

Series 589 -inch

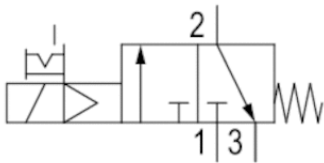


AVENTICS™ Series 589 -inch










3/2-directional valve, Series 589

- 3/2
- NC
- Pipe connection
- Compressed air connection output : Ø 1/4"
- Electrical connection : Plug, ISO 15217, form C
- single valve
- Manual override : with detent
- With spring return
- Pilot : Internal



Version	Poppet valve
Activation	Electrically
Pilot	Internal
Sealing principle	Soft sealing
Working pressure min./max.	3 ... 8 bar
Ambient temperature min./max.	-15 ... 50 °C
Medium temperature min./max.	-15 ... 50 °C
Medium	Compressed air
Max. particle size	5 µm
Oil content of compressed air	0 ... 1 mg/m³
Protection class with connection	IP65
Reverse polarity protection	Protected against polarity reversal
Duty cycle	100 %
Typ. switch-on time	18 ms
Typ. switch-off time	16 ms
Weight	0.093 kg

Technical data

Part No.	MO		Compressed air connection	
			Input	Output
5894400310		NC	Ø 1/4"	Ø 1/4"
5894400320		NC	Ø 1/4"	Ø 1/4"
5894400720		NC	Ø 1/4"	Ø 1/4"
5894405320		NC	Ø 1/4"	Ø 1/4"
5894405370		NC	Ø 1/4"	Ø 1/4"
5894405380		NC	Ø 1/4"	Ø 1/4"
5894405780		NC	Ø 1/4"	Ø 1/4"

Part No.	Compressed air connection	Operational voltage	Voltage tolerance
	Exhaust	DC	DC
5894400310	5/16"	12 V	-10% / +10%
5894400320	5/16"	24 V	-10% / +10%
5894400720	5/16"	24 V	-10% / +10%
5894405320	5/16"	24 V	-10% / +15%
5894405370	5/16"	110 V	-10% / +15%

Part No.	Compressed air connection	Operational voltage	Voltage tolerance
	Exhaust		DC
5894405380	5/16"	220 V	-10% / +15%
5894405780	5/16"	220 V	-10% / +15%

Part No.	Power consumption	Holding power	Holding power	Switch-on power
	DC	AC 50 Hz	AC 60 Hz	AC 50 Hz
5894400310	1.6 W	-	-	-
5894400320	1.6 W	-	-	-
5894400720	1.7 W	-	-	-
5894405320	-	2.2 VA	3 VA	2.3 VA
5894405370	-	1.8 VA	2.4 VA	2 VA
5894405380	-	3 VA	4.2 VA	3.2 VA
5894405780	-	2.6 VA	3.4 VA	2.8 VA

Part No.	Switch-on power
	AC 60 Hz
5894400310	-
5894400320	-
5894400720	-
5894405320	2.5 VA
5894405370	2.2 VA
5894405380	3.4 VA
5894405780	3 VA

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).

At an ambient temperature of 40 °C the max. working pressure is 10 bar .

Versions with voltage of less than 50 V DC do not have a protective ground.

