

4 x 4 Vandal Resistant Keypad Type MA11 Tactile

Publication Number: KP009/0402

Application

The flush fitting MA11 Keypad combines robust vandal resistance with an attractive design to meet the most demanding of today's concepts and specifications, in a wide range of applications from public services to specialist use in heavy duty environments and adverse weather conditions. The MA11 complements the matching 3 x 4 MA10 and 1 x 4 MA12 Keypads.

Operation

The MA11 keys have a positive 'click' feel and operate a matrix connected polydome membrane switch unit (other terminations are available). See overleaf for connector pin out details.

Construction

The 16 keys are fitted in a 2.0mm stainless steel faceplate bolted to a polycarbonate body housing the membrane switch unit. The stainless steel keys and faceplate have a horizontally finished finish.

The individual keys are sealed and water resistant. An optional gasket is available to seal the MA11 to the clients structure. The MA11 mounting flange will accommodate panel thicknesses up to 6.35mm max.

An industry standard 0.1 in pitch female 8 way connector is provided to interface with client equipment. Connection of the faceplate to earth is made by one of the weld studs.

The shallow depth MA11 keypad can be supplied loose or incorporated into a stainless steel panel with a finished finish and etched and painted legends. For aperture and weld stud details see overleaf.

Technical Detail

Mechanical

Key movement:	1.0mm nominal
Key operating pressure:	4N nominal
Keypad weight:	550 grammes
Environmental protection from front:	IP66 and IP67
Body mouldings in high grade polycarbonate with a fire rating of V0 to UL94	
Number of operations:	10 ⁵ nominal
Working and storage temperature:	-22°C + 60°C, RH 90% non condensing
Panel aperture dimensions:	Height 98.5mm Width 108.5mm Corner Radius 4.8mm
Overall keypad dimensions:	Height 118.0mm Width 134.0mm Depth 20.0mm

Membrane Electrical Specification

Membrane contact rating:	0.1ma - 50 ma
Voltage:	1.5V d.c. minimum - 30V d.c. maximum (resistive, smooth supply)
Contact resistance:	less than 45 ohm
Switch power:	0.5 watt maximum
Contact bounce:	20 ms maximum
Dielectric strength:	100V rms for 1 minute
Insulation resistance:	10M ohm at 40°C, 93% r.h.
Contact material:	Solid silver conductive ink

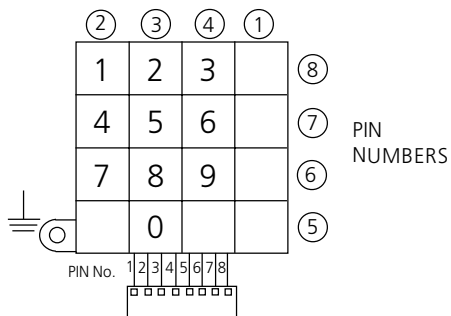
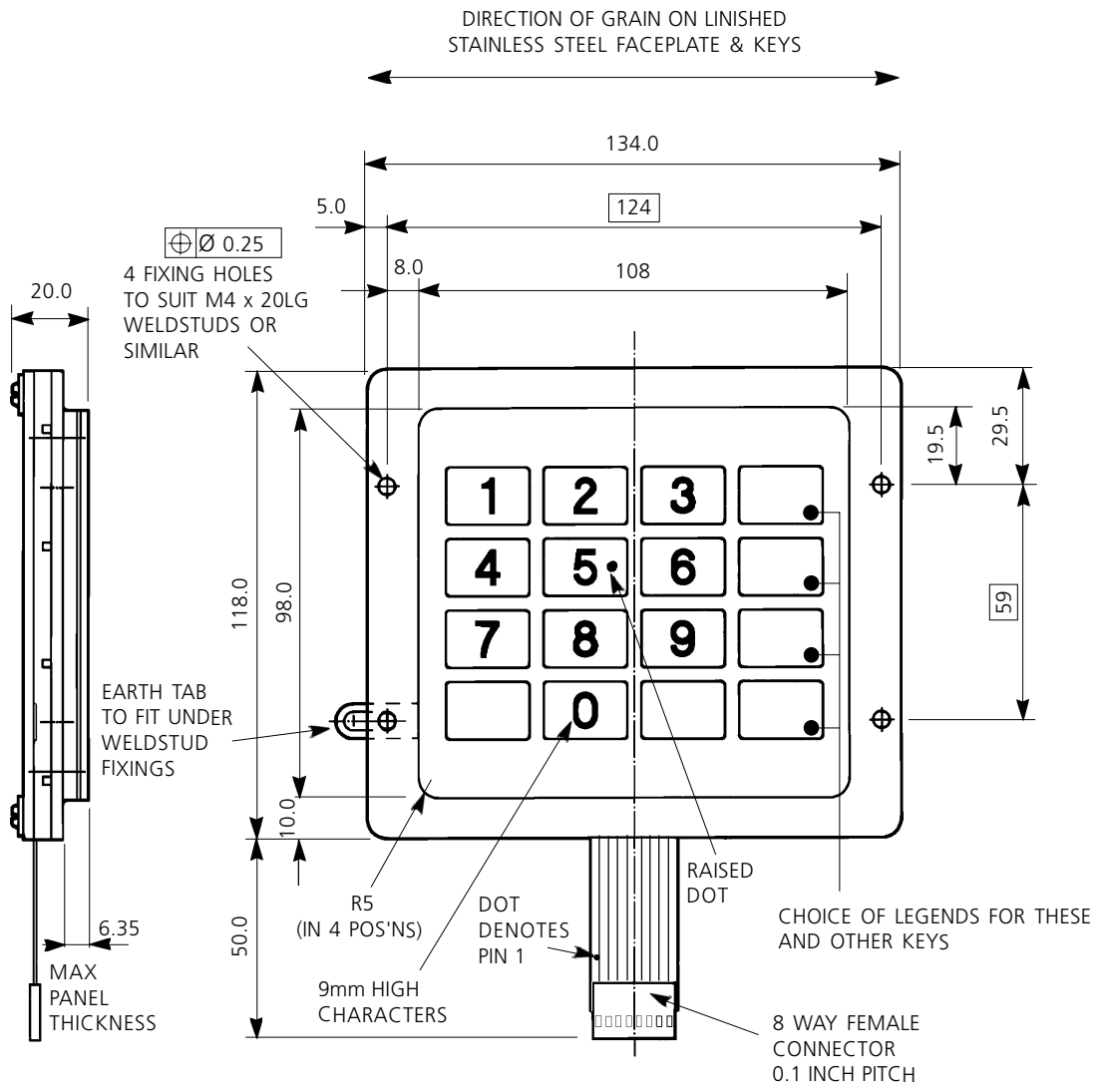
Markings

Standard key tip characters are 9mm high, etched and black polyester powder painted. Custom key legends are available on request.

The 5 key has a raised dot for location by the visually impaired.

EMC Note

This item is considered to be a component and therefore does not have to comply with the EMC Directive.



NOTE:
Refer to Publication Number: PB131 for panel cut out size and weld stud positions.

All dimensions in millimetres

MA11 TACTILE KEYPAD ASSEMBLY