

Definitions

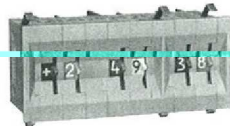
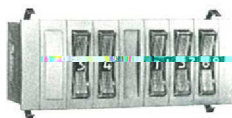
1 - Switch module: allows data to be entered in coded forms.

2 - End caps: form the end pieces of a bank of switch modules and hold the bank in place in a panel.

3 - Separator module: allows 2 banks of switch modules to be combined into a single block.

4 - Spacer: non-working module which may have to be inserted in a bank of modules in certain cases.

5 - Coded blank module: allows two separate circuits to be switched simultaneously from a single actuator. It is actuated from the adjoining module via coupling shaft.



Mounting in panels

Mounted from front :

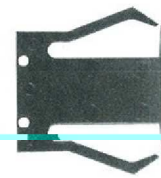
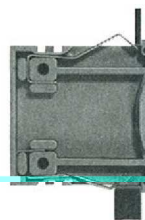
84 210 211 212

By spring clips (supplied in pairs) which have to be fitted to end caps or separator modules.

Clips can be fitted in either of two positions to suit thickness of panel.

84 214

By clips built into caps.



Colours of modules and wheels

Grey modules

Black wheels numbered in white.

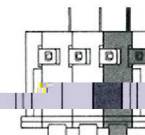
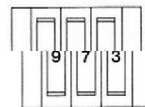
Lockout stops

These fix a range of numbers available for setting to, between two range-end numbers to be specified when ordering.

If required, the range-fixing operation can be carried out by the user.

Switch output

Standard model: output on right

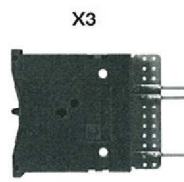
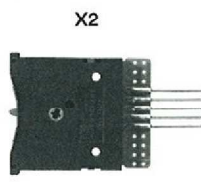
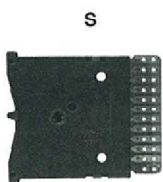


Connections

S for soldering wires straight to switch or plugging connector onto switch

X2 By wire-wrap tags

X3 By solder tags to printed circuit



Connectors for 84 210 - 211 - 212

W2 Solder tags to printed circuit

X2 Wire-wrap tags

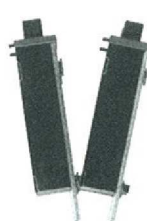
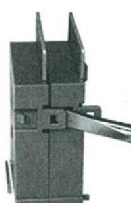
X3 Solder tags to printed circuit



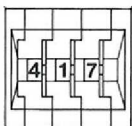
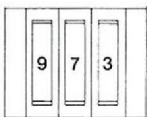
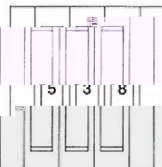
Connecting modules (to form banks)

84 210 - 211 - 212

84 214

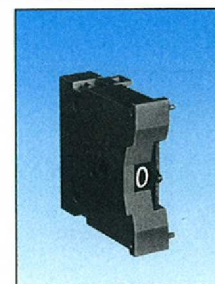


Guide to selecting a thumbwheel switch

Presentation	Type	Pitch (mm)	Overall height (mm)	Digit dimensions (mm)	Method of setting	Mounted from front	Codes									
							Decimal	BCD	BCD + complement	Change over	BCD complement	BCD excess 6 + complement	Special two pole plus/minus	Kelvin Valley	Hexadecimal BCD + complement	Hexadecimal BCD
	84 210	8	33	4,5 x 2,8	Starwheel	•	•	•	•	•	•	•	•	•	•	•
	84 211	10	33	4,5 x 2,8	Rocker	•	•	•	•	•	•	•	•	•		
	84 212	12,5	59	6 x 3,75	Rocker	•	•	•	•	•	•	•	•	•		
	84 214	7,62	24	4 x 2,5	Rocker	•	•	•	•	•	•					

Standard products
non stocked

Thumbwheel switches



Electrical characteristics

Operating voltage	$U, I \rightarrow 50V \sim$ $0,1 \rightarrow 50 V_{DC}$
Nominal load current	$0,1 \rightarrow 100 mA$
Max. non-switchable current	1 A
Max. internal resistance	120 m Ω
Min. insulation resistance	$10^5 M \Omega$
- between tracks	600 V~
- between tracks	2500 V~

Mechanical characteristics

Life (operations)	10^6
Vibration resistance under NFC 20616	2000/10

Environmental characteristics

Operating temperature	- 25 + 70°C
Storage temperature	- 40 + 85°C

Standard codes

		M01										
Type of tracks		C	0	1	2	3	4	5	6	7	8	9
A	M01*	1	11	10	9	8	7	6	5	4	3	2
	M01	12	11	10	9	8	7	6	5	4	3	2
B	0		●	●								
	1		●		●							
	2		●			●						
	3		●				●					
	4		●					●				
	5		●						●			
	6		●							●		
	7		●								●	
	8		●									●
	9		●									

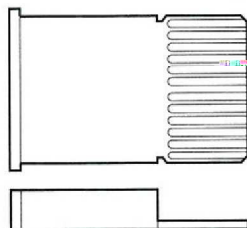
		M02				
Type of tracks		C	1	2	4	8
A	M02*	1	9	7	5	3
	M02	9	8	7	6	5
B	0					
	1	●	●			
	2	●		●		
	3	●			●	
	4	●				●
	5	●				
	6	●			●	
	7	●	●	●		
	8	●				●
9	●	●				

