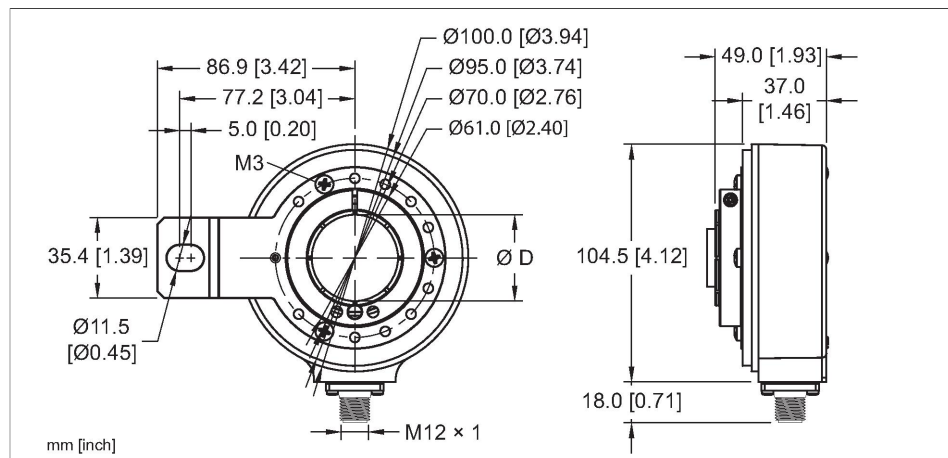


# RI-43H38E2-2F1024-H1181/N33

## Incremental Hollow Shaft Rotary Encoder

### Industrial Line



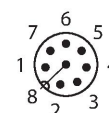
#### Technical data

|                                        |                                               |
|----------------------------------------|-----------------------------------------------|
| Type                                   | RI-43H38E2-2F1024-H1181/N33                   |
| ID                                     | 1545832                                       |
| Measuring principle                    | Optical                                       |
| <b>General data</b>                    |                                               |
| Max. rotational speed                  | 6000 rpm                                      |
| Moment of inertia of the rotor         | $220 \times 10^{-6} \text{ kgm}^2$            |
| Starting torque                        | < 0.2 Nm                                      |
| Output type                            | Incremental                                   |
| Resolution incremental                 | 1024 ppr                                      |
| <b>Electrical data</b>                 |                                               |
| Operating voltage $U_B$                | 5...30 VDC                                    |
| No-load current                        | $\leq 100 \text{ mA}$                         |
| Output current                         | $\leq 20 \text{ mA}$                          |
| Short-circuit protection               | yes                                           |
| Wire break/reverse polarity protection | no                                            |
| Pulse frequency max.                   | 300 kHz                                       |
| Signal level high                      | min. $U_B - 2 \text{ V}$                      |
| Signal level low                       | max. 0.5 V                                    |
| Output function                        | 8-wire, Push-Pull 7272, with inverted signals |
| <b>Mechanical data</b>                 |                                               |
| Flange type                            | Flange with mounting element                  |
| Flange diameter                        | Ø 100 mm                                      |

#### Features

- Flange with 4 – ½" C-Face Tether, Ø 100 mm
- Hollow shaft, Ø 38 mm
- Optical measuring principle
- Shaft material, stainless steel
- Protection class IP65 on the shaft side
- -40 ... +80°C
- max. 6000 rev / min
- 5...30 VDC
- Male connector, M12 x 1 , 8-pole
- Push-pull 7272, with inverted signals
- (N33) A leads B, Z gated with B-, Z is 180° wide
- Pulse frequency max. 300 kHz
- 1024 pulses per revolution

|    |         |
|----|---------|
| 1  | GND     |
| 2  | $U_B$ + |
| 3  | A       |
| 4  | A inv.  |
| 5  | B       |
| 6  | B inv.  |
| 7  | 0       |
| 8  | 0 inv.  |
| PH | shield  |



