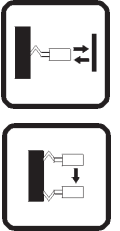


APPLICATION FIBRE OPTICS



- *Fibre array with parallel beams for proximity or through beam detection*
- *Fixed focus proximity with axial, radial or lateral optics*
- *Proximity with 90° optics, self-contained in the 3.8 mm diameter*
- *Recommended fibres for S7 sensors*

OFA SERIES

The **OFA** series offers advanced fibre optics able to effectively solve critical fibre applications.

The fibre array version with parallel beams increases the detection area avoiding vibrations or target position changes. One single fibre array is able to solve applications previously requiring more aligned fibres, such as the detection of small falling objects or casually varying positions.

The fixed focus proximity version can be used as background suppression as it ignores objects outside the focusing distance, even if more reflective than target. Typical applications include small object detection, such as electronic components or mechanical parts.

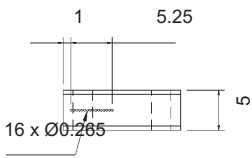
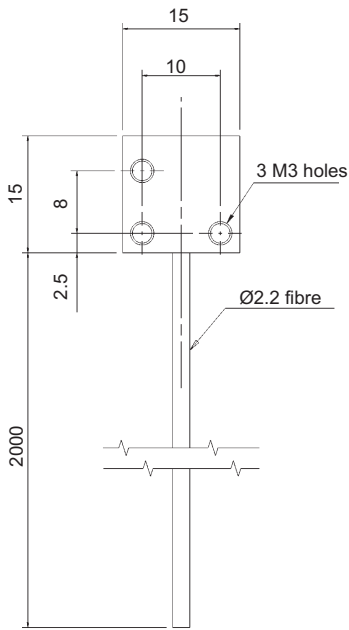
The proximity version with 90° optics is the ideal solution for applications with reduced space where the installation of standard emission fibres results impossible.

All the fibres of the **OFA** series have terminals that can be cut to reduce length and are recommended for use with high-resolution sensors of the S7 series.

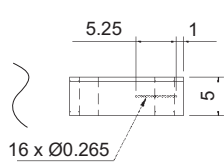
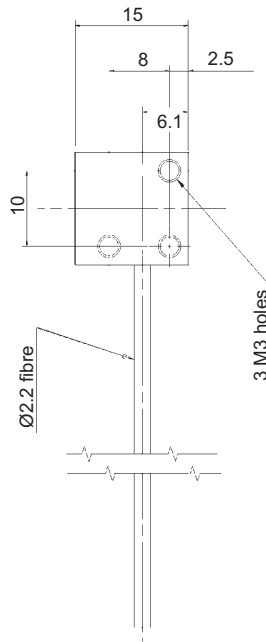


