# EMA21 Absolute Magna



## Absolute Magnetic Linear Encoder System

EMA21 an indigenously designed & built Absolute Magnetic Encoder System offers true absolute position data along with the advantages offered by Magnetic encoder technology.



# Salient Features:-

- C Accuracy of ±15µm/meter at 1µm resolution
- CSupports measuring speed of 4 m/s at 1µm resolution
- C Maximum measuring length available up to 60 mtrs, standard magnetic tapes are 20 mtrs in roll form
- CSupports popular industrial absolute protocols like SSI & BiSS-C (unidirectional), additionally supports incremental O/P RS422 digital / 1Vpp analog
- C Ingress Protection class IP67
- CVIC & Wide supply range available: Option 1 5 VDC &

Option 2 - 6.5 V to 28 VDC

- CReader head O/P is with cable or with direct connector on housing for ease of installation
- C LED indication on reader head to help user during installation & application
- C Error O/P in case of absolute code mismatch, higher speed & other such cases..



### Major Applications:-

- **Robotics**
- **C**Automation
- C Dispensing Machines
- C Pick & Place Machines
- C Length cutting Machines
- C Linear Motor Applications
- **C** Special Purpose Machines
- C Material Handling Machines

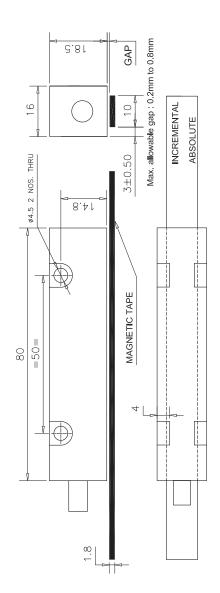


Absolute Magnetic Linear Encoder System

#### **Specification**

. ] .

	Output Specifications		
Resolution	1µ, other resolutions available on request		
	SSI – 70KHz to 1.6MHz		
Absolute Output	BiSS-C Unidirectional – 100KHz to 10MHz		
Measuring Speed	4 m/s		
Incremental Output	1V <sub>pp</sub> Analog output @ 10 m/s max		
	RS422 differential output @ 4 m/s max		
Accuracy	±15µ		
Repeatability	±1 count		
Hysteresis	< 3µ		
M	echanical Specifications		
Tape Dimensions	10mm width, 1.8mm thickness		
Maximum tape length	60 Mtrs.		
Reader Head dimensions (L X W X H)	80mm X 16mm X 18.5mm		
Cable and Connector Specifications			
Output connector	Option 1: 12 Pin M12 X 1 on reader head Option 2: cable from reader read		
Output cable	PUR cable		
Electrical Specifications			
Supply Voltage	Option 1: 5VDC ± 5% standard. Option 2: 6.5VDC to 28VDC		
Operating current	< 200mA		
Environmental Specifications			
Ingress protection class	IP67		
Storage & Operating Temperature	-20°C to +85°C		
Relative humidity	20% to 80% non-condensing		



BiSS-C Frame						
Total number of Bits: 36 Bits						
Null Bits	Position	Error	Warning	CRC		
2	26	1	1	6		

SSI Frame				
	Total number of Bits: 32 Bits			10 mm
	Error	Null Bits	Position	
	1	5	26	

	Incremental Track
Â	NSNSNSNSNSNSNS//NSNS
V.	NSSSNSSNNNNSNNN / /NNSSS
	Absolute code based // / / / / / / / / / / / / / / / / /

CE



Electronica Mechatronic Systems (I) Pvt. Ltd. Unit number 37 and 44, Electronic Co-Op Estate, Pune - Satara Road, Pune 411 009 India Tel: +91 (0) 20 2422 4440, 2422 2293 Fax: +91 (0) 20 2422 1881 Email: <u>enquiry@electronicaems.com</u> Web: <u>www.electronicaems.com</u> Dealer Stamp