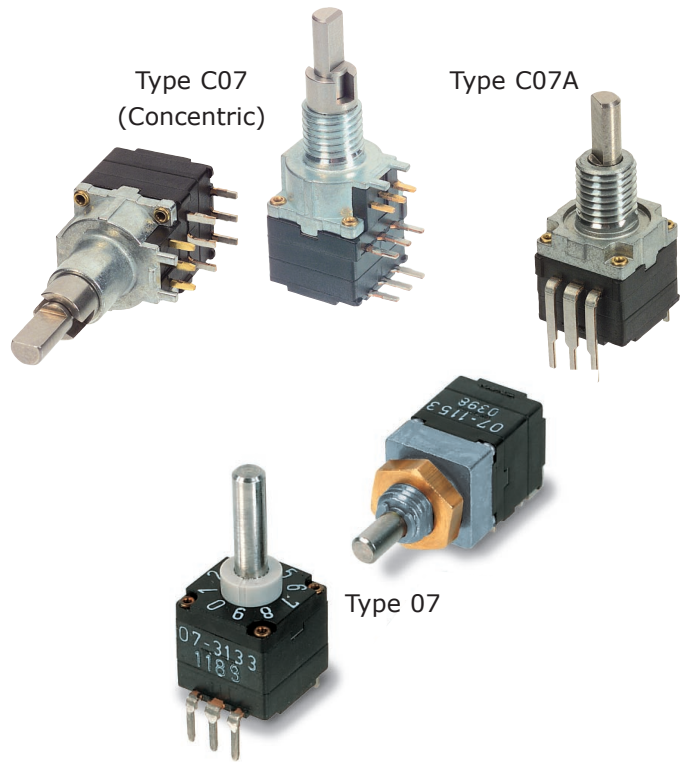# Coded Switches Overview

ELMA
Your Solution Partner

- **rugged design**
- **lead free reflowable**
- **packaged for modern manufacturing methods**
- **easy to modify**
- **sealable up to IP 68 (2bar)**

Type C07
(Concentric)

Type C07A

Type 07

Our ability to adapt existing components to your application, makes Elma your preferred solution partner.

Technical Data

Designation	Type 07	Type C07A	Type C07 (Concentric)
Dimension	10 x 10 mm	10 x 10 mm	10 x 10 mm
Connection	THT (DIL)	THT (DIL)	THT (DIL)
Function (Code)	BCD (10 pos.) BCD compl. (10 pos.) HEX (16 pos.) HEX compl. (16 pos.) Gray Code 0 - F (16 pos.)	HEX (16 pos.) HEX compl. (16 pos.) Gray Code 0 - F (16 pos.)	HEX (16 pos.) Gray Code 0 - F (16 pos.) one pole 3 pos. center off
Indexing angle	22.5°, 36°	22.5°	22.5°
Processing	wave soldering reflow (on request)	wave soldering reflow(on request)	wave soldering reflow
Contact material	3µm gold plated	3µm gold plated	3µm gold plated
Life expectancy: Switching cycles Rotations	> 10'000 cycles	> 10'000 cycles	> 10'000 cycles 16 pos. > 7'500 cycles 3 pos.
Contact resistance	< 50 mΩ	< 50 mΩ	16 pos. and 3 pos. max 1Ω
	page 6-8	page 9	page 10-11
Technical Data	page 60-64	page 65-67	page 68-70

The following rugged switches are also available in coded (binary code) versions	Type 04	Type 06	Type 08
	coding 0-9	coding 0-11	coding 0-11
	page 22	page 24	page 28

1 mm = 0.04 inch, 1 inch = 25.4 mm
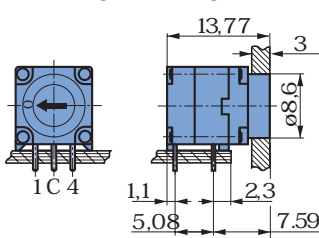
Coded Switches Type 07

