

REI-10S10C-4B1024-H1181  
Incremental Encoder  
Industrial Line



Technical data

|                                        |                                    |
|----------------------------------------|------------------------------------|
| Type                                   | REI-10S10C-4B1024-H1181            |
| ID                                     | 100010264                          |
| Measuring principle                    | Optical                            |
| General data                           |                                    |
| Max. rotational speed                  | 6000 rpm                           |
| Moment of inertia of the rotor         | $1.8 \times 10^{-5} \text{ kgm}^2$ |
| Starting torque                        | $< 0.05 \text{ Nm}$                |
| Output type                            | Incremental                        |
| Resolution incremental                 | 1024 ppr                           |
| Electrical data                        |                                    |
| Operating voltage $U_B$                | 5...30 VDC                         |
| No-load current                        | $\leq 90 \text{ mA}$               |
| Output current                         | $\leq 20 \text{ mA}$               |
| Short-circuit protection               | yes                                |
| Wire break/reverse polarity protection | yes                                |
| Pulse frequency max.                   | 300 kHz                            |
| Signal level high                      | min. 2.5 V                         |
| Signal level low                       | max. 0.5 V                         |
| Output function                        | RS422/TTL, invertable              |
| Mechanical data                        |                                    |
| Flange type                            | Clamping flange                    |
| Flange diameter                        | $\varnothing 58 \text{ mm}$        |
| Shaft Type                             | Solid shaft                        |
| Shaft diameter D (mm)                  | 10                                 |
| Shaft Length L [mm]                    | 20                                 |
| Shaft material                         | Stainless steel                    |

Features

- Clamping flange,  $\varnothing 58 \text{ mm}$
- Solid shaft,  $\varnothing 10 \text{ mm} \times 20 \text{ mm}$
- Optical measuring principle
- Shaft material: stainless steel
- Protection class IP67 on housing and shaft side
- $-40 \dots +85 \text{ }^\circ\text{C}$
- Max. 6000 rpm (continuous operation 3000 rpm)
- 5...30 VDC
- RS422/TTL invertible
- Pulse frequency max. 300 kHz
- M12  $\times$  1 male connector, 8-pin
- 1024 pulses per revolution

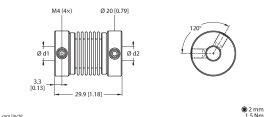


Technical data

|                                     |                        |
|-------------------------------------|------------------------|
| Housing material                    | Die-cast zinc          |
| Electrical connection               | Connector, M12 × 1     |
|                                     | 8-pin                  |
| Axial shaft load                    | 50 N                   |
| Radial shaft load                   | 100 N                  |
| Environmental conditions            |                        |
| Ambient temperature                 | -40...+85 °C           |
| Vibration resistance (EN 60068-2-6) | 300 m/s², 10...2000 Hz |
| Shock resistance (EN 60068-2-27)    | 3000 m/s², 6 ms        |
| Protection class                    | IP67                   |
| Protection class shaft              | IP67                   |

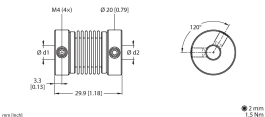
Accessories

RA-BC-20-06-10 100048779



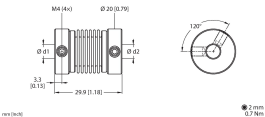
Bellows coupling with aluminum hub  
Ø 20 mm; d1 = 6 mm, d2 = 10 mm

RA-BC-20-10-10 100048782



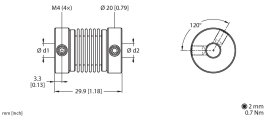
Bellows coupling with aluminum hub  
Ø 20 mm; d1 = 10 mm, d2 = 10 mm

RA-BC-E-20-06-10 100048786



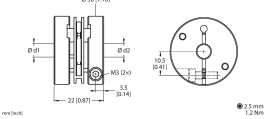
Stainless steel bellows coupling Ø  
20 mm; d1 = 6 mm, d2 = 10 mm

RA-BC-E-20-10-12 100048788



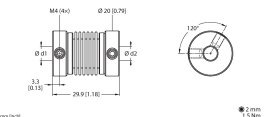
Stainless steel bellows coupling Ø  
20 mm; d1 = 10 mm, d2 = 12 mm

