

5/2-directional valve, Series 581, size 1

- ISO 5599-1
- ISO 1
- 5/2
- With spring return
- single solenoid
- $Q_n = 1400 \text{ l/min}$
- Compressed air connection output Base plate ISO 5599-1
- Electrical connection Plug, Form B, industry
- Manual override with detent



Type	Spool valve
Sealing principle	Soft sealing
Blocking principle	Single base plate principle
Connection type	Plate connection
Standards	ISO 5599-1, ISO 1
Working pressure min./max.	See table below
Control pressure min./max.	3 ... 10 bar
Ambient temperature min./max.	-15 ... 50 °C
Medium temperature min./max.	-15 ... 50 °C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 ... 5 mg/m ³
Nominal flow Q_n	1400 l/min
Flow conductance C	5,2 l/(s*bar)
Protection class with connection	IP65
Duty cycle	100 %
Typ. switch-on time	12 ms
Typ. switch-off time	28 ms
Mounting screw	with hexagon socket
Mounting screw tightening torque	2 Nm
Weight	0,23 kg

Technical data

Part No.		MO	Operational voltage DC	Operational voltage AC 50 Hz
5811110500			12 V	-
5811110200			-	24 V
5811110100			24 V	-
5811110600			48 V	-
5811110300			-	-
5811110400			-	230 V
5811110000			-	-
5811111500			12 V	-
5811111200			-	24 V
5811111100			24 V	-
5811111600			48 V	-
5811111300			-	-
5811111400			-	230 V
5811111000			-	-
5811112500			12 V	-
5811112200			-	24 V
5811112100			24 V	-
5811112600			48 V	-
5811112300			-	-
5811112400			-	230 V
5811112000			-	-
5811113500			12 V	-
5811113200			-	24 V
5811113600			48 V	-
5811113100			24 V	-
5811113300			-	-
5811113400			-	230 V
5811113000			-	-

Part No.	Operational voltage AC 60 Hz	Voltage tolerance DC	Voltage tolerance AC 50 Hz	Voltage tolerance AC 60 Hz
5811110500	-	-10% / +10%	-	-
5811110200	-	-	-10% / +10%	-
5811110100	-	-10% / +10%	-	-
5811110600	-	-10% / +10%	-	-
5811110300	110 V	-	-	-10% / +10%
5811110400	-	-	-10% / +10%	-
5811110000	-	-	-	-
5811111500	-	-10% / +10%	-	-
5811111200	-	-	-10% / +10%	-
5811111100	-	-10% / +10%	-	-
5811111600	-	-10% / +10%	-	-
5811111300	110 V	-	-	-10% / +10%

Part No.	Operational voltage AC 60 Hz	Voltage tolerance DC	Voltage tolerance AC 50 Hz	Voltage tolerance AC 60 Hz
5811111400	-	-	-10% / +10%	-
5811111000	-	-	-	-
5811112500	-	-10% / +10%	-	-
5811112200	-	-	-10% / +10%	-
5811112100	-	-10% / +10%	-	-
5811112600	-	-10% / +10%	-	-
5811112300	110 V	-	-	-10% / +10%
5811112400	-	-	-10% / +10%	-
5811112000	-	-	-	-
5811113500	-	-10% / +10%	-	-
5811113200	-	-	-10% / +10%	-
5811113600	-	-10% / +10%	-	-
5811113100	-	-10% / +10%	-	-
5811113300	110 V	-	-	-10% / +10%
5811113400	-	-	-10% / +10%	-
5811113000	-	-	-	-

Part No.	Power consumption DC	Holding power AC 50 Hz	Holding power AC 60 Hz	Switch-on power AC 50 Hz
5811110500	5 W	-	-	-
5811110200	-	8 VA	-	10 VA
5811110100	5 W	-	-	-
5811110600	5 W	-	-	-
5811110300	-	-	8 VA	-
5811110400	-	8 VA	-	10 VA
5811110000	-	-	-	-
5811111500	5 W	-	-	-
5811111200	-	8 VA	-	10 VA
5811111100	5 W	-	-	-
5811111600	5 W	-	-	-
5811111300	-	-	8 VA	-
5811111400	-	8 VA	-	10 VA
5811111000	-	-	-	-
5811112500	5 W	-	-	-
5811112200	-	8 VA	-	10 VA
5811112100	5 W	-	-	-
5811112600	5 W	-	-	-
5811112300	-	-	8 VA	-
5811112400	-	8 VA	-	10 VA
5811112000	-	-	-	-
5811113500	5 W	-	-	-
5811113200	-	8 VA	-	10 VA
5811113600	5 W	-	-	-
5811113100	5 W	-	-	-
5811113300	-	-	8 VA	-
5811113400	-	8 VA	-	10 VA

