

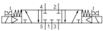
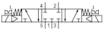
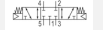
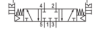
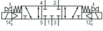
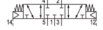
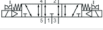
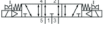
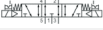
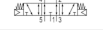
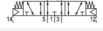
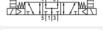
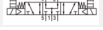
5/3-directional valve, Series CD12

- 5/3
- Qn = 3800 l/min
- Pilot valve width : 30 mm
- closed center exhausted center pressurized center
- 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



Type	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	
				Input	
5725650220		TR-T-R-T-R-T-R	closed center	G 1/2	
5725650920			closed center	G 1/2	
5725655270			closed center	G 1/2	
5725655280			closed center	G 1/2	
5725655980			closed center	G 1/2	
5725655202		-	closed center	G 1/2	
R412008098		TR-T-R-T-R-T-R	closed center	G 1/2	
R412000127			closed center	G 1/2	
R412000148			closed center	G 1/2	
R412000149			closed center	G 1/2	
R412000151			closed center	G 1/2	
R412000224		TR-T-R-T-R-T-R	exhausted center	G 1/2	
R412000225			exhausted center	G 1/2	
R412000230			exhausted center	G 1/2	
R412000237			exhausted center	G 1/2	
5725680220			exhausted center	G 1/2	
5725685270		TR-T-R-T-R-T-R	exhausted center	G 1/2	
5725685280			exhausted center	G 1/2	
5725685202			exhausted center	G 1/2	
R412000219			pressurized center	G 1/2	
R412000220			pressurized center	G 1/2	
R412000221		TR-T-R-T-R-T-R	pressurized center	G 1/2	
R412000222			pressurized center	G 1/2	
R412000153			pressurized center	G 1/2	
R412000154			pressurized center	G 1/2	
R412000157			pressurized center	G 1/2	
R412000160		-	pressurized center	G 1/2	

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

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

Part No.	Compressed air connection	
	Pilot Input	Pilot Exhaust
5725650220	-	M5
5725650920	-	-
5725655270	-	M5
5725655280	-	M5
5725655980	-	-
5725655202	-	-
R412008098	-	M5
R412000127	G 1/8	M5
R412000148	G 1/8	M5
R412000149	G 1/8	M5
R412000151	G 1/8	-
R412000224	-	M5
R412000225	-	M5
R412000230	-	M5
R412000237	-	-
5725680220	G 1/8	M5
5725685270	G 1/8	M5
5725685280	G 1/8	M5
5725685202	G 1/8	-
R412000219	-	M5
R412000220	-	M5
R412000221	-	M5
R412000222	-	-
R412000153	G 1/8	M5
R412000154	G 1/8	M5
R412000157	G 1/8	M5
R412000160	G 1/8	-

Part No.	Operational voltage		
	DC	AC 50 Hz	AC 60 Hz
5725650220	24 V	-	-
5725650920	24 V	-	-
5725655270	-	110 V	110 V
5725655280	-	230 V	230 V

Part No.	Operational voltage	Operational voltage	Operational voltage
	DC	AC 50 Hz	AC 60 Hz
5725655980	-	230 V	230 V
5725655202	-	-	-
R412008098	-	-	-
R412000127	24 V	-	-
R412000148	-	110 V	110 V
R412000149	-	230 V	230 V
R412000151	-	-	-
R412000224	24 V	-	-
R412000225	-	110 V	110 V
R412000230	-	230 V	230 V
R412000237	-	-	-
5725680220	24 V	-	-
5725685270	-	110 V	110 V
5725685280	-	230 V	230 V
5725685202	-	-	-
R412000219	24 V	-	-
R412000220	-	110 V	110 V
R412000221	-	230 V	230 V
R412000222	-	-	-
R412000153	24 V	-	-
R412000154	-	110 V	110 V
R412000157	-	230 V	230 V
R412000160	-	-	-

