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Product Information

General notes

The low profile 12 or 16 key AVME keypads are specially designed for public environment applications, such as vending machines, ticket machines, payment terminals, telephones, access control systems and industrial machinery.

When mounted behind a front panel the AVME is vandal resistant and sealed to IP 67. The keypad incorporates anti pull-off keys with a metal shoulder and an elastomer membrane to prevent dismantling from the front. The AVME uses click dome technology to guarantee a positive tactile feel.

Mounting

The keypad is mounted from behind a front panel, in which holes are cut out for the keys to pass through.

Full IP 67 front face sealing is realised when the small raised lip around the edge of the elastomer membrane is compressed against the front panel.

Contacts

To ensure integrity of contacts and lower switch ratings, the contacts are gilded and external connection to the keypad is by means of a pin header on the back.

The electrical keypad circuit can be supplied in a choice of either matrix or common point configuration.

Keys

The aluminium keys are available with either flat or concave profile. They are anti pull off and resistant to shock and fire.

Marking

The keys can be laser engraved so that custom markings or symbols in different colours are available on request as are keys in other colours.

We reserve the right to modify technical data

All dimensions in mm

Keypad



	Front protection	Terminals	No. of keys	Key cap	Marking	Circuit	Typ-Nr.	Component layout	Mounting dimensions	Technical drawing	
Keypad non-removable metal keys, vandal resistant	IP 67	PH	12	Aluminium natural concave	Function black	P	A.12200.C01	4	1	1	0.094
						M	A.12250.C01	1	1	3	0.094
					Telephone black	P	A.12100.C01	2	1	1	0.094
						M	A.12150.C01	5	1	3	0.094
				Aluminium natural flat	Function black	P	A.12200.P01	4	2	1	0.094
						M	A.12250.P01	1	2	3	0.094
			Telephone black	P	A.12100.P01	2	2	1	0.094		
				M	A.12150.P01	5	2	3	0.094		
			16	Aluminium natural concave	Hexadecimal black	P	A.16300.C01	3	1	2	0.122
						M	A.16350.C01	6	1	4	0.122
				Aluminium natural flat	Hexadecimal black	P	A.16300.P01	3	2	2	0.122
						M	A.16350.P01	6	2	4	0.122

Other options on request :

Custom key colours and markings

Terminals: PH = Pin header

Circuit: P = Common point, M = Matrix

Component layout from page 6, Mounting dimensions from page 8, Technical drawing from page 9

Keypad

Material

Keys

Aluminium

Membrane Case

Polychloroprene Elastomer black (CR)

