



RS*
DOUBLE-ACTING THROTTLE
FLOW CONTROL VALVE
SERIES 30

THREADED PORTS
CARTRIDGE TYPE

p max (see table of performances)

Q max (see table of performances)

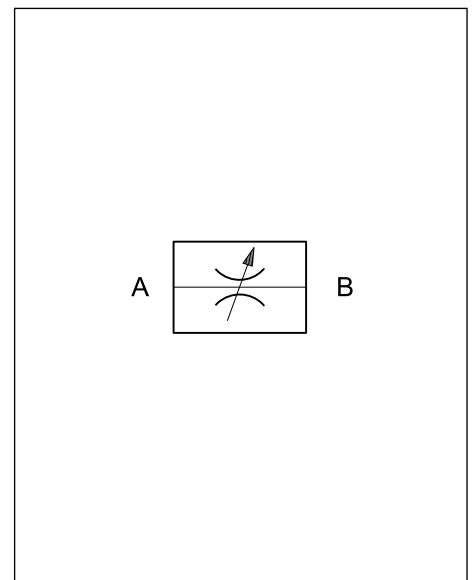
OPERATING PRINCIPLE

- The RS* and RS*-I valves are throttle flow control valves for in-line mounting, directly in the line or as a cartridge complete with threading for in-block mounting.
- Adjustment is obtained with a conical throttle that operates in a cylindrical seat and allows a good linearity of the adjusted flow.
- They are also used as flow shut-off valves since they guarantee good sealing when completely closed.
- The valves are always supplied with an adjustment knob that can be locked in any position with a transverse positioned grub screw, as may be required.

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

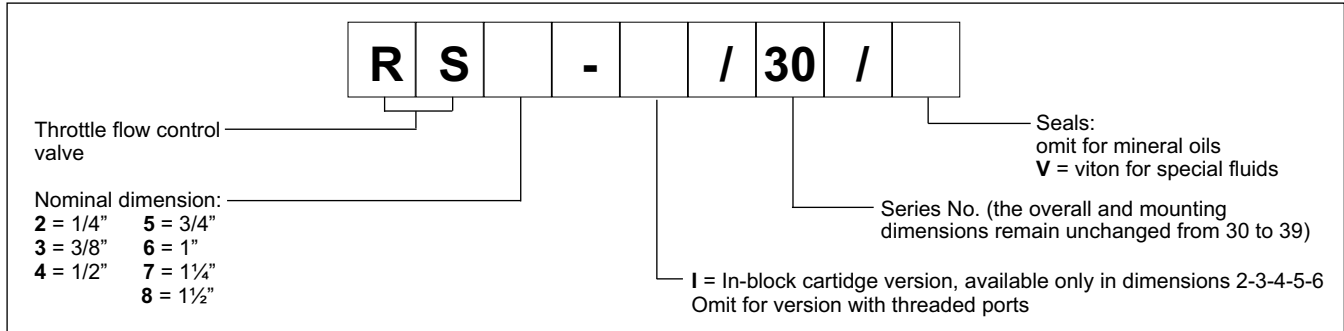
Valve code	Port dimensions BSP	Nominal flow rate [l/min]	Mass [kg]	Max. operating pressure [bar]
RS2	1/4"	15	0,2	400
RS3	3/8"	30	0,4	
RS4	1/2"	50	0,6	
RS5	3/4"	80	1,3	
RS6	1"	150	2,6	320
RS7	1 1/4"	200	3,0	
RS8	1 1/2"	220	4,2	
RS2-I	—	15	0,15	320
RS3-I	—	30	0,2	
RS4-I	—	50	0,3	
RS5-I	—	80	0,6	
RS6-I	—	150	1,2	

HYDRAULIC SYMBOL



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

1 - IDENTIFICATION CODE



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.

3 - OVERALL AND MOUNTING DIMENSIONS RS*

Valve	A BSP	B	C	∅ D	E max	∅ F
RS2	1/4"	12,5	49	20	78	50
RS3	3/8"	12,5	59	25	93	70
RS4	1/2"	15,5	68	30	107	80
RS5	3/4"	17	86	40	132,5	100
RS6	1"	20	105	50	167,5	120
RS7	1 1/4"	22	120	55	172,5	120
RS8	1 1/2"	24	134	65	181	120

4 - OVERALL AND MOUNTING DIMENSIONS RS*-I

* "BONDED SEAL"
 seal excluded from the supply

sigla valvola	∅F	G max	H	L 6H	∅M +0.2 0	N	P min	R ±0.2	S +0.2 0	∅T H8	∅U max	V ±0.2	Z min	CH	OR type	BK type	BS* type
RS2-I	50	49.5	26.5	M20x1.5	27	1	12	16.5	1	14	5	13.3	27	27	2043	2043	400-513
RS3-I	70	57.5	30.5	M20x1.5	27	1	12	20	1.2	16	8	15.2	32	27	2050	2050	400-513
RS4-I	80	66.5	40	M27x2	33	1.3	18	28	1.2	19	10	22	41	32	2062	2062	400-520
RS5-I	100	76.5	44	M33x2	40	1.3	18	30.5	1.2	27	12	23	45.5	41	130	130	400-515
RS6-I	120	102	52.5	M42x2	50	1.3	21.5	36.5	1.5	35	16	28.5	55	50	3118	3118	400-516



RSN*

SINGLE-ACTING THROTTLE FLOW CONTROL VALVE

SERIES 30

**THREADED PORTS
CARTRIDGE TYPE**

p max (see table of performances)
Q max (see table of performances)

OPERATING PRINCIPLE

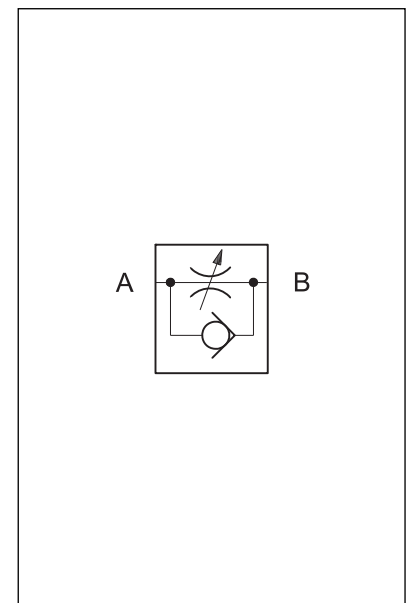
- The RSN* and RSN*-I valves are single-acting throttle flow control valves for in-line mounting, directly in the line or as a cartridge complete with threading for in-block mounting.
- Adjustment is obtained with a conical throttle that operates in a cylindrical seat and allows a good linearity of the adjusted flow.
- They are also used as single direction flow shut-off valves since they guarantee good sealing when completely closed. They also allow a free return in the opposite direction.
- The valves are always supplied with an adjustment knob that can be locked in any position with a transverse positioned grub screw, as may be required.

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

Valve Code	Port dimensions BSP	Nominal flow rate [l/min]	Max. flow with open flow [l/min]	Mass [kg]	Max. operating pressure [bar]
RSN2	1/4"	15	35	0,25	400
RSN3	3/8"	30	80	0,5	
RSN4	1/2"	50	150	0,75	
RSN5	3/4"	80	200	1,6	320
RSN6	1"	150	300	3,05	
RSN7	1 1/4"	200	400	3,75	
RSN8	1 1/2"	220	500	5,75	
RSN2-I	—	15	35	0,13	320
RSN3-I	—	30	80	0,25	
RSN4-I	—	50	150	0,34	
RSN5-I	—	80	200	0,62	

Direct check valve opening pressure	bar	0,35
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

HYDRAULIC SYMBOL



1 - IDENTIFICATION CODE

	R	S	N	-		/	30	/	
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Single-acting throttle flow control valve

Nominal dimension:
2 = 1/4" **5** = 3/4"
3 = 3/8" **6** = 1"
4 = 1/2" **7** = 1 1/4"
8 = 1 1/2"

Seals:
omit for mineral oils
V = viton for special fluids

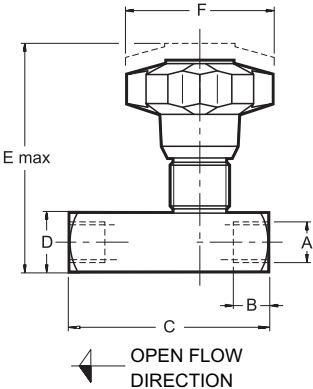
Series No. (the overall and mounting dimensions remain unchanged from 30 to 39)

I = in-block cartridge version, available only in dimensions 2-3-4-5
Omit for version with threaded ports

2 - 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.

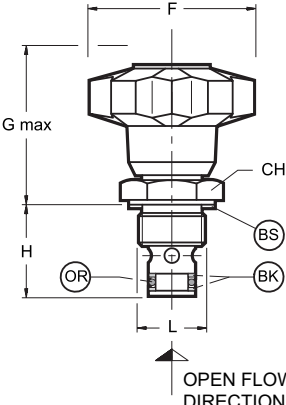
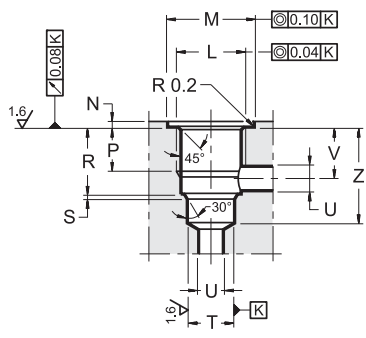
3 - OVERALL AND MOUNTING DIMENSIONS RSN*



dimensions in mm

Valve	A BSP	B	C	∅ D	E max	∅ F
RSN2	1/4"	12,5	66	20	78	50
RSN3	3/8"	12,5	79	25	93	70
RSN4	1/2"	15,5	94,5	30	107	80
RSN5	3/4"	17	115	40	132,5	100
RSN6	1"	20	138,5	50	167,5	120
RSN7	1 1/4"	22	157	55	172,5	120
RSN8	1 1/2"	24	190	65	181	120

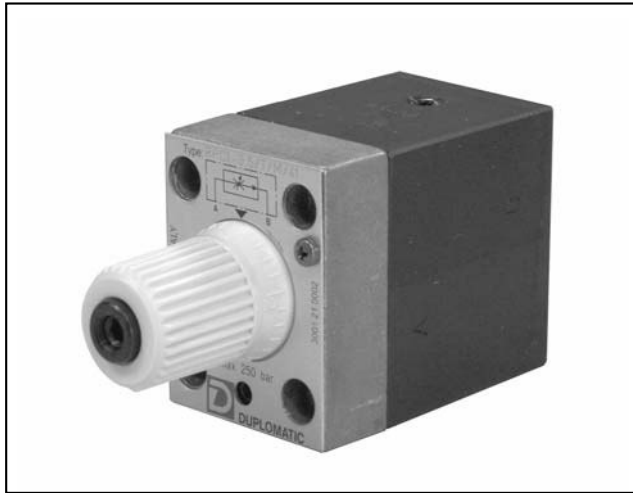
4 - OVERALL AND MOUNTING DIMENSIONS RSN*-I

dimensions in mm

*"BONDED SEAL" seal excluded from the supply

Valve	∅F	G max	H	L 6H	∅M + 0.2 0	N	P min	R ± 0.2	S + 0.2 0	∅T H8	∅U max	V ± 0.2	Z min	CH	OR type	BK type	BS* type
RSN2-I	50	49	30.5	M20x1.5	27	1	12	20	1.2	16	8	15.2	32	27	2050	2050	400-513
RSN3-I	70	56	40	M27x2	33	1.3	18	28	1.2	19	10	22	41	32	2062	2062	400-520
RSN4-I	80	70	44.5	M33x2	40	1.3	18	30.5	1.2	27	12	23	45.5	41	130	130	400-515
RSN5-I	100	80	52.5	M42x2	50	1.3	21.5	36.5	1.5	35	16	28.5	55	50	3118	3118	400-516



