

M.series Keypads

Thanks to a 30 years experience in the conception and manufacturing of keypad devices, EOZ has developed the M.series keypad range, designed to operate in varied environments and which can be used in different applications.

The main advantage of this new keypad system is its flexibility in terms of mechanical characteristics. These include for example, choice of illumination, colour and shape of keys, and tactile feel (membrane with carbon pills or domes on the PCB for instance), amongst others.

With M.series, the right keypad is available for every need!

MAIN FEATURES

- Choice available of key shape and dimension
- Anti-twist keys and anti pull off keys
- Laser engraving for a high flexibility
- Standard colours of keys (other colours available):
  - Key top: natural (grey), green, red, yellow
  - Illumination: yellow and blue (standard)
- Tamper resistance: the PCB is inside the housing for added security.
- Resistant to chemical products: gasoil for dome versions
- Fast prototyping

MATERIAL

All plastic parts are UL94 V0

- **Sealing gasket and membrane:** silicone (UL 94HB)
- **Keys:** Anodised aluminium
- **PCB:** Epoxy FR4 (UL 94 V0) with gold coating
- **Connector:** HE13header, see number of pins on drawings

TYPICAL APPLICATIONS

The high flexibility of the features of the M.series allows them to be suitable for many applications:

- Access control
- Telecom
- Vending
- Security…



ELECTRICAL CHARACTERISTICS

- **Interface:**
  - 4 key version: common point
  - 12 and 16 key versions: Matrix as standard, others on request (common point, USB etc.).
- **Power supply:** 5 VDC, 240mA max
- **Illuminated versions:** blue, red, green, yellow and white.

NOTE: A load resistor may need to be connected by the customer in order to power the LED's correctly.

- **Contact resistance**
  - Dome version: < 1 Ohm
  - Membrane version: < 200 Ohms
- **ESD:** 15kV with a metallic front plate

ENVIRONMENTAL CHARACTERISTICS

- **Temperature:**
  - Operating: -25°C to +85°C
  - Storage: -40°C to +85°C (-30°C for illuminated version)
- **Saline mist:** 96 hours, IEC 60512-6
- **Damp heat (@+40°C):** 21 days, IEC 60512-6
- **Dry heat (@ +85°C):** 21 days, IEC 60512-6
- **UV resistance :** 56 days

CE and RoHS compliant

MECHANICAL CHARACTERISTICS

- **Actuation force:**
  - Dome version: 4.5N +/- 30%
  - Membrane version: 1.9N +/- 30%
- **Key travel:**
  - Dome version: 0.5 ±0.3 mm
  - Membrane version: 1±0.3 mm
- **Contact materials:**
  - Dome version: nickel/gold
  - Membrane version: carbon/gold
- **Lifetime (cycles / keys):**
  - Dome version: 1 million actuations
  - Membrane version: 4 million actuations
- **Impact resistance: IK 09** for standard versions with a 3mm thick front plate
- **Sealing: IP 67** (front face)

EOZ S.A.S – 5, rue Henri François – F-77330 OZOIR-LA-FERRIERE
Téléphone : +33 1 81 14 49 49 – Télécopie : +33 1 81 14 49 52
Capital 200 000 € - SIRET 529 137 531 00016 RCS Melun
APE-NAF 2733Z – TVA FR39529137531
www.eozonline.com

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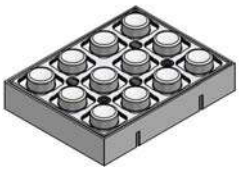
M.series Keypads

STANDARD PART NUMBERS



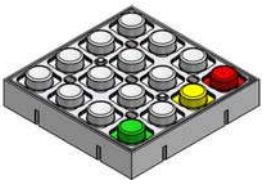
❑ **4 Key version with marking 1.2.3.4**

M04PARSANLPA	Non illuminated membrane, common point
M04PARSANSPA	Non illuminated domes common point
M04IARSAYLPA	Yellow Illuminated membrane, common point
M04IARSAYSPA	Yellow Illuminated domes, common point



❑ **12 Key version with marking Telephone**

M12PARSANLMT	Non illuminated membrane, Matrix
M12PARSANSMT	Non illuminated domes Matrix
M12IARSAYLMT	Yellow illuminated membrane, Matrix
M12IARSAYSMT	Yellow illuminated domes, Matrix
M12IARSABLMT	Blue illuminated membrane, Matrix
M12IARSABSMT	Blue illuminated domes, Matrix



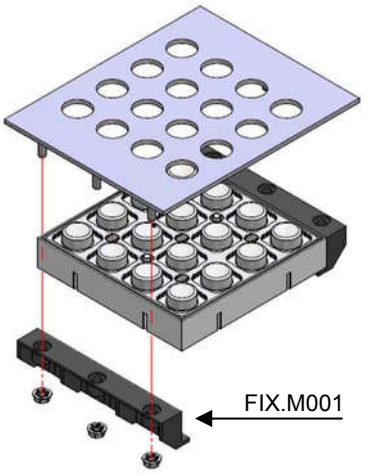
❑ **16 Key version with marking Hexadecimal**