Back plate

Steel chromated

Contacts

Stainless steel 0.1 μm Gold

Cu tracks on PCB 0.1 μm Gold

Mechanical characteristics

Actuating force

4.3 N $\pm 30\%$

Actuating travel

1.0 mm ± 0.2 mm

Rebound time

≤ 1 ms

Electrical characteristics

Operating voltage/-current

Nominal 24 V, 50 mA

Maximum voltage 50 V

Minimum voltage 5 V

Minimum current 1 mA

Isolation resistance

≥ 1000 M Ω at 100 VDC

Contact resistance

≤ 1 Ω

Electrical life

≥ 1 Million cycles of operation per key

Electrostatic breakdown value

5 kV

Electric strength

1500 V_{rms}, 50 Hz, 1 min., as per EN IEC 60512-2

Capacity between open terminals

≤ 1.5 pF at 1 kHz

Environmental conditions

Storage temperature

-40 °C ... +85 °C

Operating temperature

-25°C ... +85°C

Front protection

IP 67 as per IEC 60529, when mounted

Climate resistance

as per EN IEC 60512-6

Damp heat 21 days

Dry heat 10 days, +85 °C

Saline mist : 48 hours

Approvals

Declaration of conformity

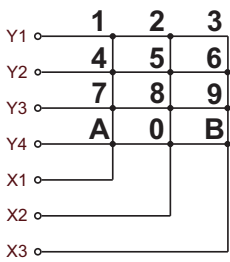
CE

RoHS

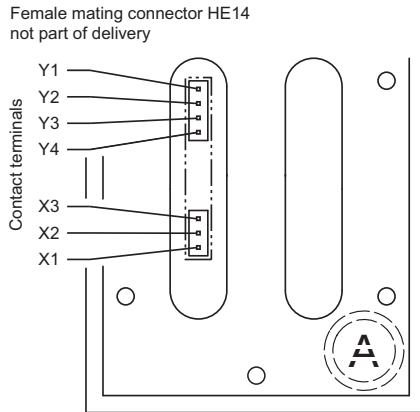
Component layout

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Contacts layout
Function



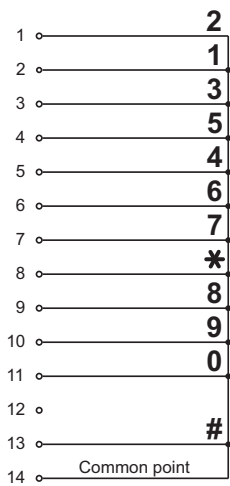
Rear view
Male pin connector HE14



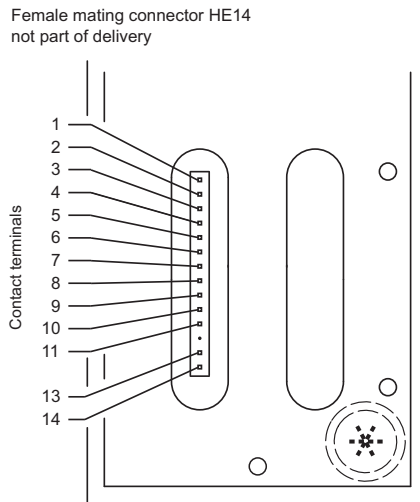
12 keys, Matrix, Function

2 Keypad page 4

Contacts layout
Telephone



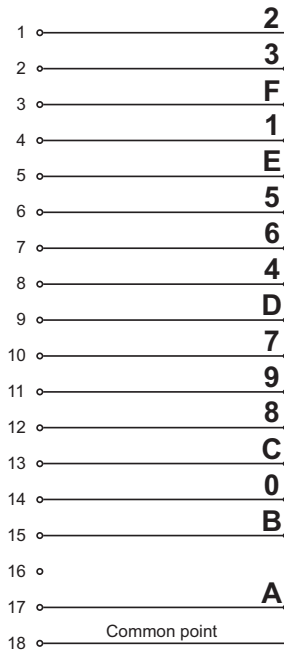
Rear view
Male pin connector HE14



12 keys, Common point, Telephone

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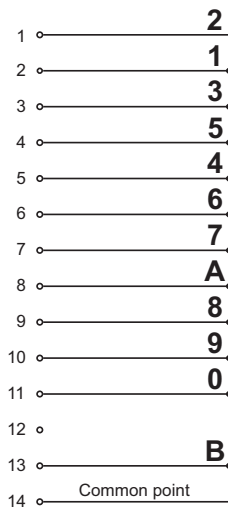
Contacts Layout
Hexadecimal



16 keys, Common point, Hexadecimal

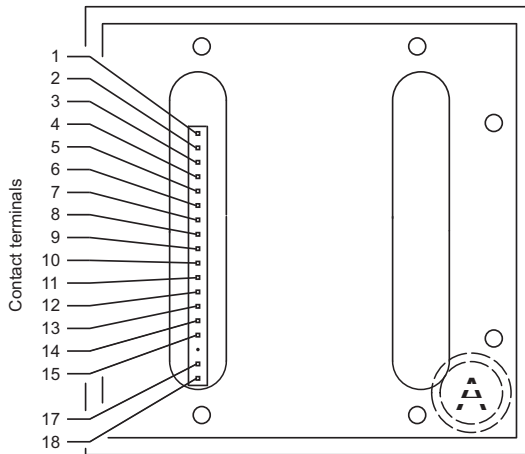
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Contacts layout
Function

