3/2-Way Miniature Solenoid Valve, Direct-acting

Type 300

G 1/8, M5

Advantages/Benefits

- **Body materials: brass, stainless steel**
- **Short response times**
- **Compact design**
- **When de-energized, outlet port exhausted or pressurized, mixer valve**

Design/Function

Type 300 is available in a variety of different circuit functions, to suit the respective application.

When energized, the solenoid armature is drawn against a spring.

The flow path through the valve is dependent upon the chosen circuit function. The solenoid epoxy encapsulation efficiently dissipates the heat generated by the coil.

Applications

- Neutral gases and liquids
- Pneumatic control equipment
- Vacuum
- Shut-off, dosing, filling and ventilating
- Gas control, welding technology
- Small-scale instruments, laboratory and measuring technology

bürkert
Easy Fluid Control Systems

DTS 1000010921 EN Version: A Status: RL (released | freigegeben | validé) printed: 18.12.2024

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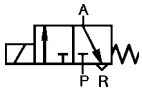
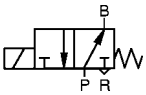
Technical Data

Circuit Function

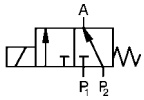
C 3/2-way valve, when de-energized, outlet A exhausted



D 3/2-way valve, when de-energized, outlet B pressurized



E Mixer valve, when de-energized pressure port P2 open, P1 closed



Body Material

Body and seat of brass
Stainless steel 1.4305

Specifications

Orifice DN	Kv-Value Water	QNn-Value Air [1]	Pressure Range [2] at Circuit Function		Weight	
			D, C	E	M 5	G 1/8
[mm]	[m³/h]	[l/min]	[bar]	[bar]	[kg]	
1,2	0,045	48	0-10		0,10	0,12
1,6	0,060	65	0- 6	0-3	0,10	0,12

[1] Measured with 6 bar upstream pressure and 1 bar pressure drop across the valve at +20 °C., [2] Also suitable for vacuum.

All pressures quoted are gauge pressures with respect to the prevailing atmospheric pressure.

Operating Data (Valve)

Seal Materials/Fluids Handled/Temp.- Range

NBR Neutral fluids, e.g. compressed air, town gas, water, hydraulic oil, oils and fat without additives -10 to +90 °C

EPDM Oils and fat-free fluids, e.g. hot water alkaline washing and bleaching lyes -40 to +90 °C

FPM Hot air, oxygen, per-solutions, hot oils oils with additves -10 to +100 °C

For more detailed information please refer to resistance chart (Leaflet-No. 1896009).

Max. ambient temperature + 55 °C

Max. viscosity 21 mm²/s

Response times opening 12 ms
closing 8 ms

Times measured at outlet A or B from switching on until pressure rise to 90 % / pressure drops to 10 % at a max. working pressure of 6 bar.

Port connection M5, G 1/8

Operating Data (Actuator)

Operating voltages 24, 110, 240 V/50 Hz
12, 24 V/=
24 V battery voltage

Voltage tolerance ±10 %

Power consumption AC 9 VA (inrush)
6 VA/ 4 W (hold)
DC 4 W

Duty cycle 100% continuously rated, for multiple assembly reduced duty cycle or use 2W version on request

