

# OPTICAL SPEED SENSOR

152G7 - 260 KHz

#### **APPLICATIONS**

- Sensor recommended for acyclism, torsional vibrations
- Test bench and embedded measurement
- Measurement on rotating machines: combustion engine, electric and hybrid motors, hydrogen, turbine



## **WORKING DISTANCE**

Diffuse reflection (function encoding and Albedo) 1mm < **D** < 5mm (black and white stripes)

Through-beam 20mm / 30mm with additional lens

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| Transmitters   | LED near IR+ visible                                   |  |  |
| Supply voltage   | From 9 to 30Vcc  |  |  |
| Average current consumption (12Vcc)  | < 80 mA  |  |  |
| Possible inrush current / Duration   | >1 Amp. / Less than 10 microsec.                       |  |  |
| Receiver (sensible to the light)   | High-speed Photodiode                                  |  |  |
| Switching Frequency  | 0< <b>F</b> <260 kHz                                   |  |  |
| Switching time (10 - 90%)  | Rise time: 50 nanosec.<br>Fall time ≤ 0.5 microsec.    |  |  |
| Power Adjustment   | ¾ turn Potentiometer                                   |  |  |
| Connection   | 1,5 m cable+ Plug & Play Connector                     |  |  |
| Standard Output / Options  | PNPTTL/RS485   |  |  |
| Accessories Output   | Additionnal TTL via SMA / On specification             |  |  |
| Output control   | Blue LED + top of fibre visible light patented concept |  |  |
| Amplifier Operating temperature  | From -10 °C To +70°C                                   |  |  |
| Protection   | Temporary short-cut                                    |  |  |
|  |  |  |  |

## **MECHANICAL SPECIFICATIONS**

Box Anodized AU4G, standard in black

Mass 150 gr

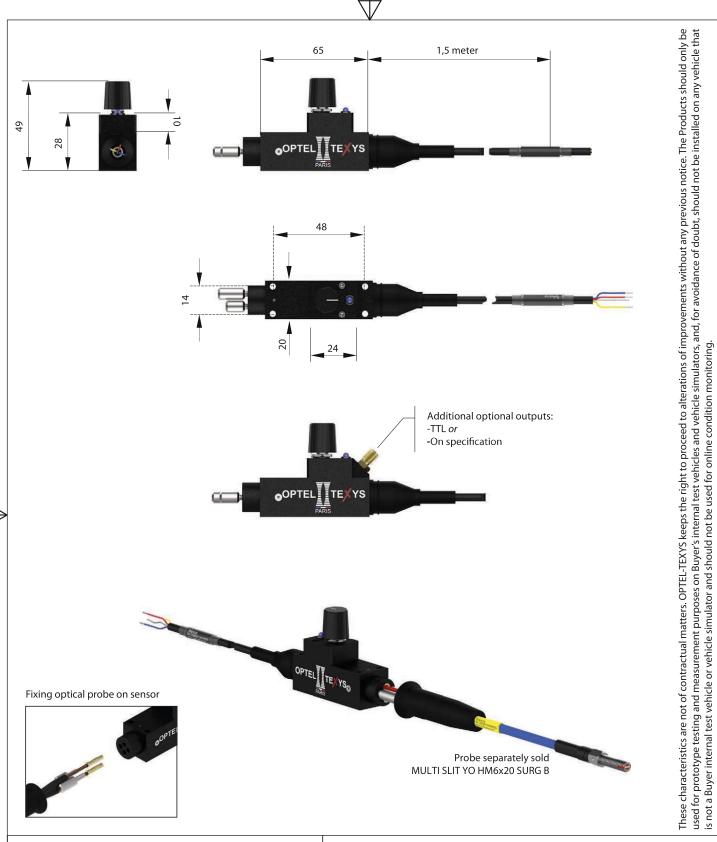
Dimension, Fixation 14X48 mm, 4 x holes Ø 3mm

### **RECOMMENDED PROBES**

| Diffuse reflection standard / slit ending fibre probe | Multi YO / Multi SLIT YO   |  |  |
|---|----------------------------|--|--|
| Through-beam standard / slit ending fibre probe       | Multi FFO / Multi SLIT FFO |  |  |
| Standard temperature Range                            | Long life: -5°C to +80°C   |  |  |
| Limit temperature Range                               | Limits: -50°C to +120°C    |  |  |
| High Temperature probe                                | On Specification           |  |  |

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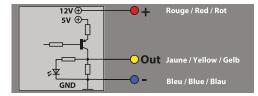


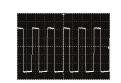


Advanced Sensing Systems for Analysis of Rotation Equipment

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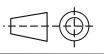
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Material

Anodized aluminium



20210215

Reference

152 G7

