

New!

Capacitive switches for underlay applications

Specifications



- Activated by the touch of a finger**
Even with surgeon gloves
- 50 million cycles**
- Auto-calibration function**
Ensures the sensor adapts to changing external environments
- Mounting under max. 6 mm glass or 4 mm polycarbonate panels**

ENVIRONMENTAL SPECIFICATIONS

- Triggered by flowing water
- Temperature range : -40°C to +70°C
- Adhesive and connector resistant to vibrations

MATERIALS

- Case : ABS
- Sealing : epoxy

ELECTRICAL AND GENERAL SPECIFICATIONS

- Supply voltage : 5 to 24VDC max.
- Supply current : 15mA max. (12V)
- Max. current/voltage rating : 200mA 24VDC
- Life expectancy : 50 million cycles
- Switch resistance ON : 1 Ohm max.
- Power consumption : 10mA max. mode OFF
- Output type : NPN

**Wiring for mating connector
Harwin M30-1100400**

- Pin 1 : output
- Pin 2 : GND
- Pin 3 : +LED
- Pin 4 : +VCC

Mating harness (connector + wires) available : see «Accessories» at the end of the series.

Wiring diagrams

	Non-illuminated	Illuminated 1 LED	
		Output indicator	Independent
OFF-ON OFF - MOM			



This switch should not be used in safety applications.

