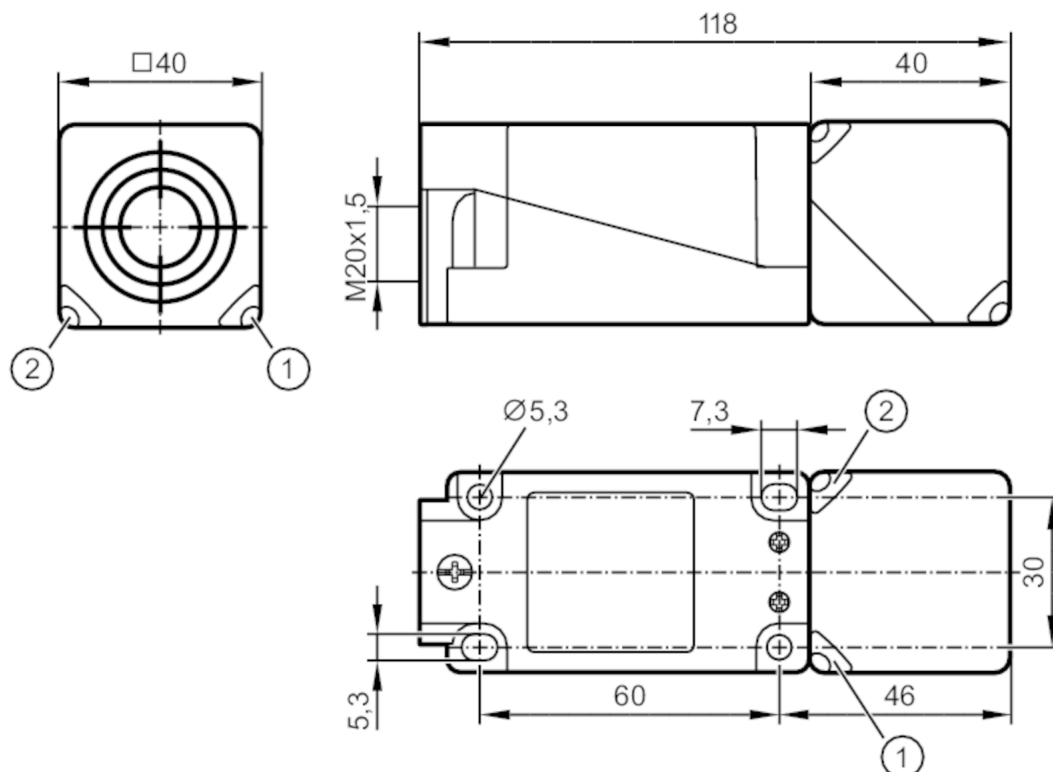




## Inductive sensor

IVE4020BCPKG



- 1 LED green  
2 LED yellow



## Product characteristics

|                    |               |
|--------------------|---------------|
| Electrical design  | PNP           |
| Output function    | complementary |
| Sensing range [mm] | 20            |
| Housing            | rectangular   |
| Dimensions [mm]    | 40 x 40 x 118 |

## Electrical data

|                             |            |
|-----------------------------|------------|
| Operating voltage [V]       | 10...30 DC |
| Current consumption [mA]    | 20; (24 V) |
| Protection class            | II         |
| Reverse polarity protection | yes        |

## Outputs

|                                                      |               |
|------------------------------------------------------|---------------|
| Electrical design                                    | PNP           |
| Output function                                      | complementary |
| Max. voltage drop switching output DC [V]            | 2             |
| Permanent current rating of switching output DC [mA] | 200           |
| Switching frequency DC [Hz]                          | 400           |
| Short-circuit protection                             | yes           |