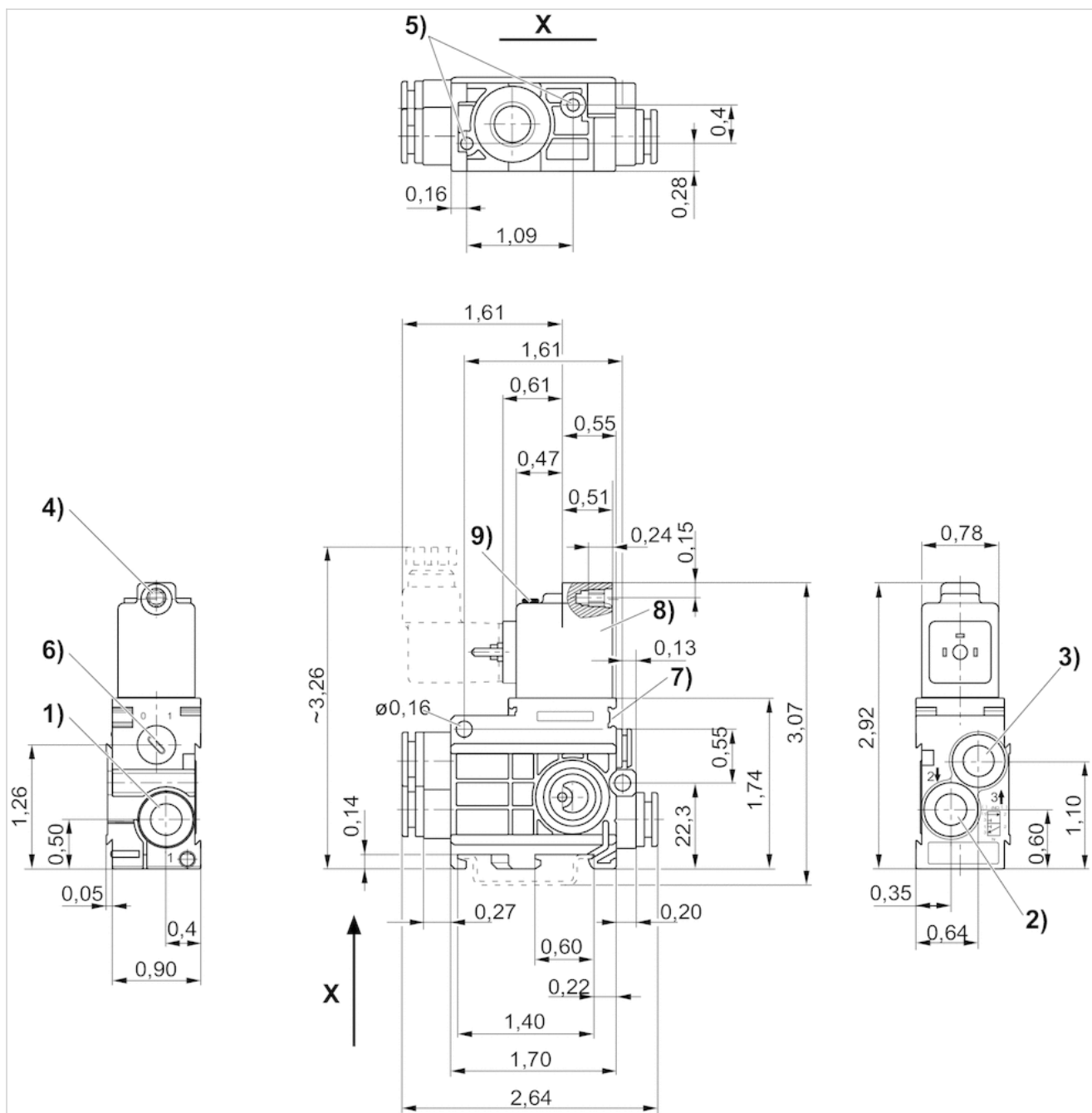
Working pressure with vacuum operation, connection 1: min. 3 bar , connection 3: min. - 0.95 bar

Technical information

Material	
Housing	Polyamide
Seals	Acrylonitrile butadiene rubber Polyurethane

Dimensions

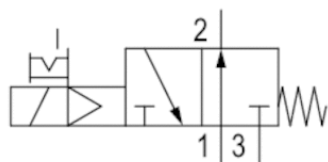
Dimensions in inches



1) port 1 2) port 2 3) port 3 4) core Ø for M 5 5) pocket hole 6 mm deep for 3.5 self-tapping screw 6) manual override 7) Pilot valve 8) coil can be rotated at 180° intervals

3/2-directional valve, Series 589

- 3/2
- NO
- Pipe connection
- Compressed air connection output : Ø 1/4"
- Electrical connection : Plug, ISO 15217, form C
- single valve
- Manual override : with detent
- With spring return
- Pilot : Internal