RPC1

PRESSURE AND TEMPERATURE COMPENSATED FLOW CONTROL VALVE

SERIES 41

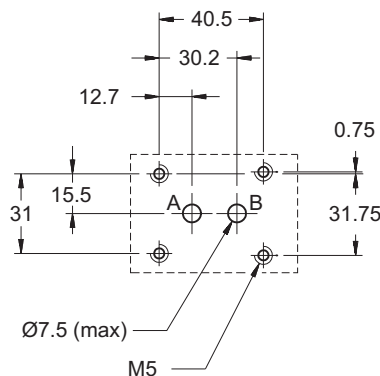
SUBPLATE MOUNTING
ISO 6263-03 (CETOP 03)

p max **250** bar

Q max (see table of performances)

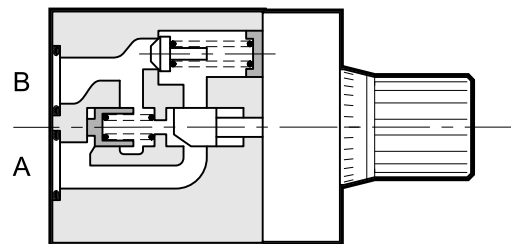
MOUNTING INTERFACE

ISO 6263-03-03-*
(CETOP 4.5.2-2-03-250)



NOTE: The RPCED1 mounting interface, with CETOP 03 holes, must not have P and T ports or must have the 0113388 subplate (see paragraph 9)

OPERATING PRINCIPLE

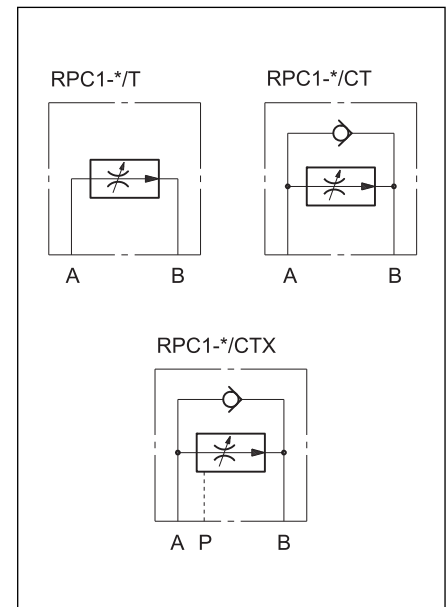


- The RPC1 valve is a pressure and temperature compensated flow control valve.
- The flow is adjusted by a calibrated knob that modulates the opening of the control gap and can be locked in any adjustment position. Adjustment is made with three turns, and upon request one-turn adjustment, RPC1*/M, is available.
- It is available in seven different flow rate adjustment ranges from 0,5 l/min up to 30 l/min.

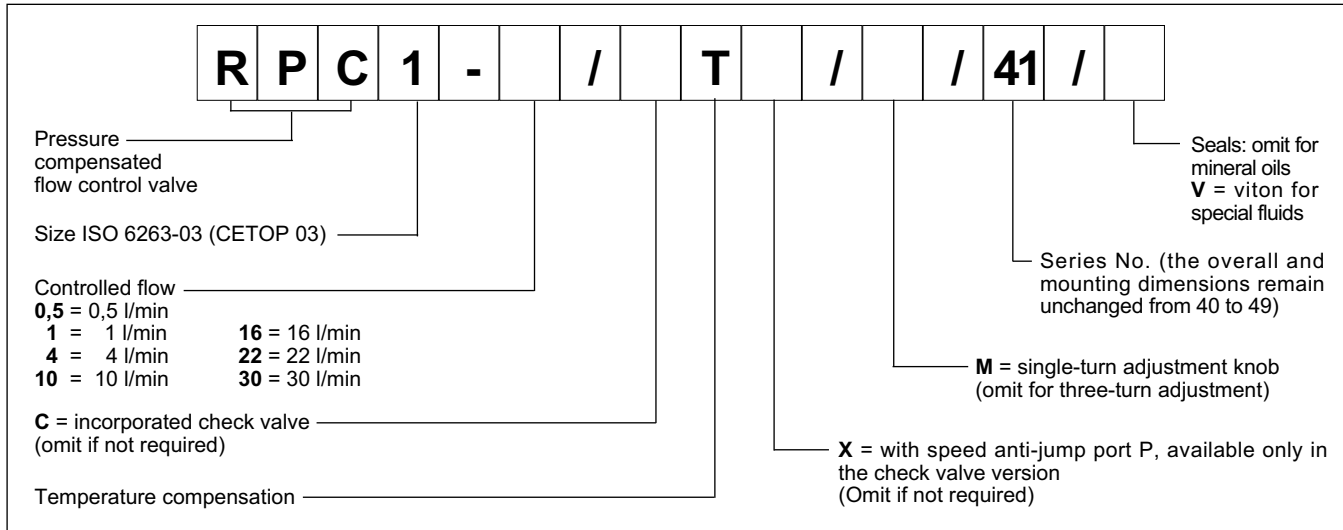
PERFORMANCE RATINGS (obtained with mineral oil with viscosity of 36 cSt at 50°C)

Maximum operating pressure		250
Minimum pressure difference between A and B	bar	10
Check valve cracking pressure		0,5
Maximum controlled flow rates		0,5-1-4-10-16-22-30
Minimum controlled flow rate (for 0,5-1 and 4 l/min)	l/min	0,025
Maximum flow rate in free flow direction		40
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	
Fluid contamination degree for flows < 0,5 l/min	According to ISO 4406:1999 class 18/16/13	
Recommended viscosity	cSt	25
Mass	kg	1,3
Number of adjustment knob turns	RPC1 RPC1-*/M	3 1

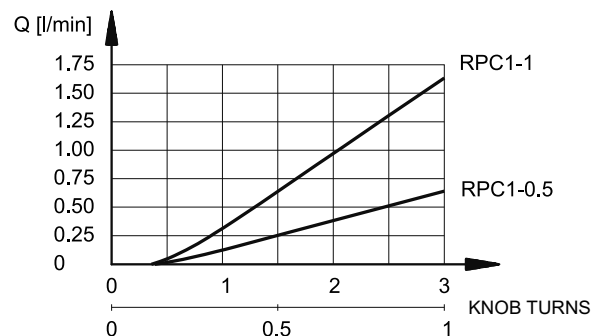
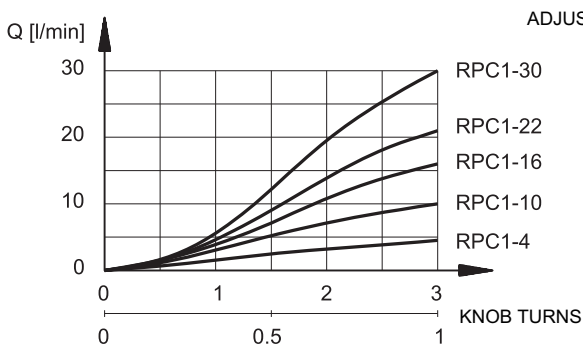
HYDRAULIC SYMBOLS



1 - IDENTIFICATION CODE



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 - PRESSURE COMPENSATION

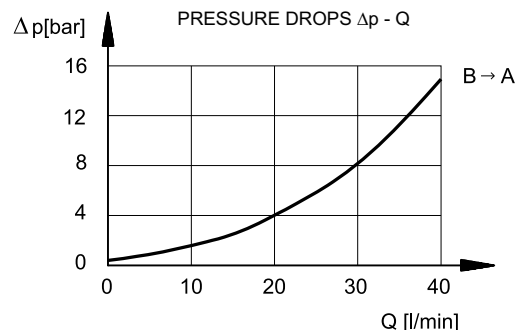
Two throttles in series are in the valve. The first is an opening regulated by the knob; the second, piloted by the pressure upstream and downstream of the first throttle, assures a constant pressure drop across the adjustable throttle. In these conditions, the set flow rate value stays constant within a tolerance range of $\pm 2\%$ of the maximum flow controlled by the valve for maximum pressure variation between the intake and outlet chambers of the valve.

5 - TEMPERATURE COMPENSATION

The valve temperature compensation is obtained with the principle of fluid passage across a thin wall orifice in which the flow rate is not substantially influenced by the oil viscosity fluctuations. For controlled flows of less than 0,5 l/min and with a temperature difference of 50 °C, flow is increased by about 13% of the set flow value. For higher flow rates, and with the same temperature difference, the flow increase is about 4% of the maximum flow controlled by the valve.

6 - REVERSE FREE FLOW

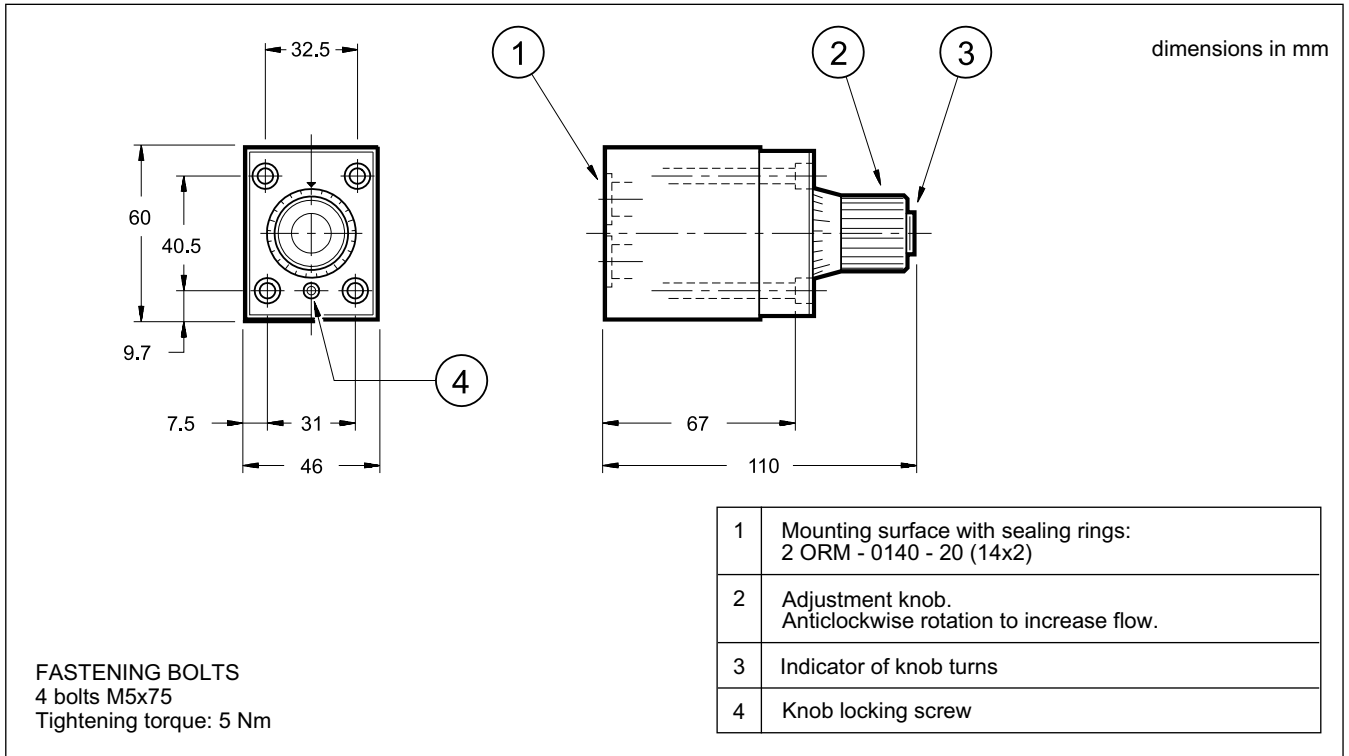
The RPC1 valve, upon request, is supplied with an incorporated check valve to allow free flow in the direction opposite to the controlled flow, B→A. In this case the valve code becomes RPC1-*/CT.