Part No.	Power consumption DC	Holding power AC 50 Hz	Holding power AC 60 Hz	Switch-on power AC 50 Hz
5811113000	-	-	-	-

Part No.	Switch-on power AC 60 Hz	Pilot	Working pressure min./max.	Electrical connection Pilot valve
5811110500	-	Internal	3 ... 10 bar	Plug Form B, industry
5811110200	-	Internal	3 ... 10 bar	Plug Form B, industry
5811110100	-	Internal	3 ... 10 bar	Plug Form B, industry
5811110600	-	Internal	3 ... 10 bar	Plug Form B, industry
5811110300	10 VA	Internal	3 ... 10 bar	Plug Form B, industry
5811110400	-	Internal	3 ... 10 bar	Plug Form B, industry
5811110000	-	Internal	3 ... 10 bar	Plug Form B, industry
5811111500	-	Internal	3 ... 10 bar	Plug Form B, industry
5811111200	-	Internal	3 ... 10 bar	Plug Form B, industry
5811111100	-	Internal	3 ... 10 bar	Plug Form B, industry
5811111600	-	Internal	3 ... 10 bar	Plug Form B, industry
5811111300	10 VA	Internal	3 ... 10 bar	Plug Form B, industry
5811111400	-	Internal	3 ... 10 bar	Plug Form B, industry
5811111000	-	Internal	3 ... 10 bar	Plug Form B, industry
5811112500	-	External	-0,95 ... 10 bar	Plug Form B, industry
5811112200	-	External	-0,95 ... 10 bar	Plug Form B, industry
5811112100	-	External	-0,95 ... 10 bar	Plug Form B, industry
5811112600	-	External	-0,95 ... 10 bar	Plug Form B, industry
5811112300	10 VA	External	-0,95 ... 10 bar	Plug Form B, industry
5811112400	-	External	-0,95 ... 10 bar	Plug Form B, industry
5811112000	-	External	-0,95 ... 10 bar	Plug Form B, industry
5811113500	-	External	-0,95 ... 10 bar	Plug Form B, industry
5811113200	-	External	-0,95 ... 10 bar	Plug Form B, industry
5811113600	-	External	-0,95 ... 10 bar	Plug Form B, industry
5811113100	-	External	-0,95 ... 10 bar	Plug Form B, industry
5811113300	10 VA	External	-0,95 ... 10 bar	Plug Form B, industry
5811113400	-	External	-0,95 ... 10 bar	Plug Form B, industry
5811113000	-	External	-0,95 ... 10 bar	Plug Form B, industry

Part No.	basic valve with electrical connector	Throttle
5811110500	-	-
5811110200	-	-
5811110100	-	-
5811110600	-	-
5811110300	-	-
5811110400	-	-
5811110000	Basic valve without coil	-
5811111500	-	with throttle
5811111200	-	with throttle
5811111100	-	with throttle
5811111600	-	with throttle
5811111300	-	with throttle

Part No.	basic valve with electrical connector	Throttle
5811111400	-	with throttle
5811111000	Basic valve without coil	with throttle
5811112500	-	-
5811112200	-	-
5811112100	-	-
5811112600	-	-
5811112300	-	-
5811112400	-	-
5811112000	Basic valve without coil	-
5811113500	-	with throttle
5811113200	-	with throttle
5811113600	-	with throttle
5811113100	-	with throttle
5811113300	-	with throttle
5811113400	-	with throttle
5811113000	Basic valve without coil	with throttle

Connection 12 must be connected with atmospheres, Nominal flow Q_n at 6 bar and Δp = 1 bar, MO = Manual override

Technical information

The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!

The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .

The oil content of compressed air must remain constant during the life cycle.

