5/2-directional valve, Series CD12

- 5/2
- Qn = 4100 l/min
- Pilot valve width : 30 mm
- Pipe connection
- Compressed air connection output : G 1/2
- Electrical connection : Plug, EN 175301-803, form A, 3-pin
- Manual override : with detent, without detent
- single solenoid
- Pilot : Internal External



Version	Spool valve, positive overlapping
Activation	Electrically
Sealing principle	Soft sealing
Working pressure min./max.	See table below
Control pressure min./max.	See table below
Ambient temperature min./max.	See table below
Medium temperature min./max.	See table below
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 ... 1 mg/m³
Nominal flow Qn	4100 l/min
Compressed air connection	according to ISO 228-1
Pilot control exhaust	with directional pilot air exhaust
Reverse polarity protection	Protected against polarity reversal
Compatibility index	See table below
Duty cycle	100 %
Weight	See table below

Technical data

Part No.		MO	Compressed air connection	Compressed air connection
			Input	Output
5725450220			G 1/2	G 1/2
5725455270			G 1/2	G 1/2
5725455280			G 1/2	G 1/2
5725455202		–	G 1/2	G 1/2
5725455302		–	G 1/2	G 1/2
5725470220			G 1/2	G 1/2
5725475270			G 1/2	G 1/2
5725475280			G 1/2	G 1/2
5725475202		–	G 1/2	G 1/2
R412008096		–	G 1/2	G 1/2
5725480220			G 1/2	G 1/2
5725485270			G 1/2	G 1/2
5725485280			G 1/2	G 1/2
5725485202		–	G 1/2	G 1/2

Part No.	Compressed air connection	Compressed air connection
	Exhaust	Pilot Input
5725450220	G 1/2	-
5725455270	G 1/2	-
5725455280	G 1/2	-
5725455202	G 1/2	-
5725455302	G 1/2	-
5725470220	G 1/2	-
5725475270	G 1/2	-
5725475280	G 1/2	-
5725475202	G 1/2	-
R412008096	G 1/2	-
5725480220	G 1/2	G 1/8
5725485270	G 1/2	G 1/8
5725485280	G 1/2	G 1/8
5725485202	G 1/2	G 1/8

Part No.	Compressed air connection	Operational voltage	Operational voltage
	Pilot Exhaust	DC	AC 50 Hz
5725450220	M5	24 V	-
5725455270	M5	-	110 V
5725455280	M5	-	230 V
5725455202	-	-	-
5725455302	M5	-	-
5725470220	M5	24 V	-
5725475270	M5	-	110 V
5725475280	M5	-	230 V
5725475202	-	-	-
R412008096	-	-	-
5725480220	M5	24 V	-
5725485270	M5	-	110 V

Part No.	Compressed air connection	Operational voltage	Operational voltage
	Pilot Exhaust	DC	AC 50 Hz
5725485280	M5	-	230 V
5725485202	-	-	-

Part No.	Operational voltage	Voltage tolerance	Voltage tolerance	Voltage tolerance
	AC 60 Hz	DC	AC 50 Hz	AC 60 Hz
5725450220	-	-10% / +10%	-	-
5725455270	110 V	-	-20% / +10%	-10% / +20%
5725455280	230 V	-	-20% / +10%	-10% / +20%
5725455202	-	-	-	-
5725455302	-	-	-	-
5725470220	-	-10% / +10%	-	-
5725475270	110 V	-	-20% / +10%	-10% / +20%
5725475280	230 V	-	-20% / +10%	-10% / +20%
5725475202	-	-	-	-
R412008096	-	-	-	-
5725480220	-	-10% / +10%	-	-
5725485270	110 V	-	-20% / +10%	-10% / +20%
5725485280	230 V	-	-20% / +10%	-10% / +20%
5725485202	-	-	-	-

Part No.	Power consumption	Holding power	Holding power	Switch-on power
	DC	AC 50 Hz	AC 60 Hz	AC 50 Hz
5725450220	2,1 W	-	-	-
5725455270	-	4,3 VA	3,3 VA	6,8 VA
5725455280	-	4,4 VA	3,5 VA	6,9 VA
5725455202	-	-	-	-
5725455302	-	-	-	-
5725470220	2,1 W	-	-	-
5725475270	-	4,3 VA	3,3 VA	6,8 VA
5725475280	-	4,4 VA	3,5 VA	6,9 VA
5725475202	-	-	-	-
R412008096	-	-	-	-
5725480220	2,1 W	-	-	-
5725485270	-	4,3 VA	3,3 VA	6,8 VA
5725485280	-	4,4 VA	3,5 VA	6,9 VA
5725485202	-	-	-	-

