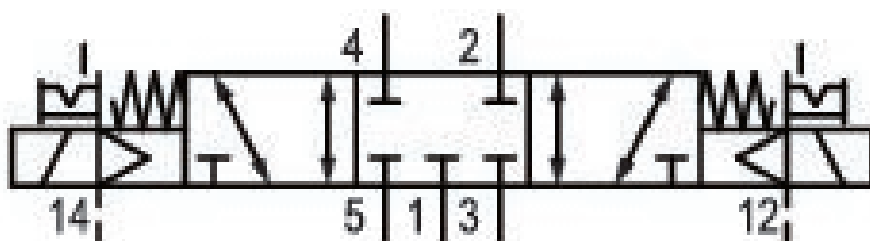


# 5/3-directional valve, Series CD12

R412000148

## General series information Series CD12

- The AVENTICS Series CD consists of various spool valves with an extremely durable die-cast zinc housing. Its electrical, pneumatic, or mechanical actuating controls (roller, lever, pedal, or plunger) make the Series CD ideal for applications in harsh environments.



## Technical data

Industry  
Industrial

Activation  
Electrically

Nominal flow Q<sub>n</sub>  
3800 l/min

Switching principle  
5/3

Version  
Closed Center

Compressed air connection output  
G 1/2

Working pressure min.  
-0.95 bar

Working pressure max  
16 bar

Operational voltage AC at 50 Hz  
110 V

Operational voltage AC at 60 Hz  
110 V

Voltage tolerance AC 50 Hz  
-20% / +10%

Voltage tolerance AC 60 Hz  
-10% / +20%

Manual override

with detent  
without detent

Electrical connection type  
Plug

Electrical connection size  
EN 175301-803, form A

Electrical connection number of poles  
3-pin

Actuating control  
Double Solenoid

Pilot valve width  
30 mm

Valve type  
Spool valve, positive overlapping

Control pressure min.  
3 bar

Control pressure max.  
10 bar

Min. ambient temperature  
-15 °C

Max. ambient temperature  
50 °C

Min. medium temperature  
-15 °C

Standard compressed air connection  
according to ISO 228-1

Compressed air connection input  
G 1/2

Compressed air connection, exhaust  
G 1/2

Compressed air connection pilot input  
G 1/8

Holding power AC 50 Hz  
4.3 VA

Holding power AC 60 Hz  
3.3 VA

Switch-on power AC 50 Hz  
6.8 VA

Switch-on power AC 60 Hz  
5.7 VA

Pilot valve width  
30 mm

Connector standard  
EN 175301-803:2006

Protection class with connection  
IP65

Sealing principle  
Soft Seal

Pilot  
External

Connection type  
Pipe connection

Return  
With spring return

Max. medium temperature  
50 °C

Medium  
Compressed air

Max. particle size  
50 µm

Oil content of compressed air min.  
0 mg/m<sup>3</sup>

Oil content of compressed air max.  
1 mg/m<sup>3</sup>

Compressed air connection pilot exhaust  
M5

Pilot control exhaust  
with directional pilot air exhaust

Nominal flow Qn 1 to 2  
3800 l/min

Nominal flow Qn 2 to 3  
3800 l/min

Compatibility index  
13  
14

Duty cycle  
100 %

Typ. switch-on time  
37 ms

Typ. switch-off time  
97 ms

Reverse polarity protection  
Protected against polarity reversal

Weight  
1.3 kg

Housing material  
Aluminum  
Polyamide fiber-glass reinforced  
Seal material  
Acrylonitrile butadiene rubber

Polyurethane  
Part No.  
R412000148

## Technical information

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.

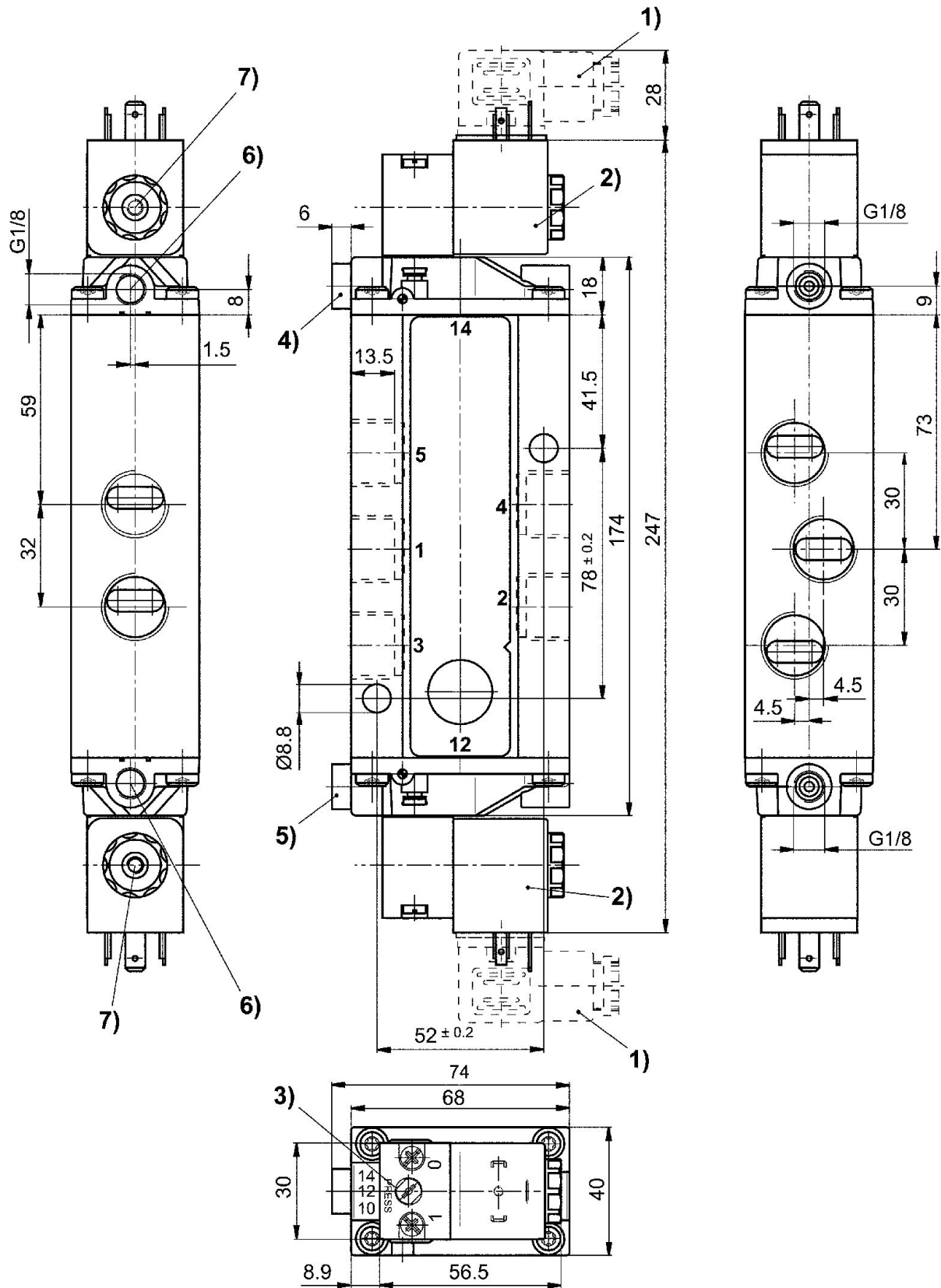
The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!

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 <https://www.emerson.com/en-us/support>).

## 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