



element14

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[ECO-16250.06](#)

EN

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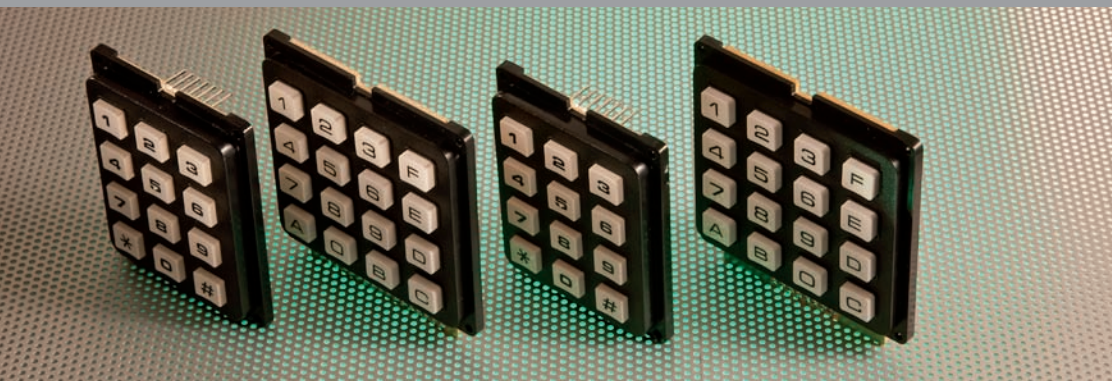
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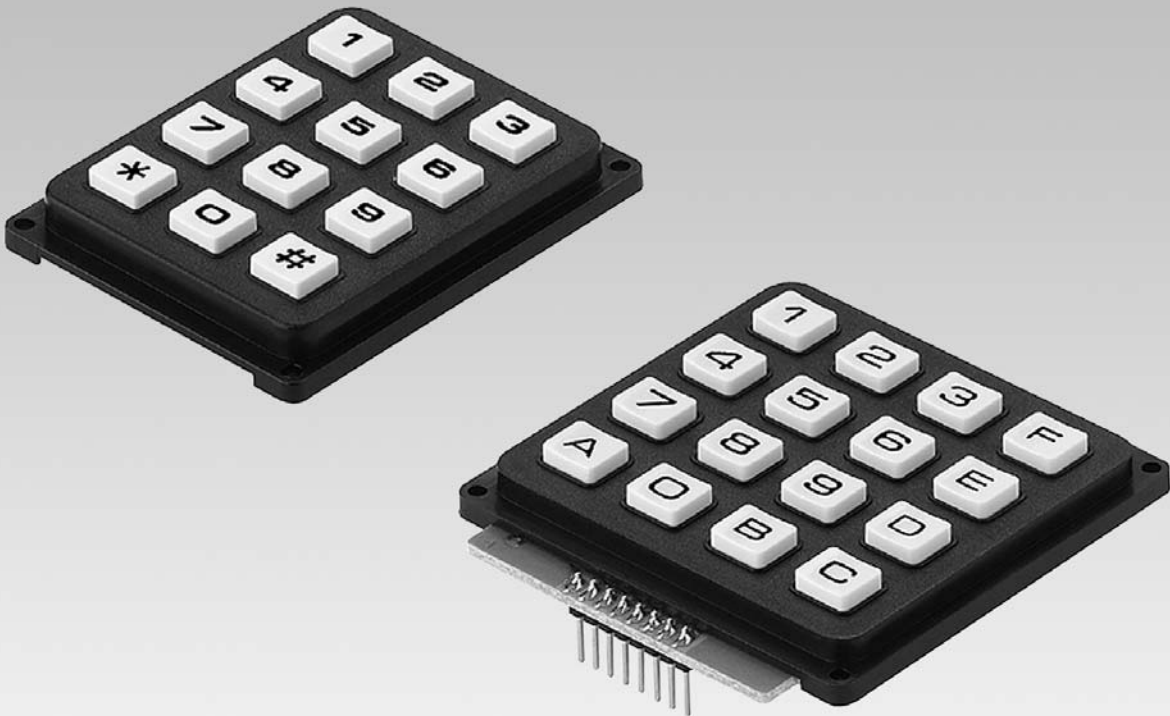
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EAO – Your Expert Partner for Human Machine Interfaces



EAO Product Information

ECO



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Keypads 4

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Product Information

General notes

The EAO ECO keypads are suited to all indoor applications including data-entry systems, remote controls, telephone, point of sales terminals or alarm systems.

The ECO range of low-cost, flush-mount keypads are rugged, economical devices available in 12-key telephone style and 16-key hexadecimal II layouts.

Mounting

Mounting is from the back of a panel using fixed studs.

Protection degree of the keypad is IP 40 (front side).

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 keys are made of polycarbonate.

Marking




Standard markings are hot stamped. On request customized symbols and markings are available.

