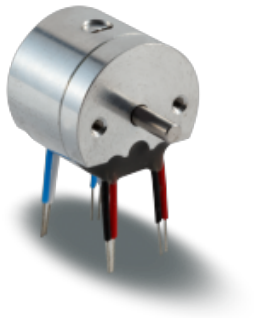


Case diameter 18 mm
Connection for PCB mounting

Micro Encoder ES 18

Optical incremental shaft encoder, Micro size for industrial use.

Resolution

Resolution (Pulses/Revolution):			
100	200	250	256
300	360		

Type explanation

ES 18-2-360	
Encoder type	Incremental
Flange diameter	ø 18 mm
Case diameter	ø 18 mm
Number of channels	2 = A + B 3 = A + B + M

Technical data

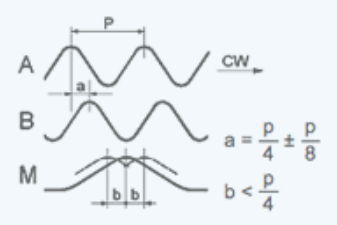
Mechanical data	
Rotational speed	? 6000 min^{-1}
Breakaway torque	? 0,05 Ncm
Moment of inertia	0,10 g cm^2
shaft loading	? 2 N radial, axial
Operational life of ball bearings	> 2 x 10^5 h (100 min^{-1})
Weight	0,025 kg

Environmental conditions	
Vibration	100 ms^{-2} (50 Hz / 1h)
Shock	300 ms^{-2} (11 ms)
Operating temperature	0 ... +50°C
Storage temperature	-20 ... +80°C
Atmospheric humidity	? 85% r.h.
Protection class	IP 50 (DIN 40050/IEC 144)

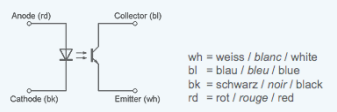
Limiting values for scanning	
Scanning type	Optical, without contact
Transmitter, infrared	**LED**
Current	40 mA
Reverse breakdown voltage	5 V
Temperature dependence	-0,8 mA/°C (25..70°C)
Receiver	**Photo-Transistor**
Voltage	20 V (Collector-Emitter) 5 V (Emitter-Collector)
Current	20 mA
Dissipation	75 mW
Temperature dependence	-1 mW/°C (25..70°C)

Electrical data	
Scanning type	Optical, without contact
Power consumtion	26 mA max. 10 mA typ.
Output frequency	? 10 kHz
Signal shape	sin.
Signal level (amplitude)	150 mV_{pp}
Amplitude fluctuation	? 40%

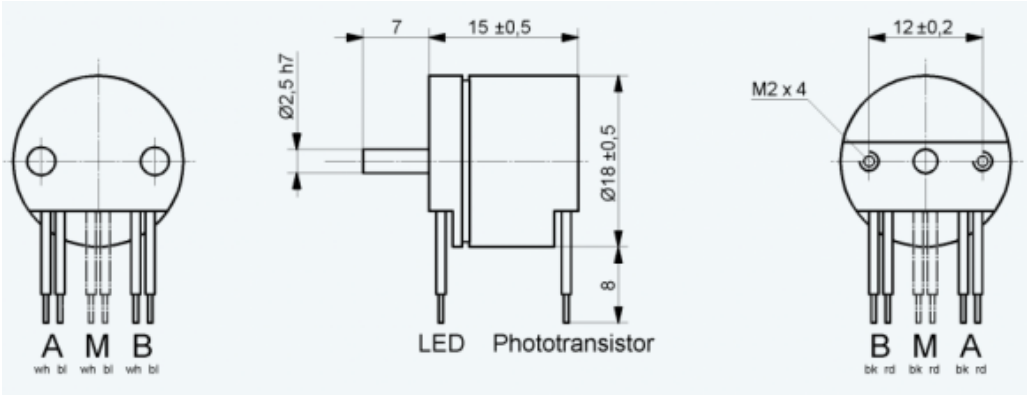
Output channels / Output signals



Channel schematic



Outline drawing



Version E503-203 · Subject to change

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