5/2- and 3/2-Way Solenoid Valves; Pilot-Operated; 30 – 115 PSI; 1/4" NPT and NAMUR Flange



Advantages/Benefits

- Switches reliably, even with full throttling capability
- Safety position by mechanical return spring
- ► Low wear and maintenance even with non-lubricated fluids
- Delivered as 5/2-way, can easily be changed to 3/2-way with adapter plate
- 3/2-way function with exhaust feedback
- ▶ Corrosion resistant
- Various HazEx™-versions as option
- ▶ (Ū), 📆 and 🚯 approval

Construction / Function

The Type 6519 NAMUR is an extremely reliable diaphragm actuated seat valve.

The valve, which is manufactured from high-quality plastic, can be operated in its 5/2- or 3/2-way function by exchanging the 5/2-way NAMUR plate with the separate 3/2-way plate, which is also part of the delivery.

The 3/2-way function works with exhaust feedback into the spring space. This way, the entrance of aggressive external air into the interior of the actuator is prevented.

A solenoid valve with a push-over coil is used as the standard pilot valve. In the inactive state, an integrated mechanical return spring sets the valve into the safety position.

As standard, the electrical connections are made using the Type 2508 cable plug (acc. DIN 43 650 form A) or one of the versions corresponding to the Ex-Norm.

The NAMUR flange enables a simple field mounting of the valve directly onto the actuator.

Applications

Fluids

- Lubricated or non-lubricated compressed air
- Instrument air
- Nitrogen

Applications

Control valves for pneumatic linear and quarter-turn actuators preferably for

- · Chemical industry
- Petro-chemical industry
- · General process technology

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Technical Data Type 6519 NAMUR

5/2-way valve, in de-energized position, pressure port 1 connected to port 2, output 4 exhausted



3/2-way valve with exhaust recycling, in de-energized position, port 2 fed back internally



Valve Characteristics

Valve function	DN	Flow rate ¹⁾	Pressure range ²⁾	Port connection
		QNn-Value (air)		
	[mm]	[l/min]	[bar]	
5/2-way	6,0	900	30–115	1/4 and NAMUR flange
3/2-way	6,0	900	30–115	1/4 and NAMUR flange

¹⁾ measured at 87 PSI input pressure and 15 PSI pressure drop at the valve and 68°F.

Operational Data (Armature)

Valve body Polyamide (PA)

Sealing material PB (NBR and PUR)

Media Lubricated or non-lubricated

compressed air,

Instrument air, Nitrogen

Media temperature -14°F - 140°F

(-25°C - 60°C)

Ambient temperature -14°F - 140°F

(-25°C - 60°C)

Response times3)

Opening (On) 25 ms Closing (Off) 40 ms

Port connection 1/4 NPT and NAMUR flange

Operational Data (Pilot)

Operating voltage 24 V/DC and 24 V/60 Hz

120 V/60 Hz 240 V/60 Hz

Voltage tolerance ±10%

Power consumption

DC 2 W

AC 11 VA inrush 6 VA hold

Duty cycle 100% continuously rated

Coil insulation class

UL recognized Class B molded UL listed Class H molded

Electrical connection • Cable plug Type 2508

for UR version

• Conduit cable plug 2509

for UL version

Protection class IP 65

(with cable plug)

Ex approval FM-Ex Div. 1 T6

CSA-Ex Div. 1 T6 (see datasheet 6519 NAMUR Ex)

Installation

The valve is delivered in the 5/2-way function. The 3/2-way function is realized by exchanging the adapter plate.

