

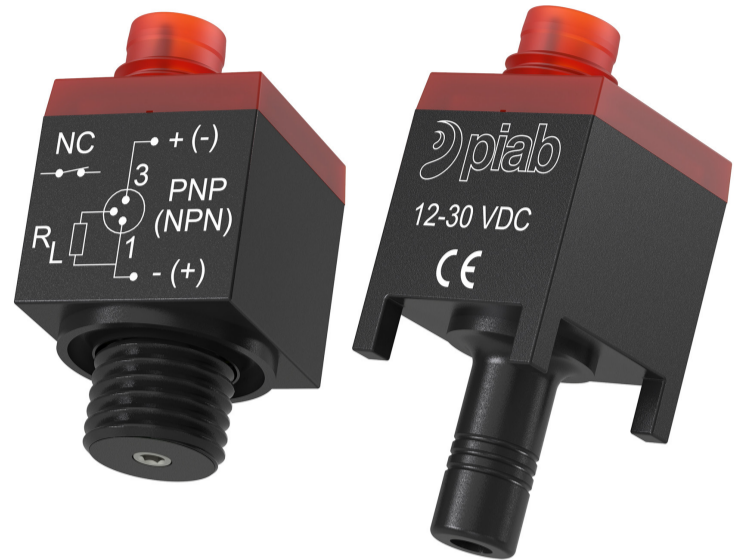
piab Evolving automation

Manufacturer
Piab AB
P.O. Box 4501
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SWEDEN

Manual

Vacuum switch

VS4015, VS4016



piab Evolving automation

Art. No. 0110459, Rev.09 GB, 2021-04
Original instructions

Safety

This section should be studied extra carefully before the product are put into use. Take careful note of all warning signs.

Ensure that the components are properly secured. Regularly check that connections are in good working order, as high cycles or vibrations may cause them to loosen.

Warning! Any leakage must be contained and properly treated in case of usage to sense pressure in processes handling hazardous substances and/or gases.

There is a risk that objects are ejected if greater pressure is used than the product can withstand. Ejection of objects can cause personal injuries, damage the product and cause application failures.

Warning! Make sure that the pressure used when operating the vacuum switch is within the specified range.

Wear eye protection

The intended voltage range which the vacuum switch is designed and approved for is 12-30 VDC. If the switch is used outside of that range there is a risk of damage of the product, and/or application failure.

Warning! Make sure that the voltage range used when operating the vacuum switch is within the specified range (12-30 VDC).

This manual is available in the following languages on piab.com:

CHINESE		ITALIAN		PORTUGUESE	
ENGLISH		JAPANESE		RUSSIA	
FRENCH		KOREAN		SPANISH	
GERMAN		POLISH		SWEDISH	

About VS4015, VS4016

- 0110245 Vacuum switch VS4015 30 -kPa
- 0110246 Vacuum switch VS4015 50 -kPa
- 0110247 Vacuum switch VS4015 70 -kPa
- 0110248 Vacuum switch VS4016 30 -kPa
- 0110249 Vacuum switch VS4016 50 -kPa
- 0110250 Vacuum switch VS4016 70 -kPa

are in conformity with the following European directives:

- Electromagnetic Compatibility (EMC) Directive 2014/30/EU
 - EN/(IEC) 61000-6-2:2005
 - EN/(IEC) 61000-6-4:2007+A1
- RoHS2 Directive (2011/65/EU)



and the UK legislations:

- Electromagnetic Compatibility Regulations 2016
 - BS EN/(IEC) 61000-6-2:2005
 - BS EN/(IEC) 61000-6-4:2007+A1
- The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012



Intended use

- For professional use only.
- The safety instructions shall be followed.
- The product is used to sense pressure in vacuum systems.
- The product shall be used in environments within the product's specifications and certifications.
- The product shall be installed in accordance to installation instructions.

Misuse

- Do not install or operate the product if it is damaged.
- The product shall not be pressurized outside of specification.
- The product shall not be used as standalone safety system to fulfil international lifting norms.
- Using electrical voltage outside specification can cause equipment damage and/or application failure.

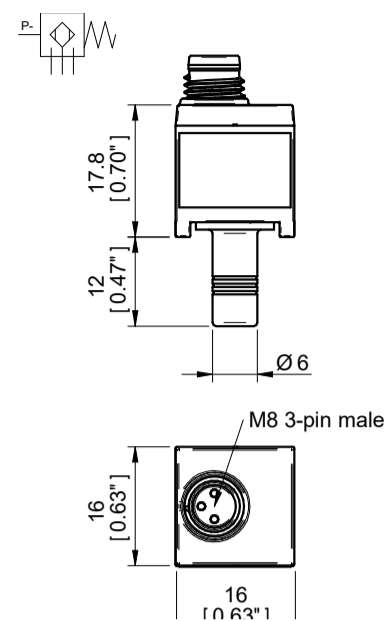
Technical data

Description	Unit	Value
Pressure max	MPa [psi]	0.2 [29]
Material		PA, TPU,SS, CuZn (Au)
Temperature range	°C [°F]	(-25) - 85 [(-13) - 185]
Weight	g [oz]	5 [0.18]
Signal range	-kPa [-inHg]	30, 50, 70 +5/-3 [9, 15 or 21 +1.5/-0.30]
Function		PNP NO/NC, NPN NO/NC
Hysteresis	-kPa [-inHg]	6 ±1 [1.78 ±0.30]
Voltage	VDC	24 (12-30)
Safety classification		IP40
Current, max	mA	100 inductive/400 resistive
Voltage drop, max (100mA/24V inductive load)	V	0.055
Response time	ms	4
High-voltage	VAC	2000
Display		Red LED
Electric connection		M8 3 pin

