



RQ*-W

PRESSURE RELIEF VALVE

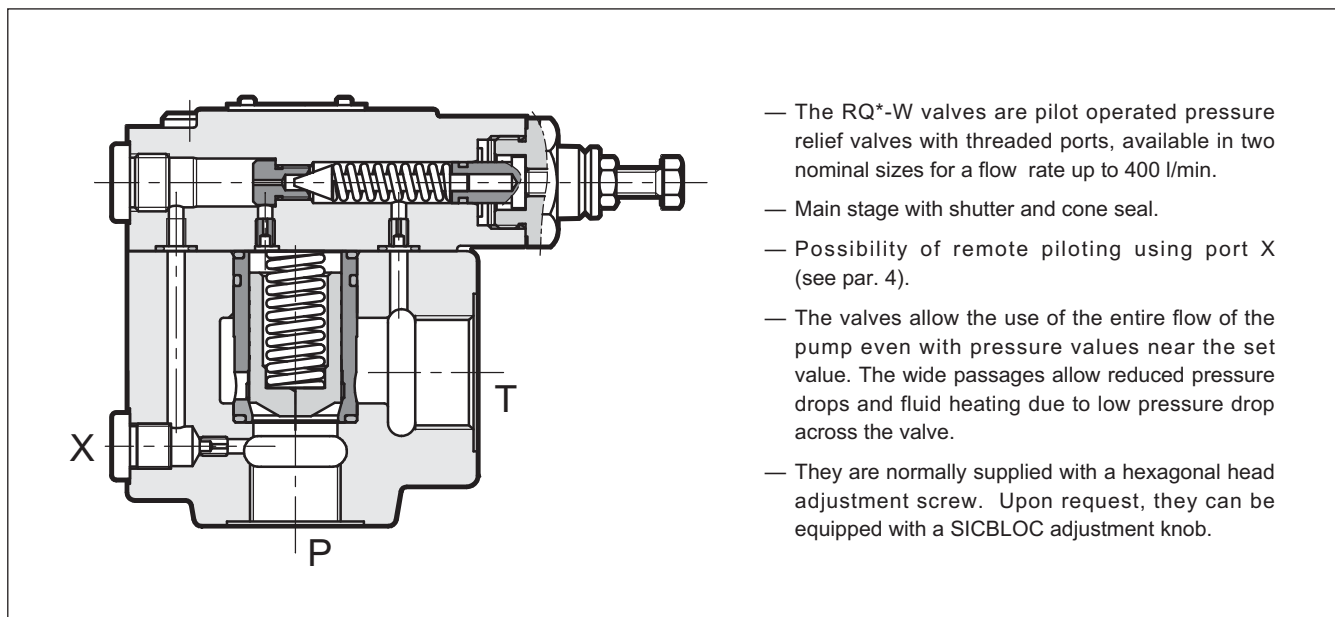
SERIES 41

THREADED PORTS

p max **350** bar

Q max (see table of performances)

OPERATING PRINCIPLE

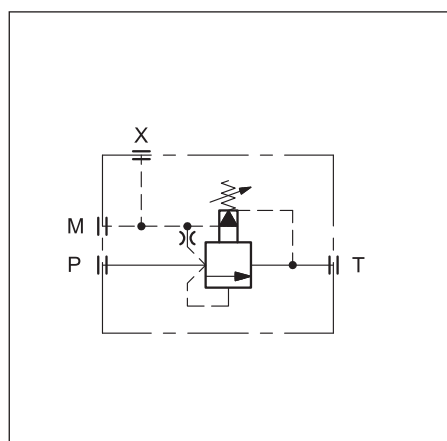


- The RQ*-W valves are pilot operated pressure relief valves with threaded ports, available in two nominal sizes for a flow rate up to 400 l/min.
- Main stage with shutter and cone seal.
- Possibility of remote piloting using port X (see par. 4).
- The valves allow the use of the entire flow of the pump even with pressure values near the set value. The wide passages allow reduced pressure drops and fluid heating due to low pressure drop across the valve.
- They are normally supplied with a hexagonal head adjustment screw. Upon request, they can be equipped with a SICBLOC adjustment knob.

PERFORMANCES (measured with mineral oil of viscosity 36 cSt at 50°C)

		RQ5-W	RQ7-W
Maximum operating pressure	bar	350	
Maximum flow rate	l/min	250	400
Ambient temperature range	°C	-20 / +50	
Fluid temperature range	°C	-20 / +80	
Fluid viscosity range	cSt	10 ÷ 400	
Fluid contamination degree	According to ISO 4406:1999 class 20/18/15		
Recommended viscosity	cSt	25	
Mass	kg	4,1	8

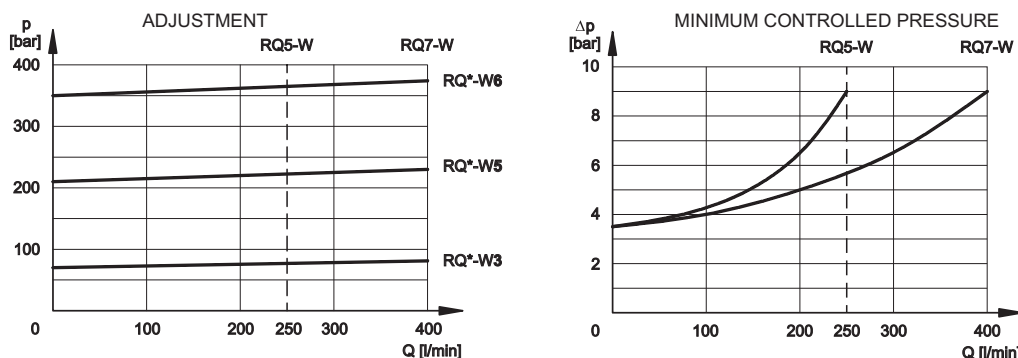
HYDRAULIC SYMBOL



1 - IDENTIFICATION CODE

R Q - W / / 41 /									
Pressure control valve		Nominal dimension		BSP threaded ports		Pressure adjustment range:		Seals:	
		5 = DN 25 7 = DN 40						omit for mineral oils V = viton for special fluids	
								Series No. (the overall and mounting dimensions remain unchanged from 40 to 49)	
								M = adjustment with SICBLOC knob (omit for adjustment with hexagonal head screw)	

