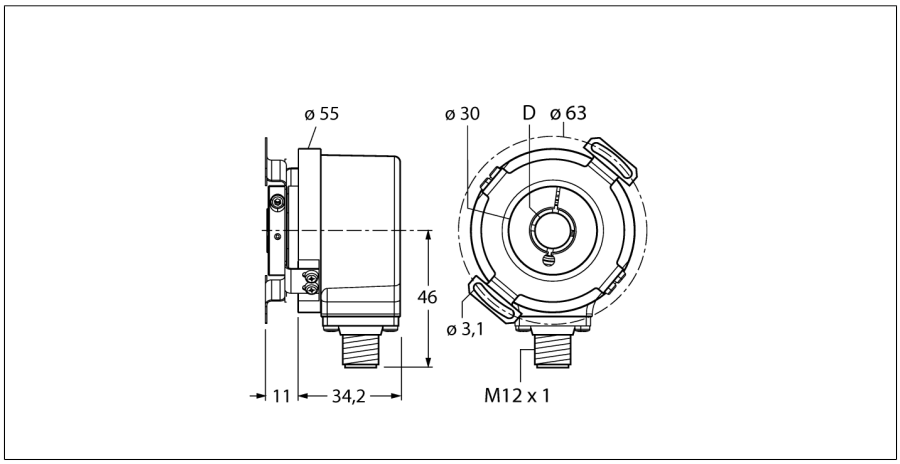
Rotative measurement
Incremental rotary encoder
Ri-12H15E-4B1024-H1181



- **Flange with stator coupling, Ø 63 mm**
- **Hollow shaft, Ø 15 mm**
- **Optical measuring principle**
- **Shaft material, stainless steel**
- **Protection class IP67 on the shaft side**
- **-40…+85°C**
- **Max. 6000 rev/min (continuous operation 3000 rev/min)**
- **5…30 VDC**
- **Male connector, M12 x 1 , 8-pole**
- **RS422 with inversion**
- **Pulse frequency max. 300 kHz**
- **1024 pulses**

Type code	Ri-12H15E-4B1024-H1181
Ident no.	1544816

Measuring principle	Photoelectric
max. Drehzahl	6.000 U/min
Moment of inertia of the rotor	6 x10^{-6} kgm^2
Starting torque	0.05 Nm
Ambient temperature	-40…+85 °C

Operating voltage	5…30VDC
No-load current I_0	≤ 90 mA
Output current	≤ 20 mA
Short-circuit protection	yes
Output function	8-wire, RS422, invertable
Output type	incremental
Resolution, incremental	1024
Pulse frequency max.	300 kHz
Signal level high	min. 2.5 V
Signal level low	max. 0.5 V

Design	Hollow shaft
Flange type	Flange with stator coupling
Flange diameter	63 mm
Shaft type	Hollow shaft
Shaft diameter D	15 mm
Shaft material	Stainless steel
Housing material	aluminium
Connection	male M12, 8-pole
Axial shaft load	40 N
Radial shaft load	80 N
Vibration resistance (EN 60068-2-6)	100 m/s², 10…2000 Hz
Shock resistance (EN 60068-2-27)	2500 m/s², 6 ms
Protection class housing	IP67
Protection class shaft	IP67

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Pin configuration

Signal	Gnd	$+U_B$	A	A inv.	B	B inv.	0	0 inv.	Shield
Pin configuration	1	2	3	4	5	6	7	8	PH

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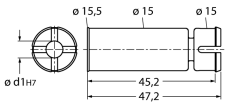
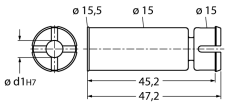
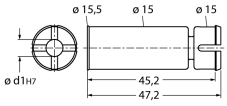
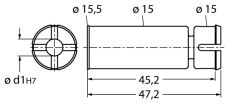
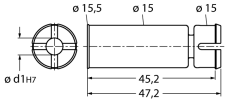
Accessories

Type code	Ident no.	Description	Dimension drawing
RSA-6	1544700	Inlay, outer □ 15 mm, inner □ 12.7 mm	
RSA-5	1544669	Inlay, outer □ 15 mm, inner □ 12 mm	
RSA-4	1544668	Inlay, outer □ 15 mm, inner □ 9.53 mm	
RSA-3	1544667	Inlay, outer □ 15 mm, inner □ 10 mm	
RSA-2	1544666	Inlay, outer □ 15 mm, inner □ 6.35 mm	

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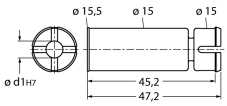
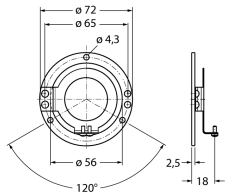
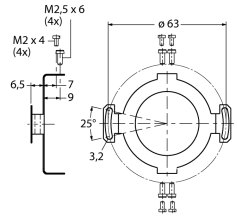
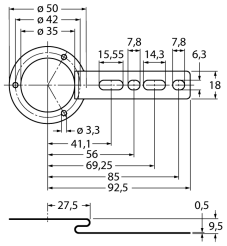
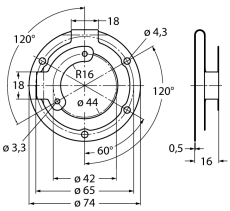
Accessories

Type code	Ident no.	Description	Dimension drawing
RSA-1	1544665	Inlay, outer □ 15 mm, inner □ 6 mm	
RME-1	1544612	Stainless steel stator coupling for hollow shaft encoders, reference diameter, 65 mm, for highly dynamic, standard applications with axial and radial play	
RME-2	1544613	Stainless steel stator coupling for hollow shaft encoders, reference diameter 63 mm, for applications with hight demands on accuracy	
RME-4	1544615	Stainless steel mounting plate for hollow shaft encoders, reference diameter 80…170 mm, for low dynamic applications with axial and radial play	
RME-7	1544618	Stainless steel stator coupling for hollow shaft encoders, reference diameter 65mm, for highly dynamic applications with axial and radial play	

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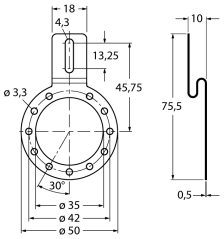
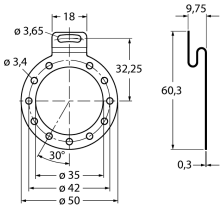
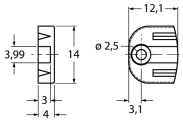
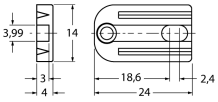
Accessories

Type code	Ident no.	Description	Dimension drawing
RME-8	1544619	Stainless steel mounting plate for hollow shaft encoders, reference diameter 65…91.5 mm, for applications with axial and radial play at constant rotation speed	
RME-9	1544620	Stainless steel mounting plate for hollow shaft encoders, reference diameter 64.5 mm, for low dynamic applications with axial and radial play	
RME-13	1544624	Plastic spring element for hollow shaft encoders, reference diameter 42 mm, for low dynamic applications with restricted axial play and limited mounting space.	
RME-14	1544625	Plastic spring element for hollow shaft encoders, reference diameters 44 mm, 60 mm, 63 mm, 65 mm, for low dynamic applications with high axial play.	

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 Hans Turck GmbH & Co.KG ● D-45472 Mülheim an der Ruhr ● Witzlebenstraße 7 ● Tel. 0208 4952-0 ● Fax 0208 4952-264 ● more@turck.com ● www.turck.com