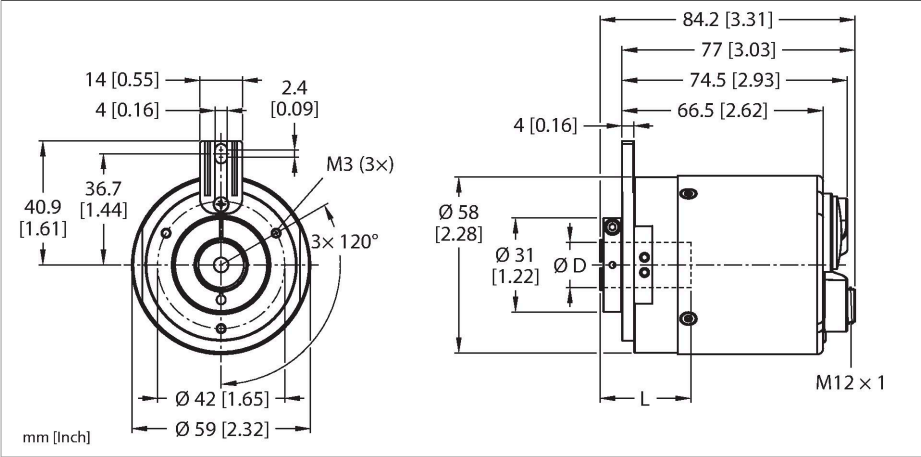


RES-108BA3T-9E19B-B3M12  
Absolute Rotary Encoder - Singleturn  
Industrial Line



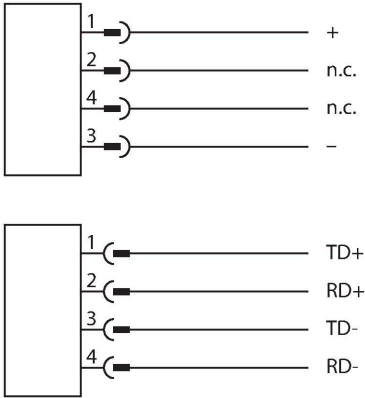
Technical data

|                                        |                                  |
|----------------------------------------|----------------------------------|
| Type                                   | RES-108BA3T-9E19B-B3M12          |
| ID                                     | 100046572                        |
| Measuring principle                    | Optical                          |
| General data                           |                                  |
| Max. rotational speed                  | 6000 rpm                         |
| Moment of inertia of the rotor         | $6 \times 10^{-6} \text{ kgm}^2$ |
| Measuring range                        | 0...360 °                        |
| Output type                            | Absolute singleturn              |
| Resolution singleturn                  | 19 Bit                           |
|                                        | Singleturn scalable              |
| Electrical data                        |                                  |
| Operating voltage $U_B$                | 10...30 VDC                      |
| No-load current                        | $\leq 250 \text{ mA}$            |
| Wire break/reverse polarity protection | yes                              |
| Communication protocol                 | PROFINET                         |
| Mechanical data                        |                                  |
| Flange type                            | Flange with mounting element     |
| Flange diameter                        | $\varnothing 58 \text{ mm}$      |
| Shaft Type                             | Blind hole shaft                 |
| Shaft diameter D (mm)                  | 12.7                             |
| Shaft material                         | Stainless steel                  |
| Housing material                       | Aluminium                        |
| Electrical connection                  | Connector, 3 x M12               |
| Axial shaft load                       | 40 N                             |
| Radial shaft load                      | 80 N                             |

Features

- Flange with stator coupling,  $\varnothing 63 \text{ mm}$
- Hollow shaft,  $\varnothing 15 \text{ mm}$
- Optical measuring principle
- Shaft, stainless steel
- Protection class IP67 on housing side
- -40...+80 °C
- Max. 6000 rpm
- 10...30 VDC
- Profinet IO, RT and IRT up to 250  $\mu\text{s}$
- Encoder profile version 4.2
- Media Redundancy Protocol (MRP)
- Link Layer Discovery Protocol (LLDP)
- Simple Network Management Protocol (SNMP)
- Fast Startup (FSU)
- M12  $\times$  3 connector, 4-pin
- Singleturn resolution scalable up to 19 bit, default 13 bit