Cycling rate up to 1000 c.p.m

Rating with cable plug and cable IP65

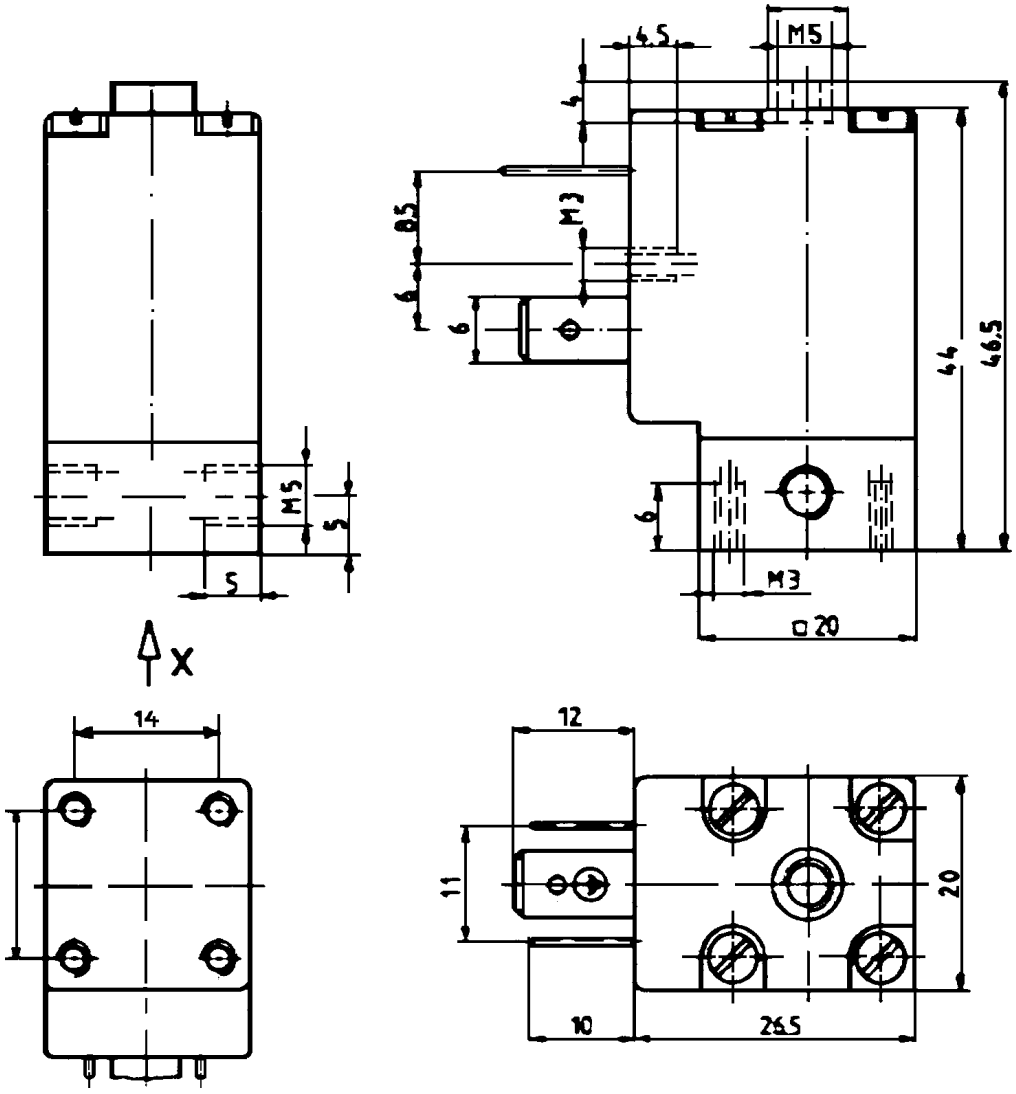
Installation / Accessories

Installation as required, but preferably with solenoid system upright

Electrical connection
- plug connection without cable plug (supplied as standard)
- moulded-in cable on request
- moulded-in flying leads on request

DTS 1000010921 EN Version: A Status: RL (released | freigegeben | validé) printed: 18.12.2024

Dimensions in mm



DTS 1000010921 EN Version: A Status: RL (released | freigegeben | validé) printed: 18.12.2024

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Ordering Chart (Other Versions on Request)

Circuit Function	Orifice DN [mm]	Flow Rate Water Kv-Value [m³/h]	Air [1] QNn [l/min]	Port Connection [mm]	Pressure Range [bar]	Body Material	Seal Material	Weight [kg]	Voltage/ Frequency [V/Hz]	Order-No.
C	01,2	0,045	48	G 1/8	0-10	Brass	NBR	0,12	024/50	062 061 T[2]
									024/50	051 867 V
									024/=	053 176 S[2]
									024/=	046 018 Y
									110/50	079 864 E[2]
									110/50	062 686 T
									230/50	057 762 H[2]
									230/50	058 065 B
									240/50	079 073 G[2]
									240/50	067 937 K
				M 5	0-10	Brass	NBR	0,10	024/50	053 072 V[2]
									024/50	045 335 Z
									024/=	052 566 Y[2]
									024/=	046 981 K
									110/50	079 865 F[2]
									110/50	024 376 V
									230/50	053 071 U[2]
									230/50	045 752 B
									240/50	053 172 W[2]
									240/50	019 026 M
	01,6	0,060	65	G 1/8	0- 6	Brass	NBR	0,12	012/=	050 922 X
									024/50	046 954 X
									024/=	058 509 N
									110/50	058 876 D
									230/50	046 178 D
									240/50	061 922 N
		0,060	65	M 5	0- 6	Brass	NBR	0,10	024/50	044 341 E
									024/=	042 570 E
									110/50	024 377 W
									230/50	047 599 V
									240/50	066 308 L
				G 1/8	0- 6	Stainless	FPM	0,12	024/=	044 086 K
				M 5	0- 6	Brass	FPM	0,10	024/=	046 483 Q
D	01,2	0,045	48	G 1/8	0-10	Brass	NBR	0,12	024/50	046 975 U
									024/=	043 861 X[2]
									024/=	045 435 N
									110/50	051 590 U
									230/50	058 193 Z
									240/50	067 936 J
				M 5	0-10	Brass	NBR	0,10	024/50	048 457 F
									024/=	047 763 G
									110/50	066 566 W
									240/50	066 584 R

[1] Measured with 6 bar upstream pressure and 1 bar pressure drop across the valve at +20 °C, [2] with manual overide.

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Circuit Function	Orifice DN [mm]	Flow Rate Water Kv-Value [m³/h]	Flow Rate Air [1] QNn [l/min]	Port Connection [mm]	Pressure Range [bar]	Body Material	Seal Material	Weight [kg]	Voltage/ Frequency [V/Hz]	Order-No.
D	0,12	0,045	48	M 5	0-10	Brass	NBR	0,10	230/50	054 613 Z
	01,6	0,060	65		0- 6	Brass	EPDM	0,10	024/=B[3]	019 878 G
				G 1/8	0- 6	Brass	NBR	0,12	024/50	067 073 U
									024/=	053 130 Y
									110/50	018 819 U
									230/50	045 595 P
									240/50	055 284 Z
				M 5	0- 6	Brass	NBR	0,10	024/50	053 068 H
									024/=	048 175 C
									110/50	066 586 K
									230/50	064 160 H
									240/50	066 619 B
E	01,6	0,060	65	G 1/8	0- 3	Stainless	FPM	0,12	012/=	056 585 Q

[1] Measured with 6 bar upstream pressure and 1 bar pressure drop across the valve at +20 °C, [3] =B battery voltage

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