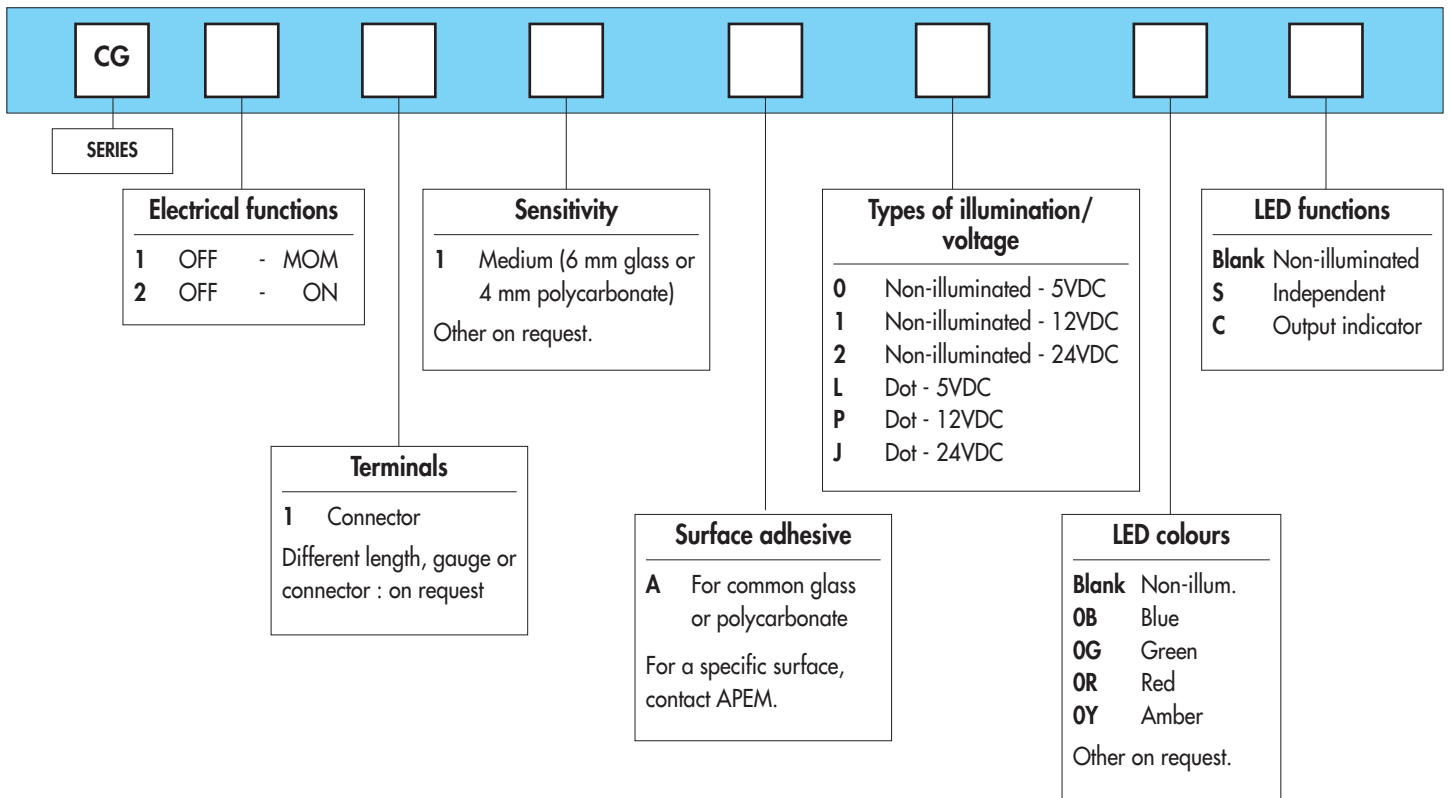


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Dimensions : first dimensions are in mm while inches are shown as bracketed numbers.



NOTICE : please note that not all combinations of above numbers are available. Refer to the following pages for further information.



Packaging unit : 20 pieces

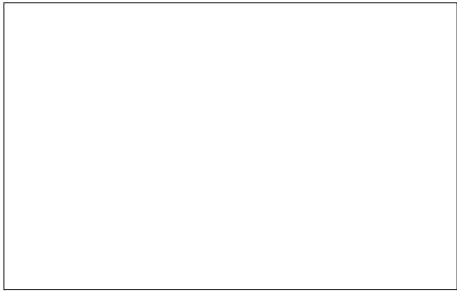


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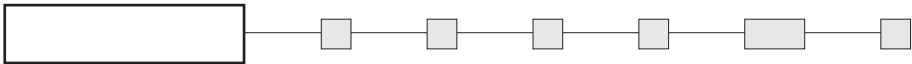
Capacitive switches for underlay applications

Illuminated or non-illuminated




- Momentary or latching

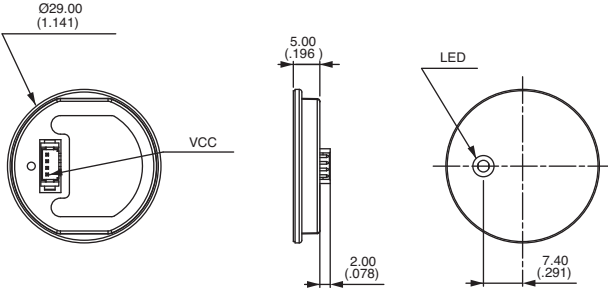
MODEL STRUCTURE



B2

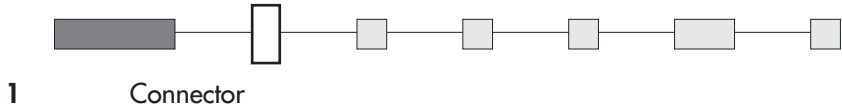


Momentary CG1	OFF - ON
Latching CG2	OFF - ON

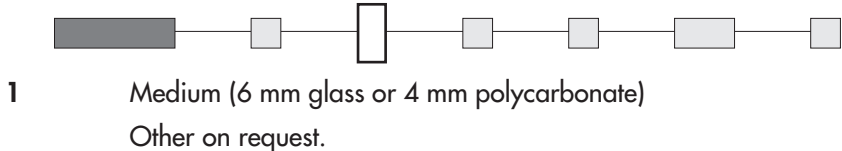


For connector wiring, see "Specifications" page.

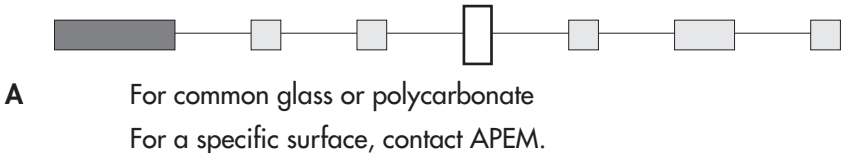
TERMINALS



SENSITIVITY



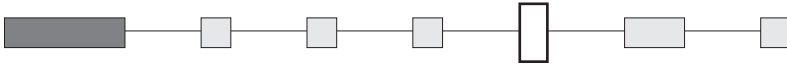
SURFACE ADHESIVE



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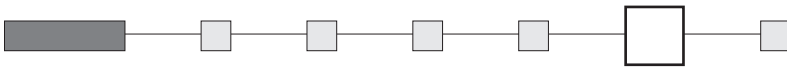
Options

