



PRYSMIAN MOVABLE BRIDGE SOLUTIONS

Movable bridges are among the most demanding applications in transportation infrastructure, requiring cable systems that perform reliably through constant motion, harsh environmental conditions, and decades of service. For generations, Prysmian has delivered advanced cable solutions supporting critical infrastructure across North America, including bridges, rail networks, transit systems, ports, and other mission-critical transportation assets.

Combining proven field performance, engineering expertise, and a comprehensive portfolio of power, control, and communication cable solutions, Prysmian helps bridge owners, consulting engineers, contractors, and transit authorities maximize reliability, safety, and long-term operational performance.



WHY PRYSMIAN MOVABLE BRIDGE SOLUTIONS?

Transportation Infrastructure Expertise

Decades supporting bridges, rail systems, transit networks, and other critical infrastructure.

Custom Engineering Solutions

Tailored cable systems designed for demanding bridge applications.

Proven Field Performance

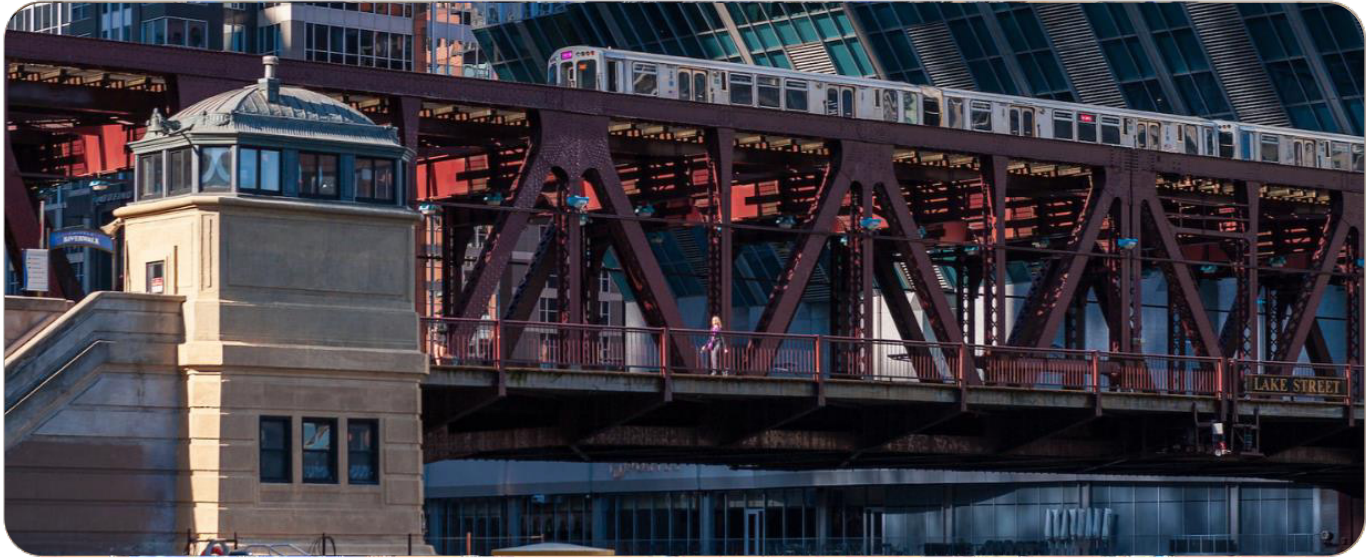
Reliable operation in marine, outdoor, and continuous-motion environments.

Trusted Industry Partner

Supporting bridge owners, DOTs, contractors, and transit authorities.

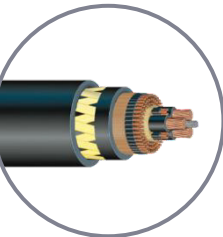
Moveable Bridge Cables Ratings and Capabilities:

- **Standards:** ICEA S-95-658 / NEMA WC-70; ICEA S-73-532 / NEMA WC-57; Draka Specified SC-06
- **Voltage Ratings:** 600V up to 2000V
- **Sizes:** 22 AWG to 1000 kcmil, up to 125 conductors, and cable diameters up to 5 in