We reserve the right to modify technical data

All dimensions in mm

Keypad



	Front protection	Terminals	Key cap	No. of keys	Marking	Circuit	 60 x 57 Typ-Nr.	 46 x 57 Typ-Nr.	Component layout	Technical drawing	
Keypad Keys for indoor use	IP 40	PH	Plastic white	16	Hexadecimal II	P	ECO.16200.06		2	2	0.024
						M	ECO.16250.06		2	2	0.024
				12	Telephone	P		ECO.12100.06	1	1	0.020
						M		ECO.12150.06	1	1	0.020

Packaging of 10 pcs.
Terminals: PH = Pin header
Circuit: P = Common point, M = Matrix
Component layout from page 6, Technical drawing from page 6

Keypad

Material

Keys

Polycarbonate (PC)

Housing

Polycarbonate (PC)

Contacts

Carbon/Gold

Mechanical characteristics

Actuating force

1.2 N \pm 35 %

Actuating travel

1.4 mm \pm 0.1 N

Rebound time

\leq 2 ms

Marking height

3.5 mm

Electrical characteristics

Operating voltage/-current

Nominal 24 V, 20 mA

Maximum voltage 24 V

Minimum voltage 500 mV

Minimum current 10 mA

Contact resistance

$<200 \Omega$ of electric circuit

Isolation resistance

$>1000 \text{ M}\Omega$ at 100 VDC

Life time

>1 Million cycles operation per key at nominal break rating

Switch rating

0.5 W

ESD-protection

5 kV

Environmental conditions

Storage temperature

-40 °C ... +65 °C

Operating temperature

-20 °C ... +60 °C

Approvals

Declaration of conformity

CE

Component layout

1 Keypad page 4

12 KEYS – CONNECTOR TERMINALS
(rear view)

Matrix XY

Common point

CONTACTS

CONTACTS

PC = Common point

Connection by female connector HE 14
(not supplied)

X1	X2	X3	
Y1	1	2	3
Y2	4	5	6
Y3	7	8	9
Y4	*	0	#

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16 KEYS – CONNECTOR TERMINALS
(rear view)

Matrix XY

Common point

CONTACTS

CONTACTS

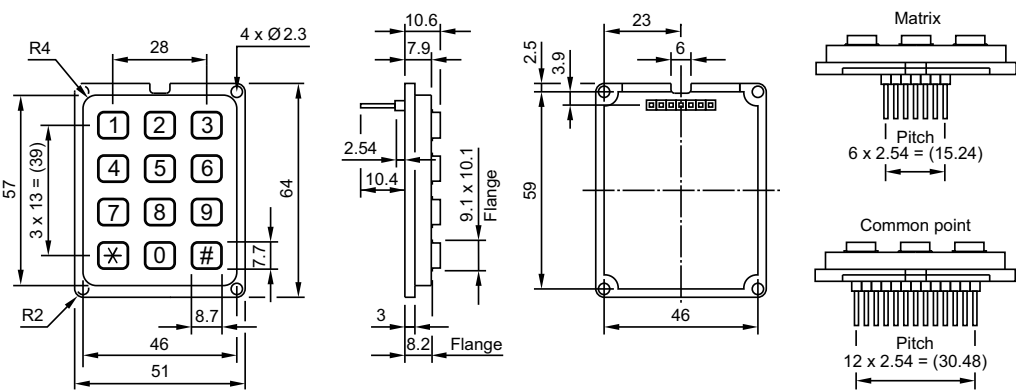
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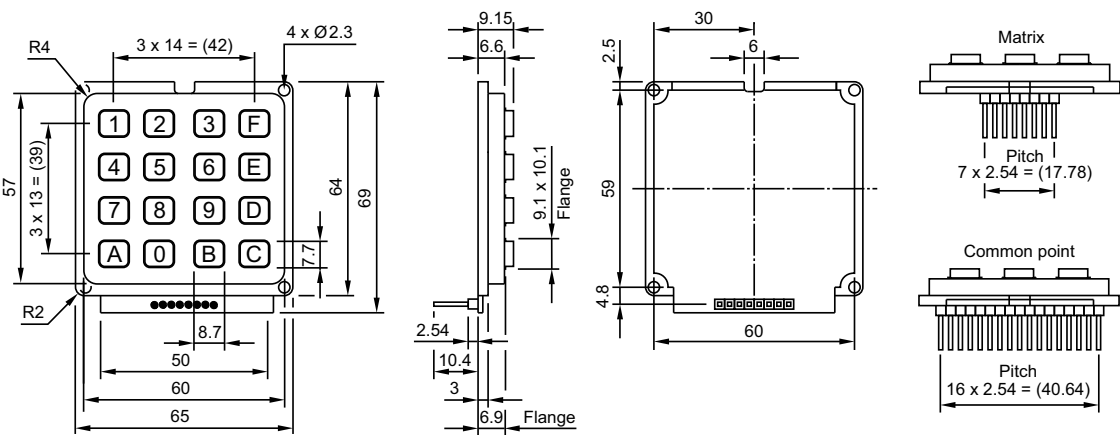
X1	X2	X3	X4	
Y1	1	2	3	F
Y2	4	5	6	E
Y3	7	8	9	D
Y4	A	0	B	C

Technical drawing

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Index from Typ-Nr.

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