



RPC*-*T3

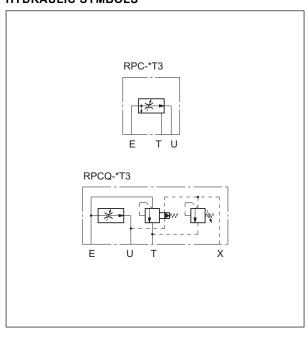
PRESSURE AND TEMPERATURE COMPENSATED THREE-WAY FLOW CONTROL VALVES

SUBPLATE MOUNTING

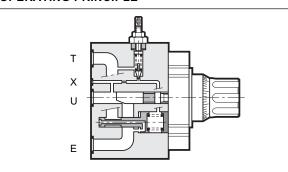
RPC 2-T3 ISO 6263-06 (CETOP 06)

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

HYDRAULIC SYMBOLS



OPERATING PRINCIPLE



- The RPC*-*T3 valve is a pressure and temperature compensated three-way flow control valve.
- It allows the control of flow rate to an actuator by discharging the flow exceeding that required by the plant at any one moment. As a consequence, energy consumption is reduced and appropriate at every instant throughout the cycle.
- Versions with single-turn adjustment knob (RPC**/M), with incorporated maximum pressure valve (RPCQ*) are available upon request.

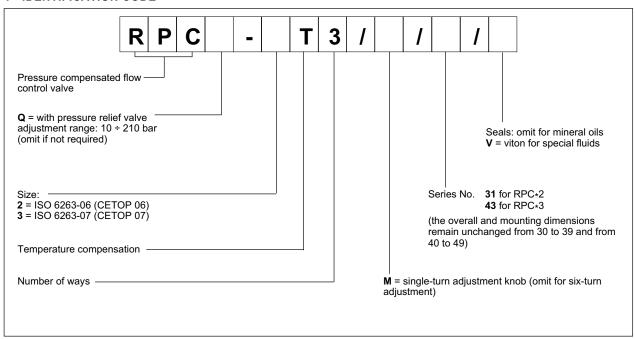
PERFORMANCE RATINGS (obtained with mineral oil with viscosity of 36 cSt at 50°C)

| | | RPC*-2T3 | RPC*-3T3 | |
|--|-------|--|--------------|--|
| Maximum operating pressure Minimum pressure difference betrween E and U | bar | 320 10 | 250 12 | |
| Maximum controlled flow rate Miniimum controlled flow rate | l/min | 50 0,060 | 150 0,130 | |
| Ambient temperature range | °C | -20 / +50 | | |
| Fluid temperature range | °C | -20 / +80 | | |
| Fluid viscosity range | cSt | 10 ÷ | 10 ÷ 400 | |
| Fluid contamination degree Fluid contamination degree for flow rate <0,5 l/min | | According to ISO 4406:1999 class 20/18/15 According to ISO 4406:1999 class 18/16/13 | | |
| Recommended viscosity | cSt | 25 | | |
| Mass | kg | 4,7 | 9 | |

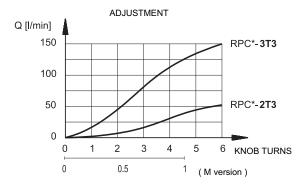
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1 - IDENTIFICATION CODE



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 $\pm 3\%$ of the maximum flow controlled by the valve for maximum pressure variation between the intake and outlet chambers of the valve

5 - TEMPERATURE COMPENSATION

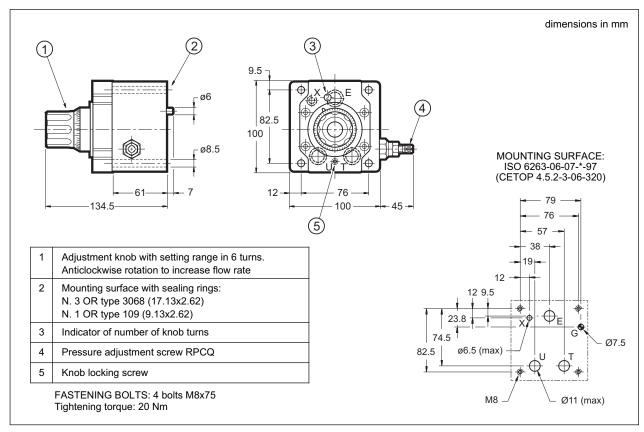
A device located on the first throttle which is sensitive to the temperature fluctuations corrects the position keeping the controlled flow more or less unaltered even should the oil viscosity change.

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

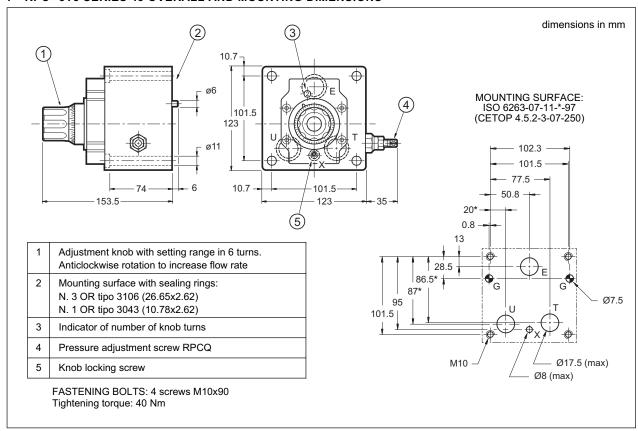
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6 - RPC*-2T3 SERIES 31 OVERALL AND MOUNTING DIMENSIONS

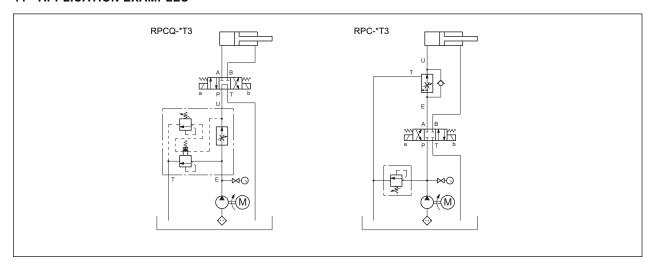


7 - RPC*-3T3 SERIES 43 OVERALL AND MOUNTING DIMENSIONS





11 - APPLICATION EXAMPLES



12 - SUBPLATES (see catalogue 51 000)

| Dimensions | PMRPCQ2-AI4G with rear ports | PMRPCQ3-AI6G with rear ports |
|------------------------|---------------------------------|---------------------------------|
| Threaded ports E, U, T | 1/2" BSP | 1" BSP |
| Threaded port X | 1/4" BSP | 1/4" BSP |



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