3/2-directional valve, Series CD12

- Qn = 4000 l/min
- Pilot valve width : 30 mm
- NC NO
- 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
- With spring return
- 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	4000 l/min
Nominal flow 1 ▸ 2	4000 l/min
Nominal flow 2 ▸ 3	4000 l/min
Compressed air connection	according to ISO 228-1
Pilot control exhaust	with directional pilot air exhaust
Connector standard	EN 175301-803:2006
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
				Input
5724550220		NC, NO	ITR-ITR-ITR-	G 1/2
5724555270		NC, NO		G 1/2
5724555280		NC, NO		G 1/2
5724555202		NC, NO	—	G 1/2
5724560220		NC, NO	ITR-ITR-ITR-	G 1/2
5724565270		NC, NO		G 1/2
5724565280		NC, NO		G 1/2
5724565202		NC, NO	—	G 1/2

Part No.	Compressed air connection	Compressed air connection
	Output	Exhaust
5724550220	G 1/2	G 1/2
5724555270	G 1/2	G 1/2
5724555280	G 1/2	G 1/2
5724555202	G 1/2	G 1/2
5724560220	G 1/2	G 1/2
5724565270	G 1/2	G 1/2
5724565280	G 1/2	G 1/2
5724565202	G 1/2	G 1/2

Part No.	Compressed air connection	Compressed air connection	Operationalvoltage
	Pilot Input	Pilot Exhaust	DC
5724550220	-	M5	24 V
5724555270	-	M5	-
5724555280	-	M5	-
5724555202	-	-	-
5724560220	G 1/8	M5	24 V
5724565270	G 1/8	M5	-
5724565280	G 1/8	M5	-
5724565202	G 1/8	-	-

Part No.	Operationalvoltage	Operationalvoltage	Voltage tolerance	Voltage tolerance
	AC 50 Hz	AC 60 Hz	DC	AC 50 Hz
5724550220	-	-	-10% / +10%	-
5724555270	110 V	110 V	-	-20% / +10%
5724555280	230 V	230 V	-	-20% / +10%
5724555202	-	-	-	-
5724560220	-	-	-10% / +10%	-
5724565270	110 V	110 V	-	-20% / +10%
5724565280	230 V	230 V	-	-20% / +10%
5724565202	-	-	-	-

Part No.	Voltage tolerance	Power consumption	Holding power	Holding power
	AC 60 Hz	DC	AC 50 Hz	AC 60 Hz
5724550220	-	2,1 W	-	-
5724555270	-10% / +20%	-	4,3 VA	3,3 VA
5724555280	-10% / +20%	-	4,4 VA	3,5 VA

Part No.	Voltage tolerance	Power consumption	Holding power	Holding power
	AC 60 Hz	DC	AC 50 Hz	AC 60 Hz
5724555202	-	-	-	-
5724560220	-	2,1 W	-	-
5724565270	-10% / +20%	-	4,3 VA	3,3 VA
5724565280	-10% / +20%	-	4,4 VA	3,5 VA
5724565202	-	-	-	-

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

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

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).

