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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	
<b>Keypad</b> Keys for indoor use	IP 40	PH	Plastic white	16	Hexadecimal II	P	<b>ECO.16200.06</b>		2	2	0.024
						M	<b>ECO.16250.06</b>		2	2	0.024
				12	Telephone	P		<b>ECO.12100.06</b>	1	1	0.020
						M		<b>ECO.12150.06</b>	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 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**

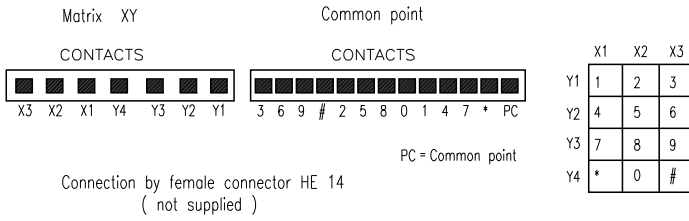
CE

RoHS

## Component layout

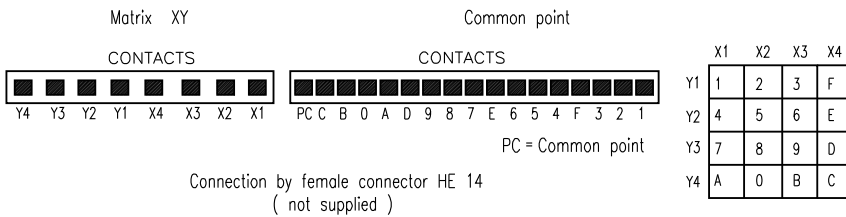
### 1 Keypad page 4

12 KEYS – CONNECTOR TERMINALS  
(rear view)



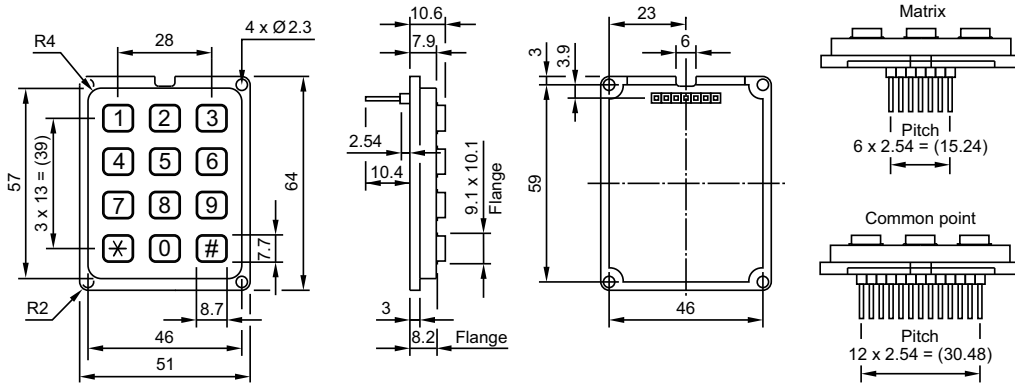
### 2 Keypad page 4

16 KEYS – CONNECTOR TERMINALS  
(rear view)

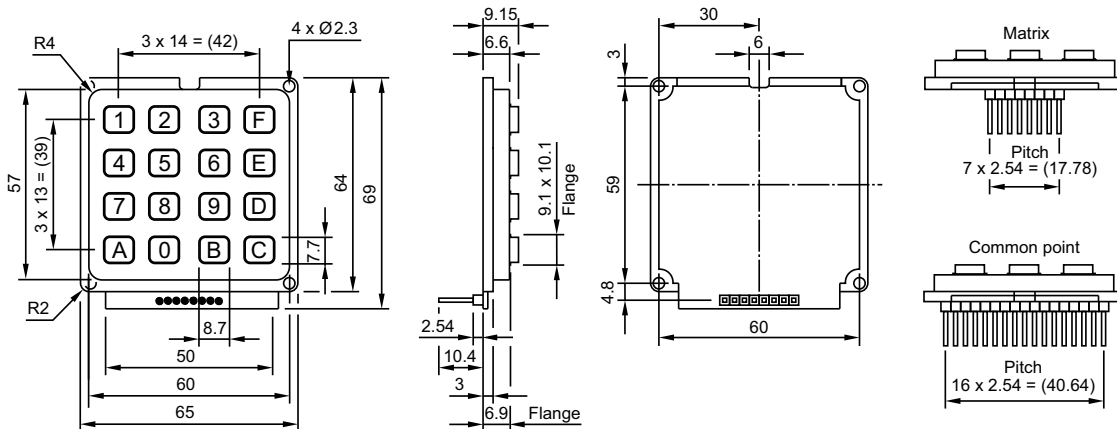


## Technical drawing

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### 2 Keypad page 4



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ECO.12150.06 .....	4				
ECO.16200.06 .....	4				
ECO.16250.06 .....	4				