Dimensional drawing

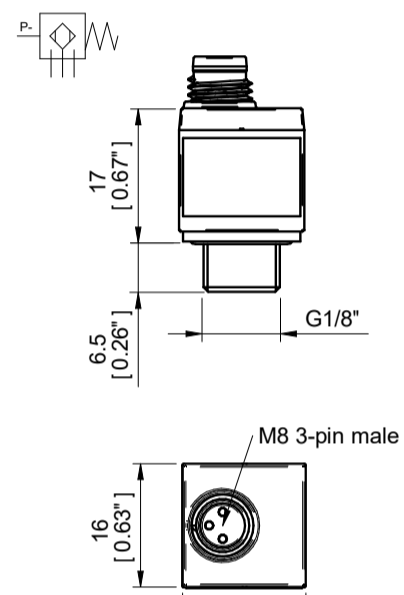
VS4015

Article numbers 0110245, 0110246, 0110247.



VS4016

Article numbers 0110248, 0110249, 0110250.



Installation



Warning!

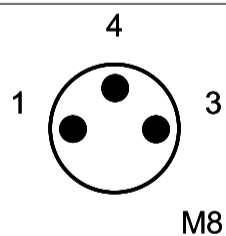
Do not proceed with the installation if the product has been damaged during transportation.



Warning!

The maximum length of the installation cable is 30 meters, to avoid equipment damage and/or application failure.

Electrical connection PIN configuration

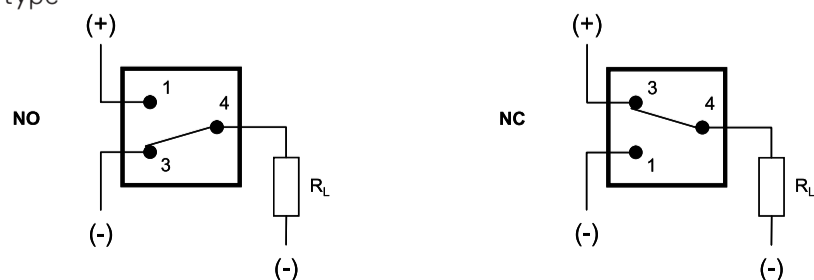


Pin configuration				Name	Note
PNP		NPN			
NO	NC	NO	NC		
1	3	3	1	IN _v	Power input, see technical data
3	1	1	3	IN _v	Power input, see technical data
4	4	4	4	Output	See connection examples

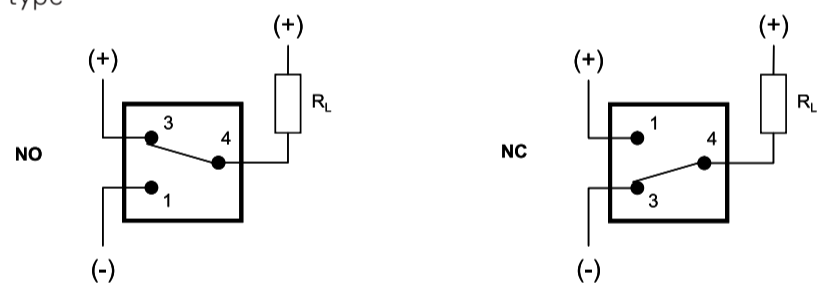
LED indicator is illuminated only at the achieved vacuum level regardless of connection type.

Connection examples

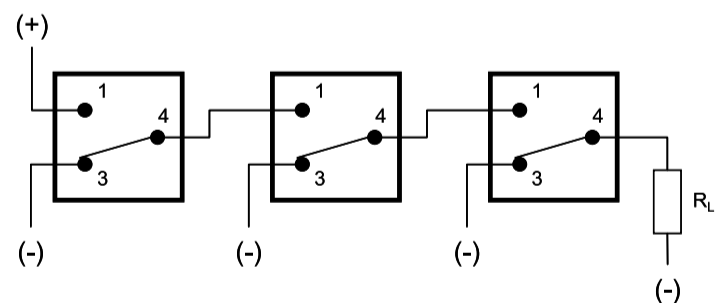
PNP type



NPN type



Installation examples, PNP NO



Recycling and disposal

Environmental aspects are considered in the development process of Piab's products to make sure that a minimal environmental footprint is used. Piab is certified against ISO-14001.

Piab also complies with:

- RoHS (2011/65/EU)
- REACH (EC 1907/2006)



The ways of handling recycling and disposals vary from country to country, and therefore this process needs to be in full compliance with each national regulation.

If possible, disassemble the product into its various components. Batteries, electrical and electronic equipment should be handed over to an authorized body for disposal, as well as the metal parts. All other parts can either be recycled or assorted as waste.