bürkert
FLUID CONTROL SYSTEMS

2/2 and 3/2-way flipper solenoid valve for analytical applications

Type 6650 can be combined with…
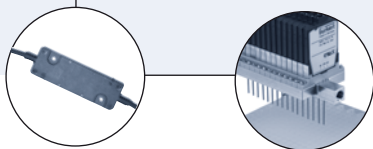
Hit and hold electronic Type 2504

Multiple manifolds

- Only 4.5 mm wide
- Medium isolation, for aggressive fluids
- Direct-acting
- Vacuum up to 7 bar
- Short response times

With a width of only 4.5mm, Type 6650 sets a new standard in medium isolation miniature solenoid valves. The optimized design enables reproducible and precise dosing, good rinsing capability and is suitable for the application of aggressive chemicals owing to the high quality ot the materials used. With the two nominal sizes of 0.4 and 0.8mm, as well as the selection between 2/2-way and 3/2-way function, it is ideal for applications where the highest fluid performances are required in the smallest space. Type 6650 opens up new possibilities, owing to the 4.5mm station width, in particular in connection with dosing in 384-well micro-titerplates.
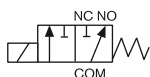
Circuit function A

NC

2/2-way valve, normally closed
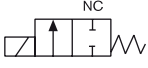
Circuit function T

COM

NC NO
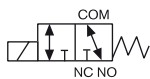
3/2-way valve, universal version

Circuit function F

NC NO

COM

3/2-Wege-Ventil, distributor valve

Technical data	
Orifice	DN 0.4 and 0.8 mm
Body material	PEEK
Seal material	FFKM (Simriz)
Medium	Resistant to neutral and aggressive fluids and gases; see Bürkert resistance table
Medium temperature	+15 to +50°C
Ambient temperature	+10 to +50°C
Internal volume	approx. 30 µl
Port connection	Flange
Electrical connection	Plug Bürkert type 2504
Operating voltages	24V (12V on request)
Voltage tolerance	±10%
Nominal power	5.7 W For 100% duty cycle power has to be reduced externally. See accessories table and operating instructions for details.
Duty cycle	100% continuous operation only with external power reduction
Installation	As required; with side by side connection standard polarity is adhered to
Protection class	IP65
Switching frequency	80Hz (for mechanical limit observe maximum temperature) 15Hz (continous with external power reduction, for more information see manual)
Response times	<5ms (acc. to ISO 12238)

Ordering chart

Circuit function	Orifice [mm]	Kv value water [m³/h] [1]	Pressure range [bar] [2]	Max. pressure difference [bar]	Voltage [V]	Nominal power [W] (Inrush-/ nominal holding power)	Item no.
A 2/2-way valve NC NC	0,4 [3]	0,004	Vac.-7	7	24	5,7/0,7	182 284
	0,8 [4]	0,010	Vac.-3	3	24	5,7/0,7	226 664
T 3/2-way valve universal version COM NC NO	0.8	0.010	Vac.-1	1	24	5.7/0.7	189 292
F 3/2-way valve distributor valve NC NO COM	0,8	0,010	Vac.-3	3	24	5,7/0,7	227 020

[1] Measured at +20 °C, 1 bar pressure at valve inlet and free outlet.
[2] Measured as overpressure to the atmospheric pressure.
[3] With orifice 0,4mm flow permitted in both directions
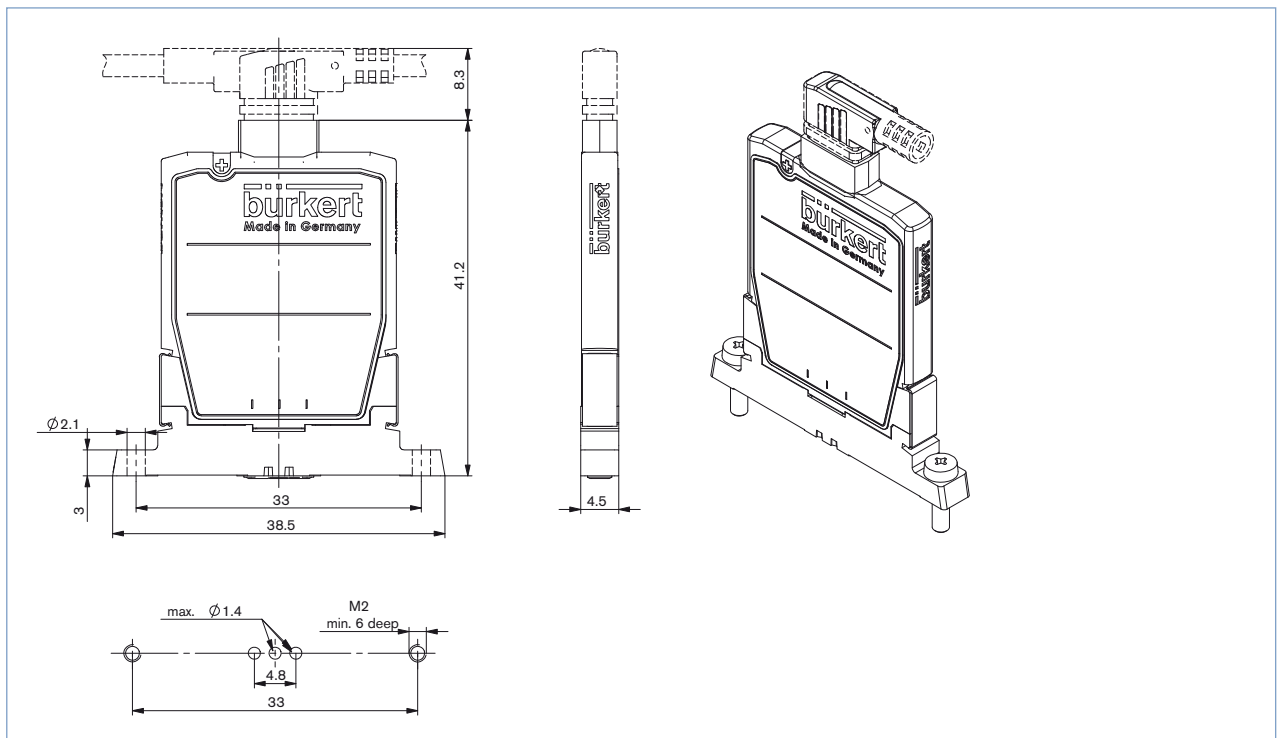[4] With orifice 0,8mm flow direction according to label.