DIMENSIONS

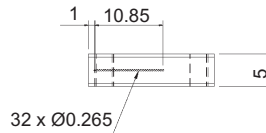
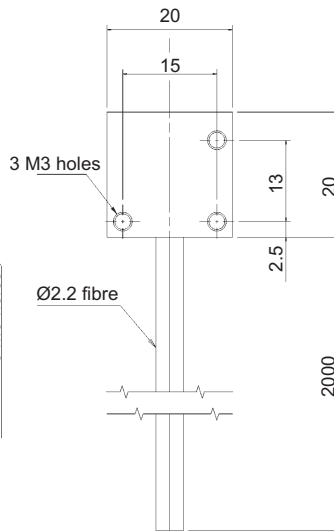
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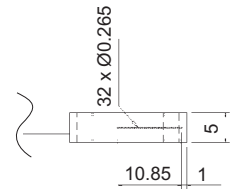
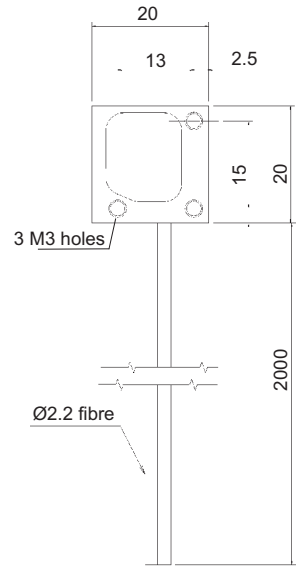
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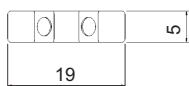
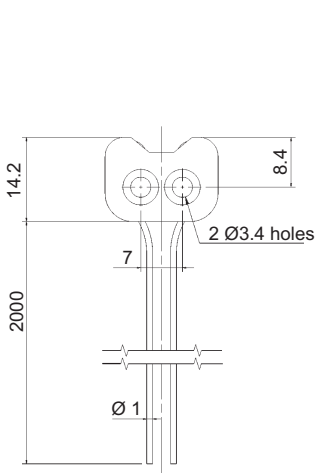
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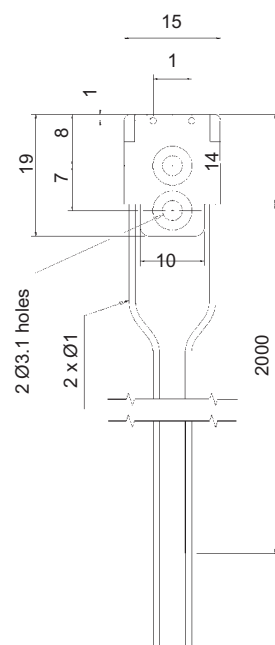
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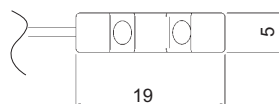
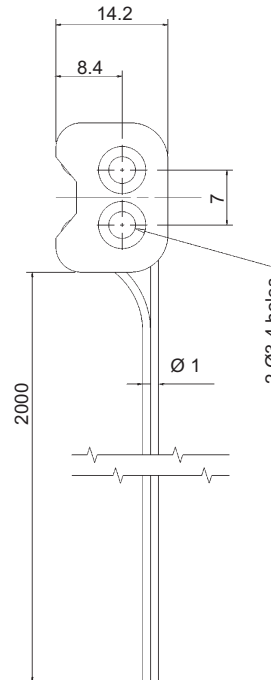
OFA-4-FE-20



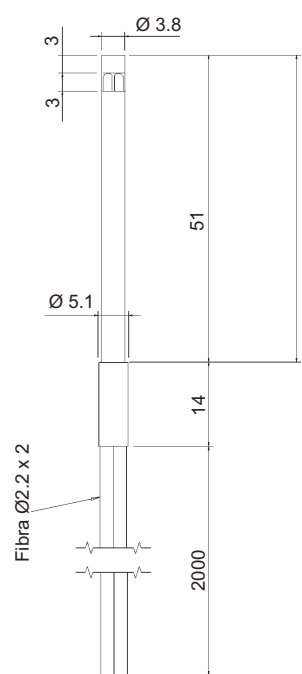
OFA-4-FF-20



OFA-4-FS-20



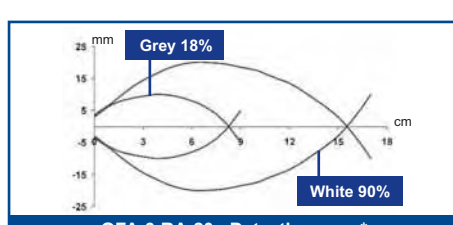
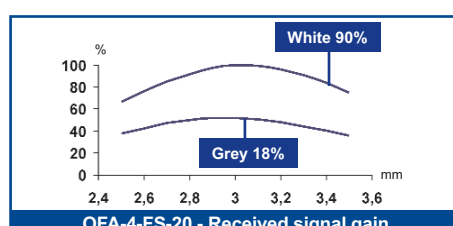
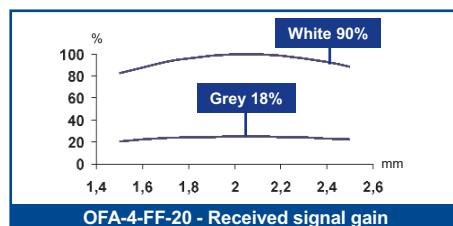
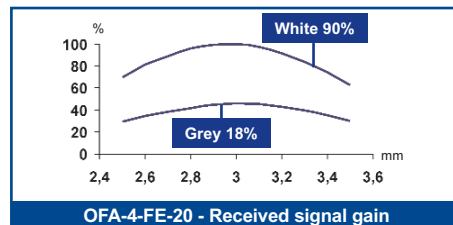
OFA-6-RA-20