Version	Poppet valve
Activation	Electrically
Pilot	Internal
Sealing principle	Soft sealing
Working pressure min./max.	3 ... 8 bar
Ambient temperature min./max.	-15 ... 50 °C
Medium temperature min./max.	-15 ... 50 °C
Medium	Compressed air
Max. particle size	5 µm
Oil content of compressed air	0 ... 1 mg/m³
Protection class with connection	IP65
Reverse polarity protection	Protected against polarity reversal
Duty cycle	100 %
Typ. switch-on time	18 ms
Typ. switch-off time	16 ms
Weight	0.093 kg

Technical data

Part No.		Compressed air connection	
		Input	Output
5894410310	NO	Ø 1/4"	Ø 1/4"
5894410320	NO	Ø 1/4"	Ø 1/4"
5894410720	NO	Ø 1/4"	Ø 1/4"
5894415320	NO	Ø 1/4"	Ø 1/4"
5894415370	NO	Ø 1/4"	Ø 1/4"
5894415380	NO	Ø 1/4"	Ø 1/4"
5894415780	NO	Ø 1/4"	Ø 1/4"

Part No.	Compressed air connection	Operational voltage	Operational voltage
	Exhaust		
		DC	AC 50 Hz
5894410310	5/16"	12 V	-
5894410320	5/16"	24 V	-
5894410720	5/16"	24 V	-
5894415320	5/16"	-	24 V
5894415370	5/16"	-	110 V
5894415380	5/16"	-	220 V

Part No.	Compressed air connection	Operational voltage	Operational voltage
	Exhaust		
5894415780	5/16"	-	220 V

Part No.	Operational voltage	Voltage tolerance	Voltage tolerance
		DC	AC 60 Hz
5894410310	-	-10% / +10%	-
5894410320	-	-10% / +10%	-
5894410720	-	-10% / +10%	-
5894415320	24 V	-	-10% / +15%
5894415370	110 V	-	-10% / +15%
5894415380	220 V	-	-10% / +15%
5894415780	220 V	-	-10% / +15%

Part No.	Power consumption	Holding power	Holding power	Switch-on power
	DC	AC 50 Hz	AC 60 Hz	AC 50 Hz
5894410310	1.6 W	-	-	-
5894410320	1.6 W	-	-	-
5894410720	1.7 W	-	-	-
5894415320	-	2.2 VA	1.8 VA	3 VA
5894415370	-	3 VA	2.4 VA	4.2 VA
5894415380	-	2.3 VA	2 VA	3.2 VA
5894415780	-	2.5 VA	2.2 VA	3.4 VA

Part No.	Switch-on power
	AC 60 Hz
5894410310	-
5894410320	-
5894410720	-
5894415320	2.6 VA
5894415370	3.4 VA
5894415380	2.8 VA
5894415780	3 VA

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).

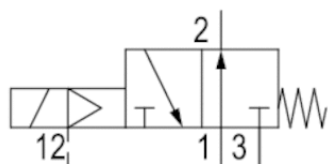
At an ambient temperature of 40 °C the max. working pressure is 10 bar .

Versions with voltage of less than 50 V DC do not have a protective ground.

Working pressure with vacuum operation, connection 1: min. 3 bar , connection 3: min. - 0.95 bar

3/2-directional valve, Series 589

- 3/2
- NO
- Pipe connection
- Compressed air connection output : Ø 1/4"
- Electrical connection : Plug, ISO 15217, form C
- single valve
- With spring return
- Pilot : External



Version	Poppet valve
Activation	Electrically
Pilot	External
Sealing principle	Soft sealing
Working pressure min./max.	0.5 ... 8 bar
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	5 µm
Oil content of compressed air	0 ... 1 mg/m³
Protection class with connection	IP65
Reverse polarity protection	Protected against polarity reversal
Duty cycle	100 %
Typ. switch-on time	18 ms
Typ. switch-off time	16 ms
Weight	0.093 kg