Part No.	Voltage tolerance	Voltage tolerance	Voltage tolerance	Power consumption
	DC	AC 50 Hz	AC 60 Hz	DC
5725650220	-10% / +10%	-	-	2,1 W
5725650920	-10% / +10%	-	-	2,1 W
5725655270	-	-20% / +10%	-10% / +20%	-
5725655280	-	-20% / +10%	-10% / +20%	-
5725655980	-	-20% / +10%	-10% / +20%	-
5725655202	-	-	-	-
R412008098	-	-	-	-
R412000127	-10% / +10%	-	-	2,1 W
R412000148	-	-20% / +10%	-10% / +20%	-
R412000149	-	-20% / +10%	-10% / +20%	-
R412000151	-	-	-	-
R412000224	-10% / +10%	-	-	2,1 W
R412000225	-	-20% / +10%	-10% / +20%	-
R412000230	-	-20% / +10%	-10% / +20%	-
R412000237	-	-	-	-
5725680220	-10% / +10%	-	-	2,1 W
5725685270	-	-20% / +10%	-10% / +20%	-
5725685280	-	-20% / +10%	-10% / +20%	-
5725685202	-	-	-	-
R412000219	-10% / +10%	-	-	2,1 W
R412000220	-	-20% / +10%	-10% / +20%	-

Part No.	Voltage tolerance	Voltage tolerance	Voltage tolerance	Power consumption
	DC	AC 50 Hz	AC 60 Hz	DC
R412000221	-	-20% / +10%	-10% / +20%	-
R412000222	-	-	-	-
R412000153	-10% / +10%	-	-	2,1 W
R412000154	-	-20% / +10%	-10% / +20%	-
R412000157	-	-20% / +10%	-10% / +20%	-
R412000160	-	-	-	-

Part No.	Holding power	Holding power	Switch-on power	Switch-on power	Pilot
	AC 50 Hz	AC 60 Hz	AC 50 Hz	AC 60 Hz	
5725650220	-	-	-	-	Internal
5725650920	-	-	-	-	Internal
5725655270	4,3 VA	3,3 VA	6,8 VA	5,7 VA	Internal
5725655280	4,4 VA	3,5 VA	6,9 VA	6,2 VA	Internal
5725655980	4,4 VA	3,5 VA	6,9 VA	6,2 VA	Internal
5725655202	-	-	-	-	Internal
R412008098	-	-	-	-	Internal
R412000127	-	-	-	-	External
R412000148	4,3 VA	3,3 VA	6,8 VA	5,7 VA	External
R412000149	4,4 VA	3,5 VA	6,9 VA	6,2 VA	External
R412000151	-	-	-	-	External
R412000224	-	-	-	-	Internal
R412000225	4,3 VA	3,3 VA	6,8 VA	5,7 VA	Internal
R412000230	4,4 VA	3,5 VA	6,9 VA	6,2 VA	Internal
R412000237	-	-	-	-	Internal
5725680220	-	-	-	-	External
5725685270	4,3 VA	3,3 VA	6,8 VA	5,7 VA	External
5725685280	4,4 VA	3,5 VA	6,9 VA	6,2 VA	External
5725685202	-	-	-	-	External
R412000219	-	-	-	-	Internal
R412000220	4,3 VA	3,3 VA	6,8 VA	5,7 VA	Internal
R412000221	4,4 VA	3,5 VA	6,9 VA	6,2 VA	Internal
R412000222	-	-	-	-	Internal
R412000153	-	-	-	-	External
R412000154	4,3 VA	3,3 VA	6,8 VA	5,7 VA	External
R412000157	4,4 VA	3,5 VA	6,9 VA	6,2 VA	External
R412000160	-	-	-	-	External

Part No.	Nominal flow Q _n	Nominal flow 1 ► 2	Nominal flow 2 ► 3	Working pressure min./max.	Control pressure min./max.
5725650220	3800 l/min	3800 l/min	3800 l/min	3 ... 10 bar	3 ... 10 bar
5725650920	3800 l/min	3800 l/min	3800 l/min	3 ... 10 bar	3 ... 10 bar
5725655270	3800 l/min	3800 l/min	3800 l/min	3 ... 10 bar	3 ... 10 bar
5725655280	3800 l/min	3800 l/min	3800 l/min	3 ... 10 bar	3 ... 10 bar
5725655980	3800 l/min	3800 l/min	3800 l/min	3 ... 10 bar	3 ... 10 bar
5725655202	3800 l/min	3800 l/min	3800 l/min	3 ... 16 bar	3 ... 16 bar
R412008098	3800 l/min	3800 l/min	3800 l/min	3 ... 10 bar	3 ... 10 bar
R412000127	3800 l/min	3800 l/min	3800 l/min	-0,95 ... 16 bar	3 ... 10 bar
R412000148	3800 l/min	3800 l/min	3800 l/min	-0,95 ... 16 bar	3 ... 10 bar
R412000149	3800 l/min	3800 l/min	3800 l/min	-0,95 ... 16 bar	3 ... 10 bar

