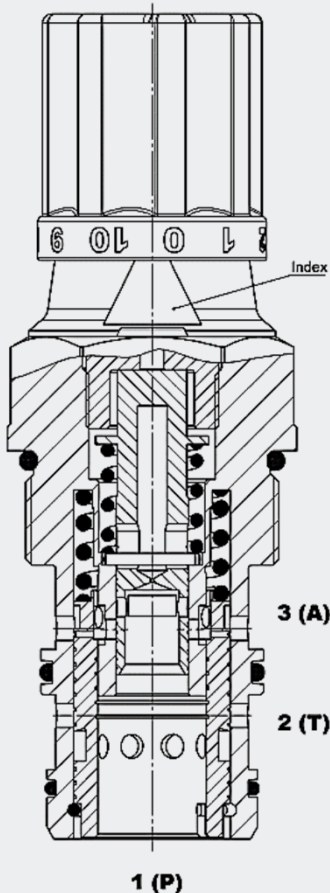


up to 100 l/min
up to 315 bar

3-way flow control valve SRPM20330-22 /-32

spool type, direct-acting
Metric Cartridge – 315 bar

FUNCTION



PRODUCT ADVANTAGES

- Full nominal flow range from 0 to Q_{max}
- Various nominal flow ranges available
- Große Verstelleinrichtung mit frei orientierbarer Skalierung
- Compact design due to integration of a throttle valve and a pressure compensator in one housing
- Stable control behaviour due to integrated damping
- Low hysteresis
- Energy efficient by relieving the residual volume flow with low circulation pressure at port 2
- Residual flow load capacity - port 2 can be loaded to port 3 irrespective of the load pressure
- Can also be used as 2-way flow control valve (port 1 to 3) when port 2 is closed
- Exposed surfaces zinc-nickel plated for increased corrosion protection (1000 h Salt spray test)

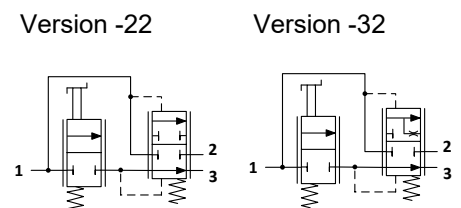
FUNCTION DESCRIPTION

The flow control valve is a full-range flow regulator with manual changeable cross section of the orifice. An integrated pressure compensator keeps the pressure drop across the orifice constant. This combination results in a manual adjustable preferred volume flow at port 3, which is independent of the pressure ratios at port 2 and 3.

The excess input flow is derived from port 1 to port 2. Port 2 is pressure resistant.

When port 2 is blocked, the valve functions as a 2-way flow control valve.

Detached representation of symbols:

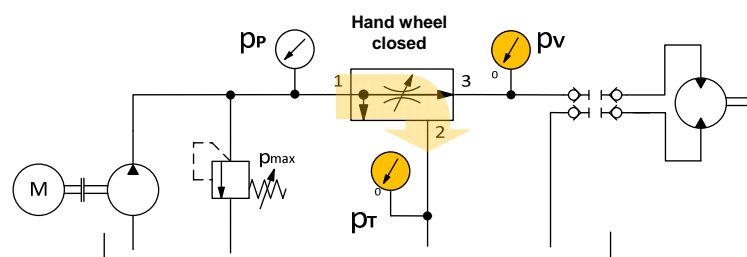


Version -22:

If the controlled flow at port 3 is blocked, the valve also blocks the discharge flow at port 2.

Version -32:

Pressure relief only with closed orifice and blocked port 3.

