

1 x 4 Vandal Resistant Keypad Type MA12 Tactile

Publication Number: KP011/0402

Application

The flush fitting MA12 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 MA12 complements the matching 3 x 4 MA10 and 4 x 4 MA11 keypads.

Operation

The MA12 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 4 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 design of the MA12 ensures that the membrane is protected from direct shock loads.

The individual keys are sealed and water resistant. An optional gasket is available to seal the MA12 to the clients structure. The MA12 mounting flange will accommodate panel thicknesses up to 6.35 max.

An industry standard 2.54mm pitch female 5 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 MA12 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 ask for our drawing PDO 3088 Sheet 42.

Technical Detail

Mechanical

Key movement:	1.0mm nominal
Key operating pressure:	4N nominal
Keypad weight:	180 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 ⁶ nominal
Working and storage temperature:	-22°C + 60°C, RH 90% non condensing
Panel aperture dimensions:	height 98.5mm width 35.0mm corner radius 4.8mm
Overall keypad dimensions:	height 118.0mm width 41.5mm depth 20.0mm

Membrane Electrical Specification

Membrane contact rating:	0.1 ma - 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:	silver conductive ink

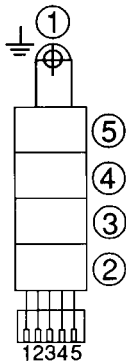
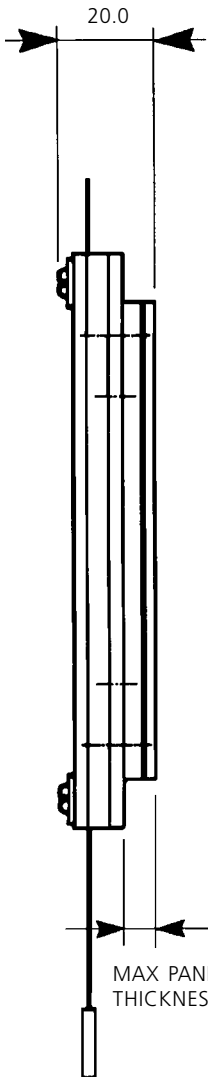
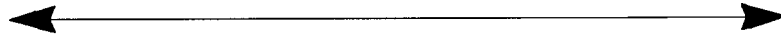
Markings

Keys may be supplied blank or with legends specified by customer. There may be an artwork charge for special legends not available from our library.

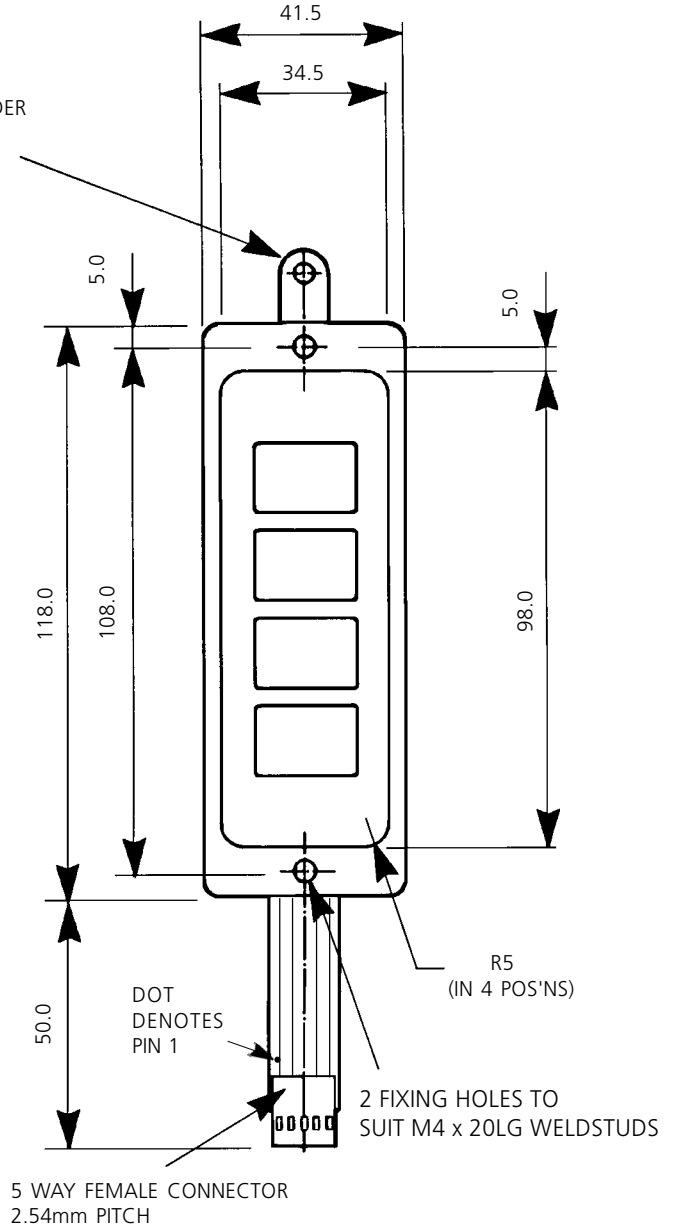
EMC Note

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

**DIRECTION OF GRAIN IN FINISHED
STAINLESS STEEL FACEPLATE AND KEYS**



EARTH TAB TO FIT UNDER
WELDSTUD FIXINGS



NOTE

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

All dimensions mm

MA12 TACTILE KEYPAD ASSEMBLY