



Technical Data Sheet

Type 3/164

2/2-way proportional valve

Electrically controlled precision dispensing valve for continuous media control.



Type 3/164

■ Proportional valve for clean, gaseous and liquid media

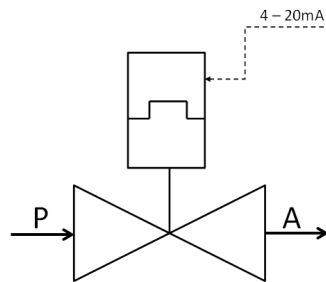
TECHNICAL DATA

Type of control	Directly controlled proportional valve
Design	Needle race valve
Connection	Threaded G3/4 DIN ISO 228 (BSP) <i>Other types of connection and sizes available on request</i>
Installation	Preferable with actuator upright
Pressure	0 - 20 bar <i>Higher pressure range possible on request</i>
Medium	Clean, gaseous and liquid media
Flow range	0,06 l/h bis 760 l/h <i>-/+ 1,5% deviation possible</i>
Viscosity	600 cSt
Temperature range	Medium -10 °C to +100 °C Ambient -10 °C to +40 °C
Body material	Stainless steel 1.4571 (AISI 316 Ti)
Metallic inner parts	Stainless steel
Seal	PTFE-K, EPDM <i>Other sealants available on request</i>
Supply voltage	DC= 24V
Voltage tolerance	-10% / +10%
Input signal	4 - 20 mA <i>With option of CAN-BUS on request</i>
Output signal	Via RS485 <i>serial interface</i>
Protection class	IP65 in acc. with DIN EN 60529

VALVE FEATURES

- Ideally suited for the dispensing of aggressive media, such as urea solutions (AdBlue)
- High dispensing precision
- Long service life
- Extremely low-wear stainless steel valve taper

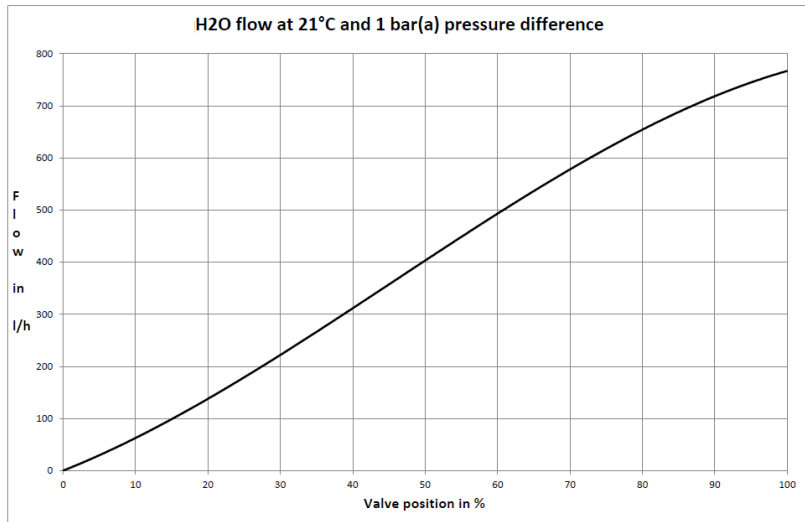
FUNCTION



ORDERING SYSTEM

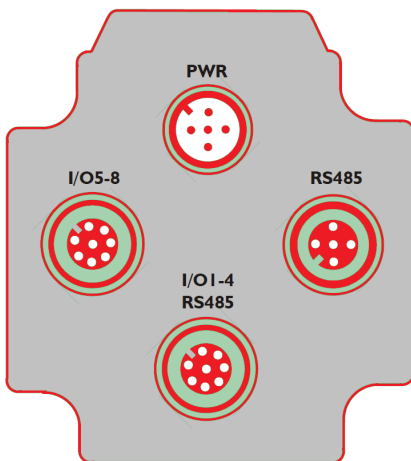
Type	Coon.	Housing	Seal	Actuator
3 / 1 6 4	- 2 2	- 0 8	0 0	- M L 1 0
	22 G 3/8	06 1.4571	00 metallic	

TECHNICAL FEATURES



Actuation time:	1 mm/s
Response sensitivity:	< 0,2 %
Linearity:	4 % -/+ 1 %
Repeat accuracy:	2,5 % -/+ 1 %
Hysteresis:	< 2 %
Flow range:	0,06 l/h to 760 l/h -/+ 1,5% deviation possible

ELECTRICAL CONNECTIONS



PWR (Power)

5-pin M12 socket. This connection supplies power to the proportional valve. Power is supplied exclusively at 24V DC (-/+10%). Pin allocation on the connector is defined as follows:

