






Direct-acting 2/2 or 3/2-way toggle valve

- Direct-acting, media-separated valve up to DN 20
- Vibration-proof, block screwed coil system
- Energy-saving power reduction for all DC variants
- Increased safety due to electric position feedback (optional)
- Robust, service-friendly manual override



Product variants described in the data sheet may differ from the product presentation and description.

Can be combined with

	Type 1087 Timer	▶
	Type 2518 Cable Plug DIN EN 175301-803 - Form A	▶
	Type 1060 Electrical position feedback for pneumatically operated process valves	▶

Type description

The 0131 valve is a direct-acting toggle valve. Various seal material combinations are available depending on the application. Thanks to the diaphragm-separation between actuator and fluid body, aggressive media such as acids and alkaline solutions can also be safely controlled. The offering is rounded out with plastic housings made of PVC or PVDF. The coils are moulded with a chemically resistant epoxy. 'Kick and drop' electronics are moulded into all DC variants for reduced electrical power consumption. An optional electric feedback function reliably detects the switching position. For drinking water applications conformities according to KTW and W270 are available. Versions with conformity according to DIN EN 45545:2016 (part 2 and 5) are also part of the program. In combination with a plug in accordance with DIN EN 175301-803 Form A, the valves satisfy protection class IP65.

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1. General Technical Data

1.1. Standard version

Product properties	
Dimensions	Detailed information can be found in chapter "4. Dimensions" on page 8.
Material	
Seal	NBR, EPDM, FKM
Body	PVC, PVDF, brass
Nominal diameter	DN 10...DN 20
Switching function	Detailed information can be found in chapter "2. Circuit functions" on page 5.
Performance data	
Duty cycle	ED 100 %
Switching frequency	60/min with AC Max. 6/min with UC
Switching times ¹⁾	Open: 10...20 ms Close: 40...60 ms
Electrical data	
Operating voltage	24 V / UC, 230 V / UC, 24 V / 50 Hz, 230 V / 50 Hz
Power consumption	
Inrush	AC: 100...120 VA UC: 100 W
Hold	AC: 48 VA/16 W UC: 9 W
Voltage tolerance	± 10 %
Medium data	
Medium temperature (Body + Seal)	
PVC / EPDM	-10 °C...+50 °C
PVC / FKM	-10 °C...+50 °C
MS / EPDM	-30 °C...+130°C ²⁾
MS / FKM	-10 °C...+130°C ²⁾
MS / NBR	-10 °C...+90 °C
PVDF / FKM	-10 °C...+70 °C
PVDF / EPDM	-10 °C...+70 °C
Operating medium	Aggressive and non-aggressive fluids, neutral gases, aggressive gases according to their diffusion properties
Viscosity (max.)	37 mm ² /s
Process/Port connection & communication	
Electrical connection	Cable plug Type 2518 according to DIN EN 175 301 - 803, Form A (included in delivery), see "Cable plug Type 2518, Form A according to DIN EN 175301 - 803" on page 16
Approvals and certificates	
Degree of protection	IP65 with cable plug
Environment and installation	
Installation position	Any, preferably actuator face up
Ambient temperature	Max. +50 °C

1.) Measurement at the valve outlet 6 bar and 20 °C. Opening: Pressure build-up 0...90 %, Closing: Pressure reduction 100...10 %

2.) Max. medium temperature for versions with high-performance electronics (encoding .../UC) is 90 °C.

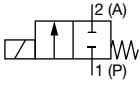
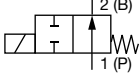
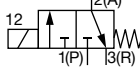
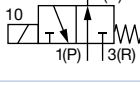
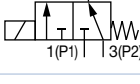
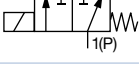
1.2. Version for railway application

