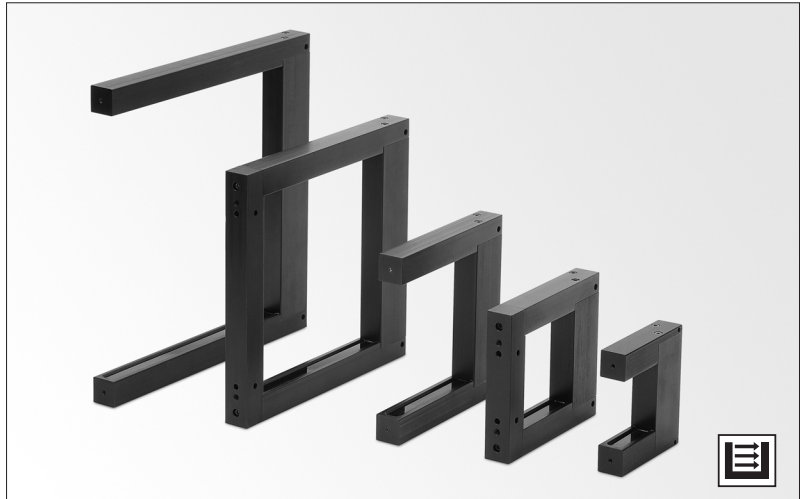


**Description**

- 50 mm to 250 mm frame width
- Aluminium housing
- Plug connection
- Infrared light source
- Sensitivity adjustment via potentiometer
- Pulse stretching adjustment via potentiometer
- Dynamic or static detection principle
- Output indicator
- High tolerance to hostile environments
- 24 V dc supply voltage
- 3 wire, PNP output
- Fast response time
- High resolution from 0,5 mm



The OAS series consists of self-contained optical frame sensors that are housed in a durable, aluminium frame housing which operates in thru-beam mode. The series is available in a variety of frame sizes, ranging from 50 mm to 250 mm, with (OAST) or without (OAS) cross bar construction.

The complete series is available as 3 wire, PNP transistor output with a 24 V dc supply voltage. All models offer sensitivity adjustment and pulse stretching adjustment via integral potentiometers.

The complete series offers a high switching frequency of 5000 Hz and high resolution ranging from 0,5 mm to 4,0 mm.

The series is protected against reverse polarity of power supplies and output signals. The output is protected against short circuit and inductive loads.

**Technical Data**

|                                  | 040                  | 070                        | 100    | 150    | 200    | 250    |
|----------------------------------|----------------------|----------------------------|--------|--------|--------|--------|
| Supply voltage                   | 24 V dc              |                            |        |        |        |        |
| Voltage tolerance                | +/- 20 %             |                            |        |        |        |        |
| Reverse polarity protected       | Yes                  |                            |        |        |        |        |
| Short circuit protected          | Yes                  |                            |        |        |        |        |
| Current consumption              | Max. 70 mA           |                            |        |        |        |        |
| Maximum output load              | 200 mA               |                            |        |        |        |        |
| Resolution                       | 0,5 mm               | 1,0 mm                     | 2,0 mm | 3,0 mm | 3,5 mm | 4,0 mm |
| Operation frequency              | 5000 Hz              |                            |        |        |        |        |
| Response time $t_{ON} / t_{OFF}$ | 0,1 ms / 0,1 ms      |                            |        |        |        |        |
| Reproducibility                  | < 0,1 mm             |                            |        |        |        |        |
| Pulse stretching                 | 0-150 ms, adjustable |                            |        |        |        |        |
| Output indicator                 | Yellow LED           |                            |        |        |        |        |
| Hysteresis                       | < 0,2 mm             |                            |        |        |        |        |
| Light source                     | Infrared (880 nm)    |                            |        |        |        |        |
| Fork opening width               | 50 mm                | 70 mm                      | 100 mm | 150 mm | 200 mm | 250 mm |
| Housing material                 | Fork housing         | Aluminium (black anodised) |        |        |        |        |
|                                  | Lens cover           | PMMA                       |        |        |        |        |

**Environmental Data**

|                                 |                    |
|---------------------------------|--------------------|
| Vibration                       | 10 – 55 Hz, 0,5 mm |
| Shock                           | 10 g               |
| Light immunity, @ 15° incidence | > 50 000 lux       |
| Temperature, operation          | - 10 to +60 °C     |
| Temperature, storage            | - 40 to +80 °C     |
| Sealing Class                   | IP 67              |
| Approvals                       | CE                 |