- **10/16 position coded output**
- **>10'000 switching cycles**
- **up to 3,5 Ncm torque**
- **small and rugged**
- **steel spindle-shaft**
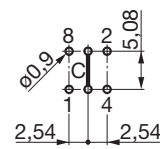- **sealable up to IP 68 (2bar)**
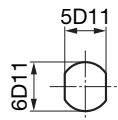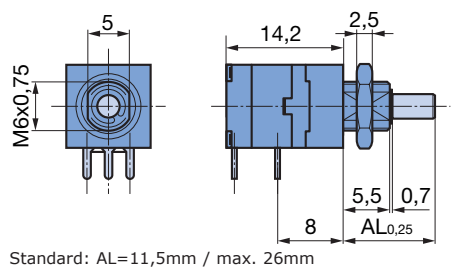- **reflow version available**
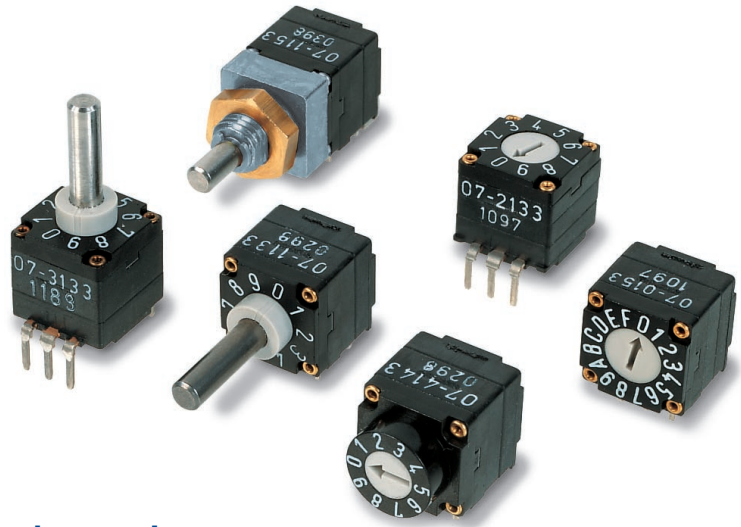
Horizontal

BCD 18°
HEX11°15'
10,16 · 10,35 · 2,25 · 5,5 · ø5,5 · ø3
5,42 · 10,5
3,1 · 1 C 3 · 4,17 · AL-0,25

Standard: AL=12,8mm / max. 30mm
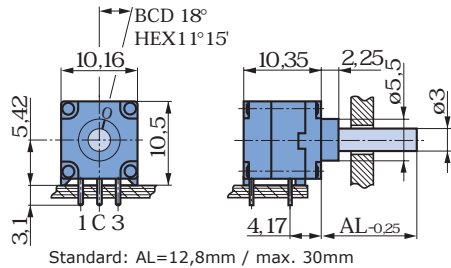
Horizontal for panel mounting

5 · 14,2 · 2,5
M6x0,75
5,5 · 0,7
8 · AL0,25

Standard: AL=11,5mm / max. 26mm

Vertical

BCD 18
HEX 1115'
2 C 4 · 2,25 · ø5,5 · ø3
10,16 · 12,7
1 C 3
10,16 · 3,1 · 10,6 · AL-0,25

Standard: AL=12,8mm / max. 30mm

Vertical for panel mounting

5 · 2,5
M6x0,75
5,5 · 0,7
14,4 · AL0,25

Standard: AL=11,5mm / max. 26mm

Front panel operation

13,77 · 3 · ø8,6
1 C 4 · 1,1 · 2,3
5,08 · 7.59

Drilling diagram
View from component side

ø0,9 · 8 · 2 · 5,08
C
1 · 4
2,54 · 2,54

Waterproof (WD)
O-Ring and nut supplied

5D11
6D11

Front panel
cut out

Drilling diagram
View from component side

ø0,9 · 2 · 8 · 12,7
C
1 · 4
2,54 · 2,54

5D11
6D11
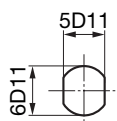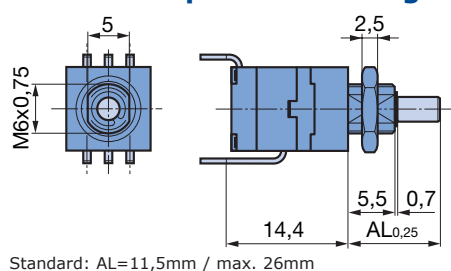
Front panel
cut out

