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SW-IRMOM-1801

IR series

Sealed pushbutton switches • bushing Ø 16 mm • momentary • standard version



DISTINCTIVE FEATURES

Screw version up to 4 A
Tactile feedback
Sealed to IP67
Illuminated or non-illuminated
Flat round actuator for optional marking



ENVIRONMENTAL SPECIFICATIONS

- Front panel sealing : IP67 according to IEC 60529
- Shock resistance : 100 g according to IEC 512-4, test 6c
- Vibration resistance : 10-500Hz - 10 g according to IEC 512-4, test 6d
- Salt spray : IEC 512-6, test 11f
- Operating temperature : -40°C to +85°C (-40 °F to +185 °F)

ELECTRICAL SPECIFICATIONS

- Max. current/voltage rating with resistive load :
  - Gold plated contacts: Code 4 : 200 mA 48 VDC, 500,000 cycles
    Code 7 : 5 A 28 VDC, 70,000 cycles
  - Silver contacts (code 2) - screw terminals : 4 A 48 VDC, 500,000 cycles
- Initial contact resistance : 100 mΩ max.
- Insulation resistance : 1 GΩ min. at 500 VDC
- Dielectric strength : 1,500 Vrms

LED COMPONENT SPECIFICATIONS

LED color	Forward current	Typ. forward voltage	Max. forward voltage
Super red (0S)	20 mA	2.1 V	2.3 V
Yellow (0Y)	20 mA	2.1 V	2.3 V
Green (0G)	20 mA	2.1 V	2.3 V
Blue (0B)	20 mA	3.2 V	3.8 V
White (0W)	20 mA	3.35 V	4.25 V
Red/Green (SG)	20 mA	Red: 1.95 V / green: 2.1 V	2.5 V
Yellow/green (YG)	20 mA	Yellow: 2 V / green: 2.1 V	2.5 V

A resistor must be series-connected by the user.

$$\text{Resistor value} = \frac{\text{supply voltage - LED forward voltage}}{\text{LED forward current}}$$

On flying lead versions, the LED resistor can be integrated by APEM on request.

The company reserves the right to change specifications without notice.

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GENERAL SPECIFICATIONS

- Panel thickness : 8 mm (.314) max.
- Total travel : 1.6 mm (.062) ± 0.3 mm
- Typical operating force : 4 N ± 2 N
- Low level or mechanical life : 1,000,000 cycles
- Torque : 0.8 Nm max. applied to nut
- Soldering : 320 °C (608 °F) max. for 3 sec.

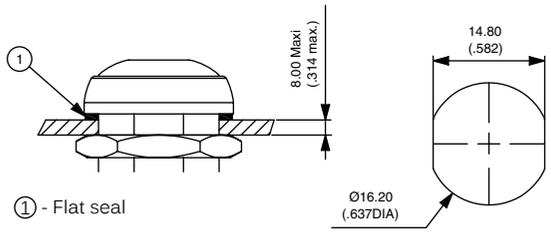
MATERIALS

- Case : thermoplastic UL94-V0
- Actuator : polyamide 6/6
- Bushing/bezel : polyamide 6/6
- Contacts : **4** and **7** : silver, gold plated
  2 : silver (screw terminals)
- Multi-wire lead AWG20, section 0.6 mm2
- LED wire : AWG26, section 0.12 mm2
- Lens : polycarbonate
- Terminal seal : epoxy

APEM products may be recycled at end-of-life for the re-claiming of valuable metal components.