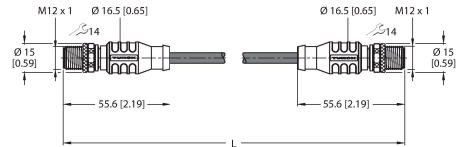
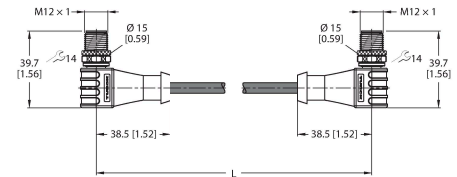
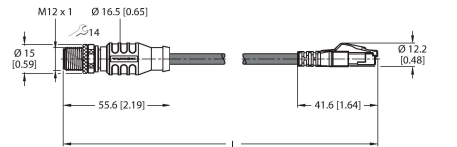
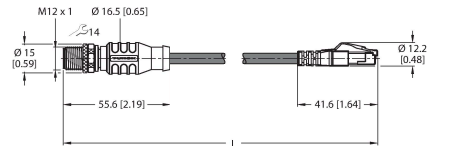
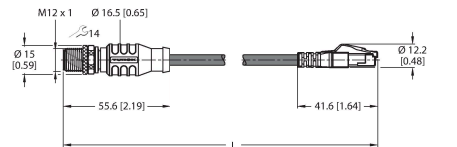
Wiring diagram

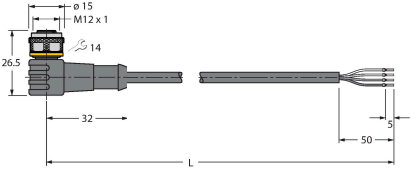


Technical data

| Environmental conditions            |                               |
|-------------------------------------|-------------------------------|
| Ambient temperature                 | -40...+80 °C                  |
| Vibration resistance (EN 60068-2-6) | 10 g (100 m/s²), 55...2000 Hz |
| Shock resistance (EN 60068-2-27)    | 250 g (2500 m/s²), 6 ms       |
| Protection class                    | IP67                          |
| Protection class shaft              | IP67                          |
| MTTF                                | 19 years                      |

Accessories

| Dimension drawing                                                                   | Type               | ID      |                                                                                                                                                               |
|-------------------------------------------------------------------------------------|--------------------|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    | RSSD-RSSD-4422-2M  | 6635150 | Cable for Industrial Ethernet, M12 male connector, D-coded, straight to M12 male connector, D-coded, straight, cable length: 2 m, jacket material: PUR, green |
|  | WSSD-WSSD-4422-2M  | 6635188 | Cable for Industrial Ethernet, M12 male connector, D-coded, angled to M12 male connector, D-coded, angled, cable length: 2 m, jacket material: PUR, green     |
|  | RSSD-RJ45S-4422-2M | 6635170 | Cable for Industrial Ethernet, M12 male connector, D-coded, straight to RJ45 male connector, straight, cable length: 2 m, jacket material: PUR, green         |
|  | RSSD-RJ45S-4422-7M | 6635579 | Cable for Industrial Ethernet, M12 male connector, D-coded, straight to RJ45 male connector, straight, cable length: 2 m, jacket material: PUR, green         |
|  | RSSD-RJ45S-4422-8M | 6635538 | Cable for Industrial Ethernet, M12 male connector, D-coded, straight to RJ45 male connector, straight, cable length: 2 m, jacket material: PUR, green         |

| Dimension drawing                                                                 | Type          | ID      |                                                                                                                         |
|-----------------------------------------------------------------------------------|---------------|---------|-------------------------------------------------------------------------------------------------------------------------|
|  | RKC4.4T-2/TXL | 6625503 | Connection cable, M12 female connector, straight, 4-pin, cable length: 2 m, jacket material: PUR, black; cULus approval |
|  | WKC4.4T-2/TXL | 6625515 | Connection cable, M12 female connector, angled, 4-pin, cable length: 2 m, jacket material: PUR, black; cULus approval   |