TYPE OF ILLUMINATION



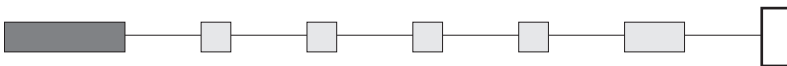
- 0** Non-illuminated - 5VDC
- 1** Non-illuminated - 12VDC
- 2** Non-illuminated - 24VDC
- L** Dot - 5VDC
- P** Dot - 12VDC
- J** Dot - 24VDC

LED COLOURS



- Blank** Non-illuminated
 - OB** Blue
 - OG** Green
 - OR** Red
 - OY** Amber
- Other on request.

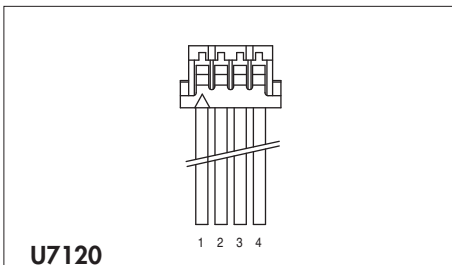
LED FUNCTION



- Blank** Non-illuminated
- S** Independent
- C** Output indicator

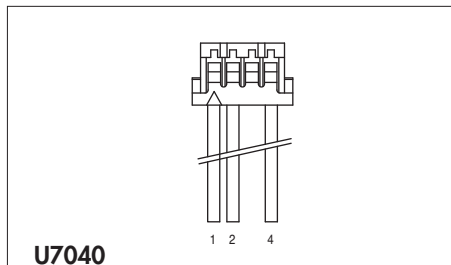
ACCESSORIES

Order separately.



U7120

Mating harness for independent LED (version S)



U7040

Mating harness for all other versions

Connector : Harwin M30-1100400
Wires : AWG28, 150 mm











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Pushbutton switches

								
Series	ZP	SMT TP	TP	9500	PHAP40	SP	8000	9400/9600
Page	B2-2	B2-4	B2-6	B2-12	B2-20	B2-22	B2-28	B2-34
Poles	1	1	1,2	1	2	1,2	1,2	1
Maximum current	500mA 48VDC	0,4VA 20V AC/DC	0,5A 48V AC/DC	100mA 30VDC	100mA 30VDC	1A 30VDC	(3A 250VAC)* 4A 30VDC	1A 30VDC
Bushing dimension								
Ø4 (.157)				X				
Ø4,83 (10-48)	X							
Ø6,35 (1/4)						X	X	X
Ø11,9 (15/32)							X	
Ø16 (.629)								X
Mounting options								
Horizontal SMT		X						
Vertical right angle SMT		X						
Vertical Through hole	X		X	X	X	X	X	X
Horizontal Through hole			X			X	X	
Vert. right angle Thr. hole			X	X		X		
Panel	X			X		X	X	X
Terminal options								
PCB	X	X	X	X	X	X	X	X
Solder lugs	X			X			X	X
Quick-connect								X
Sealing	No	Process	Process	Optional	No	Process	Optional	Optional

() * See applicable approvals

								
Series	10400	13000	13000X778	18000	IT	1200	1400	4700/4800
Page	B2-42	B2-44	B2-52	B2-63	see website	B2-107	B-114	B-117
Poles	1,2	1,2	2	1,2	2	1	1	1,2
Maximum current	3A 24VDC	4A 30VDC *2A 250VAC)*	4A 30VDC	7A 30VDC	1,5A 250VAC	(4A 250VAC)* 4A 24VDC	6A 12VDC	(3A 250VAC)*
Bushing dimension								
Ø6,35 (1/4)		X		X				
Ø10 (.393)	X							
Ø11,9 (15/32)		X	X					
Ø 12 (.472)						X		X
Mounting options								
Vertical Through hole		X	X	X			X	X
Horizontal Through hole		X		X	X			
Vert. right angle Through hole				X				
Panel	X	X	X	X		X	X	X
Snap-in				X			X	
Terminal options								
PCB		X	X	X				
Solder lugs	X	X	X	X		X		X
Quick-connect						X		X
Screw						X		
Sealing	No	Optional	IP67	No	No	No	No	No