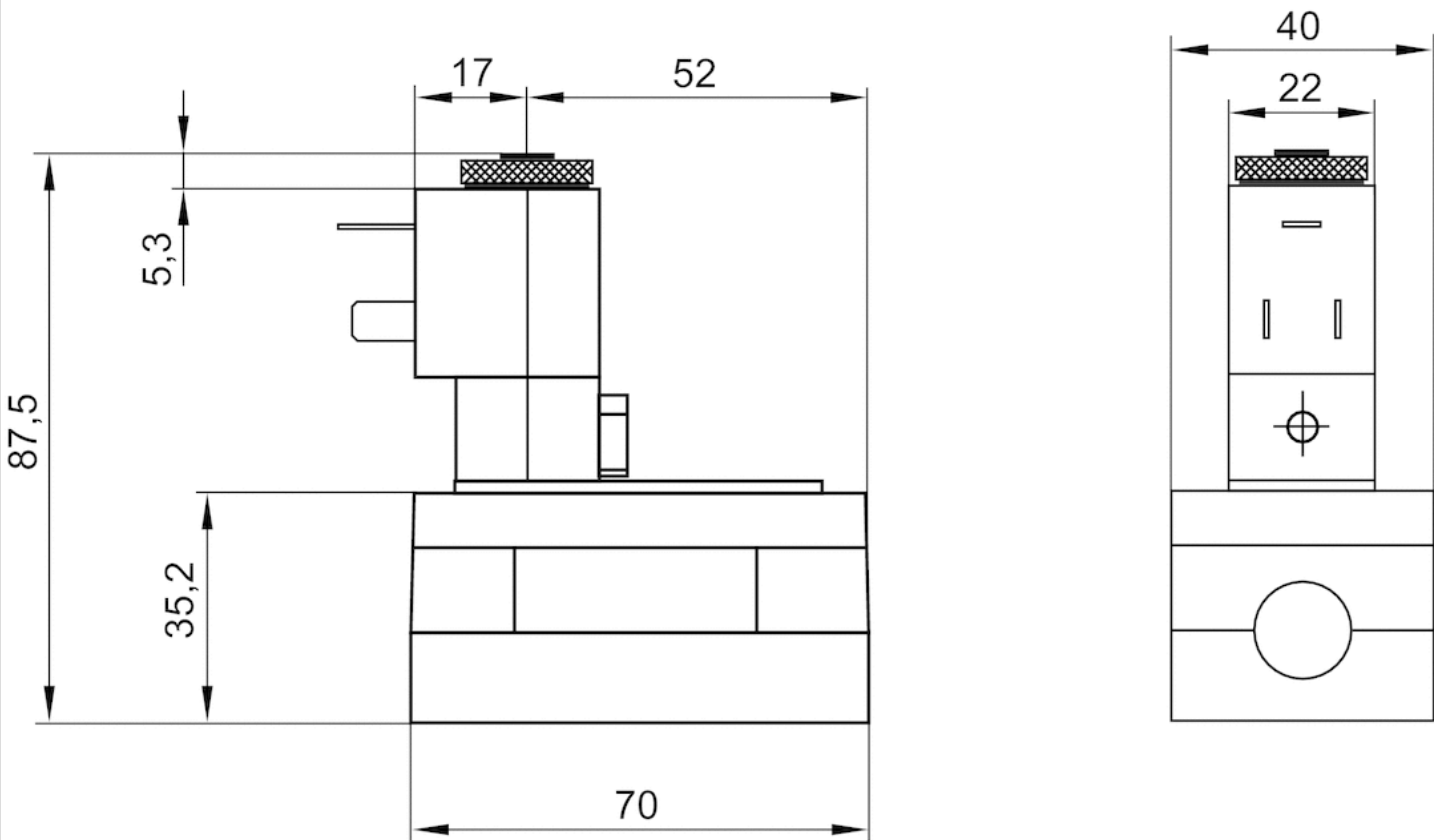
Use only the approved oils from AVENTICS. Further information can be found in the "Technical information" document (available in the MediaCentre).

Technical information

Housing	Polyamide fiber-glass reinforced
Seals	Acrylonitrile butadiene rubber

Dimensions

Dimensions



The pilot valves can be loosened and turned through 180°.

Efficient pneumatic solutions, our program: cylinders and drives, valves and valve systems, air supply management



Visit us: [Emerson.com/Aventics](https://www.emerson.com/Aventics)

Your local contact: [Emerson.com/contactus](https://www.emerson.com/contactus)



Emerson.com



Facebook.com/EmersonAutomationSolutions



LinkedIn.com/company/Emerson-Automation-Solutions



Twitter.com/EMR_Automation

An example configuration is depicted on the title page. The delivered product may thus vary from that in the illustration. Subject to change. This Document, as well as the data, specifications and other information set forth in it, are the exclusive property of AVENTICS GmbH. It may not be reproduced or given to third parties without its consent. Only use the AVENTICS products shown in industrial applications. Read the product documentation completely and carefully before using the product. Observe the applicable regulations and laws of the respective country. When integrating the product into applications, note the system manufacturer's specifications for safe use of the product. The data specified only serve to describe the product. No statements concerning a certain condition or suitability for a certain application can be derived from our information. The information given does not release the user from the obligation of own judgement and verification. It must be remembered that the products are subject to a natural process of wear and aging.

The Emerson logo is a trademark and service mark of Emerson Electric Co. Brand logotype are registered trademarks of one of the Emerson family of companies. All other marks are the property of their respective owners. © 2021 Emerson Electric Co. All rights reserved.
2021-05



CONSIDER IT SOLVED™