



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

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)

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

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