

# Optical rotary encoders

**15-32 standard type**  
**15-33 with index pulse**

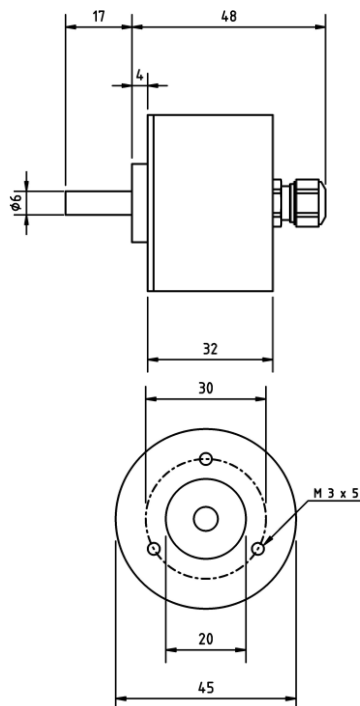


**15-37 standard type**  
**15-38 with index pulse**

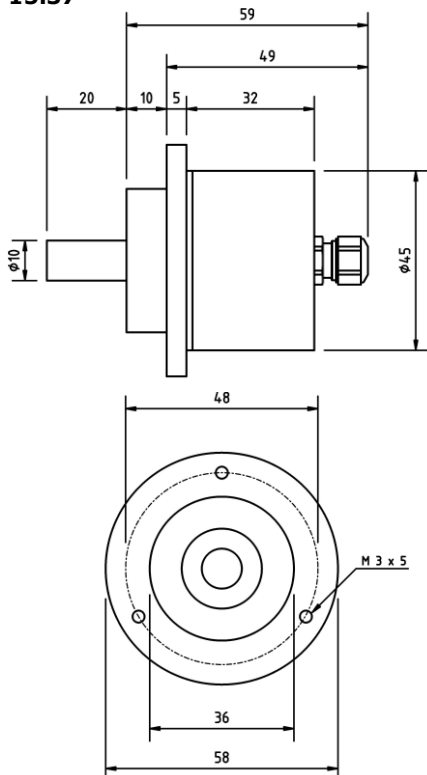


## Dimension

### 15.32



### 15.37



## Electrical data

Power supply voltage: 10 - 30 VDC  
 Current consumption: max. 30 mA  
 Output signals: A, B push - pull, optional index pulse Z  
 Output level: HTL  
 Output current / channel: max. 15 mA  
 Output frequency: max. 10 kHz  
 Encoder resolution: max. 500 pulses / revolution

## Mechanical data

|                        |                         |                         |
|------------------------|-------------------------|-------------------------|
| Housing diameter:      | 45 mm                   | 45 mm                   |
| Flange diameter:       | 45 mm                   | 58 mm                   |
| Shaft diameter:        | 6 mm                    | 10 mm                   |
| Bearing:               | double ball bearing     | double ball bearing     |
| Weight without cable:  | ca. 144 g               | ca. 225 g               |
| Cable weight:          | ca. 20 g/m              | ca. 20 g/m              |
| Shaft load:            | radial and axial 20 Nm  | radial and axial 30 Nm  |
| Torque:                | 0,01 Nm                 | 0,01 Nm                 |
| Max. revolution:       | 6000 rpm                | 6000 rpm                |
| Standard cable output: | 1,5 m fix mounted cable | 1,5 m fix mounted cable |

## Environmental conditions

|                        |                          |                  |
|------------------------|--------------------------|------------------|
| Operation temperature: | - 10 ... + 50° C         | - 10 ... + 50° C |
| Storage temperature:   | - 20 ... + 60° C         | - 20 ... + 60° C |
| Humidity:              | max. 95%, non-condensing |                  |
| Protection class:      | IP54                     | IP63             |

## Accessories

|              |                |                  |
|--------------|----------------|------------------|
| Metal spring | 19.6100 6/6 mm | 19.6200 10/10 mm |
|--------------|----------------|------------------|

## Order code: 15-AA-BBBB-CC.C-D

- A** Version:  
 32 = standard type      37 = standard type  
 33 = with index pulse      38 = with index pulse
- B** Pulses per revolution:  
 0100 = 100 ppr
- C** Cable length:  
 01,5 = standard cable length 1,5 m  
 XXXX = without cable (only possible with option B), opposite connector included
- D** Options:  
 B = miniature round connector M9, Binder 09-0081-00-04  
 N = supply / output voltage 5V  
 S = flattened shaft

## Pulses per revolution

|     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 10  | 16  | 20  |
| 24  | 25  | 30  | 36  | 40  | 50  | 60  | 70  | 72  | 80  | 90  |
| 98  | 100 | 109 | 120 | 125 | 127 | 140 | 150 | 157 | 160 | 180 |
| 197 | 200 | 220 | 225 | 240 | 250 | 270 | 280 | 300 | 360 | 500 |

## Connections

|           |        |       |
|-----------|--------|-------|
| 0 V (GND) | white  | pin 1 |
| 10-30 VDC | brown  | pin 2 |
| channel A | green  | pin 3 |
| channel B | yellow | pin 4 |
| channel Z | grey   | pin 5 |