

Installation Guidelines

Voltage Monitoring Insulator - Type VMI

15kV p/n 9562 and 9563

25kV p/n 9564 and 9565

35kV p/n 9566 and 9567

46kV p/n 9568 and 9569

DANGER

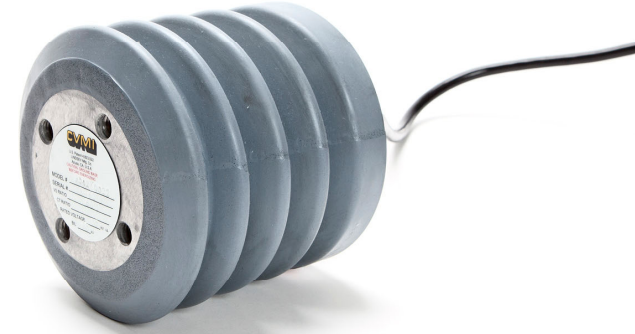
The sensor must be solidly grounded to earth before it is energized. Connection to the phase conductor will energize the sensor and will result in high voltage across the output unless grounded. Failure to ground before energizing can result in serious injury or death.

DANGER

Sensor must be applied within its electrical and mechanical ratings. Application of sensor in excess of its ratings can result in immediate or delayed electrical or mechanical failure. Failure to apply the sensor within its ratings can result in serious injury or death, or in premature failure of the sensor.

DANGER

Do not drop. While extremely durable, the sensor is cast from a material that can fracture if dropped onto a hard surface. Fractures can result in either catastrophic failure of the sensor upon energization resulting in serious injury or death, or in premature failure of the sensor.



CAUTION

Sensor must remain in packaging during transportation to installation site. Transportation of the sensor without its protective packaging may result in chips, cracks, or fractures to the sensor body. Physical damage can result in premature failure of the sensor or reduced electrical ratings.

CAUTION

Both the sensor cable connectors and the cable connector located on the sensor must remain dry and protected from inclement weather. The connectors are weatherproof once joined, but may allow moisture in the cable when the male or female connectors are left exposed to the elements. Moisture in the cable will result in inaccurate measurement readings.

WARNING

DO NOT HIPOT. HIPOT (high potential) testing will thermally damage the resistor assemblies in the sensor causing permanent damage. HIPOT testing voids the sensor's warranty. If a HIPOT test is necessary, contact Lindsey for alternate product intended for HIPOT.

Specifications

Electrical Ratings

Catalog Number	9562	9563	9564	9565	9566	9567	9568	9569
Insulation Class	15kV	15kV	25kV	25kV	35kV	35kV	46kV	46kV
Impulse (BIL)	95kV	95kV	110kV	110kV	150kV	150kV	200kV	250kV
Leakage Distance (in.)	10.8	12.3	17.2	20.2	25	29.3	37.7	42.0
Dry Arc Distance (in.)	6	7.5	10	12	14	15	18	22.0
Overall Height (in.)	6	7.5	10	12	14	15	18	22.0
Withstand (60 Hz, 1 min.)	34kV	34kV	34kV	34kV	40kV	40kV	50kV	65kV
Corona	11kV	11kV	11kV	11kV	19kV	19kV	26kV	33kV
Equivalent ANSI TR Number*		TR202	TR205		TR208		TR210	TR214

*ANSI Standard C29.9-1983, Table 1.

Specifications (continued):

Mechanical Ratings

Catalog No.	9562	9563	9564	9565	9566	9567	9568	9569
Insulation Class	15kV	15kV	25kV	25kV	35 kV	35 kV	46kV	46kV
Cantilever Strength (lbs.)	1,200	2,000	2,000	2,000	2,000	2,000	2,000	2,800
Weight (lbs.)	10	11	15	17	21	25	27	53
Shipping Weight (lbs.)	13	16	18	20	24	28	30	56

Characteristics:

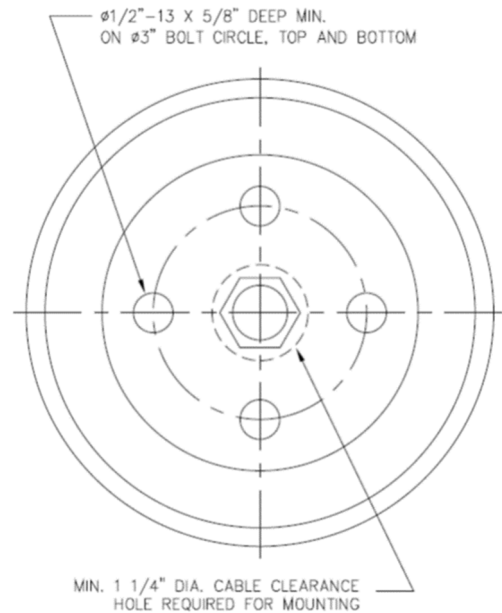
The Lindsey Voltage Monitoring Insulator (VMI) is designed to be interchangeable with ordinary standoff insulators in either indoor or outdoor applications. They may be installed indoors or in cabinets as a bus support in vertical or horizontal orientation. Brackets are available to mount VMI's outdoors on crossarms or existing switchgear. The VMI is not designed or intended to support conductor load and is not a replacement for a line post insulator.

Installation:

Following the instructions below will insure a safe installation.

1. A 1- 1/4" clearance hole is required for the signal cable. Modify as necessary the VMI support structure or mounting base to allow the proper clearance. If you purchased a Lindsey mounting bracket with the VMI, no modification should be required.
2. Mount the VMI using the 4 tapped 1/2" holes (on a 3" bolt circle) in the base of the VMI using 4 standard 1/2" - 13 bolts. The signal cable or signal cable connector should be centered in the clearance hole (See Figure 1.).
3. Connect the base of the VMI to ground or system neutral before the VMI is energized. One convenient method is to attach a ground wire to one of the mounting bolts in the base. For outdoor applications, make sure that the VMI base is mounted onto metal connected to ground potential.

Figure 1.



4. Connect the top of the VMI to the high voltage component or bus. If the VMI is used outdoors on a pole, crossarm, or switch, simply connect a wire to the top using a bolt and washer into one of the 4 top holes.
5. Connect the signal output, using either the cast-in signal cable or the connector/cable assembly, to the customer supplied IED or RTU.

NOTE: When bringing the far end of the cable into a control cabinet, make sure the hole or cable gland in the cabinet can accept the following connector or cable diameters for proper pass through.

Cable End	Min. Hole or Gland Dia.
Pigtail	0.635 in. (16 mm)
Single Sensor Connector	1.46 in. (37 mm)

6. Energize the system.