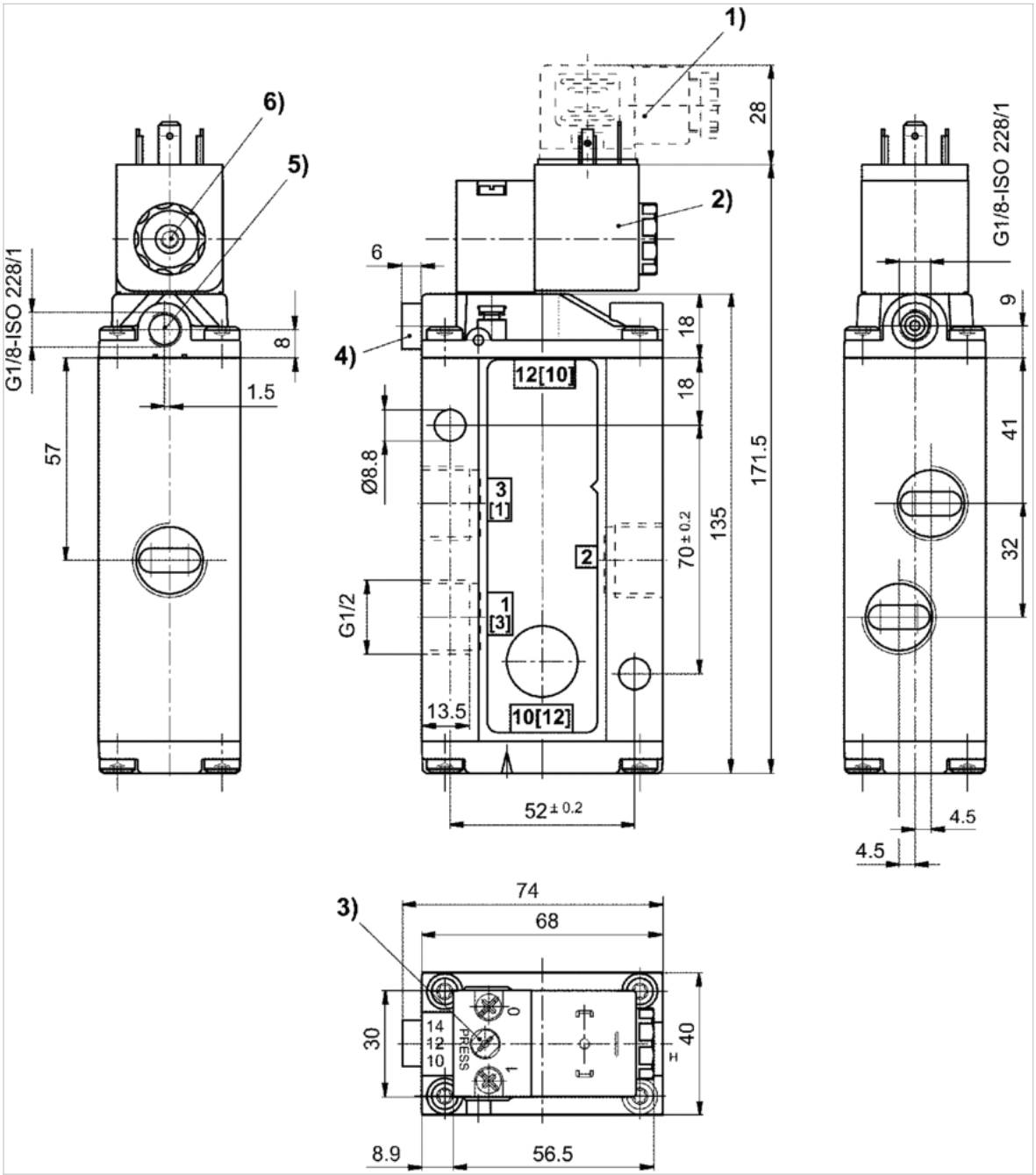
ATEX optional: ATEX version can be produced by combining the basic valve without coil with an ATEX coil. ATEX ID: see ATEX coils catalog page.
option valve: The input and output compressed air connections can be exchanged.The valve can thereby be used in the NC or NO operating mode.
*Note: Basic valves 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

5/2-directional valve, Series CD12

- 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	Operationalvoltage	Operationalvoltage
	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	Operationalvoltage	Operationalvoltage
	Pilot Exhaust	DC	AC 50 Hz
5725485280	M5	-	230 V
5725485202	-	-	-

Part No.	Operationalvoltage	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	-	-	-	-

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).

