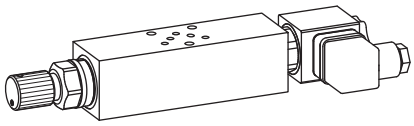
Fine feed- / fast approach valve
Sandwich construction

- Q_{max} = **20 l/min** (Fine feed)
- Q_{max} = **30 l/min** (Fast approach)
- $Q_{N\,max}$ = **20 l/min**
- p_{max} = **350 bar**

NG4-Mini®



DESCRIPTION

Fine feed- / fast approach valve in sandwich construction. 2-way flow control cartridges (see data sheet 2.5-535) and 2/2-way solenoid poppet valve cartridges (1.11-2082) are installed. 4 standard nominal volume flow ranges are available. The sandwich body made of steel is phosphatized, the solenoid housing zinc coated and the turning knob anodized colourless.

FUNCTION

The fine feed- / fast approach valve serves for the electrically controlled two-stage speed control. Fine feed and fast approach. In the fine feed, the volume flow is controlled by the flow control valve, to the manually adjusted value independent on the load. In doing so, the poppet valve is closed. In the fast approach, the volume flow, dependent of the load and of the system pressure, flows through the poppet valve.

APPLICATION

The fine feed- / fast approach valves are utilised in hydraulic systems, which require an electrically controlled fine feed- / fast approach changeover, such as positioning controls on machine tools or elevation controls of elevating platforms, etc. Due to the sandwich construction, these fine feed- / fast approach valves can be integrated into stacked systems as an intermediate flange.

TYPE CODE

V Q ☐ S A04 - ☐ ☐ - ☐ - ☐ / M ☐ 35 # ☐

- Fine feed- / fast approach valve
- Flow control function
- Setting versions: Key [S]; Control knob [D]; Lock [K]
- Sandwich construction
- Mounting interface acc. to Wandfluh standard, NG4-Mini
- Function: Flow control in: P [P], T [T]; Meter-out flow control in: A [A], B [B]; Meter-in flow control in: A [AV], B [BV]
- Poppet valve: normally closed [C]; normally open [O]
- Standard nominal volume flow rates Q_N Fine feed: 2,5 l/min [2.5]; 6,3 l/min [6.3]; 16 l/min [16]; 20 l/min [20]
- Standard nominal voltage U_N: 12VDC [G12]; 24VDC [G24]; 115VAC [R115]; 230VAC [R230]
- Slip-on coil with steel housing
- Connector socket: EN175301-803 / ISO 4400 [D]; AMP Junior-Timer [J]
- Coil types
- Design-Index (Subject to change)

GENERAL SPECIFICATIONS

Description	Fine feed- / fast approach valve
Nominal size	NG4-Mini®
Construction	Sandwich construction
Mounting	3 holes for socket cap screws M5 or studs M5
Connection	Threaded connection plates, multi-flange subplate, stacking system
Ambient temperature	-20 ... +50 °C
Mounting	any
Fastening torque	M_D = 5,5 Nm (Qual. 8.8) for fixing screws cartridges: see valve data sheets
Weight	m = 1,65 kg

ELECTRICAL ACTUATION

Solenoid construction: see data sheet poppet valve (1.11-2082)

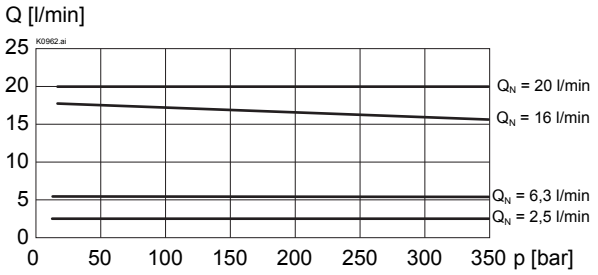
HYDRAULIC SPECIFICATIONS

Fluid	Mineral oil, other fluid on request
Contamination efficiency	ISO 4406:1999, class 18/16/13 (Recommended filtration grade ß 6...10≥75) refer to data sheet 1.0-50/2
Viscosity range	12 mm²/s...320 mm²/s
Fluid temperature	-20...+70 °C
Peak pressure	p_{max} = 350 bar
Nominal volume flow rates	Q_N = 2,5 l/min, 6,3 l/min, 16 l/min, 20 l/min
Min. volume flow	Q_{min} = 0,1 l/min
Max. volume flow	Q_{max} = 30 l/min

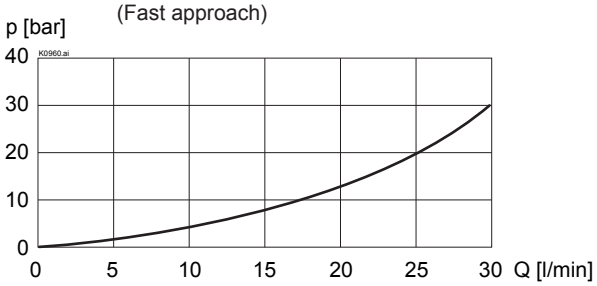
For further hydraulic specifications, refer to flow control valve data sheet 2.5-535.