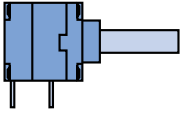### Possible modifications on request

- special type of shaft (length, form)
- special torque
- panel mounting
- waterproof
- different number of positions (internal stop)
- anti-static packaging
- shortened bush
- tape & reel packaging

1 mm = 0.04 inch, 1 inch = 25.4 mm

Type 07 Horizontal

With spindle-shaft

Coding	Switching function	Position	Indexing angle	with end stop	endless rotating
BCD	shorting	10 (0-9)	36°	07-1133	07-1033
	non-shorting	10 (0-9)	36°	07-1134	07-1034
BCD compl.	shorting	10 (0-9)	36°	07-1143	07-1043
HEX	shorting	16 (0-F)	22,5°	07-1153	07-1053
	non-shorting	16 (0-F)	22,5°	07-1154	07-1054
HEX compl.	shorting	16 (0-F)	22,5°	07-1163	07-1063
Gray code	shorting	16 (0-F)	22,5°	07-1173	07-1073

packing unit : 50 pieces

### With spindle-shaft /with end stop / panel mounting / waterproof IP 68/2bar
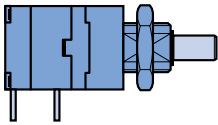
Coding	Switching function	Position	Indexing angle	with end stop
BCD	shorting	10 (0-9)	36°	07-1133-300000
	non-shorting	10 (0-9)	36°	07-1134-300000
BCD compl.	shorting	10 (0-9)	36°	07-1143-300000
HEX	shorting	16 (0-F)	22,5°	07-1153-300000
	non-shorting	16 (0-F)	22,5°	07-1154-300000
HEX compl.	shorting	16 (0-F)	22,5°	07-1163-300000
Gray code	shorting	16 (0-F)	22,5°	07-1173-300000

O-Ring and nut supplied

packing unit : 50 pieces

### With spindle-shaft / endless rotating / panel mounting / waterproof IP 68/2bar
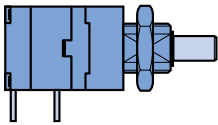
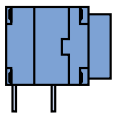| Coding	Switching function	Position	Indexing angle	endless rotating
BCD	shorting	10 (0-9)	36°	07-1033-300000
	non-shorting	10 (0-9)	36°	07-1034-300000
BCD compl.	shorting	10 (0-9)	36°	07-1043-300000
HEX	shorting	16 (0-F)	22,5°	07-1053-300000
	non-shorting	16 (0-F)	22,5°	07-1054-300000
HEX compl.	shorting	16 (0-F)	22,5°	07-1063-300000
Gray code	shorting	16 (0-F)	22,5°	07-1073-300000

O-Ring and nut supplied
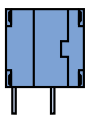
packing unit : 50 pieces

Screwdriver actuation

Coding	Switching function	Position	Indexing angle	with end stop	endless rotating
BCD	shorting	10 (0-9)	36°	07-0133	07-0033
	non-shorting	10 (0-9)	36°	07-0134	07-0034
BCD compl.	shorting	10 (0-9)	36°	07-0143	07-0043
HEX	shorting	16 (0-F)	22,5°	07-0153	07-0053
	non-shorting	16 (0-F)	22,5°	07-0154	07-0054
HEX compl.	shorting	16 (0-F)	22,5°	07-0163	07-0063
Gray code	shorting	16 (0-F)	22,5°	07-0173	07-0073

packing unit : 50 pieces
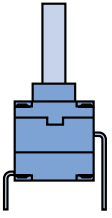
Front panel operation / screwdriver actuation

