



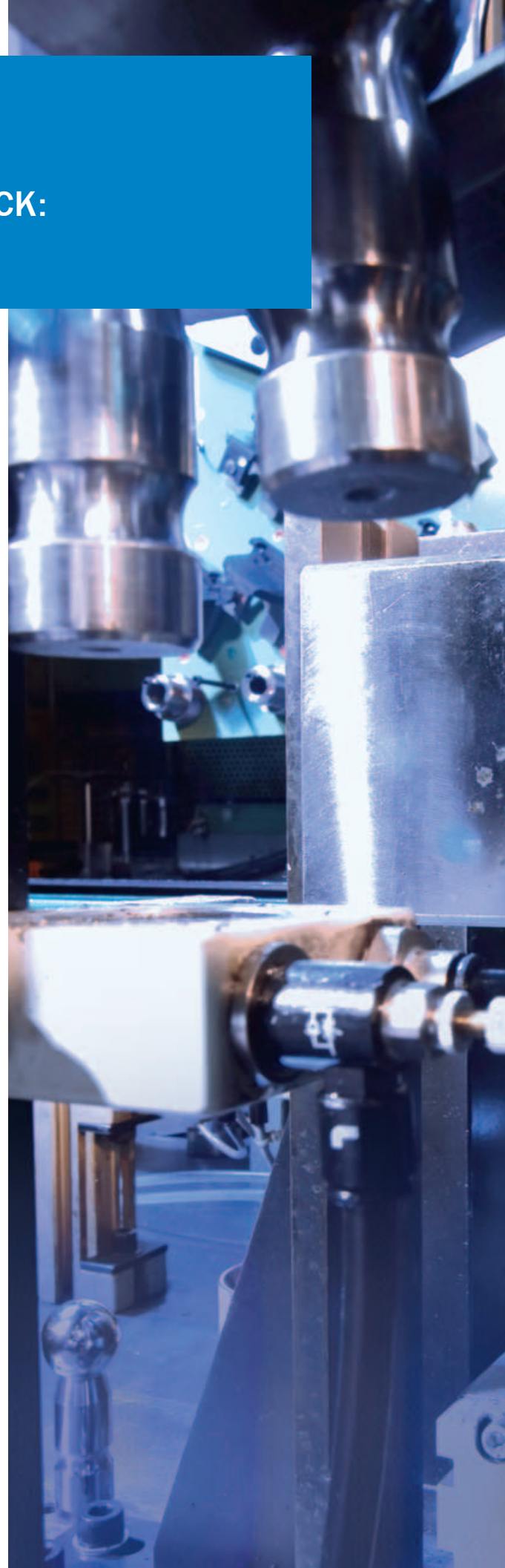
## OD Value: Easy, Accurate Measurement

Distance sensors – advanced measurement technology

## New displacement sensors from SICK: easy, accurate and economical

For many years, distance measurement has been a major activity of SICK. With the introduction of the new OD Value, SICK expands its product range once again. The new series offers maximum accuracy, reliability AND ease of operation for short measuring ranges. Accordingly, the OD Value is used wherever high accuracy is paramount, e.g. in quality control or fine positioning.

The many benefits offered by OD Value in the daily automation environment add up to a powerful and compelling, economical solution.





# V

## VERSATILE

The new OD Value has many models, offering the perfect solution for every application:

- Four different measuring ranges
- Current, voltage, switching or serial interface
- Connector and cable versions

# A

## ACCURATE

The OD Value sets new benchmarks, both in quality testing and process control.

- High resolution of up to 2  $\mu\text{m}$
- High accuracy
- Fast measurement frequency of 2 kHz

# L

## LEADING

OD Value offers maximum reliability, providing highly accurate measurement of many different materials and surfaces.

- Receiver array utilising leading CMOS technology
- Measurement algorithm to compensate for differing surface effects
- Laser technology for measuring the smallest objects

# U

## USER-FRIENDLY

OD Value features easiest setup in its class, even for demanding applications.

- Intuitive operating concept, for teach-in directly on the unit
- Multifunction input for external operation
- Distance bar indicator for easiest alignment

# E

## ECONOMICAL

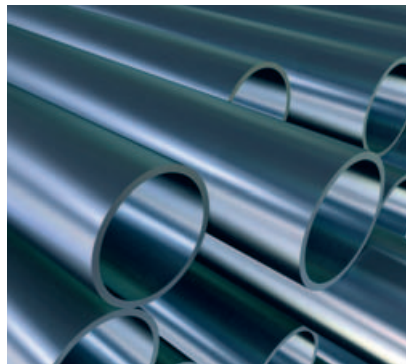
OD Value offers outstanding value for money and maximum efficiency for your application.

- High quality throughout, leading to satisfied customers
- Short downtimes and setup times
- High through-put rates

## The OD Value's quality edge: detecting the smallest differences with pinpoint accuracy

Any production environment can directly benefit from the capabilities of OD Value. Due to its many measuring ranges, combined with highly stable operation on changing surfaces, OD Value is suitable for testing, controlling, positioning and classifying in almost any machinery and production system.

The sensor captures the most minute differences in length, width, thickness, diameter, shape, position or eccentricity directly in the machine, without contact, with high accuracy and in-process.