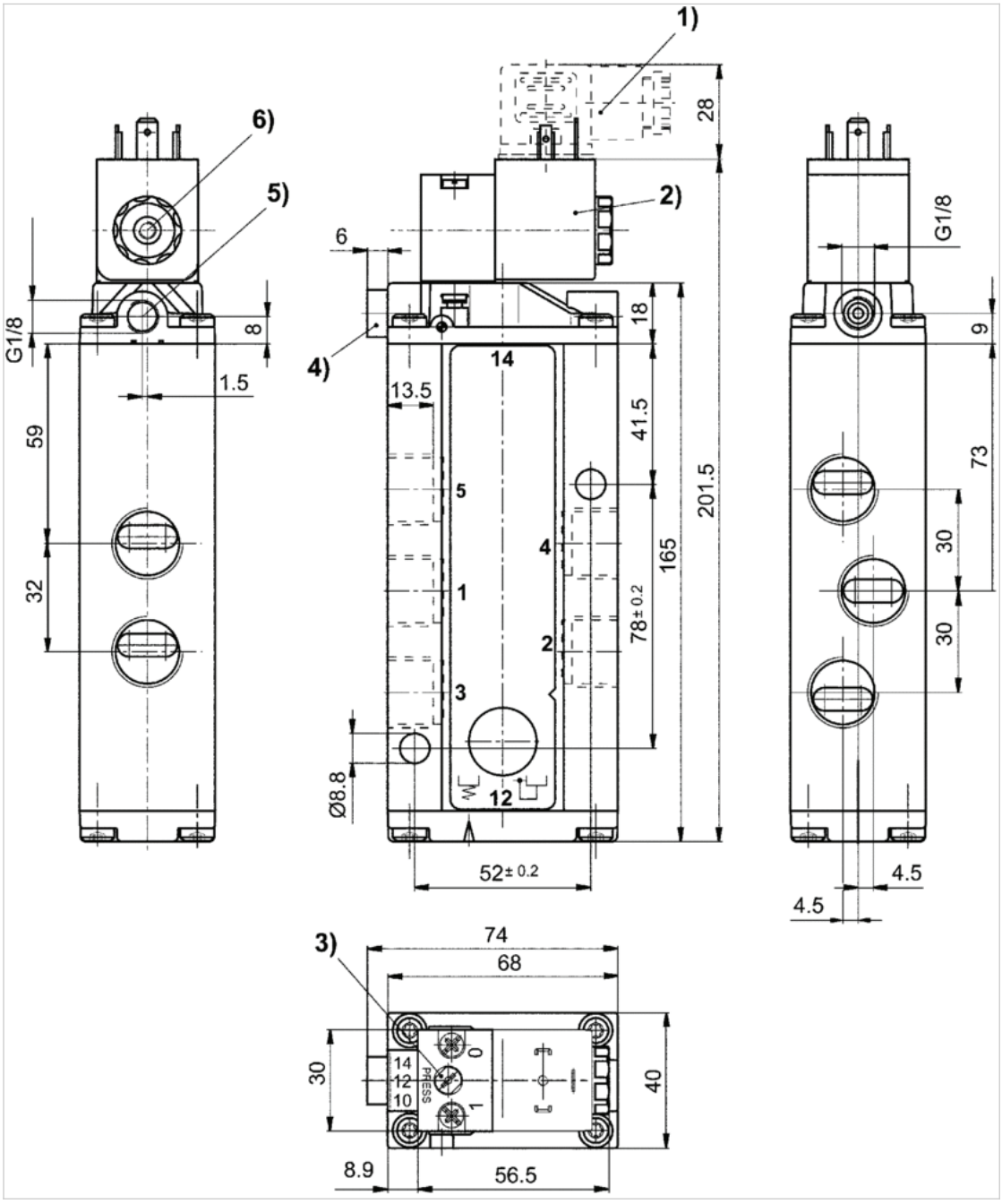
ATEX optional: ATEX version can be produced by combining the basic valve without coil with an ATEX coil. ATEX ID: see ATEX coils catalog page.
*Note: Basic valves feature a maximum working pressure of 16 bar. When combined with standard CNOMO pilots, the maximum working pressure is 10 bar.