RA-SDC-30-10-12 100048793



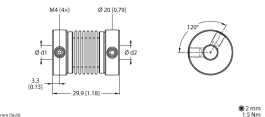
Spring disc coupling Ø 30 mm; d1 =  
10 mm, d2 = 12 mm

RA-BC-20-08-10 100048781



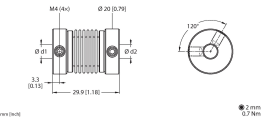
Bellows coupling with aluminum hub  
Ø 20 mm; d1 = 8 mm, d2 = 10 mm

RA-BC-20-10-12 100048783



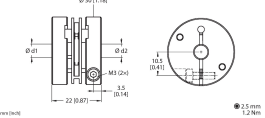
Bellows coupling with aluminum hub  
Ø 20 mm; d1 = 10 mm, d2 = 12 mm

RA-BC-E-20-10-10 100048787



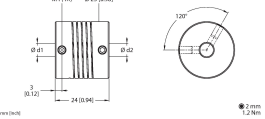
Stainless steel bellows coupling Ø  
20 mm; d1 = 10 mm, d2 = 10 mm

RA-SDC-30-10-10 100048792



Spring disc coupling Ø 30 mm; d1 =  
10 mm, d2 = 10 mm

RA-HC-25-10-10 100048796



Aluminum helix coupling Ø 25 mm; d1  
= 10 mm, d2 = 10 mm

**RA-HC-25-10-12**

100048797

Aluminum helix coupling Ø 25 mm; d1 = 10 mm, d2 = 12 mm



**RFA-2**

1544631

Aluminium flange adapter, rectangular, for solid shaft encoders with clamping flange; edge length 63.5 mm; 3 mm thick



**RFA-13**

1544642

Aluminium flange adapter, rectangular, for solid shaft encoders with clamping flange; edge length 80 mm; 4 mm thick



**RFA-1**

1544630

Aluminium flange adapter, rectangular, for solid shaft encoders with clamping flange; edge length 58 mm; 4 mm thick



**RFA-4**

1544633

Euro flange – aluminium flange adapter for solid shaft encoders, Ø 115 mm; reference diameter 100 mm; adapts 58 mm clamping flange to Euro flange



**RFA-6**

1544635

Aluminium flange adapter for solid shaft encoders with clamping flange, Ø 58 mm; adapts clamping flange to synchro flange



**RFA-7**

1544636

Aluminium flange adapter for solid shaft encoders, Ø 65 mm; adapts to Ø 65 mm flange and 48 mm reference diameter



**RFA-8**

1544637

Aluminium flange adapter for solid shaft encoders with clamping flange, Ø 70 mm; thickness 4 mm, adapts to Ø 70 mm flange



**RFA-9**

1544638

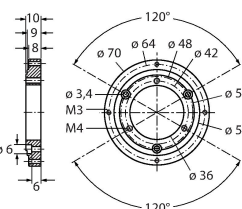
Aluminium angle flange for solid shaft encoders with Ø 58 mm clamping flange



**RFA-11**

1544640

Aluminium flange adapter for solid shaft encoders with clamping flange, Ø 70 mm; thickness 10 mm, adapts to Ø 70 mm flange

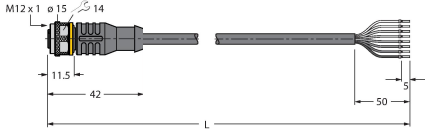
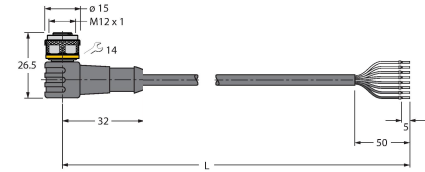


RFA-121544641

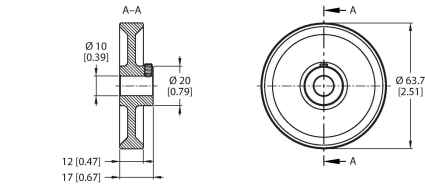
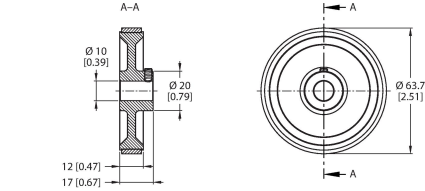
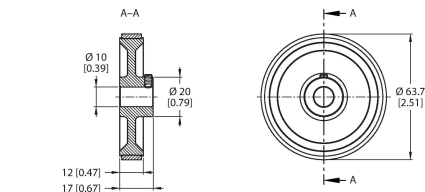
Aluminium flange adapter, rectangular, for solid shaft encoders with clamping flange; edge length 70 mm; 10 mm thick