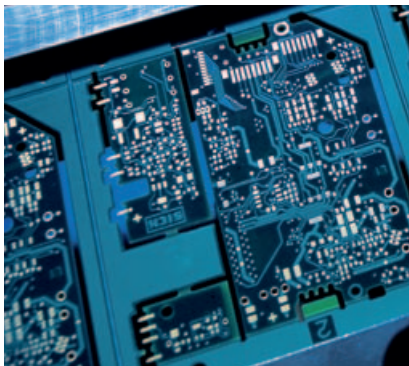
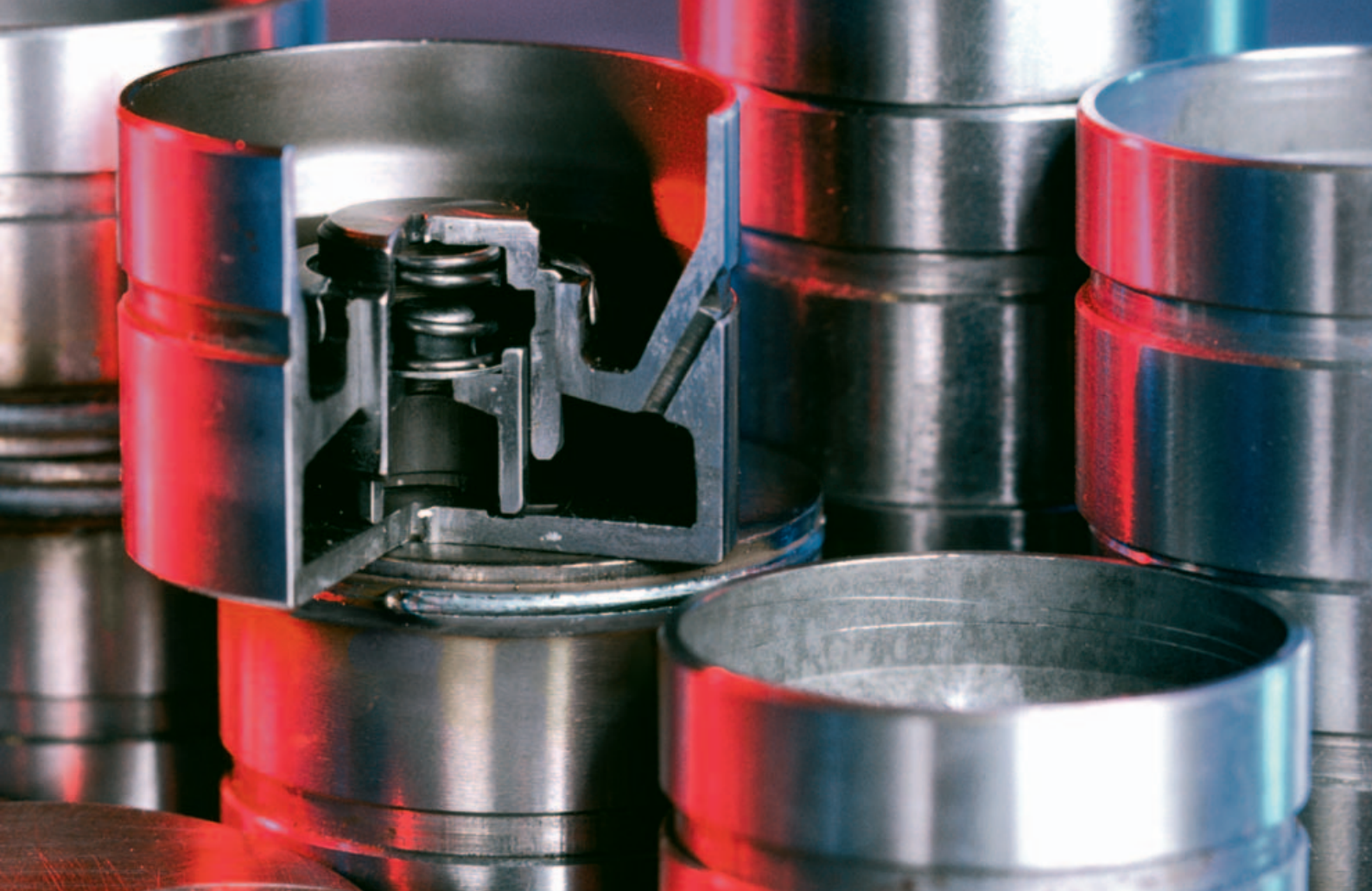
### METAL & STEEL PROCESSING

In steel processing, OD Value offers an economical and reliable solution for measuring metal parts. The sensor is ideal for double-sheet detection before presses or for positioning tasks in metal processing, e.g. prior to cutting, welding, punching or bending processes.



### AUTOMOTIVE

OD Value offers compelling performance, controlling processes in semi- and fully-automatic vehicle or component assembly and checking quality-critical components, e.g. for  $\mu\text{m}$  quality control of brake shoes, classification of brake disks or sorting ball joints.