CUSTOM ENGINEERED BRIDGE CABLES

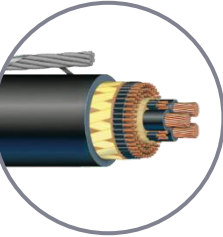
Applications: Submarine, aerial, riser, and droop cables designed to deliver power, control, and communications across all types of movable bridges as a coordinated system (600V-2000V)



Bridge Traveling (Droop)

Central Strength Member: Flexible pre-formed Type 302 or 304 stainless steel aircraft cable
Conductors: Annealed uncoated copper, class K stranding. *Optical fibers are also available.*
Insulation: Ethylene propylene rubber (EPR)
Inner Jacket: Arctic, heavy duty and UV-resistant Neoprene® polychloroprene rubber

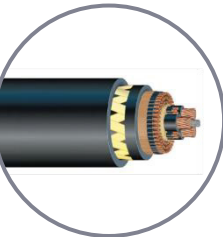
Cable Jacket Reinforcement: Two layers of Kevlar® aramid fibers applied helically in reverse directions between the two jackets.
Identification: Custom print legend identifiers including construction, contract, manufacture date/location and sequential length.
Outer Jacket: Arctic, heavy duty and UV-resistant Neoprene® polychloroprene rubber.



Bridge Aerial Cable

Conductors: Annealed uncoated copper, class K stranding. *Optical fibers are also available.*
Insulation: Ethylene propylene rubber (EPR)
Cable Jacket Reinforcement: Two layers of Kevlar® aramid fibers applied helically in reverse directions between the two jackets.

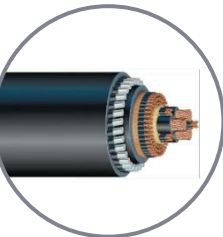
Outer Jacket: Arctic, heavy duty and UV-resistant low-density polyethylene (LDPE).
Cable Support: Stainless steel type 302 or 304 wire messenger.
Support Binder: Stainless steel Type 302 tape helically wound around cable and messenger.



Bridge Riser Cable

Conductors: Annealed uncoated copper, class K stranding. *Optical fibers are also available.*
Insulation: Ethylene propylene rubber (EPR)
Inner Jacket: Arctic, heavy duty and UV-resistant Neoprene® polychloroprene rubber.

Cable Jacket Reinforcement: Two layers of Kevlar® aramid fibers applied helically in reverse directions under the jacket.
Outer Jacket: Arctic, heavy duty and UV-resistant Neoprene® polychloroprene rubber.
Identification: As requested.



Bridge Submarine Cable

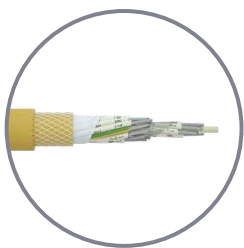
Conductors: Annealed uncoated copper, class B stranding. *Optical fibers are also available.*
Insulation: Crosslinked polyethylene (XLPE)
Inner Jacket: Weather and UV-resistant high-density polyethylene (HDPE).

Armor Wire: HDPE-coated galvanized steel wire.
Outer Jacket: Weather and UV-resistant high density polyethylene (HDPE).



HIGH-FLEX, HEAVY-DUTY POWER AND CONTROL CABLES

Application: High-flexibility power and signal cable designed for festoons, power tracks, and motor-driven sheaves on heavy moving structures; engineered for reliable performance in indoor, outdoor, and submerged environments.



CORDAFLEX® Low Voltage Reeling

Conductors: Electrolytic tinned copper, very finely stranded class FS for extreme flexibility.

Core Arrangement: Up to 3-layers laid up for torsion resistance and mechanical stability.

Insulation: PROTON® MS high-quality EPR.

Rating: Based on DIN VDE 0250-814.

Oil resistant: DIN EN 60811-404; DIN VDE 0473-811-404, paragraph 10.

Weather resistant: Unrestricted use outdoors and indoors, resistant to ozone, UV and moisture.

Water resistant: Given and verified in longterm tests

Sheath System:

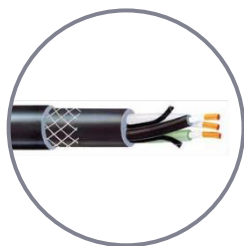
Inner Sheath: High-grade PCP-based compound, yellow.

