

5/2-directional valve, Series IS12, size 1

- ISO 5599-1
- ISO 1
- 5/2
- pilot valve with CNOMO porting configuration
- With air spring return With spring return
- single solenoid double solenoid
- $Q_n = 1060 \text{ l/min}$
- Compressed air connection output Base plate ISO 5599-1
- Electrical connection Plug, EN 175301-803, form A
- Manual override with detent without detent



Version	Spool valve, positive overlapping
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.	See table below
Ambient temperature min./max.	-10 ... 50 °C
Medium temperature min./max.	-10 ... 60 °C
Medium	Compressed air
Max. particle size	5 µm
Oil content of compressed air	0 ... 5 mg/m ³
Nominal flow Q_n	1060 l/min
Protection class with connection	IP65
Compatibility index	See table below
Duty cycle	100 %
Typ. switch-on time	See table below
Typ. switch-off time	See table below
Mounting screw	M5 with hexagon socket
Mounting screw tightening torque	2,2 Nm
Weight	See table below

Technical data

Part No.		MO	Operational voltage DC	Operational voltage AC 50 Hz
0820024001			-	230 V
0820024002			24 V	-
0820024003			-	24 V
0820024004			-	110 V
0820024006			24 V	-
0820024990			-	-
0820024980			-	-
0820024025			-	230 V
R422000002			-	230 V
0820024026			24 V	-
0820024027			-	24 V
0820024028			-	110 V
0820024035			24 V	-
0820024991			-	-
0820024981			-	-
0820024501			-	230 V
R422000003			-	230 V
0820024502			24 V	-
0820024503			-	24 V
0820024504			-	110 V
0820024510			24 V	-
0820024992			-	-
0820024984			-	-
0820024051			-	230 V
0820024052			24 V	-
0820024053			-	24 V
0820024054			-	110 V
0820024060			24 V	-
0820024993			-	-
0820024982			-	-
0820024075			-	230 V
0820024076			24 V	-
0820024077			-	24 V
0820024078			-	110 V
0820024085			24 V	-
0820024994			-	-
0820024983			-	-
0820024551			-	230 V
0820024552			24 V	-
0820024553			-	24 V
0820024554			-	110 V
0820024560			24 V	-
0820024995			-	-
0820024985			-	-
0820024950			-	-

Part No.		MO	Operational voltage DC	Operational voltage AC 50 Hz
0820024953			-	-
0820024951			-	-
0820024954			-	-
0820024952			-	-
0820024955			-	-
0820024960			-	-
0820024963			-	-
0820024961			-	-
0820024964			-	-
0820024962			-	-
0820024965			-	-

Part No.	Operational voltage AC 60 Hz	Voltage tolerance DC	Voltage tolerance AC 50 Hz	Voltage tolerance AC 60 Hz
0820024001	230 V	-	-10% / +10%	-10% / +10%
0820024002	-	-10% / +10%	-	-
0820024003	24 V	-	-10% / +10%	-10% / +10%
0820024004	110 V	-	-10% / +10%	-10% / +10%
0820024006	-	-10% / +10%	-	-
0820024990	-	-	-	-
0820024980	-	-	-	-
0820024025	230 V	-	-10% / +10%	-10% / +10%
R422000002	230 V	-	-10% / +10%	-10% / +10%
0820024026	-	-10% / +10%	-	-
0820024027	24 V	-	-10% / +10%	-10% / +10%
0820024028	110 V	-	-10% / +10%	-10% / +10%
0820024035	-	-10% / +10%	-	-
0820024991	-	-	-	-
0820024981	-	-	-	-
0820024501	230 V	-	-10% / +10%	-10% / +10%
R422000003	230 V	-	-10% / +10%	-10% / +10%
0820024502	-	-10% / +10%	-	-
0820024503	24 V	-	-10% / +10%	-10% / +10%
0820024504	110 V	-	-10% / +10%	-10% / +10%
0820024510	-	-10% / +10%	-	-
0820024992	-	-	-	-
0820024984	-	-	-	-
0820024051	230 V	-	-10% / +10%	-10% / +10%
0820024052	-	-10% / +10%	-	-
0820024053	24 V	-	-10% / +10%	-10% / +10%
0820024054	110 V	-	-10% / +10%	-10% / +10%
0820024060	-	-10% / +10%	-	-
0820024993	-	-	-	-
0820024982	-	-	-	-
0820024075	230 V	-	-10% / +10%	-10% / +10%
0820024076	-	-10% / +10%	-	-
0820024077	24 V	-	-10% / +10%	-10% / +10%