M16PARSANLMH	Non illuminated membrane, Matrix
M16PARSANSMH	Non illuminated domes Matrix
M16IARSAYLMH	Yellow illuminated membrane, Matrix
M16IARSAYSMH	Yellow illuminated domes, Matrix
M16IARSABLMH	Blue illuminated membrane, Matrix
M16IARSABSMH	Blue illuminated domes, Matrix

❑ **16 Key version with marking Banking**

M16PARSANLMB	Non illuminated membrane, Matrix
M16PARSANSMB	Non illuminated domes, Matrix

MOUNTING

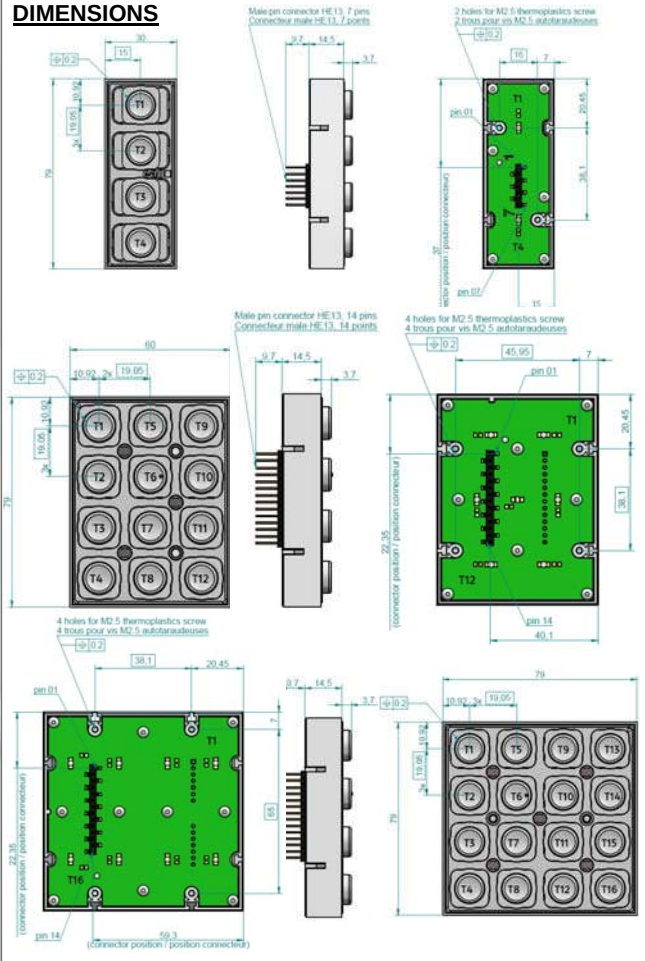


The keypads can be mounted from the rear, with different options possible:

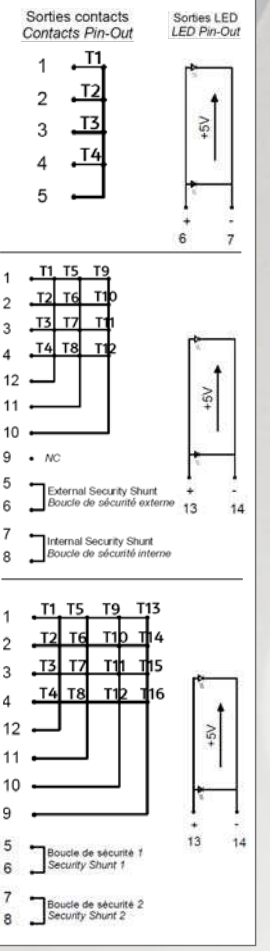
❑ New mounting kit available from EOZ, with 2 mounting clips made of ABS polycarbonate

❑ 4 holes in the back of the housing of the keypad for customised integration

DIMENSIONS



CONNECTIONS



TYPE OF STANDARD KEYS

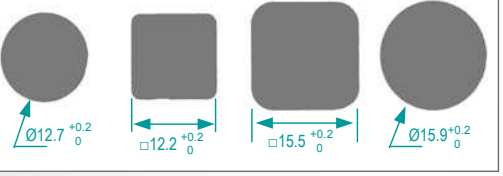


❑ Standard colors: Natural aluminium, red, yellow and green

❑ Specific colors on request: blue, orange, anthracite grey….



IMPLANTATION



Contact us at :
Email : contact@eozonline.com
site: www.eozonline.com

EOZ reserves the right to make changes without prior notice