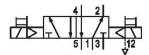
AVENTICS Series 581 - Size 1 Standardized valves

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 number of poles 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 1.5 bar 10 bar 24 V DC 24 V -10% / +10% without detent Plug 3-pin **Double Solenoid** Soft seal Internal ISO 5599-1 15 mm Spool valve



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

5811260160

| Typ. switch-off time14 msMounting screwswith hexagon socketMounting screw tightening torque2 Nm | - | Base plate ISO 5599-1 Base plate ISO 5599-1 Base plate ISO 5599-1 Base plate ISO 5599-1 2.2 W 5.2 I/(s*bar) 0.5 m ISO 1 1.5 bar 10 bar -10 °C 50 °C -10 °C 50 °C Compressed air 50 µm 0 mg/m³ 5 mg/m³ IP67 Z-diode Protected against polarity reversal Green 100 % 14 ms 14 ms with hexagon socket |
|---|---|--|
| | Weight | 0.22 kg |
| | - | Polyamide fiber-glass reinforced |
| | Seal material | Acrylonitrile butadiene rubber |
| Housing material Polyamide fiber-glass reinforced | | - |
| Housing material Polyamide fiber-glass reinforced | Seal material Part No. | Acrylonitrile butadiene rubber 5811260160 |
| | Housing material | Polyamide fiber-glass reinforced |
| | | |
| | | |
| Typ. switch-on time 14 ms | | |
| Duty cycle100 %Typ. switch-on time14 ms | | • • • |
| LED status displayGreenDuty cycle100 %Typ. switch-on time14 ms | | |
| Reverse polarity protectionProtected against polarity reversalLED status displayGreenDuty cycle100 %Typ. switch-on time14 ms | | |
| Protective circuitZ-diodeReverse polarity protectionProtected against polarity reversalLED status displayGreenDuty cycle100 %Typ. switch-on time14 ms | | • |
| Protection class with connectionIP67Protective circuitZ-diodeReverse polarity protectionProtected against polarity reversalLED status displayGreenDuty cycle100 %Typ. switch-on time14 ms | | - |
| Max. oil content of compressed air5 mg/m³Protection class with connectionIP67Protective circuitZ-diodeReverse polarity protectionProtected against polarity reversalLED status displayGreenDuty cycle100 %Typ. switch-on time14 ms | - | • |
| Min. oil content of compressed air0 mg/m³Max. oil content of compressed air5 mg/m³Protection class with connectionIP67Protective circuitZ-diodeReverse polarity protectionProtected against polarity reversalLED status displayGreenDuty cycle100 %Typ. switch-on time14 ms | | • |
| Max. particle size50 μmMin. oil content of compressed air0 mg/m³Max. oil content of compressed air5 mg/m³Protection class with connectionIP67Protective circuitZ-diodeReverse polarity protectionProtected against polarity reversalLED status displayGreenDuty cycle100 %Typ. switch-on time14 ms | Max. medium temperature | 50 °C |
| MediumCompressed airMax. particle size50 µmMin. oil content of compressed air0 mg/m³Max. oil content of compressed air5 mg/m³Protection class with connectionIP67Protective circuitZ-diodeReverse polarity protectionProtected against polarity reversalLED status displayGreenDuty cycle100 %Typ. switch-on time14 ms | Min. medium temperature | |
| Max. medium temperature50 °CMediumCompressed airMax. particle size50 µmMin. oil content of compressed air0 mg/m³Max. oil content of compressed air5 mg/m³Protection class with connectionIP67Protective circuitZ-diodeReverse polarity protectionProtected against polarity reversalLED status displayGreenDuty cycle100 %Typ. switch-on time14 ms | Max. ambient temperature | |
| Min. medium temperature-10 °CMax. medium temperature50 °CMediumCompressed airMax. particle size50 μmMin. oil content of compressed air0 mg/m³Max. oil content of compressed air5 mg/m³Protection class with connectionIP67Protective circuitZ-diodeReverse polarity protectionProtected against polarity reversalLED status displayGreenDuty cycle100 %Typ. switch-on time14 ms | Min. ambient temperature | -10 °C |