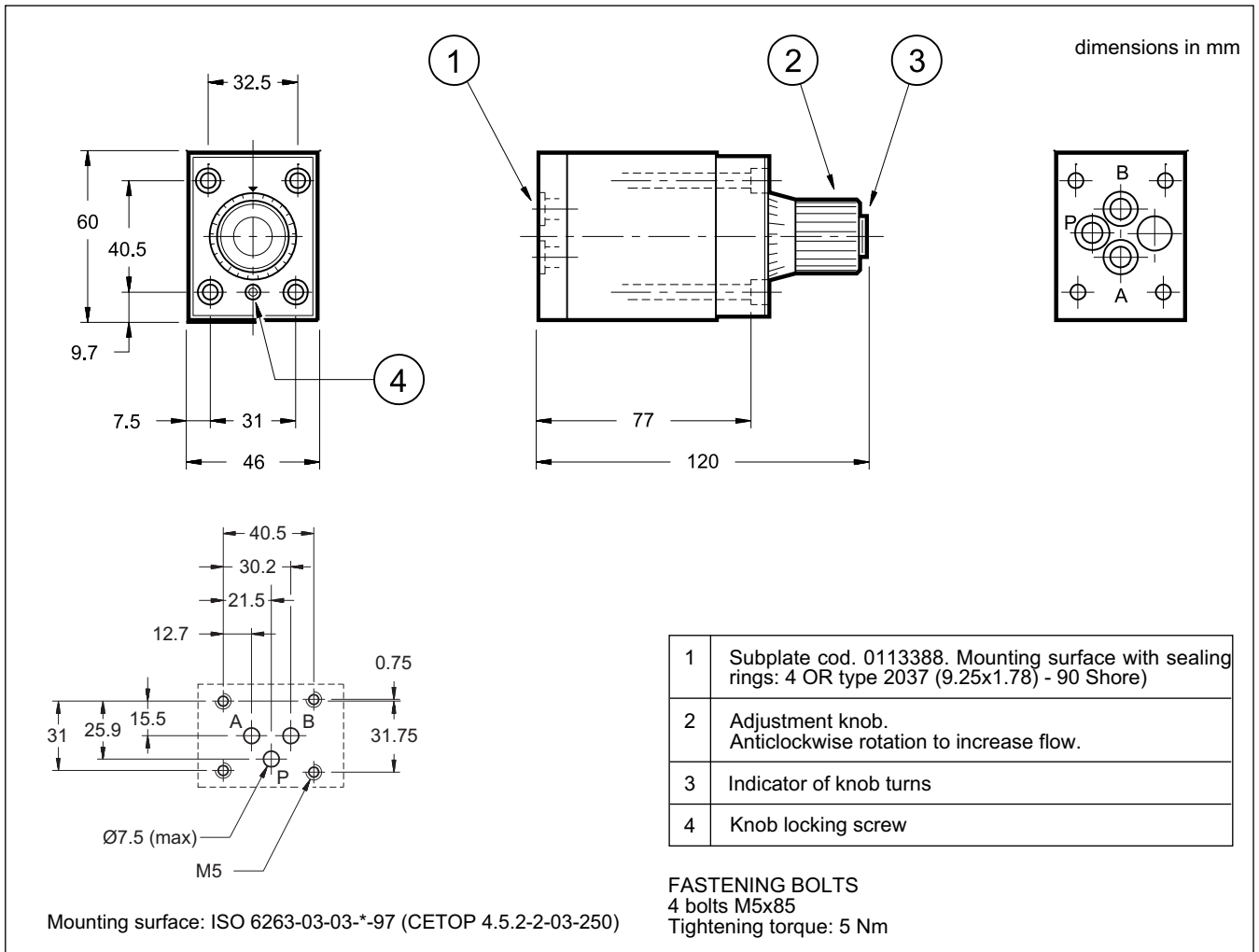
7 - RPC1-*/CTX

This valve is normally used for intake control and is positioned downstream of the directional valve. The piloting connection "P" keeps the compensator in the closed position, thus avoiding the initial speed jump that occurs at the time the distributor sends oil to the valve (see the application diagram, paragraph 11).

8 - RPC1-* OVERALL AND MOUNTING DIMENSIONS



9 - RPC1-*/CTX OVERALL AND MOUNTING DIMENSIONS

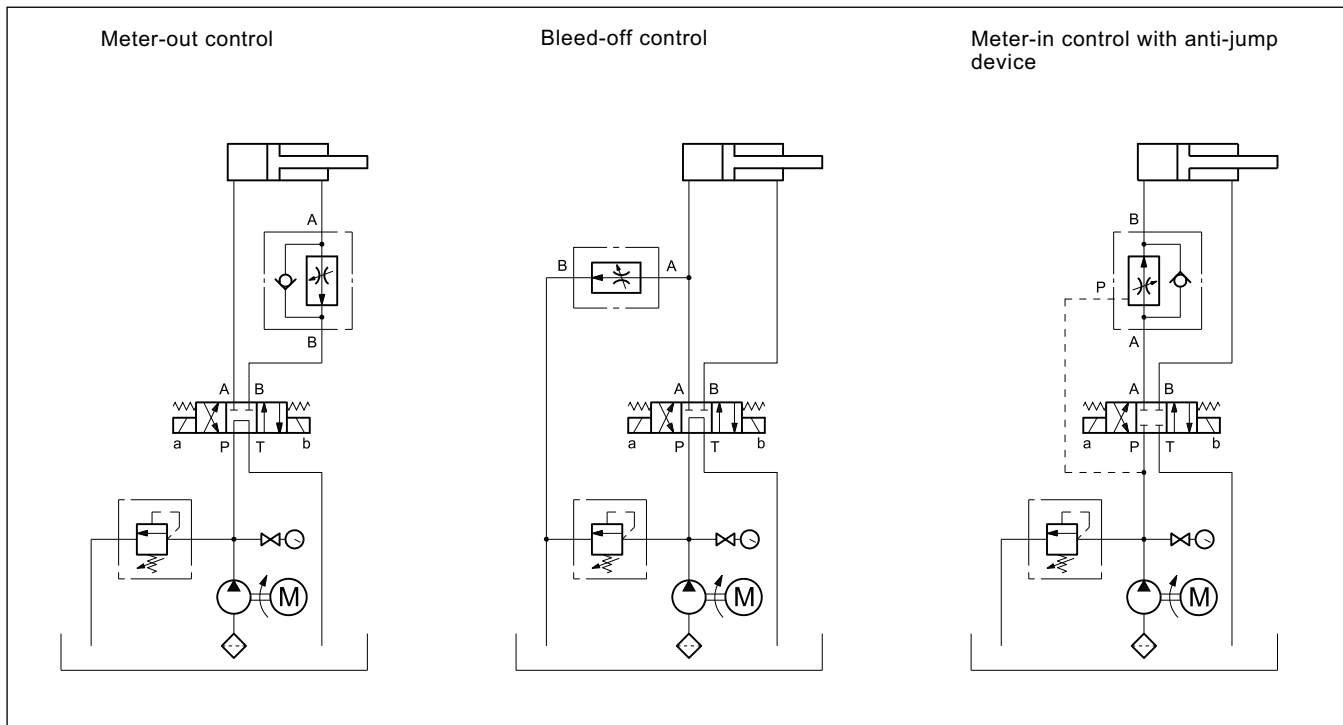




10 - SUBPLATES (look at datasheet 51 000)

Type	PMRPC1-AI3G with rear ports PMRPC1-AL3G with side ports	
Type	PMMD-AI3G with rear ports, with user T plugged PMMD-AL3G with side ports, with user T plugged	only for valve RPC1-*/CTX
Port dimension	3/8" BSP	

11 - APPLICATION EXAMPLES



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RPC1-T3

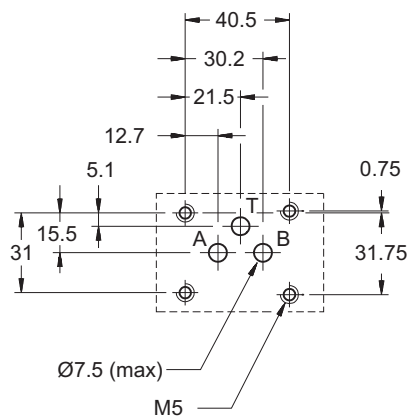
PRESSURE AND TEMPERATURE COMPENSATED THREE-WAY FLOW CONTROL VALVE SERIES 41

SUBPLATE MOUNTING ISO 6263-03 (CETOP 03)

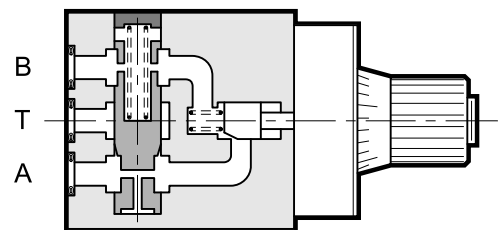
p max **250** bar
Q max (see table of performances)

MOUNTING INTERFACE

ISO 6263-03-03-*97
(CETOP 4.5.2-3-03-250)



OPERATING PRINCIPLE

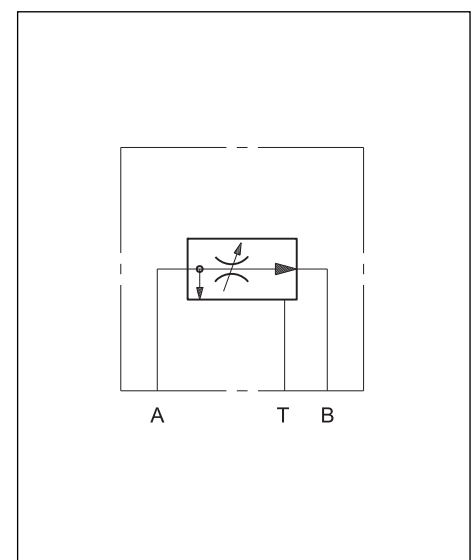


- The pressure and temperature compensated three-way flow control valves serve to control the flow sent to the actuator and to discharge it, which exceeds that required, back to tank at system pressure rather than at relief valve pressure.
- The flow rate adjustment range is carried out with three turns of the knob and an indicator shows the number of turns made. A one-turn adjustment on the knob, RPC1*/M, is available upon request.
- The adjustment knob can be locked in any position in the adjustment range by a screw.

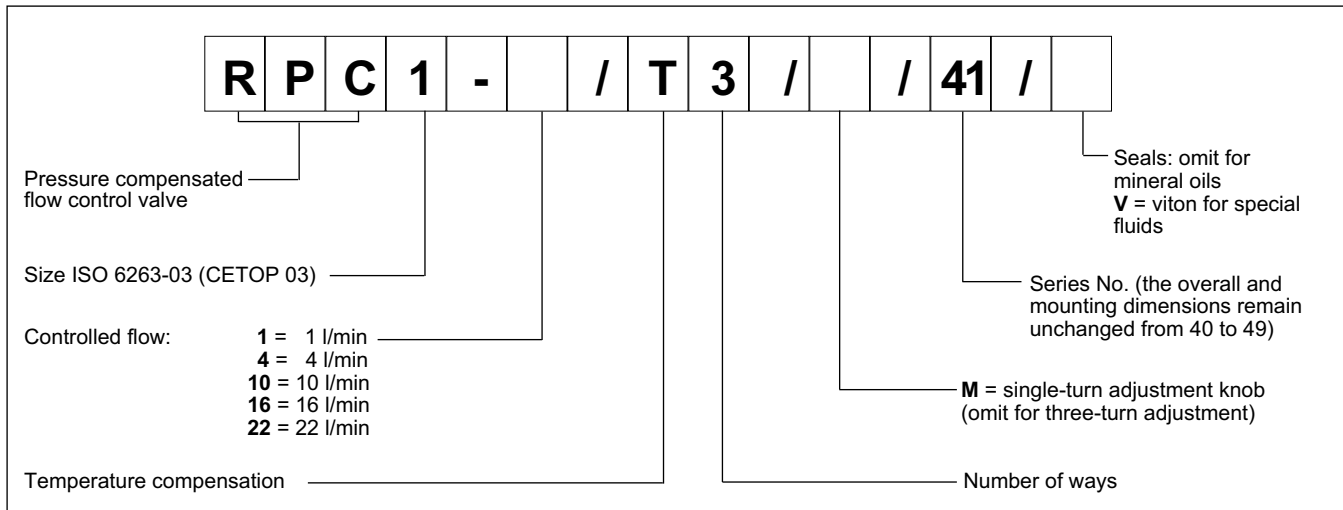
PERFORMANCES (obtained with mineral oil with viscosity of 36 cSt at 50°C)

Maximum operating pressure	bar	250
Minimum pressure difference between A and B		12
Maximum controlled flow rates	l/min	1-4-10-16-22
Minimum controlled flow rate (for 1 and 4 l/min)		0,035
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	
Fluid contamination degree for flows < 0,5 l/min	According to ISO 4406:1999 class 18/16/13	
Recommended viscosity	cSt	25
Mass	kg	1,5
Number of adjustment knob turns	RPC1/T3	3
	RPC1-/T3/M	1

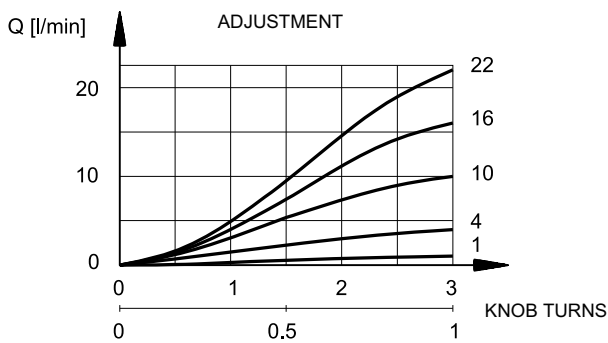
HYDRAULIC SYMBOL



1 - IDENTIFICATION CODE



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.

