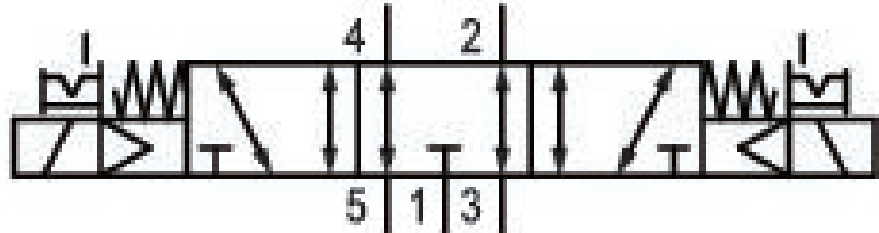


# 5/3-directional valve, Series CD12

R412000224

## 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

Switching principle  
5/3

Version  
Exhausted Center

Compressed air connection output  
G 1/2

Working pressure min.  
3 bar

Working pressure max  
10 bar

DC operating voltage  
24 V

Voltage tolerance DC  
-10% / +10%

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

**Sealing principle**  
Soft Seal

**Pilot**  
Internal

**Pilot valve width**  
30 mm

**Connection type**  
Pipe connection

**Valve type**  
Spool valve, positive overlapping

**Return**  
With spring return

**Control pressure min.**  
3 bar

**Max. medium temperature**  
50 °C

**Control pressure max.**  
10 bar

**Medium**  
Compressed air

**Min. ambient temperature**  
-15 °C

**Max. particle size**  
50 µm

**Max. ambient temperature**  
50 °C

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

**Min. medium temperature**  
-15 °C

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

**Standard compressed air connection**  
according to ISO 228-1

**Pilot control exhaust**  
with directional pilot air exhaust

**Compressed air connection input**  
G 1/2

**Nominal flow Qn 1 to 2**  
3600 l/min

**Compressed air connection, exhaust**  
G 1/2

**Nominal flow Qn 2 to 3**  
4100 l/min

**Compressed air connection pilot exhaust**  
M5

**Power consumption DC**  
2.1 W

**Duty cycle**  
100 %

**Compatibility index**  
13  
14

**Typ. switch-on time**  
37 ms

**Typ. switch-off time**  
97 ms

**Pilot valve width**  
30 mm

**Reverse polarity protection**  
Protected against polarity reversal

**Connector standard**  
EN 175301-803:2006

**Weight**  
1.3 kg

**Protection class with connection**  
IP65

**Housing material**  
Aluminum  
Polyamide fiber-glass reinforced

**Polyurethane**  
**Part No.**  
R412000224

**Seal material**  
Acrylonitrile butadiene rubber

## 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.

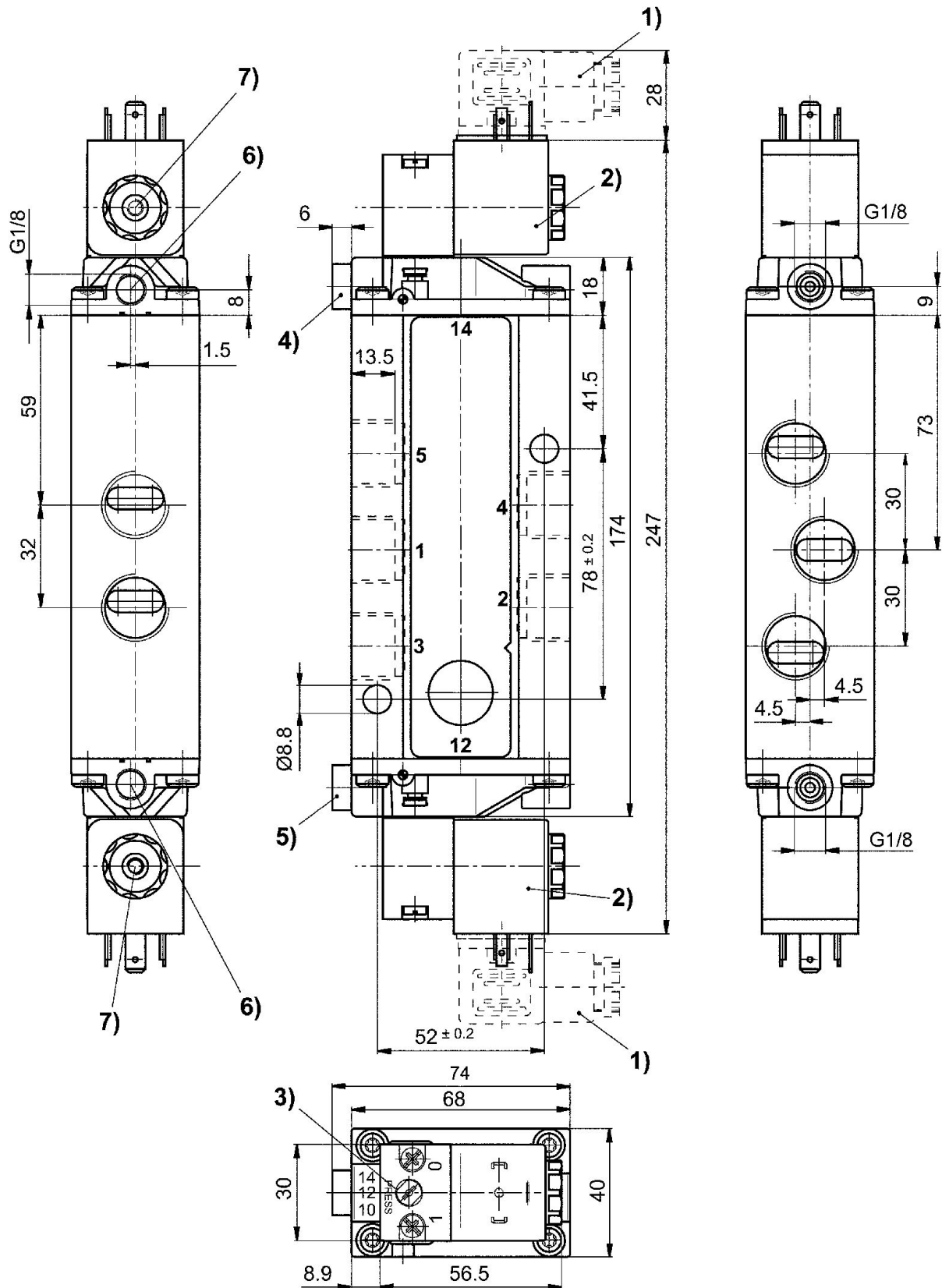
The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!

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