

# Xtreme-Marine<sup>®</sup> EO

## Subsea Electro Fiber-Optic Cables



### Application

Falmat's subsea fiber + power cable designs can be used for a multitude of underwater applications from shallow, rugged shorelines to deepwater installations (to depths of 6km). A sample offering of our more common designs below can also be modified with additional fibers, larger conductors, higher voltage, increased workloads or addition of steel armoring.

### Design

Tried and proven materials are carefully chosen for long-term exposure and submergence in marine environments of sea or fresh water, polar to tropical, fully water-blocked with pressure resistant designs to 6km depths.

### Cable Properties

- Fiber Optics:** Single-mode type SMF28E 9/125 micron, multi-mode 62.5/125 micron and 50/125 micron. Fiber components: Xtreme-Light<sup>®</sup> PUR Simplex fiber, Xtreme-Light<sup>®</sup> PUR Multi-fiber (3, 4 or 6 fibers) or stainless steel tube (3 to 72 fibers).
- Conductors:** Insulated with premium copolymer insulation with excellent long-term moisture resistance. -20C to 90C, 600VDC typical with 1kv, 1.5kv, 3kv, 4.5kv to 3.5kb also available. Higher temperature insulations are offered at 105C, 125C, 150C, 200C
- Strength Members:** Synthetic fibers of Kevlar<sup>®</sup> or Vectran<sup>®</sup> in braid or torque-balance served layers. Typical BS values for marine instrumentation as listed. Higher strength designs up to 36k lbs can be ordered. Steel armor, GIPS dual-serve can also be added.
- Jackets:** Xtreme-Marine<sup>®</sup> grade Polyurethane 90C is standard. Other available jackets of HDPE, light-weight TPE, foam jackets for buoyancy. Also available: High temperature jackets 105C, 125C, 150C, 200C

PART NUMBER	FIBER OPTIC	POWER COND.	VDC	STRENGTH (LBS.)	WALL	DIA.
FM021814-1	2x SMF Xtremelight	2x 18AWG	2.0 kv	1,400	0.055	0.360
FM021814-2	2x SMF Xtremelight	2x 16AWG	1.0 kv	1,400	0.065	0.380
FM021814-3	2x SMF Xtremelight	2x 14AWG	600 v	2,700	0.065	0.392
FM021814-4	3x SMF Xtremelight	3x 12AWG	4.0 kv	2,700	0.075	0.625
FM021814-5	3x SMF Xtremelight	3x 10AWG	3.6 kv	2,700	0.090	0.655
FM021814-6	3x SMF Xtremelight	3x 8AWG	3.6 kv	4,000	0.090	0.670
FM021814-7	3x SMF SS-Tube Core	6x 22AWG	600 v	2,700	0.052	0.292
FM021814-8	3x SMF SS-Tube Core	6x 20AWG	300 v	2,700	0.070	0.332
FM021814-9	3x SMF SS-Tube Core	6x 18AWG	1.0 kv	4,000	0.080	0.455
FM021814-10	3x SMF SS-Tube Core	6x 16AWG	1.0 kv	4,000	0.090	0.475

\* This preliminary product data release is under engineering review and values are subject to change before official release.

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Falmat, Inc.  
1873 Diamond Street  
San Marcos, CA 92078 USA

760.471.5400 Tel  
760.471.4970 Fax  
www.falmat.com

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