#### ELECTRONICS

Extreme precision and frequently tight installation conditions in machines and systems characterise the sensing requirements in the electronics industry. Having proved itself in picking, positioning and moulding of E-components and E-cards even at high cycle rates, OD Value provides the ideal solution.



#### PACKAGING

Daily production in the packaging industry presents a highly dynamic environment. Here, OD Value really comes into its own with features such as high speed and material surface independence. For example, the vacuum of bottling jars is checked quickly, accurately and safely by measuring the bulge.



#### TIMBER, STONES ETC.

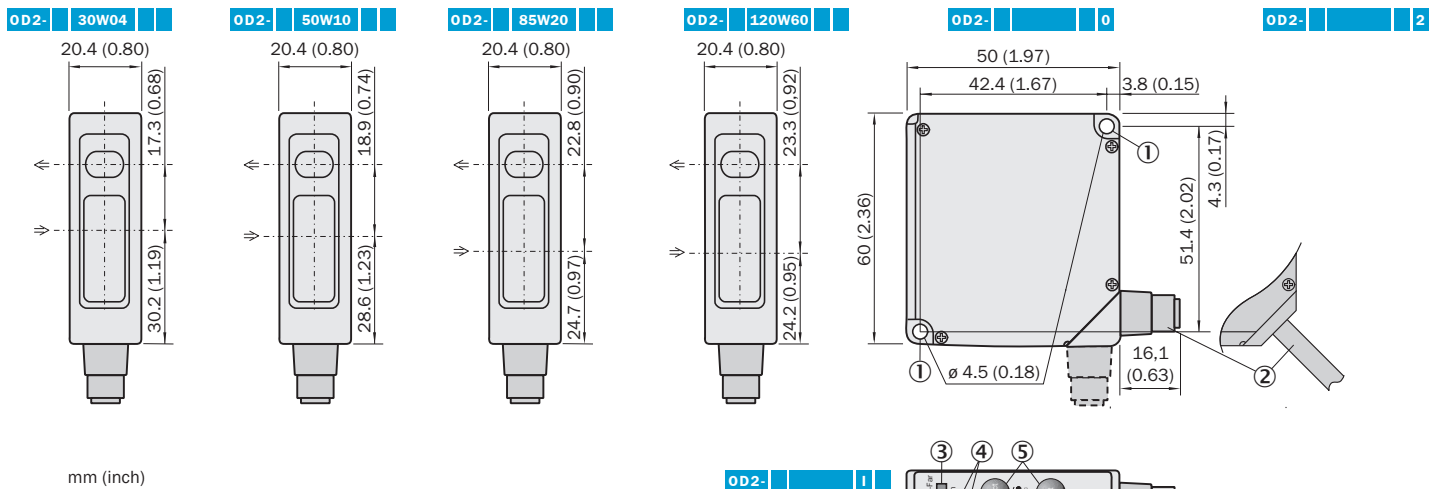
Profile, thickness or width measurements of boards – despite the most difficult conditions, OD Value offers the timber industry a reliable basis for optimising cuts and saving costs. In the construction industry, too, this sensor performs a final inspection of bricks and tiles ... quickly, accurately and reliably.



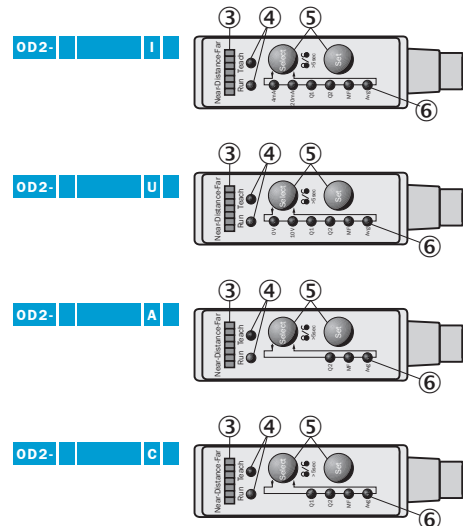
- Laser technology enables precise measurement of small objects
- Easiest sensor setup thanks to an intuitive operating concept
- CMOS technology offers maximum reliability and highly accurate measurement
- Multitude of variants for a perfect choice for every application



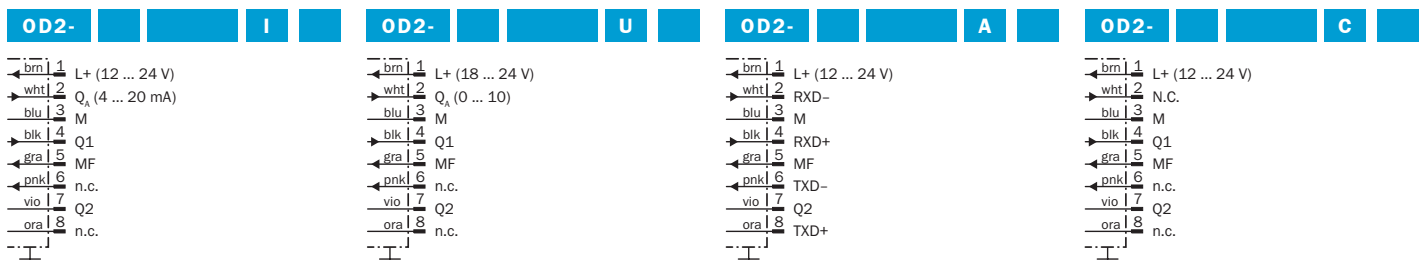
## Dimensional drawing



- ① Mounting hole,  $\varnothing$  4,5 mm
- ② 2 m cable or M12 plug;  
90° rotatable
- ③ Distance indicator
- ④ Mode indicator (Run/Teach)
- ⑤ Operating keys
- ⑥ Status indicator in- & outputs (Run-mode)



