M.series

KEYPADS

For other options or further information please contact your local sales office.

Product Profile

The M.series is an adapatable, vandalresistant keypad for fitting behind a panel. The modular construction and truly innovative technology allows for total design flexibility, generally without the need for additional engineering or tooling costs. Suitable for access and security control, banking and payment terminals, vending machines, information terminals and kiosks, and machinery and process control.

Technical data see page 144

- Create a unique layout! Choose key illumination, colour, material, tactile feedback and length of travel
- Shock and impact up to IK09X
- Sealed up to IP67
- Integral anti-fraud protection circuit
- Readily adaptable to biometric door-entry systems
- 4, 12 and 16 key versions



Non illuminated keypad, 4 keys, round concave, pin header connection, 1234 markings



Non illuminated keypad, 12 keys, round concave, pin header connection, telephone markings

Part No.	Output type	Contact Type	Part No.	Output type	Contact Type
M04PARSANLPA	Common point	Carbon pill	M12PARSANLMT	Matrix	Carbon pill
M04PARSANSPA	Common point	Domes	M12PARSANSMT	Matrix	Domes

Non-Illuminated keypad



Non illuminated keypad, 16 keys, round concave, pin header connection, hexadecimal markings



Non illuminated keypad, 16 keys, round concave, pin header connection, banking version with domes, security and coloured keys

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Part No.	Output type	Contact Type		Part No.	Output type	Contact Type
M16PARSANLMH	Matrix	Carbon pill		M16PARSBNSMB	Matrix	Domes
M16PARSANSMH	Matrix	Domes				
N	/16PARSANLMH	Part No. Output type A16PARSANLMH Matrix A16PARSANSMH Matrix	/16PARSANLMH Matrix Carbon pill	Part No. Output type Contact Type /16PARSANLMH Matrix Carbon pill	Part No. Output type Contact Type Part No. M16PARSANLMH Matrix Carbon pill M16PARSBNSMB	Part No. Output type Contact Type Part No. Output type A16PARSANLMH Matrix Carbon pill M16PARSBNSMB Matrix

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Illuminated keypad



Illuminated keypad, 4 keys, round concave, pin header connection, 1234 markings



Illuminted keypad, 12 keys, round concave, pin header connection, telephone markings



Illuminated keypad, 16 keys, round concave, pin header connection, hexadecimal markings

Colour	Part No.	Output type	Contact Type	Colour	Part No.	Output type	Contact Type	Colour	Part No.	Output type	Contact Type
O Yellow	M04iARSAYLPA	Common point	Carbon pill	O Yellow	M12iARSAYLMT	Matrix	Carbon pill	O Yellow	M16iARSAYLMH	Matrix	Carbon pill
O Yellow	M04iARSAYSPA	Common point	Domes	O Yellow	M12iARSAYSMT	Matrix	Domes	O Yellow	M16iARSAYSMH	Matrix	Domes
				O Blue	M12iARSABLMT	Matrix	Carbon pill	O Blue	M16iARSABLMH	Matrix	Carbon pill
				O Blue	M12iARSABSMT	Matrix	Domes	O Blue	M16iARSABSMH	Matrix	Domes

Illuminated keypad



A Accessories



Illuminted keypad, 16 keys, round concave, pin header connection, banking version with domes, security and coloured keys type

Mounting bracket (two per unit, for all versions of M.series)

	Part No.	Output type	Contact Type	Part No.	
	M16iARSBYSMB	Matrix	Domes	FIX.M001	

Keypad

Material

Plastic parts Plastic parts, as per UL 94 V0

Sealing gasket and membrane Silicone, as per UL 94 HB

Keys Aluminium anodised

Contacts Dome version: Nickel/Gold Membrane version: Carbone/Gold PCB

PCB: Epoxy FR4, as per UL 94 V0, with gold coating

Mechanical characteristics

Terminals

Male pin connector: HE14 (number of pins according drawing)

Tightening torque 50 Ncm ±5 Ncm (screws for thermoplastic)

Actuating force Dome version: 4.5 N ±30% Membran version: 1.9 N ±30%

Actuating travel Dome version: 0.6 mm ... 1 mm Membrane version: 0.8 mm ... 1.3 mm

Rebound time Dome version: <1 ms Membrane version: <10 ms

Life time (cycles per key) Dome version: 1 million actuations Membrane version: 4 million actuations

Electrical characteristics

Operating voltage/-current Operating voltage: 5 VDC

Current rating: 240 mA max.

