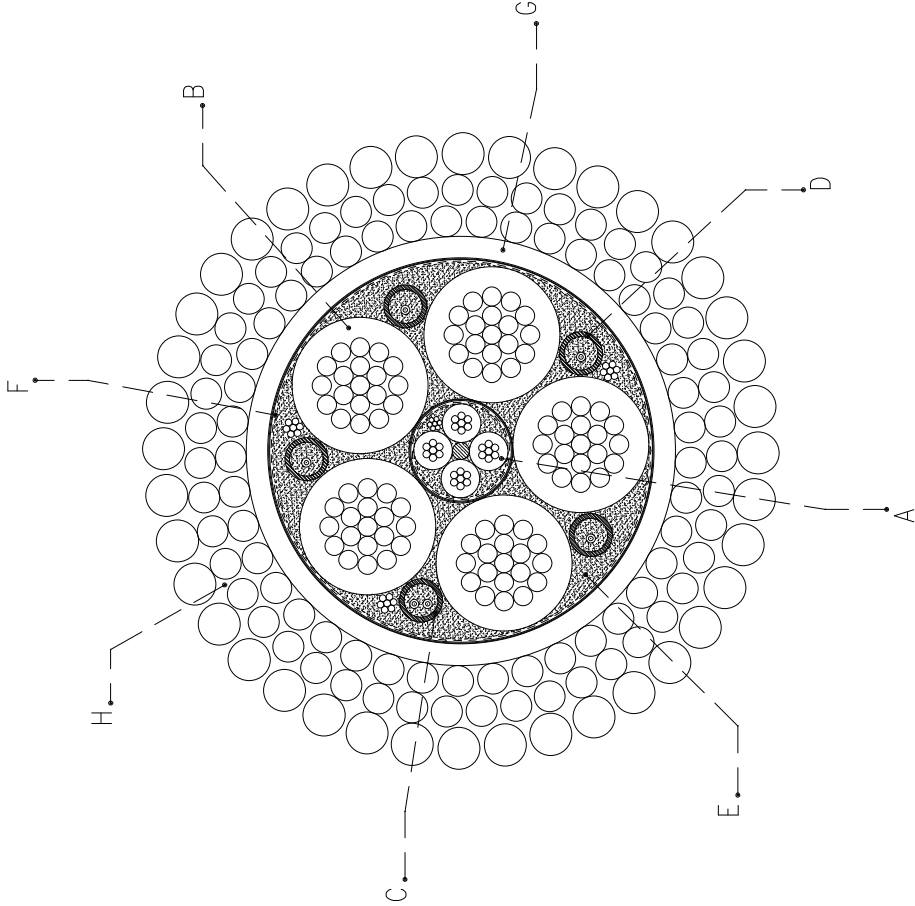


REVISIONS HISTORY		
00	INITIAL RELEASE	07/06/07
01	INCORPORATE MM FIBRE	25/06/07
02	MINOR AMEND QUAD DESIGN	08/10/08

Assembly Detail: –



- A) 1 off 0.22 mm² screened twisted signal quad, (U_o/U = 0.35/0.60 kVac max).
Screen comprises copper/polyester laminate tape and tinned copper drain wire.
(colour [from 12 o'clock position, c/w]: Bl/Ye/Wh/Re)
- B) 5 off polypropylene insulated 4.0 mm² plain copper power conductors, (U_o/U = 2.4/4.2 kVac max).
(colour [from 1 o'clock position, c/w]: Gn/Wh/Ye/Re/Bl)
- C) 4 off gel filled stainless steel tubes each containing 1 x 9/125/250 µm single-mode optical fibre.
(colour [from 12 o'clock position, c/w]: Bl/Gn/Wh/Ye)
- D) 1 off gel filled stainless steel tube containing 1 x 9/125/250 µm single-mode optical fibre and 1 x 50/125/250 µm multi-mode optical fibre.
(colour: Re/Bk)
- E) Assembly voids filled with silicone rubber compound.
- F) Collective screen comprising copper/polyester laminate tape and tinned copper drain wires.
- G) High density polyethylene sheath (0.8 mm nominal thickness)
- H) Three torsionally balanced layers of Brlube II coated galvanised steel wire armour.

Nominal Mechanical Characteristics: –

Finished diameter:	17.3 mm.
Weight in air:	1,150 kg/km.
Weight in sea-water:	900 kg/km, (note 1).
Minimum bend radius:	210 mm, (static).
Minimum bend radius:	230 mm, (dynamic).
Minimum breaking load:	180 kN.

Note 1) Assumed sea-water density = 1,026 kg/m³.

galvanised steel wire armour.		Cortland Fibron BX Ltd		
Unless otherwise specified, all dimensions are in mm.		Unit C, Belcon Ind. Est. Bingley Road, Hoddesdon, Hert's, EN11 ONX		
All values nominal.		Tel: +44 (0) 1992 471444 Fax: +44 (0) 1992 471555 www.thecortlandcompanies.com		
Drawing No: RM0011		Description: MBARI ROV UMBILICAL		Rev: 02
Scale: N.T.S.	Date: 8th Oct, 2008.	Sheet: 1 of 1		
Drawn: S.McQ.	Approved:			