Output layout

A - Position on printed circuit

B - Dial setting

* For 84 214 only



Features

Miniature, starwheel

Compatible with display module

Front mounting

Types

Standard 10-position module **84 210 0**

Standard codes

Decimal	M 01	•
B.C.D.	M 02	•

Circuits

Short **C** •

Case

Wheels

Grey **G** Black **N** •

Connections

For soldering or for connector **S** •

Mounting accessories

Pair of end caps (with clips)	Grey	JE/G	79 211 709
Spacer	Grey	MI/G	79 211 738
Separator module	Grey	MS/G	79 211 752

Connectors

Solder terminals **W2** **25 625 493**

Wire-wrap terminals without lugs **X2** **25 625 495**

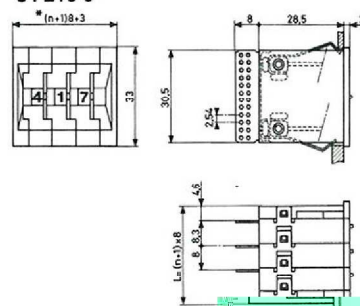
For soldering to printed circuit **X3** **25 625 495**

Mechanical characteristics

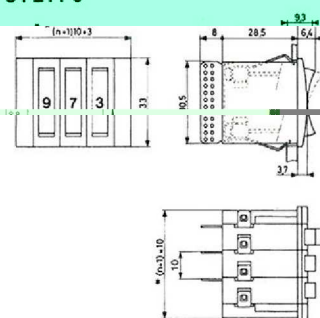
Operating force	N	3
Digit dimensions (H x L)	mm	4,5 x 2,8
Weight	g	5,5

Dimensions

84 210 0

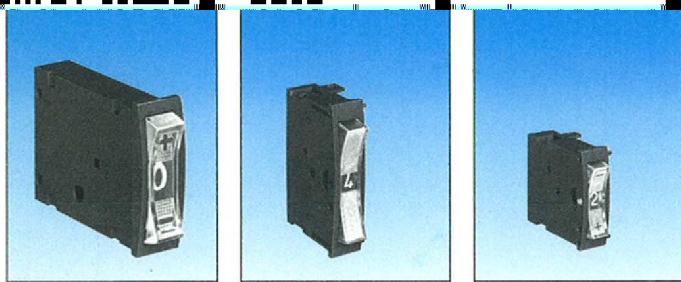


84 211 0



Other information

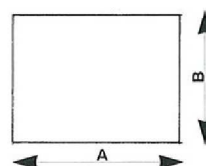
Other version, codes, colors, case, wheels : please enquire.



Miniature rocker Large rocker Subminiature rocker

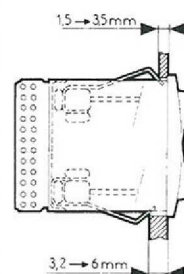
84 217	—	—
•	•	•
84 211 0	84 212 0	84 214 0
•	•	•
•	•	•
•	•	•
•	•	•
•	•	•
79 211 823	79 211 923	79 214 282
79 211 814	79 211 914	79 214 219
79 211 824	79 211 924	
25 625 493	25 625 493	
25 625 494	25 625 494	
25 625 492	25 625 492	
25 625 495	25 625 495	
5	4	5
4,5 x 2,8	6 x 3,75	4 x 2,5
7,5	14	3,5 → 4

Panel cut-out



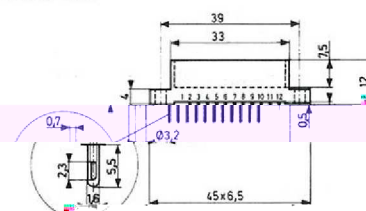
	A	B
84 210	$(n+1) 8 + J$	31
84 211	$(n+1) 10 + J$	31
84 212	$(n+1) 12,5 + J$	54
84 214	$(n \times 7,62) + 35$	22,5

Panel thickness

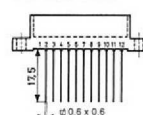


Connector dimensions

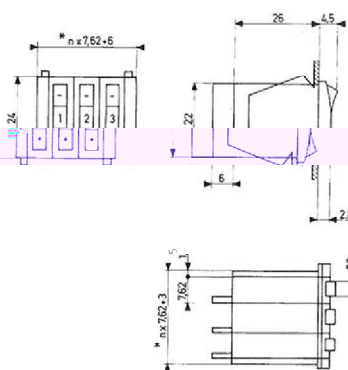
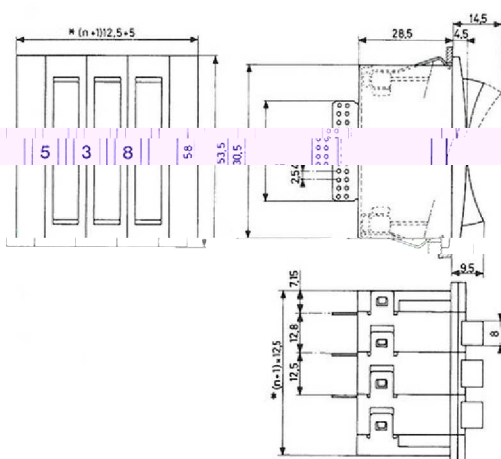
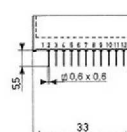
25 625 493



25 625 492 25 625 494



25 625 495



Output
Pitch 2 for decimal
Pitch 5 for BCD

* n = number of modules
J = Clearance : 1 mm for $1 \leq n \leq 10$
15 mm for $11 \leq n \leq 20$

To order, specify :

- | | |
|----------------------|----------------------|
| 1 Type | 2 Code |
| 3 Connections | 4 Accessories |
| 5 Connectors | |

Example : Selector switch 84 210 0 M 01 C G N S - accessories 79 211 709 - connector 25 625 494

Standard products
not stocked