Available Types


| Type    | Fork opening size |        | Control Feature                      | Cross Bar      |                 | No              | Yes             |
|---------|-------------------|--------|--------------------------------------|----------------|-----------------|-----------------|-----------------|
|         | Width             | Height |                                      | Output         |                 | Order Reference |                 |
| OAS 040 | 50 mm             | 35 mm  | Sensitivity pot. and pulse time pot. | PNP            | NC              | OAS 040 P1S T3  | OAST 040 P1S T3 |
|         |                   |        |                                      |                | NO              | OAS 040 P2S T3  | OAST 040 P2S T3 |
| OAS 070 | 70 mm             | 64 mm  |                                      |                | NC              | OAS 070 P1S T3  | OAST 070 P1S T3 |
|         |                   |        |                                      |                | NO              | OAS 070 P2S T3  | OAST 070 P2S T3 |
| OAS 100 | 100 mm            | 94 mm  |                                      |                | NC              | OAS 100 P1S T3  | OAST 100 P1S T3 |
|         |                   |        |                                      |                | NO              | OAS 100 P2S T3  | OAST 100 P2S T3 |
| OAS 150 | 150 mm            | 144 mm |                                      |                | NC              | OAS 150 P1S T3  | OAST 150 P1S T3 |
|         |                   |        |                                      |                | NO              | OAS 150 P2S T3  | OAST 150 P2S T3 |
| OAS 200 | 200 mm            | 194 mm |                                      |                | NC              | OAS 200 P1S T3  | OAST 200 P1S T3 |
|         |                   |        |                                      |                | NO              | OAS 200 P2S T3  | OAST 200 P2S T3 |
| OAS 250 | 250 mm            | 244 mm | NC                                   | OAS 250 P1S T3 | OAST 250 P1S T3 |                 |                 |
|         |                   |        | NO                                   | OAS 250 P2S T3 | OAST 250 P2S T3 |                 |                 |

Connections

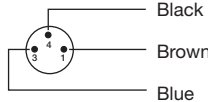
|          |                 |
|----------|-----------------|
|          | M8 Plug / Cable |
| Supply + | Pin 1 / Brown   |
| Supply - | Pin 3 / Blue    |
| Output   | Pin 4 / Black   |

**3 pin, M8**

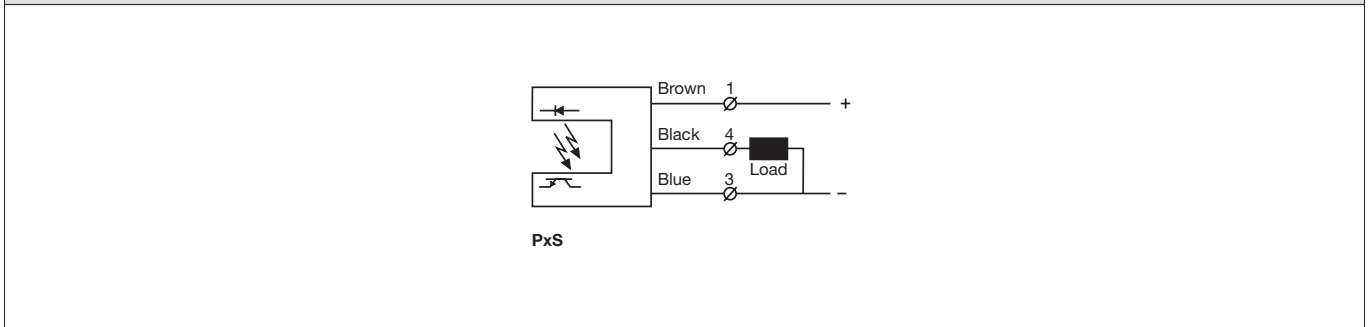
Sensor Plug (Male)



Cable Plug (Female)