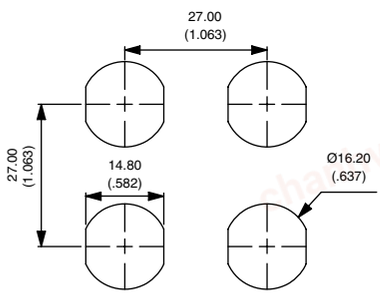
MOUNTING

PANEL CUT-OUT



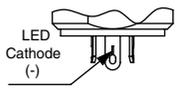
① - Flat seal

MATRIX MOUNTING

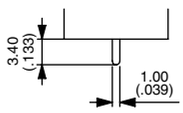


TERMINALS

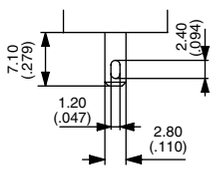
ILLUMINATED MODELS



NON-ILLUMINATED MODELS



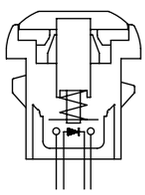
Straight **P**



Quick-connect **Z**

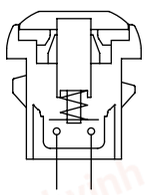
ELECTRICAL FUNCTIONS

ILLUMINATED MODELS



Function 3 (NO)

NON-ILLUMINATED MODELS



Function 3 (NO)

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IR series

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BUILD YOUR PART NUMBER

BASIC PART NUMBER

IR _ _ _

SERIES

IR

ACTUATOR SHAPES

C	Square
R	Round, curved
P	Round, flat
F	Round, flush (non-illuminated - not available in satin or bright chrome)

Actuator marking available on round flat models (symbol 12 mm max.). On request.

ELECTRICAL FUNCTION

3	Normally open (NO)

TERMINALS

S	Solder lugs
F	Flying leads
P	Straight PC
Z	Quick-connect (non-illuminated)
V	Screw (non-illuminated), silver contact only

OPTIONS

_ _ _ _ _

CONTACTS

4	Silver, gold plated (200 mA 48 VDC)
7	Silver, gold plated (5 A 28 VDC)
2	Silver (screw terminals only)

ACTUATOR COLORS

1	Blue
B	Dark blue
2	Black
3	Green
4	Grey
5	Yellow
6	Red
7	White
8	Bright chrome
9	Orange
A	Satin chrome

BUSHING & BEZEL

0	Transparent (round bezel only)
2	Black (std)
7	White

Other : on request.

ILLUMINATION

Blank	Non-illuminated
L	Central lens
B	Bezel (round only)

LED COLORS

Blank	Non-illuminated
0S	Super red
0Y	Yellow
0G	Green
0B	Blue
0W	White
SG	Red/green
YG	Yellow/green

ABOUT THIS SERIES

On the following pages, you will find successively basic part numbers of switches and options in the same order as in above chart.

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

A sealing boot is available to protect the switches against frost and sand (P/N U7125). Round models only.
See "Sealing Boot" section of website.

Mounting accessories : Standard hardware supplied : 1 hex nut 19 mm (.748) across flats and 1 flat seal. Hex nut P/N U6715.

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ROUND - ILLUMINATED SOLDER LUG TERMINALS

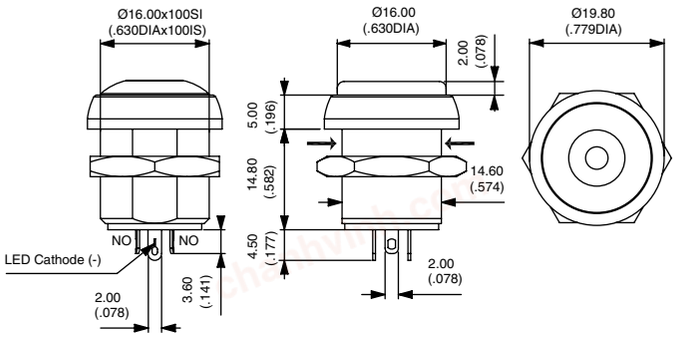


Curved actuator
IRR3S Normally Open

Flat actuator
IRP3S Normally Open

Also available with straight PC terminals : **IR•3P.**
LED color is indicated by the bottom of the switch.