Part No.	Operational voltage AC 60 Hz	Voltage tolerance DC	Voltage tolerance AC 50 Hz	Voltage tolerance AC 60 Hz
0820024078	110 V	-	-10% / +10%	-10% / +10%
0820024085	-	-10% / +10%	-	-
0820024994	-	-	-	-
0820024983	-	-	-	-
0820024551	230 V	-	-10% / +10%	-10% / +10%
0820024552	-	-10% / +10%	-	-
0820024553	24 V	-	-10% / +10%	-10% / +10%
0820024554	110 V	-	-10% / +10%	-10% / +10%
0820024560	-	-10% / +10%	-	-
0820024995	-	-	-	-
0820024985	-	-	-	-
0820024950	-	-	-	-
0820024953	-	-	-	-
0820024951	-	-	-	-
0820024954	-	-	-	-
0820024952	-	-	-	-
0820024955	-	-	-	-
0820024960	-	-	-	-
0820024963	-	-	-	-
0820024961	-	-	-	-
0820024964	-	-	-	-
0820024962	-	-	-	-
0820024965	-	-	-	-

Part No.	Power consumption DC	Holding power AC 50 Hz	Holding power AC 60 Hz	Switch-on power AC 50 Hz
0820024001	-	8 VA	5,6 VA	11,5 VA
0820024002	4,5 W	-	-	-
0820024003	-	8 VA	5,6 VA	11,5 VA
0820024004	-	8 VA	5,6 VA	11,5 VA
0820024006	2,7 W	-	-	-
0820024990	-	-	-	-
0820024980	-	-	-	-
0820024025	-	8 VA	5,6 VA	11,5 VA
R422000002	-	2,3 VA	-	3 VA
0820024026	4,5 W	-	-	-
0820024027	-	8 VA	5,6 VA	11,5 VA
0820024028	-	8 VA	5,6 VA	11,5 VA
0820024035	2,7 W	-	-	-
0820024991	-	-	-	-
0820024981	-	-	-	-
0820024501	-	8 VA	5,6 VA	11,5 VA
R422000003	-	2,3 VA	-	3 VA
0820024502	4,5 W	-	-	-
0820024503	-	8 VA	5,6 VA	11,5 VA
0820024504	-	8 VA	5,6 VA	11,5 VA
0820024510	2,7 W	-	-	-

Part No.	Power consumption DC	Holding power AC 50 Hz	Holding power AC 60 Hz	Switch-on power AC 50 Hz
0820024992	-	-	-	-
0820024984	-	-	-	-
0820024051	-	8 VA	5,6 VA	11,5 VA
0820024052	4,5 W	-	-	-
0820024053	-	8 VA	5,6 VA	11,5 VA
0820024054	-	8 VA	5,6 VA	11,5 VA
0820024060	2,7 W	-	-	-
0820024993	-	-	-	-
0820024982	-	-	-	-
0820024075	-	8 VA	5,6 VA	11,5 VA
0820024076	4,5 W	-	-	-
0820024077	-	8 VA	5,6 VA	11,5 VA
0820024078	-	8 VA	5,6 VA	11,5 VA
0820024085	2,7 W	-	-	-
0820024994	-	-	-	-
0820024983	-	-	-	-
0820024551	-	8 VA	5,6 VA	11,5 VA
0820024552	4,5 W	-	-	-
0820024553	-	8 VA	5,6 VA	11,5 VA
0820024554	-	8 VA	5,6 VA	11,5 VA
0820024560	2,7 W	-	-	-
0820024995	-	-	-	-
0820024985	-	-	-	-
0820024950	-	-	-	-
0820024953	-	-	-	-
0820024951	-	-	-	-
0820024954	-	-	-	-
0820024952	-	-	-	-
0820024955	-	-	-	-
0820024960	-	-	-	-
0820024963	-	-	-	-
0820024961	-	-	-	-
0820024964	-	-	-	-
0820024962	-	-	-	-
0820024965	-	-	-	-