2 - CHARACTERISTIC CURVES (values obtained with viscosity of 36 cSt at 50°C)



3 - HYDRAULIC FLUIDS

Use mineral oil-based hydraulic fluids HL or HM type, according to ISO 6743-4. For these fluids, use NBR seals. For fluids HFDR type (phosphate esters) use FPM seals (code V). For the use of other kinds of fluid such as HFA, HFB, HFC, please consult our technical department. Using fluids at temperatures higher than 80 °C causes a faster degradation of the fluid and of the seals characteristics. The fluid must be preserved in its physical and chemical characteristics.

4 - OVERALL AND MOUNTING DIMENSIONS

Technical drawing of the valve body showing front and side views. Dimensions A through G are indicated. Callout 1 points to the hexagonal head adjustment screw.

Technical drawing of the valve body showing top and side views. Dimensions H through O are indicated. Callout 3 points to the outlet port T.

Technical drawing of the valve body showing bottom view.

Technical drawing of the SICBLOC adjustment knob with dimension 68.

dimensions in mm

1	Hexagonal head adjustment screw. Spanner 13. Clockwise rotation to increase pressure
2	Remote piloting port X: 1/4" BSP
3	Outlet port T RQ5-W : 1" BSP RQ7-W : 1" 1/2 BSP
4	Pressure port P RQ5-W : 3/4" BSP RQ7-W : 1" 1/4 BSP
5	Pressure gauge port 3/8" BSP
6	SICBLOC adjustment knob. To operate, push and rotate at the same time.

	A	B	C	D	ØE	F	G	H	I	L	M	ØN	ØO
RQ5-W	168	98	49	4	22	21.5	44.5	123	80	87	53	35.5	46
RQ7-W	168	98	49	4	22	43	59.5	145	102	109	68	50	56



RQM*-W

SOLENOID OPERATED PRESSURE RELIEF VALVE WITH UNLOADING AND PRESSURE SELECTION

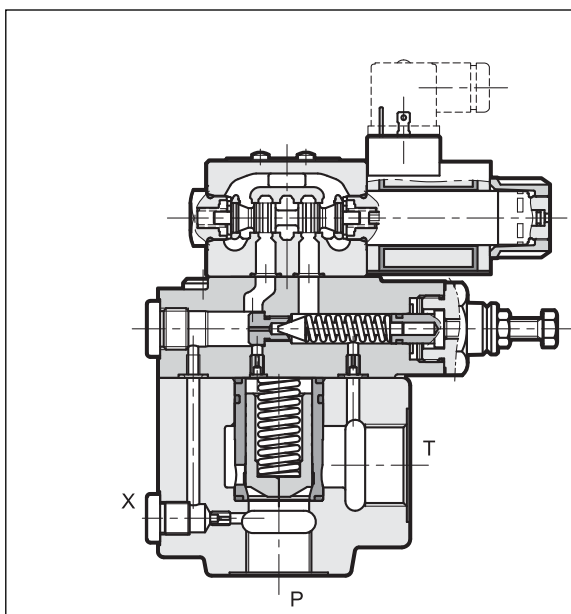
SERIES 60

THREADED PORTS

p max **350** bar

Q max (see table of performances)

OPERATING PRINCIPLE



- The RQM*-W valves are pilot operated pressure relief valves with BSP threaded ports, available in two nominal sizes for a flow rate up to 400 l/min.
- Available in five versions that allow, by means of a solenoid valve, unloading of the total flow and selection up to three pressure values (see table 2 for different versions).
- The adjustment of the second and third pressure value is obtained by a pressure relief valve placed between the main stage and the solenoid valve.
- They are normally supplied with a hexagonal head adjustment screw. Upon request, they can be equipped with a SICBLOC adjustment knob on the main pressure control.

PERFORMANCES (measured with mineral oil of viscosity 36 cSt at 50°C)

		RQM5-W	RQM7-W
Maximum operating pressure	bar	350	
Maximum flow rate	l/min	250	400
Ambient temperature range	°C	-20 / +50	
Fluid temperature range	°C	-20 / +80	
Fluid viscosity range	cSt	10 ÷ 400	
Fluid contamination degree	According to ISO 4406:1999 class 20/18/15		
Recommended viscosity	cSt	25	