## Connection types



## General technical data

|                                 |                                                                                               |
|---------------------------------|-----------------------------------------------------------------------------------------------|
| Response time                   | 1/10/35 ms <sup>1)</sup>                                                                      |
| Light source                    | Red laser diode class 2 (II) <sup>2)</sup>                                                    |
| Supply voltage V <sub>S</sub>   | 12 ... 24 V DC <sup>3)</sup>                                                                  |
| Power consumption <sup>4)</sup> | ≤2.88 W                                                                                       |
| Enclosure rating                | IP 67                                                                                         |
| VDE protection class            | ⚡                                                                                             |
| Ambient temperature             | Operation -10 °C ... +40 °C<br>Storage -20 °C ... +60 °C                                      |
| Sensitivity to ambient light    | Artificial light ≥ 3,000 lx<br>Sun ≥ 10,000 lx                                                |
| Vibration resistance            | 10 ... 55 Hz                                                                                  |
| Shock resistance                | 50 G                                                                                          |
| Weight, typ. <sup>5)</sup>      | 70 g                                                                                          |
| Material                        | PBT & PMMA                                                                                    |
| Inputs                          | Multifunctional input: laser off, trigger, external teach in <sup>6)</sup>                    |
| Indicator                       | Distance bargraph                                                                             |
| Additional features             | Averaging; teach in off all settings; teach in off all outputs; autom. sensitivity adjustment |

<sup>1)</sup> Autom. sensitivity adjustment ≤ 4 ms<sup>2)</sup> Wavelength 650 nm, max. output 1 mW<sup>3)</sup> -5, +10 %; 18 ... 24 V when using analogue voltage output<sup>4)</sup> Excl. load; incl. analogue current output<sup>5)</sup> Excl. cable<sup>6)</sup> Response time ≤ 3 ms

## Pre-selection list by measuring range

|      |  |        | Measuring range | Resolution <sup>1)</sup> | Repeatability <sup>2)</sup> | Accuracy <sup>3)4)5)</sup> | Measuring frequency | Light spot diameter   |
|------|--|--------|-----------------|--------------------------|-----------------------------|----------------------------|---------------------|-----------------------|
|      |  |        | 6 ... 90 %      | 6 ... 90 %               | 6 ... 90 %                  | 6 ... 90 %                 |                     |                       |
| OD2- |  | 30W04  | 26 ... 34 mm    | 2 µm                     | 6 µm                        | ± 20 µm                    | 2 kHz               | 0.1 x 0.1 mm @ 30 mm  |
| OD2- |  | 50W10  | 40 ... 60 mm    | 5 µm                     | 15 µm                       | ± 50 µm                    | 2 kHz               | 0.5 x 1.0 mm @ 50 mm  |
| OD2- |  | 85W20  | 65 ... 105 mm   | 10 µm                    | 30 µm                       | ± 100 µm                   | 2 kHz               | 0.8 x 1.3 mm @ 85 mm  |
| OD2- |  | 120W60 | 60 ... 180 mm   | 30 µm                    | 90 µm                       | ± 300 µm                   | 2 kHz               | 1.0 x 1.5 mm @ 120 mm |

<sup>1)</sup> At a selected response time of 10 ms (medium)<sup>2)</sup> At a selected response time of 10 ms (medium) and constant conditions<sup>3)</sup> Equivalent to ± 0,25 % FS;  
FS= Measuring range:  
OD2-30... = 8 mm OD2-50... = 20 mm  
OD2-85... = 40 mm OD2-120... =120 mm<sup>4)</sup> Linearity for 90% remission is equivalent to 0.1% FS  
<sup>5)</sup> For best accuracy and resolution consider warm up time ≤ 5 min