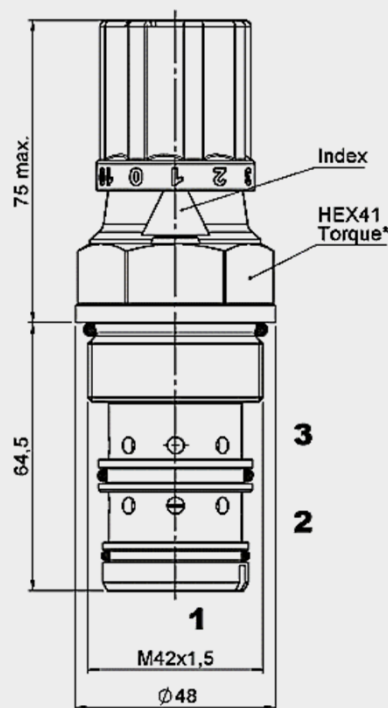


SPECIFICATIONS*

Operating pressure	max. 315 bar
Input volume flow	max. 100 l/min
Flow control range	max. 80 l/min
Temperature range of operating fluid	NBR: min. -30 °C to max. + 80 °C FKM: min. -20 °C to max. +120 °C
Ambient temperature range	NBR: min. -30 °C to max. +60 °C FKM: min. -20 °C to max. +60 °C
Hydraulic fluid	Hydraulic oil according to DIN 51524 part 1, 2 and 3
Viscosity range	min. 10 mm ² /s to max. 420 mm ² /s
Filtration (according ISO 4406)	≤ 210 bar: min. class 20/18/15 > 210 bar: min. class 19/17/14
MTTFd	150 – 1200 years, according to DIN EN ISO 13849-1
Installation	No orientation restrictions
Materials	Valve body steel Piston hardened and polished steel Seals NBR (standard) FKM Back-up rings PTFE
Cavity	20330 metric
Weight	1,2 kg

* see "Conditions and Instructions for Valves" in brochure 53.000

DIMENSIONS



*Torque:

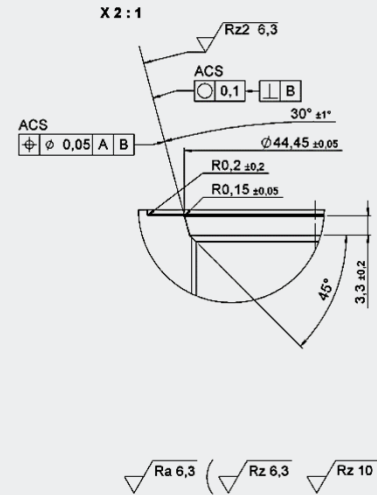
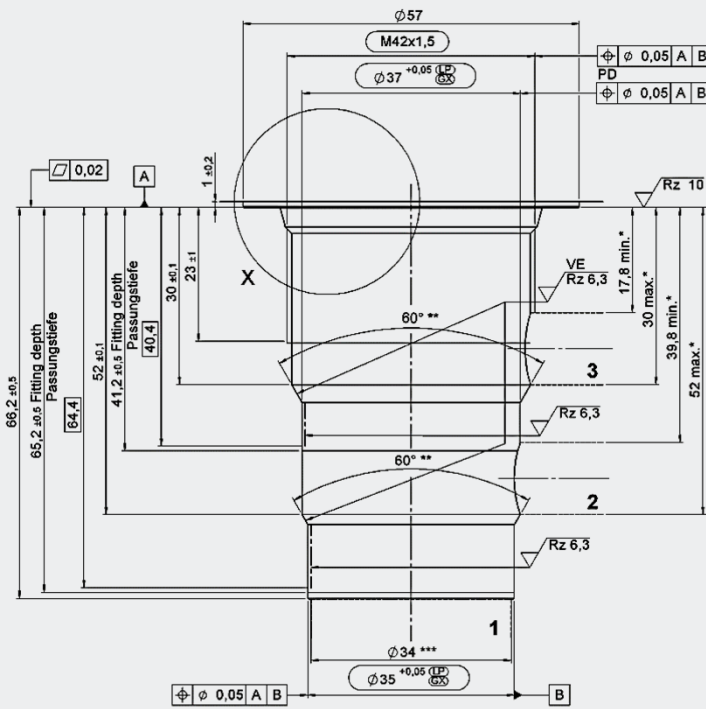
Steel housing (tensile strength > 360 N/mm²): 50 Nm
Aluminium housing (tensile strength > 330 N/mm²): 50 Nm
(With torque tool according to DIN EN ISO 6789, tool type II class A or B)

For more information see "Conditions and instructions for valves" in brochure 53.000

millimetre (inch)
subject to technical modifications

CAVITY

20330 metric



VE = Visual examination
 * Permitted drilling zone (for manifold design)
 ** Sharp edges should be avoided by rounding to a radius of 0.1 mm to 0.2 mm werden
 *** Largest pre-drilling diameter (nominal tool diameter)

millimetre (inch)
 subject to technical modifications

MODEL CODE

SRPM20330 - 22 - C - N - 08 - L40 S

Basic model

3-way flow control valve, metric

Type

22 = standard (without relief, with damping)
 32 = with relief, with damping

Body and ports

C = Cartridge only

Seals

N = NBR (standard)
 V = FKM

Cracking pressure of pressure compensator

08 = 8 bar (start of flow control)

