

EGS Quick Disconnect Connector

3/8", 1/2", 3/4", and 1-1/2"

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Nuclear Power Products and Services



Product Description

Bayonet Style

A true quick-disconnect device that can be locked and unlocked by a simple twist of the hand. The bayonet style features a visual locking indicator for ease of verification.

Hex Nut Style

An optional style designed especially for use in extreme temperature environments since it can use a metal O-ring.

(The 3/8" quick disconnect is only available in the Bayonet Style).

Design Features

- Easy installation/assembly
- Multi-conductor capability
- Small and lightweight
- No special tools or pre-assembly required
- No maintenance, except for periodic O-ring replacement
- Easy interface with device and conduit
- Used on variety of devices such as solenoid valves, transmitters, RTDs, TCs, pressure/limit/level/position switches, MOVs, motors, etc.
- Compatible with ALARA considerations
- Direct replacement for the Rosemount 353C conduit seal

Qualification Reports

- 3/8" QDC Qual: EGS-TR-23062-04
- 1/2" QDC Qual: PEI-TR-880701-04
- 3/4" QDC Qual: EGS-TR-913601-01
- 1-1/2" QDC Qual: EGS-TR-913602-01
- Seismic Supplement: EGS-TR-880706-05
- Supplemental Seismic Report: EGS-TR-880706-14

Qualification Levels

- Qualified life: 40 years at 150°F (62.6°C)
- Radiation: tested to 2.5E8 rads gamma
- Vibration Aging: 0.75g, 90 minutes per axis
- Resonance Frequency: >200 Hz
- Seismic: tested to 8.3g ZPA (SSE)
- Supplemental Seismic: 20g per static load
- Thermal Cycling: 40 cycles at $\Delta T=55^\circ F$
- Accident Peaks: 435°F (223°C), 77psig (632.2 kPa), chemical spray, 100% RH
- Post-accident Aging: equivalent to 1 year at 200°F (93°C)

Qualification Standards

Successfully qualified by test in accordance with:

- 10CFR50.49
- IEEE 572-1985
- IEEE 323-1974/1983
- IEEE 344-1987
- IEEE 382-1980
- ANSI N45.2
- 10CFR50/Appendix B
- CSA Registered

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Installation (See diagram to right)

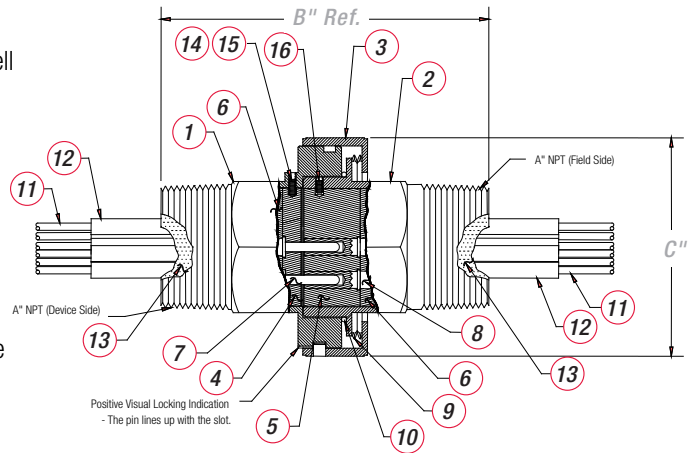
Installation is simple. The connector is designed for quick, cost-effective installation into instruments, junction boxes or conduit runs. The connector can be installed using existing device lead wire or integral connector lead wire. Detailed instructions are presented in:

- EGS-TR-880706-01* (Bayonet)
- EGS-TR-880706-02* (Hex)
- EGS-TR-23062-06* (3/8" QDC)

*Latest Revision Applies

Note: Bayonet style is depicted to the right. Hex Nut style is similar with Hex Nut in lieu of Bayonet ring/spring.

1. Pin backshell
2. Socket backshell
3. Bayonet ring
4. Insulator
5. Insulator
6. Insulator
7. Pin
8. Socket
9. Spring
10. O-ring
11. Lead wire/cable
12. Strain relief
13. Potting
14. Set screw
15. Set screw sealant
16. Set Screw



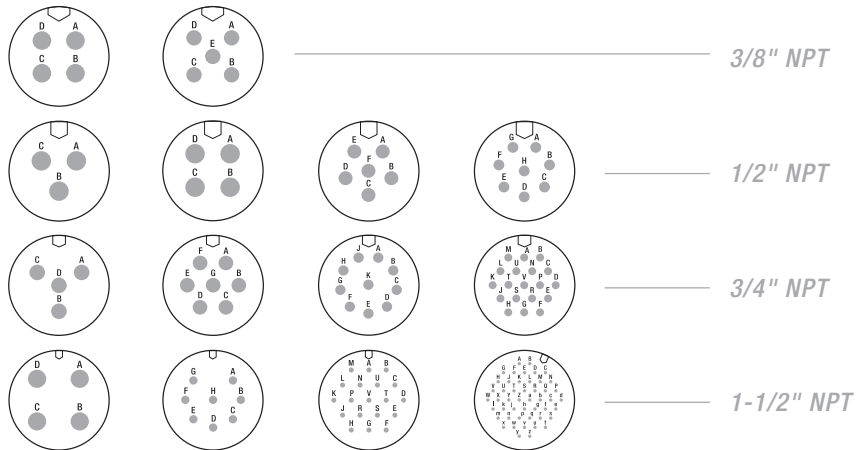
Critical Dimensions

A (inches)	B (inches)	C (Bayonet) (inches)	C (Hex) (inches)	Wt. (lb) without Pigtails
3/8 NPT	3.8	1.3	N/A	0.5
1/2 NPT	4.2	1.6	1.6	0.6
3/4 NPT	4.3	2.2	2.6	1.1
1-1/2 NPT	4.9	3.3	3.4	3.0

Maximum Contact Configurations

(See diagram to right)

Notes: The illustrations shown represent the maximum number of contacts available for the specific wire size shown. Sizes and quantities may increase or decrease based on wire/contact gauge or QDC size utilized.



Electrical		20 AWG	16-18 AWG	12-14 AWG	10 AWG	8-10 AWG	4-6 AWG
Maximum Pin Availability	3/8" NPT	5	4	N/A	N/A	N/A	N/A
	1/2" NPT	8	6	4	3	N/A	N/A
	3/4" NPT	19	10	7	4	N/A	N/A
	1-1/2" NPT	N/A	48	19	N/A	8	4
Rated Voltage (volts)		300	600	600	600	600	600
Rated Current (amps) at 90°C		7.5	13	23	23	46	80
Rated Contact Resistance (ohms)		0.008	0.004	0.002	0.002	0.001	0.001

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