3/2-directional valve, Series A-Pilotair®

R431005386

General series information
AVENTICS Series A-Pilotair Directional valves

- manually operated

Technical data

Industry	Industrial
Type	2-HA-4 Quadruple three-way valves (2-HA-4) gated double handle 5-position gated single handle
Activation	Manual
Nominal flow Qn	1308.72 l/min
Compressed air connection output	Ø 1/4″
Working pressure min.	0 bar
Working pressure max	13.7 bar
Sealing principle	Soft Seal
Type	Poppet valve
Type	2-HA-4
Control pressure min.	0 bar
Control pressure max.	17.2 bar
Min. ambient temperature	-40 °C
Max. ambient temperature	71 °C
Min. medium temperature	-40 °C
Max. medium temperature	71 °C

Medium	Compressed air
Oil content of compressed air min.	0 mg/m³
Oil content of compressed air max.	1 mg/m³
Max. particle size	50 µm
Compressed air connection input	Ø 1/4″
Weight	1.81 kg
Housing material	Die-cast aluminum
Part No.	R431005386

Technical information

These valves were designed primarily for use with multi position cylinders for Transmission Controls. They also meet the application requirements for two different supply pressures, selector functions and directional control of up to four different circuits.

Double handle assemblies are provided for space conservation and for applications requiring two handles located adjacent to each other. Thus, two different functions can be controlled. As an example, the left handle can control direction (forward or reverse) and the right handle, range (1st, 2nd, 3rd and 4th gear).

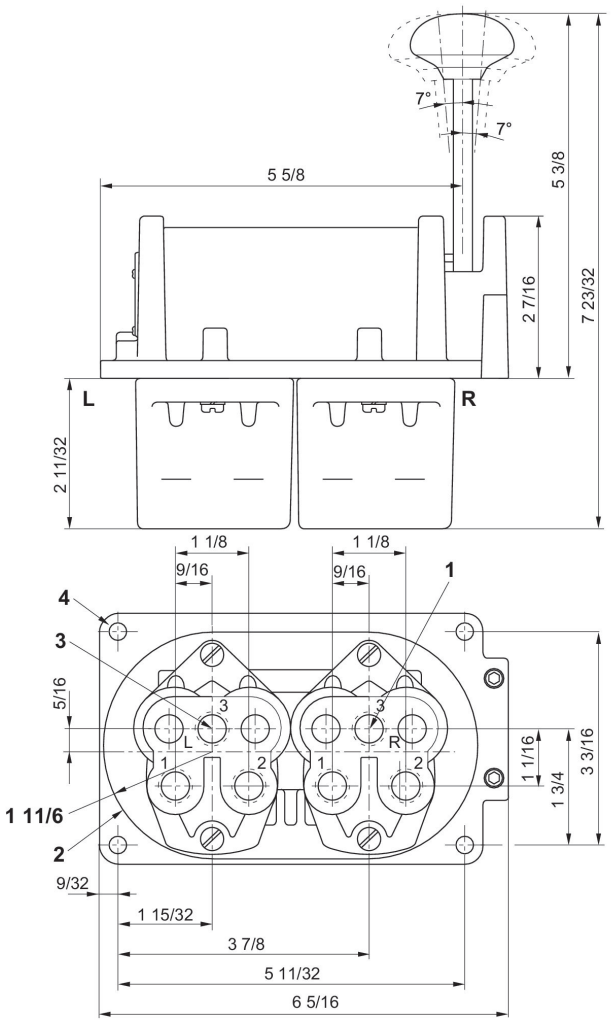
The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!

The pressure dew point must be at least 15 °C less than ambient and medium temperature and may not exceed 3 °C.

The oil content of compressed air must remain constant during the life cycle.

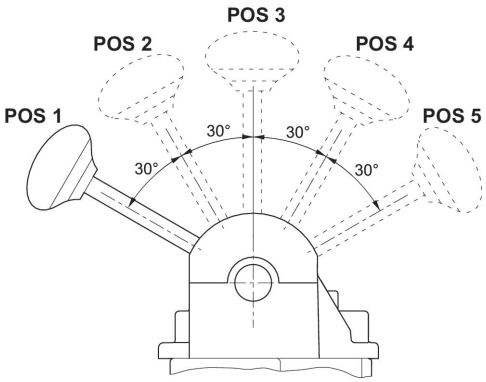
Use only the approved oils from AVENTICS. Further information can be found in the “Technical information” document (available in https://www.emerson.com/en-us/support).

Dimensions in inches



1) Air supply
2) Mounting hole
3) 1/4 - 18 NPTF 6 ports
4) 9/32 diameter (4) places

Triple 3-way valve - 3 position handle, detented



R431006000

Handle position		1	2	3	4
Out Port Supplied	OUT port 1L	X	X		
Out Port Supplied	OUT port 2L		X	X	
Out Port Supplied	OUT port 1R			X	X
Out Port Supplied	OUT port 2R				X

R431004540

Handle position		1	2	3	4
Out Port Supplied	OUT port 1L				X
Out Port Supplied	OUT port 2L	X	X		
Out Port Supplied	OUT port 1R			X	
Out Port Supplied	OUT port 2R	X			

R431006038

Handle position		1	2	3	4	5
Out Port Supplied	OUT port 1L	X				
Out Port Supplied	OUT port 2L		X			
Out Port Supplied	OUT port 1R				X	
Out Port Supplied	OUT port 2R					X

R431005803

Handle position		1	2	3	4	5
Out Port Supplied	OUT port 1L	X	X	X	X	
Out Port Supplied	OUT port 2L	X	X	X		X
Out Port Supplied	OUT port 1R	X		X	X	X
Out Port Supplied	OUT port 2R	X	X		X	X

R4310055403

Handle position		1	2	3	4	5
Out Port Supplied	OUT port 1L		X			
Out Port Supplied	OUT port 2L			X		
Out Port Supplied	OUT port 1R				X	
Out Port Supplied	OUT port 2R					X

R431004801

Handle position		1	2	3	4	5
Out Port Supplied	OUT port 1L		X	X	X	
Out Port Supplied	OUT port 2L			X	X	X
Out Port Supplied	OUT port 1R				X	X
Out Port Supplied	OUT port 2R	X	X	X		

R431005740

Handle position		1	2	3	4	5
Out Port Supplied	OUT port 1L	X	X	X	X	
Out Port Supplied	OUT port 2L				X	X

Handle position		1	2	3	4	5
Out Port Supplied	OUT port 1R	X	X			
Out Port Supplied	OUT port 2R		X	X	X	X

R431005386

Handle position		1	2	3	4	5
Out Port Supplied	OUT port 1L	X	X			
Out Port Supplied	OUT port 2L	X				
Out Port Supplied	OUT port 1R				X	X
Out Port Supplied	OUT port 2R					X

R431004542

Handle position		1	2	3	4	5	
Out Port Supplied	OUT port 1L				X	X	
Out Port Supplied	OUT port 2L	X	X				
Out Port Supplied	OUT port 1R	X			X		
Out Port Supplied	OUT port 2R		X				X

R431009113

Handle position		1	2	3	4	5
Out Port Supplied	OUT port 1L			X	X	X
Out Port Supplied	OUT port 2L	X				
Out Port Supplied	OUT port 1R				X	X
Out Port Supplied	OUT port 2R	X	X	X	X	