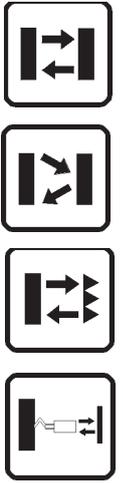
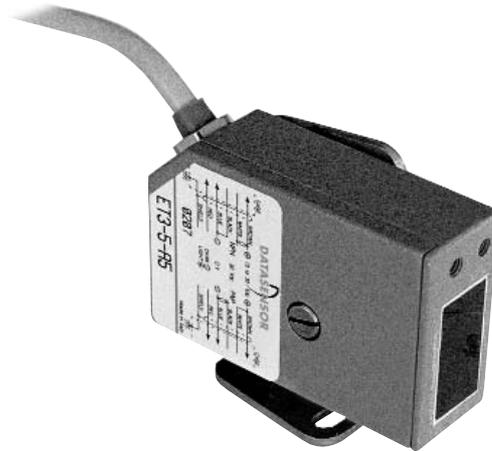


## COMPACT METAL SENSORS



- *Proximity, retroreflex and fibre-optic models available*
- *Sensitivity adjustment and Stability LED*
- *NPN/PNP and dark/light configuration*
- *Metal housing with high protection*

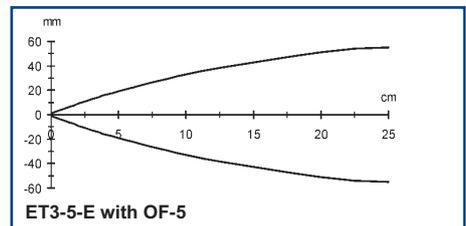
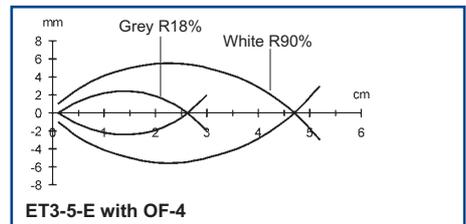
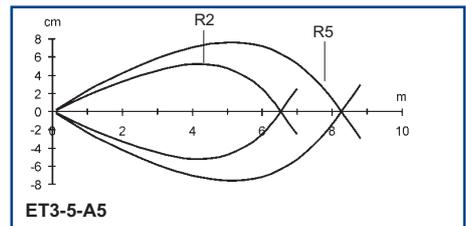
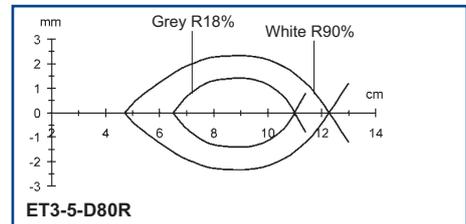
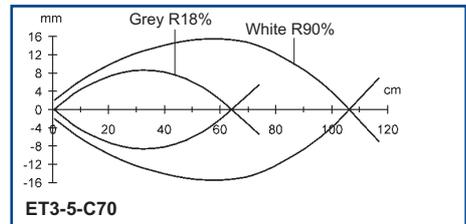
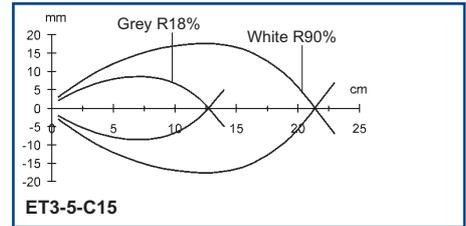
## ET3 SERIES

The photoelectric sensors of the **ET3** series, developed in a sturdy metal housing, guarantee excellent protection against shocks and liquid penetration. Different diffuse and fixed focus proximity models are available, as well as versions with polarised retroreflex optic function and a plug-in adapter to connect the different optic fibres foreseen as accessories. A sensitivity adjustment trimmer and LED indicators are present in all models; a red LED indicating output status and a green LED for switching stability. These sensors offer cable connection and the possibility to configure the output as either NPN or PNP and the operating mode as dark or light. Some models have M12 connection and a pre-configured PNP output.