Product properties	
Dimensions	Detailed information can be found in chapter “4. Dimensions” on page 8.
Material	
Seal	EPDM
Body	Brass
Nominal diameter	DN 10...DN 20
Switching function	Circuit function A and B Detailed information can be found in chapter “2. Circuit functions” on page 5.
Thermal insulation class of solenoid coil	H
Performance data	
Duty cycle	100 % duty cycle
Switching frequency	Max. 6/min
Switching times ^{1.)}	Open: 10...20 ms Close: 40...60 ms
Electrical data	
Operating voltage	24 V/UC, 110 V/UC, 230 V/UC; (36 V/UC on request)
Power consumption	
Inrush	100 W
Hold	9 W (after 500 ms)
Voltage tolerance	±30 %
Current consumption at 30 % increased operating voltage	31.2 V = 7.60 A 143.0 V = 1.80 A 299.0 V = 0.76 A
Medium data	
Medium temperature	-30 °C...+80 °C
Operating medium	Neutral fluids, e.g. drinking water or neutral gases, e.g. compressed air
Viscosity (max.)	37 mm ² /s
Process/Port connection & communication	
Electrical connection	Cable plug Type 2518 according to DIN EN 175 301 - 803, Form A (included in delivery), see “Cable plug Type 2518, Form A according to DIN EN 175301 - 803” on page 16
Approvals and certificates	
Degree of protection	IP65 with cable plug
Environment and installation	
Installation position	Any, preferably actuator face up
Ambient temperature	-30 °C...+70 °C
Max. system pressure in flow direction	8 bar (switching pressure max. 3 bar depending on orifice)

1.) Measurement at the valve outlet 6 bar and 20 °C. Opening: Pressure build-up 0...90 %, Closing: Pressure reduction 100...10 %

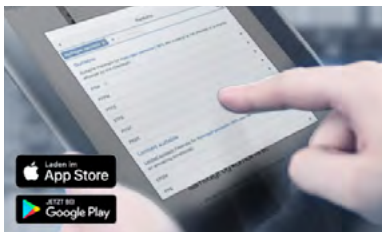
2.) UC - Universal Current, AC and DC possible

2. Circuit functions

Circuit functions	Description
	Type: A, solenoid valve 2/2 way Direct-acting Normally closed
	Type: B, solenoid valve 2/2 way Direct-acting Normally open
	Type: C, solenoid valve 3/2 way Direct-acting Normally closed
	Type: D, solenoid valve 3/2 way Direct-acting Normally open
	Type: E, mixing valve (solenoid valve) 3/2 way Direct-acting
	Type: F, distribution valve (solenoid valve) 3/2 way Direct-acting

3. Materials

3.1. Chemical Resistance Chart – Bürkert resistApp

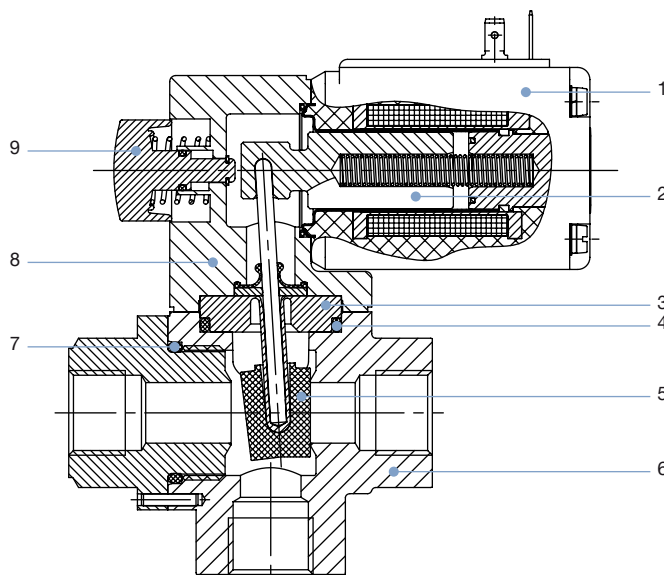


Bürkert resistApp – Chemical Resistance Chart

You want to ensure the reliability and durability of the materials in your individual application case? Verify your combination of media and materials on our website or in our resistApp.

