3/2-way solenoid valve 472 1..

Venting 3/2-way solenoid valve

Charging 3/2-way solenoid valve

Application

Multiple applications, i.e. controlling operating cylinders.

Purpose

Venting 3/2-way solenoid valve: To vent an air line when current is supplied to the solenoid.

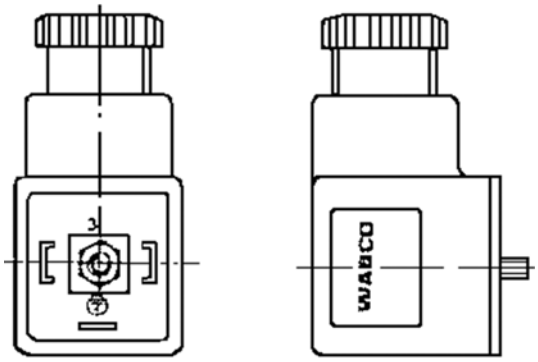
Charging 3/2-way solenoid valve: To pressurize an air line when current is supplied to the solenoid.

Maintenance

No special maintenance is required.

Installation recommendation

- Install the 3/2 way valve in any position.
- Fasten the 3/2 way solenoid valve with two M8 bolts.
- If solenoids are used without any protective circuitry, use diode plug 894 101 620 2.

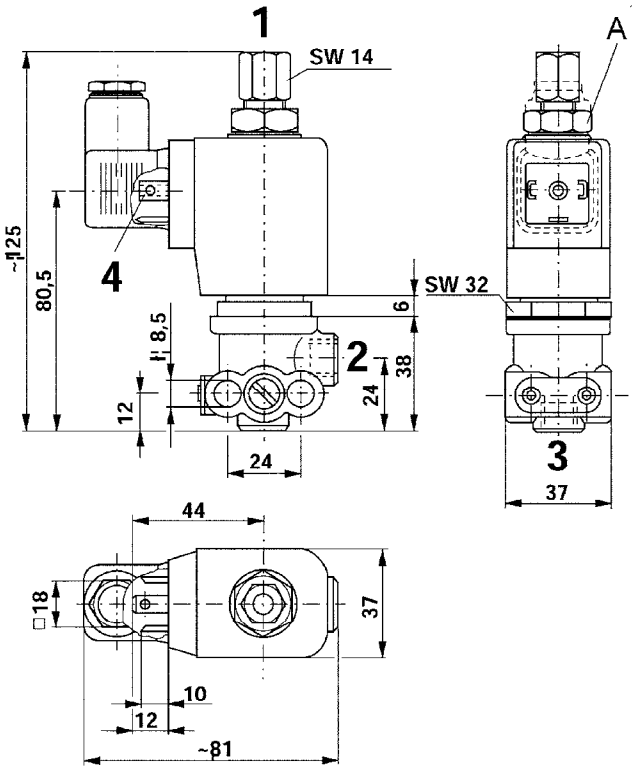


In trailers which have electronic systems (e.g. ABS, ECAS) fitted, no solenoid valves may be installed without protective wiring if they have the same source of power as the electronics.

