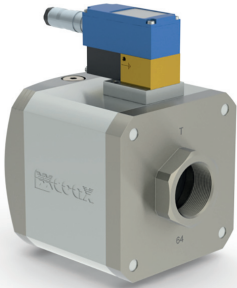


03/2022



⚠ Above stated body materials refer to the valve port connections that get in contact with the media only!

details needed for main valve

- orifice
- port
- pressure regulating range
- flow rate
- media
- media temperature
- ambient temperature

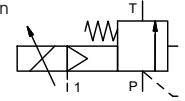
details needed for proportional valve

- nominal voltage
- actuation pressure range min/max
- setpoint signal

⚠ The valves' technical design is based on media and application requirements. This can lead to deviations from the general specifications shown on the data sheet with regards to the design, sealing materials and characteristics.

⚠ If order or application specifications are incomplete or imprecise there exists a risk of an incorrect technical design of the valve for the required application. As a consequence, the physical and / or chemical properties of the materials or seals used, may not be suitable for the intended application. To avoid hydraulic shocks in pipelines, the flow velocities must be taken into account when designing valves for liquids.

control valve proportional	externally controlled
pressure range	PN 5-63 bar
orifice	DN 50 mm
connection	thread
function	stepless pressure regulation



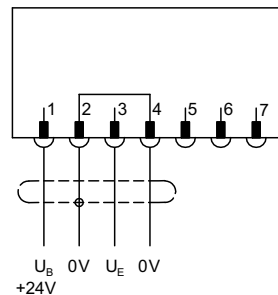
operating principle	externally controlled with spring return						
body material	<table border="0"> <tr> <td>①</td> <td>④ steel, nickel plated</td> </tr> <tr> <td>②</td> <td>⑤</td> </tr> <tr> <td>③</td> <td>⑥</td> </tr> </table>	①	④ steel, nickel plated	②	⑤	③	⑥
①	④ steel, nickel plated						
②	⑤						
③	⑥						
valve seat	metal on metal						
seal materials	FPM, PTFE						

general specifications	options
ports	SPB threads G 1 1/2 SAE connections DIN ISO 6162
function	stepless pressure regulation
pressure regulation range	bar 5-63
flow rate	m³/h 48,0
media	emulsion - oil
abrasive media	
flow direction	P → T as marked
settling time	ms < 900
media temperature	°C 0 to +60
ambient temperature	°C 0 to +50
approvals	
mounting	mounting holes
weight	kg 11,9

electrical specifications	options
nominal voltage	U _B DC 24 V (max. residual ripple 10 %)
current consumption	DC < 0,7 A
control signals	U _E 0-10 V (RE 100 KΩ) 4-20 mA (RE 250 KΩ)
protection	IP65 (P54) acc. DIN 40050
energized duty rating	ED 100 % (observe the connection conditions accordingly)
connection	plug with 7 contacts / wire diameter 6-8 mm

pneumatic specifications	options
actuation pressure range	bar see actuation pressure-diagram
compressed air	DIN ISO 8573-1 grade of compressed air quality 5/4/3
control	via 3/2 way proportional valve
actuator ports	1 G 1/8

connection plan /



connection conditions

When supplying the electrical set point signal to the proportional valve, the actuating air must already be present. (see actuation pressure-diagram).

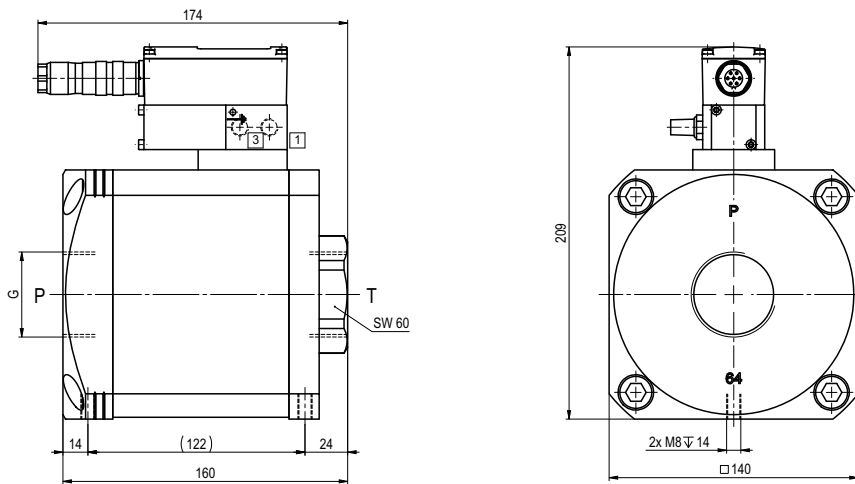
position of installation

arbitrary, but regulator not downwards.

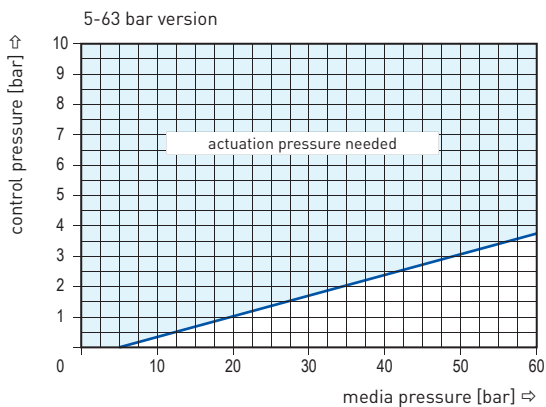
■ specifications not highlighted are standard
 ■ specifications highlighted in grey are optional

coax® data sheet - pressure limitation valve

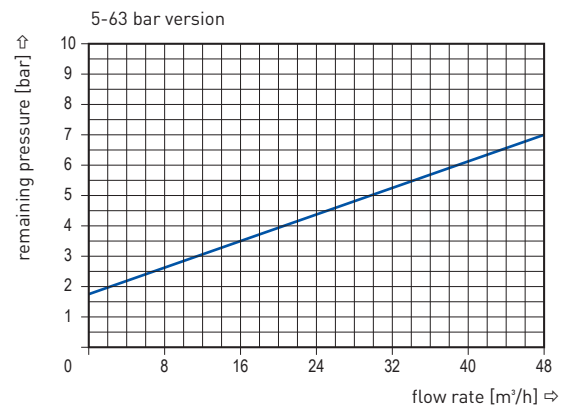
type SPB-S 50



actuation pressure-diagram



pressureless circulation mode



Sound creation during low pressure circulation mode and flow $Q=48 \text{ m}^3/\text{h}$ ca. 74 dbA