



Product Technical Specification

MKEm-85/Combo Panel-Mount INDUSTRIAL KEYBOARD

GENERAL DESCRIPTION

The Eclipse/Trackball combo panel-mount keyboard is simply the most durable keyboarding technology available. The "Eclipse" is a hardened keyboard designed to withstand the rigors of heavy public use both supervised and unsupervised. Featuring secured metal keycaps; this product is resistant to vandal attacks by knives, cigarette lighters, pens and virtually any other type of abuse. The keys are secured from the underside of the bezel preventing the ability to "pop" off the keycaps. The keycaps themselves are constructed of heavy 6061 Aluminum and are colored via a hard anodize process in black color. Legends are laser etched in the surface of the keys creating a legend that will last virtually forever. With a sealed design for the keyboard itself, along with the factory provided neoprene gasket around the perimeter, an environmental tight seal can be achieved. Incorporating our 1.5" trackball, this solution is the ideal single piece solution for OEM clients.



The Eclipse Panel-mount keyboard is ideal for mounting in equipment as an integrated keyboarding device. With proper mounting, the Eclipse can meet IP65, NEMA12 or NEMA4x specifications. It is ideal for data entry requirements while in harsh environment applications. Highly effective in Industrial Manufacturing equipment and more specifically, interactive Kiosk systems.

PRODUCT FEATURES

Keyboard

- Break over tactile response
- Environmentally sealed
- Standard key spacing
- Spill-proof surface
- Touch type capability
- Low Profile
- Sealed switches
- OEM Friendly Panel-mount design
- Low fatigue user operation
- Integrated "Windows" keys

Trackball

- Reliable non-contacting optical encoders
- 2 button integration
- Encased Stainless Steel bearings
- Precision Stainless Steel axles
- Standard AMP connectors
- IP65 Option available

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature: -0°C to +55°C
Storage Temperature: -32°C to +65°C
Humidity: 5% - 85% relative humidity, non-condensing



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ELECTRICAL SPECIFICATIONS

Keyboard

Contact Resistance: 200 ohms (max) @ 5mA
Contact Bounce: 5 ms (max)
Contact Rating: .080 watts (max)
Current: 20 ma (max)
ESD: 25 KV (max)
Switch Capacitance: 10 Pico farads (max)
Dielectric Strength: 250 VAC
Insulation Resistance: 10 Mega ohms (min)
Voltage: 30 VDC (max)

Trackball

PS/2 Mode

Input: +5V @ 30mA Max
Output: CMOS/TTL, Serial

Serial Mode

Input: *DTR @ 15mA Max
*RTS @ 15mA Max
Output: RS-232, Serial

MECHANICAL SPECIFICATIONS

Keyboard

Operating Force:	150 grams
Switch Travel:	1.5 mm
Switch Life:	1x10 ⁶ cycles (min)
Key Material:	6061 Aluminum

Trackball

Ball/Material:	1.5" Thermoset Phenolic
Housing:	Glass filled Nylon
Rotation:	360°
Tracking Force:	10 grams




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CONNECTOR INFORMATION

PS/2 Interface Connector (Keyboard)

	Pin Number	Function
	1	DATA
	2	N/C
	3	GROUND
	4	Power +5V
	5	CLOCK
	6	N/C
SHELL	CHASSIS GROUND	

Power: 5VDC @ 200mA (max)
Data: TTL Signal
Clock: TTL Signal
Logic Ground: 5VDC GND Return
Chassis Ground: Shield
Protocol: Synchronous

PS/2 Interface Connector (Trackball)

	Pin Number	Function
	1	DATA
	2	N/C
	3	GROUND
	4	Power +5V
	5	CLOCK
	6	N/C
SHELL	CHASSIS GROUND	

MOUNTING CONSIDERATIONS

Bezel Shape and Alignment

The shape and alignment of the bezel are not critical to the performance of the keyboard. However, different approaches to bezel design will affect the aesthetic appearance of the overall implementation. Consult your Input Technologies Sales Engineer for recommendations.

Keyboard Mounting

The keyboard should be firmly supported from below. This will prevent the keyboard from moving with heavy finger pressure during operation.

The Eclipse/Trackball combo provides 40 .156" diameter-mounting holes around the perimeter to facilitate various mounting techniques. Input Technologies recommends that 40 self-clinching threaded studs be mounted on the underside of the bezel to accommodate the mounting holes provided. The Unified code recommended by Input Technologies is FHS-632-8.



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ORDERING, PART NUMBER AND SUPPORT INFORMATION

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