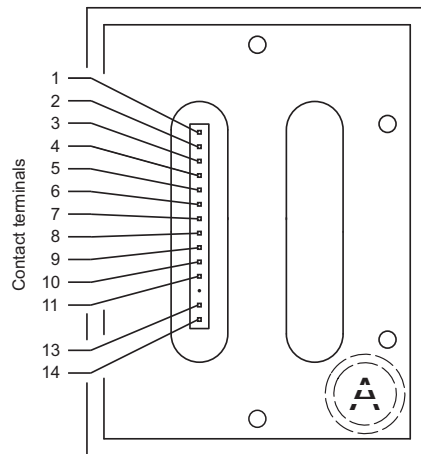


12 keys, Common point, Function

Rear view
Male pin connector HE14
Female mating connector HE14
not part of delivery

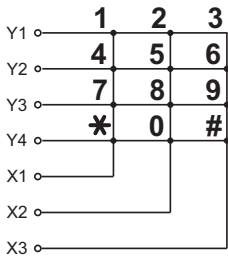


Rear view
Male pin connector HE14
Female mating connector HE14
not part of delivery

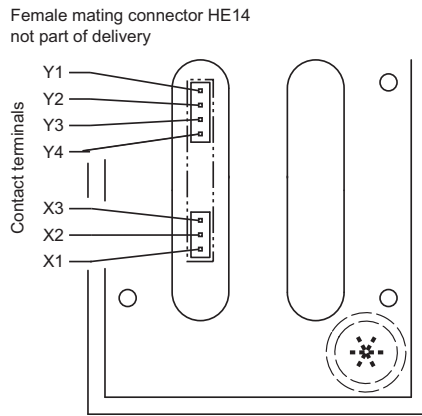


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Contacts layout
Telephone



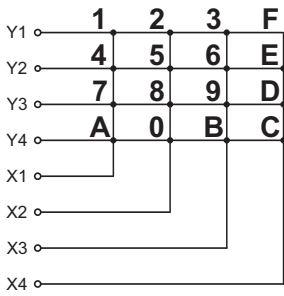
Rear view
Male pin connector HE14



