

ElectroThread™

Monolithic Isolation Joint for Threaded Connections

The ElectroThread™ monolithic isolation joint is a compact, threaded isolation solution designed for smaller line sizes. Factory-assembled and maintenance-free, it provides a reliable block against the flow of electric current in piping systems. The ElectroThread™ eliminates the weaknesses of traditional unions by offering superior electrical isolation, improved sealing integrity, and long-term durability. Each unit is hydrostatically and electrically tested to ensure performance, and is manufactured under an ISO Quality Management System, with full certification provided.



TECHNICAL SPECIFICATIONS

- » Central body: Carbon steel ASTM A105 or equivalent
- » Design Temperature: -17°C to +70°C
- » Fluid Service: Liquid, Gas
- » Sealing Material: NBR or equivalent
- » Insulators: Polycarbonate
- » Dielectric Strength Test: 3.0 KV AC, 50 Hz, 1 minute
- » Insulation Resistance Test: $\geq 10 \text{ M}\Omega$ at 1000 V DC
- » Hydrotest: 1.5 × Design Pressure, 5 minutes holding time
- » Certification: According to EN 10204/3.1

END CONNECTIONS

- » All insulating joints are provided with NPT Male/Female threaded ends.
- » Male/Male and Female/Female are available upon request.

SPECIFICATIONS:

Pressure Class	NPS	Design Pressure [bar] (psi)	Length [mm] (in)	Weight	End Connection
PN10	1/2"	10 bar (145 psi)	100 (3.9")	0.4 (0.9)	NPT Male/Female (options: M/M, F/F)
PN10	3/4"	10 bar (145 psi)	110 (4.3")	0.5 (1.1)	NPT Male/Female (options: M/M, F/F)
PN10	1"	10 bar (145 psi)	120 (4.7")	0.7 (1.5)	NPT Male/Female (options: M/M, F/F)
Class 600	1/2"	100 bar (1450 psi)	130 (5.1")	1.3 (2.9)	NPT Male/Female (options: M/M, F/F)
Class 600	3/4"	100 bar (1450 psi)	150 (5.9")	1.4 (3.1)	NPT Male/Female (options: M/M, F/F)
Class 600	1"	100 bar (1450 psi)	150 (5.9")	1.5 (3.3)	NPT Male/Female (options: M/M, F/F)

FEATURES & BENEFITS

- **Maximum Safety** – Prevents stray currents and cathodic protection interference, reducing the risk of leaks, sparks, and premature bolted-joint failure.
- **Factory-assembled and maintenance-free** – Expertly controlled assembly ensures long-term stability for both sealing and isolation, lowering operational expenses (OPEX).
- **Compact threaded design** – Optimized for smaller line sizes ($\frac{1}{2}$ " to 1"), addressing under-designed bolted joints and operational blind spots.
- **Improved Reliability Compared to Traditional Unions** – Rugged, high-performance isolation outperforms low-cost unions that are prone to installation damage and component aging.
- **Tested for integrity** – Hydrostatically and electrically tested to verify design integrity, meeting international quality and safety standards
- **Versatile applications** – Suitable for utility service lines, residential hot water systems, electrical and SCADA conduit, and PHMSA-regulated pipelines.
- **Certified quality** – Manufactured under ISO Quality Management systems and supplied with EN 10204/3.1 certification.

APPLICATIONS

- **Pipeline integrity protection** – ensures cathodic protection effectiveness in oil, gas, and water distribution.
- **Residential & Commercial Utilities** – ideal for hot water heater isolation and small service lines.
- **Regulated Pipeline Systems** – supports compliance with PHMSA rules requiring isolation near actuated valves.
- **Desalination & Water Treatment** – prevents salt bridging in older or high-exposure systems.
- **OEM Skids & Packages** – compressor, pump, and chemical injection skids where compact, leak-proof joints are critical.

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