NOTE: for the solenoid valve DS3 characteristics see catalogue 41 150



RQM*-W

SERIES 60

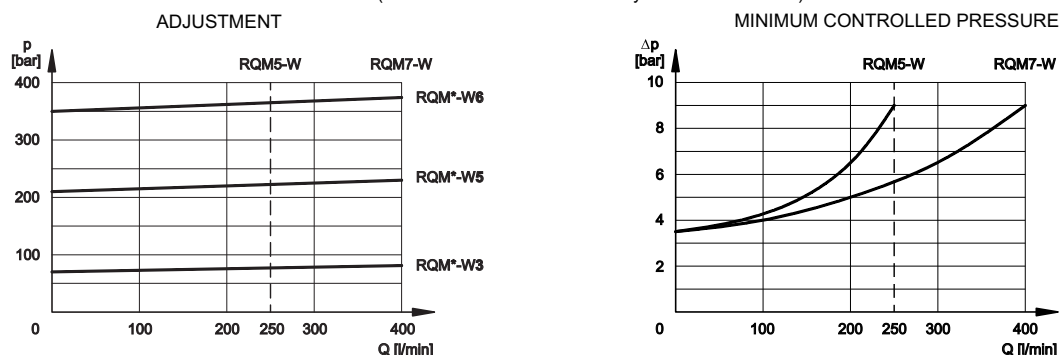
1 - IDENTIFICATION CODE

R	Q	M		-	W	/	/	/	60	-	K1	/	
Pressure relief valve pilot operated solenoid valve for venting / pressure selection Nominal dimension: 5 = ND 25 7 = ND 40 BSP threaded ports Pressure adjustment range: 3 = up to 70 bar 6 = up to 350 bar 5 = up to 210 bar Versions: A B C D G } see description in table 2 versions M = adjustment with SICBLOC knob – available on the main pressure control (omit for adjustment with hexagonal head screw) Series No. (the overall and mounting dimensions remain unchanged from 60 to 69) NOTE: The locking rings of the coils and the relevant O-Rings are supplied together with valves										Manual override: omit for override integrated in the tube (standard) CM = manual override, boot protected Coil electrical connection: plug for connector type DIN 43650 (standard) DC power supply D12 = 12 V D24 = 24 V D48 = 48 V D110 = 110 V D220 = 220 V D00 = valve without coils (see NOTE) AC power supply A24 = 24 V - 50 Hz A48 = 48 V - 50 Hz A110 = 110 V - 50 Hz / 120 V - 60 Hz A230 = 230 V - 50 Hz / 240 V - 60 Hz A00 = valve without coils (see NOTE) F110 = 110 V - 60 Hz F220 = 220 V - 60 Hz Seals: N = NBR seals for mineral oil (standard) V = FPM seals for special fluids			

2 - VERSIONS

RQM*-W*/A	RQM*-W*/B	RQM*-W*/C	RQM*-W*/D	RQM*-W*/G
1 pressure setting and unloading with de-energized solenoid	1 pressure setting and unloading with energized solenoid	2 pressure settings The highest setting is reached with energized solenoid	2 pressure settings and unloading with de-energized solenoids	3 pressure settings The highest setting is reached with de-energized solenoids

3 - CHARACTERISTIC CURVES (values obtained with viscosity of 36 cSt at 50°C)



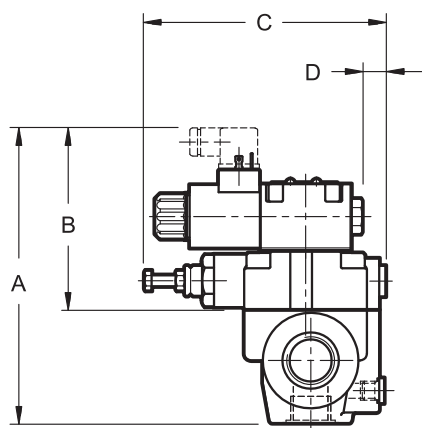
4 - HYDRAULIC FLUIDS

Use mineral oil-based hydraulic fluids HL or HM type, according to ISO 6743-4. For these fluids, use NBR seals (code N). For fluids HFDR type (phosphate esters) use FPM seals (code V). For the use of other kinds of fluid such as HFA, HFB, HFC, please consult our technical department. Using fluids at temperatures higher than 80 °C causes a faster degradation of the fluid and of the seals characteristics. The fluid must be preserved in its physical and chemical characteristics.

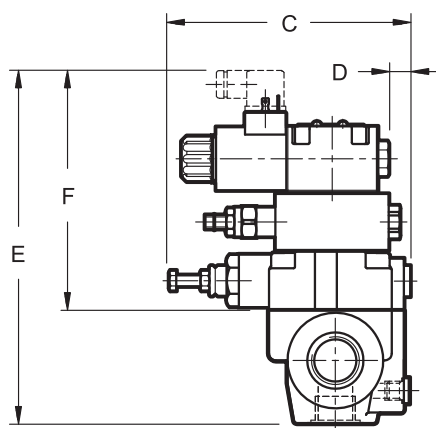
5 - OVERALL AND MOUNTING DIMENSIONS

dimensions in mm

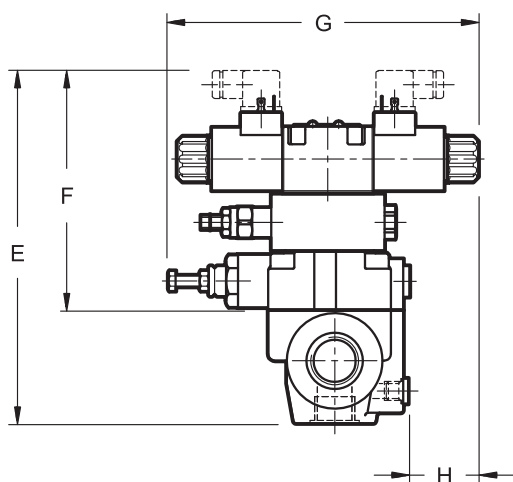
RQM*-W*/A
RQM*-W*/B



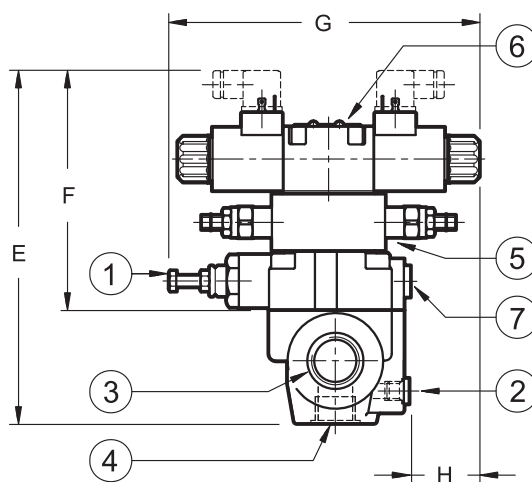
RQM*-W*/C



RQM*-W*/D



RQM*-W*/G



	A	B	C	D	E	F	G	H
RQM5-W	210	130	172	17	247	167	221.5	49.5
RQM7-W	232	130	172	17	269	167	221.5	49.5

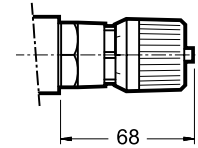
1	Hexagonal head main pressure adjustment screw: Spanner 13 Clockwise rotation to increase pressure	5	Second value pressure adjustment valve. Countersunk hex adjustment screw: spanner 5 Clockwise rotation to increase pressure
2	Remote piloting port X 1/4" BSP	6	ISO 4401-03 (CETOP 03) solenoid valve for pressure selection / unloading
3	Outlet port T RQM5-W : 1" BSP RQM7-W : 1" 1/2 BSP	7	Pressure gauge port 3/8" BSP
4	Pressure port P RQM5-W : 3/4" BSP RQM7-W : 1" 1/4 BSP		



6 - ADJUSTMENT KNOB

The RQ valves can be equipped with a SICBLOC adjustment knob, only on the main pressure regulation. To operate it, push and rotate at the same time.