Technical data

Part No.		Compressed air connection	Compressed air connection
		Input	Output
5894420310	NO	Ø 1/4"	Ø 1/4"
5894420320	NO	Ø 1/4"	Ø 1/4"
5894420720	NO	Ø 1/4"	Ø 1/4"
5894425320	NO	Ø 1/4"	Ø 1/4"
5894425370	NO	Ø 1/4"	Ø 1/4"
5894425380	NO	Ø 1/4"	Ø 1/4"
5894425780	NO	Ø 1/4"	Ø 1/4"

Part No.	Compressed air connection	Compressed air connection
	Exhaust	Pilot Input
5894420310	5/16"	Ø 4
5894420320	5/16"	Ø 4
5894420720	5/16"	Ø 4
5894425320	5/16"	Ø 4
5894425370	5/16"	Ø 4
5894425380	5/16"	Ø 4
5894425780	5/16"	Ø 4

Part No.	Operational voltage	Operational voltage	Voltage tolerance
	DC	AC 50 Hz	DC
5894420310	12 V	-	-10% / +10%
5894420320	24 V	-	-10% / +10%
5894420720	24 V	-	-10% / +10%
5894425320	-	24 V	-
5894425370	-	110 V	-
5894425380	-	220 V	-
5894425780	-	220 V	-

Part No.	Voltage tolerance	Power consumption	Holding power	Holding power
	AC 50 Hz	DC	AC 50 Hz	AC 60 Hz
5894420310	-	1.6 W	-	-
5894420320	-	1.6 W	-	-
5894420720	-	1.7 W	-	-
5894425320	-10% / +15%	-	2.2 VA	1.8 VA
5894425370	-10% / +15%	-	3 VA	2.4 VA
5894425380	-10% / +15%	-	2.3 VA	2 VA
5894425780	-10% / +15%	-	2.5 VA	2.2 VA

Part No.	Switch-on power	Switch-on power
	AC 50 Hz	AC 60 Hz
5894420310	-	-
5894420320	-	-
5894420720	-	-
5894425320	3 VA	2.6 VA
5894425370	4.2 VA	3.4 VA
5894425380	3.2 VA	2.8 VA
5894425780	3.4 VA	3 VA

Nominal flow Q_n at 6 bar and $\Delta p = 1$ 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).

At an ambient temperature of 40 °C the max. working pressure is 10 bar .

Versions with voltage of less than 50 V DC do not have a protective ground.

Working pressure with vacuum operation, connection 1: min. 3 bar , connection 3: min. - 0.95 bar