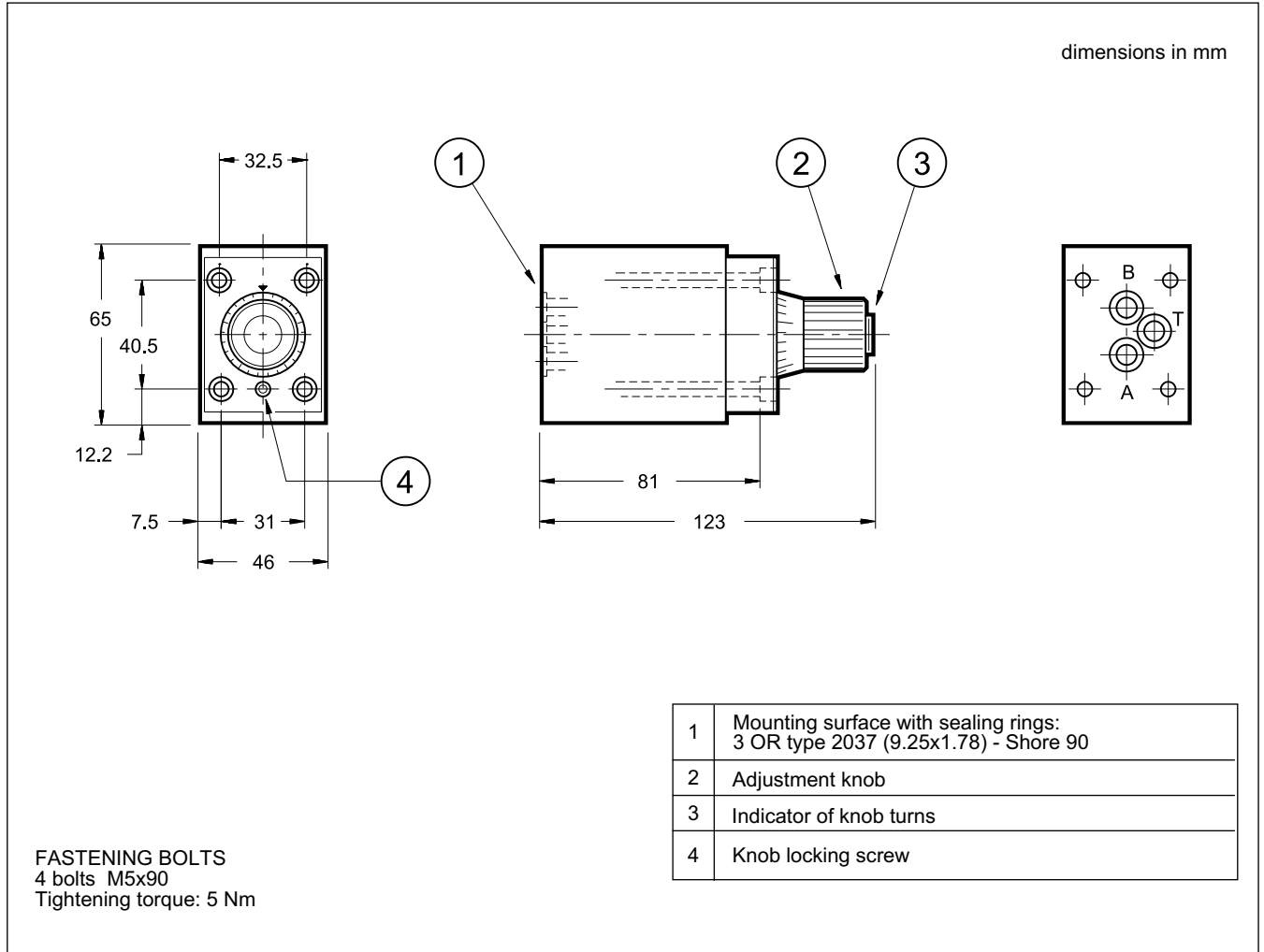
4 - PRESSURE COMPENSATION

Two throttles in series are in the valve. The first is an opening regulated by the knob; the second, piloted by the pressure upstream and downstream of the first throttle, assures a constant pressure drop across the adjustable throttle. In these conditions, the set flow rate value stays constant within a tolerance range of $\pm 2\%$ of the maximum flow controlled by the valve for maximum pressure variation between the intake and outlet chambers of the valve.

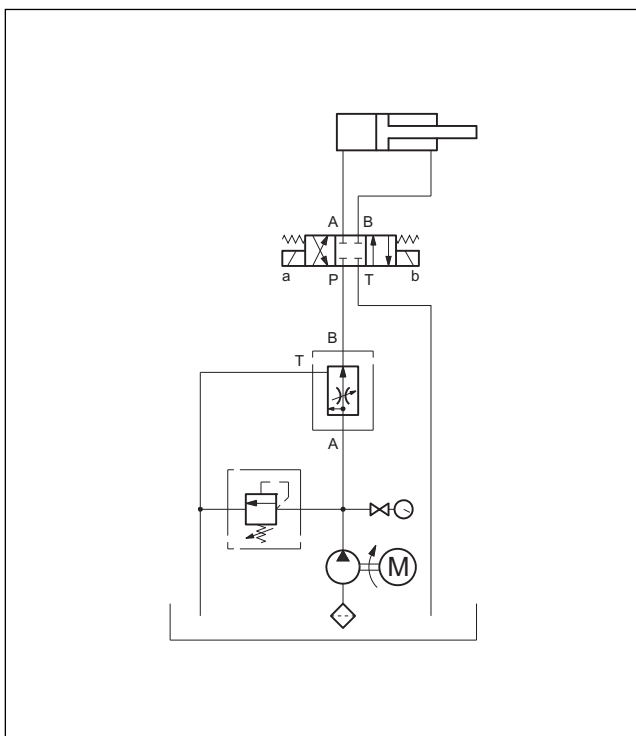
5 - TEMPERATURE COMPENSATION

The valve temperature compensation is obtained with the principle of fluid passage across a thin wall orifice in which the flow rate is not substantially influenced by the oil viscosity fluctuations. For controlled flows of less than 0,5 l/min and with a temperature difference of 50 °C, flow is increased by about 13% of the set flow value. For higher flow rates, and with the same temperature difference, the flow increase is about 4% of the maximum flow controlled by the valve.

6 - OVERALL AND MOUNTING DIMENSIONS



7 - APPLICATION EXAMPLE



8 - SUBPLATES (see datasheet 51 000)

Type	PMMD-AI3G with rear ports with user P plugged
Type	PMMD-AL3G with side ports with user P plugged
Port dimension	3/8" BSP



RPC1-T3

SERIES 41



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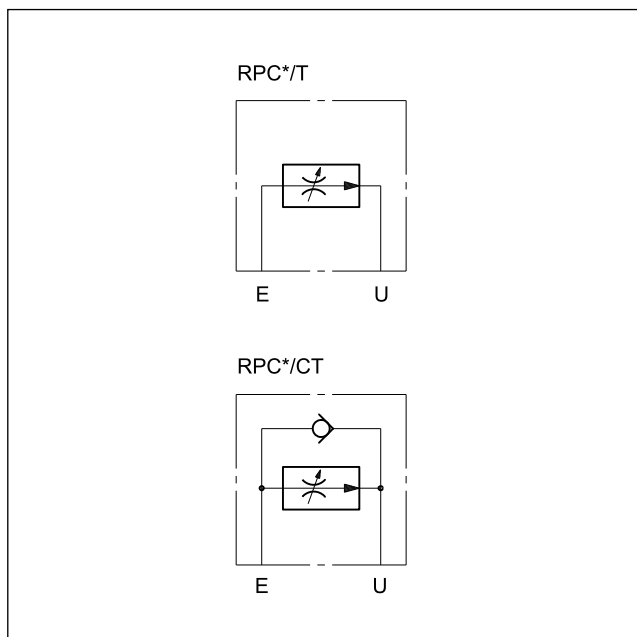
RPC*