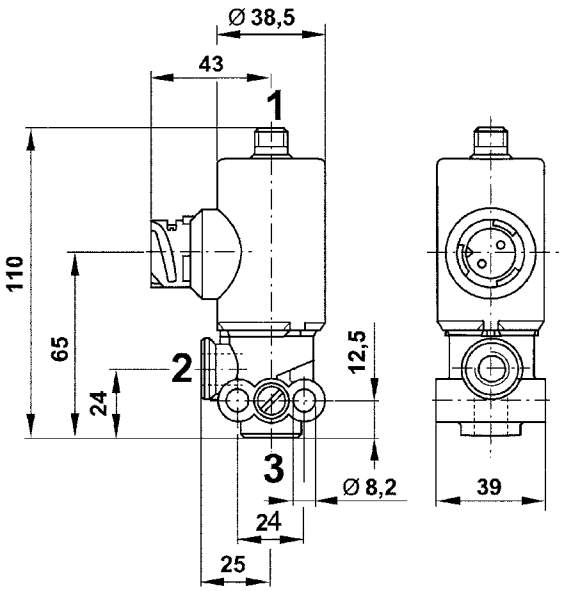
Installation dimensions

Venting 3/2-way solenoid valves

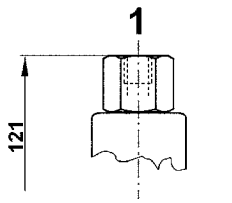
472 102 040 0



472 171 726 0



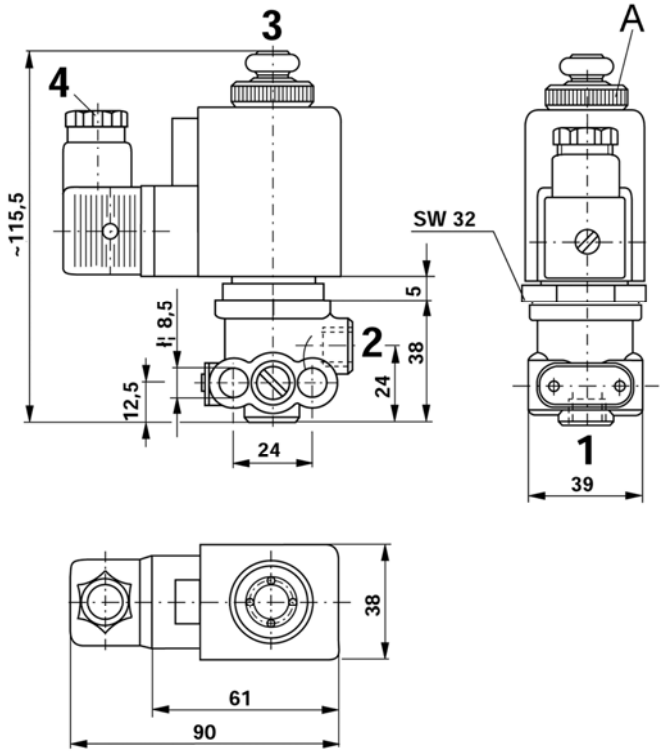
472 173 226 0



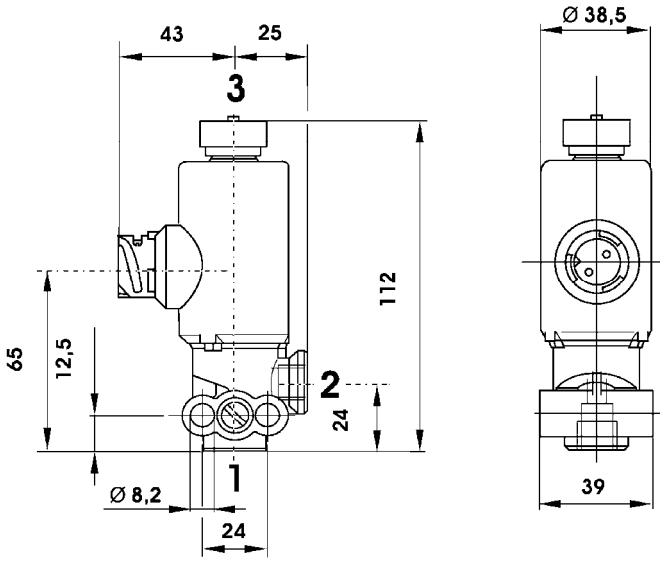
Connections				Legend	
1	Energy supply	**2**	Energy delivery	**A**	Loosen the SW 19 hexagon nut to turn the magnets
3	Exhaust	**4, 6**	Electrical control connection		

Charging 3/2-way solenoid valves

472 127 140 0

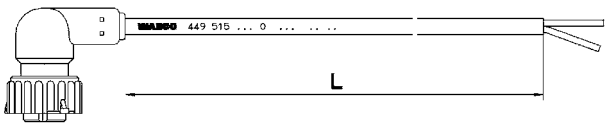


472 170 606 0



Connections				Legend	
1	Energy supply	**2**	Energy delivery	**A**	To turn the magnets, loosen the knurled nut.
3	Exhaust	**4, 6**	Electrical control connection		