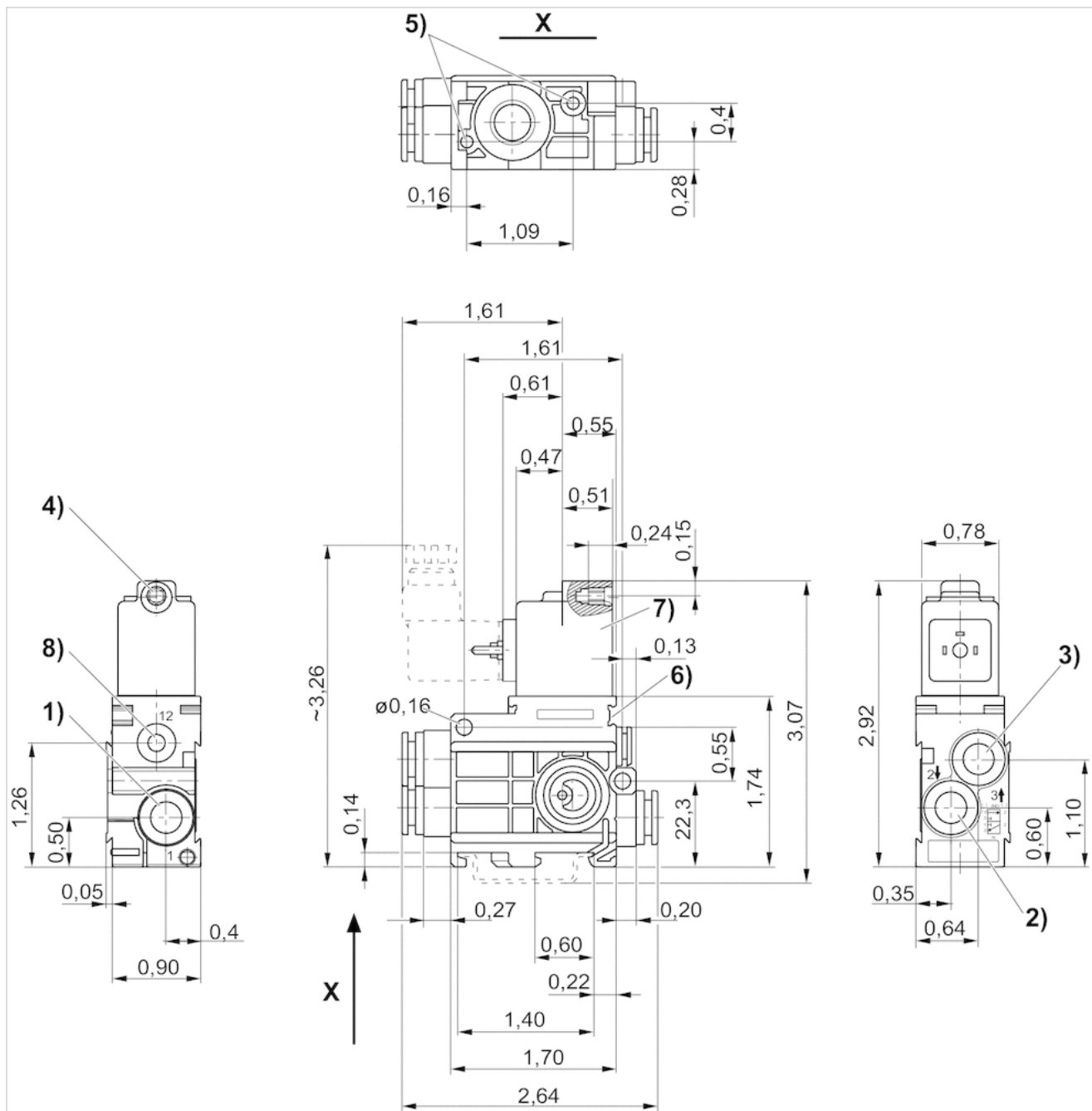
The control pressure must be at least as high as the working pressure.

Technical information

Material	
Housing	Polyamide
Seals	Acrylonitrile butadiene rubber Polyurethane

Dimensions

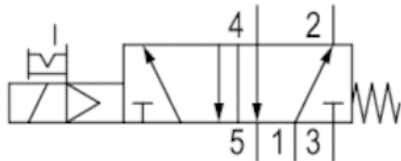
Dimensions in inches



- 1) port 1
- 2) port 2
- 3) port 3
- 4) Ø for M 5
- 5) pocket hole 6 mm deep for 3.5 self-tapping screw
- 6) mounting space for name plate
- 7) coil can be rotated at 180° intervals
- 8) port 12

5/2-directional valve, Series 589

- 5/2
- Pipe connection
- Compressed air connection output : Ø 1/4"
- Electrical connection : Plug, ISO 15217, form C
- single valve
- Manual override : with detent
- With spring return
- Pilot : Internal



Version	Poppet valve
Activation	Electrically
Pilot	Internal
Sealing principle	Soft sealing
Working pressure min./max.	3 ... 8 bar
Ambient temperature min./max.	-15 ... 50 °C
Medium temperature min./max.	-15 ... 50 °C
Medium	Compressed air
Max. particle size	5 µm
Oil content of compressed air	0 ... 1 mg/m³
Protection class with connection	IP65
Reverse polarity protection	Protected against polarity reversal
Duty cycle	100 %
Typ. switch-on time	27 ms
Typ. switch-off time	28 ms
Weight	0.133 kg

Technical data

Part No.	Compressed air connection	Compressed air connection
	Input	Output
5894700310	Ø 1/4"	Ø 1/4"
5894700320	Ø 1/4"	Ø 1/4"
5894700720	Ø 1/4"	Ø 1/4"
5894705320	Ø 1/4"	Ø 1/4"
5894705370	Ø 1/4"	Ø 1/4"
5894705380	Ø 1/4"	Ø 1/4"
5894705780	Ø 1/4"	Ø 1/4"