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

5/2-directional valve, Series CD12

- 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
- Double 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
Connector standard	EN 175301-803:2006
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
R412008097			G 1/2	G 1/2
5725550220			G 1/2	G 1/2
5725555270			G 1/2	G 1/2
5725555280			G 1/2	G 1/2
5725555202		—	G 1/2	G 1/2
5725560220			G 1/2	G 1/2
5725565270			G 1/2	G 1/2
5725565280			G 1/2	G 1/2
5725565202		—	G 1/2	G 1/2

Part No.	Compressed air connection	Compressed air connection
	Exhaust	Pilot Input
R412008097	G 1/2	-
5725550220	G 1/2	-
5725555270	G 1/2	-
5725555280	G 1/2	-
5725555202	G 1/2	-
5725560220	G 1/2	G 1/8
5725565270	G 1/2	G 1/8
5725565280	G 1/2	G 1/8
5725565202	G 1/2	G 1/8

Part No.	Compressed air connection	Operationalvoltage	Operationalvoltage
	Pilot Exhaust	DC	AC 50 Hz
R412008097	-	-	-
5725550220	M5	24 V	-
5725555270	M5	-	110 V
5725555280	M5	-	230 V
5725555202	-	-	-
5725560220	M5	24 V	-
5725565270	M5	-	110 V
5725565280	M5	-	230 V
5725565202	-	-	-

Part No.	Operationalvoltage	Voltage tolerance	Voltage tolerance	Voltage tolerance
	AC 60 Hz	DC	AC 50 Hz	AC 60 Hz
R412008097	-	-	-	-
5725550220	-	-10% / +10%	-	-
5725555270	110 V	-	-20% / +10%	-10% / +20%
5725555280	230 V	-	-20% / +10%	-10% / +20%
5725555202	-	-	-	-
5725560220	-	-10% / +10%	-	-
5725565270	110 V	-	-20% / +10%	-10% / +20%
5725565280	230 V	-	-20% / +10%	-10% / +20%
5725565202	-	-	-	-

Part No.	Power consumption	Holding power	Holding power	Switch-on power
	DC	AC 50 Hz	AC 60 Hz	AC 50 Hz
R412008097	-	-	-	-
5725550220	2,1 W	-	-	-
5725555270	-	4,3 VA	3,3 VA	6,8 VA
5725555280	-	4,4 VA	3,5 VA	6,9 VA
5725555202	-	-	-	-
5725560220	2,1 W	-	-	-
5725565270	-	4,3 VA	3,3 VA	6,8 VA
5725565280	-	4,4 VA	3,5 VA	6,9 VA
5725565202	-	-	-	-

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

1) 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).