## Technical data specific to type incl. order information

| OD2-         |           | 30W04             |                                              |  | 26 ... 34 mm             | 2 µm | 6 µm           | ± 20 µm | 2 kHz | 0.1 x 0.1 mm @ 30 mm |
|--------------|-----------|-------------------|----------------------------------------------|--|--------------------------|------|----------------|---------|-------|----------------------|
| Type         | Order no. | In- & outputs     | Outputs & interfaces                         |  | Connection type          |      | Comment        |         |       |                      |
| OD2-P30W04I0 | 6036580   | PNP <sup>1)</sup> | 4 ... 20 mA <sup>3)/2 x Q<sup>5)</sup></sup> |  | M12, 8-pin <sup>6)</sup> |      | Preferred type |         |       |                      |
| OD2-P30W04I2 | 6036576   | PNP <sup>1)</sup> | 4 ... 20 mA <sup>3)/2 x Q<sup>5)</sup></sup> |  | Cable, 2 m               |      |                |         |       |                      |
| OD2-P30W04C0 | 6036582   | PNP <sup>1)</sup> | 2 x Q <sup>5)</sup>                          |  | M12, 8-pin <sup>6)</sup> |      |                |         |       |                      |
| OD2-P30W04C2 | 6036578   | PNP <sup>1)</sup> | 2 x Q <sup>5)</sup>                          |  | Cable, 2 m               |      |                |         |       |                      |
| OD2-P30W04U0 | 6036581   | PNP <sup>1)</sup> | 0 ... 10 V <sup>4)/2 x Q<sup>5)</sup></sup>  |  | M12, 8-pin <sup>6)</sup> |      |                |         |       |                      |
| OD2-P30W04U2 | 6036577   | PNP <sup>1)</sup> | 0 ... 10 V <sup>4)/2 x Q<sup>5)</sup></sup>  |  | Cable, 2 m               |      |                |         |       |                      |
| OD2-P30W04A0 | 6036583   | PNP <sup>1)</sup> | RS-422/1 x Q <sup>5)</sup>                   |  | M12, 8-pin <sup>6)</sup> |      |                |         |       |                      |
| OD2-P30W04A2 | 6036579   | PNP <sup>1)</sup> | RS-422/1 x Q <sup>5)</sup>                   |  | Cable, 2 m               |      |                |         |       |                      |
| OD2-N30W04I0 | 6036572   | NPN <sup>2)</sup> | 4 ... 20 mA <sup>3)/2 x Q<sup>5)</sup></sup> |  | M12, 8-pin <sup>6)</sup> |      |                |         |       |                      |
| OD2-N30W04I2 | 6036568   | NPN <sup>2)</sup> | 4 ... 20 mA <sup>3)/2 x Q<sup>5)</sup></sup> |  | Cable, 2 m               |      |                |         |       |                      |
| OD2-N30W04C0 | 6036574   | NPN <sup>2)</sup> | 2 x Q <sup>5)</sup>                          |  | M12, 8-pin <sup>6)</sup> |      |                |         |       |                      |
| OD2-N30W04C2 | 6036570   | NPN <sup>2)</sup> | 2 x Q <sup>5)</sup>                          |  | Cable, 2 m               |      |                |         |       |                      |
| OD2-N30W04U0 | 6036573   | NPN <sup>2)</sup> | 0 ... 10 V <sup>4)/2 x Q<sup>5)</sup></sup>  |  | M12, 8-pin <sup>6)</sup> |      |                |         |       |                      |
| OD2-N30W04U2 | 6036569   | NPN <sup>2)</sup> | 0 ... 10 V <sup>4)/2 x Q<sup>5)</sup></sup>  |  | Cable, 2 m               |      |                |         |       |                      |
| OD2-N30W04A0 | 6036575   | NPN <sup>2)</sup> | RS-422/1 x Q <sup>5)</sup>                   |  | M12, 8-pin <sup>6)</sup> |      |                |         |       |                      |
| OD2-N30W04A2 | 6036571   | NPN <sup>2)</sup> | RS-422/1 x Q <sup>5)</sup>                   |  | Cable, 2 m               |      |                |         |       |                      |

<sup>1)</sup> High = V<sub>S</sub>, Low ≤ 2,8 V<sup>2)</sup> High ≤ 2,8 V, Low = V<sub>S</sub><sup>3)</sup> Output impedance max. 300 Ω<sup>4)</sup> Output impedance min. 10 kΩ<sup>5)</sup> Max. 100 mA/DC 30 V<sup>6)</sup> 2 m cable: 6020663