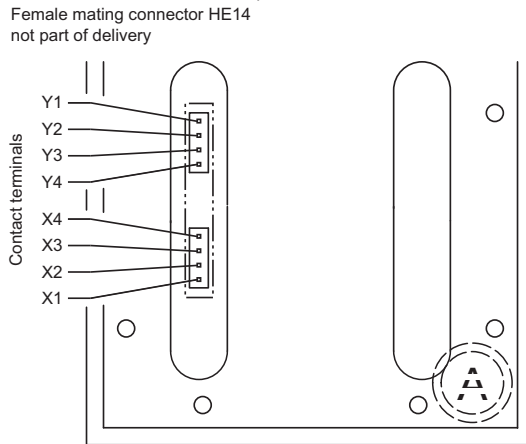
12 keys, Matrix, Telephone

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Contacts layout
Hexadecimal



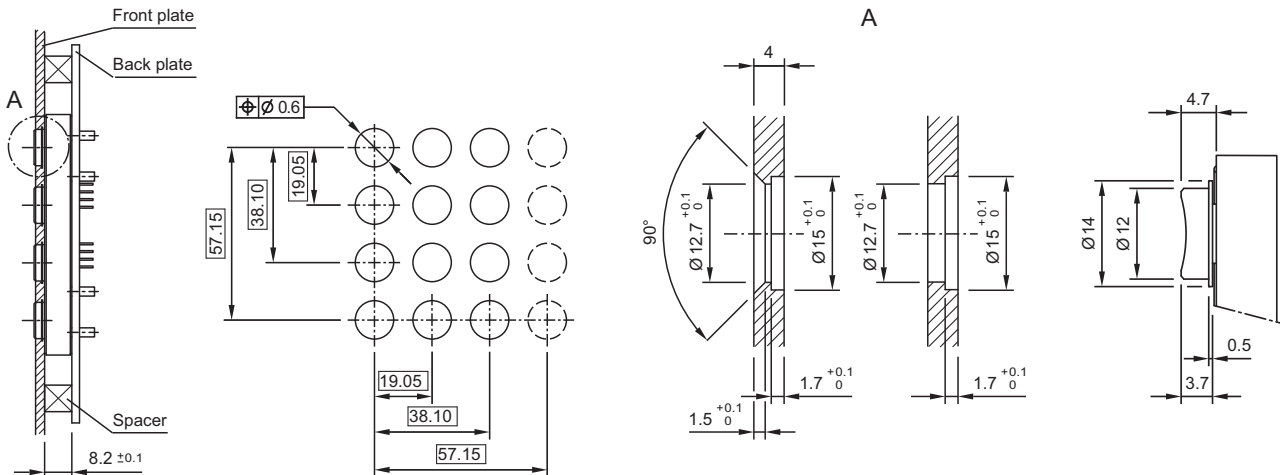
Rear view
Male pin connector HE14



16 keys, Matrix, Hexadecimal

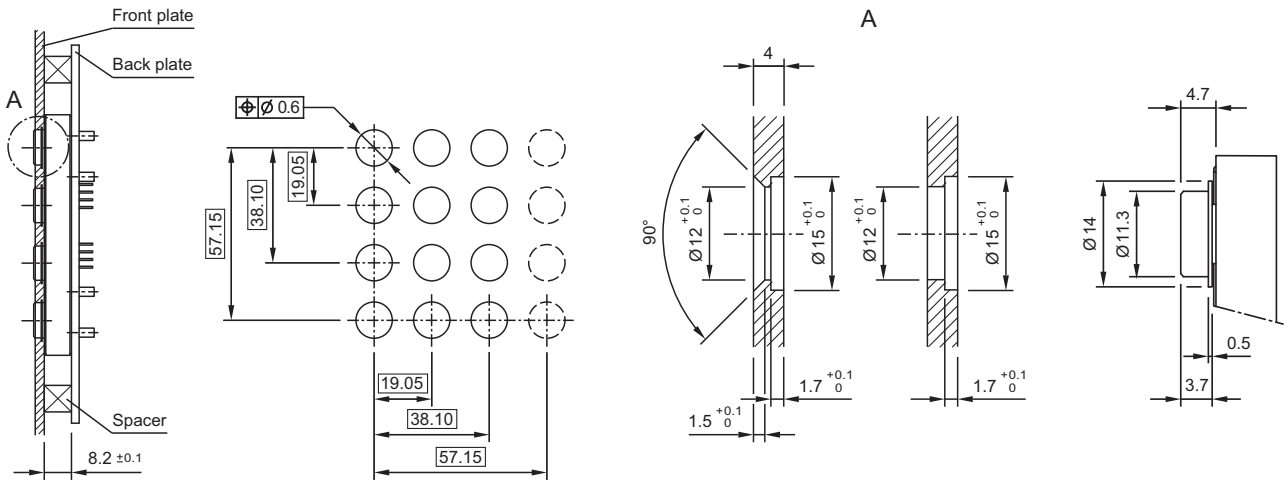
Mounting dimensions

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concave keys

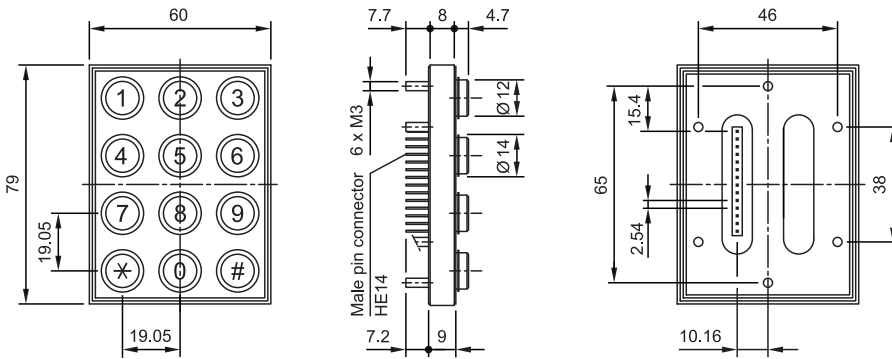
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flat keys

