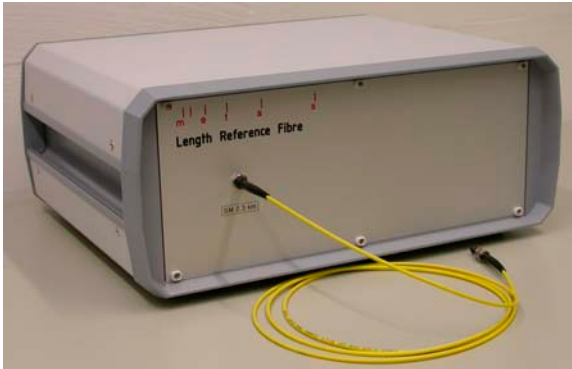
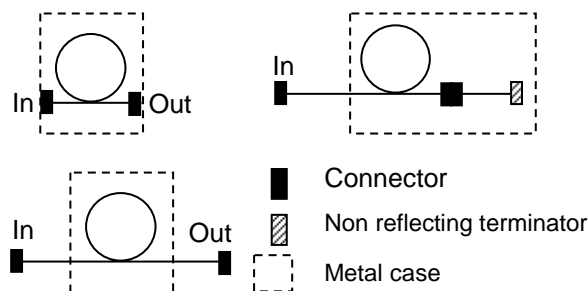




Length Reference Fibre (LRF)



Length Reference Fibres (LRF) are well adapted to the calibration of the distance scale of singlemode and multimode Optical Time domain Reflectometers (OTDR), according to IEC 61746. Our LRF consists of a spool of fibre, which is mounted in a protective case for an optimum stability of the reference. The transit time of a light pulse propagating through the Reference is calibrated by using time of flight measurement techniques, according to IEC 61746. The optical length is calculated assuming an arbitrary value of the effective index of refraction n_{eff} . The LRF is available in a two port or in a single port version with an internal non reflecting fibre termination.



Specifications

Fibre types

Singlemode G652
Multimode G651
Other fibre types available on request

Typical Fibre lengths

Singlemode: 100 m to 100 km
Multimode: 100 m to 5 km
Other length available on request

Calibrated quantities and uncertainties (*)

Transit time τ (ps)

$$U_{\tau} = (25.1 + 1 \cdot 10^{-5} \cdot \tau) \text{ ps (singlemode)}$$

$$U_{\tau} = (49.5 + 5.8 \cdot 10^{-4} \cdot \tau) \text{ ps (multimode)}$$

Equivalent optical length (m)

Calculated with $n_{eff} = 1.46$

Other n_{eff} values can be specified

$$U_L = (0.005 + 1 \cdot 10^{-5} \cdot L) \text{ m (singlemode)}$$

$$U_L = (0.01 + 5.8 \cdot 10^{-4} \cdot L) \text{ m (multimode)}$$

Wavelengths

850 nm, 1310 nm, 1550 nm
Other wavelengths on request

(*) These values correspond to typical uncertainties, which may vary depending on fibre type and length.

Ordering Information: LRF – a – b – c/x – d/x

a fibre type	b fibre length in meter	c input connector type	d output connector type	x Configuration
G652 G653 G655		FCPC FCUPC FCAPC E2000	FCPC FCUPC FCAPC E2000 N: Non reflecting terminator	A: Multipurpose adapter P: fixed pigtail, length 2 m.