5 m cable: 6020664

# OD Value Distance sensor

## Technical data specific to type incl. order information

| OD2-                 | 50W10          | 40 ... 60 mm            | 5 µm                                               | 15 µm | ± 50 µm                        | 2 kHz                 | 0.5 x 1.0 mm @ 50 mm  |
|----------------------|----------------|-------------------------|----------------------------------------------------|-------|--------------------------------|-----------------------|-----------------------|
| Type                 | Order no.      | In- & outputs           | Outputs & interfaces                               |       | Connection type                | Comment               |                       |
| <b>OD2-P50W10I0</b>  | <b>6036597</b> | <b>PNP<sup>1)</sup></b> | <b>4 ... 20 mA<sup>3)/2 x Q<sup>5)</sup></sup></b> |       | <b>M12, 8-pin<sup>6)</sup></b> | <b>Preferred type</b> |                       |
| OD2-P50W10I2         | 6036592        | PNP <sup>1)</sup>       | 4 ... 20 mA <sup>3)/2 x Q<sup>5)</sup></sup>       |       | Cable, 2 m                     |                       |                       |
| OD2-P50W10C0         | 6036599        | PNP <sup>1)</sup>       | 2 x Q <sup>5)</sup>                                |       | M12, 8-pin <sup>6)</sup>       |                       |                       |
| OD2-P50W10C2         | 6036595        | PNP <sup>1)</sup>       | 2 x Q <sup>5)</sup>                                |       | Cable, 2 m                     |                       |                       |
| OD2-P50W10U0         | 6036598        | PNP <sup>1)</sup>       | 0 ... 10 V <sup>4)/2 x Q<sup>5)</sup></sup>        |       | M12, 8-pin <sup>6)</sup>       |                       |                       |
| OD2-P50W10U2         | 6036593        | PNP <sup>1)</sup>       | 0 ... 10 V <sup>4)/2 x Q<sup>5)</sup></sup>        |       | Cable, 2 m                     |                       |                       |
| OD2-P50W10A0         | 6036600        | PNP <sup>1)</sup>       | RS-422/1 x Q <sup>5)</sup>                         |       | M12, 8-pin <sup>6)</sup>       |                       |                       |
| OD2-P50W10A2         | 6036596        | PNP <sup>1)</sup>       | RS-422/1 x Q <sup>5)</sup>                         |       | Cable, 2 m                     |                       |                       |
| OD2-N50W10I0         | 6036588        | NPN <sup>2)</sup>       | 4 ... 20 mA <sup>3)/2 x Q<sup>5)</sup></sup>       |       | M12, 8-pin <sup>6)</sup>       |                       |                       |
| OD2-N50W10I2         | 6036584        | NPN <sup>2)</sup>       | 4 ... 20 mA <sup>3)/2 x Q<sup>5)</sup></sup>       |       | Cable, 2 m                     |                       |                       |
| OD2-N50W10C0         | 6036590        | NPN <sup>2)</sup>       | 2 x Q <sup>5)</sup>                                |       | M12, 8-pin <sup>6)</sup>       |                       |                       |
| OD2-N50W10C2         | 6036586        | NPN <sup>2)</sup>       | 2 x Q <sup>5)</sup>                                |       | Cable, 2 m                     |                       |                       |
| OD2-N50W10U0         | 6036589        | NPN <sup>2)</sup>       | 0 ... 10 V <sup>4)/2 x Q<sup>5)</sup></sup>        |       | M12, 8-pin <sup>6)</sup>       |                       |                       |
| OD2-N50W10U2         | 6036585        | NPN <sup>2)</sup>       | 0 ... 10 V <sup>4)/2 x Q<sup>5)</sup></sup>        |       | Cable, 2 m                     |                       |                       |
| OD2-N50W10A0         | 6036591        | NPN <sup>2)</sup>       | RS-422/1 x Q <sup>5)</sup>                         |       | M12, 8-pin <sup>6)</sup>       |                       |                       |
| OD2-N50W10A2         | 6036587        | NPN <sup>2)</sup>       | RS-422/1 x Q <sup>5)</sup>                         |       | Cable, 2 m                     |                       |                       |
| OD2-                 | 85W20          | 65 ... 105 mm           | 10 µm                                              | 30 µm | ± 100 µm                       | 2 kHz                 | 0.8 x 1.3 mm @ 85 mm  |
| Type                 | Order no.      | In- & outputs           | Outputs & interfaces                               |       | Connection type                | Comment               |                       |
| <b>OD2-P85W20I0</b>  | <b>6036613</b> | <b>PNP<sup>1)</sup></b> | <b>4 ... 20 mA<sup>3)/2 x Q<sup>5)</sup></sup></b> |       | <b>M12, 8-pin<sup>6)</sup></b> | <b>Preferred type</b> |                       |
| OD2-P85W20I2         | 6036609        | PNP <sup>1)</sup>       | 4 ... 20 mA <sup>3)/2 x Q<sup>5)</sup></sup>       |       | Cable, 2 m                     |                       |                       |
| OD2-P85W20C0         | 6036615        | PNP <sup>1)</sup>       | 2 x Q <sup>5)</sup>                                |       | M12, 8-pin <sup>6)</sup>       |                       |                       |
| OD2-P85W20C2         | 6036611        | PNP <sup>1)</sup>       | 2 x Q <sup>5)</sup>                                |       | Cable, 2 m                     |                       |                       |
| OD2-P85W20U0         | 6036614        | PNP <sup>1)</sup>       | 0 ... 10 V <sup>4)/2 x Q<sup>5)</sup></sup>        |       | M12, 8-pin <sup>6)</sup>       |                       |                       |
| OD2-P85W20U2         | 6036610        | PNP <sup>1)</sup>       | 0 ... 10 V <sup>4)/2 x Q<sup>5)</sup></sup>        |       | Cable, 2 m                     |                       |                       |