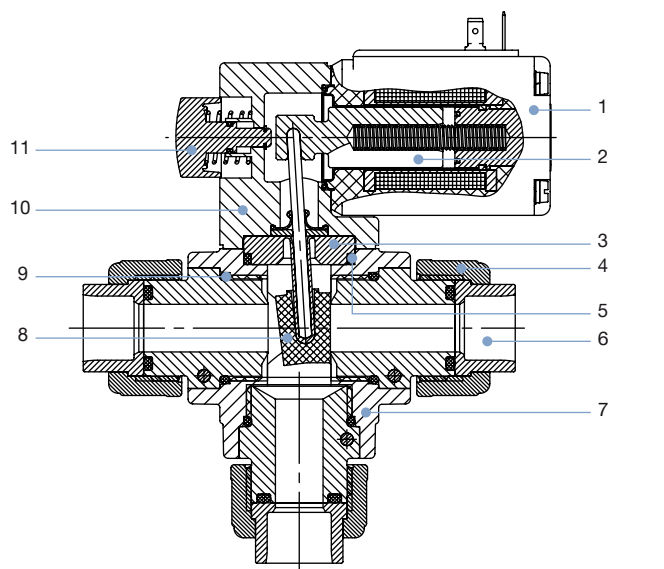
[Start Chemical Resistance Check](#)

3.2. 3/2 way brass version



No.	Element	Material
1	Coil	Epoxy
2	Plunger	Stainless steel 1.4105
3	Toggle pin	PTFE
4	O-ring	NBR, FKM, EPDM
5	Closing body	NBR, FKM, EPDM
6	Housing	Brass
7	O-ring	NBR, FKM, EPDM
8	Lateral flange	PC
9	Manual override with locking function	

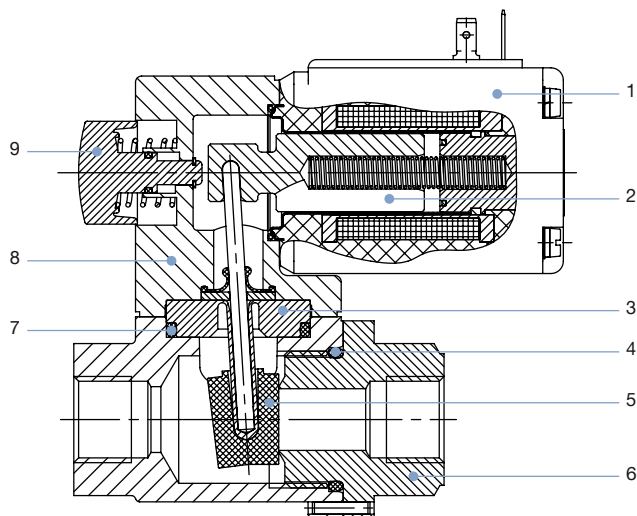
3.3. 3/2 way plastic version with union nut and connection fitting



No.	Element	Material
1	Coil	Epoxy
2	Plunger	Stainless steel 1.4105
3	Toggle pin	PTFE
4	Union nut	PVC/PVDF
5	O-ring	FKM, EPDM
6	Connection fitting	True union, threaded, PVDF weld end
7	Body	PVC/PVDF
8	Closing body	FKM, EPDM
9	O-ring	FKM, EPDM
10	Lateral flange	PC
11	Manual override with locking function	

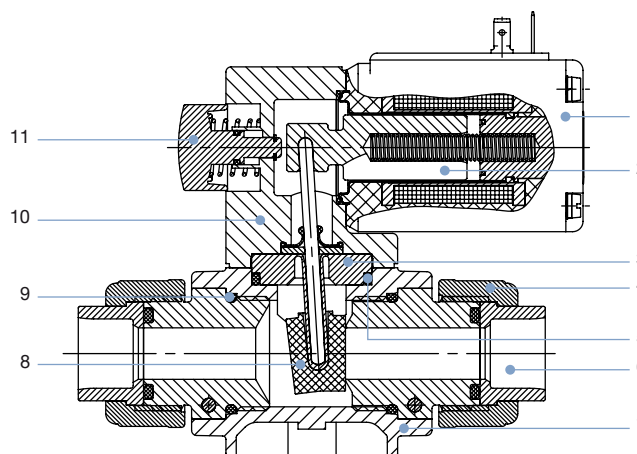
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3.4. 2/2 way brass version



