



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

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







**Type 6650**Hit and hold electronic

Type 6650 Multiple manifolds

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 microtiterplates. Based on the well-known flipper principle (Type 0330) it is tied to the success history of the legendary Type 127.

#### **Circuit function A**



2/2-way valve, normally closed

#### Circuit function T



3/2-way valve, universal function

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 +50°C			
Ambient temperature	+10 +50°C			
Internal volume	approx. 30 μl			
Port connection	Flange			
Electrical connection	Plug with Flying leads and integrated power reduction electronic or plug with flying leads			
Operating voltages	24V			
Voltage tolerance	±10%			
Nominal power	5,7 W inrush power (for 5ms) 0,7 W nominal power			
Duty cycle	100% continuous operation with power reduction electronic			
Installation	As required; with side by side connection standard polarity is adhered to			
Protection class	IP40			
Switching frequency	Max. 80Hz <sup>1)</sup>			
Response times	<5ms (acc. to ISO 12238)			

<sup>&</sup>lt;sup>1)</sup> In continuous operation with Bürkert hit and hold electronic without cooling plate; max. 15Hz, with cooling plate; max. 40Hz.

For higher frequency see operating instructions for max. operation



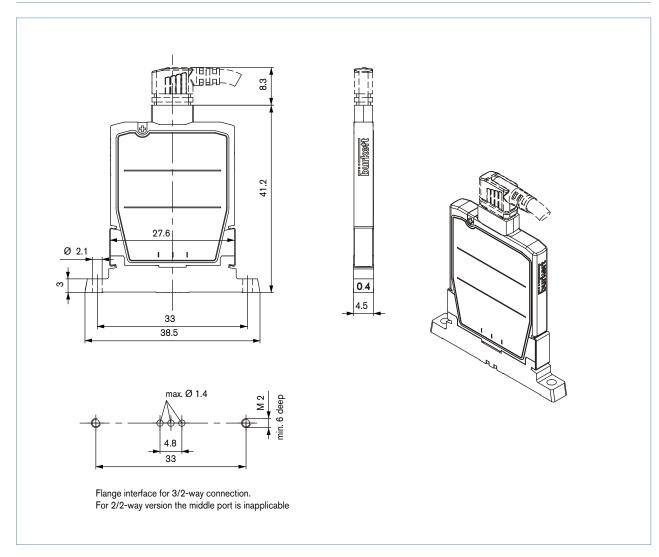
## Ordering chart

Circuit	Orifice [mm]	Kv value water [m³/h] ¹)	Pressure range [bar] <sup>2)</sup>	Max. pressure difference [bar]	Voltage [V]	Nominal power [W] (Inrush-/ nominal holding power)	Item no.
A 2/2-way valve NC	0.4	0.004	Vac7	7	24	5.7/0.7	182 284
T 3/2-way valve universal function	8.0	0.014	Vac1	2	24	5.7/0.7	189 292

 $<sup>^{1)}</sup>$  Measured at +20  $^{\circ}\text{C},~1$  bar pressure at valve inlet and free outlet.

Mounting screws: VA 2x M2x8

## Dimensions [mm]



<sup>&</sup>lt;sup>2)</sup> Measured as overpressure to the atmospheric pressure.



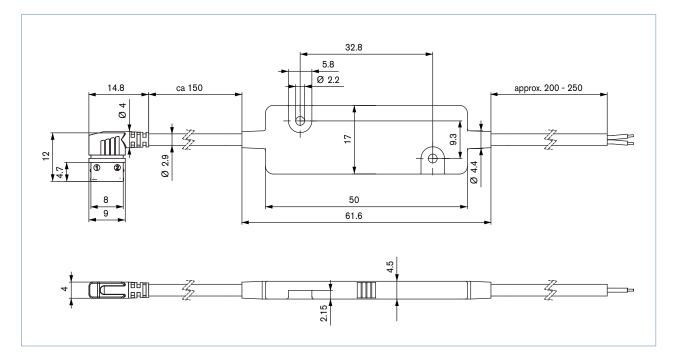
## Ordering chart for accessories

#### Cable with sleeve for Type 6650

Description	Item no.	
With integrated hit and hold electronic, 24V/DC, 500mm long	903 149	
Single cable, 500mm long <sup>1)</sup>	903 150	

<sup>&</sup>lt;sup>1)</sup> The valve must be activated with an inrush voltage of 24V/DC, after 5ms the voltage has to be reduced to the holding level of 12V/DC. In case the Bürkert hit & hold electronic is not used, there has to be a reduction of the nominal voltage to the holding level by a local control unit. If no power reduction is applied, the acceptable duty cycle is reduced (see operating manual for details)

### Dimensions for accessories [mm]



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