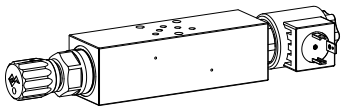
Fine feed- / fast approach valve
Sandwich construction

- 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.

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 - ☐ ☐ - ☐ - ☐ / W ☐ # ☐

Fine feed- / fast approach valve						
Flow control function						
Type of adjustment	Key	S				
	Control knob	D				
Sandwich construction						
Mounting interface acc. to Wandfluh standard, NG4-Mini						
Type list / Function			Meter-out flow control		Meter-in flow control in	
	in P	P	in A	A	in A	AV
	in T	T	in B	B	in B	BV
Poppet valve	Normally closed	C				
	Normally open	O				
Nominal volume flow rate Q_N		2,5 l/min	2.5			
Flow control valve		6,3 l/min	6.3			
		16 l/min	16			
		20 l/min	20			
Nominal voltage U_N		12VDC	G12	115VAC	R115	
		24VDC	G24	230VAC	R230	
Slip-on coil		Metal housing round				
Connection execution		Connector socket EN175301-803 / ISO 4400			D	
		Connector socket AMP Junior-Timer			J	(only for $U_N \leq 75$ VDC)
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)

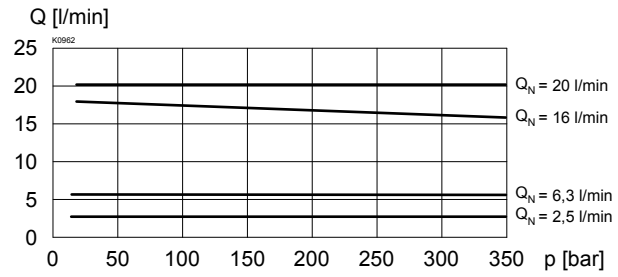
HYDRAULIC SPECIFICATIONS

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

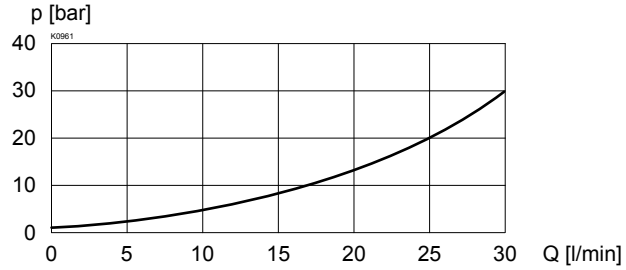
For further hydraulic specifications, refer to flow control valve data sheet 2.5-535.

CHARACTERISTICS Oil viscosity υ = 30 mm²/s

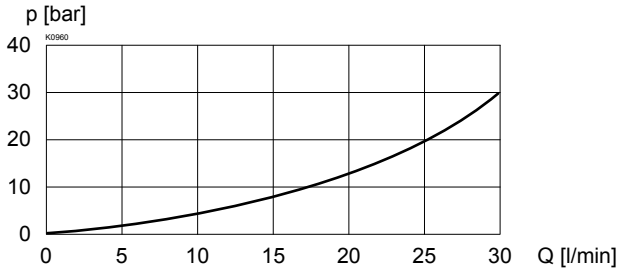
Q = f (p) Volume flow pressure characteristics (Fine feed)



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



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



SCREW-IN CARTRIDGES INSTALLED

The following screw-in cartridges are used in the sandwich body:

Type	*Designation*	*Data sheet no.*
QZ.PM22	Flow control valve	2.5-535
SVSPM22	Solenoid poppet valve	1.11-2082

PARTS LIST

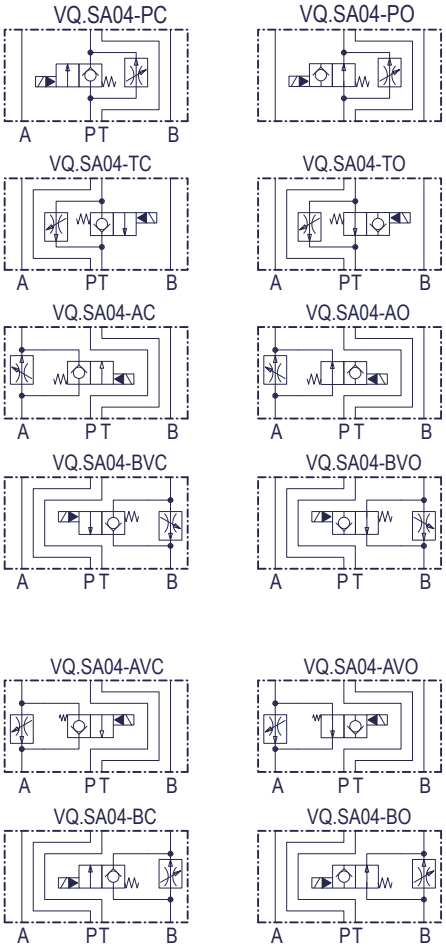
Position	Article	Description
10	160.2060	O-ring ID 6,07 x 1,78 (NBR)

ACCESSORIES

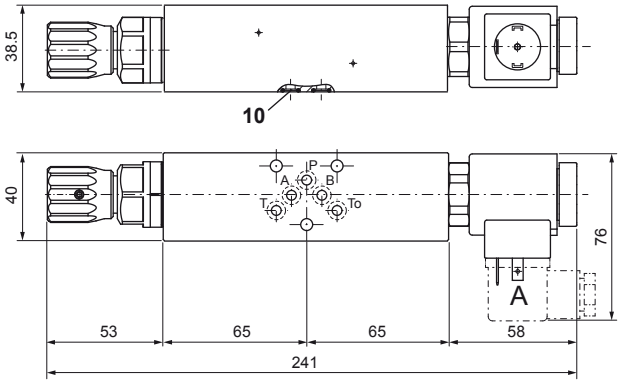
Threaded connection plates and multi-flange subplates Register 2.9
Mating connector EN 175301-803 article no. 219.2002

Technical explanation see data sheet 1.0-100

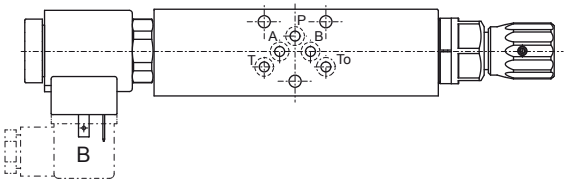
TYPES / DIMENSIONS



Control P, T, A, BV



Control AV, B



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