## TECHNICAL DATA

|   |  |
|---|--|
| <b>Power supply:</b> .....                          | 10 ... 30 Vdc, reverse polarity protection                     |
| <b>Consumption:</b> .....                           | 40 mA max.   |
| <b>Light emission:</b> .....                        | infrared LED 880 nm<br>red LED 660 nm (D80R vers.)             |
| <b>Diffuse proximity operating distance:</b> .....  | 1 ... 15 cm (C15 vers.)<br>1 ... 70 cm (C70 vers.)             |
| <b>Fixed focus proximity operating distance:</b> .. | 8 cm with 2 mm spot (D80R vers.)                               |
| <b>Retroreflex operating distance:</b> .....        | 0.1 ... 5 m (on R2)  |
| <b>Operating distance with fibre-optics:</b> .....  | 0 ... 4 cm proximity (OF-4)<br>0 ... 25 cm through beam (OF-5) |
| <b>Setting:</b> .....                               | sensitivity trimmer  |
| <b>Indicators:</b> .....                            | red OUTPUT LED<br>green STABILITY LED                          |
| <b>Output type:</b> .....                           | NPN/PNP configurable   |
| <b>Saturation voltage:</b> .....                    | 1.5 V max.   |
| <b>Output current:</b> .....                        | 200 mA max., short-circuit protection                          |
| <b>Response time:</b> .....                         | 1 ms max.  |
| <b>Switching frequency:</b> .....                   | 500 Hz max.  |
| <b>Operating mode:</b> .....                        | dark/light configurable  |
| <b>Connection:</b> .....                            | M12 4-pole connector<br>3 m Ø 5 mm cable                       |
| <b>Electrical protection:</b> .....                 | class 1  |
| <b>Mechanical protection:</b> .....                 | IP67<br>IP64 - fibre-optics                                    |
| <b>Housing material:</b> .....                      | ZAMA   |
| <b>Lens material:</b> .....                         | PMMA plastic   |
| <b>Weight:</b> .....                                | 150 g max. (connector vers.)<br>280 g max. (cable vers.)       |
| <b>Operating temperature:</b> .....                 | -25 ... +55°C  |
| <b>Storage temperature:</b> .....                   | -25 ... +70°C  |
| <b>Fibre operating temperature:</b> .....           | -30 ... +150°C (OF-8/9)<br>-30 ... +60°C (OF-4/5)              |
| <b>Reference standard:</b> .....                    | EN 60947-5-2   |
| <b>Certifications:</b> .....                        | CE   |