Mounting screws: VA 2x M2x8

> **i** **Further versions on request**

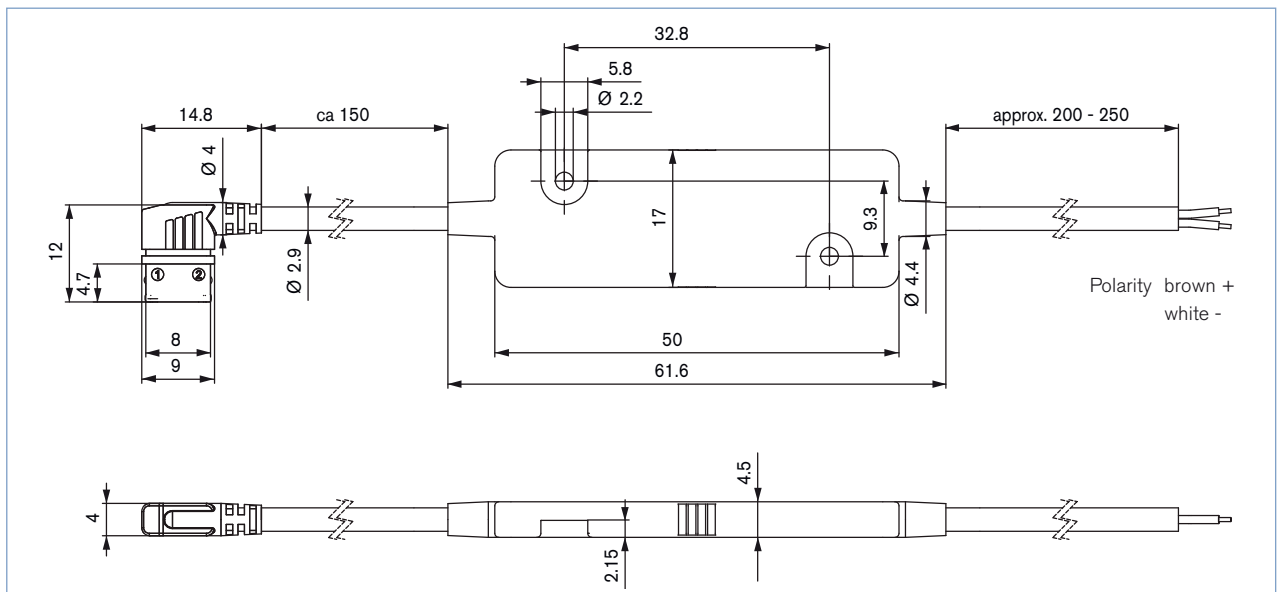> ⚡ – 12V on request (external power reduction necessary, not possible with ID 670178)

Dimensions [mm]
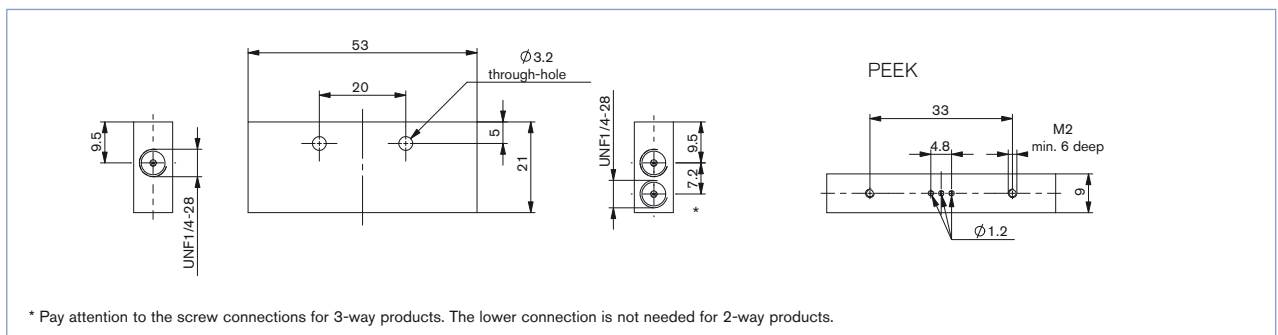
Ordering chart for accessories

Description	Item no.
Cable plug type 2504 with integrated hit and hold electronic, 24V/DC, 500 mm long, Power reduction to 0,7W after 5 ms	670 178
Cable plug type 2504, single cable, 500 mm long [1]	670 164
Cable plug type 2504, single cable, 5000 mm long [1]	680 840
Single manifold material Peek	670 181

[1] The valve must be operated with external power reduction. Please refer to the manual for further details.

Dimensions for accessories [mm]

Single manifold for Bürkert flange

* Pay attention to the screw connections for 3-way products. The lower connection is not needed for 2-way products.

Manifold for Type 6650

Please contact your nearest sales office for guidance with the design of your specfic manifold requirements.

To find your nearest Bürkert facility, click on the orange box → **www.burkert.com**