



## TIM - EL2000 SERIES Reader/encoder modul

### MAIN FEATURES

- Simultaneously processing of the magnetic tracks ISO & Central
- Cards management with multiple introduction possibilities
- Embossed cards in conformity with ISO 7811/3 allowed
- Communication by means of RS232/RS485 serial interface
- Special Head stack with floating magnetic heads gimbals
- SMD low consumption electronic circuits
- Two levels head signal amplification
- Single write and verify command
- Automatic retry capability
- Self-diagnostic commands on board
- Optional intel mouths
- Smart card contactor



## TECHNICAL SPECIFICATIONS

### OVERALL DESCRIPTION

·Outline dimensions	: 90(H) x 192(L) x 72(W) mm
·Weight	: 1.5 Kg (Approximately)
·Electronics	: With microprocessor (Motorola 68HC11K1)
·Cards sensor	: Photosensor
·Track configuration	: ISO 1, ISO 2, ISO 3, & CENTRAL
·Bit density	: 210 or 75Bpi
·Recording method	: Double density DF (NRZ) ISO 7811
·Transport method	: Stepping motor
·Transport speed	: 500 mm/sec
·Output interface	: RS232 / RS485
·Power requirements	: +24V DC +/-10% 3A-6A

### RELIABILITY

·Transport life	: 2,000,000 cycles
·Heads life	: 2,000,000 cycles
·Error rate	: 1/ 2,000 cycles
·MTBF electronics	: 50,000 hours
·MTBF mechanism	: 2,000,000 insertions

### CARD/TICKET SPECIFICATIONS

·Types	: Smooth or embossed (ISO 7811/3)
·Length	: 85.60 mm
·Width	: 53.98 mm
·Thickness	: From 0.15 to 0.35 mm
·Coercivity	: Up to 4,000 Oe

### ENVIRONMENTAL

·Operating temperature	: From 0 to +65°C
·Storage temperature	: From -30 to +85°C
·Relative humidity	: From 20 to 80% (No condensation)

### OPTIONAL CONFIGURATION

- High coercivity recording available on all tracks (Up to 4,000 Oe)
- Additional head for handling standard tracks JIS B 9560/9561
- ISO tracks with non standard densities
- ISO tracks in non standard position
- Central track management
- Smart card ISO 7816 contactor
- Two levels head signal amplification
- Extended mouth with ticket capture device
- Extended mouth with controlled inlet shutter