PRESSURE AND TEMPERATURE COMPENSATED FLOW CONTROL VALVES

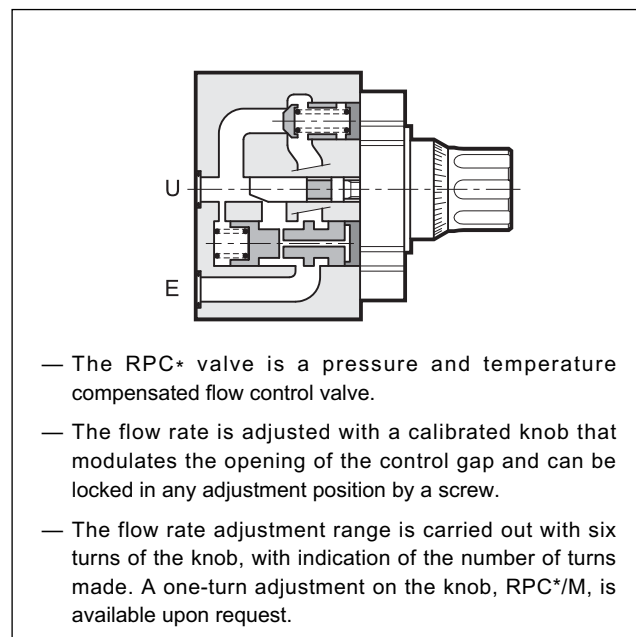
SUBPLATE MOUNTING

RPC2 **ISO 6263-06 (CETOP 06)**
RPC3 **ISO 6263-07 (CETOP 07)**

HYDRAULIC SYMBOL

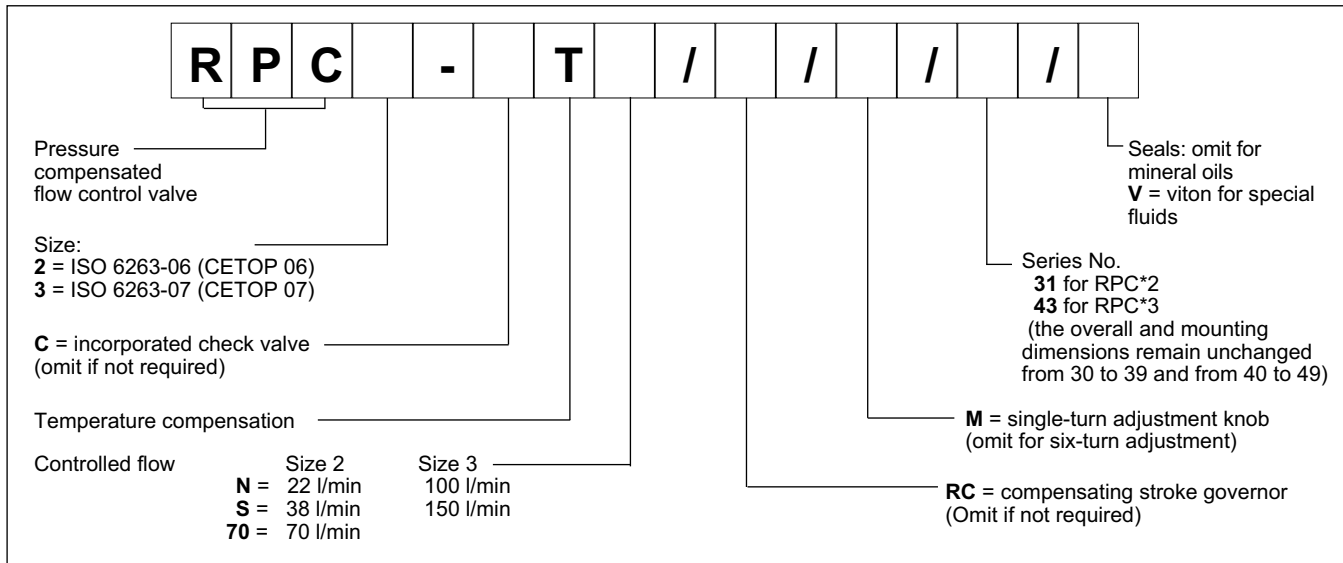


OPERATING PRINCIPLE

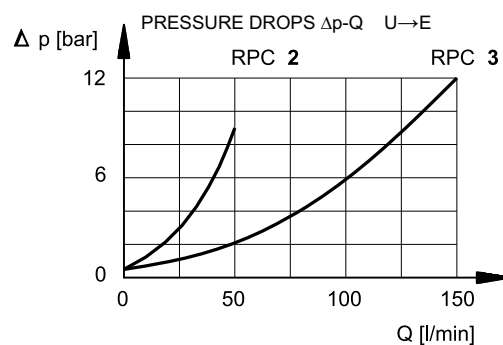
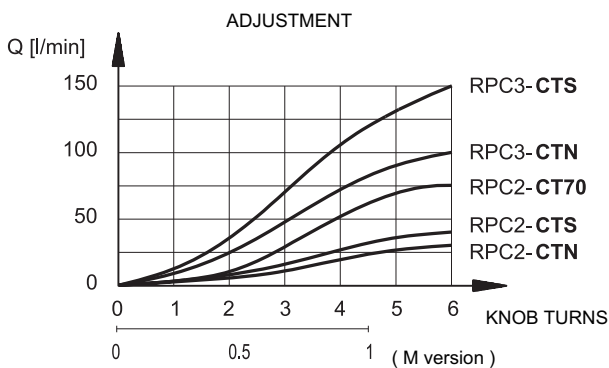


PERFORMANCES (obtained with mineral oil with viscosity of 36 cSt at 50°C)		RPC2	RPC3
Maximum operating pressure	bar	320	250
Check valve cracking pressure		0,5	0,5
Minimum pressure difference between E and U		10	12
Maximum controlled flow rates	l/min	22 - 38 -70	100 - 150
Minimum controlled flow rate		0,050	0,120
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	3,6	7,8

1 - IDENTIFICATION CODE



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 - PRESSURE COMPENSATION

Two throttles in series are in the valve. The first is an opening regulated by the knob; the second, piloted by the pressure upstream and downstream of the first throttle, assures a constant pressure drop across the adjustable throttle. In these conditions, the set flow rate value stays constant within a tolerance range of ± 3% of the maximum flow controlled by the valve for the maximum pressure variation between inlet and outlet chambers of the valve.

5 - TEMPERATURE COMPENSATION

A device located on the first throttle which is sensitive to the temperature fluctuations corrects the position keeping the controlled flow more or less unaltered even should the oil viscosity change.

The fluctuation of the set flow rate stays within ± 2,5% of the maximum flow controlled by the valve.

6 - REVERSE FREE FLOW

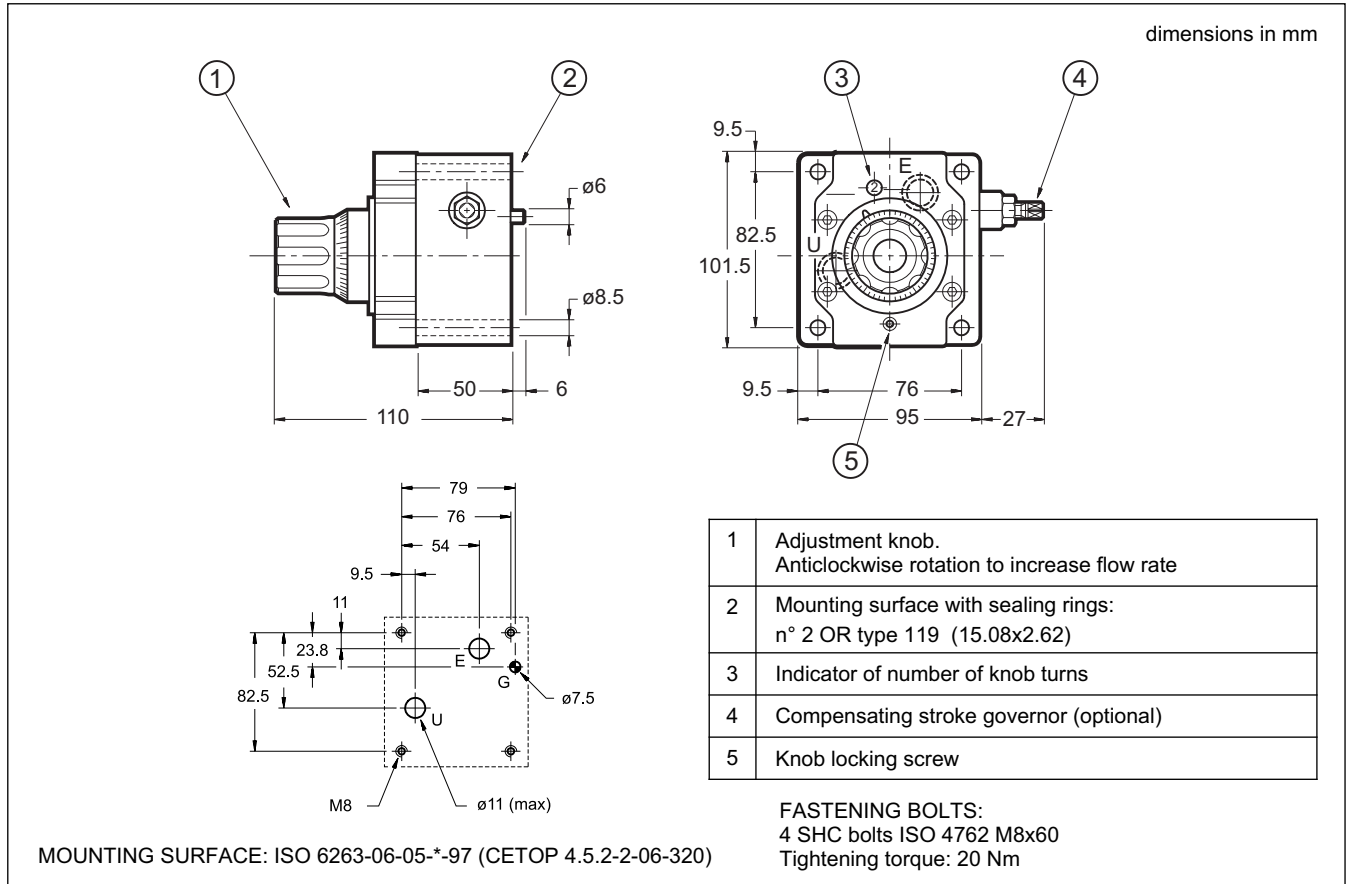
The RPC* valves, upon request, are supplied with an incorporated check valve to allow free flow in the direction opposite of the controlled flow. In this case the valve code becomes RPC*-CT.

7 - COMPENSATING STROKE GOVERNOR

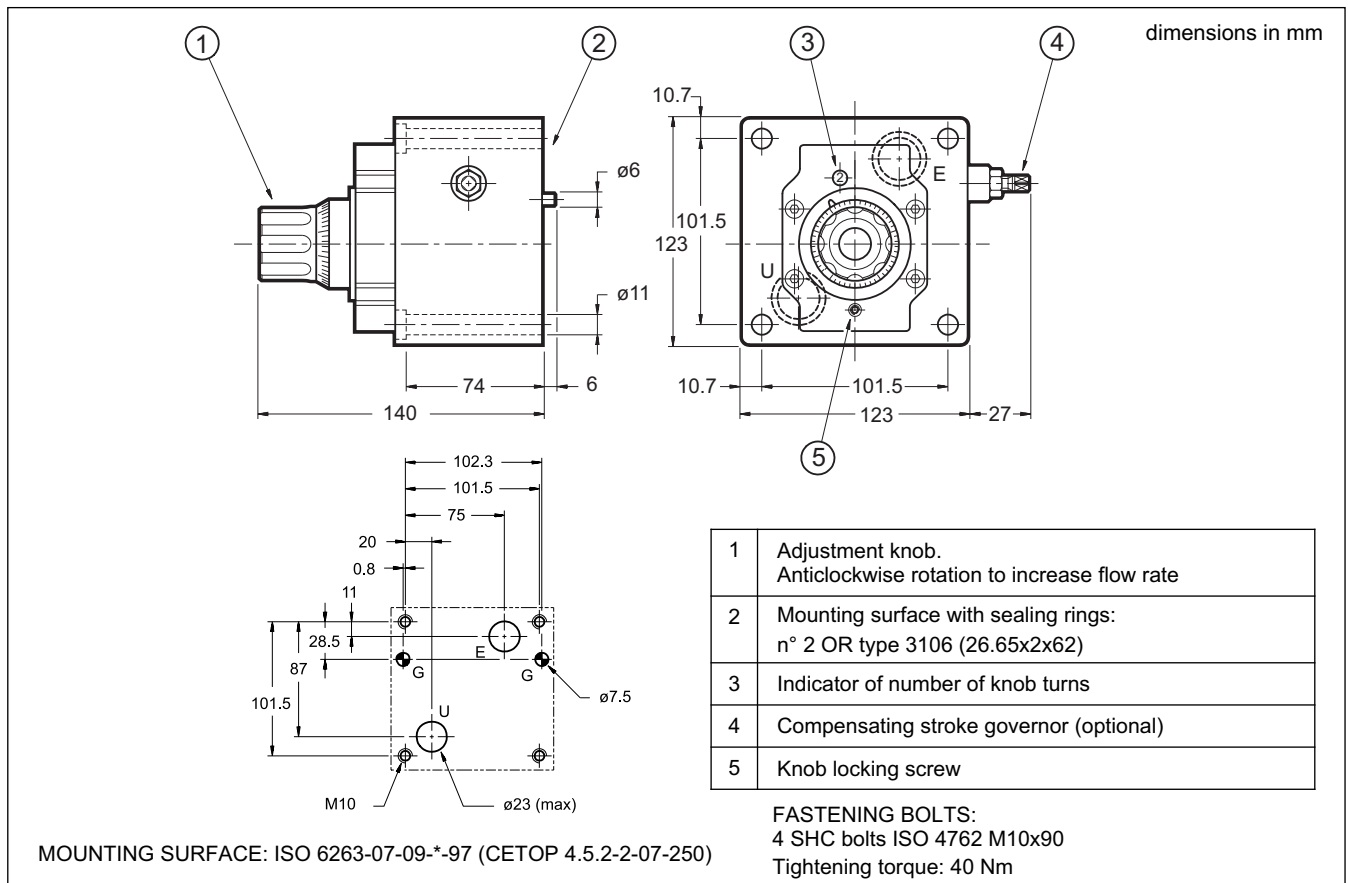
In order to avoid jumps in the actuator when it is started, the RPC valve can be equipped with a special accessory that controls the compensating stroke, thus preventing it from making uncontrolled movements.

Add the suffix **RC** to the identification code to request this governor. See paragraph 1.

