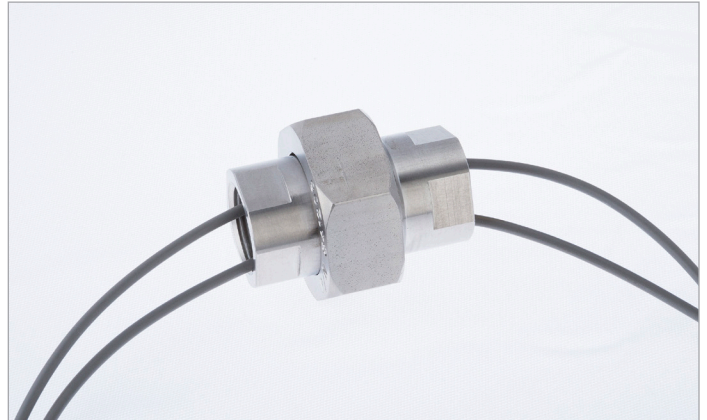


Nuclear Power Products and Services



## Product Description

The EGS Conduit Seal is a lightweight, easy-to-install design that prevents moisture and water from penetrating instrument housings or junction boxes from attaching conduits. Its anatomy consists of two stainless steel housings that are assembled with a hex nut. The housings contain a grommet. The wires are fed through the grommet's specially sized holes. The housings are tightened using the hex nut, which compresses the grommet and creates the seal.

## Design Features

- Easy installation/simple assembly procedures
- Multi-conductor capability up to six #12 or #14 AWG, or up to eight #16 or #18 AWG
- Avoids twisting of lead wire
- Small and lightweight, less than one pound
- Utilizes existing field wire, no splicing
- No special tools or preassembly required
- No maintenance
- Coarse threads
- Easy interface with device and conduit
- Used on variety of devices such as solenoid valves, transmitters, RTDs, TCs, pressure/limit/level/position switches, etc.
- Compatible with ALARA considerations

## Qualification Levels

- Qualified life: 40 years at 150°F (65°C)
- Radiation: 2E8 rads gamma
- Seismic: 6.0g ZPA
- LOCA: tested to 415°F (212°C) and
- 100 psig (790.8 kPa)

## Qualification Standards

Successfully qualified by test for applications in harsh PWR/BWR environments, in accordance with:

- ANSI N45.2
- 10CFR50/Appendix B
- 10CFR50.49
- IEEE Standards (vary per applicable EQ Qualification Report)
- CSA Registered

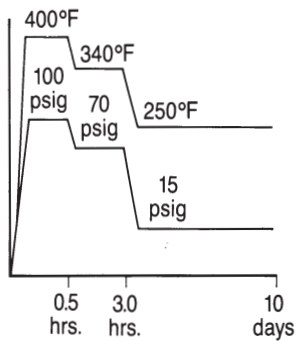
# EGS Conduit Seal

## Qualification Levels

(Per EGS Report PEI-TR-841203-12)

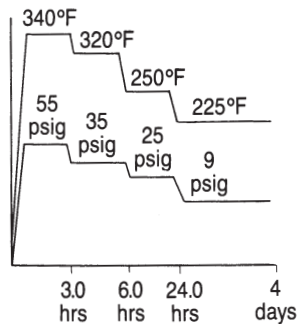
### First Test

- Qualified life: 40 years at 150°F (65°C)
- Seismic:
  - 4.0g ZPA (OBE)
  - 6.0g ZPA (SSE)
- Vibration Aging: 0.75g, 90 minutes per axis
- Radiation: 2E8 rads gamma
- Accident Peaks: tested to 415°F (212°C), 100 psig (790.8 kPa), chemical spray, 100%RH (See figure below)



### Second Test

- Qualified life: 5 years at 195°F (90°C)
- Radiation: 5.7E7 rads gamma
- Accident Peaks: 340°F (171°C), 55 psig (480.6 kPa), demineralized waterspray, 100%RH (See figure below)

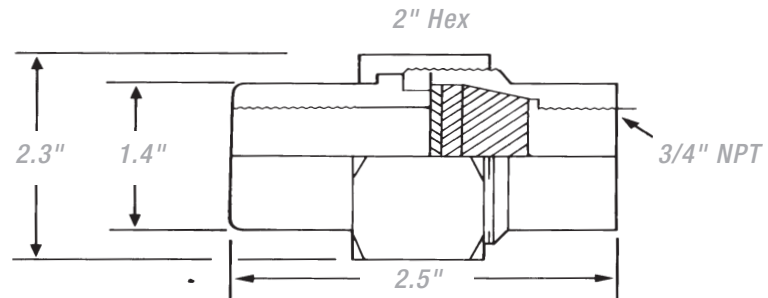
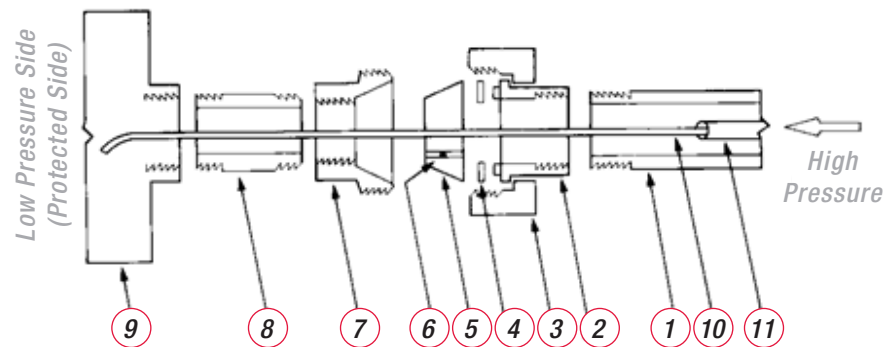


## Installation

Installation is simple and easy. The conduit seal is designed for quick, cost-effective installation into instruments, junction boxes or conduit runs. No special tools or preassembly is required. Responses from installation teams indicate that the EGS Conduit Seal is durable and can be installed in a fraction of the time required for other nuclear seals.

## Typical Configuration

1. Field Conduit
2. Housing, High Pressure Side to Field Conduit
3. Union Nut
4. Flat Washer
5. Grommet
6. Steel Ball
7. Housing, Low Pressure Side to Instrument Adapter
8. Instrument Housing
9. Insulated Wire
10. Cable Jacket
11. Cable Jacket



## How to Order

The EGS Conduit Seal housing is ordered by part number 841206. The grommets are ordered by unique part numbers based on lead wire diameters as shown.

| Order Grommet Seal P/N | Nominal Lead Wire Diameter - inches (conductor with insulation) | Maximum Number of Lead Wire |
|------------------------|-----------------------------------------------------------------|-----------------------------|
| GR-12                  | 0.136-0.183                                                     | 6                           |
| GR-14                  | 0.120-0.158                                                     | 6                           |
| GR-16                  | 0.110-0.141                                                     | 8                           |
| GR-18                  | 0.088-0.122                                                     | 8                           |

*Example:* Conduit Seal required for device with six, 0.160 diameter wires, would be part number: 841206/GR-12

## CONTACT INFORMATION:

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