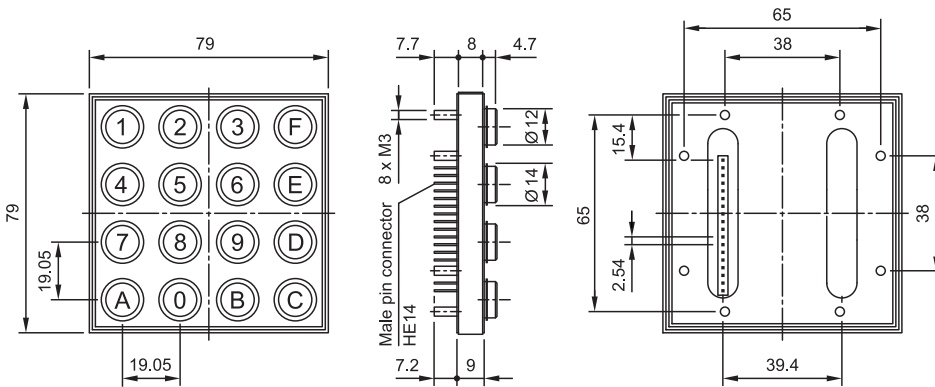
Technical drawing

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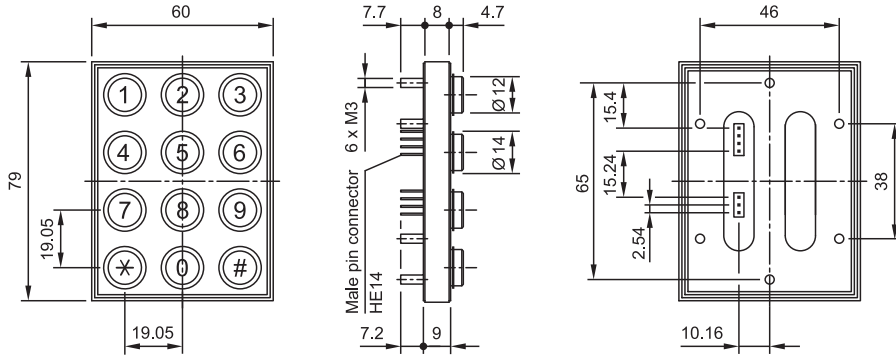
Common point

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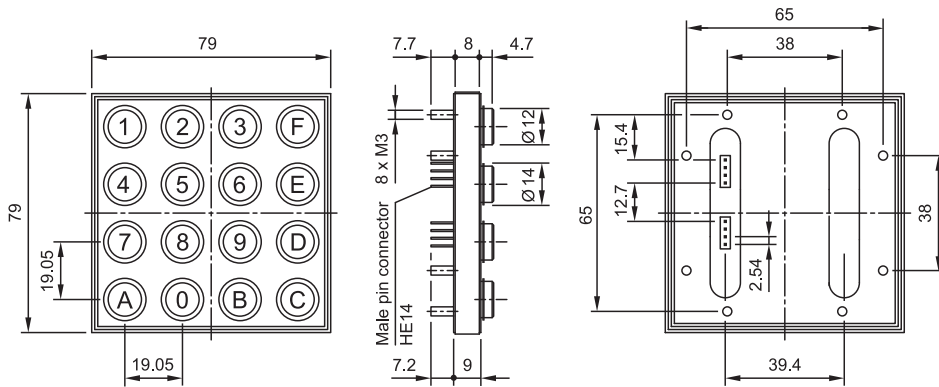
Common point

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Matrix

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Matrix

Index from Typ-Nr.

<u>Typ-Nr.</u>	<u>Page</u>	<u>Typ-Nr.</u>	<u>Page</u>	<u>Typ-Nr.</u>	<u>Page</u>
A.12100.C01	4				
A.12100.P01	4				
A.12150.C01	4				
A.12150.P01	4				
A.12200.C01	4				
A.12200.P01	4				
A.12250.C01	4				
A.12250.P01	4				
A.16300.C01	4				
A.16300.P01	4				
A.16350.C01	4				
A.16350.P01	4				