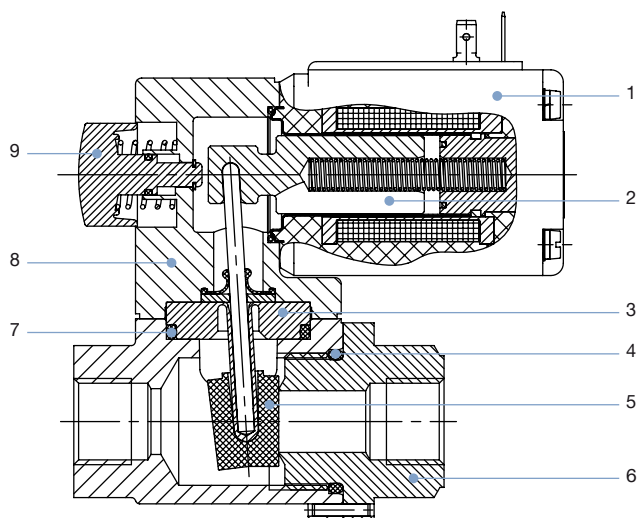
No.	Element	Material
1	Coil	Epoxy
2	Plunger	Stainless steel 1.4105
3	Toggle pin	PTFE
4	O-ring	NBR, FKM, EPDM
5	Closing body	NBR, FKM, EPDM
6	Body	Brass
7	O-ring	NBR, FKM, EPDM
8	Lateral flange	PC
9	Manual override with locking function	

3.5. 2/2 way plastic version with true union nut and connection fitting



No.	Element	Material
1	Coil	Epoxy
2	Plunger	Stainless steel 1.4105
3	Toggle pin	PTFE
4	True union nut	PVC/PVDF
5	O-ring	FKM, EPDM
6	Connection fitting	True union, threaded, PVDF weld end
7	Body	PVC/PVDF
8	Closing body	FKM, EPDM