Part No.	Switch-on power AC 60 Hz	Pilot	Nominal resistance	Working pressure min./max.
0820024001	9,5 VA	Internal	2015 Ω	2 ... 10 bar
0820024002	-	Internal	128 Ω	2 ... 10 bar
0820024003	9,5 VA	Internal	23,3 Ω	2 ... 10 bar
0820024004	9,5 VA	Internal	530 Ω	2 ... 10 bar
0820024006	-	Internal	216 Ω	2 ... 10 bar
0820024990	-	Internal	-	2 ... 10 bar
0820024980	-	Internal	-	2 ... 10 bar
0820024025	9,5 VA	Internal	2015 Ω	2,2 ... 10 bar
R422000002	-	Internal	5125 Ω	2,2 ... 10 bar

Part No.	Switch-on power AC 60 Hz	Pilot	Nominal resistance	Working pressure min./max.
0820024026	-	Internal	128 Ω	2,2 ... 10 bar
0820024027	9,5 VA	Internal	23,3 Ω	2,2 ... 10 bar
0820024028	9,5 VA	Internal	530 Ω	2,2 ... 10 bar
0820024035	-	Internal	216 Ω	2,2 ... 10 bar
0820024991	-	Internal	-	2,2 ... 10 bar
0820024981	-	Internal	-	2,2 ... 10 bar
0820024501	9,5 VA	Internal	2015 Ω	1 ... 10 bar
R422000003	-	Internal	5125 Ω	1 ... 10 bar
0820024502	-	Internal	128 Ω	1 ... 10 bar
0820024503	9,5 VA	Internal	23,3 Ω	1 ... 10 bar
0820024504	9,5 VA	Internal	530 Ω	1 ... 10 bar
0820024510	-	Internal	216 Ω	1 ... 10 bar
0820024992	-	Internal	-	1 ... 10 bar
0820024984	-	Internal	-	1 ... 10 bar
0820024051	9,5 VA	Internal	2015 Ω	2 ... 10 bar
0820024052	-	Internal	128 Ω	2 ... 10 bar
0820024053	9,5 VA	Internal	23,3 Ω	2 ... 10 bar
0820024054	9,5 VA	Internal	530 Ω	2 ... 10 bar
0820024060	-	Internal	216 Ω	2 ... 10 bar
0820024993	-	Internal	-	2 ... 10 bar
0820024982	-	Internal	-	2 ... 10 bar
0820024075	9,5 VA	Internal	2015 Ω	2,2 ... 10 bar
0820024076	-	Internal	128 Ω	2,2 ... 10 bar
0820024077	9,5 VA	Internal	23,3 Ω	2,2 ... 10 bar
0820024078	9,5 VA	Internal	530 Ω	2,2 ... 10 bar
0820024085	-	Internal	216 Ω	2,2 ... 10 bar
0820024994	-	Internal	-	2,2 ... 10 bar
0820024983	-	Internal	-	2,2 ... 10 bar
0820024551	9,5 VA	Internal	2015 Ω	1 ... 10 bar
0820024552	-	Internal	128 Ω	1 ... 10 bar
0820024553	9,5 VA	Internal	23,3 Ω	1 ... 10 bar
0820024554	9,5 VA	Internal	530 Ω	1 ... 10 bar
0820024560	-	Internal	216 Ω	1 ... 10 bar
0820024995	-	Internal	-	1 ... 10 bar
0820024985	-	Internal	-	1 ... 10 bar
0820024950	-	External	-	-0,9 ... 10 bar
0820024953	-	External	-	-0,9 ... 10 bar
0820024951	-	External	-	-0,9 ... 10 bar
0820024954	-	External	-	-0,9 ... 10 bar
0820024952	-	External	-	-0,9 ... 10 bar
0820024955	-	External	-	-0,9 ... 10 bar
0820024960	-	External	-	-0,9 ... 10 bar
0820024963	-	External	-	-0,9 ... 10 bar
0820024961	-	External	-	-0,9 ... 10 bar
0820024964	-	External	-	-0,9 ... 10 bar
0820024962	-	External	-	-0,9 ... 10 bar
0820024965	-	External	-	-0,9 ... 10 bar