Accessories

| Dimension drawing                                                                  | Type        | ID      |                                                                                                                         |
|------------------------------------------------------------------------------------|-------------|---------|-------------------------------------------------------------------------------------------------------------------------|
|   | RKC8T-2/TXL | 6625142 | Connection cable, M12 female connector, straight, 8-pin, cable length: 2 m, jacket material: PUR, black; cULus approval |
|  | WKC8T-2/TXL | 6625145 | Connection cable, M12 female connector, angled, 8-pin, cable length: 2 m, jacket material: PUR, black; cULus approval   |

Accessories

| Dimension drawing                                                                   | Type                | ID        |                                                                                                    |
|-------------------------------------------------------------------------------------|---------------------|-----------|----------------------------------------------------------------------------------------------------|
|  | RA-MW-200-12-DK1-10 | 100038302 | Aluminum measuring wheel (cross knurled) for encoders; circumference 0.2 m, width 12 mm, D = 10 mm |
|  | RA-MW-200-12-PS1-10 | 100038303 | Aluminum measuring wheel (smooth PU) for encoders; circumference 0.2 m, width 12 mm, D = 10 mm     |
|  | RA-MW-200-12-RT1-10 | 100038304 | Aluminum measuring wheel (studded PU) for encoders; circumference 0.2 m, width 12 mm, D = 10 mm    |

| Dimension drawing | Type                | ID        |                                                                                                    |
|-------------------|---------------------|-----------|----------------------------------------------------------------------------------------------------|
|                   | RA-MW-200-12-PC1-10 | 100038305 | Aluminum measuring wheel (grooved PU) for encoders; circumference 0.2 m, width 12 mm, D = 10 mm    |
|                   | RA-MW-500-25-DK1-10 | 100038314 | Aluminum measuring wheel (cross knurled) for encoders; circumference 0.5 m, width 25 mm, D = 10 mm |
|                   | RA-MW-500-25-PS1-10 | 100038315 | Aluminum measuring wheel (smooth PU) for encoders; circumference 0.5 m, width 25 mm, D = 10 mm     |
|                   | RA-MW-500-25-RT1-10 | 100038316 | Aluminum measuring wheel (studded PU) for encoders; circumference 0.5 m, width 25 mm, D = 10 mm    |
|                   | RA-MW-500-25-PC1-10 | 100038317 | Aluminum measuring wheel (grooved PU) for encoders; circumference 0.5 m, width 25 mm, D = 10 mm    |
|                   | RA-MW-300-12-DK1-10 | 100038306 | Aluminum measuring wheel (cross knurled) for encoders; circumference 0.3 m, width 12 mm, D = 10 mm |
|                   | RA-MW-300-12-PS1-10 | 100038307 | Aluminum measuring wheel (smooth PU) for encoders; circumference 0.3 m, width 12 mm, D = 10 mm     |

| Dimension drawing                                                                  | Type                | ID        |                                                                                                               |
|------------------------------------------------------------------------------------|---------------------|-----------|---------------------------------------------------------------------------------------------------------------|
|   | RA-MW-300-12-RT1-10 | 100038308 | Aluminum measuring wheel (studded PU) for encoders; circumference 0.3 m, width 12 mm, D = 10 mm               |
|   | RA-MW-300-12-PC1-10 | 100038309 | Aluminum measuring wheel (grooved PU) for encoders; circumference 0.3 m, width 12 mm, D = 10 mm               |
|   | RA-SAB-15-36        | 100038251 | Spring arm for encoders with a 58-mm flange; recommended contact pressure 15 N; maximum contact pressure 30 N |
|  | RA-SAB-30-36        | 100038294 | Spring arm for encoders with a 58-mm flange; recommended contact pressure 30 N; maximum contact pressure 40 N |