

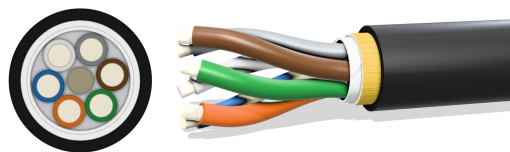
Application

This universal indoor/outdoor cable is a single-mode optical fibre cable to ITU-T G.652.D (fibre category OS2) that can be laid outdoors and continued straight into the building without a transition splice - it combines an outdoor-grade, water-blocked loose-tube core with a

low-smoke halogen-free (LSZH) sheath that carries a CPR

reaction-to-fire class for indoor use. The 9/125 µm single-mode fibres sit in dry (or gel-filled) loose tubes around a central non-metallic strength member (FRP/GRP); aramid or glass yarns add tensile strength and act as a rodent barrier, and

longitudinal water blocking keeps moisture out of the core. The construction is fully dielectric (no metal), so no earthing is needed and the cable is easy to strip and terminate. It is supplied in fibre counts up to 24 fibres and is UV-stabilised for the outdoor section. Typical use is the building-entry drop from an outside-plant duct or aerial route directly to the indoor optical distribution frame.



CONSTRUCTION

Optical fibre	Single-mode 9/125 µm to ITU-T G.652.D, fibre category OS2 (multimode OM3/OM4 optionally); 250 µm coloured coating.
Loose tube	Dry (or gel-filled) loose buffer tube(s), colour-coded, with fibre excess length; typical tube Ø approx. 2.8 mm.
Central strength member	Non-metallic glass-reinforced plastic (FRP/GRP) central element - fully dielectric core.
Strength / rodent	Aramid and/or glass yarns for tensile strength; the glass-yarn layer also acts as a non-metallic rodent barrier.
Water blocking	Longitudinal water blocking (dry water-swellaable elements / gel) - outdoor-grade against moisture ingress.
Outer sheath	Low-smoke halogen-free (LSZH), UV-stabilised; suitable for outdoor and indoor sections of the same run (no transition splice).

OPTICAL & MECHANICAL PROPERTIES

Fibre type / standard	Single-mode OS2, ITU-T G.652.D (multimode OM3/OM4 to ISO/IEC 11801 on request).
Attenuation	≤ 0.40 dB/km @ 1310 nm; ≤ 0.30 dB/km @ 1550 nm (OS2 category).
Fibre count	up to 24 fibres (typ. 4, 6, 8, 12, 24).
Tensile strength	approx. 2000 to 3000 N during installation; approx. 750 to 1000 N in operation (count-dependent).
Crush resistance	≥ 2000 N/10 cm (up to 3000 N/10 cm; IEC 60794-1-21 E3).
Min. bending radius	20 × outer diameter during installation; 10 × outer diameter in operation (approx. 115-140 mm).
Temperature range	Operation -30 to +70 °C; installation -15 to +40 °C; storage -30 to +70 °C.
Reaction to fire (CPR)	LSZH sheath, CPR class Dca (B2ca available) to EN 50575 for the indoor section; low smoke, halogen-free, flame-retardant.
Rodent / UV	Non-metallic (glass-yarn) rodent barrier; UV-stabilised sheath for the outdoor section.

KEY FIGURES

Nominal outer diameter	approx. 5.8 mm (12F); approx. 8.2 mm (24F)
Nominal weight	approx. 34 kg/km (12F); approx. 77 kg/km (24F)
Maximum fibre count	24 fibres

Optical values (attenuation) are the ITU-T G.652.D single-mode (OS2) category maxima, not vendor-specific guarantees; mechanical values, CPR class, outer diameter and weight are nominal leading-source references and vary with fibre count and order. All values are indicative and non-binding.