Flow range

L06 = 0 to 6 l/min
 L10 = 0 to 10 l/min
 L16 = 0 to 16 l/min
 L25 = 0 to 25 l/min
 L32 = 0 to 32 l/min
 L40 = 0 to 40 l/min
 L50 = 0 to 50 l/min
 L63 = 0 to 63 l/min
 L80 = 0 to 80 l/min

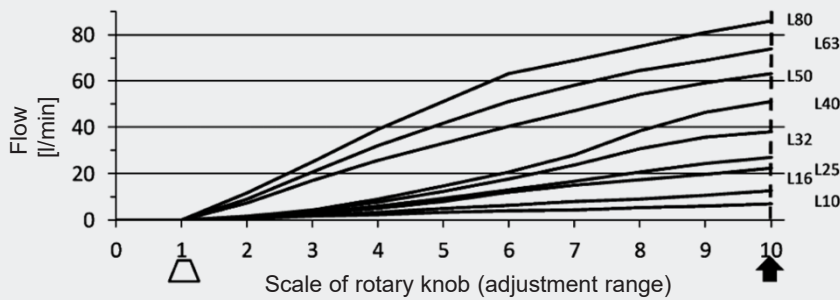
Adjustment type

S = Rotary knob with scale

TYPICAL PERFORMANCE

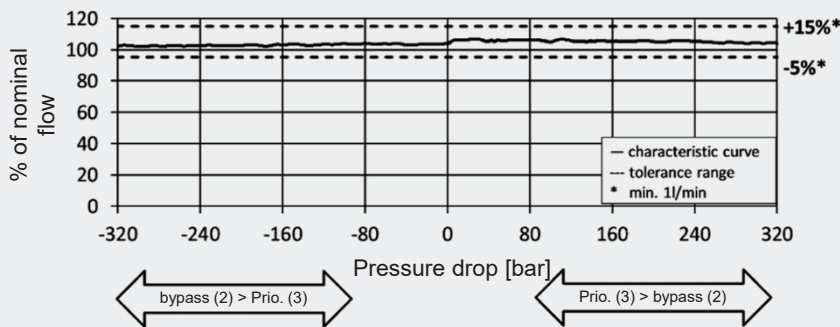
measured at 34 mm²/s and T_{oil} = 46°C

Flow/ Scale adjustment

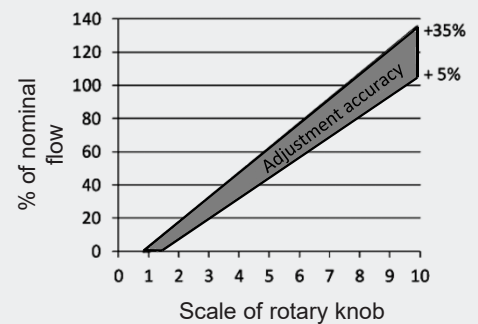


Factory setting:
Adjustment range of scale 1 (no flow)
to 10 (max. flow).
Both end positions can be changed
by the user.

p/Q-Performance



Control accuracy with scale setting



MATERIAL OVERVIEW

Standard models

Model code	Part no.
SRPM20330-22-C-N-08-L16S	4276397
SRPM20330-22-C-N-08-L25S	4187903
SRPM20330-22-C-N-08-L50S	4187902
SRPM20330-22-C-N-08-L80S	3801444

other model codes on request

Spare parts seal kits

Code	Material	Part no.
Seal kit (P)SRPM20330 -N	NBR	4439878
Seal kit (P)SRPM20330 -V	FKM	4439880

Accessories, standard in-line bodies

Code	Material	Ports	Pressure	Part no.
R20330-01X-01	Steel, zinc-plated	G1/2"	315 bar	3837589
R20330-02X-01	Aluminium, anodised	G1/2"	210 bar	3904888

other housings on request

Accessories, form tools for cavity

Tool	Part no.
Countersink	on request
Reamer	on request

NOTE

The information in this brochure relates to the operating conditions and applications described.
For applications or operating conditions not described, please contact the relevant technical department.
Subject to technical modifications.

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