To request this option, add: /**M** (see paragraph 1).



7 - ELECTRIC CONNECTORS

The solenoid operated valves are delivered without the connectors. They must be ordered separately.

For the identification of the connector type to be ordered, please see catalogue 49 000.

8 - MANUAL OVERRIDE, BOOT PROTECTED: CM

Whenever the solenoid valve installation may involve exposure to atmospheric agents or utilization in tropical climates, use of the manual override, boot protected, is recommended. Add the suffix **CM** to request this device (see paragraph 1).

For overall dimensions see catalogue 41 150.



DIPLOMATIC OLEODINAMICA S.p.A.

20015 PARABIAGO (MI) • Via M. Re Depaolini 24

Tel. +39 0331.895.111

Fax +39 0331.895.339

www.diplomatic.com • e-mail: sales.exp@diplomatic.com



RQ*-P

PRESSURE RELIEF VALVES

SERIES 41

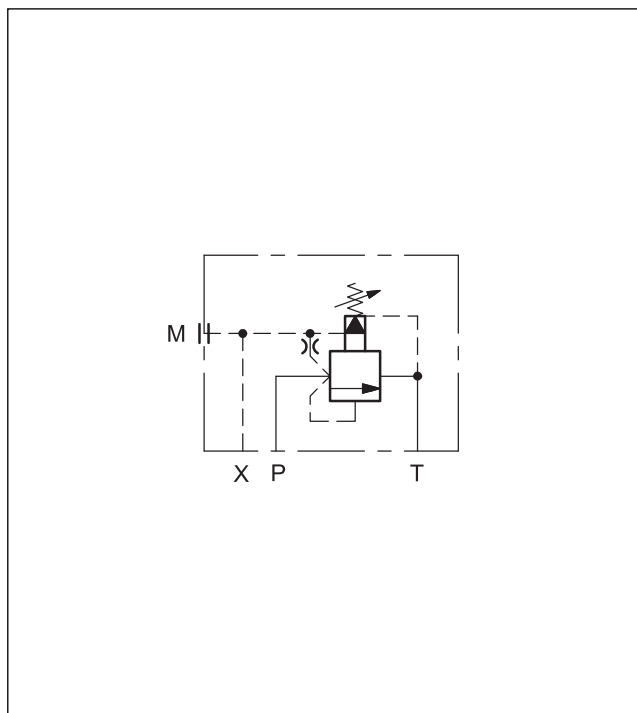
SUBPLATE MOUNTING

RQ3-P ISO 6264-06 (CETOP R06)

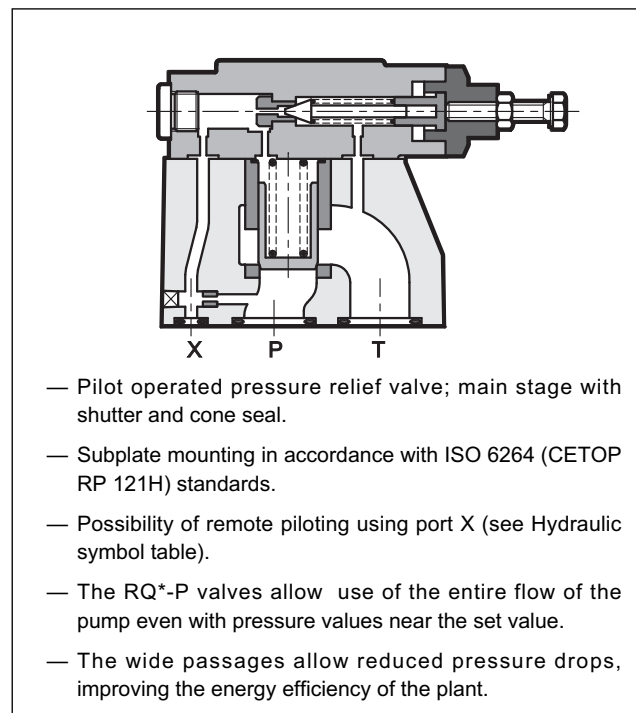
RQ5-P ISO 6264-08 (CETOP R08)

RQ7-P ISO 6264-10 (CETOP R10)

HYDRAULIC SYMBOL



OPERATING PRINCIPLE



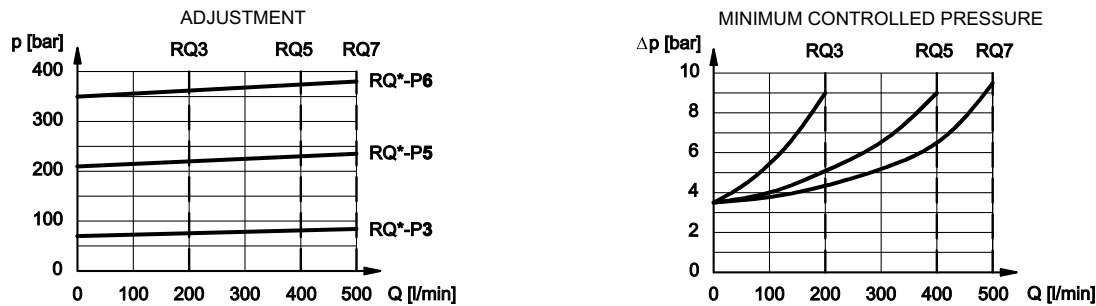
PERFORMANCES (measured with mineral oil of viscosity 36 cSt at 50°C)