| Max. ambient temperature50 °CMin. medium temperature-10 °CMax. medium temperature50 °CMediumCompressed airMax. particle size50 µmMin. oil content of compressed air0 mg/m³Max. oil content of compressed air5 mg/m³Protection class with connectionIP67Protective circuitZ-diodeReverse polarity protectionProtected against polarity reversalLED status displayGreenDuty cycle100 %Typ. switch-on time14 ms | Max. control pressure | 10 bar |
| Min. ambient temperature-10 °CMax. ambient temperature50 °CMin. medium temperature-10 °CMax. medium temperature50 °CMediumCompressed airMax. particle size50 µmMin. oil content of compressed air0 mg/m³Max. oil content of compressed air5 mg/m³Protection class with connectionIP67Protective circuitZ-diodeReverse polarity protectionProtected against polarity reversalLED status displayGreenDuty cycle100 %Typ. switch-on time14 ms | Min. control pressure | 1.5 bar |
| Max. control pressure10 barMin. ambient temperature-10 °CMax. ambient temperature50 °CMin. medium temperature-10 °CMax. medium temperature50 °CMediumCompressed airMax. particle size50 µmMin. oil content of compressed air0 mg/m³Max. oil content of compressed air5 mg/m³Protection class with connectionIP67Protective circuitZ-diodeReverse polarity protectionProtected against polarity reversalLED status displayGreenDuty cycle100 %Typ. switch-on time14 ms | Frame size | ISO 1 |
| Min. control pressure1.5 barMax. control pressure10 barMin. ambient temperature-10 °CMax. ambient temperature50 °CMin. medium temperature-10 °CMax. medium temperature50 °CMediumCompressed airMax. particle size50 µmMin. oil content of compressed air0 mg/m³Max. oil content of compressed air5 mg/m³Protection class with connectionIP67Protective circuitZ-diodeReverse polarity protectionProtected against polarity reversalLED status displayGreenDuty cycle100 %Typ. switch-on time14 ms | Cable length | 0.5 m |
| Frame sizeISO 1Min. control pressure1.5 barMax. control pressure10 barMin. ambient temperature-10 °CMax. ambient temperature50 °CMin. medium temperature-10 °CMax. medium temperature50 °CMediumCompressed airMax. particle size50 µmMin. oil content of compressed air0 mg/m³Max. oil content of compressed air5 mg/m³Protection class with connectionIP67Protective circuitZ-diodeReverse polarity protectionProtected against polarity reversalLED status displayGreenDuty cycle100 %Typ. switch-on time14 ms | Flow conductance C | 5.2 l/(s*bar) |
| Cable length0.5 mFrame sizeISO 1Min. control pressure1.5 barMax. control pressure10 barMin. ambient temperature-10 °CMax. ambient temperature50 °CMin. medium temperature50 °CMax. medium temperature50 °CMediumCompressed airMax. particle size50 µmMin. oil content of compressed air50 µmMax. oil content of compressed air5 mg/m³Protection class with connectionIP67Protective circuitZ-diodeReverse polarity protectionProtected against polarity reversalLED status displayGreenDuty cycle100 %Typ. switch-on time14 ms | Power consumption DC | 2.2 W |
| Flow conductance C5.2 l/(s*bar)Cable length0.5 mFrame sizeISO 1Min. control pressure1.5 barMax. control pressure10 barMin. ambient temperature-10 °CMax. ambient temperature50 °CMin. medium temperature50 °CMediumCompressed airMax. particle size50 μmMin. oil content of compressed air5 mg/m³Protection class with connectionIP67Protective circuitZ-diodeReverse polarity protectionGreenDuty cycle100 %Typ. switch-on time14 ms | Compressed air connection pilot exhaust | Base plate ISO 5599-1 |
