial No.

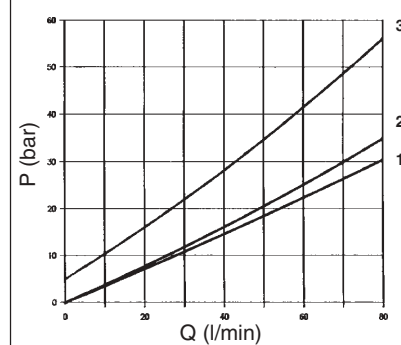
**HYDRAULIC SYMBOL**



**PRESSURE - FLOW**



**MINIMUM SETTING PRESSURE**



**OVERALL DIMENSIONS**

**SEAT DIMENSIONS**

Type of adjustment

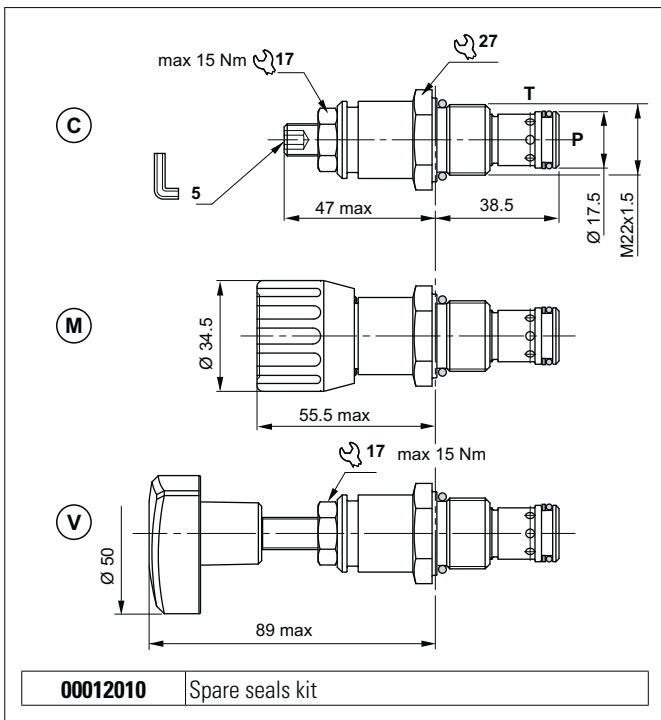
**M** Plastic knob

**C** Grub screw

**V** Handwheel

Valve seat plug code **R78.40.0568**

## PILOT OPERATED PRESSURE RELIEF VALVES

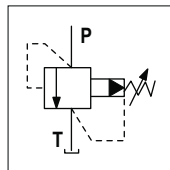


The pilot-operated relief valve limits the pressure in the hydraulic circuit. Slight leakage is tolerated for this type of valve. It raises the safety level by making it impossible for the plant operators to set a higher pressure rating, than that specified in the catalogue. It has a pack spring with 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 FEATURES

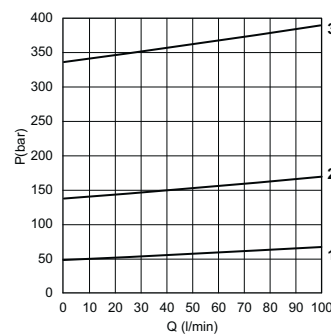
Max. opening pressure	350 bar
Setting range:	
Spring 1 (white)	max 50 bar
Spring 2 (yellow)	max 140 bar
Spring 3 (green)	max 350 bar
Max. Flow	100 l/min
Hydraulic fluid	DIN 51524 Mineral oils
Fluid viscosity	10 ÷ 500 mm <sup>2</sup> /s
Fluid temperature	-25°C ÷ 75°C
Ambient temperature	-25°C ÷ 60°C
Max. 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)

### HYDRAULIC SYMBOL

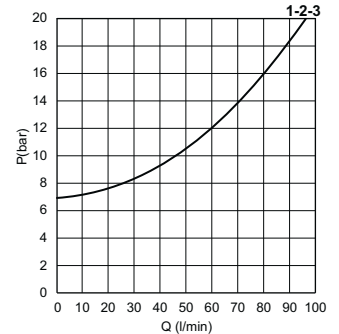


The minimum permissible setting pressure depending on the spring: see curves below

### PRESSURE-FLOW RATE



### MIN.SETTING PRESSURE



1 = CMP30.1.. - 2 = CMP30.2.. - 3 = CMP30.3..

Fluid used: mineral based oil with viscosity 46 mm<sup>2</sup>/s at 40°C.

### ORDERING CODE

