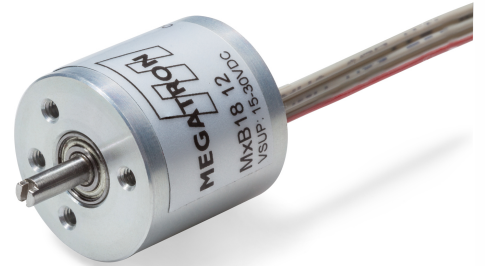


Series MAB18 SER / Hall Effect Absolute Encoder with serial interface

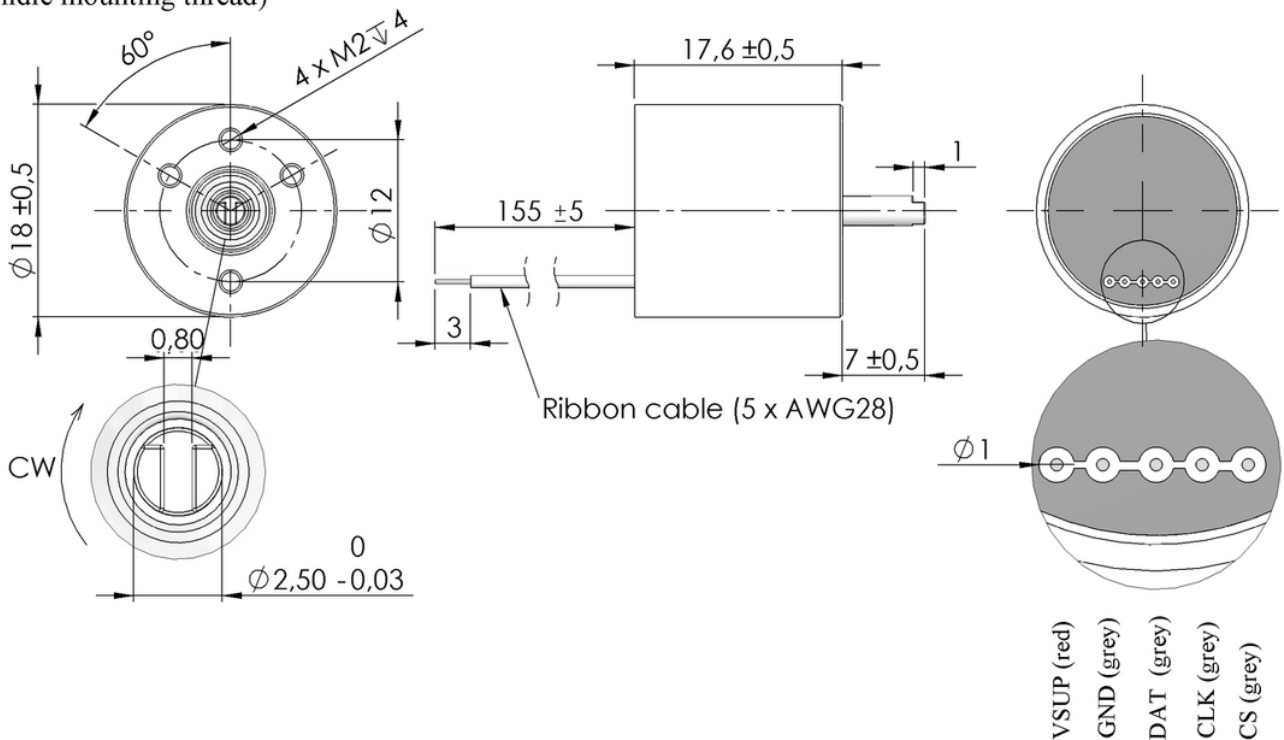
- Synchronous serial interface (SER)
- Angle range 360°
- Resolution 10, 12 Bit
- Voltage supply 3,3V or 5V
- 18 mm body diameter
- Precision ball bearing

The R18D is space-saving and used for applications with a high demand of lifetime. The operating- and signal voltage-range enables a flexible adjustment to various applications.



Drawing

In this view: Electrical zero point acc. option N (slot on the shaft and flat fall in line with the middle mounting thread)



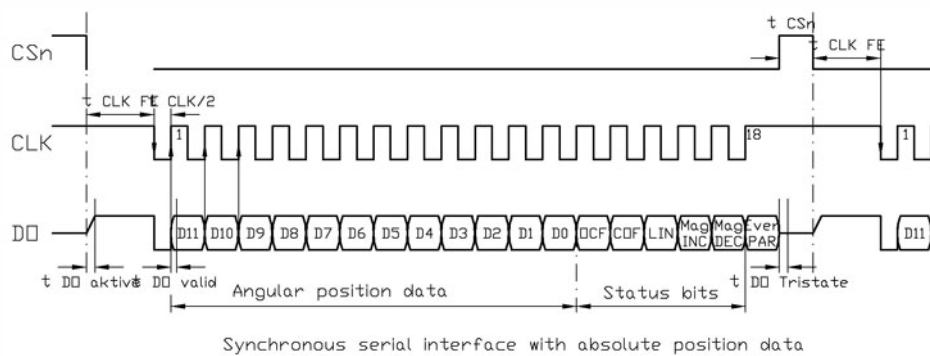
Series MAB18 SER / Hall Effect Absolute Encoder with serial interface

Electrical Data	SER- Interface	
Electrical angle	360°	
Independent linearity tolerance	± 0,2 %	
Resolution	4096 Steps (12Bit) / 1024 Steps (10Bit)	
Update rate	0,38 ms / 0,1 ms (High Speed)	
Initial response	< 50 ms	
Voltage supply	3,3 ± 10% VDC	5 ± 10% VDC
Current supply (no load)	< 20 mA	

Mechanical Data	
Maximum rotational speed	6.000 rpm

Other Data	
Protection class (shaft and housing)	IP65
Operating temperature	-40 ... +85 °C (other temperatures on request)
Storage temperature	-40 ... +105 °C
Bearing	2 precision ball bearings
Housing material	chromed aluminium
Shaft material	stainless steel
Weigth	approx. 30 g

Timing Diagramm SER-Bus



Falling edge of CS triggers a measurement value

Signal timing:

$t_{CSn} > 500\text{ns}$

$t_{CLKFE} > 500\text{ns}$

$CLK < 1\text{MHz}$

Remark: Above signal timing apply to 10 Bit and 12 Bit version. Please find the exact specifications of the output signals in the datasheets of application notes (AS5040, AS5045) of Austria Microsystems: www.austriamicrosystems.com

Series MAB18 SER / Hall Effect Absolute Encoder with serial interface

Orderdescription and Options

Series MAB18	MAB18				
<u>Supply voltage / Output signal</u>					
3,3 V / SER				12HS 3,3 SER (*)	
5 V / SER				12HS 5 SER	
Other shaft length [mm]				Axx (*)	
Other cable length [m]					CVxx(*)

"bold print = standard option"

short-term stock types can be found on: <http://www.megatron.de/en/stocklists/angle-sensors/lagerliste.html>

(*) = on request available for projects

23.02.2015