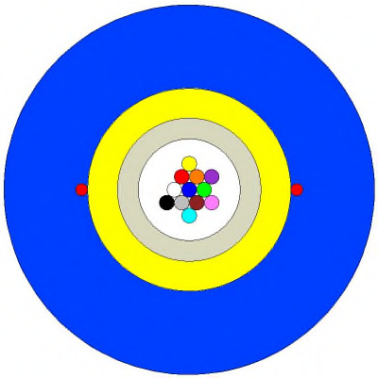
SM@RTCORE® LITE

Internal / External Underground Central Loosetube Optical Cable - LSOH

IEC 60794-3
ACMA - AS/CA S008

Cable Design



- Drawing not to scale -

- **Central loose tube construction**
- **Tube:** Thermoplastic material, containing up to 12 optical fibres filled with a low viscosity, thixotropic, non-melting gel fully compatible with fibre coating and tube material
- **Peripheral strength members:** Water swellable aramid yarns
- **Sheath:** UV stabilised zero halogen flame retardant low smoke and fume thermoplastic in compliance with AS 1049. Two ripcords provided beneath the sheath for easy removal

This loose tube dielectric optical cable is designed for internal installation or external underground installations in ducts.

Technical data

Number of Fibres		**2 to 12**		
Number of elements		1		
Tube diameter	mm	2.4		
Cable nominal diameter	mm	6.2		
Cable nominal weight	kg/km	40		
Max. installation tension	kN	1.0		
Max. crush resistance	kN/100 mm	2.0 (Short term) / 1.0 (Long term)		
Min. bending radius	mm	At full load 20 x Cable OD At no load 10 x Cable OD		
Temperature range	°C	Installation -0 -> +50	Transport & Storage -20 -> +70	Operation -10 -> +70

Optical Characteristics

See the attached cabled optical fibre data sheet.

Identification

Fibre Colours

No.	1	2	3	4	5	6	7	8	9	10	11	12
Colour	blue	orange	green	brown	grey	white	red	black	yellow	violet	pink	aqua

Tube Colour:
Natural

Sheath Colour:
The outer sheath colour is blue.

Sheath Marking:

The outer sheath is marked in 1 metre intervals as follows:

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PRYSMIAN DW SM@RTCORE CT LITE LSOH Part Number T/N #### MM/YY MADE IN AUSTRALIA *****M >> | << *****M
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^ *Customised marking legend is available (subject to agreement)*

Flame Resistance

AS/NZS IEC 60332.1	Vertical flame propagation for single cable

Main mechanical characteristics

Parameter	Test method	Test conditions	Acceptance criteria*
Tensile strength	IEC 60794-1-21-E1	Load: As per cable maximum installation tension in technical data table above	Fibre strain ≤ 0.6%. No physical damage and no change in attenuation after test.
Crush	IEC 60794-1-21-E3	Load: As per maximum crush resistance in technical data table above Duration: 10 min (short-term) / 120 min (long-term)	No physical damage. No change in attenuation after test (short-term) or during test (long-term).
Impact	IEC 60794-1-21-E4	Impact energy: 15 J Anvil radius: 300 mm	No physical damage. No change in attenuation after test.
Torsion	IEC 60794-1-21-E7	Sample length: 1 m Rotation: +/-180 degree, 10 cycles	No physical damage. No change in attenuation after test.
Bend	IEC 60794-1-21-E11	Mandrel radius: As per Min. bending radius at no load in technical data table above No. of turns/helix: 4, No. of cycles: 3	No physical damage. No change in attenuation after test.
Bend under tension	Concurrent to tensile test	Mandrel radius: As per Min. bending radius at full load in technical data table above Bend: 360º, 1 turn	No physical damage. No change in attenuation after test.
Temperature cycling	IEC 60794-1-22-F1	Sample length: 1000 m (minimum) Temperature range: As per Operation temperature range in technical data table above	No change in attenuation between 10°C & 30°C. Max. change in attenuation ≤0.15dB/km between Min. & Max. operation temperatures.
Cable aging	IEC 60794-1-22-F9	85°C for 168 h followed by Temperature cycling	Max. change in attenuation ≤0.10dB/km after test
Water penetration	IEC 60794-1-22-F5C	Sample length=3m, Water height=1m	No water leakage after 24 hours

** All optical measurements for singlemode fibres performed at 1550 nm.*

Logistic

Packing:

Timber drum or plastic reel to AS/NZS 2857 with flexible cable wrap protection

Delivery Lengths:

Standard delivery length is 1 km with a tolerance of - 1% / + 3%