

Vacuum Switches

Summary

With a single-pole double-throw contact, these vacuum switches enable ON and OFF point control signals to be simultaneously received at the maximum or minimum operating pressure, while keeping the change in operating pressure very small. Additionally, the entire vacuum side is made of SUS-304, and the welded air seal allows connection to high vacuum. Thus, these vacuum switches can also be used as protection for automated vacuum equipment and as a switch for safety circuits.



Features

1. With a single-pole double-throw contact, ON and OFF point control signals can be simultaneously received at the maximum or minimum operating pressure.
2. Additionally, the entire vacuum side is made of SUS-304, and the welded air seal allows connection to high vacuum.
3. Has a long life of over 10,000 times, while keeping the change in operating pressure very small.
4. V-015VS-T vacuum switch is a quick-release type with a $\phi 15$ gauge adapter.

Applications

Protection of automated vacuum equipment and as a switch for safety circuits. Retrieval of control signals for various vacuum systems.

Specifications

Model	V-070VS-I	V-015VS-T
Operating pressure (At black - yellow lead wire)	OFF: Atmospheric pressure to atmospheric pressure minus 5.4kPa	
	ON: Atmospheric pressure minus 7.0kPa to atmospheric pressure minus 18.7kPa	
Operating degree of vacuum	Atmospheric pressure to Approx. 10^{-7} Pa	
Leak	1.33×10^{-11} Pa·m ³ /sec or less	
Fluid	air, gas (excluding corrosive gases affecting SUS-304)	
Allowable heating temperature	40°C	
Operating environment temperature	-10°C to +40°C	
Material	Vacuum side all SUS-304	
Life	10,000 times or more	
Connection flange	$\phi 70$ ICF	$\phi 15$ gauge adapter
Electrical ratings	Rated voltage – Resistance load	
	AC250V – 15A	• Ambient temperature : $20 \pm 2^\circ\text{C}$ • Ambient humidity : $65 \pm 5\% \text{RH}$ • Operation frequency : 30times/min
	DC125V – 0.6A	
DC250V – 0.3A	Minimum applied load (reference value) : DC5V 160mA	
Weight	500g	260g

Notes) Please use the internal pressure with less than atmospheric pressure plus 50kpa (0.05MPa) .
 (Recommend less than atmospheric pressure plus 20kPa (0.02MPa))
 When applying pressure to the inside of the vacuum switch V-015VS-T, take measures so as not to jump out of the $\phi 15$ adapter.

● Dimensions diagram

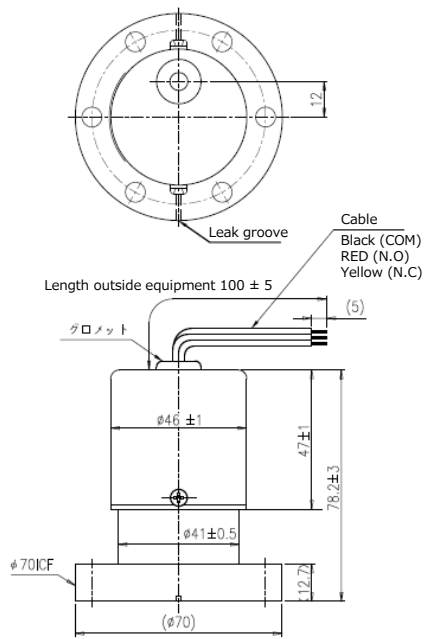


Fig.1 V-070VS-I dimensions

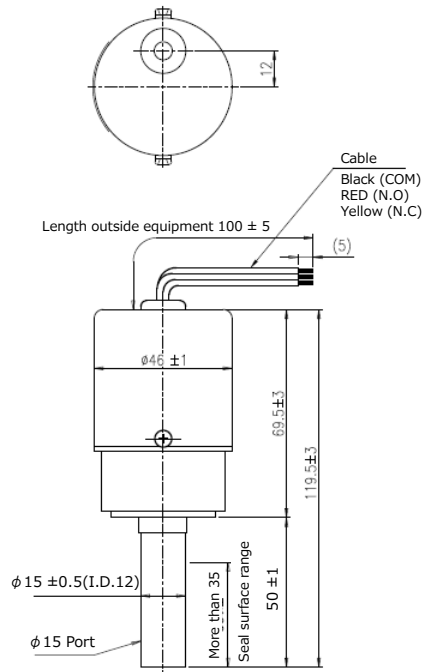
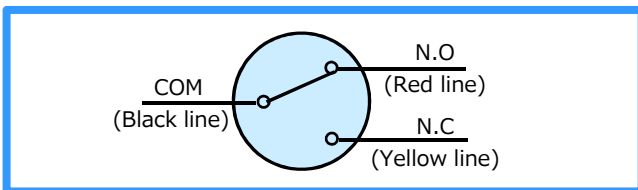


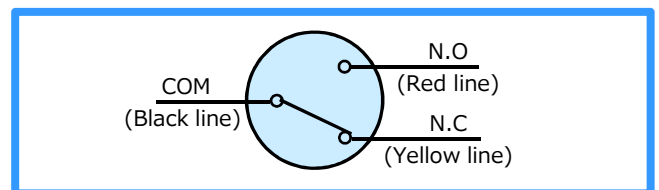
Fig.2 V-015VS-T dimensions

● Contact structure

Atmospheric pressure minus 5.4kPa or more
(Atmospheric pressure state)

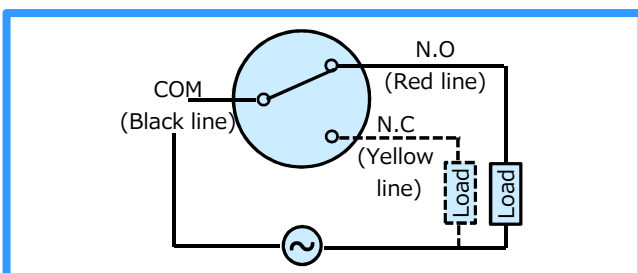


Atmospheric pressure minus 7.0kPa or lower
(vacuum state)

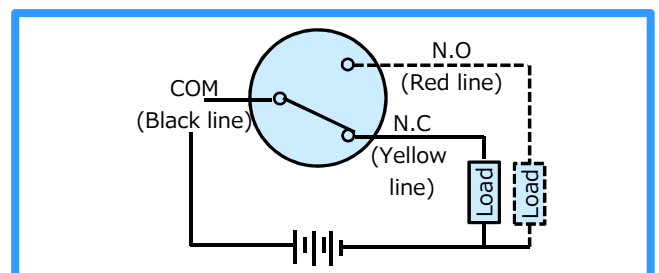


● Wiring method

AC



DC



● Usage notes

Be sure to read "Usage notes" before using.

■ Ordering information

Parts Number	Model	Description	Remark	Code
0162-18920	V-070VS-I	Vacuum Switch	With $\phi 70$ ICF	29210
0162-18938	V-015VS-T	Vacuum Switch	For $\phi 15$ gauge adapter	29211

Canon ANELVA Corporation is constantly improving its products, hence specifications are subject to change without notice.

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