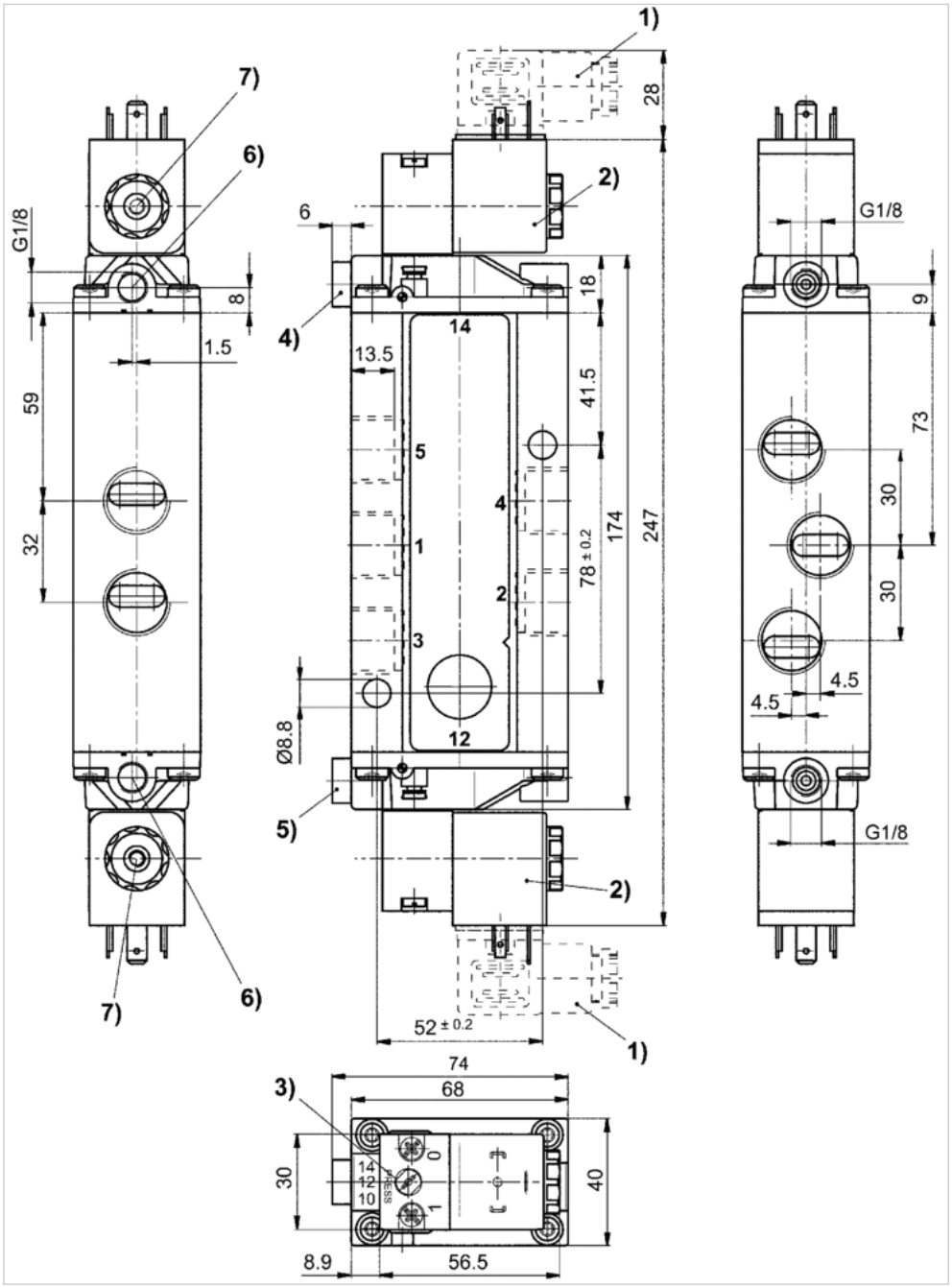
ATEX optional: ATEX version can be produced by combining the basic valve without coil with an ATEX coil. ATEX ID: see ATEX coils catalog page.
*Note: Basic valves feature a maximum working pressure of 16 bar. When combined with standard CNOMO pilots, the maximum working pressure is 10 bar.

Technical information

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

Dimensions

Dimensions



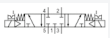
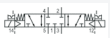
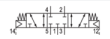
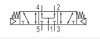
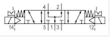
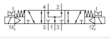
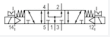
1) Valve plug connector 2) Coil can be rotated at 90° intervals 3) Manual override4) Port X, side 14 5) Port X, side 12 6) Port without function 7) Pilot valve exhaust, M5