## Technical data

|                                     |                               |
|-------------------------------------|-------------------------------|
| Shaft Type                          | Hollow shaft                  |
| Shaft diameter D (mm)               | 38                            |
| Shaft material                      | Stainless steel               |
| Housing material                    | Die-cast zinc                 |
| Electrical connection               | Connector, M12 × 1            |
|                                     | M12, 8-pin                    |
| Axial shaft load                    | 100 N                         |
| Radial shaft load                   | 200 N                         |
| <b>Environmental conditions</b>     |                               |
| Ambient temperature                 | -40...+80 °C                  |
| Vibration resistance (EN 60068-2-6) | 10 g (100 m/s²), 10...2000 Hz |
| Shock resistance (EN 60068-2-27)    | 200 g (1000 m/s²), 6 ms       |
| Protection class                    | IP65                          |
| Protection class shaft              | IP65                          |
| Included in delivery                | 4 - 1/2" C-Face tether        |

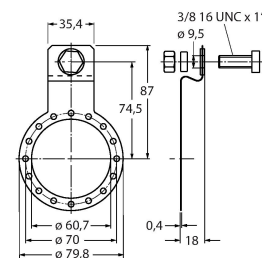
## Accessories

**RA-43-S4**
**1545911**

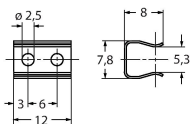
Stainless steel long anti-rotation  
spring 110 mm reference diameter


**RA-43-E2**
**1545912**

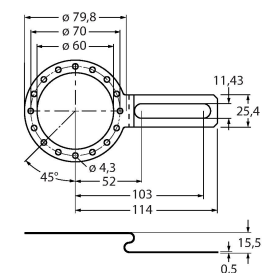
Stainless steel 4 1/2" C-face tether  
149 mm reference diameter


**RA-43-S5**
**1545910**

Stainless steel short anti-rotation  
spring 76 mm reference diameter


**RA-43-S8**
**1545909**

Stainless steel long tether arm 104 -  
206 mm reference diameter



RA-43-E

1545946

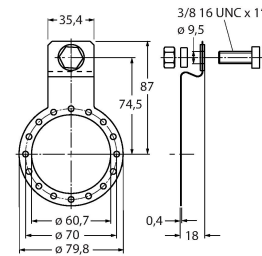
Stainless steel slotted fexmount  
119mm reference diameter



RME-5

1544616

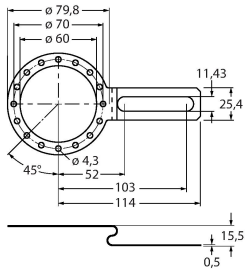
Stainless steel mounting panel for  
hollow shaft encoders, reference  
diameter 149 mm, for applications  
with axial play



RME-6

1544617

Stainless steel mounting panel for  
hollow shaft encoders, reference  
diameter 104...206 mm, for  
applications with fixing points on  
adjustable reference diameter



RME-10

1544621

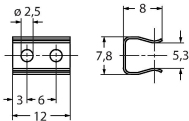
Stainless steel mounting element for  
hollow shaft encoders, pitch diameter  
110 mm, for applications with high  
axial play



RME-11

1544622

Stainless steel mounting element for  
hollow shaft encoders, pitch diameter  
76 mm, for applications with limited  
mounting space



RME-15

1544626

Metal arm bracket, for hollow  
shaft encoders, length 70 mm; for  
applications with little axial and radial  
play; flexibly adjustable



RME-16

1544627

Metal arm bracket, for hollow shaft  
encoders, length 100 mm; for  
applications with little axial and radial  
play; flexibly adjustable



RME-17

1544628

Metal arm bracket, for hollow shaft  
encoders, length 150 mm; for  
applications with little axial and radial  
play; flexibly adjustable



RME-18

1544629

Stainless steel stator coupling for  
hollow shaft encoders, reference  
diameter 119 mm, for highly dynamic  
applications with axial and radial play