Part No.	Control pressure min./max.	Typ. switch-on time	Typ. switch-off time
0820024001	2 ... 10 bar	18 ms	33 ms
0820024002	2 ... 10 bar	18 ms	33 ms
0820024003	2 ... 10 bar	18 ms	33 ms
0820024004	2 ... 10 bar	18 ms	33 ms
0820024006	2 ... 10 bar	18 ms	33 ms
0820024990	2 ... 10 bar	18 ms	33 ms
0820024980	2 ... 10 bar	18 ms	33 ms
0820024025	2,2 ... 10 bar	18 ms	40 ms
R422000002	2,2 ... 10 bar	18 ms	40 ms
0820024026	2,2 ... 10 bar	18 ms	40 ms
0820024027	2,2 ... 10 bar	18 ms	40 ms
0820024028	2,2 ... 10 bar	18 ms	40 ms
0820024035	2,2 ... 10 bar	18 ms	40 ms
0820024991	2,2 ... 10 bar	18 ms	40 ms
0820024981	2,2 ... 10 bar	18 ms	40 ms
0820024501	1 ... 10 bar	16 ms	16 ms
R422000003	1 ... 10 bar	16 ms	16 ms
0820024502	1 ... 10 bar	16 ms	16 ms
0820024503	1 ... 10 bar	16 ms	16 ms
0820024504	1 ... 10 bar	16 ms	16 ms
0820024510	1 ... 10 bar	16 ms	16 ms
0820024992	1 ... 10 bar	16 ms	16 ms
0820024984	1 ... 10 bar	16 ms	16 ms
0820024051	2 ... 10 bar	18 ms	33 ms
0820024052	2 ... 10 bar	18 ms	33 ms
0820024053	2 ... 10 bar	18 ms	33 ms
0820024054	2 ... 10 bar	18 ms	33 ms
0820024060	2 ... 10 bar	18 ms	33 ms
0820024993	2 ... 10 bar	18 ms	33 ms
0820024982	2 ... 10 bar	18 ms	33 ms
0820024075	2,2 ... 10 bar	18 ms	40 ms
0820024076	2,2 ... 10 bar	18 ms	40 ms
0820024077	2,2 ... 10 bar	18 ms	40 ms
0820024078	2,2 ... 10 bar	18 ms	40 ms
0820024085	2,2 ... 10 bar	18 ms	40 ms
0820024994	2,2 ... 10 bar	18 ms	40 ms
0820024983	2,2 ... 10 bar	18 ms	40 ms
0820024551	1 ... 10 bar	16 ms	16 ms
0820024552	1 ... 10 bar	16 ms	16 ms
0820024553	1 ... 10 bar	16 ms	16 ms
0820024554	1 ... 10 bar	16 ms	16 ms
0820024560	1 ... 10 bar	16 ms	16 ms
0820024995	1 ... 10 bar	16 ms	16 ms
0820024985	1 ... 10 bar	16 ms	16 ms
0820024950	2 ... 10 bar	18 ms	33 ms
0820024953	2 ... 10 bar	18 ms	33 ms
0820024951	2,2 ... 10 bar	18 ms	40 ms

