OMRON

Electromagnetic Inductive RFID Read/Write Head | V600-H51-1

Cylindrical Read/Write Head for Use in Metal and Non-metal Applications

- Operates at 530 kHz
- -25°C to 75°C storage temperature
- -10°C to 40°C operation temperature
- Up to 12 mm transmission distance (application dependent)
- Threaded cylindrical exterior
- Durable brass, ABS and epoxy plastic construction
- For metal and non-metal through-hole mounting applications

Ordering Information

■ READ/WRITE HEAD

Item	Standard cable lengths	Part number
Read/write head	0.5 m	**V600-H51-1 0.5M**
	2 m	**V600-H51-1 2M**
	5 m	**V600-H51-1 5M**
	10 m	**V600-H51-1 10M**

Specifications

■ GENERAL

- The communications distance priority mode or communications time priority mode can be set on the serial interface ID controller or the ID sensor unit via the communications mode DIP switches.
- The communications distance priority mode is always used for parallel interface ID controllers.
- These specifications are the certified performance when taking into consideration variations in ambient temperatures and products.

■ READ/WRITE HEAD

Communication method		Electromagnetic inductive
Indicators	Power	Green
	Transmission	Orange
Construction	Case	Brass
	Transmission face	ABS plastic
	Filler	Epoxy plastic
	Cable	PVC
Enclosure rating		IEC60529, IP67
		JEM1030, IP67G

Note: The cable and connector are not of an oil or watertight construction.

■ TRANSMISSION DISTANCE

Data carrier	Stationary installation	Transmission distance (max. axial offset ± 1 mm)
V600-D23P53	Read distance	0.5 to 12 mm
	Write distance	0.5 to 12 mm
V600-D23P55	Read distance	0.5 to 12 mm
	Write distance	0.5 to 12 mm

Note: 1. V600-H51-1 read/write head is installed in a metal (iron) surface.
2. Data carriers are installed in a non-metal (plastic, wood, etc.) surface.
3. The mode of the ID controller or the ID sensor reflect transmission distance priority.

■ CHARACTERISTICS

Insulation resistance	50M Ω (at 500 VDC) between cable terminals and case
Dielectric strength	1000 VAC, 50/60 Hz for 1 minute between cable terminals and case
Vibration resistance-destruction	10 to 500 Hz, 2.0 mm double amplitude 3 times for 11 minutes each in X, Y and Z directions
Shock resistance-destruction	500 m/s^2; 3 times each in X, Y and Z directions
Applied standard	FCC Part 15 Subpart C

■ STORAGE CONDITIONS

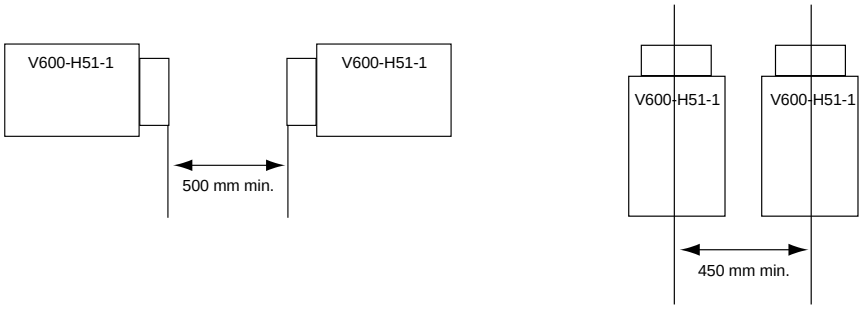
Ambient temperature	-25°C to 75°C (-13°F to 167°F) (no icing)
Ambient humidity	35% to 95% relative humidity (no condensation)
Environment	Do not subject to excessive pressure, corrosive or flammable gases and oils which may deform the product. (See manual for details.)