Part No.	Nominal flow Q _n	Nominal flow 1 ► 2	Nominal flow 2 ► 3	Working pressure min./max.	Control pressure min./max.
R412000151	3800 l/min	3800 l/min	3800 l/min	-0,95 ... 16 bar	3 ... 16 bar
R412000224	-	3600 l/min	4100 l/min	3 ... 10 bar	3 ... 10 bar
R412000225	-	3600 l/min	4100 l/min	3 ... 10 bar	3 ... 10 bar
R412000230	-	3600 l/min	4100 l/min	3 ... 10 bar	3 ... 10 bar
R412000237	-	3600 l/min	4100 l/min	3 ... 16 bar	3 ... 16 bar
5725680220	-	3600 l/min	4100 l/min	-0,95 ... 16 bar	3 ... 10 bar
5725685270	-	3600 l/min	4100 l/min	-0,95 ... 16 bar	3 ... 10 bar
5725685280	-	3600 l/min	4100 l/min	-0,95 ... 16 bar	3 ... 10 bar
5725685202	-	3600 l/min	4100 l/min	-0,95 ... 16 bar	3 ... 16 bar
R412000219	-	4100 l/min	3800 l/min	3 ... 10 bar	3 ... 10 bar
R412000220	-	4100 l/min	3800 l/min	3 ... 10 bar	3 ... 10 bar
R412000221	-	4100 l/min	3800 l/min	3 ... 10 bar	3 ... 10 bar
R412000222	-	4100 l/min	3800 l/min	3 ... 16 bar	3 ... 16 bar
R412000153	-	4100 l/min	3800 l/min	-0,95 ... 16 bar	3 ... 10 bar
R412000154	-	4100 l/min	3800 l/min	-0,95 ... 16 bar	3 ... 10 bar
R412000157	-	4100 l/min	3800 l/min	-0,95 ... 16 bar	3 ... 10 bar
R412000160	-	4100 l/min	3800 l/min	-0,95 ... 16 bar	3 ... 16 bar

Part No.	Ambient temperature min./max.	Medium temperature min./max.	Typ. switch-on time
5725650220	-15 ... 50 °C	-15 ... 50 °C	37 ms
5725650920	-15 ... 50 °C	-15 ... 50 °C	37 ms
5725655270	-15 ... 50 °C	-15 ... 50 °C	37 ms
5725655280	-15 ... 50 °C	-15 ... 50 °C	37 ms
5725655980	-15 ... 50 °C	-15 ... 50 °C	37 ms
5725655202	-15 ... 70 °C	-15 ... 70 °C	-
R412008098	-15 ... 50 °C	-15 ... 50 °C	-
R412000127	-15 ... 50 °C	-15 ... 50 °C	37 ms
R412000148	-15 ... 50 °C	-15 ... 50 °C	37 ms
R412000149	-15 ... 50 °C	-15 ... 50 °C	37 ms
R412000151	-15 ... 70 °C	-15 ... 70 °C	-
R412000224	-15 ... 50 °C	-15 ... 50 °C	37 ms
R412000225	-15 ... 50 °C	-15 ... 50 °C	37 ms
R412000230	-15 ... 50 °C	-15 ... 50 °C	37 ms
R412000237	-15 ... 70 °C	-15 ... 70 °C	-
5725680220	-15 ... 50 °C	-15 ... 50 °C	37 ms
5725685270	-15 ... 50 °C	-15 ... 50 °C	37 ms
5725685280	-15 ... 50 °C	-15 ... 50 °C	37 ms
5725685202	-15 ... 70 °C	-15 ... 70 °C	-
R412000219	-15 ... 50 °C	-15 ... 50 °C	37 ms
R412000220	-15 ... 50 °C	-15 ... 50 °C	37 ms
R412000221	-15 ... 50 °C	-15 ... 50 °C	37 ms
R412000222	-15 ... 70 °C	-15 ... 70 °C	-
R412000153	-15 ... 50 °C	-15 ... 50 °C	37 ms
R412000154	-15 ... 50 °C	-15 ... 50 °C	37 ms
R412000157	-15 ... 50 °C	-15 ... 50 °C	37 ms
R412000160	-15 ... 70 °C	-15 ... 70 °C	-