		RQ3-P	RQ5-P	RQ7-P
Maximum operating pressure	bar	350		
Maximum flow rate	l/min	200	400	500
Ambient temperature range	°C	-20 / +50		
Fluid temperature range	°C	-20 / +80		
Fluid viscosity range	cSt	10 ÷ 400		
Fluid contamination degree	According to ISO 4406:1999 class 20/18/15			
Recommended viscosity	cSt	25		
Mass	kg	3,5	4,3	6,5

1 - IDENTIFICATION CODE

R	Q		-	P	/		/	41	/	
Double stage pressure relief valve										Seals: omit for mineral oils V = viton for special fluids
Size: 3 = ISO 6264-06 (CETOP R06) 5 = ISO 6264-08 (CETOP R08) 7 = ISO 6264-10 (CETOP R10)										Series No. (the overall and mounting dimensions remain unchanged from 40 to 49)
Subplate mounting										
Pressure adjustment range: 3 = up to 70 bar 6 = up to 350 bar 5 = up to 210 bar										M = adjustment with SICBLOC knob (omit for adjustment with hexagonal head screw)

2 - CHARACTERISTIC CURVES (values obtained with viscosity of 36 cSt at 50°C)

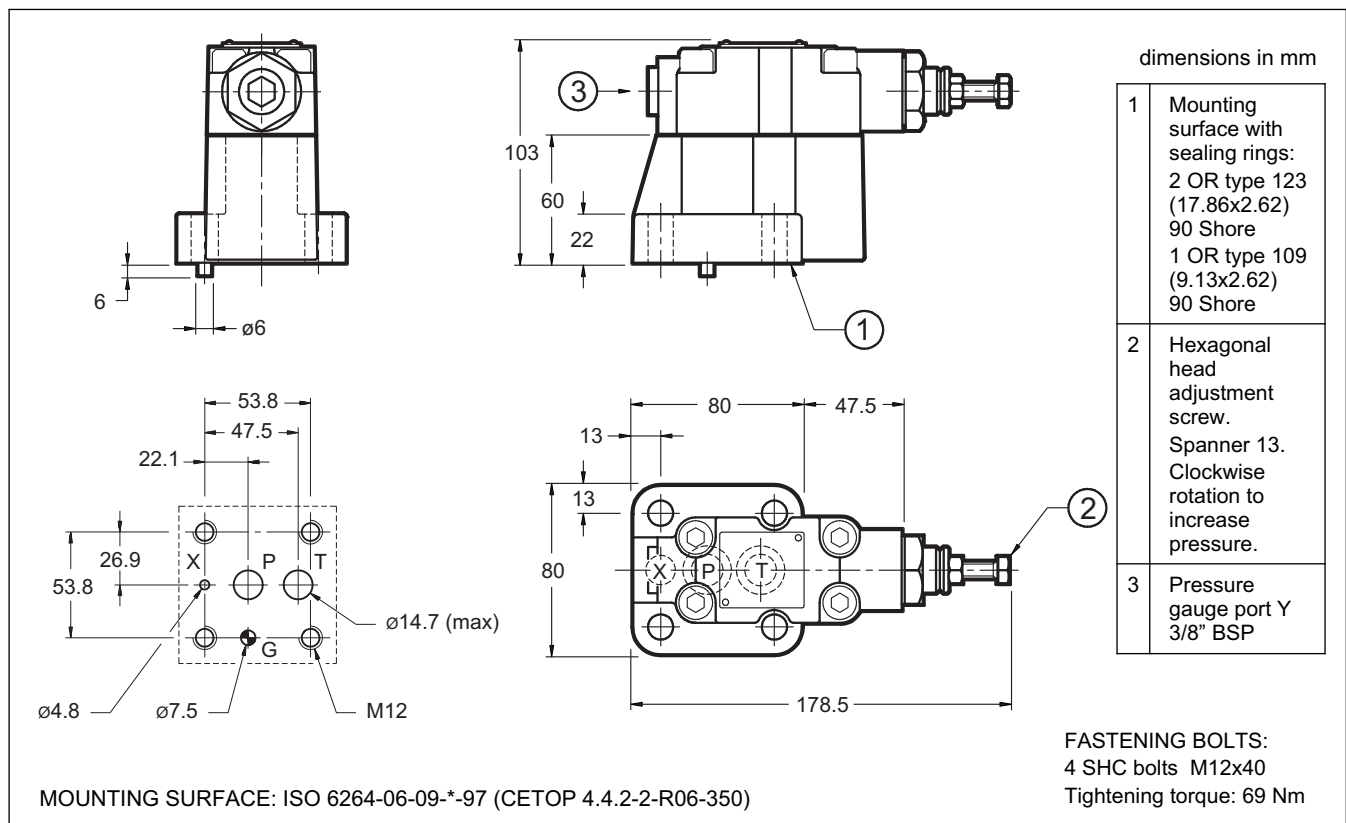


3 - HYDRAULIC FLUIDS

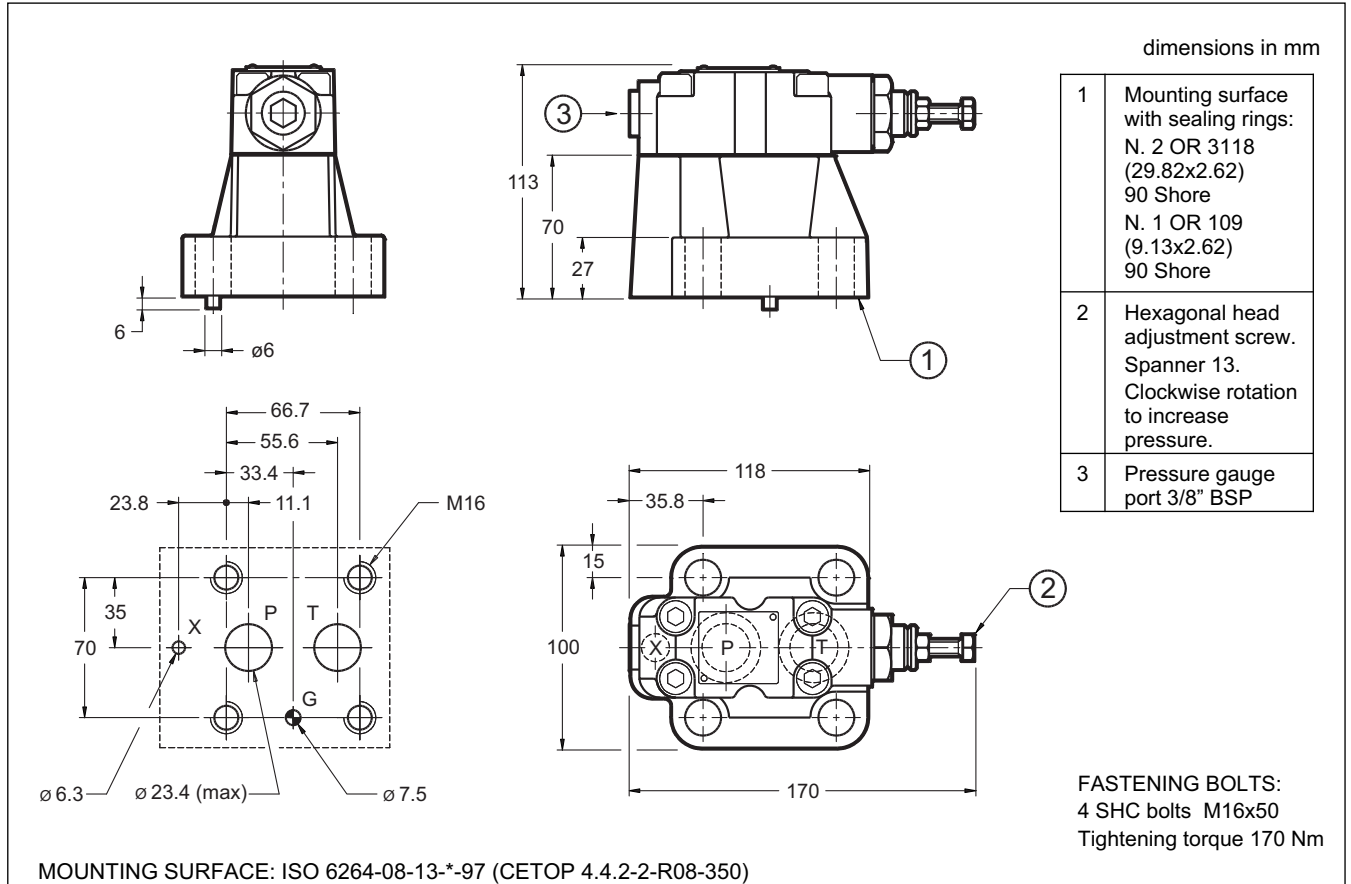
Use mineral oil-based hydraulic fluids HL or HM type, according to ISO 6743-4. For these fluids, use NBR seals. For fluids HFDR type (phosphate esters) use FPM seals (code V). For the use of other kinds of fluid such as HFA, HFB, HFC, please consult our technical department. Using fluids at temperatures higher than 80 °C causes a faster degradation of the fluid and of the seals characteristics.

The fluid must be preserved in its physical and chemical characteristics.

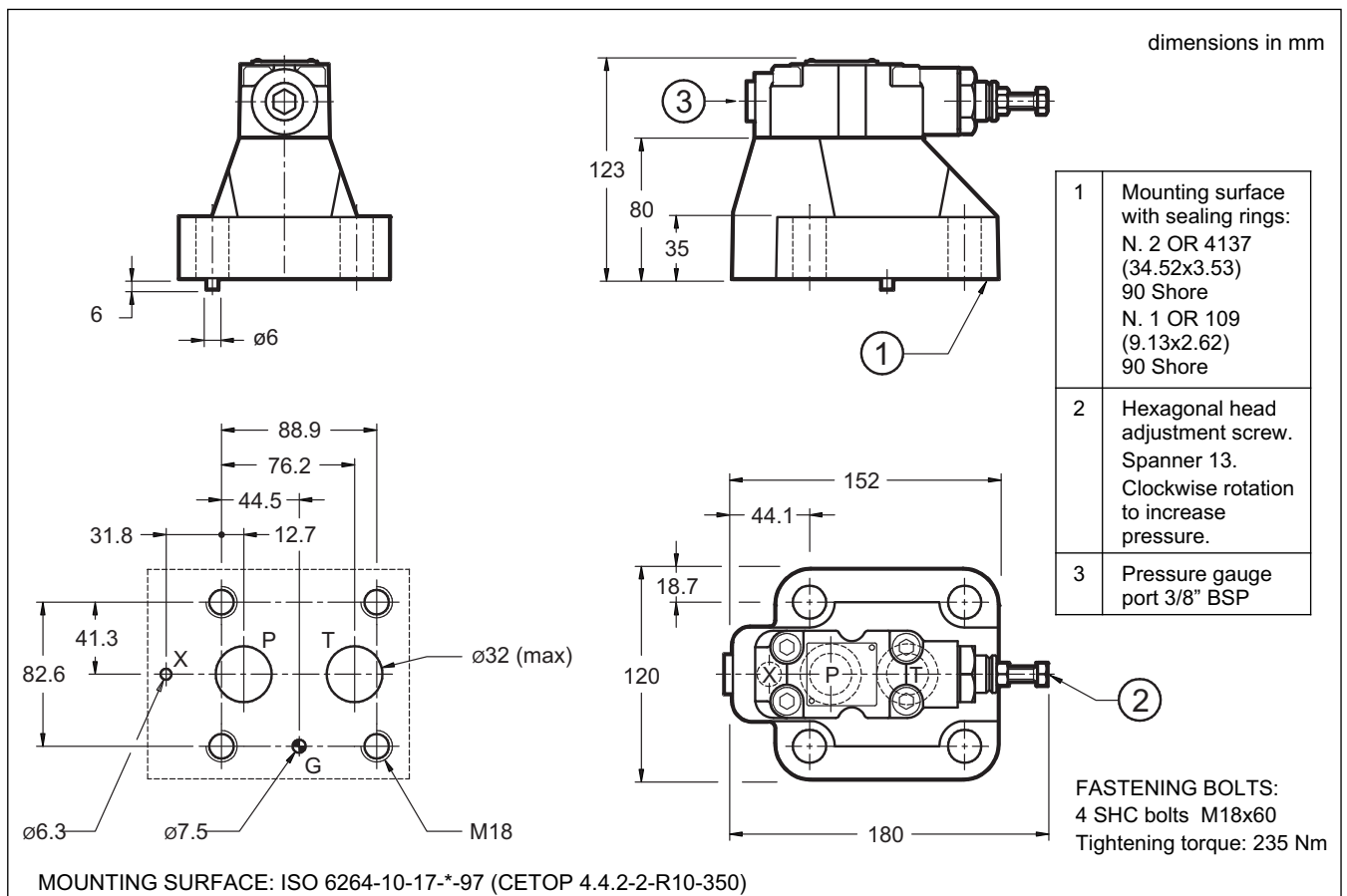
4 - RQ3-P OVERALL AND MOUNTING DIMENSIONS