# IV5004



## Inductive sensor

IVE4020BCPKG

|                                  |                                                                                                                                 |                                                                                 |
|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|
| Type of short-circuit protection | yes (non-latching)                                                                                                              |                                                                                 |
| Overload protection              | yes                                                                                                                             |                                                                                 |
| Monitoring range                 |                                                                                                                                 |                                                                                 |
| Sensing range                    | [mm]                                                                                                                            | 20                                                                              |
| Real sensing range Sr            | [mm]                                                                                                                            | 20 ± 10 %                                                                       |
| Operating distance               | [mm]                                                                                                                            | 0...16.2                                                                        |
| Accuracy / deviations            |                                                                                                                                 |                                                                                 |
| Correction factor                | steel: 1 / stainless steel: 0.7 / brass: 0.4 / aluminum: 0.3 / copper: 0.3                                                      |                                                                                 |
| Hysteresis                       | [% of Sr]                                                                                                                       | 1...10                                                                          |
| Switch-point drift               | [% of Sr]                                                                                                                       | -10...10                                                                        |
| Operating conditions             |                                                                                                                                 |                                                                                 |
| Ambient temperature              | [°C]                                                                                                                            | -25...85                                                                        |
| Protection                       | IP 68; IP 69K                                                                                                                   |                                                                                 |
| Tests / approvals                |                                                                                                                                 |                                                                                 |
| EMC                              | EN 61000-4-2 ESD                                                                                                                | 8 kV CD / 8 kV AD                                                               |
|                                  | EN 61000-4-3 HF radiated                                                                                                        | 10 V/m                                                                          |
|                                  | EN 61000-4-4 Burst                                                                                                              | 2 kV                                                                            |
|                                  | EN 61000-4-6 HF conducted                                                                                                       | 15 V                                                                            |
|                                  | EN 55011                                                                                                                        | class B                                                                         |
| Vibration resistance             | EN 60068-2-6 Fc                                                                                                                 | 10 g (10...2000 Hz) / 10 cycles                                                 |
| Shock resistance                 | EN 60068-2-27 Ea                                                                                                                | 30 g 11 ms half-sine; 3 shocks each in every direction of the 3 coordinate axes |
| Continuous shock resistance      | EN 60068-2-27                                                                                                                   | 40 g 6 ms; 4000 shocks each in every direction of the 3 coordinate axes         |
| Fast temperature changes         | EN 60068-2-14 Na                                                                                                                | TA = -40 °C; TB = 85 °C; t1 = 30 min; t2 = < 10 s; 50 cycles                    |
| MTTF                             | [years]                                                                                                                         | 652.2                                                                           |
| UL approval                      | Ta                                                                                                                              | 0...40 °C                                                                       |
|                                  | Enclosure type                                                                                                                  | Type 1                                                                          |
|                                  | File number UL                                                                                                                  | E174191                                                                         |
| Mechanical data                  |                                                                                                                                 |                                                                                 |
| Weight                           | [g]                                                                                                                             | 250                                                                             |
| Housing                          | rectangular                                                                                                                     |                                                                                 |
| Mounting                         | flush mountable                                                                                                                 |                                                                                 |
| Dimensions                       | [mm]                                                                                                                            | 40 x 40 x 118                                                                   |
| Material                         | PA 6.6; diecast zinc epoxy coated; sensing face: PA 6.6; LED window: PA; screws: stainless steel stainless steel (1.4305 / 303) |                                                                                 |
| Displays / operating elements    |                                                                                                                                 |                                                                                 |
| Display                          | Switching status                                                                                                                | 1 x LED, yellow                                                                 |
|                                  | Power                                                                                                                           | 1 x LED, green                                                                  |
| Remarks                          |                                                                                                                                 |                                                                                 |
| Remarks                          | 5 positions of the active zone possible<br>cable gland (E11270) to be ordered separately                                        |                                                                                 |
| Pack quantity                    | 1 pcs.                                                                                                                          |                                                                                 |

# IV5004

## Inductive sensor

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### Electrical connection

terminals: ...2.5 mm<sup>2</sup>; Cable gland: M20 X 1.5

### Connection