| OD2-P85W20A0         | 6036616        | PNP <sup>1)</sup>       | RS-422/1 x Q <sup>5)</sup>                         |       | M12, 8-pin <sup>6)</sup>       |                       |                       |
| OD2-P85W20A2         | 6036612        | PNP <sup>1)</sup>       | RS-422/1 x Q <sup>5)</sup>                         |       | Cable, 2 m                     |                       |                       |
| OD2-N85W20I0         | 6036605        | NPN <sup>2)</sup>       | 4 ... 20 mA <sup>3)/2 x Q<sup>5)</sup></sup>       |       | M12, 8-pin <sup>6)</sup>       |                       |                       |
| OD2-N85W20I2         | 6036601        | NPN <sup>2)</sup>       | 4 ... 20 mA <sup>3)/2 x Q<sup>5)</sup></sup>       |       | Cable, 2 m                     |                       |                       |
| OD2-N85W20C0         | 6036607        | NPN <sup>2)</sup>       | 2 x Q <sup>5)</sup>                                |       | M12, 8-pin <sup>6)</sup>       |                       |                       |
| OD2-N85W20C2         | 6036603        | NPN <sup>2)</sup>       | 2 x Q <sup>5)</sup>                                |       | Cable, 2 m                     |                       |                       |
| OD2-N85W20U0         | 6036606        | NPN <sup>2)</sup>       | 0 ... 10 V <sup>4)/2 x Q<sup>5)</sup></sup>        |       | M12, 8-pin <sup>6)</sup>       |                       |                       |
| OD2-N85W20U2         | 6036602        | NPN <sup>2)</sup>       | 0 ... 10 V <sup>4)/2 x Q<sup>5)</sup></sup>        |       | Cable, 2 m                     |                       |                       |
| OD2-N85W20A0         | 6036608        | NPN <sup>2)</sup>       | RS-422/1 x Q <sup>5)</sup>                         |       | M12, 8-pin <sup>6)</sup>       |                       |                       |
| OD2-N85W20A2         | 6036604        | NPN <sup>2)</sup>       | RS-422/1 x Q <sup>5)</sup>                         |       | Cable, 2 m                     |                       |                       |
| OD2-                 | 120W60         | 60 ... 180 mm           | 30 µm                                              | 90 µm | ± 300 µm                       | 2 kHz                 | 1.0 x 1.5 mm @ 120 mm |
| Type                 | Order no.      | In- & outputs           | Outputs & interfaces                               |       | Connection type                | Comment               |                       |
| <b>OD2-P120W60I0</b> | <b>6036629</b> | <b>PNP<sup>1)</sup></b> | <b>4 ... 20 mA<sup>3)/2 x Q<sup>5)</sup></sup></b> |       | <b>M12, 8-pin<sup>6)</sup></b> | <b>Preferred type</b> |                       |
| OD2-P120W60I2        | 6036625        | PNP <sup>1)</sup>       | 4 ... 20 mA <sup>3)/2 x Q<sup>5)</sup></sup>       |       | Cable, 2 m                     |                       |                       |
| OD2-P120W60C0        | 6036631        | PNP <sup>1)</sup>       | 2 x Q <sup>5)</sup>                                |       | M12, 8-pin <sup>6)</sup>       |                       |                       |
| OD2-P120W60C2        | 6036627        | PNP <sup>1)</sup>       | 2 x Q <sup>5)</sup>                                |       | Cable, 2 m                     |                       |                       |
| OD2-P120W60U0        | 6036630        | PNP <sup>1)</sup>       | 0 ... 10 V <sup>4)/2 x Q<sup>5)</sup></sup>        |       | M12, 8-pin <sup>6)</sup>       |                       |                       |
| OD2-P120W60U2        | 6036626        | PNP <sup>1)</sup>       | 0 ... 10 V <sup>4)/2 x Q<sup>5)</sup></sup>        |       | Cable, 2 m                     |                       |                       |
| OD2-P120W60A0        | 6036632        | PNP <sup>1)</sup>       | RS-422/1 x Q <sup>5)</sup>                         |       | M12, 8-pin <sup>6)</sup>       |                       |                       |
| OD2-P120W60A2        | 6036628        | PNP <sup>1)</sup>       | RS-422/1 x Q <sup>5)</sup>                         |       | Cable, 2 m                     |                       |                       |
| OD2-N120W60I0        | 6036621        | NPN <sup>2)</sup>       | 4 ... 20 mA <sup>3)/2 x Q<sup>5)</sup></sup>       |       | M12, 8-pin <sup>6)</sup>       |                       |                       |
| OD2-N120W60I2        | 6036617        | NPN <sup>2)</sup>       | 4 ... 20 mA <sup>3)/2 x Q<sup>5)</sup></sup>       |       | Cable, 2 m                     |                       |                       |
| OD2-N120W60C0        | 6036623        | NPN <sup>2)</sup>       | 2 x Q <sup>5)</sup>                                |       | M12, 8-pin <sup>6)</sup>       |                       |                       |
| OD2-N120W60C2        | 6036619        | NPN <sup>2)</sup>       | 2 x Q <sup>5)</sup>                                |       | Cable, 2 m                     |                       |                       |
| OD2-N120W60U0        | 6036622        | NPN <sup>2)</sup>       | 0 ... 10 V <sup>4)/2 x Q<sup>5)</sup></sup>        |       | M12, 8-pin <sup>6)</sup>       |                       |                       |
| OD2-N120W60U2        | 6036618        | NPN <sup>2)</sup>       | 0 ... 10 V <sup>4)/2 x Q<sup>5)</sup></sup>        |       | Cable, 2 m                     |                       |                       |
| OD2-N120W60A0        | 6036624        | NPN <sup>2)</sup>       | RS-422/1 x Q <sup>5)</sup>                         |       | M12, 8-pin <sup>6)</sup>       |                       |                       |
| OD2-N120W60A2        | 6036620        | NPN <sup>2)</sup>       | RS-422/1 x Q <sup>5)</sup>                         |       | Cable, 2 m                     |                       |                       |