Part No.	Control pressure min./max.	Typ. switch-on time	Typ. switch-off time
0820024954	2,2 ... 10 bar	18 ms	40 ms
0820024952	1 ... 10 bar	16 ms	16 ms
0820024955	1 ... 10 bar	16 ms	16 ms
0820024960	2 ... 10 bar	18 ms	33 ms
0820024963	2 ... 10 bar	18 ms	33 ms
0820024961	2,2 ... 10 bar	18 ms	40 ms
0820024964	2,2 ... 10 bar	18 ms	40 ms
0820024962	1 ... 10 bar	16 ms	16 ms
0820024965	1 ... 10 bar	16 ms	16 ms

Part No.	Compatibility index	Electrical connection Pilot valve	basic valve with electrical connector
0820024001	15	Plug EN 175301-803, form A	-
0820024002	15	Plug EN 175301-803, form A	-
0820024003	15	Plug EN 175301-803, form A	-
0820024004	15	Plug EN 175301-803, form A	-
0820024006	-	Plug EN 175301-803, form A	-
0820024990	15	Plug EN 175301-803, form A	Basic valve without coil
0820024980	-	Plug EN 175301-803, form A	Basic valve without coil
0820024025	15	Plug EN 175301-803, form A	-
R422000002	12	Plug EN 175301-803, form A	-
0820024026	15	Plug EN 175301-803, form A	-
0820024027	15	Plug EN 175301-803, form A	-
0820024028	15	Plug EN 175301-803, form A	-
0820024035	-	Plug EN 175301-803, form A	-
0820024991	15	Plug EN 175301-803, form A	Basic valve without coil
0820024981	-	Plug EN 175301-803, form A	Basic valve without coil
0820024501	15	Plug EN 175301-803, form A	-
R422000003	12	Plug EN 175301-803, form A	-
0820024502	15	Plug EN 175301-803, form A	-
0820024503	15	Plug EN 175301-803, form A	-
0820024504	15	Plug EN 175301-803, form A	-
0820024510	-	Plug EN 175301-803, form A	-
0820024992	15	Plug EN 175301-803, form A	Basic valve without coil
0820024984	-	Plug EN 175301-803, form A	Basic valve without coil
0820024051	15	Plug EN 175301-803, form A	-
0820024052	15	Plug EN 175301-803, form A	-
0820024053	15	Plug EN 175301-803, form A	-
0820024054	15	Plug EN 175301-803, form A	-
0820024060	14	Plug EN 175301-803, form A	-
0820024993	15	Plug EN 175301-803, form A	Basic valve without coil
0820024982	14	Plug EN 175301-803, form A	Basic valve without coil
0820024075	15	Plug EN 175301-803, form A	-
0820024076	15	Plug EN 175301-803, form A	-
0820024077	15	Plug EN 175301-803, form A	-
0820024078	15	Plug EN 175301-803, form A	-
0820024085	14	Plug EN 175301-803, form A	-