Anti-torsion Braid: Reinforced polyester braid, vulcanized between sheaths for high mechanical integrity.

Outer Sheath: Abrasion- and tear-resistant PCP-based compound, yellow, engineered for flexibility + ruggedness

Voltage Rating: 600V/1000V

Sizes: 1.5 mm²-300 mm², up to 56 conductors



ALL-TEMP INDUSTRIRITE® Type W & SOW

Conductors: Extra-flexible rope stranding (Class K), soft-drawn copper for extended flex-life and reduced copper fatigue.

Separator: Separator tape for easy stripping.

Cabling / Fillers: Non-wicking, non-hygroscopic fillers; jacket fills interstices to help prevent conductor displacement during flexing.

Rating:

- Rated for continuous operation at -40°C to 90°C.
- UL Listed Type W, 2kV, 90°C Wet/Dry
- Certified CSA Type W, 2kV, FT1 and FT5
- UL Festooning

Outer Jacket: Oil- and flame-resistant, double-layer reinforced thermoset jacket.

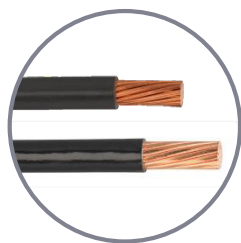
Voltage Rating: 600V/2000V

Options:

- Overall Shields and Armor
- Composite Conductors
- Fiber Optic Components
- Cold Temperature Thermoset Jacket Compound for -50°C Rating
- MSHA Approval
- Green/Yellow Stripe Neutral

CERTIFIED BUILDING WIRE FOR DIRECTIONALLY BORED CONDUIT

Application: Robust building wire solutions tested and certified for fully submerged or wet environments typical to that of directionally bored or ducted installations. [NOTE 1]



XHHW-2

Conductors: 14 AWG thru 750 kcmil annealed bare copper (Class B). *Tinned copper optional.*

Insulation: Flame-retardant Cross-linked Polyethylene (XLPE). *Coloring optional.*

Ratings: NEC; UL 44; ICEA S-95-658.

Voltage: 600V

RHW-2

Conductors: 14 AWG thru 1000 kcmil annealed bare copper (Class B). *Tinned copper optional.*

Insulation: Flame-retardant Cross-linked Polyethylene (XLPE), black.

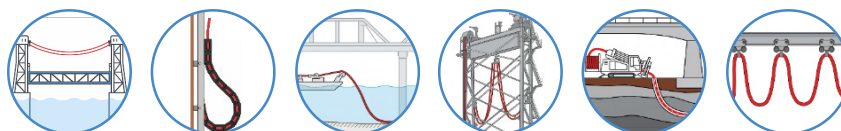
Ratings: NEC; UL 44; UL 854; ICEA S-95-658.

Voltage: 600V/2000V

NOTE: Prysmian's certified building wire is tested beyond standard building wire through spark testing, dielectric voltage testing while immersed in water, and wet insulation resistance testing in accordance with Prysmian Specifying Standard SC-07.

Limitations: This solution has a reduced service life compared to engineered bridge cables and is intended for static, conduit protected installations only. It is not intended for applications involving cyclic movement, flexing, or exposure without mechanical protection. Final selection is subject to engineer and AHJ approval.

BRIDGE CABLE SOLUTIONS AT A GLANCE



	Application	Aerial Span	Continuous Flex & Riser	Submarine	Traveling Droop	Directional Bore	Reeling and Festoon
CUSTOM ENGINEERED BRIDGE CABLES	Bridge Aerial Cable	✓	✗	✗	✗	✗	✗
	Bridge Riser Cable	✗	✓	✗	OK	✗	✓
	Bridge Submarine Cable	✗	✗	✓	✗	✓	✗
	Bridge Traveling (Droop)	OK	OK	✗	✓	✗	OK
HIGH-FLEX-HEAVY-DUTY POWER & CONTROL	CORDAFLEX® Low Voltage Reeling	✗	OK	✗	OK	✗	✓
	ALL-TEMP INDUSTRITE® Type W & SOW	✗	OK	✗	OK	✗	✓
CERTIFIED BUILDING WIRE	XHHW-2 or RHW-2	✗	✗	✗	✗	OK	✗

Table Key:

✓ Best-in-Class

OK Meets Requirements

✗ Not Applicable