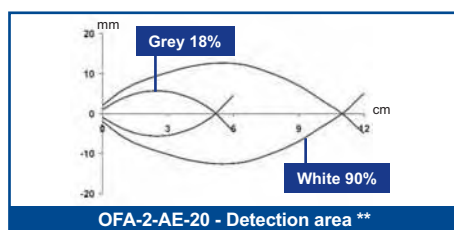
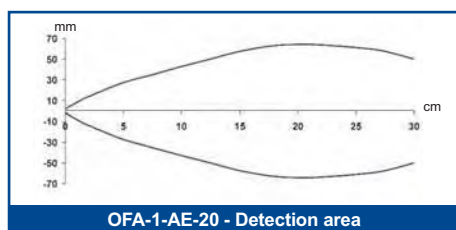
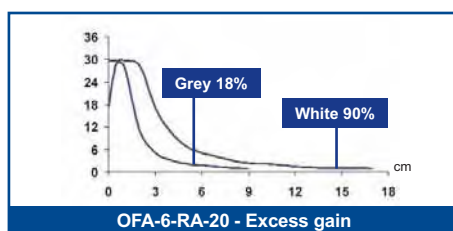
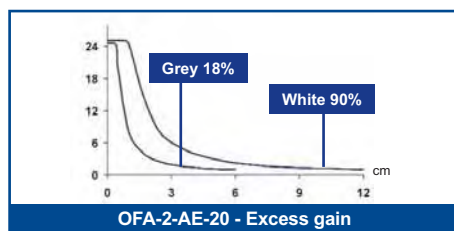
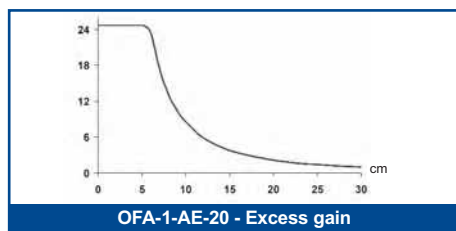


TECHNICAL DATA

| | | OFA-1-AE-20 | OFA-1-AS-20 | OFA-2-AE-20 | OFA-2-AS-20 | OFA-4-FE-20 | OFA-4-FF-20 | OFA-4-FS-20 | OFA-6-RA-20 |
|------------------------------------|-----------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Optic function: | through beam | ● | ● | | | | | | |
| | proximity | | | ● | ● | | | | ● |
| | fixed focus proximity | | | | | ● | ● | | |
| Emission type: | axial | ● | ● | ● | ● | ● | ● | ● | ● |
| | radial | | | ● | ● | | | ● | ● |
| | lateral | | | | | ● | ● | ● | ● |
| Number of beams emitted: | 1 | | | | | ● | ● | ● | ● |
| | 16 parallel | ● | ● | | | | | | |
| | 32 parallel | | | ● | ● | | | | |
| External diameter (sheath): | 2.2 mm | | | ● | ● | | | | ● |
| | 2.2 mm | ● | ● | | | | | | |
| | 1 mm | | | | | ● | ● | ● | ● |
| Internal diameter (core): | 1.5 mm | | | | | | | | ● |
| | 32 x 0.265 mm | | | ● | ● | | | | |
| | 16 x 0.265 mm | ● | ● | | | | | | |
| | 0,5 mm | | | | | ● | ● | ● | ● |
| Bending radius: | 10 mm | | | | | ● | ● | ● | ● |
| | 25 mm | ● | ● | ● | ● | | | | ● |
| Mechanical protection: | IP67 | ● | ● | ● | ● | ● | ● | ● | ● |
| Core material: | PMMA plastic | ● | ● | ● | ● | ● | ● | ● | ● |
| Sheath material: | PE plastic | ● | ● | ● | ● | ● | ● | ● | ● |
| Terminal material: | stainless steel | ● | ● | ● | ● | ● | ● | ● | ● |
| | aluminium | ● | ● | ● | ● | | | | |
| | ABS | | | | | ● | ● | ● | ● |
| Cable length: | 2 m | ● | ● | ● | ● | ● | ● | ● | ● |
| Operating temperature: | -30...+70°C | ● | ● | ● | ● | ● | ● | ● | ● |