CHARACTERISTICS Oil viscosity υ = 30 mm²/s

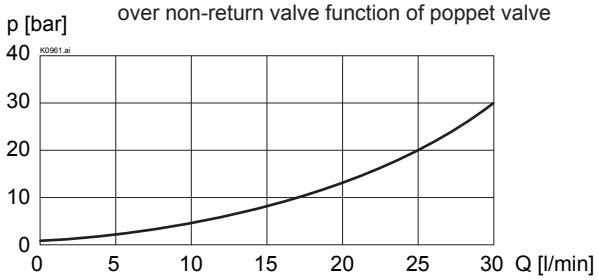
Q = f (p) Volume flow pressure characteristics (Fine feed)



Δp = f (Q) Pressure drops volume flow characteristic (Fast approach)



Δp = f (Q) Pressure drop volume flow characteristic over non-return valve function of poppet valve



PARTS LIST

Position	Article	Description
10	130.6621 130.6622 130.6624 130.6623	Sandwich plate P Sandwich plate T Sandwich plate A, AV Sandwich plate B, BV
20	633.3 . . .	Flow control valve QZ.PM22 acc. to data sheet 2.5-535
30	500.3 . . .	Solenoid poppet valve SVSPM22 acc. to data sheet 1.11-2082
40	219.2001 219.2002	Plug A (grey) Plug B (black)
50	160.2060	O-ring ID 6,07 x 1,78

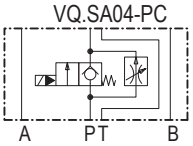
ACCESSORIES

Threaded connection plates and multi-flange subplates Register 2.9

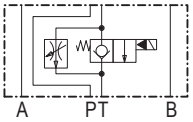
Technical explanation see data sheet 1.0-100

TYPES / DIMENSIONS

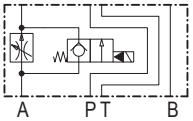
VQ.SA04-PC



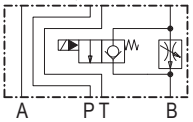
VQ.SA04-TC



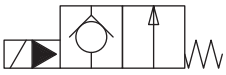
VQ.SA04-AC



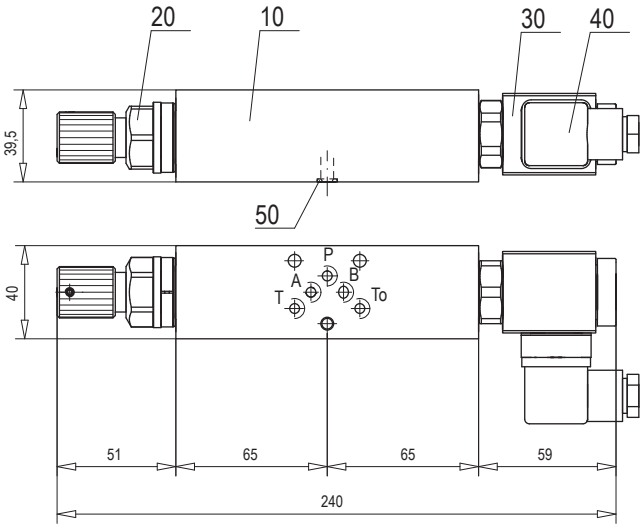
VQ.SA04-BVC



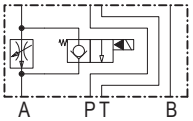
Execution VQ.SA04-.O with



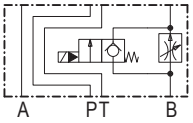
Control P, T, A, BV



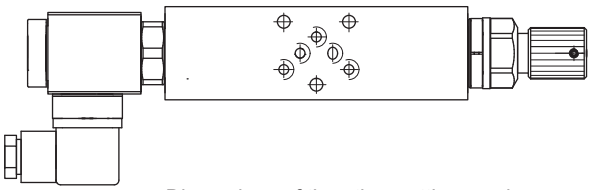
VQ.SA04-AVC



VQ.SA04-BC



Control AV, B



Dimensions of the other setting versions see data sheet 2.5-535