Part No.	Compatibility index	Electrical connection Pilot valve	basic valve with electrical connector
0820024994	15	Plug EN 175301-803, form A	Basic valve without coil
0820024983	14	Plug EN 175301-803, form A	Basic valve without coil
0820024551	15	Plug EN 175301-803, form A	-
0820024552	15	Plug EN 175301-803, form A	-
0820024553	15	Plug EN 175301-803, form A	-
0820024554	15	Plug EN 175301-803, form A	-
0820024560	14	Plug EN 175301-803, form A	-
0820024995	15	Plug EN 175301-803, form A	Basic valve without coil
0820024985	14	Plug EN 175301-803, form A	Basic valve without coil
0820024950	-	Plug EN 175301-803, form A	Basic valve without coil
0820024953	14	Plug EN 175301-803, form A	Basic valve without coil
0820024951	-	Plug EN 175301-803, form A	Basic valve without coil
0820024954	14	Plug EN 175301-803, form A	Basic valve without coil
0820024952	-	Plug EN 175301-803, form A	Basic valve without coil
0820024955	14	Plug EN 175301-803, form A	Basic valve without coil
0820024960	15	Plug EN 175301-803, form A	Basic valve without coil
0820024963	15	Plug EN 175301-803, form A	Basic valve without coil
0820024961	15	Plug EN 175301-803, form A	Basic valve without coil
0820024964	15	Plug EN 175301-803, form A	Basic valve without coil
0820024962	15	Plug EN 175301-803, form A	Basic valve without coil
0820024965	15	Plug EN 175301-803, form A	Basic valve without coil

Part No.	ATEX	Weight	
0820024001	-	0,37 kg	-
0820024002	-	0,37 kg	-
0820024003	-	0,37 kg	-
0820024004	-	0,37 kg	-
0820024006	-	0,37 kg	1)
0820024990	-	0,27 kg	-
0820024980	-	0,27 kg	1)
0820024025	-	0,37 kg	-
R422000002	-	0,37 kg	2)
0820024026	-	0,37 kg	-
0820024027	-	0,37 kg	-
0820024028	-	0,37 kg	-
0820024035	-	0,37 kg	1)
0820024991	-	0,28 kg	-
0820024981	-	0,28 kg	1)
0820024501	-	0,52 kg	-
R422000003	-	0,52 kg	2)
0820024502	-	0,52 kg	-
0820024503	-	0,52 kg	-
0820024504	-	0,52 kg	-
0820024510	-	0,52 kg	1)
0820024992	-	0,33 kg	-
0820024984	-	0,33 kg	1)

Part No.	ATEX	Weight	
0820024051	-	0,37 kg	-
0820024052	-	0,37 kg	-
0820024053	-	0,37 kg	-
0820024054	-	0,37 kg	-
0820024060	-	0,37 kg	-
0820024993	-	0,27 kg	-
0820024982	-	0,27 kg	1)
0820024075	-	0,37 kg	-
0820024076	-	0,37 kg	-
0820024077	-	0,37 kg	-
0820024078	-	0,37 kg	-
0820024085	-	0,37 kg	1)
0820024994	-	0,28 kg	-
0820024983	-	0,28 kg	1)
0820024551	-	0,52 kg	-
0820024552	-	0,52 kg	-
0820024553	-	0,52 kg	-
0820024554	-	0,52 kg	-
0820024560	-	0,52 kg	1)
0820024995	-	0,33 kg	-
0820024985	-	0,33 kg	1)
0820024950	-	0,27 kg	1)
0820024953	-	0,27 kg	1)
0820024951	-	0,28 kg	1)
0820024954	-	0,28 kg	1)
0820024952	-	0,33 kg	1)
0820024955	-	0,33 kg	1)
0820024960	ATEX optional	0,27 kg	-
0820024963	ATEX optional	0,27 kg	-
0820024961	ATEX optional	0,28 kg	-
0820024964	ATEX optional	0,28 kg	-
0820024962	ATEX optional	0,33 kg	-
0820024965	ATEX optional	0,33 kg	-

Nominal flow Q_n at 6 bar and $\Delta p = 1$ bar, MO = Manual override

1) Low power consumption

2) reduced switch-on and holding power

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).

ATEX optional: ATEX version can be produced by combining the basic valve without coil with an ATEX coil. ATEX ID: see ATEX coils catalog page.

Technical information

Housing	Polyamide
Seals	Acrylonitrile butadiene rubber
Front plate	Polyamide

Dimensions

Dimensions