<sup>1)</sup> High = V<sub>S</sub>, Low ≤ 2,8 V

<sup>2)</sup> High ≤ 2,8 V, Low = V<sub>S</sub>

<sup>3)</sup> Output impedance max. 300 Ω

<sup>4)</sup> Output impedance min. 10 kΩ

<sup>5)</sup> Max. 100 mA/DC 30 V

<sup>6)</sup> 2 m cable: 6020663

5 m cable: 6020664

## Type code



OD2-

## In &amp; outputs

PNP

P

NPN

N

## Measuring range

26 ... 34 mm

30W04

40 ... 60 mm

50W10

65 ... 105 mm

85W20

60 ... 180 mm

120W60

## Outputs &amp; interfaces

2 switching outputs<sup>6)</sup> and analogue 4 ... 20 mA<sup>7)</sup>

I

2 switching outputs<sup>8)</sup> and analogue 0 ... 10 V<sup>8)</sup>

U

2 switching outputs<sup>6)</sup>

C

1 switching outputs<sup>6)</sup> and RS-422

A

## Connection type

M12 plug, 8-pin<sup>9)</sup>

0

Cable, 2 m

2

High =  $V_S$ , Low  $\leq 2.8$  VHigh =  $\leq 2.8$  V, Low =  $V_S$ Resolution<sup>4)</sup> Repeatability<sup>2)</sup> Accuracy<sup>3)4)5)</sup> Light spot diameter

| 6 ... 90 % | 6 ... 90 % | 6 ... 90 %        |                       |
|------------|------------|-------------------|-----------------------|
| 2 $\mu$ m  | 6 $\mu$ m  | $\pm 20$ $\mu$ m  | 0.1 x 0.1 mm @ 30 mm  |
| 5 $\mu$ m  | 15 $\mu$ m | $\pm 50$ $\mu$ m  | 0.5 x 1.0 mm @ 50 mm  |
| 10 $\mu$ m | 30 $\mu$ m | $\pm 100$ $\mu$ m | 0.8 x 1.3 mm @ 85 mm  |
| 30 $\mu$ m | 90 $\mu$ m | $\pm 300$ $\mu$ m | 1.0 x 1.5 mm @ 120 mm |

Supply voltage  $V_S$ : 12 ... 24 V DCSupply voltage  $V_S$ : 18 ... 24 V DCSupply voltage  $V_S$ : 12 ... 24 V DCSupply voltage  $V_S$ : 12 ... 24 V DC

<sup>1)</sup> At a selected response time of 10 ms (medium)

<sup>2)</sup> At a selected response time of 10 ms (medium) and constant conditions

<sup>3)</sup> Equivalent to  $\pm 0.25$  % FS;  
FS = Measuring range: OD2-30... = 8 mm,  
OD2-50... = 20 mm, OD2-85... = 40 mm,  
OD2-120... = 120 mm

<sup>4)</sup> Linearity for 90 % remission is equivalent to 0.1 % FS

<sup>5)</sup> For best accuracy and resolution consider warm up time  $\leq 5$  min

<sup>6)</sup> Max. 100 mA/DC 30 V

<sup>7)</sup> Output impedance max. 300  $\Omega$

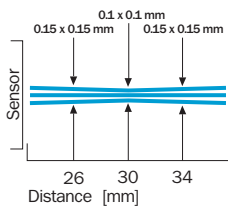
<sup>8)</sup> Output impedance min. 10 k $\Omega$

<sup>9)</sup> 2 m cable: 6020663  
5 m cable: 6020664

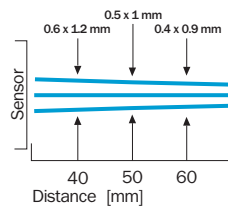
Models other than the preferred types may have a longer delivery time.

## Characteristic diagram light spot diameter

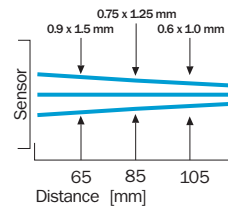
OD2- 30W04



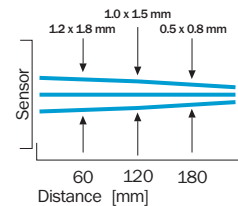
OD2- 50W10



OD2- 85W20



OD2- 120W60 C



## FACTORY AUTOMATION

With its intelligent sensors, safety systems, and auto ident applications, SICK realises comprehensive solutions for factory automation.

- Non-contact detecting, counting, classifying, and positioning of any types of object
- Accident protection and personal safety using sensors, as well as safety software and services



## LOGISTICS AUTOMATION

Sensors made by SICK form the basis for automating material flows and the optimisation of sorting and warehousing processes.

- Automated identification with bar code and RFID reading devices for the purpose of sorting and target control in industrial material flow
- Detecting volume, position, and contours of objects and surroundings with laser measurement systems



## PROCESS AUTOMATION

Analyzers and Process Instrumentation by SICK MAIHAK provides for the best possible acquisition of environmental and process data.

- Complete systems solutions for gas analysis, dust measurement, flow rate measurement, water analysis or, respectively, liquid analysis, and level measurement as well as other tasks



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