

## FEATURES

- Rugged industrial standard encoder
- Housing cap die cast aluminum, with particularly eco-friendly powder coating
- Protection to IP67, shaft sealed to IP65
- Maximum mechanical and electrical safety
- Full connection protection with 10 VDC up to 30 VDC

## RS PRO Rotary Encoders

RS Stock No.: 2061294



RS Professionally Approved Products bring to you professional quality parts across all product categories. Our product range has been tested by engineers and provides a comparable quality to the leading brands without paying a premium price.

## Product Description

*Incremental encoders are used to easily measure speed, position, angles or length. The possible application ranges are lifts, cranes, cleaning machines, road marking, wind energy and much more. There they are used e.g. to optimize the process or to assure quality. But although easy applications with just a Display connected to do some measurements are possible.*

## General Specifications

<b>Encoder Technology</b>	incremental quadrature, magnetic
<b>Pulses Per Revolution</b>	500 ppr
<b>Connection Type</b>	Flange connector M23, 12- pin (clockwise)
<b>Mounting Type</b>	Clamping Flange

## Electrical Specifications

<b>Supply Voltage</b>	5 - 30 VDC
<b>Current Rating</b>	typ. 70 mA
<b>Output Signal Type</b>	HTL inverted / Push-Pull
<b>Switching Frequency</b>	Max. 200 kHz
<b>Channels</b>	ABN
<b>Load</b>	Max. 40mA / channel
<b>Signal level mA</b>	at 20 mA
<b>Signal level H&gt;</b>	H > Vcc - 10 % Vcc
<b>Signal level L&lt;</b>	L < 2.5 VDC
<b>Reverse Polarity Protection</b>	Yes
<b>Short-Circuit Proof</b>	No
<b>Phase Shift</b>	90° ± max. phase error 7,5% of a period duration
<b>Duty Cycle</b>	≤5000 PPR: 50 % max. ±7 %
<b>Reference Signal</b>	Zero pulse, width 90° ±7,5% of a period duration

## Mechanical Specifications

<b>Overall Height</b>	89.2 mm
<b>Overall Width</b>	58 mm
<b>Overall Depth</b>	72 mm
<b>Dimensions</b>	89,2 x 58 x 72
<b>Weight</b>	approx. 250 g
<b>Bearing Type</b>	2 Precision Ball Bearings

<b>Housing</b>	
<b>Flange</b>	Clamping Flange
<b>Flange Diameter</b>	58mm
<b>Flange Material</b>	Aluminum
<b>Housing Cap</b>	Die-Cast Aluminum, Powder Coated
<b>Maximum Operating Speed</b>	8000 rpm

<b>Shafts</b>	
<b>Shaft Type</b>	Ø10 x 20 mm Shaft
<b>Material</b>	Stainless Steel
<b>Diameter</b>	10 mm
<b>Length</b>	20 mm
<b>Starting Torque</b>	approx. 1 Ncm at ambient temperature
<b>Max. Permissible Shaft Loading Radial</b>	220N
<b>Max. Permissible Shaft Loading Axial</b>	120N

## Operation Environment Specifications

<b>Maximum Operating Temperature</b>	+85°C
<b>Minimum Operating Temperature</b>	-40°C
<b>Storage Temperature Range</b>	-30°C to +85°C
<b>Vibration</b>	50m/s <sup>2</sup> (10-2000 Hz)
<b>Shock</b>	1000m/s <sup>2</sup> (6 ms)

## Protection Category

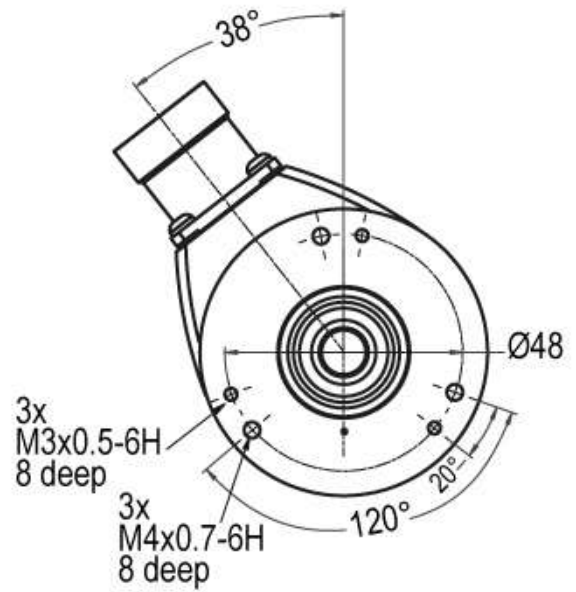
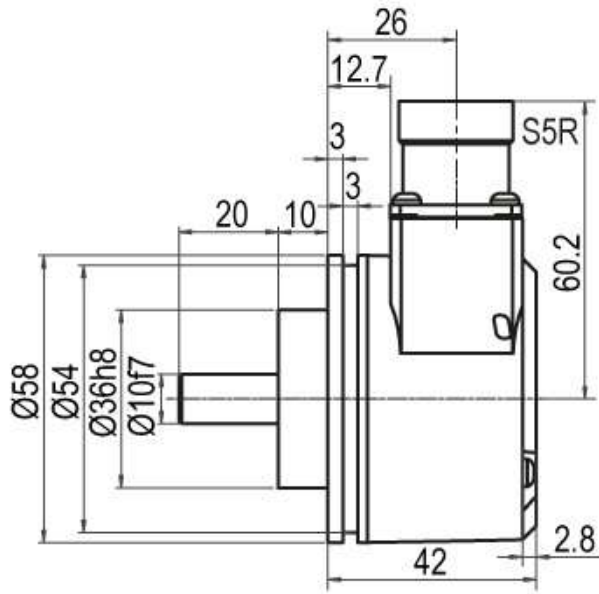
<b>IP Rating</b>	IP65
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## Classification

<b>eCl@ss 11.1</b>	<b>27270501</b>
<b>UNSPSC 22.0601</b>	<b>39121527</b>

## Approvals

<b>Compliance/Certifications</b>	CE / DIN EN 61000-4-2 / DIN EN 61000-4-4
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### Assignments

	12-pin
connector drawing	
<b>GND / SENS-</b>	10 / 11
<b>(+) Vcc / SENS+</b>	12 / 2
<b>A</b>	5
<b>B</b>	8
<b>N</b>	3
<b>A inv.</b>	6
<b>B inv.</b>	1
<b>N inv.</b>	4
<b>n. c.</b>	7, 9
<b>Shield</b>	-