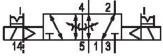
AVENTICS Series 581 - Size 1 Standardized valves

The AVENTICS series 581 complies with the ISO 5599-1 valve standard. Due to the high degree of modularity, the series offers all valve functions, integrated throttle valves, various pilot coils and an extensive range of accessories. Qn = 950 ... 1400 l/min





Technical data Industry Activation Nominal flow Qn Switching principle Compressed air connection output Min. working pressure Max. working pressure **Operational voltage** Operational voltage DC Voltage tolerance DC Manual override Electrical connection type Electrical connection size Actuating control Sealing principle Pilot Standards Pilot valve width Valve type

Industrial Electrically 1400 l/min 5/2, double solenoid Base plate ISO 5599-1 -0.95 bar 10 bar 48 V DC 48 V -10% / +10% with detent Plug Form B, industry **Double Solenoid** Soft seal External ISO 5599-1 22 mm Spool valve



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

5811223600

Compressed air connection inputBase plate ISO 5599-1Compressed air connection pilot exhaustM5Power consumption DC5 WFlow conductance C5.2 l/(s*bar)Throttlewith throttleFrame sizeISO 1Min. control pressure1.5 barMax. control pressure10 barMin. ambient temperature50 °CMax. medium temperature50 °CMax. medium temperature50 °CMax. particle size50 µmMin. oil content of compressed air0 mg/m³Max. oil content of compressed air5 mg/m³Protection class with connectionIP65Duty cycle10 %Typ. switch-on time11 msTyp. switch-off time11 msMounting screwswith hexagon socketMounting screw tightening torque2 NmWeight0.3 kgHousing materialPolyamide fiber-glass reinforcedSeal materialAcrylonitrile butadiene rubberPart No.5811223600	Blocking principle Connection type	Single base plate principle Plate connection
Compressed air connection pilot exhaustM5Power consumption DC5 WFlow conductance C5.2 l/(s*bar)Throttlewith throttleFrame sizeISO 1Min. control pressure1.5 barMax. control pressure10 barMin. ambient temperature50 °CMax. ambient temperature50 °CMax. medium temperature50 °CMax. medium temperature50 °CMax. medium temperature50 °CMediumCompressed airMax. oil content of compressed air5 mg/m³Protection class with connectionIP65Duty cycle100 %Typ. switch-off time11 msTyp. switch-off time11 msMounting screwswith hexagon socketMounting screw tightening torque2 NmWeight0.3 kgHousing materialAcrylonitrile butadiene rubber	Compressed air connection input	Base plate ISO 5599-1
Power consumption DC5 WFlow conductance C5.2 l/(s*bar)Throttlewith throttleFrame sizeISO 1Min. control pressure1.5 barMax. control pressure10 barMin. ambient temperature-15 °CMax. ambient temperature50 °CMin. medium temperature50 °CMax. medium temperature50 °CMax. medium temperature50 °CMax. nedium temperature50 °CMediumCompressed airMax. oil content of compressed air0 mg/m³Max. oil content of compressed air5 mg/m³Protection class with connectionIP65Duty cycle100 %Typ. switch-on time11 msTyp. switch-off time11 msMounting screwswith hexagon socketMounting screw tightening torque2 NmWeight0.3 kgHousing materialPolyamide fiber-glass reinforced	Compressed air connection, exhaust	Base plate ISO 5599-1
Flow conductance C5.2 l/(s*bar)Throttlewith throttleFrame sizeISO 1Min. control pressure1.5 barMax. control pressure10 barMin. ambient temperature-15 °CMax. ambient temperature50 °CMin. medium temperature50 °CMax. nedium temperature50 °CMax. or article size50 µmMin. oil content of compressed air0 mg/m³Protection class with connectionIP65Duty cycle100 %Typ. switch-on time11 msTyp. switch-off time11 msMounting screwswith hexagon socketMounting screw tightening torque2 NmWeight0.3 kgHousing materialPolyamide fiber-glass reinforcedSeal materialAcrylonitrile butadiene rubber	Compressed air connection pilot exhaust	M5
