

## Cartridge Solenoid Valve Type 6164 for neutral gases



**bürkert**  
FLUID CONTROL SYSTEMS

**Bürkert Fluid Control Systems**  
Christian-Bürkert-Straße 13-17  
74653 Ingelfingen  
Germany  
Tel.: +49 (0) 7940/10-0  
Fax: +49 (0) 7940/10-91 204  
info@burkert.com  
www.burkert.com

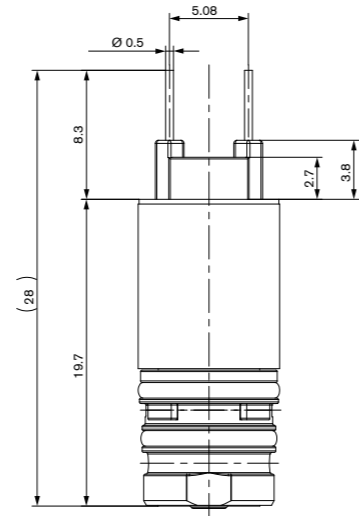
- **Excellent Reliability**
- **Optimal Integration**
- **Low Power Consumption**
- **O<sub>2</sub> Compatibility**

# More than just a pilot valve ...

## Superior ratio of size to fluidic performance

The cartridge valve, Type 6164, simplifies pneumatic piloting controls through optimal integration in block solutions and plastic injection components. Due to its uncompromising reliability, above-average service life and efficient performance, this valve is setting new standards. Install and forget – this is the best way to describe the new standard cartridge valve, a 3/2-way valve with guaranteed reliability and a long life cycle, due to the use of high-quality materials.

- Compact design with 11 mm width per station
- Orifices from 0,5 mm (9 bar/130 psi) to 1,2 mm (1,5 bar/21.7 psi)
- High durability and reliability
- Low power consumption, as well as optional ATEX Ex ia version
- Design for optimum integration



### Technical data & features:

Orifice and pressure range	<ul style="list-style-type: none"> <li>▪ DN 0,5 mm (Vac-9bar/130psi)</li> <li>▪ DN 1,2 mm (Vac-1,5bar/21.7psi)</li> </ul>	Power consumption	<ul style="list-style-type: none"> <li>▪ 0,7W (DN 0,5)</li> <li>▪ 2,8W (DN 1,2) (with external electric power reduction)</li> </ul>
Permissible leakage	VAC - 10 bar/145 psi (Dependent on the version used) <sup>1)</sup>	Duty cycle	100% continuous rating
Body material	PEEK	Response times	Measurement at valve outlet acc. to DIN ISO 12238:2001
Seal material	FKM	Open	< 10ms (pressure rise 0-10%)
Medium & ambient temperature	<ul style="list-style-type: none"> <li>▪ neutral gas</li> <li>▪ -10 to +55 °C</li> </ul>	Closed	< 10ms (pressure drop 100-90%)
Medium temperature FKM	-10 to +55 °C	Switching frequency	16Hz
Typical life span	> 100.000.000 switching cycles (accordance to endurance tests)	Switching noise	42 dB <sup>3)</sup>
Port connection	Bürkert-Cartridge-Connection	Approvals and conformity for selected variants	<ul style="list-style-type: none"> <li>▪ ATEX Ex ia - II 2G Ex ia IIC T4 T5 T6 PTB01 ATEX 2048 <sup>4)</sup></li> <li>▪ IEC Ex PTB 07.0063 <sup>4)</sup></li> <li>▪ FM Class I Div II <sup>4)</sup></li> <li>▪ UL class 2 <sup>4)</sup></li> <li>▪ Oxygen compatible <sup>4)</sup></li> </ul>
Electrical connection	<ul style="list-style-type: none"> <li>▪ Plug / Solder</li> <li>▪ Flying leads on request</li> </ul>		
Operation voltage	12 and 24 V DC (other voltages on request)		

1) Overpressure to the atmospheric pressure

2) Life span is dependent on temperature, pressure and operating conditions

3) According to ISO3745, testing environment in brass manifold, free-hanging

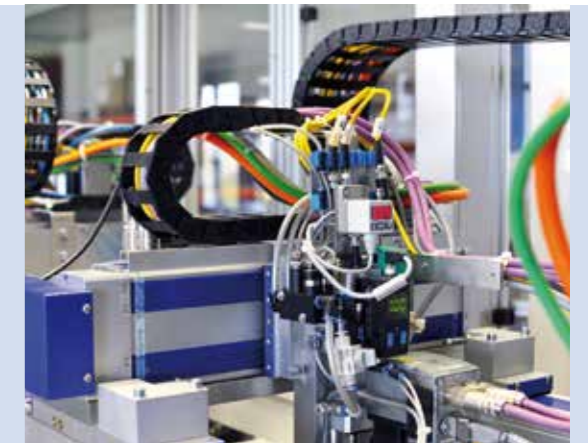
4) in preparation

## Your advantages

### Reliability

Every team is only as strong as its smallest player

The high life span of 100 million cycles allows Type 6164 to be used as an embedded component or for permanent integration without the need for maintenance or replacement. This provides reliability in applications such as in production processes, where every producing minute is directly linked to your profit and where production depends on even the smallest process components.



### Optimal Integration (especially in mobile devices)

Out of sight, out of mind

With an outer diameter of 9mm and a height of 28mm, Type 6164 provides easy integration into plastic moulded parts and compact mobile devices. Thanks to the new cartridge design, easy „plug-and-play“ capabilities allow the valve to be installed in even the smallest spaces, so you can design your device conveniently compact and easily portable. See the size comparison to the right of the previous and new solution of our pneumatic dosing system.



### Low Power Consumption

All the energy you need to perform

Type 6164's low power consumption of only 0,7W reduces the overall power consumption of the entire device. This means that your portable device can go the extra mile and be ready for use when it really counts. Its low switching noise reduces the sound level of the overall system and gives patient and caregiver the quiet they need to focus on what's important.



### O2 compatibility

Take a relaxing breath

Type 6164 has excellent suitability for the control of oxygen gas; for example, in mechanical ventilation and O2 concentrators. Its reliability and quiet operation makes it ideal for the application at the point of care, even with our most sensitive patients, newborns in incubators. Let Type 6164 give you peace of mind so that your customer can focus on the care of the patient.

