



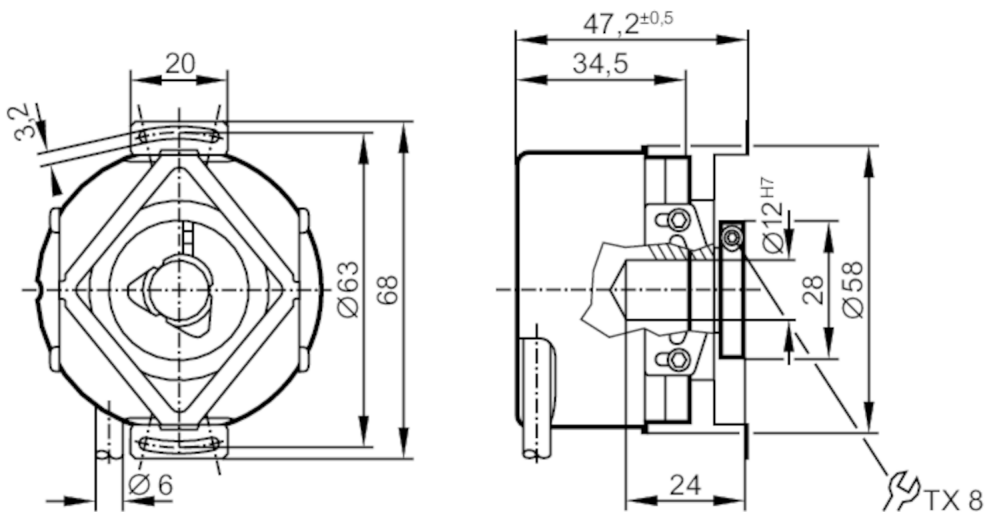
## Incremental encoder with hollow shaft

RO-2048-I24/N1U

Article no longer available - archive entry

Alternative articles: ROP521 + E12402

When selecting an alternative article and accessories please note that technical data may differ!



## Product characteristics

Resolution	2048 resolution
Shaft design	hollow shaft open to one side
Shaft diameter [mm]	12

## Application

Function principle	incremental
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## Electrical data

Operating voltage [V]	10...30 DC
Current consumption [mA]	< 150

## Outputs

Electrical design	HTL
Max. current load per output [mA]	50
Switching frequency [kHz]	300
Type of short-circuit protection	< 60 s
Phase difference A und B [°]	90

## Measuring/setting range

Resolution	2048 resolution
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## Operating conditions

Ambient temperature [°C]	-30...85
Note on ambient temperature	firmly laid cable: -30 °C
Max. relative air humidity [%]	98



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Protection	IP 64; (on the housing: IP 67; on the shaft: IP 64)
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### Tests / approvals

Shock resistance	200 g
Vibration resistance	30 g

### Mechanical data

Weight [g]	450
Dimensions [mm]	Ø 58 / L = 35.5
Material	aluminum
Max. revolution, mechanical [U/min]	12000
Max. starting torque [Nm]	1
Reference temperature torque [°C]	20
Shaft design	hollow shaft open to one side
Shaft diameter [mm]	12
Shaft fit	H7
Shaft material	stainless steel
Installation depth/shaft [mm]	10
Max. axial shaft misalignment [mm]	1; (max. radial shaft alignment: ± 0,05 mm)

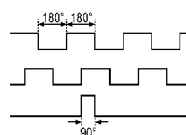
### Electrical connection

Cable: 1 m, PUR; Maximum cable length: 300 m; radial, can also be used axially

brown	A
green	A inverted
grey	B
pink	B inverted
red	0 index
black	0 index inverted
blue	10...30V sensor
white	0V sensor
brown/green	10...30V (Up)
white/green	0V (Un)
screen	housing
lilac	error inverted

### Diagrams and graphs

Pulse diagram



Direction of rotation clockwise (looking at the shaft)