Part No.	Compressed air connection	Operational voltage	Operational voltage
	Exhaust	DC	AC 50 Hz
5894700310	5/16"	12 V	-
5894700320	5/16"	24 V	-
5894700720	5/16"	24 V	-
5894705320	5/16"	-	24 V
5894705370	5/16"	-	110 V
5894705380	5/16"	-	220 V
5894705780	5/16"	-	220 V

Part No.	Voltage tolerance	Voltage tolerance	Power consumption	Holding power
	DC	AC 50 Hz	DC	AC 50 Hz
5894700310	-10% / +10%	-	1.6 W	-
5894700320	-10% / +10%	-	1.6 W	-
5894700720	-10% / +10%	-	1.7 W	-
5894705320	-	-10% / +15%	-	2.2 VA
5894705370	-	-10% / +15%	-	3 VA
5894705380	-	-10% / +15%	-	2.3 VA
5894705780	-	-10% / +15%	-	2.5 VA

Part No.	Holding power	Switch-on power	Switch-on power
	AC 60 Hz	AC 50 Hz	AC 60 Hz
5894700310	-	-	-
5894700320	-	-	-
5894700720	-	-	-
5894705320	1.8 VA	3 VA	2.6 VA
5894705370	2.4 VA	4.2 VA	3.4 VA
5894705380	2 VA	3.2 VA	2.8 VA
5894705780	2.2 VA	3.4 VA	3 VA

Nominal flow Q_n at 6 bar and $\Delta p = 1$ 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).

At an ambient temperature of 40 °C the max. working pressure is 10 bar .

Versions with voltage of less than 50 V DC do not have a protective ground.

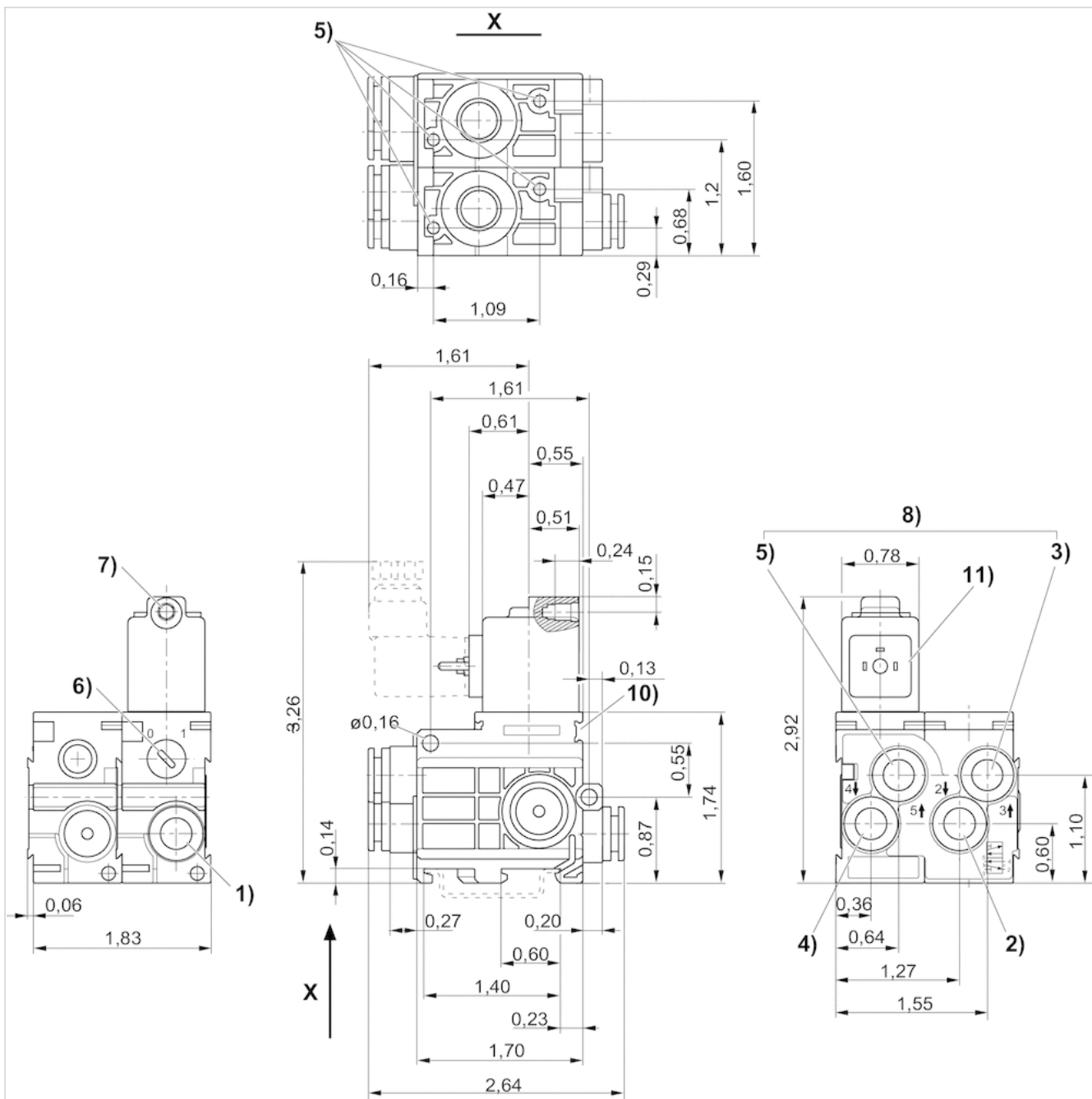
Working pressure with vacuum operation, connection 1: min. 3 bar , connection 3: min. - 0.95 bar