5/3-directional valve, Series CD12

- Qn = 3800 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
- Double solenoid
- With spring return
- 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	See table below
Nominal flow 1 ▸ 2	See table below
Nominal flow 2 ▸ 3	See table below
Compressed air connection	according to ISO 228-1
Pilot control exhaust	with directional pilot air exhaust
Connector standard	EN 175301-803:2006
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
5725650220		TT R- TT R- TT R- TT R-	G 1/2	G 1/2
5725650920		TT R- TT R- TT R- TT R-	G 1/2	G 1/2
5725655270		TT R- TT R- TT R- TT R-	G 1/2	G 1/2
5725655280		TT R- TT R- TT R- TT R-	G 1/2	G 1/2
5725655980		TT R- TT R- TT R- TT R-	G 1/2	G 1/2
5725655202		—	G 1/2	G 1/2
R412008098		TT R- TT R- TT R- TT R-	G 1/2	G 1/2
R412000127		TT R- TT R- TT R- TT R-	G 1/2	G 1/2
R412000148		TT R- TT R- TT R- TT R-	G 1/2	G 1/2
R412000149		TT R- TT R- TT R- TT R-	G 1/2	G 1/2
R412000151		—	G 1/2	G 1/2
R412000224		TT R- TT R- TT R- TT R-	G 1/2	G 1/2
R412000225		TT R- TT R- TT R- TT R-	G 1/2	G 1/2
R412000230		TT R- TT R- TT R- TT R-	G 1/2	G 1/2
R412000237		—	G 1/2	G 1/2
5725680220		TT R- TT R- TT R- TT R-	G 1/2	G 1/2
5725685270		TT R- TT R- TT R- TT R-	G 1/2	G 1/2
5725685280		TT R- TT R- TT R- TT R-	G 1/2	G 1/2
5725685202		—	G 1/2	G 1/2
R412000219		TT R- TT R- TT R- TT R-	G 1/2	G 1/2
R412000220		TT R- TT R- TT R- TT R-	G 1/2	G 1/2
R412000221		TT R- TT R- TT R- TT R-	G 1/2	G 1/2
R412000222		—	G 1/2	G 1/2
R412000153		TT R- TT R- TT R- TT R-	G 1/2	G 1/2
R412000154		TT R- TT R- TT R- TT R-	G 1/2	G 1/2
R412000157		TT R- TT R- TT R- TT R-	G 1/2	G 1/2
R412000160		—	G 1/2	G 1/2

Part No.	Compressed air connection	Compressed air connection
	Exhaust	Pilot Input
5725650220	G 1/2	-
5725650920	G 1/2	-
5725655270	G 1/2	-
5725655280	G 1/2	-
5725655980	G 1/2	-
5725655202	G 1/2	-
R412008098	G 1/2	-
R412000127	G 1/2	G 1/8
R412000148	G 1/2	G 1/8
R412000149	G 1/2	G 1/8
R412000151	G 1/2	G 1/8
R412000224	G 1/2	-
R412000225	G 1/2	-
R412000230	G 1/2	-
R412000237	G 1/2	-
5725680220	G 1/2	G 1/8

Part No.	Compressed air connection	Compressed air connection
	Exhaust	Pilot Input
5725685270	G 1/2	G 1/8
5725685280	G 1/2	G 1/8
5725685202	G 1/2	G 1/8
R412000219	G 1/2	-
R412000220	G 1/2	-
R412000221	G 1/2	-
R412000222	G 1/2	-
R412000153	G 1/2	G 1/8
R412000154	G 1/2	G 1/8
R412000157	G 1/2	G 1/8
R412000160	G 1/2	G 1/8

Part No.	Compressed air connection	Operationalvoltage	Operationalvoltage
	Pilot Exhaust	DC	AC 50 Hz
5725650220	M5	24 V	-
5725650920	-	24 V	-
5725655270	M5	-	110 V
5725655280	M5	-	230 V
5725655980	-	-	230 V
5725655202	-	-	-
R412008098	M5	-	-
R412000127	M5	24 V	-
R412000148	M5	-	110 V
R412000149	M5	-	230 V
R412000151	-	-	-
R412000224	M5	24 V	-
R412000225	M5	-	110 V
R412000230	M5	-	230 V
R412000237	-	-	-
5725680220	M5	24 V	-
5725685270	M5	-	110 V
5725685280	M5	-	230 V
5725685202	-	-	-
R412000219	M5	24 V	-
R412000220	M5	-	110 V
R412000221	M5	-	230 V
R412000222	-	-	-
R412000153	M5	24 V	-
R412000154	M5	-	110 V
R412000157	M5	-	230 V
R412000160	-	-	-