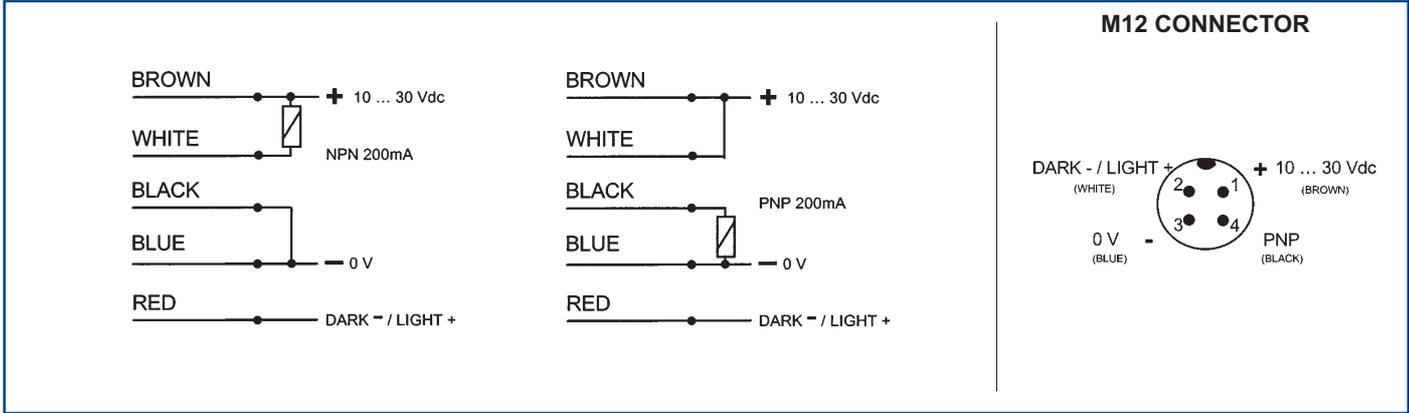
## DETECTION DIAGRAMS



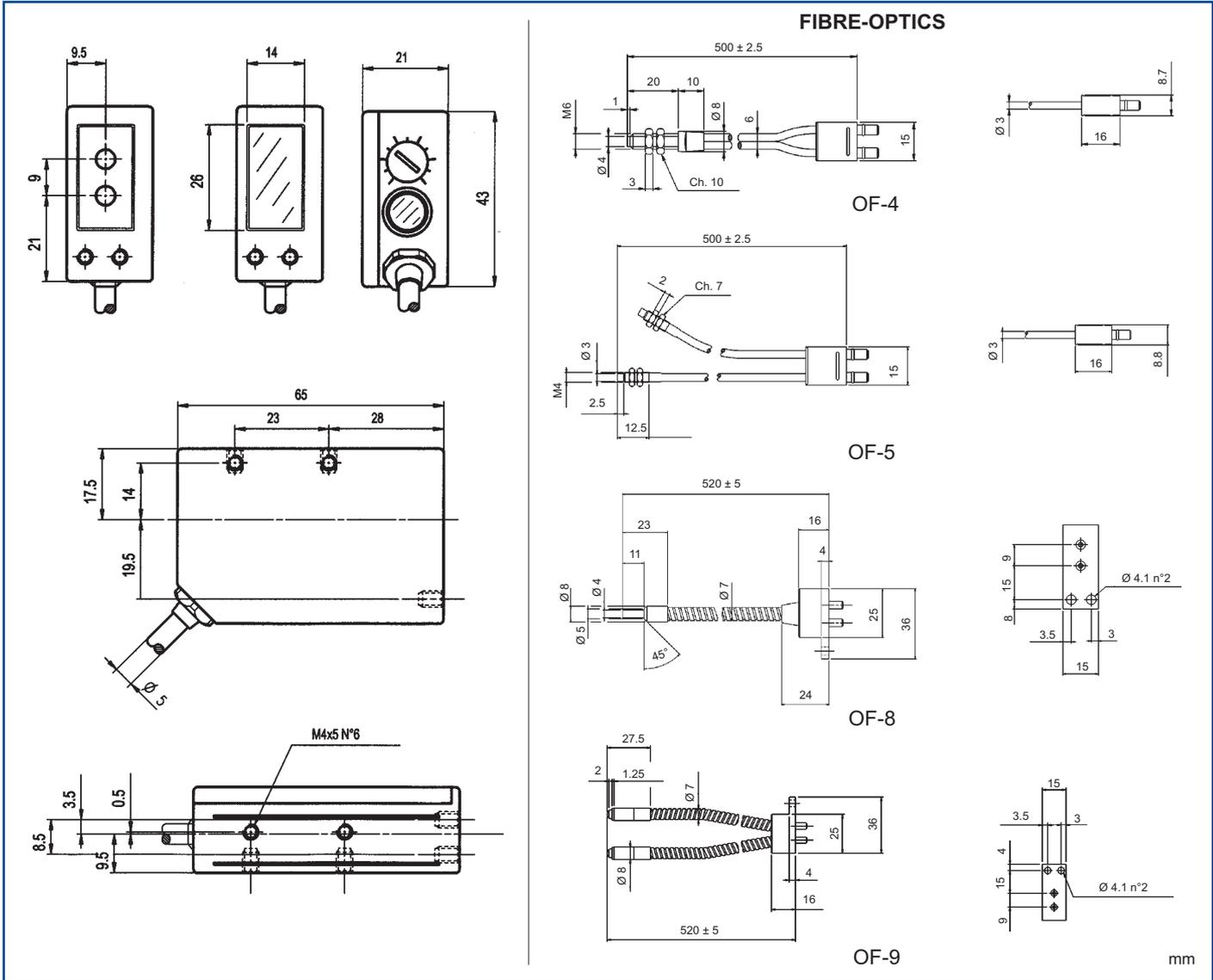
The operating distances indicate the detection distance with excess gain 2.

The detection diagrams indicate the typical operating distance with excess gain 1.

## CONNECTIONS



## DIMENSIONS





## MODEL SELECTION AND ORDER INFORMATION

| MODEL       | FUNCTION              | CONNECTION    | OUTPUT  | CODE N°    |
|-------------|-----------------------|---------------|---------|------------|
| ET3-5-C15   | diffuse proximity     | cable         | NPN/PNP | S961530001 |
| ET3-5-C15-P | diffuse proximity     | M12 connector | PNP     | 961051000  |
| ET3-5-C70   | diffuse proximity     | cable         | NPN/PNP | S961530000 |
| ET3-5-C70-P | diffuse proximity     | M12 connector | PNP     | 961051010  |
| ET3-5-D80R  | fixed focus proximity | cable         | NPN/PNP | S961620000 |
| ET3-5-A5    | retroreflex           | cable         | NPN/PNP | S961330000 |
| ET3-5-E     | fibre-optic ampl.     | cable         | NPN/PNP | S961530009 |
| ET3-5-E-P   | fibre-optic ampl.     | M12 connector | PNP     | 961551000  |

## ACCESSORY SELECTION AND ORDER INFORMATION

| MODEL  | DESCRIPTION                                     | CODE N°   |
|--------|---|-----------|
| OF-4-5 | plastic fibre-optic - 4 cm proximity (typ.)     | S76020400 |
| OF-5-5 | plastic fibre-optic - 25 cm through beam (typ.) | S76020500 |
| OF-8-5 | glass fibre-optic - 12 cm proximity (typ.)      | S76020800 |
| OF-9-5 | glass fibre-optic - 75 cm through beam (typ.)   | S76020900 |

Please refer also to **Sensor Accessories**

**Distributed by:**

|  |  |
|--|--|
|  | <p><b>HEADQUARTERS</b></p> <p><b>DATASENSOR SpA</b><br/>via Lavino, 265 - 40050 Monte San Pietro, BO - Italy<br/>Tel. +39 051/6765611 • Fax +39 051/6759324<br/>www.datasensor.com • e-mail info@datasensor.com</p> <p><small>Datasensor SpA endeavours to continuously improve and renew its products; for this reason the technical data and contents of this catalogue may undergo variations without prior notice. For correct installation and use Datasensor SpA can guarantee only the data indicated in the instruction manual supplied with the products.</small></p> |
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UNIVERSAL MIDI SENSORS