9	O-ring	FKM, EPDM
10	Lateral flange	PC
11	Manual override with locking function	

3.6. 2/2 way brass version for railway application



No.	Element	Material
1	Coil	Epoxy
2	Plunger	Stainless steel 1.4105
3	Toggle pin	PTFE ^{1.)}
4	O-ring	EPDM ^{2.)}
5	Closing body	EPDM ^{2.)}
6	Body	Brass
7	O-ring	EPDM ^{2.)}
8	Lateral flange	PC
9	Manual override with locking function	

1.) PTFE suitable for drinking water
 2.) EPDM with KTW and W270 certificate

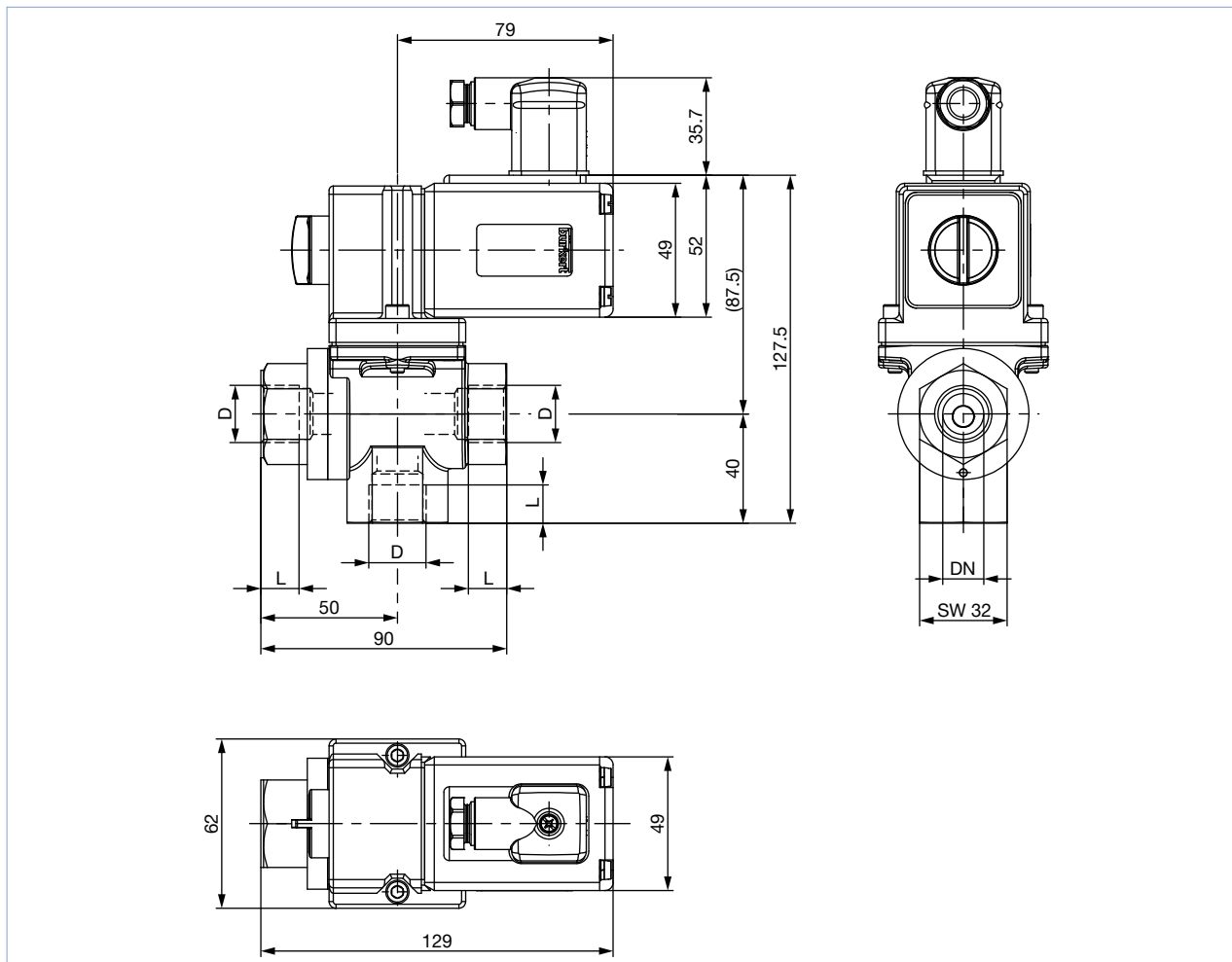
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4. Dimensions