Illumination Current consumption for single LED: 20mA at 2.1 V (yellow and green) 20mA at 1.9 V (red) 15mA at 3.7 V (white)

10mA at 3.4V (blue)

Interface

4 key version: Common point Matrix as standard, others on request (common point, USB)

Contact resistance Dome version: <1 0

Membrane version: <102

Electrostatic breakdown value

15 kV with a metallic front plate

Environmental conditions

Storage temperature

 $-40\,^{\circ}\text{C}$... +85 $^{\circ}\text{C}$ (–30 $^{\circ}\text{C}$ for illuminated version)

Operating temperature -25°C ... +85°C

Protection degree IP67 (front face)

Climate resistance as per EN IEC 60512-6 Damp heat: 21 days, +40 °C Dry heat: 10 days, +85 °C Saline mist: 96 hours UV resistance: 56 days

Impact resistance

IK 09 for standard version with a 3 mm thick stainless steel front plate

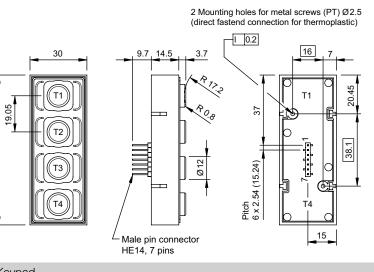
Approvals

Declaration of conformity

CE

Keypad

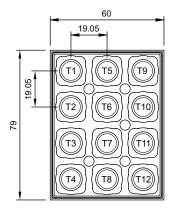
4 keys



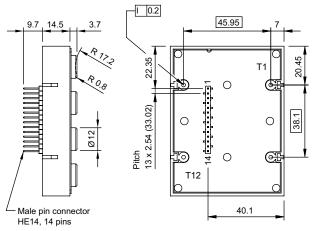
Keypad

79

12 keys

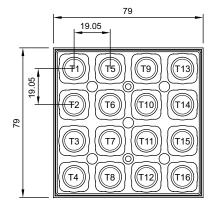


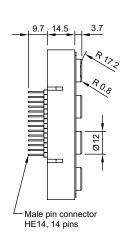
4 Mounting holes for metal screws (PT) Ø2.5 (direct fastend connection for thermoplastic)



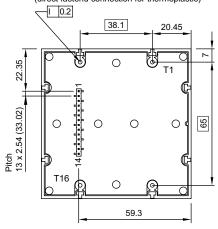
Keypad

16 keys

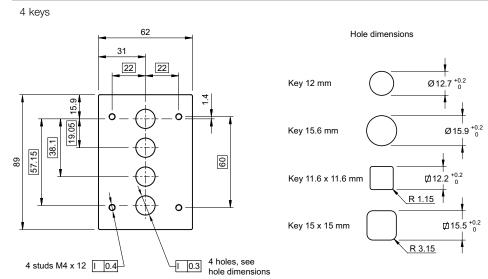




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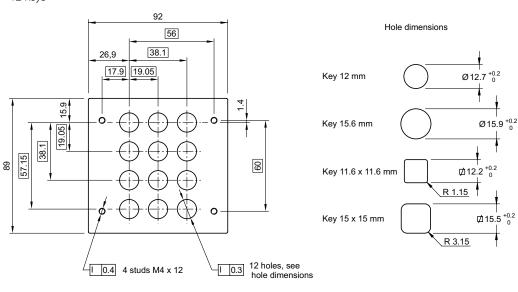


Cut-outs



Cut-outs





Technical Drawings

Cut-outs

16 keys