Coding	Switching function	Position	Indexing angle	with end stop	endless rotating
BCD	shorting	10 (0-9)	36°	07-4133	07-4033
	non-shorting	10 (0-9)	36°	07-4134	07-4034
BCD compl.	shorting	10 (0-9)	36°	07-4143	07-4043
HEX	shorting	16 (0-F)	22,5°	07-4153	07-4053
	non-shorting	16 (0-F)	22,5°	07-4154	07-4054
HEX compl.	shorting	16 (0-F)	22,5°	07-4163	07-4063
Gray code	shorting	16 (0-F)	22,5°	07-4173	07-4073

packing unit : 50 pieces

1 mm = 0.04 inch, 1 inch = 25.4 mm

Type 07 Vertical

With spindle-shaft

Coding	Switching function	Position	Indexing angle	with end stop	endless rotating
BCD	shorting	10 (0-9)	36°	07-3133	07-3033
	non-shorting	10 (0-9)	36°	07-3134	07-3034
BCD compl.	shorting	10 (0-9)	36°	07-3143	07-3043
HEX	shorting	16 (0-F)	22,5°	07-3153	07-3053
	non-shorting	16 (0-F)	22,5°	07-3154	07-3054
HEX compl.	shorting	16 (0-F)	22,5°	07-3163	07-3063
Gray code	shorting	16 (0-F)	22,5°	07-3173	07-3073

packing unit : 50 pieces

### With spindle-shaft / with end stop / panel mounting / waterproof IP 68/2bar
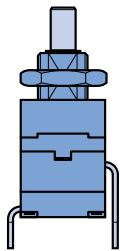
Coding	Switching function	Position	Indexing angle	with end stop
BCD	shorting	10 (0-9)	36°	07-3133-300000
	non-shorting	10 (0-9)	36°	07-3134-300000
BCD compl.	shorting	10 (0-9)	36°	07-3143-300000
HEX	shorting	16 (0-F)	22,5°	07-3153-300000
	non-shorting	16 (0-F)	22,5°	07-3154-300000
HEX compl.	shorting	16 (0-F)	22,5°	07-3163-300000
Gray code	shorting	16 (0-F)	22,5°	07-3173-300000

O-Ring and nut supplied

packing unit : 50 pieces

### With spindle-shaft / endless rotating / panel mounting / waterproof IP 68/2bar
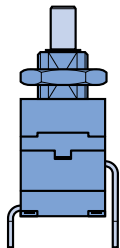
Coding	Switching function	Position	Indexing angle	endless rotating
BCD	shorting	10 (0-9)	36°	07-3033-300000
	non-shorting	10 (0-9)	36°	07-3034-300000
BCD compl.	shorting	10 (0-9)	36°	07-3043-300000
HEX	shorting	16 (0-F)	22,5°	07-3053-300000
	non-shorting	16 (0-F)	22,5°	07-3054-300000
HEX compl.	shorting	16 (0-F)	22,5°	07-3063-300000
Gray code	shorting	16 (0-F)	22,5°	07-3073-300000

O-Ring and nut supplied
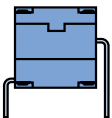
packing unit : 50 pieces

Screwdriver actuation

Coding	Switching function	Position	Indexing angle	with end stop	endless rotating
BCD	shorting	10 (0-9)	36°	07-2133	07-2033
	non-shorting	10 (0-9)	36°	07-2134	07-2034
BCD compl.	shorting	10 (0-9)	36°	07-2143	07-2043
HEX	shorting	16 (0-F)	22,5°	07-2153	07-2053
	non-shorting	16 (0-F)	22,5°	07-2154	07-2054
HEX compl.	shorting	16 (0-F)	22,5°	07-2163	07-2063
Gray code	shorting	16 (0-F)	22,5°	07-2173	07-2073

packing unit : 50 pieces

1 mm = 0.04 inch, 1 inch = 25.4 mm