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Pushbutton switches

	<i>New!</i> 	<i>New!</i> 		<i>New!</i> 	<i>New!</i> 			
Series	CG	CP	PBA	FP	MP	LPI		
Page	B2-120	B2-125	B2-129	B2-145	B2-150	B2-156		
Poles	1 NPN	1 NPN	1	1,2	1,2	1		
Maximum current	200mA 24VDC	200mA 24VDC	1A 24VDC	200mA 12VDC	20mA 5VDC	5A 12VDC 100mA 12VDC		
Illuminated	X	X	X	X		X		
Bushing dimension								
Ø15,20 (.598)					X			
Ø16 (.629)		X	X					
Ø19 (.748)		X	X					
Ø22 (.866)		X	X					
Ø24 (.944)				X				
Ø38 (1.496)						X		
Ø44 (1.732)						X		
Mounting options								
Panel	X	X	X	X	X	X		
Terminal options								
Solder lugs				X				
Screw						X		
Flying leads		X	X					
Cable		X	X	X				
Connector	X	X			X			
Sealing	N/A	IP68, IP69K	IP68,IP69K	No	IP68	IP53		

«|» range selection guide : page 7
 AV series selection guide : page 10

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AV series

								
Page	B2-78	B2-79	B2-80	B2-81	B2-83	B2-86	B2-87, B2-100	B2-89
General specifications								
Anti-vandal (IK08/IK10)	X	X						
Security			X	X		X	X	X
Approval (optional)	UL/CSA	UL/CSA			UL/CSA			
Sealing	Up to IP65	Up to IP65	Up to IP65	Up to IP65	Up to IP65	IP65, IP69K	Up to IP67	Up to IP65
Illumination							X	X
Marking					X			
Electrical specifications								
Maximum current	2A 48VDC (4A 250VAC)*	2A 48VDC (4A 250VAC)*	0,2A 48VDC	1A 24VDC	2A 48VDC (4A 250VAC)*	5A 15VDC 5A 250VAC	1A 30VDC	2A 48VDC
Momentary (NO)	X	X			X			
Momentary (NO) tactile			X					
Momentary (NO/NC)						X	X	
Latching				X				X
Diameter and shape								
Ø 16 (.629)	Flat		AV063	AV061				
	Curved		AV163	AV161				
Ø 19 (.748)	Flat	AV09			AV09	AV19LP	AV9	AV09..EA
	Curved	AV19			AV19	AV19LB		AV19..EA
Ø 22 (.866)	Flat		AV03				AV3	
	Curved		AV02					

() * See applicable approvals

								
Page	B2-91	B2-93, B2-95	B2-97	B2-98	B2-98	B2-102	B2-104	B2-106
General specifications								
Security	X	X	X	X	X	X	X	X
Approval (optional)			UL/CSA					
Sealing	Up to IP65	Up to IP67, IP69K	Up to IP65	Up to IP65	Up to IP65	Up to IP65	IP65	IP65
Illumination	X	X				X		
Marking	X	X		X	X			
Electrical specifications								
Maximum current	50mA 24VDC	50mA 24VDC	2A 48VDC (4A 250VAC)*	2A 250VAC	3(1,5)A 250VAC	2A 48VDC	5A 250VAC	5A 250VAC
Momentary (NO)			X					
Momentary (NC)				X				
Momentary (NO) tactile	X	X	Mom. (NO)					
Momentary (NO/NC)							X	X
Latching						X		
Alternate action					X			
Diameter and shape								
Ø 19 (.748)	Flat	AV09C7	AV9S					
	Curved	AV19C7						
Ø 22 (.866)	Flat		AV3S	AV03	AV031200	AV044700	AV03..EA	AV22LP
	Curved			AV02	AV021200		AV02..EA	AV22LB
Ø 24 (.944)	Flat							AV22PNA
	Concave							



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