8 - RPC2 SERIES 31 OVERALL AND MOUNTING DIMENSIONS



9 - RPC3 SERIES 43 OVERALL AND MOUNTING DIMENSIONS





10 - SUBPLATES (see catalogue 51 000)

	RPC2	RPC3
Type	PMRPC2-AI4G rear ports	PMRPC3-AI6G rear ports
Port dimensions	1/2" BSP	1" BSP



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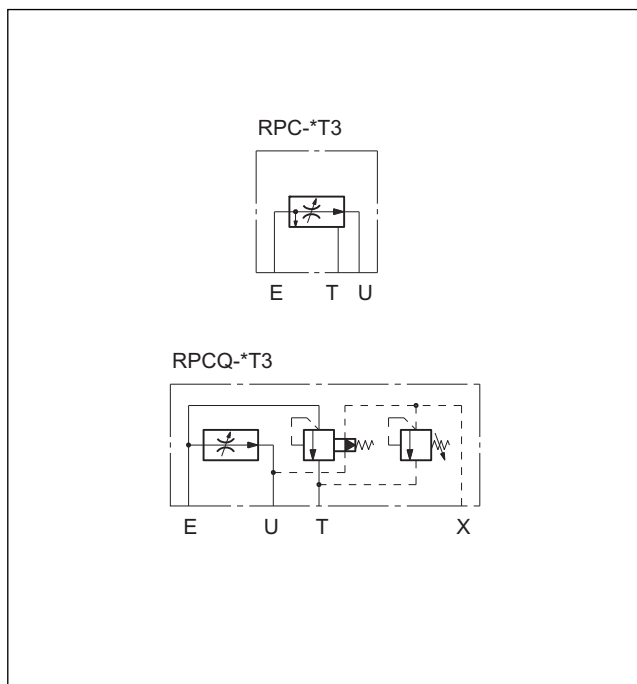
RPC*-T3

PRESSURE AND TEMPERATURE COMPENSATED THREE-WAY FLOW CONTROL VALVES

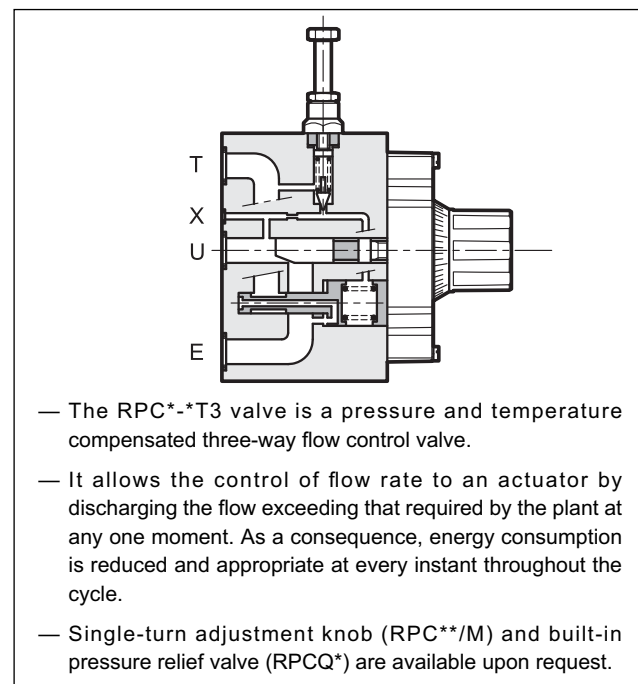
SUBPLATE MOUNTING

RPC-2T3 ISO 6263-06 (CETOP 06)
RPC-3T3 ISO 6263-07 (CETOP 07)

HYDRAULIC SYMBOLS



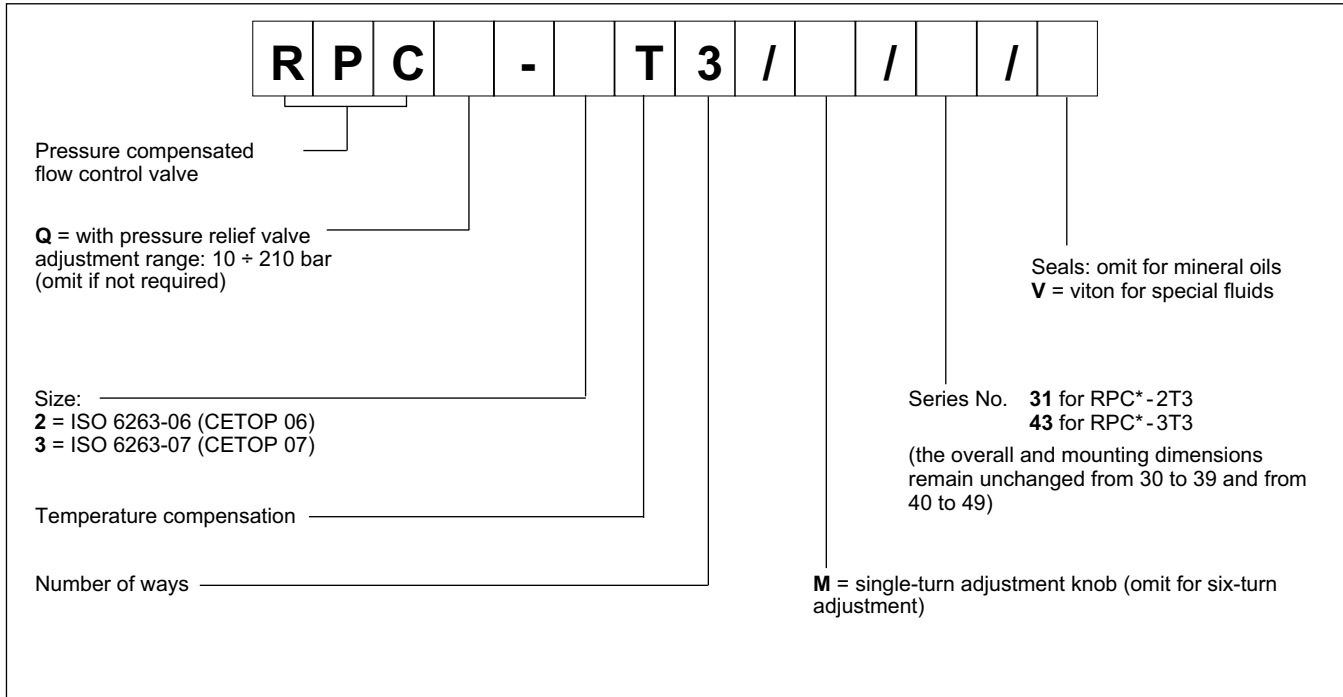
OPERATING PRINCIPLE



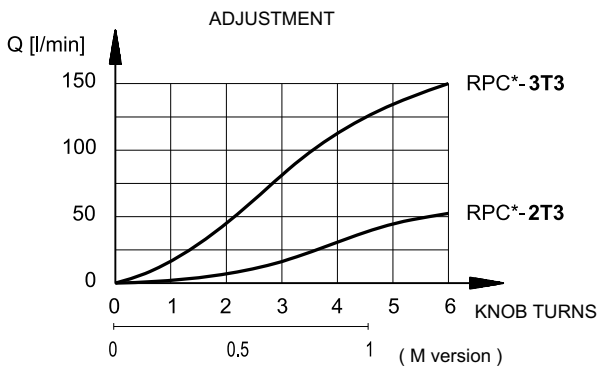
PERFORMANCE RATINGS (obtained with mineral oil with viscosity of 36 cSt at 50°C)

		RPC*-2T3	RPC*-3T3
Maximum operating pressure	bar	320	250
Minimum pressure difference between E and U		10	12
Maximum controlled flow rate	l/min	50	150
Minimum controlled flow rate		0,060	0,130
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	
Fluid contamination degree for flow rate <0,5 l/min		According to ISO 4406:1999 class 18/16/13	
Recommended viscosity	cSt	25	
Mass	kg	4,7	9

1 - IDENTIFICATION CODE



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 - PRESSURE COMPENSATION

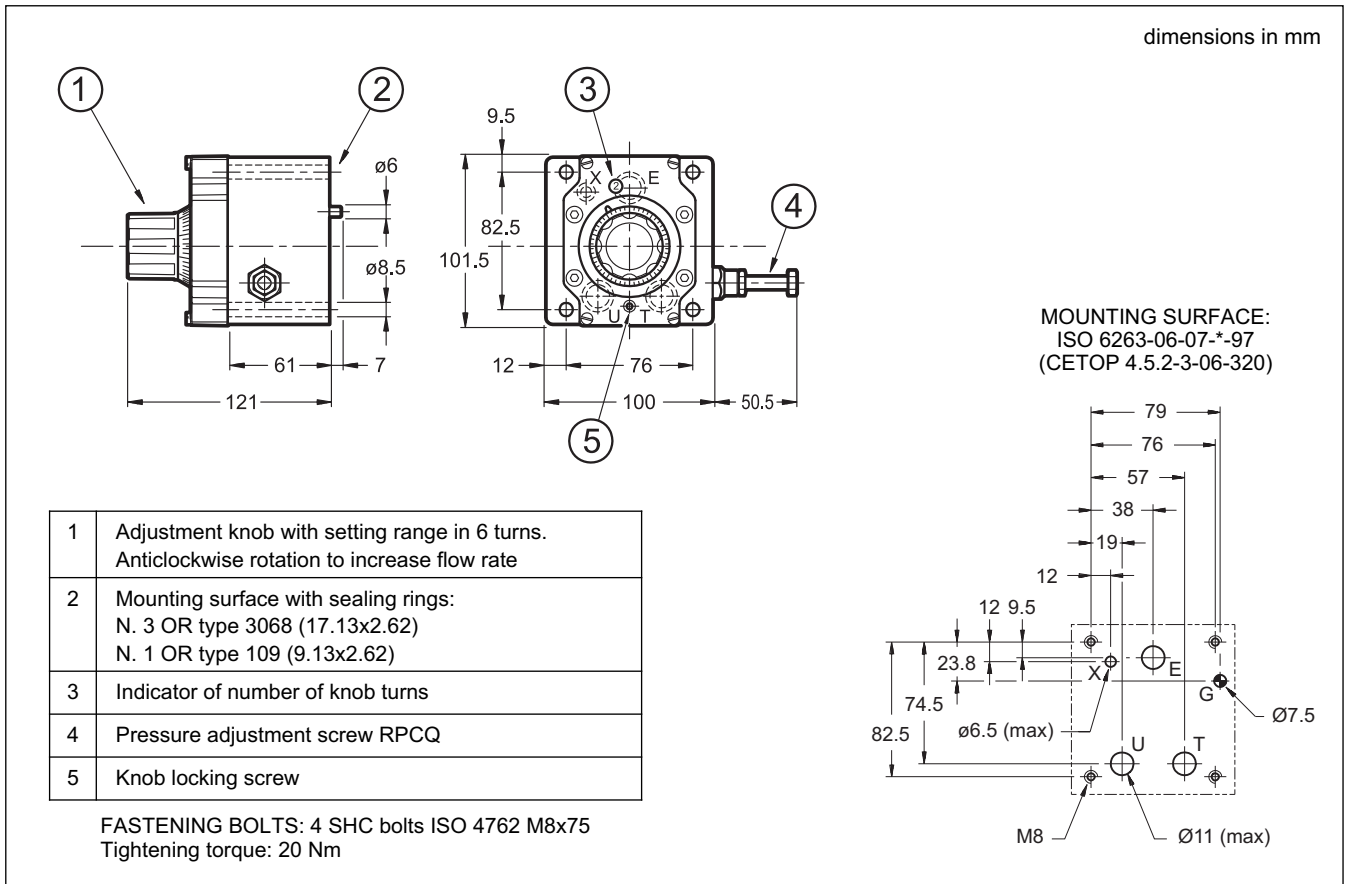
Two throttles in series are in the valve. The first is an opening regulated by the knob; the second, piloted by the pressure upstream and downstream of the first throttle, assures a constant pressure drop across the adjustable throttle. In these conditions, the set flow rate value stays constant within a tolerance range of ±3% of the maximum flow controlled by the valve for maximum pressure variation between the intake and outlet chambers of the valve.