Cable with DIN bayonet 449 515 ... 0



Length (L) on request

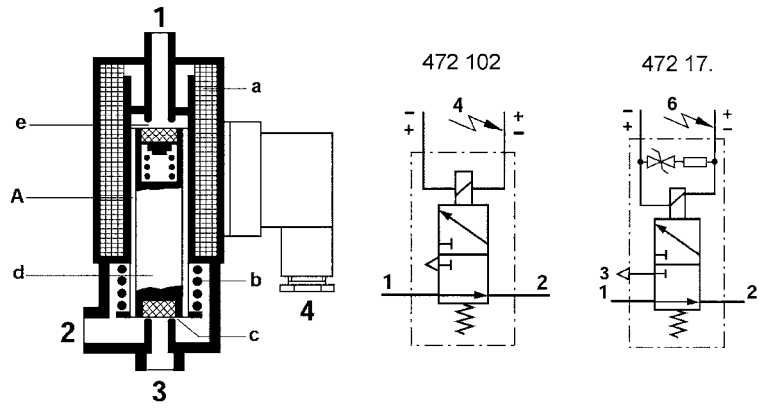
Technical data

		Venting 3/2-way solenoid valves				
Order number		**472 102 040 0**	**472 171 700 0**	**472 171 726 0**	**472 173 226 0**	**472 173 700 0**
Operating voltage (DC)		10.8 V to 28.8 V	24 $^{+8}_{-6.5}$ V			
Nominal diameter	Delivery	Ø 2.6 mm	Ø 2.2 mm		Ø 4 mm	
	Exhaust	Ø 2.2 mm				
Nominal current		at 10.8 V = 0.33 A at 28.8 V = 0.87 A	0.41 A		0.69 A	
Solenoid rating		100 %				
cut-out voltage		–	< I 65 I V		< I 80 I V	
Port threads		2, 3 = M 12x1.5 - 10 deep	M 12x1.5	1 = M 12x1.5 - 7 deep 2, 3 = M 12x1.5 - 10 deep	M 12x1.5 - 10 deep	M 12x1.5
Max. operating pressure		8 bar	11 bar			
Permissible medium		Air				
Operating temperature range		-40 °C to +70 °C	-40 °C to +100 °C		-40 °C to +80 °C	
Connector			M 27x1	DIN bayonet		M 27x1
Weight		0.6 kg	0.5 kg			

		Charging 3/2-way solenoid valves				
Order number		**472 127 140 0**	**472 170 600 0**	**472 170 606 0**	**472 172 600 0**	**472 172 626 0**
Operating voltage (DC)		10.8 V to 28.8 V	24 V $^{+8}_{-6.5}$			
Nominal diameter	Delivery	Ø 2.2 mm	Ø 4 mm		Ø 2.2 mm	
	Exhaust				Ø 3 mm	
Nominal current		at 12 V = 0.33 A at 24 V = 0.65 A	0.69 A		0.41 A	
Solenoid rating		100 %				
cut-out voltage		–	< I 80 I V		< I 65 I V	
Port threads		M 12x1.5 - 10 deep	M 12x1.5	M 12x1.5 - 10 deep	M 12x1.5	M 12x1.5 - 10 deep
Max. operating pressure		8.5 bar	10.2 bar	11 bar		
Permissible medium		Air				
Operating temperature range		-40 °C to +70 °C	-40 °C to +80 °C		-40 °C to + 100 °C	
Connector		–	M 27x1	DIN bayonet	M 27x1	DIN bayonet
Weight		0.5 kg				

Operation

Venting 3/2-way solenoid valve

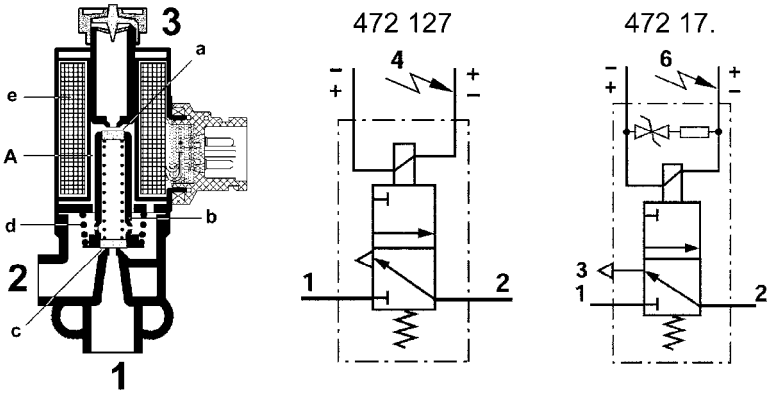


The supply line from the air reservoir is connected to port 1 and thus air is allowed to flow through chamber A and port 2 into the working line connected to port 2. The armature (d) which forms the core of the valve is forced down by spring (b), closing outlet (c).

When a current reaches solenoid coil (a), the armature (d) is lifted, inlet (e) is closed and outlet (c) is opened. The compressed air from the working line will now escape to atmosphere via port 3 and the downstream operating cylinder is exhausted.

When the current to solenoid coil (a) is interrupted, pressure spring (b) will return armature (d) to its original position. Outlet (c) is closed and inlet (e) is opened, again allowing air to pass to the working line via chamber (A) and port 2.

Charging 3/2-way solenoid valve



The supply line, coming from reservoir is connected to port 1. The armature (b) which forms the valve core keeps inlet (c) closed by the load in pressure spring (d).

When a current reaches solenoid coil (e), armature (b) is lifted, outlet (a) is closed and inlet (c) is opened. The compressed air from the supply line will now flow from port 1 to port 2, pressurizing the working line.

When the current to solenoid coil (e) is interrupted, pressure spring (d) will return armature (b) to its original position. Inlet (c) is closed, outlet (a) is opened and the working line is exhausted via chamber (A) and exhaust 3.