

Ingress Protection and Potted Junction Box on Rosemount® Magnetic Flowmeter Sensors

Although an instrument can carry a rating for submergence proof, it still must be installed per local codes to maintain that rating and possible warranty related to the rating. However, there are some best practices to help maintain the IP68 rating of the sensors.

- Plug all of the conduit port openings that are not being used for cable runs with an IP68 approved plug, and PTFE tape or paste on the threads to prevent water ingress into the junction box.
- For the cable runs, these should be done in an IP68 approved conduit, and the conduit glands that connect to the junction box must also be IP68 approved.
- If available, order the option code from the vendor that supplies the cable run already attached to the sensor terminals and “potted” with a dielectric gel. Above steps also MUST be followed to comply with IP68 as the cable used for coil drive and signal are not IP68 rated.

Note

If the appropriate cable, plugs, and conduit connections are used, then potting⁽¹⁾ is not required in the junction box. Potting can be added if additional ingress protection is desired.

- This is NOT a hard epoxy potting. It is important to note that even if this option is selected, IP68 conduit is still required since the cable supplied by Emerson™ Process Management is not IP68 approved.
- On the Rosemount 8705 Flanged Magnetic Flowmeter Sensors, this potting option can be ordered by specifying one of the following options:

R05	Potted remote junction box with 50-ft. of remote cable
R10	Potted remote junction box with 100-ft. of remote cable
R15	Potted remote junction box with 150-ft. of remote cable
R20	Potted remote junction box with 200-ft. of remote cable
R25	Potted remote junction box with 250-ft. of remote cable
R30	Potted remote junction box with 300-ft. of remote cable

1. Potting - the process of filling the sensor junction box with a dielectric gel that helps protect the terminal block from any moisture that may enter the junction box.

- On the Rosemount 8750W Magnetic Flowmeter for utility, water, and wastewater applications this potting option can be ordered on flanged meters only by specifying one of the following options:

R05	Potted remote junction box with 50-ft. of remote cable
R10	Potted remote junction box with 100-ft. of remote cable
R15	Potted remote junction box with 150-ft. of remote cable
R20	Potted remote junction box with 200-ft. of remote cable
R25	Potted remote junction box with 250-ft. of remote cable
R30	Potted remote junction box with 300-ft. of remote cable

Note

This potted remote junction box option is only available on remote mount systems as the transmitters are NOT rated for IP68 continuous submergence installations.

Electrical classification analogy: Complying with plant, local, and state electrical codes has always been the responsibility of the customer. An instrument may carry an explosion-proof rating, for example, but when installing into a hazardous area, all of the wiring and conduit adapter components must be rated for installation into that area based on the Plant, Local and State codes.

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