



## Magnetic Absolute Encoder 30 bit - ME29



The **EM29** magnetic encoder, developed by Sangalli, has excellent resolution and accuracy at a very competitive price. The encoder provides absolute information both as single turn and multi-turn. The extremely small dimensions allow it to be used even on 40mm frame size motors (size 0). The communication protocol is the bi-directional Biss-C that allows the use of an electronic tag. The multi-turn position data is maintained even after switching off by use of a buffer battery.

### Main characteristics:

- Bi-directional Biss-C protocol
- Up to 80,000 rpm max (12 bit resolution)
- Up to 14 bit resolution (max 10,000 rpm)
- Low cost
- High immunity to disturbances, low power
- Insulation voltage > 2,500 V
- Absolute multiturn 30 bits
- Compact dimensions D29 H10

Technical Data

Tab. 1

Description	Values
Resolution	0,02°
Single turn resolution	14 bit
Accuracy	±0,35°
Multi turn resolution	16 bit
Max. Speed	10,000 rpm
Supply Voltage	5V <sub>DC</sub> ± 10%
Max supply Current	50 mA
Operating Temperature	-40 ÷ +105 °C
User Memory Available	2 x 16 byte
Matched Magnet	30 EH 4 x 4mm

Connection J1

Tab. 2

pin	function	pin	function	pin	function	pin	function
1	GND	3	CLK+	5	DATA+	7	VBAT+
2	+VDC	4	CLK-	6	DATA-	8	GND BAT

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