Part No.	Switch-on power	Pilot	Working pressure min./max.	Control pressure min./max.
	AC 60 Hz			
5725450220	-	Internal	2 ... 10 bar	2 ... 10 bar
5725455270	5,7 VA	Internal	2 ... 10 bar	2 ... 10 bar
5725455280	6,2 VA	Internal	2 ... 10 bar	2 ... 10 bar
5725455202	-	Internal	2 ... 16 bar	2 ... 16 bar
5725455302	-	Internal	2 ... 10 bar	2 ... 10 bar
5725470220	-	Internal	2 ... 10 bar	2 ... 10 bar
5725475270	5,7 VA	Internal	2 ... 10 bar	2 ... 10 bar
5725475280	6,2 VA	Internal	2 ... 10 bar	2 ... 10 bar
5725475202	-	Internal	2 ... 16 bar	2 ... 16 bar
R412008096	-	Internal	2 ... 10 bar	2 ... 10 bar

Part No.	Switch-on power AC 60 Hz	Pilot	Working pressure min./max.	Control pressure min./max.
5725480220	-	External	-0,95 ... 16 bar	2 ... 10 bar
5725485270	5,7 VA	External	-0,95 ... 16 bar	2 ... 10 bar
5725485280	6,2 VA	External	-0,95 ... 16 bar	2 ... 10 bar
5725485202	-	External	-0,95 ... 16 bar	2 ... 10 bar

Part No.	Ambient temperature min./max.	Medium temperature min./max.	Typ. switch-on time
5725450220	-25 ... 50 °C	-25 ... 50 °C	37 ms
5725455270	-25 ... 50 °C	-25 ... 50 °C	37 ms
5725455280	-25 ... 50 °C	-25 ... 50 °C	37 ms
5725455202	-25 ... 70 °C	-25 ... 70 °C	-
5725455302	-25 ... 50 °C	-25 ... 50 °C	-
5725470220	-15 ... 50 °C	-15 ... 50 °C	37 ms
5725475270	-15 ... 50 °C	-15 ... 50 °C	37 ms
5725475280	-15 ... 50 °C	-15 ... 50 °C	37 ms
5725475202	-15 ... 70 °C	-15 ... 70 °C	-
R412008096	-15 ... 50 °C	-15 ... 50 °C	-
5725480220	-15 ... 50 °C	-15 ... 50 °C	37 ms
5725485270	-15 ... 50 °C	-15 ... 50 °C	37 ms
5725485280	-15 ... 50 °C	-15 ... 50 °C	37 ms
5725485202	-15 ... 70 °C	-15 ... 70 °C	-

Part No.	Typ. switch-off time	Compatibility index	Protection class with connection	basic valve with electrical connector
5725450220	97 ms	13 14	IP65	-
5725455270	97 ms	13 14	IP65	-
5725455280	97 ms	13 14	IP65	-
5725455202	-	-	-	Basic valve without pilot valve
5725455302	-	-	-	Basic valve without coil
5725470220	97 ms	13 14	IP65	-
5725475270	97 ms	13 14	IP65	-
5725475280	97 ms	13 14	IP65	-
5725475202	-	-	-	Basic valve without pilot valve
R412008096	-	13 14	-	Basic valve without coil
5725480220	97 ms	13 14	IP65	-
5725485270	97 ms	13 14	IP65	-
5725485280	97 ms	13 14	IP65	-
5725485202	97 ms	-	-	Basic valve without pilot valve

Part No.	Reverse polarity protection	ATEX	Weight	
5725450220	Protected against polarity reversal	-	1 kg	-
5725455270	Protected against polarity reversal	-	1 kg	-
5725455280	Protected against polarity reversal	-	1 kg	-
5725455202	-	ATEX optional	0,85 kg	1)
5725455302	-	ATEX optional	0,85 kg	-
5725470220	Protected against polarity reversal	-	1 kg	-
5725475270	Protected against polarity reversal	-	1 kg	-
5725475280	Protected against polarity reversal	-	1 kg	-

Part No.	Reverse polarity protection	ATEX	Weight	
5725475202	-	ATEX optional	0,85 kg	1)
R412008096	-	ATEX optional	0,85 kg	2)
5725480220	Protected against polarity reversal	-	1 kg	-
5725485270	Protected against polarity reversal	-	1 kg	-
5725485280	Protected against polarity reversal	-	1 kg	-
5725485202	-	ATEX optional	1 kg	-

Nominal flow Qn at 6 bar and Δp = 1 bar, MO = Manual override

1) temperature range for ATEX application: -10 °C ... 60 °C

2) Exhaust cap

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).