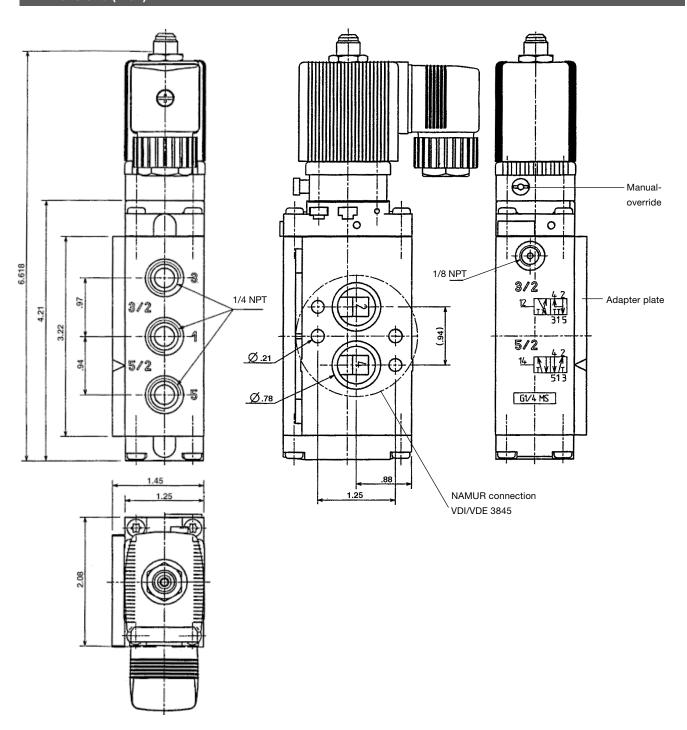
Mounting position Any, preferably solenoid

system upright.

²⁾ All pressures are gauge.

Measured at Connection 2; time from electrical switching to pressure increase to 90%, or pressure drop to 10% of operational pressure (115 PSI). The values given apply for both AC and DC; with the UC model, the switch-off time increases by 10 to 15 ms.

Dimensions (inch)



Type 6519 NAMUR in standard construction with electrical connection pattern to DIN 43 650 Form A; Cable plug DIN 43650, form A, (0-250 V AC/DC) delivery standard.

Ordering Table Type 6519 NAMUR

All valves are delivered with exchangeable adapter plates (i.e., 5/2- and 3/2-way functions in one device), with manual operation, 1/4 NPT connection sockets and NAMUR flange connection for mounting onto the actuator.

(with standard-cable plug 0-250 V AC/DC)

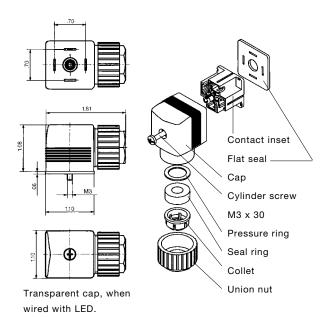
DN	Flow rate	Pressure	Material	Voltage/	Electrical	Item-No.
	QNn-Value	range	connection	frequency	power	
	(air)				consumption	
[mm]	[l/min]	[PSI]		[V/Hz]	[W]	
6,0	900	30-115	MS (nickel-plated)	24/DC	2	433 665 W
				24/50–60	2	430 574 V
				120/60	2	420 844 Z
				240/60	2	420 845 S
6,0	900	30-115	VA	24/DC	2	US06887
				24/50–60	2	US07334
				110/50–60	2	US07335
				230/50–60	2	US07336

Ordering Table, Accessories

Instrument socket ⁽¹⁾	Characteristics	Item-No.
Type 2508	without wiring, 0 - 250 V	008 376 N
Type 2508	with LED, 12 - 24 V	008 360 S
Type 2508	with LED and varistor, 12 - 24 V	008 367 M
Type 2508	with LED and varistor, 200 - 240 V	008 369 X
Other Type 2508 versions	with various wiring possibilities (see data sheet)	_

With these accessories, only a minimum of the possible instrument sockets with wiring are presented. For other models, refer to the Type 2508 Data Sheet.

Dimensions Accessories [mm]



Ordering Chart for Accessories

Device/	Features	Item-No.
Accessory		
Cable-	Standard cable plug, 0-250 V AC/DC	008 376 N
plugs ¹⁾	(standard-delivery) ¹⁾	
Type 2508	with LED, 12-24 V AC/DC	008 360 S
	with LED, 100-120 V AC/DC	008 361 P
	with LED + varistor, 12-24 V AC/DC	008 367 M
	with LED + varistor, 100-120 V AC/DC	008 368 W
	with LED + varistor, 200-240 V AC/DC	008 369 X
	(optional wirings and connection speci-	
	fications see data sheet Type 2508)	

¹⁾ The standard cable plug (0-250 V AC/DC), Order-No. 008 376 N is part of the standard delivery. Ordering of optional cable plugs with separate ordering number.

A wide selection of further cable plugs is available (see special data sheet Type 2508)