

# Fibre-types

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**SX** uses multimode (grey connector jacks)

**LX** multimode (blue connector jacks) for <5km , or multimode (grey connector jacks) <550m

## There are two basic fibre families

**Singlemode (Blue connector jacks )** (SM, OS1.OS2)

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Shielding options are generally indoor PVC or LSZH and external Nylon with CST or GRP  
Singlemode is fairly new, but derived from the principles of the traditional plombers' trade in mode  
not always has a yellow outer jacket (pvc or lszh) and can be used for links up to 100km.

**OM4) Multimode (Grey connector jacks)** (MM defines four types OM1, OM2, OM3 and

larger cores of 62.5 and 50 microns) and has 4 types and is made with OM1 (vertical mark 1) is the original of the orange and red standard to OM1 has the recommended for new installations as it has no benefits over 50 micron fibres. Not OM2 has a core of 50 microns and a cladding of 125 microns. It was introduced in the 1990s with 1Gb laser optimised multimode fibres. Again not recommended for new installations. OM3 is the most widely used multimode fibre today with 40Gb applications up to 100m and is identified by its distinctive aqua colour. OM4 is the newest of the multimode communication standards with an EMB of 1700. It also be a great choice for centre applications but with little cost difference over OM3 its likely to

	62.5/125 OM1	50/125 OM2	50/125 OM3	50/125 OM4	9/125 OS1
100Mb	2km	2km	2km	2km	100km
1Gb	275mtr	550mtr	800mtr	1100mtr	100km
10Gb	33mtr	82mtr	300mtr	550mtr	40km
40Gb/100Gb	N/A	N/A	100mtr	150mtr	40km

From 2013 the approval is given to OM3 and OM4 for 40Gb applications. OM3 does not have the best 40Gb transmission speeds and higher to cater for future requirements it will guarantee

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