Magnetic Absolute Multi-Turn Encoder

- Absolute Position
- Pulse Generator
- No Bearings or Moving Discs
- Separate Rotating Magnet
- Sine-Cosine Technology
- Low Battery Indication
- Custom Molded

Product Description

The BTR proprietary encoder was developed to accommodate the need to control motor torque in real time and provide absolute position after a power loss. We combined modern sine-cosine technology, decades of door control experience and current molding processes to produce the ultimate position sensor for doors and gates.

Operating Conditions				
Parameter	**Symbol**	**Min**	**Max**	**Unit**
DC Supply Voltage	VDD	10	30	V
Operating Current[1]	I_{max}		40	mA
Readout Rate		4		Msec
Maximum Turns[2]			65535	
Resolution	R_{max}		1.4	^{O}(degree)
Pulse Output Voltage	VP_{out}	VDD – 1.0		V
Pulse Output Current	IP_{out}		100	mA
Battery Life[3]	B_{life}		6	Years
Operating Temp.	$T_{operating}$	-20	+85	^{O}C
Storage Temp	$T_{storage}$	-55	+85	^{O}C
Max. Speed	S_{max}		TBD	

[1] Max current is dependent on VDD and Readout Rate
[2] After maximum turns is reached the internal count rolls over to zero
[3] Life determined for duty cycle of 12 hours ON and 12 Hours OFF

Magnets

Threaded - M8, 11/16 Hex
Shaft - 25.4mm

EMC Compliance	-EN61000-6-2 levels -EN6000-6-4 Class A -EN61000-4 -EN61000-2
Enclosure	Molded Macromelt IP67
Digital Com	EIA-RS485 with end bus termination, bidirectional half duplex @ 19200 baud
Pulse Output	Selectable between 20 & 50 ppr