

# Selection guide - Section B1 ermec@ermec.com

## «I» range

	<i>New!</i> 	<i>New!</i> 	<i>New!</i> 			<i>New!</i> 	<i>New!</i> 	<i>New!</i> 
Series	IC	IL	IM	IP mom. & latching	IB-IS	IHS hall effect	IHL hall effect	IQ momentary
Page	<b>B1-2</b>	<b>B1-6</b>	<b>B1-11</b>	<b>B1-15</b>	<b>B1-25</b>	<b>B1-29</b>	<b>B1-32</b>	<b>B1-35</b>
Poles	1	1	1	1	1	1 NPN	1	1
Maximum current	5A 28VDC	2A 24VDC	3A 28VDC	5A 28VDC 4A 12VDC	100mA 24VDC	5mA 24VDC	1,25mA 4,5VDC	4A 28VDC
Illuminated		X		X				X
Bushing dimension								
Ø12 (.472)	X	X	X	X	X	X	X	
Ø16 (.629)								X
Mounting options								
Panel	X	X	X	X	X	X	X	
Snap-in					X			X
Terminal options								
PCB	X	X	X	X	X			X
Solder lugs	X	X		X	X			X
Quick-connect	X		X	X	X			X
Screw								X
Flying leads	X	X		X		X	X	X
Sealing	IP67	IP67	IP67	IP67	IP54 or IP67	IP67	IP67	IP54

	<i>New!</i> 							
Series	IQ latching	IZ metal	IZ plastic	IR standard	IR microswitch	IR latching	IA	IF
Page	<b>B1-42</b>	<b>B1-48</b>	<b>B1-58</b>	<b>B1-66</b>	<b>B1-73</b>	<b>B1-79</b>	<b>B1-85</b>	<b>B1-88</b>
Poles	1	1	1	1	1	1	1	1
Maximum current	100mA 24VDC	4A 48VDC 100mA 24VDC	4A 48VDC 100mA 24VDC	4A 48VDC	5A 250VAC	100mA 24VDC	2A 24VDC	100mA 48VDC
Illuminated	X	X	X	X	X	X		
Bushing dimension								
Ø12 (.472)								
Ø16 (.629)	X	X	X	X	X	X	X	X
Mounting options								
Panel		X	X	X	X	X	X	X
Snap-in	X							X
Terminal options								
PCB	X	X	X	X		X		
Solder lugs	X	X	X	X		X		
Quick-connect	X	X	X	X	X	X		X
Screw		X	X	X				
Flying leads	X	X	X	X		X	X	
Sealing	IP54	IP67	IP67	IP67	IP67	IP67	IP67	IP67





- Resistant to frost, sand and hydrocarbons
- Tactile feedback
- Front panel sealed to IP67

### ENVIRONMENTAL SPECIFICATIONS

- Front panel sealing (see drawing opposite) : IP67
- Salt spray : IEC 512-6, test 11f
- Operating temperature : -20°C to +65°C

### ELECTRICAL AND GENERAL SPECIFICATIONS

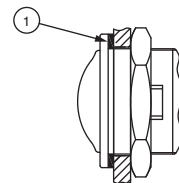
- Max. current/voltage rating with resistive load : 2A 24VDC
- Initial contact resistance : 100mΩ max.
- Insulation resistance : 100 MΩ min. at 500VDC
- Dielectric strength : 500 Vrms
- Electrical life at full load : 1.000.000 cycles
- Panel thickness : 7 mm (.276) max.
- Total travel : 1,5 mm (.059) +/- 0,3 mm
- Typical operating force : 7N +/- 2N
- Low level or mechanical life : 1.000.000 cycles
- **Torque : 0,5 to 1Nm max. applied to nut**

### MATERIALS

- Case/bushing : thermoplastic
- Actuator : polyurethane
- Contacts : silver, gold plated
- Multi-wire lead AWG20, section 0,6 mm<sup>2</sup>.
- Terminal seal : epoxy

### PANEL MOUNTING

① Flat seal



IA							
<b>SERIES</b>	<b>Actuator shape</b>	<b>Electrical functions</b>	<b>Terminals</b>	<b>Contacts</b>	<b>Actuator colours</b>	<b>Case colour</b>	
	R round	3 Normally open (NO) 5 NC/NO combined	F Flying leads	1 Silver, gold plated	1 Blue 2 Black 3 Green 5 Yellow 6 Red 7/1 White 9 Orange	00 Black	

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



A **sealing boot** is available to protect the switches against frost and sand. See end of this catalogue.



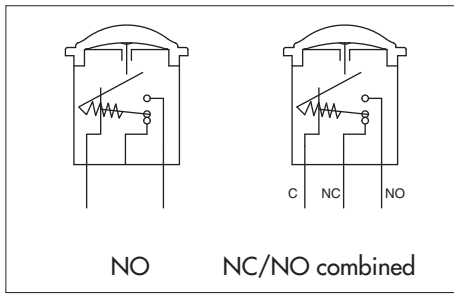
**Mounting accessories :** Standard hardware supplied : 1 hex nut 19 mm (.748) across flats and 1 flat seal. Knurled nut U3327 available on request.



**Packaging unit :** 25 pieces



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- Panel cut-out Ø 16,2 mm (.657)
- Min. pitch for matrix mounting :
  - with standard hex nut : 27 x 27 mm (1.062 x 1.062)
  - with knurled nut U3327: 20 x 20 mm (.787x.787)

**MODEL STRUCTURE**



NO model has 2 terminals only.

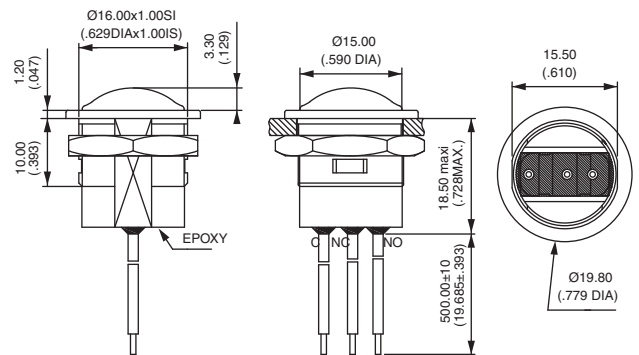
**Models**



Normally open (NO)  
**IAR3F**



NC/NO combined  
**IAR5F**



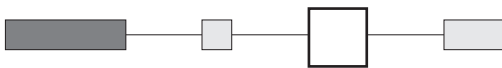
Wire colours (NC/NO) : black = common, brown = NC, blue = NO

**CONTACT MATERIAL**



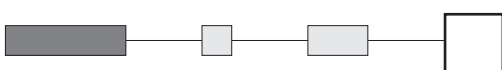
**1** Silver, gold plated

**ACTUATOR COLOURS**



**1** : blue - **2** : black - **3** : green - **5** : yellow - **6** : red - **7/1** : white - **9** : orange

**CASE COLOUR**



**00** : black