Technical information

Material	
Housing	Polyamide
Seals	Acrylonitrile butadiene rubber Polyurethane

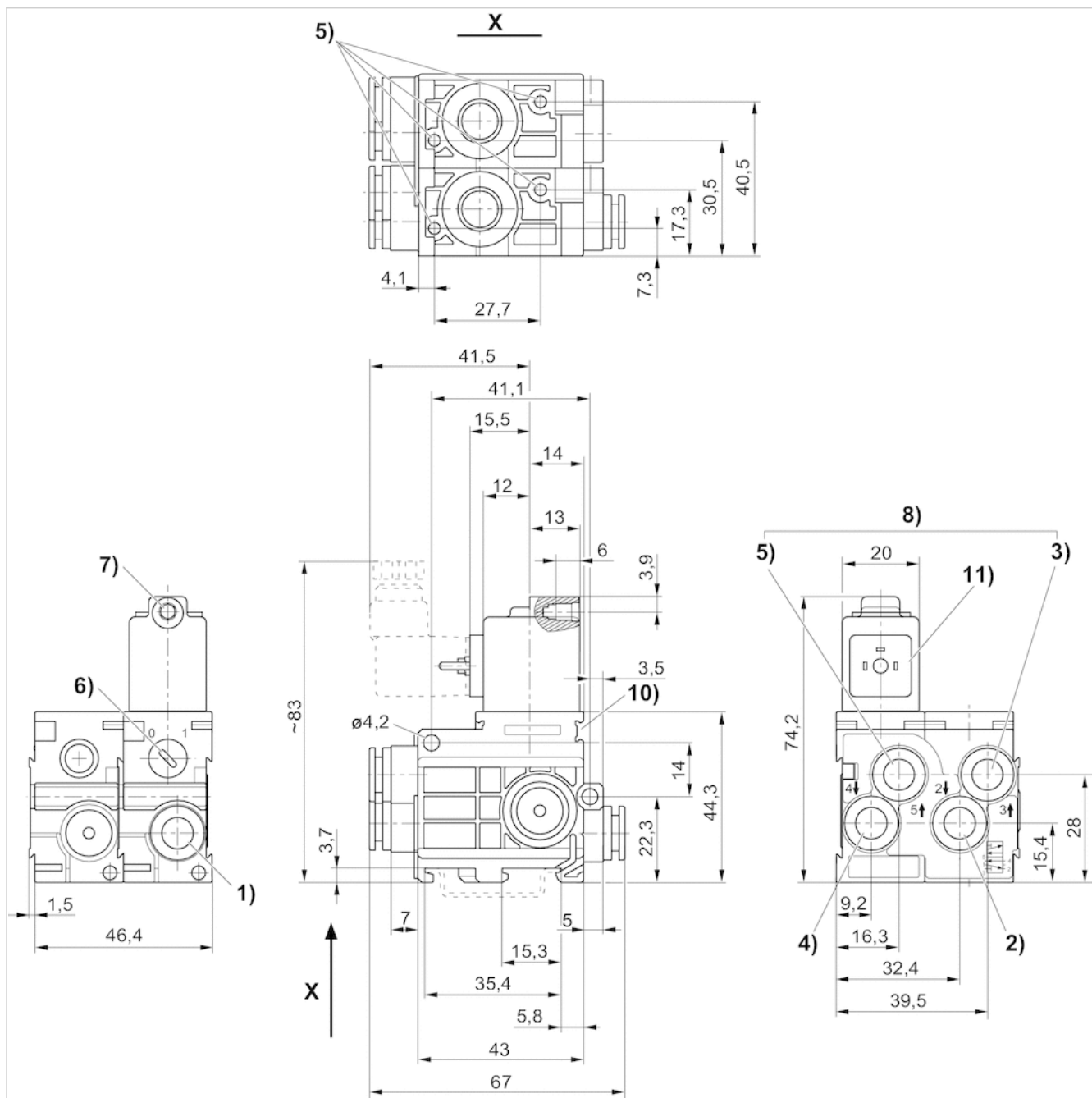
Dimensions

Dimensions in inches



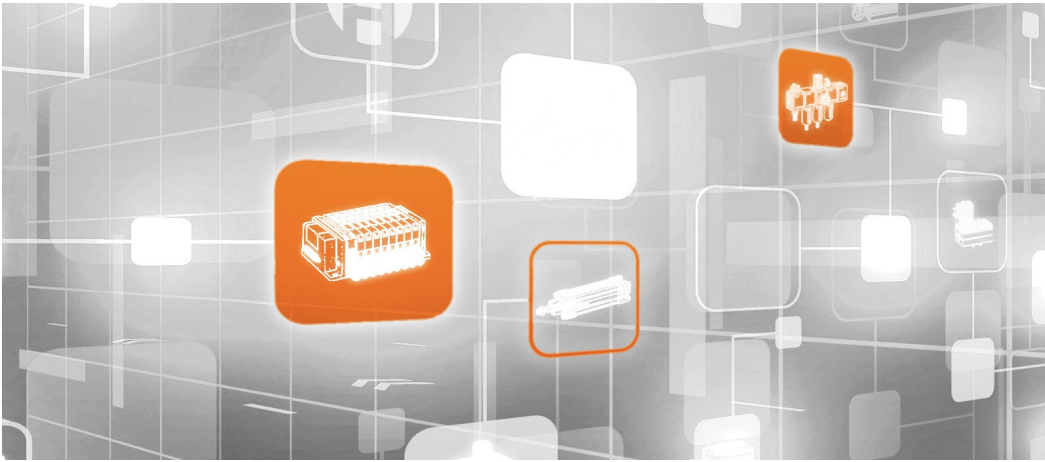
1) port 1 2) port 2 3) port 3 4) port 4 5) port 5 6) manual override 7) core Ø for M 5 8) exhaust air must not be throttled 9) pocket hole 6 mm deep for 3.5 self-tapping screw 10) mounting space for name plate 11) coil can be rotated at 180° intervals

Dimensions



1) port 1 2) port 2 3) port 3 4) port 4 5) port 5 6) manual override 7) core Ø for M 5 8) exhaust air must not be throttled 9) pocket hole 6 mm deep for 3.5 self-tapping screw 10) mounting space for name plate 11) coil can be rotated at 180° intervals

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