Part No.	Operationalvoltage	Voltage tolerance	Voltage tolerance	Voltage tolerance
	AC 60 Hz	DC	AC 50 Hz	AC 60 Hz
5725650220	-	-10% / +10%	-	-
5725650920	-	-10% / +10%	-	-
5725655270	110 V	-	-20% / +10%	-10% / +20%
5725655280	230 V	-	-20% / +10%	-10% / +20%
5725655980	230 V	-	-20% / +10%	-10% / +20%

Part No.	Operationalvoltage	Voltage tolerance	Voltage tolerance	Voltage tolerance
	AC 60 Hz	DC	AC 50 Hz	AC 60 Hz
5725655202	-	-	-	-
R412008098	-	-	-	-
R412000127	-	-10% / +10%	-	-
R412000148	110 V	-	-20% / +10%	-10% / +20%
R412000149	230 V	-	-20% / +10%	-10% / +20%
R412000151	-	-	-	-
R412000224	-	-10% / +10%	-	-
R412000225	110 V	-	-20% / +10%	-10% / +20%
R412000230	230 V	-	-20% / +10%	-10% / +20%
R412000237	-	-	-	-
5725680220	-	-10% / +10%	-	-
5725685270	110 V	-	-20% / +10%	-10% / +20%
5725685280	230 V	-	-20% / +10%	-10% / +20%
5725685202	-	-	-	-
R412000219	-	-10% / +10%	-	-
R412000220	110 V	-	-20% / +10%	-10% / +20%
R412000221	230 V	-	-20% / +10%	-10% / +20%
R412000222	-	-	-	-
R412000153	-	-10% / +10%	-	-
R412000154	110 V	-	-20% / +10%	-10% / +20%
R412000157	230 V	-	-20% / +10%	-10% / +20%
R412000160	-	-	-	-

Part No.	Power consumption	Holding power	Holding power	Switch-on power
	DC	AC 50 Hz	AC 60 Hz	AC 50 Hz
5725650220	2,1 W	-	-	-
5725650920	2,1 W	-	-	-
5725655270	-	4,3 VA	3,3 VA	6,8 VA
5725655280	-	4,4 VA	3,5 VA	6,9 VA
5725655980	-	4,4 VA	3,5 VA	6,9 VA
5725655202	-	-	-	-
R412008098	-	-	-	-
R412000127	2,1 W	-	-	-
R412000148	-	4,3 VA	3,3 VA	6,8 VA
R412000149	-	4,4 VA	3,5 VA	6,9 VA
R412000151	-	-	-	-
R412000224	2,1 W	-	-	-
R412000225	-	4,3 VA	3,3 VA	6,8 VA
R412000230	-	4,4 VA	3,5 VA	6,9 VA
R412000237	-	-	-	-
5725680220	2,1 W	-	-	-
5725685270	-	4,3 VA	3,3 VA	6,8 VA
5725685280	-	4,4 VA	3,5 VA	6,9 VA
5725685202	-	-	-	-
R412000219	2,1 W	-	-	-
R412000220	-	4,3 VA	3,3 VA	6,8 VA
R412000221	-	4,4 VA	3,5 VA	6,9 VA
R412000222	-	-	-	-

Part No.	Power consumption	Holding power	Holding power	Switch-on power
	DC	AC 50 Hz	AC 60 Hz	AC 50 Hz
R412000153	2,1 W	-	-	-
R412000154	-	4,3 VA	3,3 VA	6,8 VA
R412000157	-	4,4 VA	3,5 VA	6,9 VA
R412000160	-	-	-	-

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

1) 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).

