



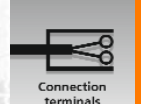
Position sensors and object recognition

# The new generation of CANopen encoders.



## Two versions: synchro flange or clamp flange.

- Industrial standard housing for universal use.
- Robust design.
- Encoder profile DSP 406, class 1 and 2.
- Easy pushbutton setup.
- Clearly visible diagnostic LEDs.



### Features and benefits

Absolute encoders provide a clearly coded position value for each angular position.

This value is also available directly after a power failure.

There are two versions of absolute encoders: singleturn and multiturn. The singleturn resolves the mechanical revolution of the shaft. The multiturn can resolve up to 4,096 revolutions in addition.

The integrated setting options for the bus address, baud rate, bus termination and zero reset button enable an easy set-up of the encoder. With the module or status LED, easy diagnosis is possible on the encoder.



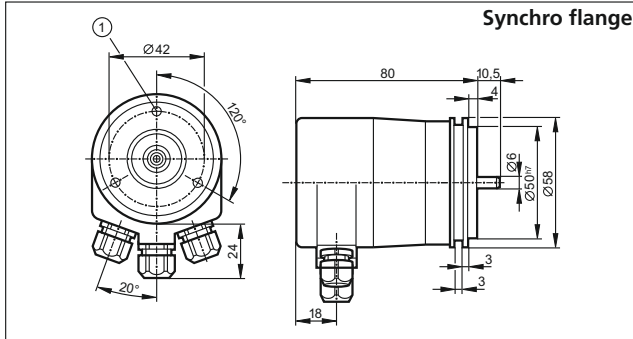
fluid sensors and diagnostic systems

position sensors and object recognition

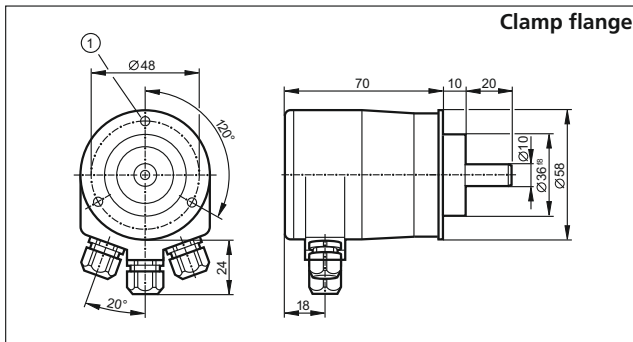
bus, identification and control systems

**Singleturn and multiturn encoders with CANopen interface DS301 according to the encoder profile DSP406 Class 1 and 2.**

**Dimensions**










1) M4 x 5



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**Accessories**

Type	Description	Order no.
	Angle bracket for synchro flange, aluminium, black anodized	<b>E60034</b>
	Angle bracket for clamp flange, aluminium, black anodized	<b>E60035</b>
	Fastening clamp for synchro flange, steel	<b>E60041</b>
	Spring disc coupling, Ø 6mm / Ø 6 mm, diecast zinc, PA	<b>E60121</b>
	Spring disc coupling, Ø 6mm / Ø 10 mm, diecast zinc, PA	<b>E60117</b>
	Flexible coupling with clamp connection, Ø 6mm / Ø 6mm, aluminium	<b>E60064</b>
	Flexible coupling with clamp connection, Ø 6mm / Ø 10mm, aluminium	<b>E60066</b>

Flange	Solid shaft	Resolution		Order no.
		Singleturn	Multiturn	
<b>Singleturn encoder with terminal chamber</b>				
Synchro	6	13 bit		<b>RN7003</b>
Clamp	10	13 bit		<b>RN7004</b>
<b>Multiturn encoder with terminal chamber</b>				
Synchro	6		25 bit	<b>RM7003</b>
Clamp	10		25 bit	<b>RM7004</b>

**Common technical data**

Type RN, RM		
Operating voltage	[V DC]	9...36
Current consumption	[mA]	250
Accuracy		± 1 LSB
Ambient temperature	[°C]	-40...70
Protection rating at the shaft entry		IP 66 to IEC 60529
Protection rating at the housing		IP 67 to IEC 60529
Maximum mechanical rotational speed	[1/min]	6000
Maximum mechanical shaft load axial	[N]	10
Maximum mechanical shaft load radial	[N]	20
Starting torque	[Ncm]	< 1 at 20°C
Shaft material		stainless steel (1.4101/316)
Housing material		aluminium
Vibration resistance	[g]	10 (55-2000 Hz) to IEC 60068-2-6
Shock resistance	[g]	100 (6 ms) to IEC 60068-2-27
Short-circuit and overload protection		• / •
Type of code		binary
Maximum baud rate		1 Mbit
Baud rate, address		adjustable via DIP switch or software
Bus terminating resistor		adjustable via DIP switch
Programmable parameters		CAN parameters Scaling Preset value Baud rate Direction of rotation Address

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