5 - RQ5-P OVERALL AND MOUNTING DIMENSIONS



6 - RQ7-P OVERALL AND MOUNTING DIMENSIONS

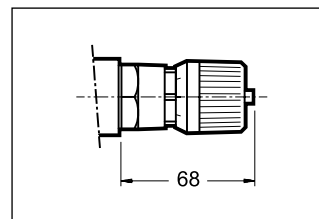




7 - ADJUSTMENT KNOB

The RQ valves can be equipped with a SICBLOC adjustment knob. To operate it, push and rotate at the same time.

To request this option, add: **/M** (see paragraph 1).



8 - SUBPLATES (see catalogue 51 000)

	RQ3-P	RQ5-P	RQ7-P
Type	PMRQ3-AI4G rear ports	PMRQ5-AI5G rear ports	PMRQ7-AI7G rear ports
P, T ports dimension	P: 1/2" BSP T: 3/4" BSP	1" BSP	1" 1/4 BSP
X port dimension	1/4" BSP	1/4" BSP	1/4" BSP



DUPLOMATIC OLEODINAMICA S.p.A.

20015 PARABIAGO (MI) • Via M. Re Depaolini 24

Tel. +39 0331.895.111

Fax +39 0331.895.339

www.duplomatic.com • e-mail: sales.exp@duplomatic.com



RQM*-P

SOLENOID OPERATED PRESSURE RELIEF VALVES WITH UNLOADING AND PRESSURE SELECTION

SERIES 60

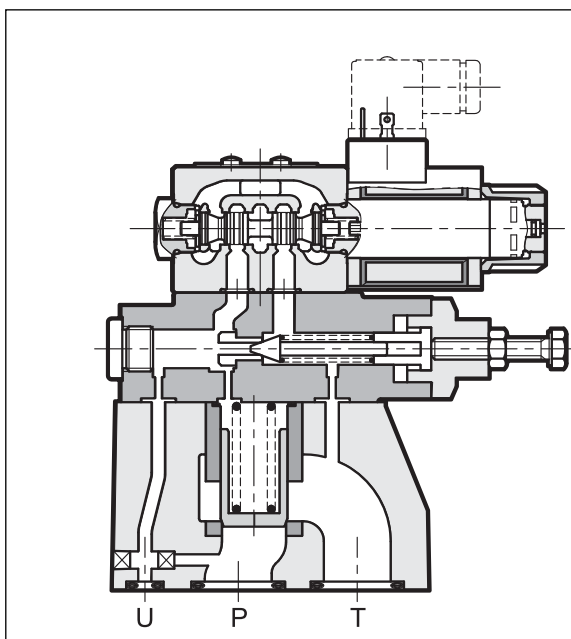
SUBPLATE MOUNTING

RQM3-P ISO 6264-06 (CETOP R06)

RQM5-P ISO 6264-08 (CETOP R08)

RQM7-P ISO 6264-10 (CETOP R10)

OPERATING PRINCIPLE



- The RQM*-P valves are pressure relief valves available in three nominal sizes for flow up to 500 l/min.
- They are available in ISO 6264 (CETOP RP 121H) subplate mounting version.
- Available in five versions that allow, by means of a solenoid valve, unloading of the total flow and selection up to three pressure values (see table 2 Versions).
- The adjustment of the second and third pressure values is obtained by a pressure relief valve placed between the main stage and the solenoid valve.
- It is supplied with an hexagonal head adjustment screw. Upon request, it can be equipped with a SICBLOC adjustment knob on the main pressure control.