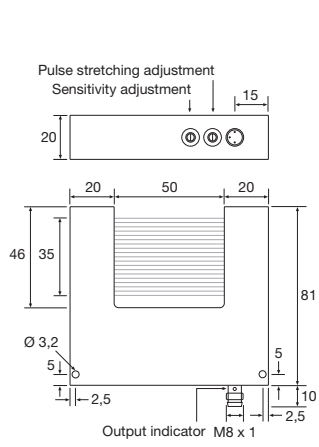


Wiring Diagrams

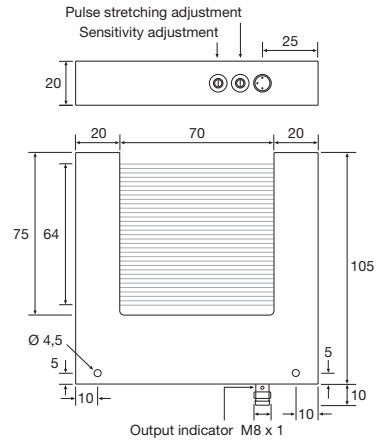


Dimensions and Descriptions

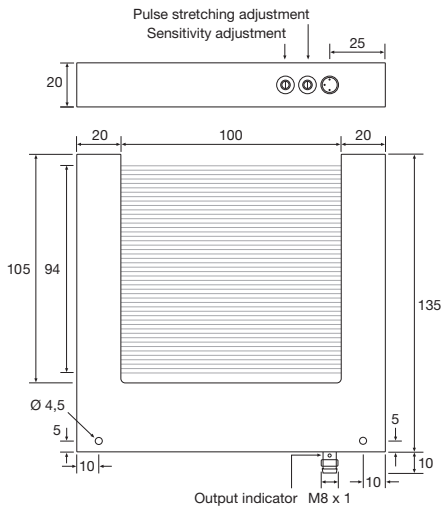
OAS



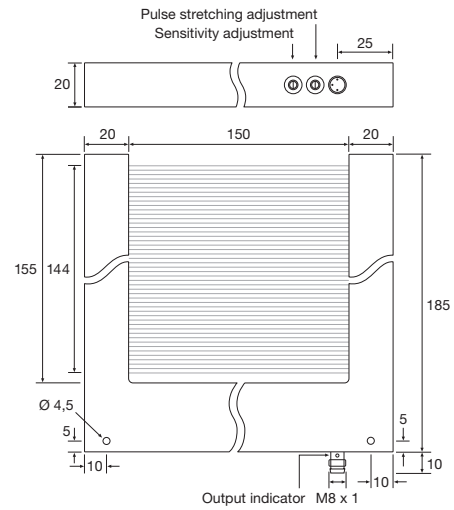
OAS 040



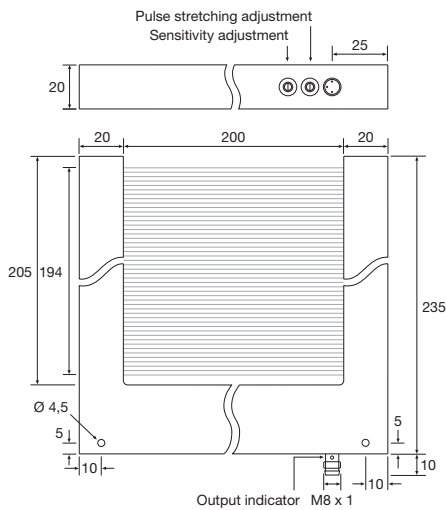
OAS 070



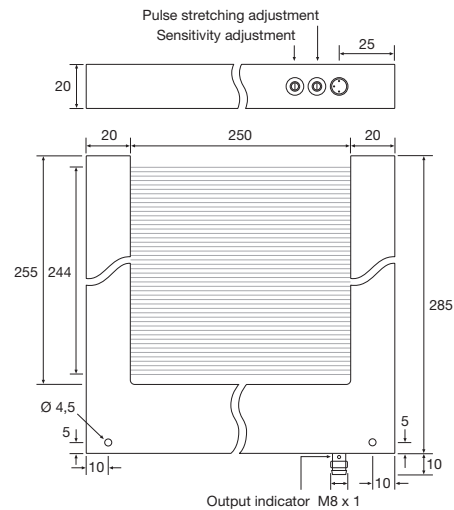
OAS 100



OAS 150



OAS 200