Throttlewith throttleFrame sizeISO 1Min. control pressure1.5 barMax. control pressure10 barMin. ambient temperature-15 °CMax. ambient temperature50 °CMin. medium temperature50 °CMax. medium temperature50 °CMediumCompressed airMax. particle size50 µmMin. oil content of compressed air0 mg/m³Max. oil content of compressed air5 mg/m³Protection class with connectionIP65Duty cycle100 %Typ. switch-off time11 msMounting screwswith hexagon socketMounting screws tightening torque2 NmWeight0.3 kgHousing materialPolyamide fiber-glass reinforcedSeal materialAcrylonitrile butadiene rubber	Power consumption DC	5 W
Frame sizeISO 1Min. control pressure1.5 barMax. control pressure10 barMin. ambient temperature-15 °CMax. ambient temperature50 °CMin. medium temperature50 °CMax. medium temperature50 °CMediumCompressed airMax. particle size50 µmMin. oil content of compressed air0 mg/m³Max. oil content of compressed air5 mg/m³Protection class with connectionIP65Duty cycle100 %Typ. switch-on time11 msTyp. switch-off time11 msMounting screwswith hexagon socketMounting screw tightening torque2 NmWeight0.3 kgHousing materialPolyamide fiber-glass reinforced	Flow conductance C	5.2 l/(s*bar)
Min. control pressure1.5 barMax. control pressure10 barMin. ambient temperature-15 °CMax. ambient temperature50 °CMin. medium temperature-15 °CMax. medium temperature50 °CMediumCompressed airMax. particle size50 µmMin. oil content of compressed air0 mg/m³Max. oil content of compressed air5 mg/m³Protection class with connectionIP65Duty cycle100 %Typ. switch-on time11 msTyp. switch-off time11 msMounting screwswith hexagon socketMounting screw tightening torque2 NmWeight0.3 kgHousing materialPolyamide fiber-glass reinforced	Throttle	with throttle
Max. control pressure10 barMin. ambient temperature-15 °CMax. ambient temperature50 °CMin. medium temperature-15 °CMax. medium temperature50 °CMediumCompressed airMax. particle size50 µmMin. oil content of compressed air0 mg/m³Max. oil content of compressed air5 mg/m³Protection class with connectionIP65Duty cycle100 %Typ. switch-on time11 msTyp. switch-off time11 msMounting screwswith hexagon socketMounting screw tightening torque2 NmWeight0.3 kgHousing materialPolyamide fiber-glass reinforced	Frame size	ISO 1
Min. ambient temperature-15 °CMax. ambient temperature50 °CMin. medium temperature-15 °CMax. medium temperature50 °CMediumCompressed airMax. particle size50 µmMin. oil content of compressed air0 mg/m³Max. oil content of compressed air5 mg/m³Protection class with connectionIP65Duty cycle100 %Typ. switch-on time11 msTyp. switch-off time11 msMounting screwswith hexagon socketMounting screw tightening torque2 NmWeight0.3 kgHousing materialPolyamide fiber-glass reinforcedSeal materialAcrylonitrile butadiene rubber	Min. control pressure	1.5 bar
Max. ambient temperature50 °CMin. medium temperature-15 °CMax. medium temperature50 °CMediumCompressed airMax. particle size50 µmMin. oil content of compressed air0 mg/m³Max. oil content of compressed air5 mg/m³Protection class with connectionIP65Duty cycle100 %Typ. switch-on time11 msTyp. switch-off time11 msMounting screwswith hexagon socketMounting screw tightening torque2 NmWeight0.3 kgHousing materialPolyamide fiber-glass reinforcedSeal materialAcrylonitrile butadiene rubber	Max. control pressure	10 bar
Min. medium temperature-15 °CMax. medium temperature50 °CMediumCompressed airMax. particle size50 µmMin. oil content of compressed air0 mg/m³Max. oil content of compressed air5 mg/m³Protection class with connectionIP65Duty cycle100 %Typ. switch-on time11 msTyp. switch-off time11 msMounting screwswith hexagon socketMounting screw tightening torque2 NmWeight0.3 kgHousing materialPolyamide fiber-glass reinforcedSeal materialAcrylonitrile butadiene rubber	Min. ambient temperature	-15 °C
Max. medium temperature50 °CMediumCompressed airMax. particle size50 μmMin. oil content of compressed air0 mg/m³Max. oil content of compressed air5 mg/m³Protection class with connectionIP65Duty cycle100 %Typ. switch-on time11 msTyp. switch-off time11 msMounting screwswith hexagon socketMounting screw tightening torque2 NmWeight0.3 kgHousing materialPolyamide fiber-glass reinforced	Max. ambient temperature	50 °C