Part No.	Typ. switch-off time	Compatibility index	Protection class	basic valve with electrical connector
			with connection	
5725650220	97 ms	13 14	IP65	-
5725650920	97 ms	13 14	IP65	-
5725655270	97 ms	13 14	IP65	-
5725655280	97 ms	13 14	IP65	-
5725655980	97 ms	13 14	IP65	-
5725655202	-	-	-	Basic valve without pilot valve
R412008098	-	13 14	-	Basic valve without coil
R412000127	97 ms	13 14	IP65	-
R412000148	97 ms	13 14	IP65	-
R412000149	97 ms	13 14	IP65	-
R412000151	-	-	-	Basic valve without pilot valve
R412000224	97 ms	13 14	IP65	-
R412000225	97 ms	13 14	IP65	-
R412000230	97 ms	13 14	IP65	-
R412000237	-	-	-	Basic valve without pilot valve
5725680220	97 ms	13 14	IP65	-
5725685270	97 ms	13 14	IP65	-
5725685280	97 ms	13 14	IP65	-
5725685202	-	-	-	Basic valve without pilot valve
R412000219	97 ms	13 14	IP65	-
R412000220	97 ms	13 14	IP65	-
R412000221	97 ms	13 14	IP65	-
R412000222	-	-	-	Basic valve without pilot valve
R412000153	97 ms	13 14	IP65	-
R412000154	97 ms	13 14	IP65	-
R412000157	97 ms	13 14	IP65	-
R412000160	-	-	-	Basic valve without pilot valve

Part No.	Reverse polarity protection	ATEX	Weight	
5725650220	Protected against polarity reversal	-	1,3 kg	-
5725650920	Protected against polarity reversal	-	1,3 kg	1)
5725655270	Protected against polarity reversal	-	1,3 kg	-
5725655280	Protected against polarity reversal	-	1,3 kg	-
5725655980	Protected against polarity reversal	-	1,3 kg	1)
5725655202	-	ATEX optional	1 kg	-
R412008098	-	ATEX optional	1 kg	1)
R412000127	Protected against polarity reversal	-	1,3 kg	-
R412000148	Protected against polarity reversal	-	1,3 kg	-
R412000149	Protected against polarity reversal	-	1,3 kg	-
R412000151	-	ATEX optional	1 kg	-
R412000224	Protected against polarity reversal	-	1,3 kg	-
R412000225	Protected against polarity reversal	-	1,3 kg	-
R412000230	Protected against polarity reversal	-	1,3 kg	-
R412000237	-	ATEX optional	1 kg	-
5725680220	Protected against polarity reversal	-	1,3 kg	-
5725685270	Protected against polarity reversal	-	1,3 kg	-
5725685280	Protected against polarity reversal	-	1,3 kg	-

Part No.	Reverse polarity protection	ATEX	Weight	
5725685202	-	ATEX optional	1 kg	-
R412000219	Protected against polarity reversal	-	1,3 kg	-
R412000220	Protected against polarity reversal	-	1,3 kg	-
R412000221	Protected against polarity reversal	-	1,3 kg	-
R412000222	-	ATEX optional	1 kg	-
R412000153	Protected against polarity reversal	-	1,3 kg	-
R412000154	Protected against polarity reversal	-	1,3 kg	-
R412000157	Protected against polarity reversal	-	1,3 kg	-
R412000160	-	ATEX optional	1 kg	-

Nominal flow Q_n 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.