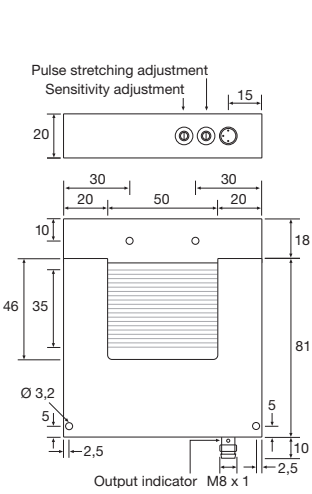


OAS 250

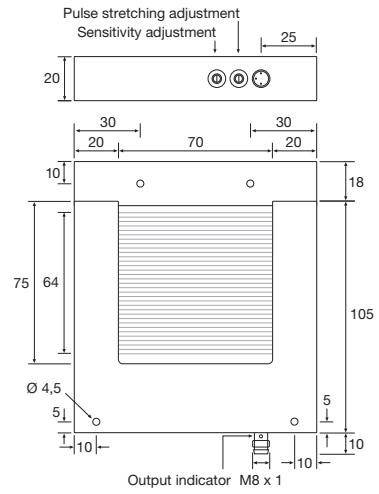
(Units in mm)

Dimensions and Descriptions

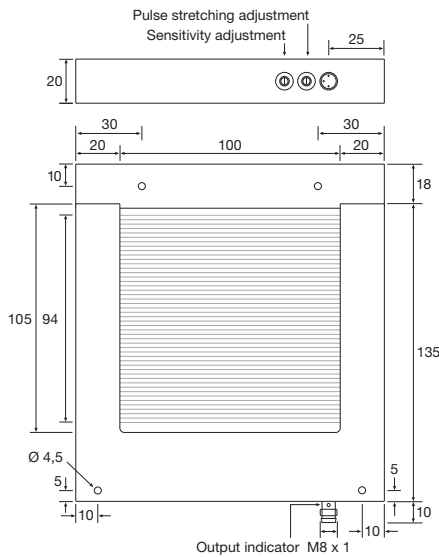
OAST



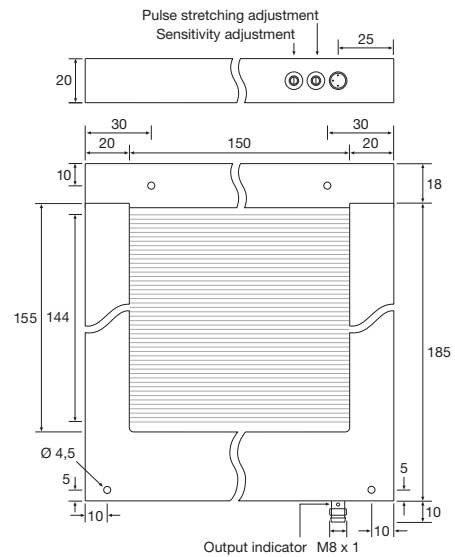
OAST 040



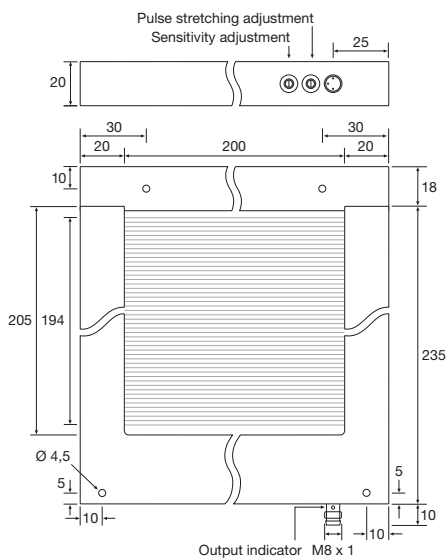
OAST 070



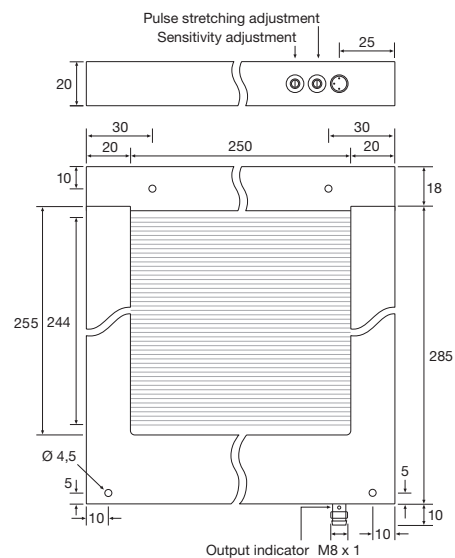
OAST 100



OAST 150



OAST 200



OAST 250

(Units in mm)