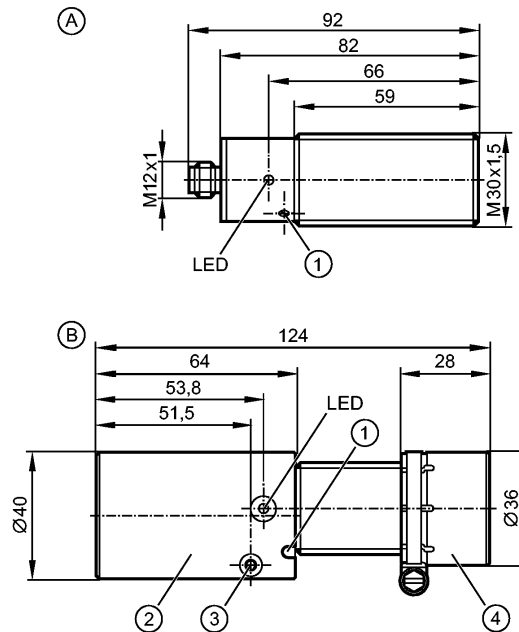


**DI505A**

DIA3010-ZPKG/US/3D

Evaluation systems, power supplies



- A: Sensor
- B: sensor with impact protection housing
- 1: potentiometer
- 2: impact protection housing for the connector
- 3: clamping screw
- 4: impact protection housing for the sensor



| Product characteristics          |   |
|----------------------------------|---|
| Compact speed monitor M30        |   |
| DIA                              |   |
| M30 x 1.5                        |   |
| Quick disconnect                 |   |
| ATEX approval                    |   |
| Group II, category 3D            |   |
| Inductive sensor                 |   |
| Sensing range 10 mm [f]          |   |
| flush mountable                  |   |
| Application                      |   |
| Application                      | simple evaluation of rotating and linear movement with regard to underspeed; blocking     |
| Switching function               | output is switched during the start-up delay and if (f actual) is greater than (f preset) |
| Electrical design                | DC PNP  |
| Switching output                 | normally open   |
| Electrical data                  |   |
| Nominal voltage [V]              | 10...36 DC  |
| Current consumption [mA]         | < 15  |
| Reverse polarity protection      | yes   |
| Protection class                 | III   |
| Outputs                          |   |
| Transistor                       |   |
| Current rating (continuous) [mA] | 250   |



## DI505A

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|                       |      |       |
|-----------------------|------|-------|
| Current rating (peak) | [mA] | 250   |
| Switching frequency   | [Hz] | 100   |
| Voltage drop          | [V]  | < 2.5 |
| Short-circuit proof   |      | yes   |
| Overload protection   |      | yes   |

### Monitoring range

|                         |      |   |
|-------------------------|------|---|
| Sensing range           | [mm] | 10, without impact protection housing [f], with impact protection housing [nf] 7 mm                           |
| Real sensing range (Sr) | [mm] | 10 ± 10 %; without impact protection housing (f)  |
| Operating distance      | [mm] | 0...5   |
| Correction factors      |      | mild steel = 1 / stainless steel approx. 0.7 / brass approx. 0.5 / aluminium approx. 0.4 / copper approx. 0.3 |

### Measuring / setting range

|                                |               |                         |
|--------------------------------|---------------|-------------------------|
| Setting range                  | [pulses/min.] | 5...300                 |
| Adjustment of the switch point |               | multiturn potentiometer |
| Hysteresis                     | [% of Sp]     | 10                      |
| Start-up delay                 | [s]           | 15 *)                   |

### Reaction times

|                          |              |       |
|--------------------------|--------------|-------|
| Damping frequency (max.) | [pulses/min] | 15000 |
|--------------------------|--------------|-------|

### Environment

|                     |      |          |
|---------------------|------|----------|
| Ambient temperature | [°C] | -20...50 |
| Protection          |      | IP 67    |

### Tests / approvals

|                     |  |   |
|---------------------|--|---|
| Marking of the unit |  | ⊕ II 3D Ex tc IIIC T80°C Dc IP67 U ***) |
| EMC                 |  | EN 60947-5-2                            |

### Mechanical data

|                   |      |  |
|-------------------|------|--|
| Mounting          |      | flush mountable                                |
| Housing materials |      | brass special coating; PBT; PPE; TPE-U; PA 6.6 |
| Weight            | [kg] | 0.303  |

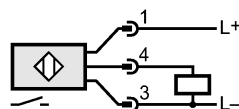
### Displays / operating elements

|                          |     |        |
|--------------------------|-----|--------|
| Input pulses             | LED | yellow |
| Output status indication | LED | green  |

### Electrical connection

|            |  |               |
|------------|--|---------------|
| Connection |  | M12 connector |
|------------|--|---------------|

### Wiring



### Accessories

|                        |  |  |
|------------------------|--|--|
| Accessories (included) |  | 2 lock nuts; impact protection housing; Mounting clamp |
|------------------------|--|--|

### Remarks

|         |  |            |
|---------|--|------------|
| Remarks |  | *) typical |
|---------|--|------------|



## DI505A

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\*\*\*) only in conjunction with the impact protective housing

Pack quantity

[piece]

1