■ OPERATION CONDITIONS

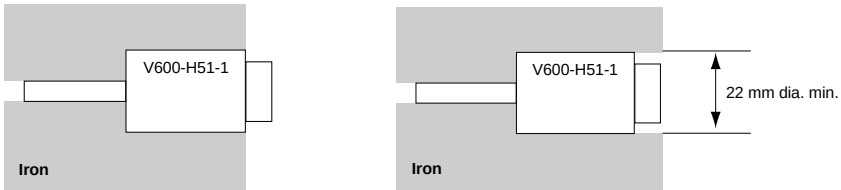
Ambient temperature	-10°C to 40°C (14°F to 104°F) (no icing)
Ambient humidity	35% to 95% relative humidity (no condensation)
Environment	Do not subject to excessive pressure, corrosive or flammable gases and oils which may deform the product. (See manual for details.)

Installation

■ MUTUAL INTERFERENCE



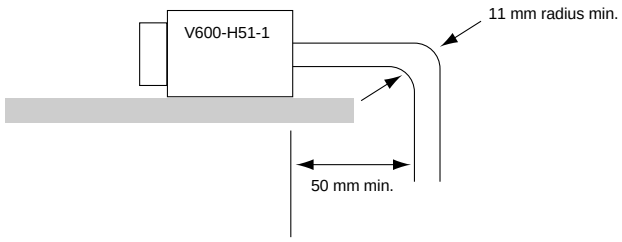
■ INSTALLATION IN METAL SURFACES



Best Acceptable

Note: When V600-H51-1 is installed with metal near the coil tip, as shown above, the transmission range is reduced by 50% for the V600-H51-1 in comparison to the recommended installation.

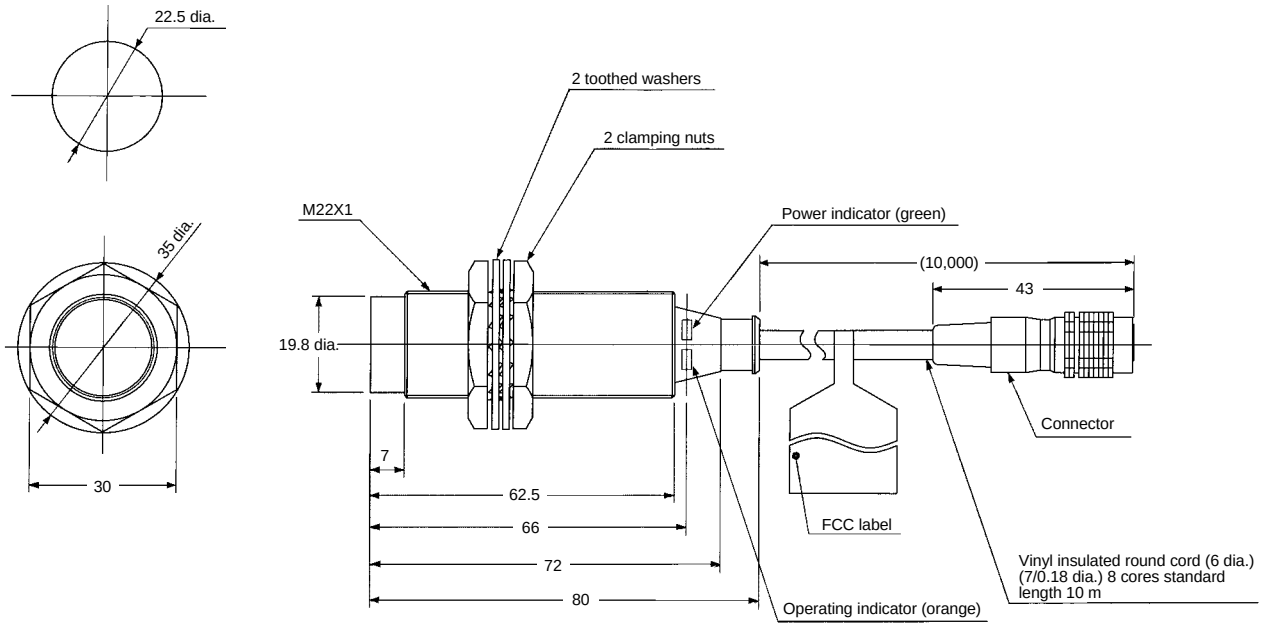
■ MINIMUM CABLE RADIUS



Dimensions

Unit: mm

■ READ/WRITE HEAD



NOTE: DIMENSIONS ARE SHOWN IN MILLIMETERS. To convert millimeters to inches divide by 25.4.

OMRON

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