5 - TEMPERATURE COMPENSATION

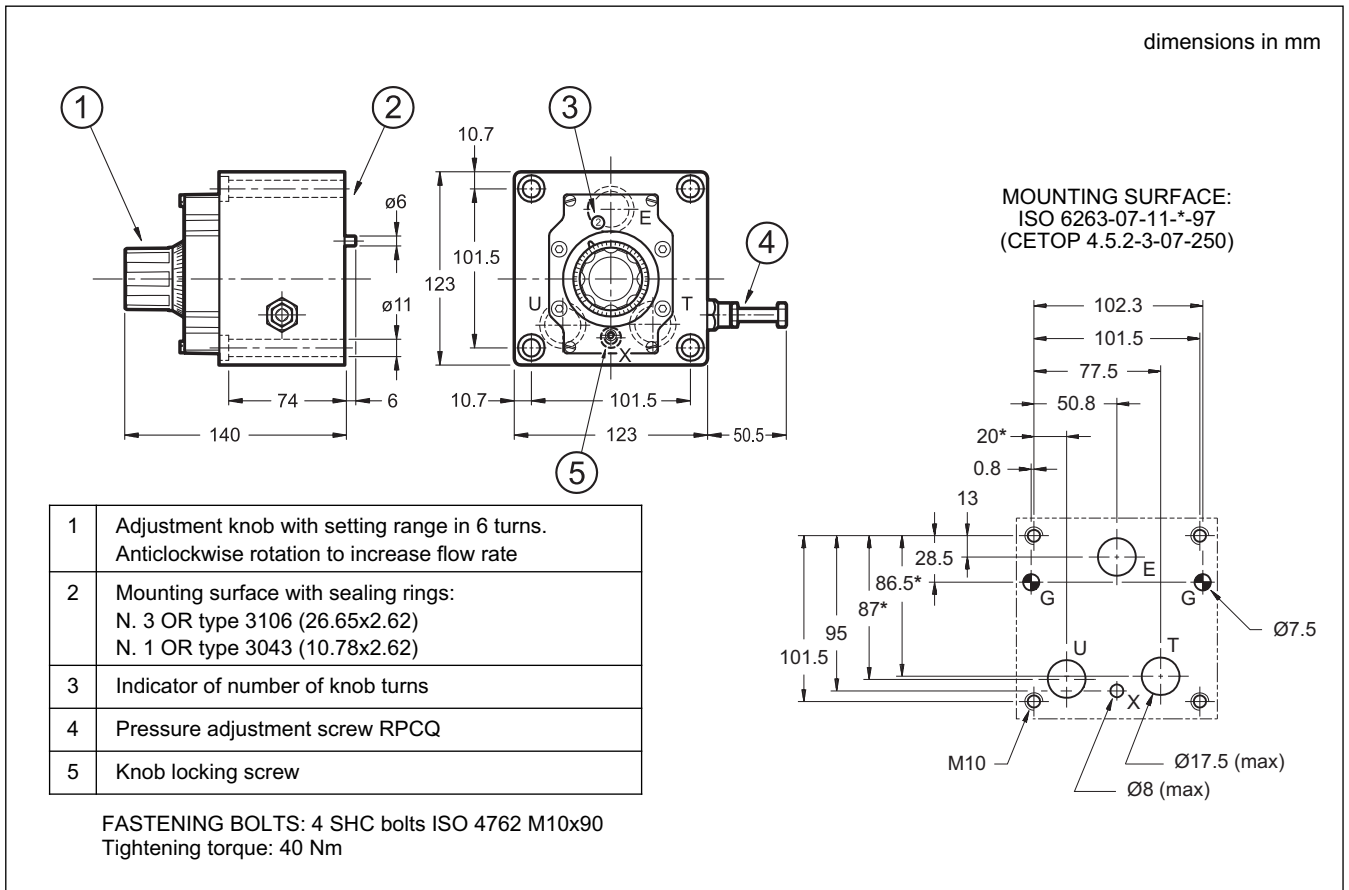
A device located on the first throttle which is sensitive to the temperature fluctuations corrects the position keeping the controlled flow more or less unaltered even should the oil viscosity change.

The fluctuation of the set flow rate stays within ±2,5% of the maximum flow controlled by the valve.

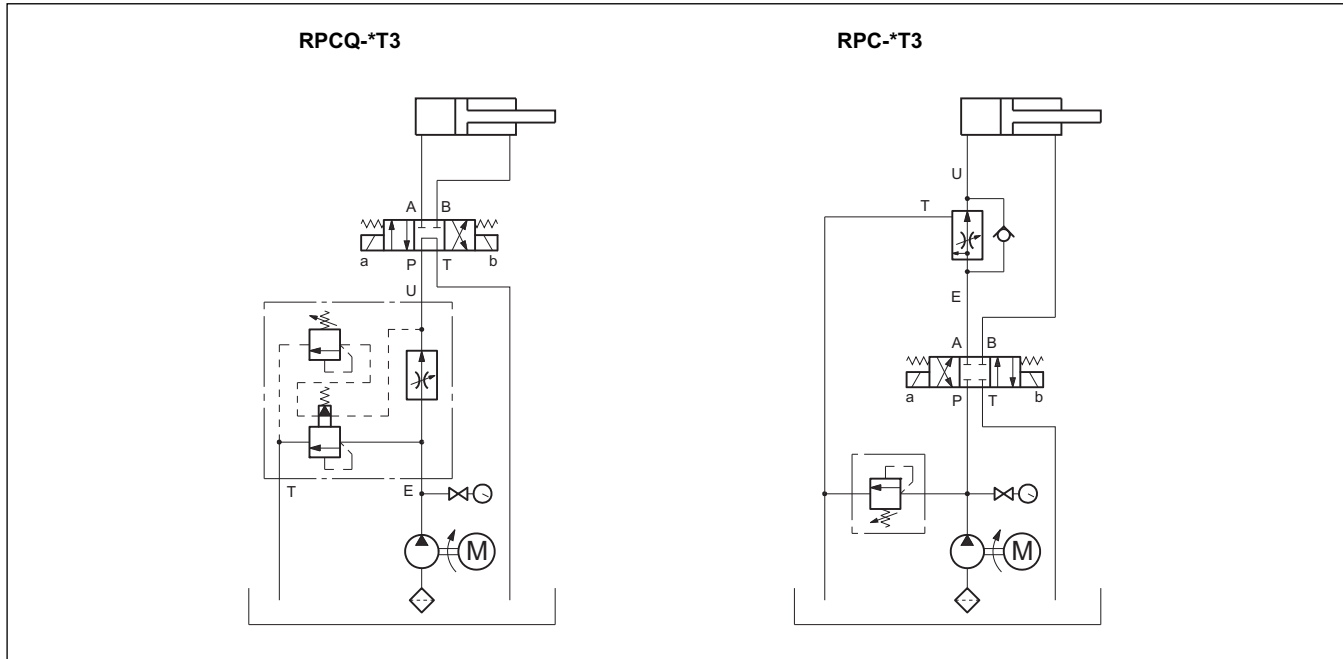
6 - RPC*-2T3 SERIES 31 OVERALL AND MOUNTING DIMENSIONS



7 - RPC*-3T3 SERIES 43 OVERALL AND MOUNTING DIMENSIONS

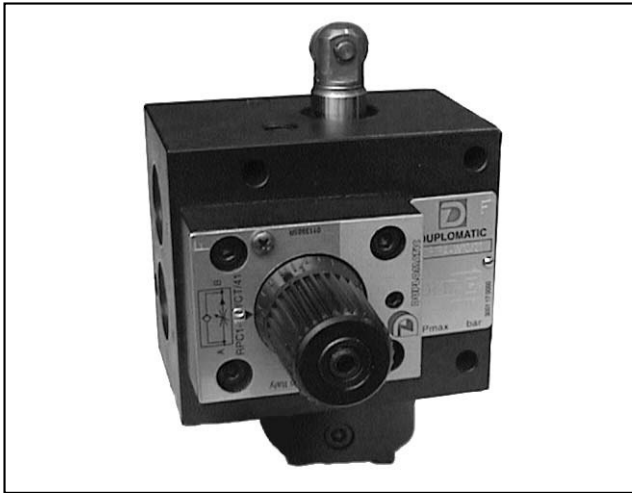


11 - APPLICATION EXAMPLES



12 - SUBPLATES (see catalogue 51 000)

	RPC* - 2T3	RPC* - 3T3
Type	PMRPCQ2-AI4G rear ports	PMRPCQ3-AI6G rear ports
E, U, T port dimensions	1/2" BSP	1" BSP
X port dimensions	1/4" BSP	1/4" BSP



CP1R*-W

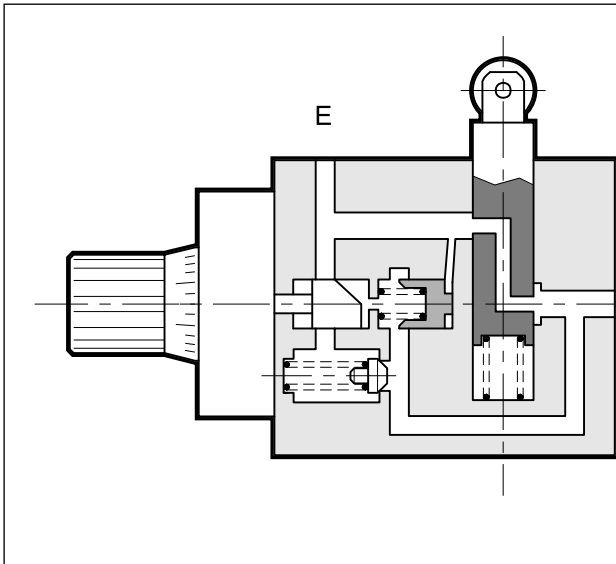
ROLLER OPERATED FAST/SLOW SPEED SELECTION VALVE

SERIES 21

THREADED PORTS

p max 70 bar
Q max 40 l/min

OPERATING PRINCIPLE



- The CP1R*-W valve is used for the selection and control of fast/slow speed of hydraulic axis by mechanical roller operation.
- The slow working speed adjustment is obtained by using a pressure compensated flow control valve.
The special shape of the control openings allows fine adjustment even with very low flow rates.
- Adjustment of the flow rate is carried out with three turns of the knob that can be locked in any position with a screw.
- It is available in two configurations:
normally open CP1RA,
normally closed CP1RC.
- It is supplied with an incorporated check valve that allows free passage of the reverse flow.

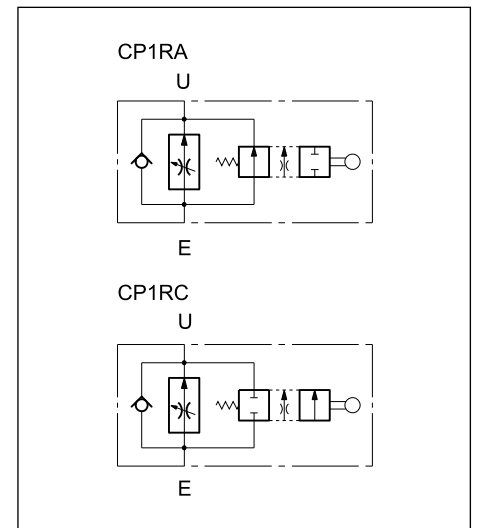
CONFIGURATIONS (see Hydraulic symbols table)

- CP1RA-W: normally open - fast movement with roller in rest position and controlled slow movement with roller in operation.
- CP1RC-W: normally closed - controlled slow movement with roller in rest position and fast movement with roller in operation.