4.1. 3/2 way brass version

Note:

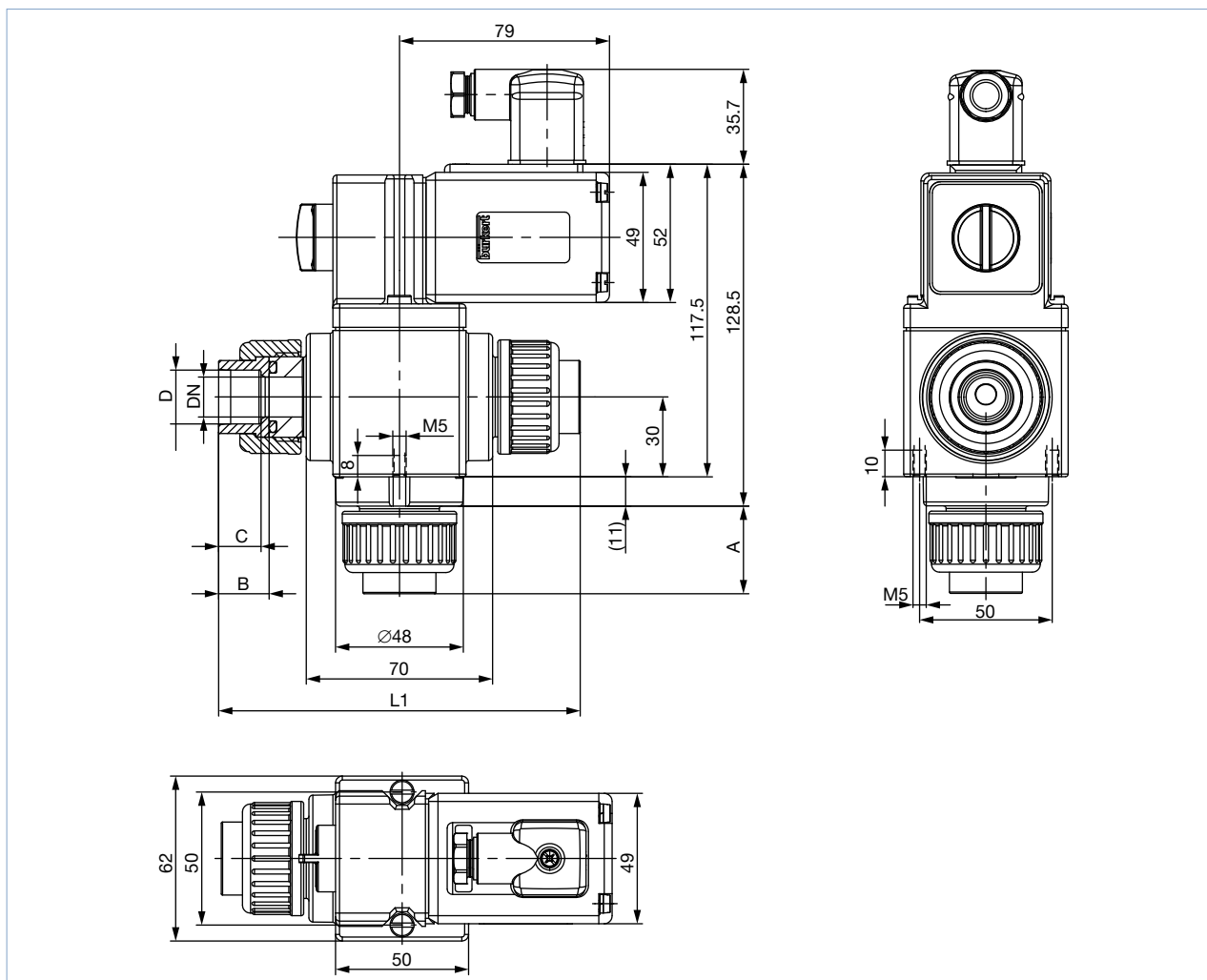
Dimensions in mm



Material	DN	Connection	D	L
Brass	10	Threaded	G 3/8	12
Brass	15	Threaded	G 1/2	14
Brass	20	Threaded	G 3/4	16