Pin 1:	+24V DC (-/+10%)
Pin 2:	Impulse
Pin 3:	-24V DC (-/+10%) (can also be connected to GND)
Pin 4:	Direction of motor (upwards or downwards)
Pin 5:	GND

I/O 5-8

8-pin M12 socket. The socket is provided for digital inputs and outputs. Only four digital inputs and outputs can be connected to this socket. The pin allocation and color coding for I/O 1-4 and I/O 5-8 sockets are defined as follows:

Pin 1:	Color white
Pin 2:	Color brown
Pin 3:	Color green
Pin 4:	Color yellow
Pin 5:	Color gray
Pin 6:	Color pink
Pin 7:	Color blue
Pin 8:	Color red

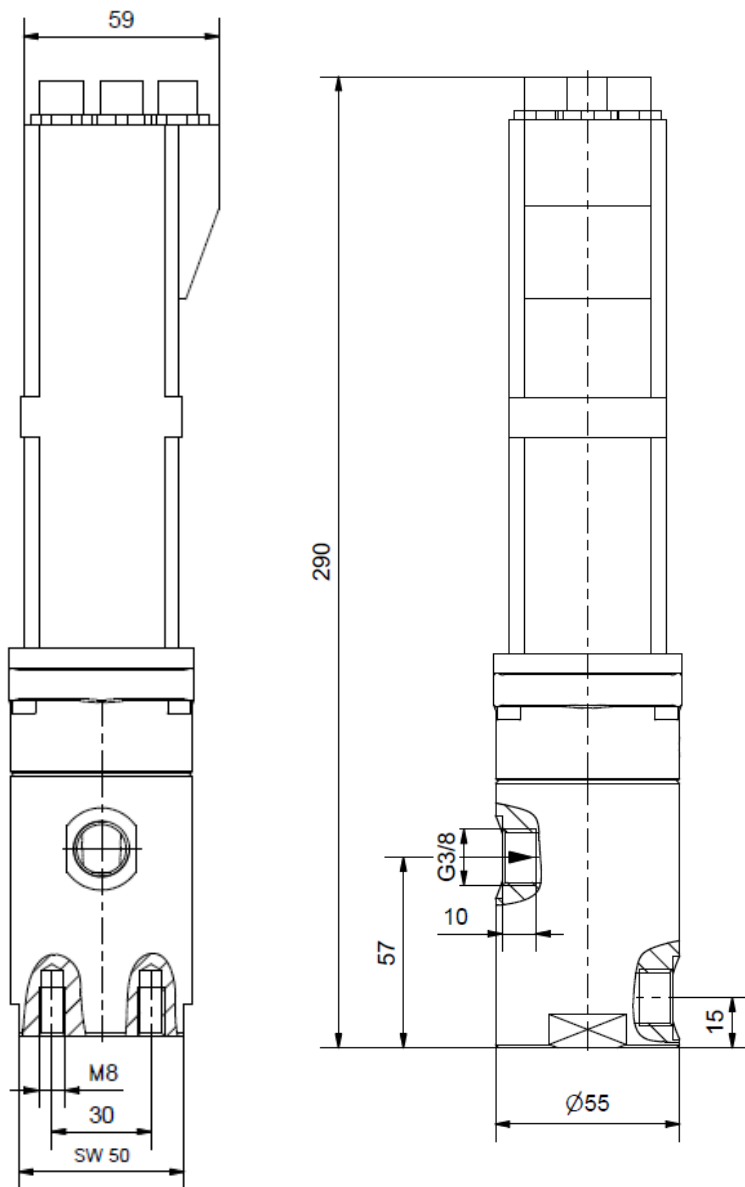
RS485

5-pin M12 socket. This connection is provided for communication with the PC. Communication takes place via the RS485 serial interface. Only an appropriate connector with adapter can be attached to this connection.

I/O 1-4 RS485

8-pin M12 socket. The socket is provided for digital inputs and outputs. Only four digital inputs and outputs can be connected to the socket.

DIMENSIONS



Please note

Each individual application is decisive in terms of the valve version, and a key factor to emphasize here is the resistance of materials to the operating medium. Key aspects in the selection of the correct material include knowledge about the concentration, temperature and level of impurity of the medium. Other criteria include the operating pressure and the max. volumetric flow rate because just as much attention needs to be paid to high temperatures as to high pressures and flow speeds when selecting a material.

All of the materials used in our valves, whether for housings, seals or solenoids, are selected carefully and in accordance with the different fields of application. All details are non-binding and are only intended as a guide. No warranty claims can be founded upon this.

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Status: 03.19, MK-MG, Version 1.