

Glass Fibre-optic Specifications

Construction:

Combination of optical glass fibre, stainless steel, PVC, brass, silicon rubber, Teflon™, moulded thermoplastics, and optical grade epoxy. Optical fibre is F2 core, EN1 clad, except where stated. Flexible steel interlock sheathing is 302 stainless, except where stated.

Sensing Range:

Refer to the range specifications shown on the glass fibre-optic drawing pages.

Bend Radius:

Inside bend radius must be 12 mm or greater for PVC covered fibre-optic assemblies, and 25 mm or greater for stainless steel armoured cable covered fibres.

Length:

Standard length for assemblies is 61 cm or 91 cm; see dimension drawings. Most models are available from the factory with shorter or longer cable lengths, up to 18 m maximum.

Operating Temperature:

- Fibre assemblies with stainless steel sheathing and metal end tips: -140 to +249° C.
- Fibre assemblies with PVC sheathing and/or plastic end tips: -40 to +105° C.
- Special order assemblies with stainless steel sheathing and metal end tips and model suffix "M600": -140 to +315° C.
- Special order assemblies with stainless steel sheathing and metal end tips and model suffix "M900": -140 to +480° C.

Numbering scheme for Banner glass fibres

FIBRE BUNDLE DIAMETER designator:

.44 = 0,7 mm
.5 = 0,8 mm
.75 = 1,2 mm
1 = 1,6 mm
1.5 = 2,3 mm
2 = 3,2 mm
2.5 = 4 mm

SHEATHING MATERIAL designator:

S = Stainless steel flexible conduit
P = PVC with galvanised monocoil reinforcing wire
L = Silicone rubber tubing (max. flexibility, min. fibre protection)
T = Teflon tubing (max. chemical resistance, min. flexibility)
HDP = High-density polyethylene (max. electrical isolation, min. flexibility)

ASSEMBLY STYLE designator:

B = Bifurcated: emitter and receiver to one sensing point
DB = Double Bifurcated: emitter and receiver to two sensing points
I = Individual: emitter or receiver to one sensing point

I A T 2 3 S X X

OVERALL LENGTH designator (length of the complete fibre-optic assembly in feet):

3 = 3 ft. = ±914 mm
6 = 6 ft. = ±1829 mm

MODIFICATIONS designator (suffix may be any length):

M600 suffix = available in 315° C
M900 suffix = available in 480° C

SENSING END TIP STYLE designator:

A = Angled tip (90°)
AM = Angled tip (90°), probe 1,5 mm ø
AMM = Angled tip (90°), probe 1,1 mm ø
AR = Angled tip (90°), rectangular bundle termination
AT = Angled (90°) and threaded tip
ATR = Angled (90°) and threaded tip, rectangular bundle
F = Ferruled tip, same as sensor end tip
FR = Ferruled tip, rectangular bundle termination
HA = Half-angled tip (45°)
HAR = Half-angled tip (45°), rectangular bundle
HAT = Half-angled (45°) and threaded brass tip
HATR = Half-angled and threaded tip, rectangular bundle
M = Miniature tip (ø 1,5 mm)
MAP = Miniature angled (90°) probe tip

MHAP = Miniature half-angled (45°) probe tip
MM = Micro-miniature probe tip (ø 1,1 mm)
MT = Threaded brass end tip
MTAP = Threaded brass, miniature angled (90°) tip
MTHAP = Threaded brass, miniature half-angled (45°) tip
MTP = Threaded brass, miniature probe (ø 1,5 mm)
P = Probe bendable tip (ø 2,3 mm)
R = Rectangular bundle termination
T = Threaded brass end tip
TA = Threaded angled (90°) end tip
TAR = Threaded, rectangular bundle
THA = Threaded, half-angled (45°) end tip
THAR = Threaded and half-angled (45°), rectangular bundle
TR = Threaded end tip, rectangular bundle termination



R55F

SME312

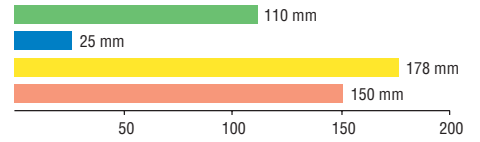
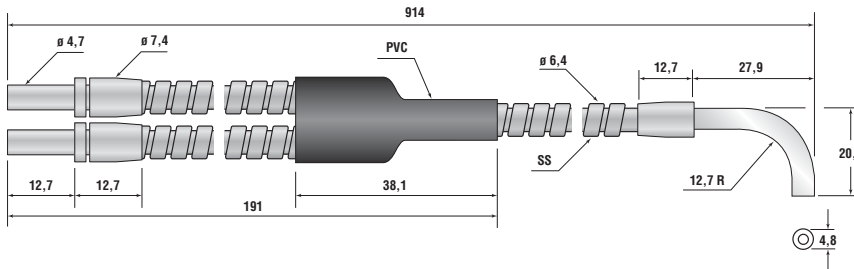
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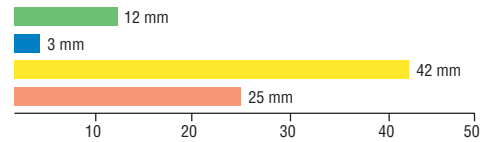
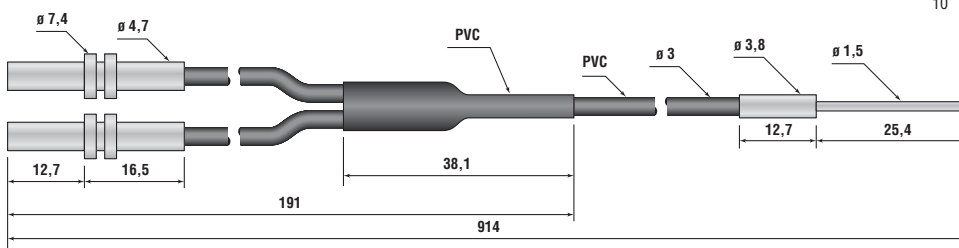
Dimensions (in mm)

Range (in mm)

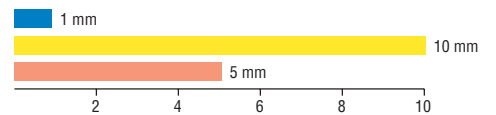
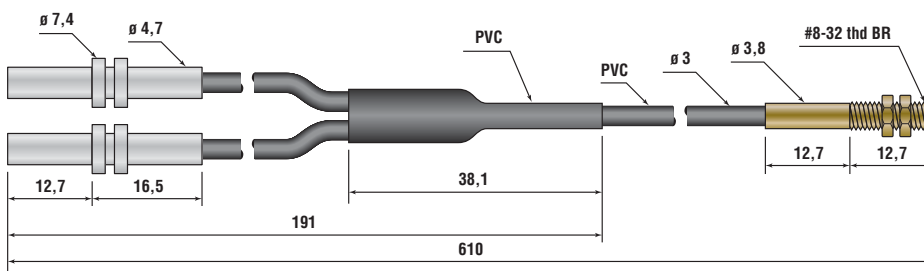
BA23S Bifurcated angled



BMP.753P Bifurcated miniature probe, glass fibre, PVC sheathing



BMT.442P Bifurcated miniature threaded, glass fibre, PVC sheathing



BMT.753P Bifurcated miniature threaded, glass fibre, PVC sheathing