4.2. 3/2 way plastic version with union nut and connection fitting

Note:
Dimensions in mm



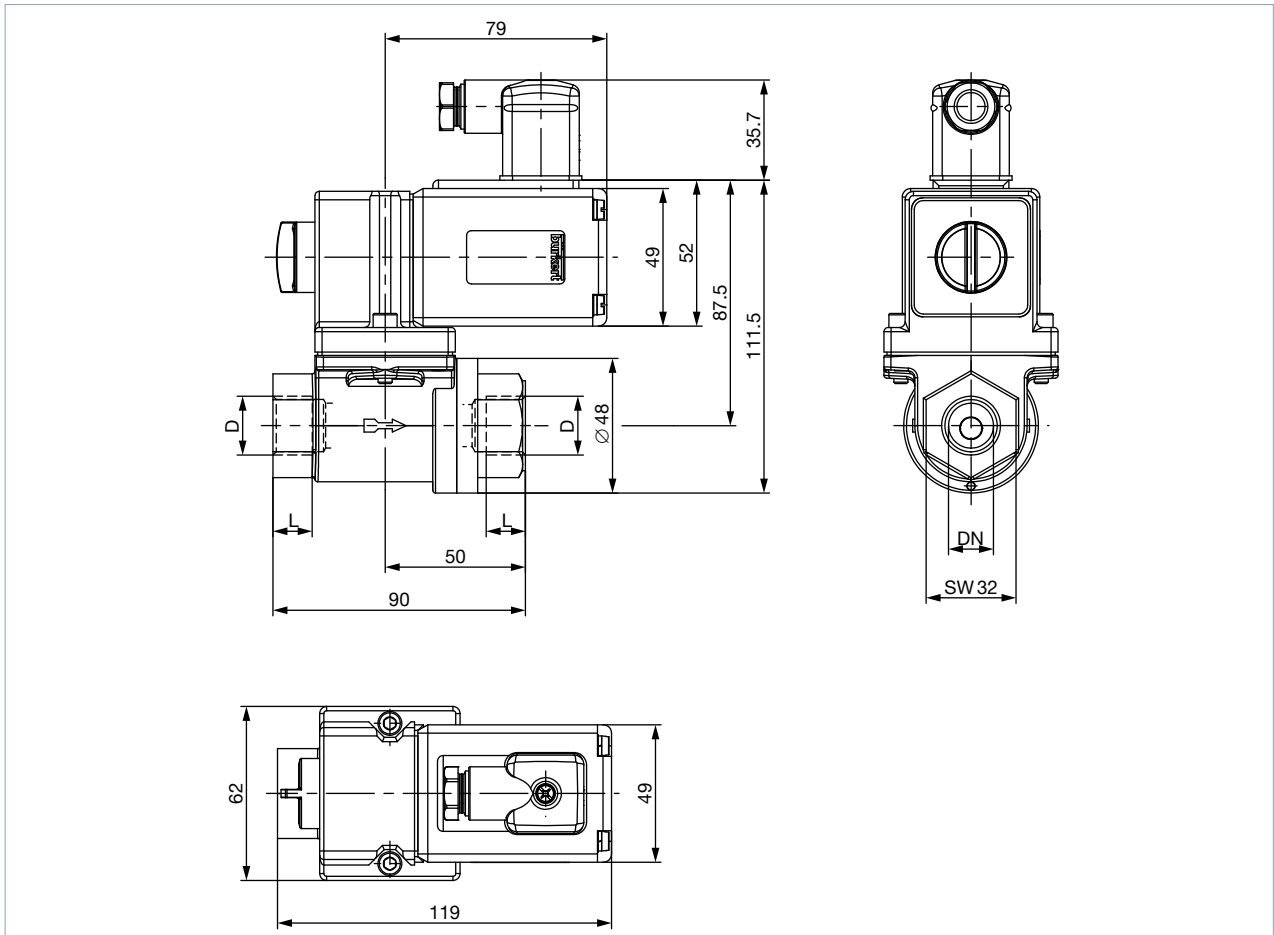
Material	DN	Connection	A	B	C	D	L 1
PVC	10	True union	30	17	14	Ø 16.2	130
		Threaded connection	30	17	12	G 3/8	130
		Threaded connection	30	17	12	NPT 3/8	130
	10 (with port for DN 15)	True union	32	19	16	Ø 20.2	134
		Threaded connection	32	19	13	G 1/2	134
		Threaded connection	32	19	14	NPT 1/2	134
	15	True union	33	19	16	Ø 20.2	136
		Threaded connection	33	19	13	G 1/2	136
		Threaded connection	33	19	14	NPT 1/2	136
	15 (with port for DN 20)	True union	36	22	19	Ø 25.2	142
		Threaded connection	36	22	15	G 3/4	142
		Threaded connection	36	22	16	NPT 3/4	142
20	True union	37	22	19	Ø 25.2	144	
	Threaded connection	37	22	15	G 3/4	144	
	Threaded connection	37	22	16	NPT 3/4	144	
PVDF	10	Weld end	31	18	15	Ø 15.5	132
	15	Weld end	33	19	16	Ø 19.35	136
	20	Weld end	36	21	18	Ø 24.5	142

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4.3. 2/2 way brass version for standard and railway application

Note:

Dimensions in mm

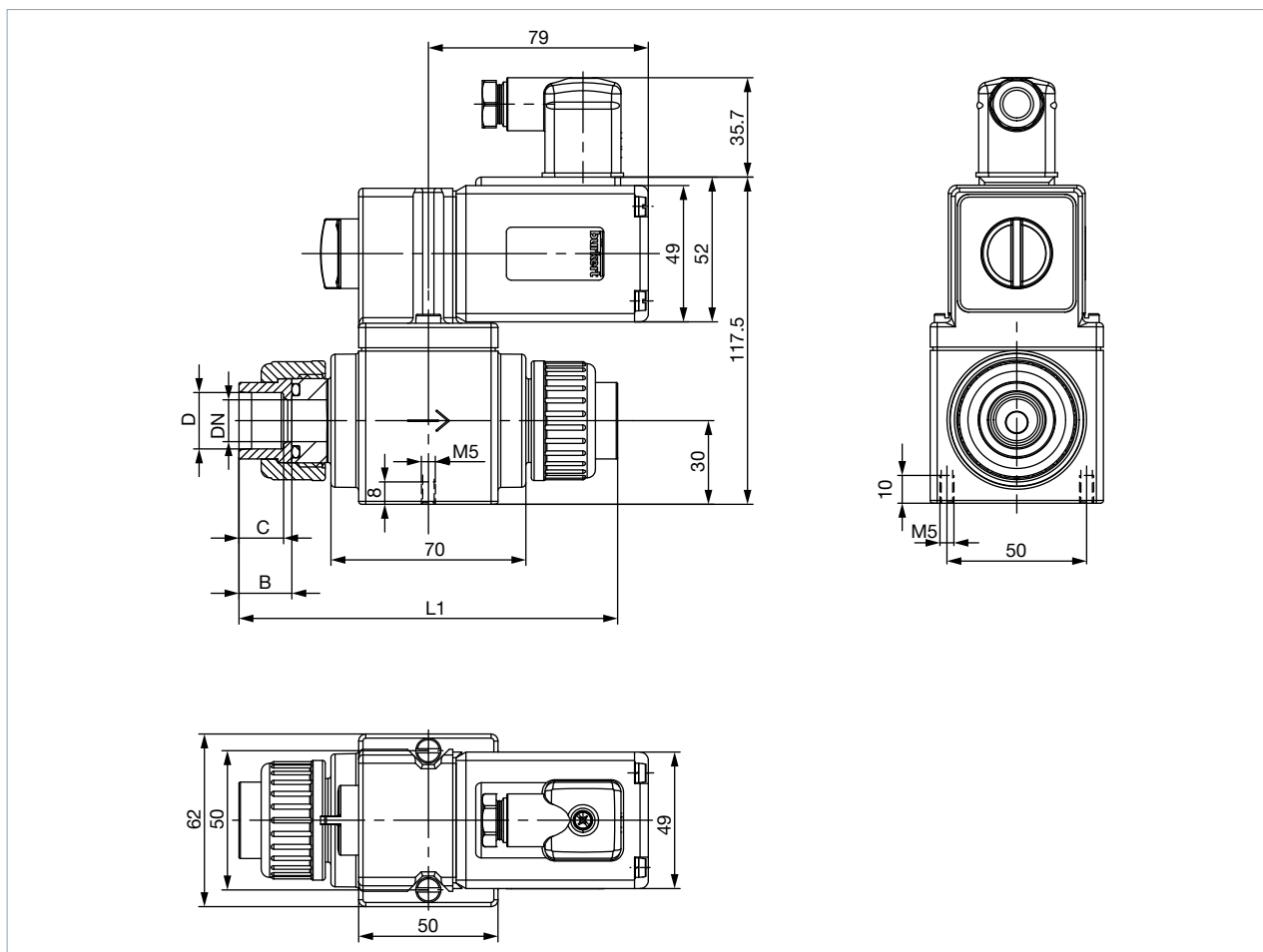


Material	DN	Connection	D	L
Brass	10	Threaded	G 3/8	12
Brass	15	Threaded	G 1/2	14
Brass	20	Threaded	G 3/4	16

4.4. 2/2 way plastic version with true union nut and connection fitting

Note:

Dimensions in mm



Material	DN	Connection	B	C	D	L 1	L 2
PVC	10	True union	17	14	Ø 16.2	130	99.5
		Threaded	17	12	G 3/8	130	99.5
		Threaded	17	12	NPT 3/8	130	99.5
PVC	10 (with port for DN 15)	True union	19	16	Ø 20.2	134	101.5
		Threaded	19	13	G 1/2	134	101.5
		Threaded	19	14	NPT 1/2	134	101.5
	15	True union	19	16	Ø 20.2	136	103.0
		Threaded	19	13	G 1/2	136	103.0
		Threaded	19	14	NPT 1/2	136	103.0
15 (with port for DN 20)	True union	22	19	Ø 25.2	142	106.0	
	Threaded	22	15	G 3/4	142	106.0	
	Threaded	22	16	NPT 3/4	142	106.0	
PVC	20	True union	22	19	Ø 25.2	144	107.0
		Threaded	22	15	G 3/4	144	107.0
		Threaded	22	16	NPT 3/4	144	107.0
PVDF	10	Weld end	18	15	Ø 15.5	132	100.5
	15	Weld end	19	16	Ø 19.35	136	103.0
	20	Weld end	21	18	Ø 24.5	142	106.0

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