| Power consumption DC2.2 WFlow conductance C5.2 l/(s*bar)Cable length0.5 mFrame sizeISO 1Min. control pressure1.5 barMax. control pressure10 barMin. ambient temperature-10 °CMax. ambient temperature50 °CMin. medium temperature50 °CMediumCompressed airMax. particle size50 µmMin. oil content of compressed air5 mg/m³Protection class with connectionIP67Protective circuitZ-diodeReverse polarity protectionGreenDuty cycle100 %Typ. switch-on time14 ms | Compressed air connection pilot input | Base plate ISO 5599-1 |
| Compressed air connection pilot exhaustBase plate ISO 5599-1Power consumption DC2.2 WFlow conductance C5.2 l/(s*bar)Cable length0.5 mFrame sizeISO 1Min. control pressure1.5 barMax. control pressure10 barMin. ambient temperature-10 °CMax. ambient temperature50 °CMin. medium temperature50 °CMin. medium temperature50 °CMediumCompressed airMax. particle size50 µmMin. oil content of compressed air5 mg/m³Protection class with connectionIP67Protective circuitZ-diodeReverse polarity protectionProtected against polarity reversalLED status displayGreenDuty cycle100 %Typ. switch-on time14 ms | Compressed air connection, exhaust | Base plate ISO 5599-1 |
| Compressed air connection pilot inputBase plate ISO 5599-1Compressed air connection pilot exhaustBase plate ISO 5599-1Power consumption DC2.2 WFlow conductance C5.2 l/(s*bar)Cable length0.5 mFrame sizeISO 1Min. control pressure1.5 barMax. control pressure10 barMin. ambient temperature-10 °CMax. ambient temperature50 °CMin. medium temperature50 °CMediumCompressed airMax. particle size50 µmMin. oil content of compressed air0 mg/m³Max. oil content of compressed air5 mg/m³Protection class with connectionIP67Protective circuitZ-diodeReverse polarity protectionProtected against polarity reversalLED status displayGreenDuty cycle100 %Typ. switch-on time14 ms | Compressed air connection input | Base plate ISO 5599-1 |
| Compressed air connection, exhaustBase plate ISO 5599-1Compressed air connection pilot inputBase plate ISO 5599-1Compressed air connection pilot exhaustBase plate ISO 5599-1Power consumption DC2.2 WFlow conductance C5.2 l/(s*bar)Cable length0.5 mFrame sizeISO 1Min. control pressure10 barMax. control pressure10 barMin. ambient temperature-10 °CMax. ambient temperature50 °CMin. medium temperature50 °CMediumCompressed airMax. oil content of compressed air50 µmMin. oil content of compressed air50 g/m³Protection class with connectionIP67Protection class with connectionIP67Protective circuitZ-diodeReverse polarity protectionProtected against polarity reversalLED status displayGreenDuty cycle100 %Typ. switch-on time14 ms | Connection type | Plate connection |
| Compressed air connection inputBase plate ISO 5599-1Compressed air connection pilot inputBase plate ISO 5599-1Compressed air connection pilot exhaustBase plate ISO 5599-1Compressed air connection pilot exhaustBase plate ISO 5599-1Power consumption DC2.2 WFlow conductance C5.2 I/(s*bar)Cable length0.5 mFrame sizeISO 1Min. control pressure1.5 barMax. control pressure10 barMin. ambient temperature50 °CMin. medium temperature50 °CMax. medium temperature50 °CMediumCompressed airMax. particle size50 µmMin. oil content of compressed air5 mg/m³Protection class with connectionIP67Protection class with connectionProtected against polarity reversalLED status displayGreenDuty cycle100 %Typ. switch-on time14 ms | | |



Technical information

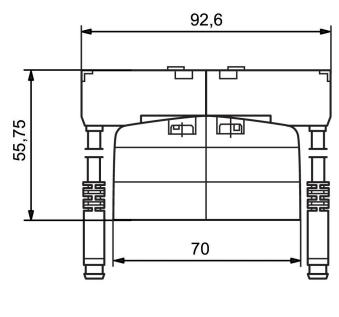
The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!

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).

Dimensions





Pin assignment 1) brown (+24 V) 2) green/yellow (ground) 3) blue (0 V)

