

# PNEUMATIC PROXIMITY SWITCH

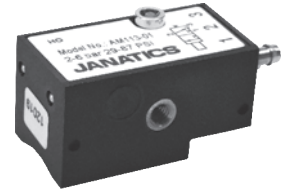
## Series AM113

Cat No AM113 - 01 - 01 - A

### PNEUMATIC PROXIMITY SWITCH

#### Features

- Elegant and compact design
- Smooth operation
- Sensor function indication
- Integrated barbed tube fittings
- Fast response



#### Function

The proximity switch is in principle like a 3/2 way valve that is actuated by a magnetic field or an Fe part, that in turn triggers the pneumatic signal.

#### Application

Contactless sensing of pneumatic cylinder position and similar applications. The pneumatic proximity switch having an internal magnetic sensor gets activated when a cylinder piston fitted with a magnet comes in proximity to the switch.

#### Technical Specifications

Ordering No.	<b>AM113-01</b>
Port Connection	Barbed tube fittings for Ø4 tube (OD - Ø4, ID - Ø2.5) 1 - Inlet, 2 - Outlet, 3 - Exhaust
Medium	Compressed air - Filtered (Non-Lubricated)
Operating pressure	2 to 6 bar
Flow rate	40 lts/min
Distance switch to switch	Min. 20mm
Distance switch to steel parts	Min. 15mm
Ambient / Medium temperature	-15° to +60° C
Materials of construction	Aluminium, Steel, Engineering Plastic, Brass

#### Operation

##### A Switch on pneumatic cylinder

The maximum actuating speed when scanning intermediate position can be approx.1m/s (without load volume).This depends on the cylinder, on the subsequent element, on the length of the pipes and on the pressure. The flux density on the face of the proximity switch must be at least 7 Mt.

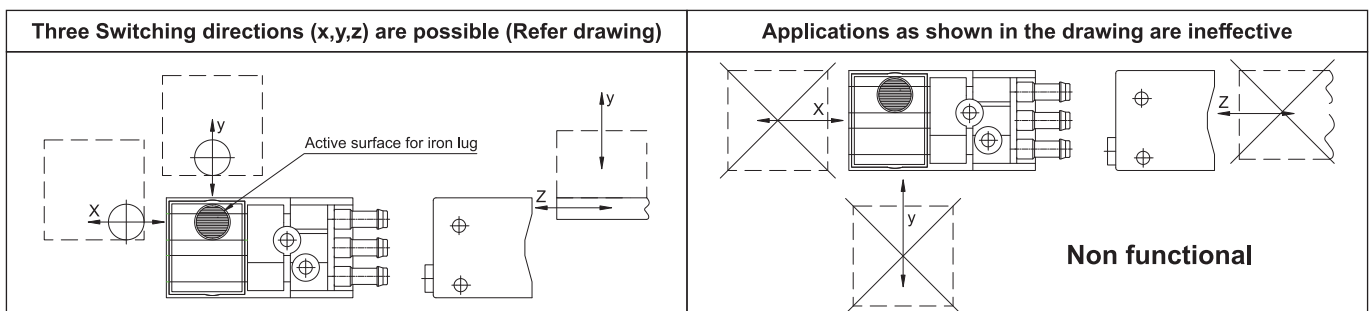
##### B Switching with Fe

The active surface for switching with Fe parts is marked by a white dot.

Operating distances and hysteresis for actuation in direction Z with an Fe part of 6mm diameter and ≥ 20mm in length

Pressure	2 bar	4 bar	6 bar
Operating pressure	2.7±1mm	2.9±1mm	3.1±1mm
Hysteresis	0.2 - 0.8mm	0.4 - 1.5mm	0.6 - 3mm

You can determine the operating distances and hysteresis for other directions and other kinds of actuating element by experiment.

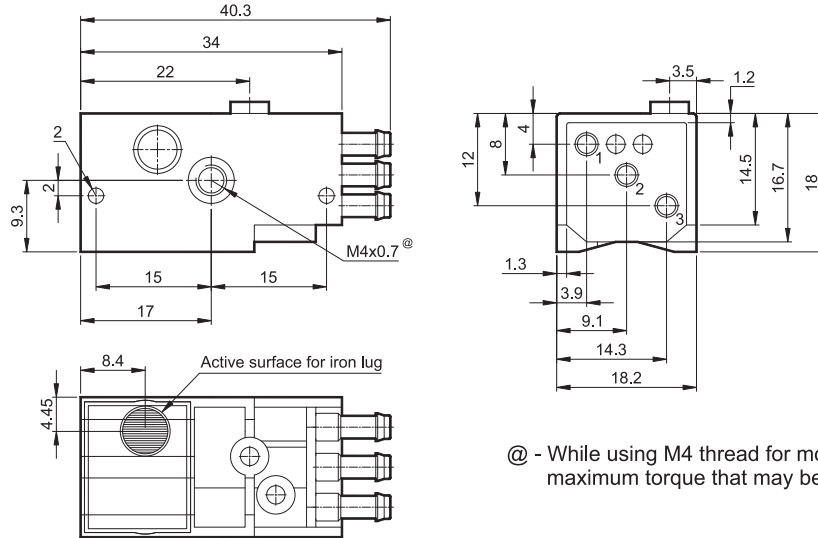


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### Dimension Details



### Mountings

Mount the proximity switch with suitable bracket / clamp to the respective cylinders as mentioned below. A minimum spacing of 20mm between adjacent pneumatic proximity switches will prevent any mutual interference.

<p><b>Mounting bracket*</b> (Suitable for A52 &amp; A55 series - Ø25 cylinder)</p>	<p>Ordering No. <b>A90299</b></p>
<p><b>Mounting clamp*</b> (Suitable for Square type profile magnetic cylinders)</p>	<p>Ordering No. <b>A90300</b></p>

\* Supplied with mounting screws

### Recommended Accessory

PU Tube: OD - Ø4, ID - Ø2.5

Part No: **WH00B04-21**

### Caution

1. The spacing away from iron parts must be at least 15mm
2. Keep sensors away from stray magnetic field to prevent malfunctions
3. Make sure that no iron chips get under the switch. The Exhaust port (3) must not be closed because any restriction of the air exhaust can impair the functioning of the switch.

Subject to change