DETECTION DIAGRAMS



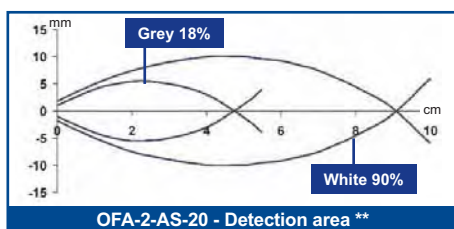
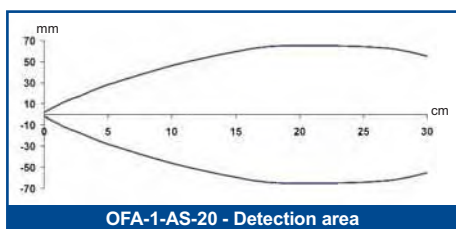
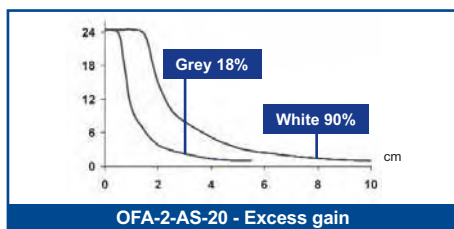
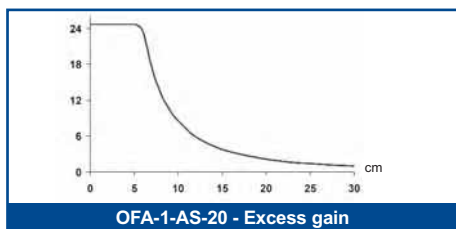
TECHNICAL NOTES

The measurements indicated have been obtained using the S7 fibre-optic sensor with 1 kHz switching frequency and EASYtouch™ acquisition.

The values vary according to the sensor used, switching frequency and target movement.

* Object entering perpendicularly in the fibre optic beam.

** Object entering perpendicularly in the fibre array beam.



MODEL SELECTION AND ORDER INFORMATION

| MODEL | OPTIC FUNCTION | EMISSION | ORDER N° |
|-------------|-----------------------|-----------------------|-----------|
| OFA-1-AE-20 | through beam | axial, 16 beam array | 95A201170 |
| OFA-1-AS-20 | through beam | radial, 16 beam array | 95A201180 |
| OFA-2-AE-20 | proximity | axial, 32 beam array | 95A201150 |
| OFA-2-AS-20 | proximity | radial, 32 beam array | 95A201160 |
| OFA-4-FE-20 | fixed focus proximity | axial | 95A201200 |
| OFA-4-FF-20 | fixed focus proximity | lateral | 95A201210 |
| OFA-4-FS-20 | fixed focus proximity | radial | 95A201190 |
| OFA-6-RA-20 | proximity | radial | 95A201140 |

ACCESSORY SELECTION AND ORDER INFORMATION

| MODEL | DESCRIPTION | ORDER N° |
|-------|-----------------------------------------------------|-----------|
| AF-11 | fibre-cutting tool with Ø 2.2 mm and Ø 1.1 mm holes | 95ACC1260 |

FIBRE OPTICS



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