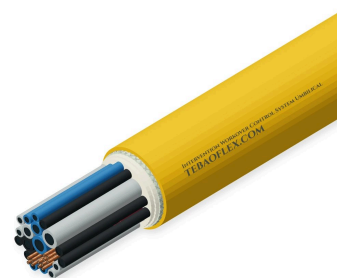




Subsea IWOCS electro-hydraulic umbilical

Intervention Workover Control System Umbilical

5,000–10,000 psi electro-hydraulic & optical dynamic subsea well intervention umbilical



ISO 13628-5

5,000–10,000 psi

IWOCS / RLWI

Application

Dynamic IWOCS umbilical engineered to ISO 13628-5 and API RP 17G for subsea tree installation, completion and Riserless Light Well Intervention (RLWI), combining 345–690 bar hydraulic hoses, CAN-bus/power quads and 316L FIMT optics.

Typical uses: Subsea Tree Installation, Completion & Workover Riser, Riserless Light Well Intervention, Subsea Blowout Preventer (BOP) Pod, Plug & Abandonment (P&A) Spreads

Construction



Cross-section, not to scale

- 1 Subsea control & power quads
- 2 High-pressure hydraulic hoses
- 3 Dielectric & optical FIMT core
- 4 Profiled polymeric core matrix
- 5 Dynamic tensile armour
- 6 Outer marine TPU jacket

Technical data

Typical values

Power quad voltage	600/1000 V AC/DC	Telemetry protocol support	CAN-bus, RS-485, Profibus, DSL & 100Base-FX Optical
Characteristic impedance	100 Ω / 120 Ω screened star-quad	AC test voltage	3.5 kV AC rms for 5 min
Insulation resistance	≥ 1,000 MΩ·km at 20 °C	Subsea operating range	-5 °C to +60 °C
Deck reel ambient range	-25 °C to +75 °C	Fluid temperature rating	-20 °C to +70 °C (water-glycol / methanol)
LP hydraulic working pressure	345 bar (5,000 psi) · 1,380 bar burst	HP hydraulic working pressure	690 bar (10,000 psi) · 2,760 bar burst
Design water depth	Up to 3,000 m	Min. breaking load (MBL)	120 kN (polyaramid) to 600 kN (steel armour)
Min. bend radius (dynamic)	12 × OD over moonpool sheave	Control fluid compatibility	HW 540/443 water-glycol, mineral oil, methanol
Fluid cleanliness at delivery	NAS 1638 Class 6 / SAE AS4059 Class 6	External hydrostatic collapse	ISO 13628-5 ovalisation & collapse pass
Outer sheath abrasion	DIN ISO 4649 ≤ 35 mm ³ polyether TPU	Standards	ISO 13628-5 / API Spec 17E

Sizes

12 standard constructions

Tick the sizes you need and send this page to info@tebaoflex.com or WhatsApp +86 185 9591 3361.

Order designation	Hydraulic Hoses + Electrical / Optical	Max WP bar (psi)	Nominal OD mm	Weight in air kg/km	Weight in sea kg/km	MBL kN	Min. sheave R mm
Direct Hydraulic IWOCs Umbilicals (5,000 & 10,000 psi) 6 sizes							
☐ IWOCs-HYD-8F-5K	6×1/4" (5k) + 2×3/8" (5k)	345 (5,000)	46.5	1,950	380	120	558
☐ IWOCs-HYD-12F-10K	8×1/4" (5k) + 2×1/4" (10k) + 2×3/8" (5k)	690 (10,000)	54.0	2,680	540	150	648
☐ IWOCs-HYD-16F-10K	10×1/4" (5k) + 4×1/4" (10k) + 2×3/8" (5k)	690 (10,000)	61.5	3,420	710	180	738
☐ IWOCs-HYD-20F-10K	12×1/4" (5k) + 4×1/4" (10k) + 4×3/8" (5k)	690 (10,000)	68.0	4,180	890	210	816
☐ IWOCs-HYD-24F-10K	16×1/4" (5k) + 4×1/4" (10k) + 4×3/8" (10k)	690 (10,000)	74.5	5,050	1,120	250	894
☐ IWOCs-HYD-32F-10K	20×1/4" (5k) + 8×1/4" (10k) + 4×1/2" (5k)	690 (10,000)	84.0	6,420	1,460	300	1,008
Electro-Hydraulic Mux & RLWI Dynamic Umbilicals 6 sizes							
☐ IWOCs-EH-6F-4Q-FO	4×3/8" (5k) + 2×1/4" (10k) + 4 Quads + 12FO	690 (10,000)	52.0	2,740	640	200	624
☐ IWOCs-EH-10F-4Q-FO	6×1/4" (5k) + 2×1/4" (10k) + 2×3/8" + 4Q + 12FO	690 (10,000)	58.5	3,490	820	240	702
☐ IWOCs-EH-14F-6Q-FO	8×1/4" (5k) + 4×1/4" (10k) + 2×1/2" + 6Q + 12FO	690 (10,000)	66.0	4,480	1,080	280	792
☐ IWOCs-EH-20F-6Q-FO	12×1/4" (5k) + 4×1/4" (10k) + 4×3/8" + 6Q + 24FO	690 (10,000)	73.5	5,520	1,350	320	882
☐ IWOCs-RLWI-8F-ARM	4×3/8" (10k) + 4×1/4" (10k) + 6Q + 12FO (Steel Armour)	690 (10,000)	62.5	5,980	3,240	520	750
☐ IWOCs-RLWI-12F-ARM	6×3/8" (10k) + 6×1/4" (10k) + 8Q + 24FO (Steel Armour)	690 (10,000)	71.0	7,650	4,180	600	852

- All hydraulic lines are flushed to NAS 1638 Class 6, pressure-tested to 1.5 × WP (7,500 / 15,000 psi), and shipped pressurized with nitrogen or control fluid.

Standards and approvals

- ✓ ISO 13628-5 / API Spec 17E Compliant
- ✓ ISO 13628-7 / API RP 17G IWOCs Compatible

Certifications



Management systems: ISO 9001, ISO 14001, ISO 45001

Request a quotation

Send the size, length and destination. An application engineer replies within 2 business hours.

WhatsApp / phone

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Email

info@tebaoflex.com

Web

tebaoflex.com/cables/intervention-workover-control-system-umbilical



Typical values for this cable type, based on ISO 13628-5 / API Spec 17E / ISO 13628-7. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.