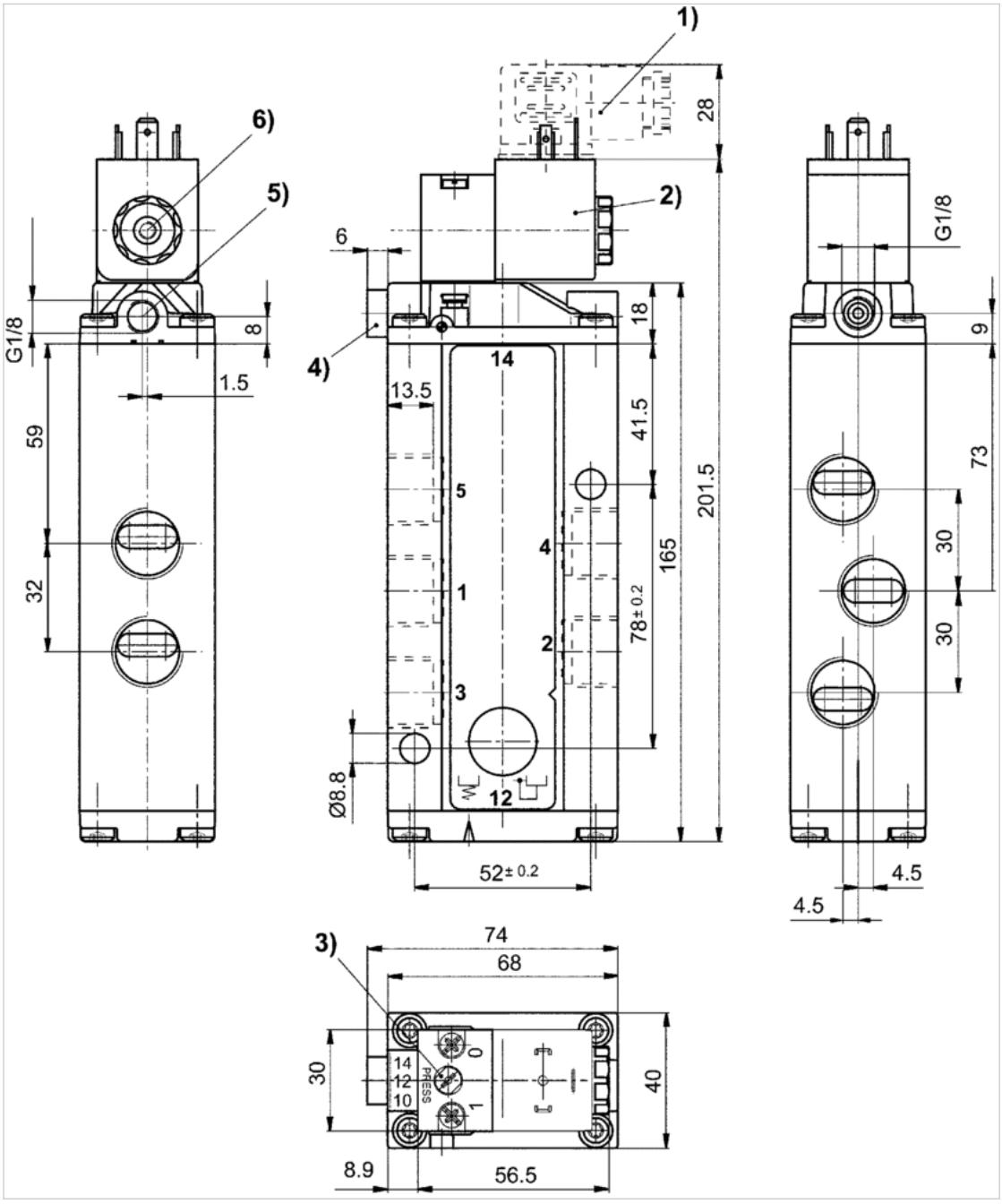
ATEX optional: ATEX version can be produced by combining the basic valve without coil with an ATEX coil. ATEX ID: see ATEX coils catalog page.
*Note: Basic valves feature a maximum working pressure of 16 bar. When combined with standard CNOMO pilots, the maximum working pressure is 10 bar.

Technical information

Material	
Housing	Aluminum Polyamide fiber-glass reinforced
Seals	Acrylonitrile butadiene rubber Polyurethane

Dimensions

Dimensions



1) Valve plug connector 2) Coil can be rotated at 90° intervals 3) Manual override4) Port X (only for externally piloted valves) 5) Exhaust port of piston 6) Pilot valve exhaust, M5