MediumCompressed airMax. particle size50 μmMin. oil content of compressed air0 mg/m³Max. oil content of compressed air5 mg/m³Protection class with connectionIP65Duty cycle100 %Typ. switch-on time11 msTyp. switch-off time11 msMounting screwswith hexagon socketMounting screw tightening torque2 NmWeight0.3 kgHousing materialPolyamide fiber-glass reinforcedSeal materialAcrylonitrile butadiene rubber	Min. medium temperature	-15 °C
Max. particle size50 μmMin. oil content of compressed air0 mg/m³Max. oil content of compressed air5 mg/m³Protection class with connectionIP65Duty cycle100 %Typ. switch-on time11 msTyp. switch-off time11 msMounting screwswith hexagon socketMounting screw tightening torque2 NmWeight0.3 kgHousing materialPolyamide fiber-glass reinforcedSeal materialAcrylonitrile butadiene rubber	Max. medium temperature	50 °C
Min. oil content of compressed air0 mg/m³Max. oil content of compressed air5 mg/m³Protection class with connectionIP65Duty cycle100 %Typ. switch-on time11 msTyp. switch-off time11 msMounting screwswith hexagon socketMounting screws tightening torque2 NmWeight0.3 kgHousing materialPolyamide fiber-glass reinforcedSeal materialAcrylonitrile butadiene rubber	Medium	Compressed air
Max. oil content of compressed air5 mg/m³Protection class with connectionIP65Duty cycle100 %Typ. switch-on time11 msTyp. switch-off time11 msMounting screwswith hexagon socketMounting screw tightening torque2 NmWeight0.3 kgHousing materialPolyamide fiber-glass reinforcedSeal materialAcrylonitrile butadiene rubber	Max. particle size	50 µm
Protection class with connectionIP65Duty cycle100 %Typ. switch-on time11 msTyp. switch-off time11 msMounting screwswith hexagon socketMounting screw tightening torque2 NmWeight0.3 kgHousing materialPolyamide fiber-glass reinforcedSeal materialAcrylonitrile butadiene rubber	Min. oil content of compressed air	0 mg/m³
Duty cycle100 %Typ. switch-on time11 msTyp. switch-off time11 msMounting screwswith hexagon socketMounting screw tightening torque2 NmWeight0.3 kgHousing materialPolyamide fiber-glass reinforcedSeal materialAcrylonitrile butadiene rubber	Max. oil content of compressed air	5 mg/m³
Typ. switch-on time11 msTyp. switch-off time11 msMounting screwswith hexagon socketMounting screw tightening torque2 NmWeight0.3 kgHousing materialPolyamide fiber-glass reinforcedSeal materialAcrylonitrile butadiene rubber	Protection class with connection	IP65
Typ. switch-off time11 msMounting screwswith hexagon socketMounting screw tightening torque2 NmWeight0.3 kgHousing materialPolyamide fiber-glass reinforcedSeal materialAcrylonitrile butadiene rubber	Duty cycle	100 %
Mounting screwswith hexagon socketMounting screw tightening torque2 NmWeight0.3 kgHousing materialPolyamide fiber-glass reinforcedSeal materialAcrylonitrile butadiene rubber	Typ. switch-on time	11 ms
Mounting screw tightening torque2 NmWeight0.3 kgHousing materialPolyamide fiber-glass reinforcedSeal materialAcrylonitrile butadiene rubber	Typ. switch-off time	11 ms
Weight0.3 kgHousing materialPolyamide fiber-glass reinforcedSeal materialAcrylonitrile butadiene rubber	Mounting screws	with hexagon socket
Housing materialPolyamide fiber-glass reinforcedSeal materialAcrylonitrile butadiene rubber	Mounting screw tightening torque	2 Nm
Seal material Acrylonitrile butadiene rubber	Weight	0.3 kg
,	Housing material	Polyamide fiber-glass reinforced
Part No. 5811223600	Seal material	Acrylonitrile butadiene rubber
	Part No.	5811223600

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 less than ambient and medium temperature and may not exceed 3 °C.

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

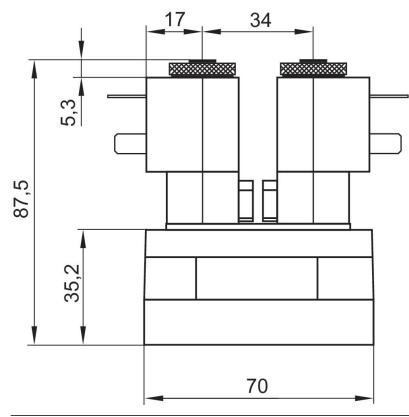
Use only the approved oils from AVENTICS. Further information can be found in the "Technical information" document (available in https://www.emerson.com/en-us/support).

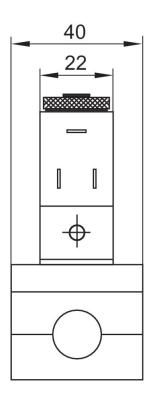


5/2-directional valve, Series 581, size 1

5811223600

Dimensions





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