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

Maximum operating pressure	bar	70
Fast movement maximum flow rate	l/min	40
Controlled slow movement flow rate	max	l/min 4 - 10 - 16
	min	l/min 0,1
Roller working movement	mm	6
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
Massa	kg	3,2

HYDRAULIC SYMBOLS

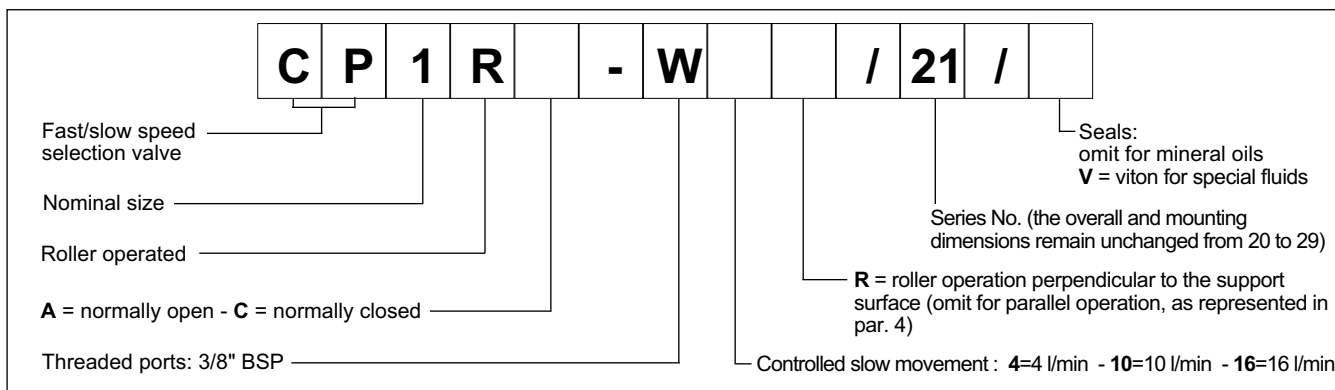




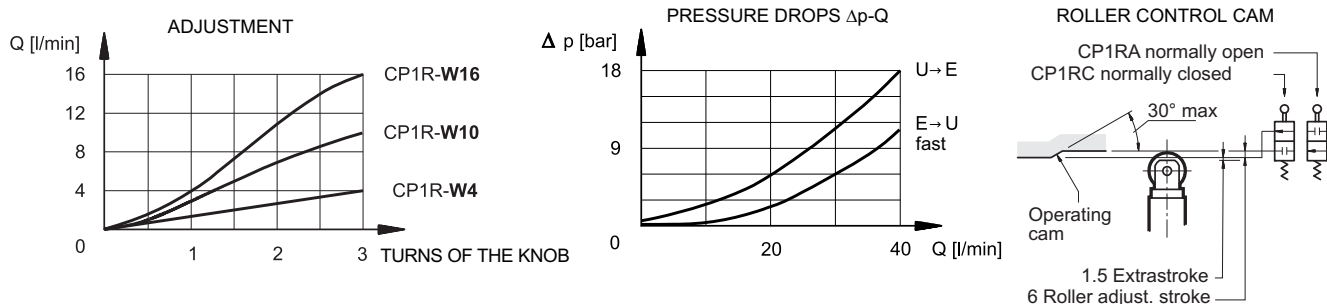
CP1R*-W

SERIES 21

1 - IDENTIFICATION CODE



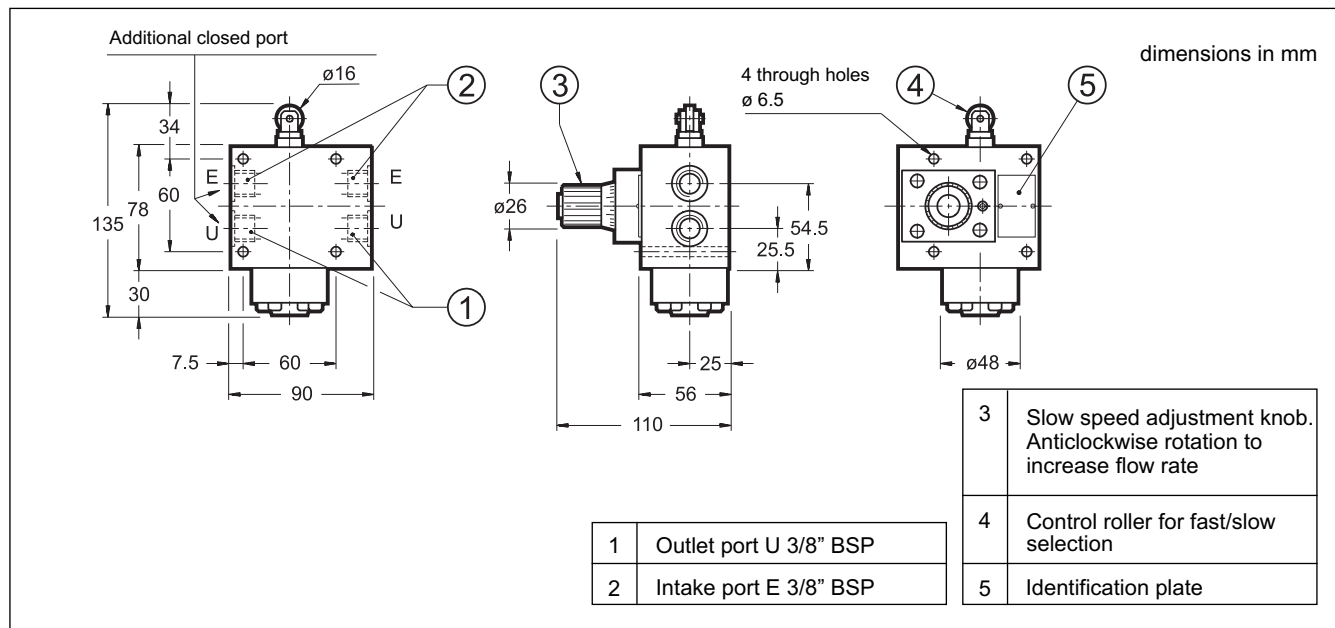
2 - CHARACTERISTIC CURVES (values obtained with viscosity of 36 cSt at 50°C)



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



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K4WA/C

DECELERATION VALVE

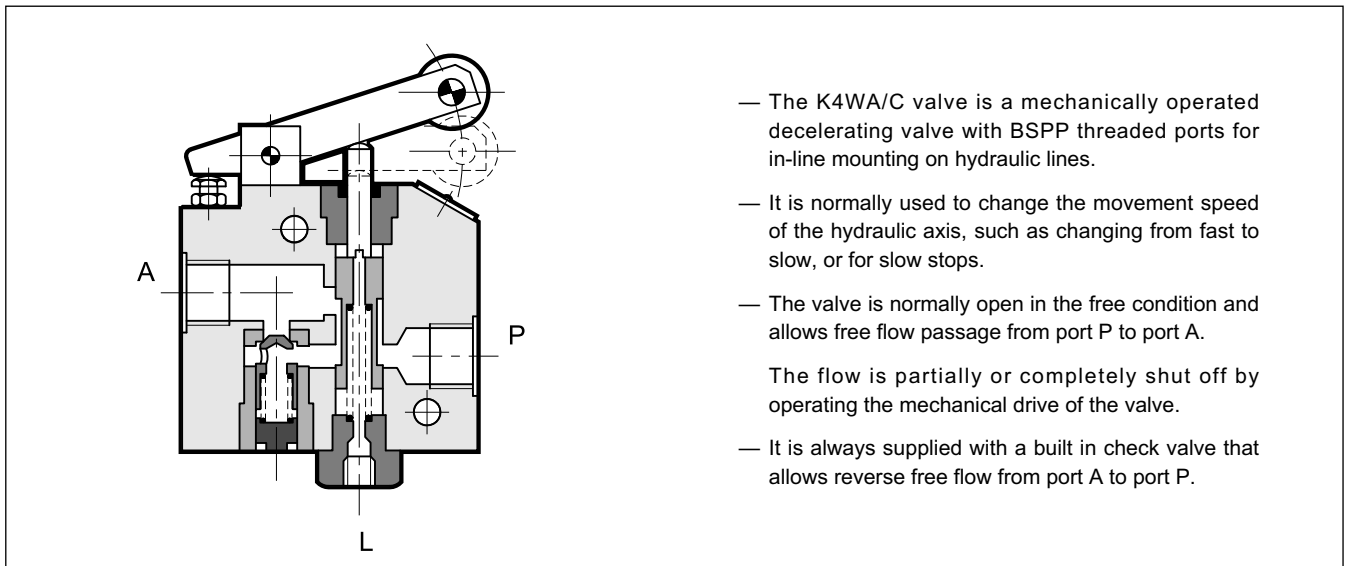
SERIES 10

THREADED PORTS

p max 150 bar

Q max 40 l/min

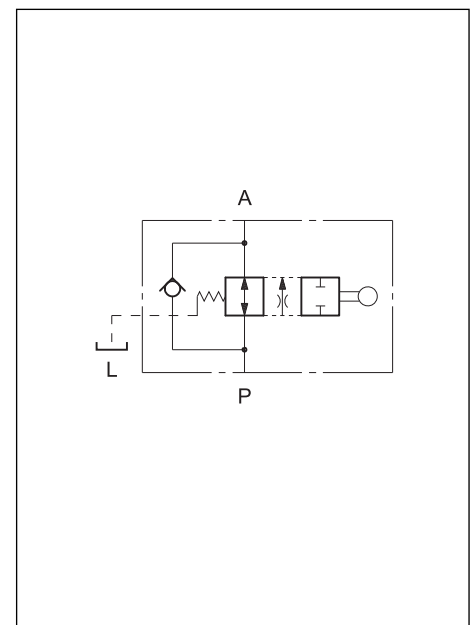
OPERATING PRINCIPLE



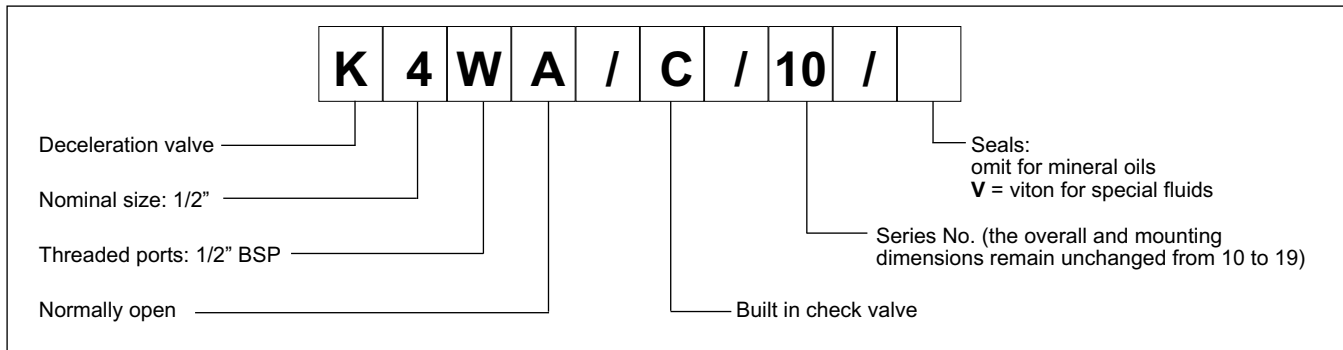
PERFORMANCES (measured with mineral oil of viscosity 36 cSt at 50°C)

Maximum operating pressure	bar	150
Cracking pressure of the check valve	bar	0,5
Maximum flow rate	l/min	40
Needed force on the lever to operate:		
- at beginning	Kg	6,8
- at end stroke		12,0
Maximum leakage with closed valve (Δp 100 bar)	l/min	0,05
Stroke (from all open to completely closed)	mm	20
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	2,5

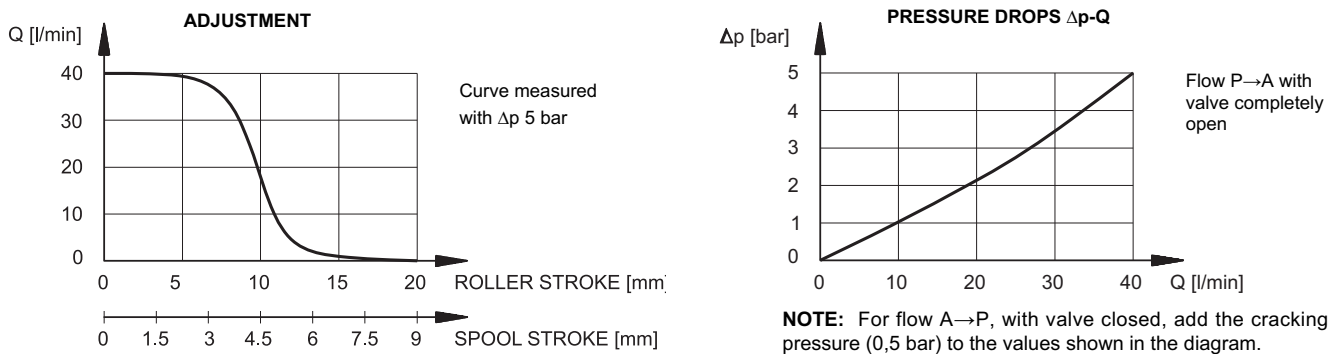
HYDRAULIC SYMBOL



1 - IDENTIFICATION CODE



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



3 - HYDRAULIC FLUIDS

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4 - OVERALL AND MOUNTING DIMENSIONS