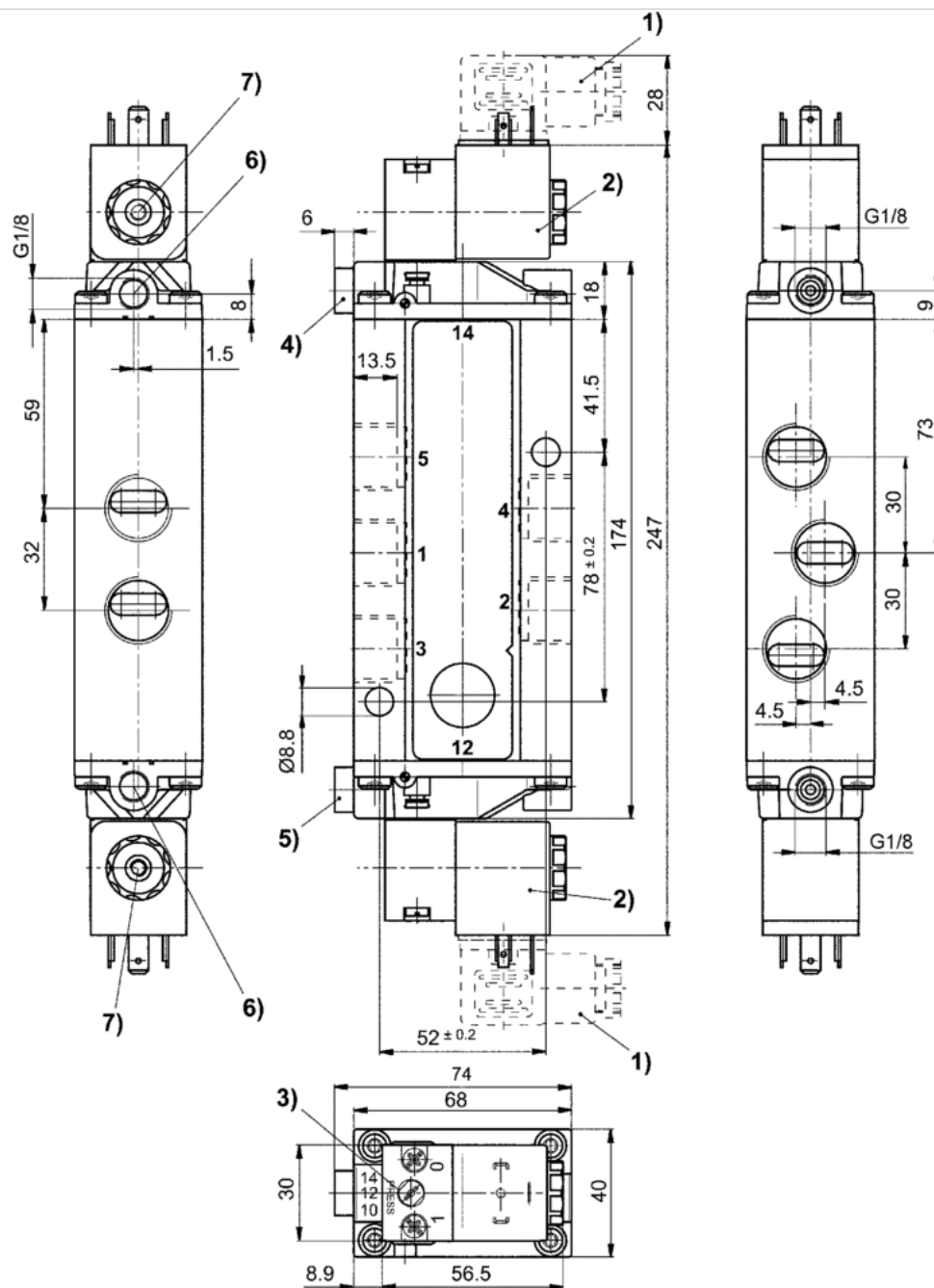
*Note: Basic valves feature a maximum working pressure of 16 bar. When combined with standard CNOMO pilots, the maximum working pressure is 10 bar.

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 override 4) Port X, side 14 5) Port X, side 12 6) Port without function 7) Pilot valve exhaust, M5

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