



Instruction Manual
Pneumatic Indicator
Series VR31*0



The intended use of this product is to indicate the presence of pneumatic pressure.

1 Safety Instructions

- These safety instructions are intended to prevent hazardous situations and/or equipment damage. These instructions indicate the level of potential hazard with the labels of “Caution,” “Warning” or “Danger.” They are all important notes for safety and must be followed in addition to International Standards (ISO/IEC^{*)}, and other safety regulations.
- ^{*)} ISO 4414: Pneumatic fluid power - General rules relating to systems.
ISO 4413: Hydraulic fluid power - General rules relating to systems.
IEC 60204-1: Safety of machinery - Electrical equipment of machines. (Part 1: General requirements)
ISO 10218-1: Manipulating industrial robots -Safety. etc.
- Refer to product catalogue, Operation Manual and Handling Precautions for SMC Products for additional information.
 - Keep this manual in a safe place for future reference.

	Caution	Caution indicates a hazard with a low level of risk which, if not avoided, could result in minor or moderate injury.
	Warning	Warning indicates a hazard with a medium level of risk which, if not avoided, could result in death or serious injury.
	Danger	Danger indicates a hazard with a high level of risk which, if not avoided, will result in death or serious injury.

Warning

- **Always ensure compliance with relevant safety laws and standards.**
- All work must be carried out in a safe manner by a qualified person in compliance with applicable national regulations.

2 Specifications

2.1 Specifications VR3100

Series	VR3100-01R	VR3100-01G	VR3100-01O
Fluid	Air		
Min. Operation Pressure	0.1 MPa		
Max. Operation Pressure	0.8 MPa		
Ambient & operating fluid temp.	-5 to +60 °C (No freezing)		
Min. air quality	5 µm filtration		
Min. operating frequency	1 cycle / 30 days		
Max. Operating frequency	150 cycles per minute		
Mass	40 g		
Indicator light	Red	Green	Orange
Port size	Rc 1/8 (6A)		

2 Specifications - continued

2.2 Specifications VR3110

Series	VR3110-01R	VR3110-01G
Fluid	Air	
Min. Operation Pressure	0.15 MPa	
Max. Operation Pressure	1.0 MPa	
Ambient & operating fluid temp.	-5 to +60 °C (No freezing)	
Min. air quality	5 µm filtration	
Min. operating frequency	1 cycle/30 days	
Max. Operating frequency	60 cycles/minute	
Mass	6 g	
Indicator light	Red	Green
Port size	R 1/8 (6A)	

3 Installation

3.1 Installation

Warning

- Do not install the product unless the safety instructions have been read and understood.

3.2 Environment

Warning

- Do not use in an environment where corrosive gases, chemicals, salt water or steam are present.
- Do not use in an explosive atmosphere.
- Do not expose to direct sunlight. Use a suitable protective cover.
- Do not install in a location subject to vibration or impact.
- Do not mount in a location exposed to radiant heat that would result in temperatures in excess of the product's specifications.

3.3 Piping

Caution

- Before connecting piping make sure to clean up chips, cutting oil, dust etc.
- When installing piping or fittings, ensure sealant material does not enter inside the port. When using seal tape, leave 1.5 to 2 threads exposed on the end of the pipe/fitting.
- Tighten fittings to the specified tightening torque.

3.4 Lubrication

Caution

- SMC products have been lubricated for life at manufacture, and do not require lubrication in service.
- If a lubricant is used in the system, refer to catalogue for details.

4 How to Order

Pneumatic Indicator

VR3100-01R	Indicator: Red
VR3100-01G	Indicator: Green
VR3100-01O	Indicator: Orange

Miniature Pneumatic Indicator

VR3110-01R	Indicator: Red
VR3110-01G	Indicator: Green

5 Outline Dimensions (mm)

5.1 VR3100

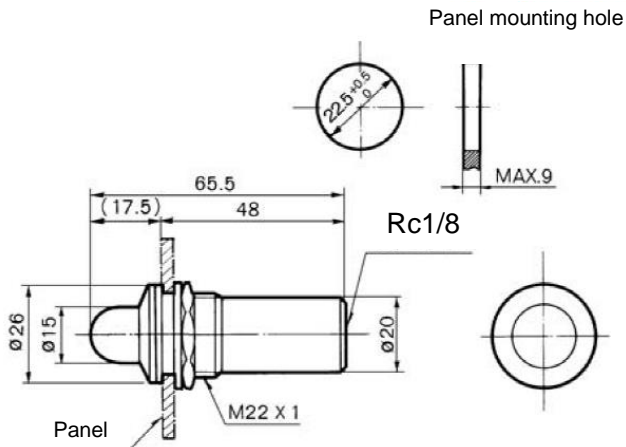


Figure 1

5.2 VR3110

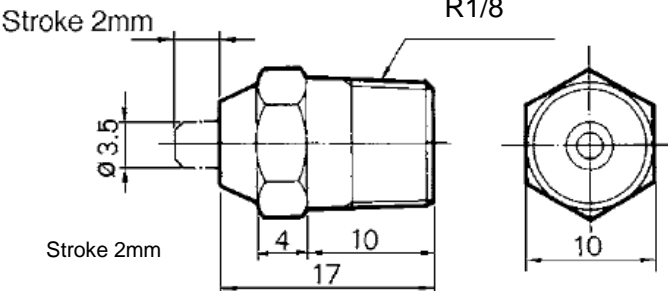


Figure 2

6 Maintenance

6.1 General Maintenance

Caution

- Not following proper maintenance procedures could cause the product to malfunction and lead to equipment damage.
- If handled improperly, compressed air can be dangerous.
- Maintenance of pneumatic systems should be performed only by qualified personnel.
- Before performing maintenance, turn off the power supply and be sure to cut off the supply pressure. Confirm that the air is released to atmosphere.
- After installation and maintenance, apply operating pressure and power to the equipment and perform appropriate functional and leakage tests to make sure the equipment is installed correctly.
- If any electrical connections are disturbed during maintenance, ensure they are reconnected correctly and safety checks are carried out as required to ensure continued compliance with applicable national regulations.
- Do not make any modification to the product.
- Do not disassemble the product, unless required by installation or maintenance instructions.

7 Limitations of Use

8.1 Limited warranty and Disclaimer/Compliance Requirements

Refer to Handling Precautions for SMC Products.

8 Product disposal

This product should not be disposed of as municipal waste. Check your local regulations and guidelines to dispose this product correctly, in order to reduce the impact on human health and the environment.

9 Contacts

Refer to www.smcworld.com or www.smc.eu for contacts.

SMC Corporation

URL : [http:// www.smcworld.com](http://www.smcworld.com) (Global) [http// www.smceu.com](http:// www.smceu.com) (Europe)
'SMC Corporation, Akihabara UDX15F, 4-14-1, Sotokanda, Chiyoda-ku, Tokyo 101 0021
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