PERFORMANCES (measured with mineral oil of viscosity 36 cSt at 50°C)

		RQM3-P	RQM5-P	RQM7-P
Maximum operating pressure	bar	350		
Maximum flow rate	l/min	200	400	500
Ambient temperature range	°C	-20 / +50		
Fluid temperature range	°C	-20 / +80		
Fluid viscosity range	cSt	10 ÷ 400		
Fluid contamination degree	According to ISO 4406:1999 class 20/18/15			
Recommended viscosity	cSt	25		

NOTE: for the solenoid valve DS3 characteristics see catalogue 41 150

1 - IDENTIFICATION CODE

R	Q	M		-	P	/	/	/	60	-	K1	/	
---	---	---	--	---	---	---	---	---	----	---	----	---	--

pilot operated pressure relief valve

solenoid valve for unloading / pressure selection

Size: 3 = ISO 6264-06 (CETOP R06)
5 = ISO 6264-08 (CETOP R08)
7 = ISO 6264-10 (CETOP R10)

Subplate mounting

Pressure adjustment range: 3 = up to 70 bar 6 = up to 350 bar
5 = up to 210 bar

Versions: A B C D G } see description in hydraulic symbols table

M = adjustment with SICBLOC knob available only on the main pressure control (Omit for adjustment with hexagonal head screw)

Series No. (the overall and mounting dimensions remain unchanged from 60 to 69)

Manual override: omit for override integrated in the tube (standard)
CM = manual override, boot protected

Coil electrical connection: plug for connector type DIN 43650 (standard)

DC power supply
D12 = 12 V
D24 = 24 V
D48 = 48 V
D110 = 110 V
D220 = 220 V
D00 = valve without coils (see note)

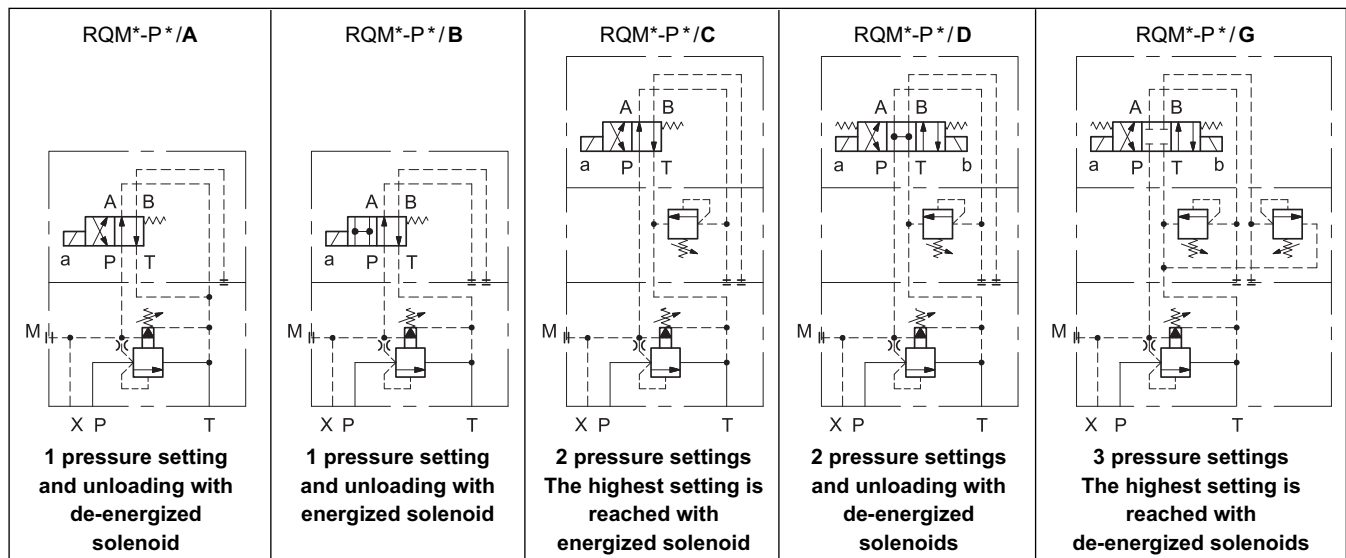
AC power supply
A24 = 24 V - 50 Hz
A48 = 48 V - 50 Hz
A110 = 110 V - 50 Hz / 120 V - 60 Hz
A230 = 230 V - 50 Hz / 240 V - 60 Hz
A00 = valve without coils (see note)

F110 = 110 V - 60 Hz
F220 = 220 V - 60 Hz

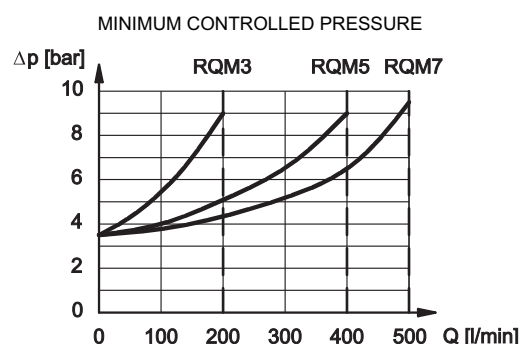
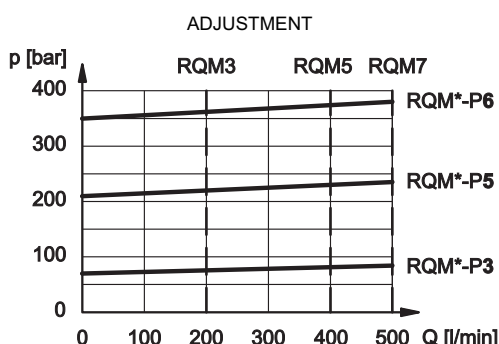
Seals:
N = NBR seals for mineral oil (standard)
V = FPM seals for special fluids

NOTE: The locking rings of the coils and the relevant O-Rings are supplied together with valves

2 - VERSIONS



3 - CHARACTERISTIC CURVES (values obtained with viscosity of 36 cSt at 50°C)



4 - HYDRAULIC FLUIDS

Use mineral oil-based hydraulic fluids HL or HM type, according to ISO 6743-4. For these fluids, use NBR seals (code N). For fluids HFDR type (phosphate esters) use FPM seals (code V). For the use of other kinds of fluid such as HFA, HFB, HFC, please consult our technical department. Using fluids at temperatures higher than 80 °C causes a faster degradation of the fluid and of the seals characteristics. The fluid must be preserved in its physical and chemical characteristics.

5 - OVERALL AND MOUNTING DIMENSIONS