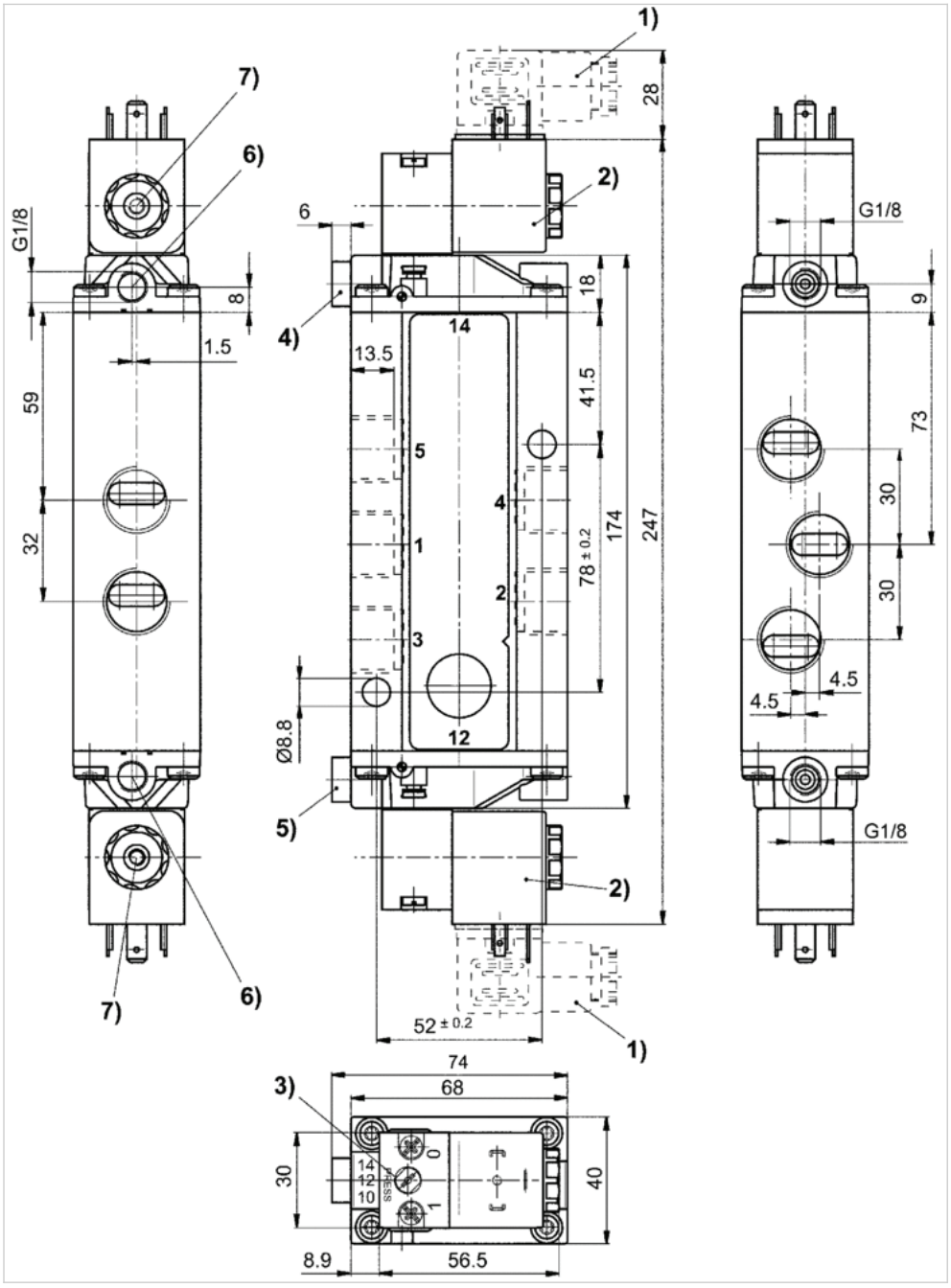
ATEX optional: ATEX version can be produced by combining the basic valve without coil with an ATEX coil. ATEX ID: see ATEX coils catalog page.
*Note: Basic valves feature a maximum working pressure of 16 bar. When combined with standard CNOMO pilots, the maximum working pressure is 10 bar.

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, side 14 5) Port X, side 12 6) Port without function 7) Pilot valve exhaust, M5