→ FLAT



ROUND - ILLUMINATED FLYING LEAD TERMINALS

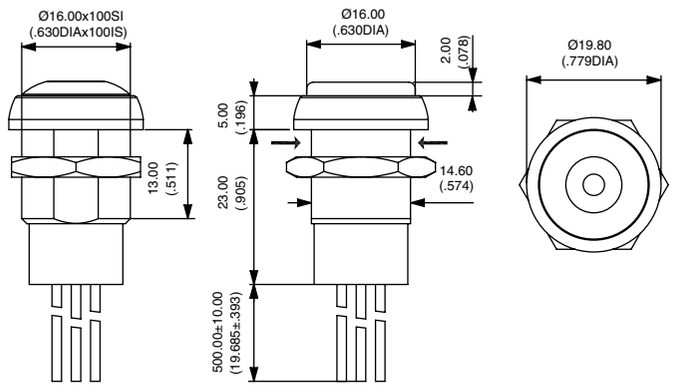


Curved actuator
IRR3F Normally Open

Flat actuator
IRP3F Normally Open

Wire colors : black : NO contact, red : LED anode (+), blue : LED cathode (-)

→ FLAT



ROUND - NON-LLUMINATED SOLDER LUG TERMINALS

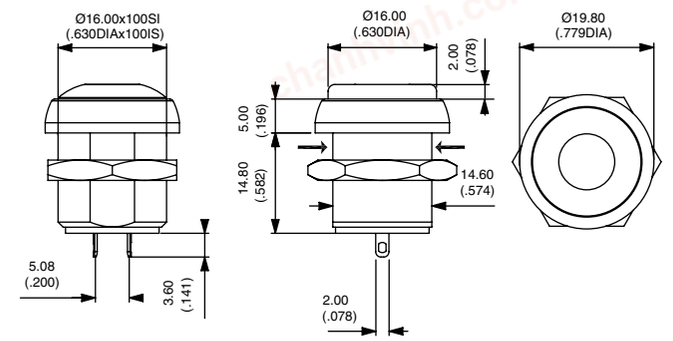


Curved actuator
IRR3S Normally Open

Flat actuator
IRP3S Normally Open

Also available with straight PC terminals : **IR•3P**
and quick-connect terminals : **IR•3Z.**

→ FLAT



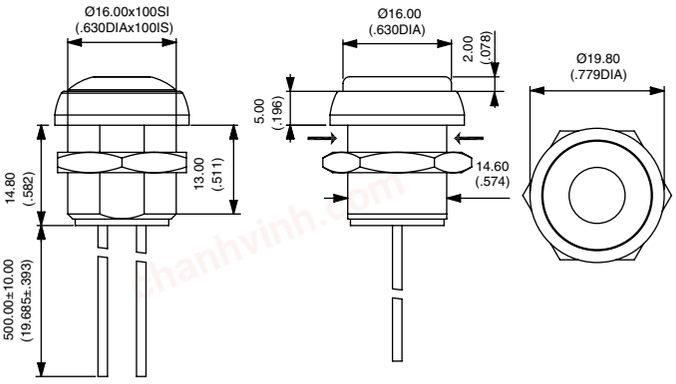
ROUND - NON-LLUMINATED FLYING LEAD TERMINALS



Curved actuator
IRR3F Normally Open

Flat actuator
IRP3F Normally Open

→ FLAT



IR series

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ROUND - NON-LLUMINATED SCREW TERMINALS



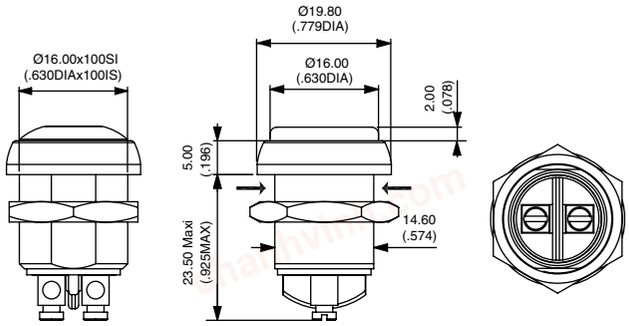
Curved actuator

IRR3V  Normally Open

Flat actuator

IRP3V  Normally Open

→ FLAT

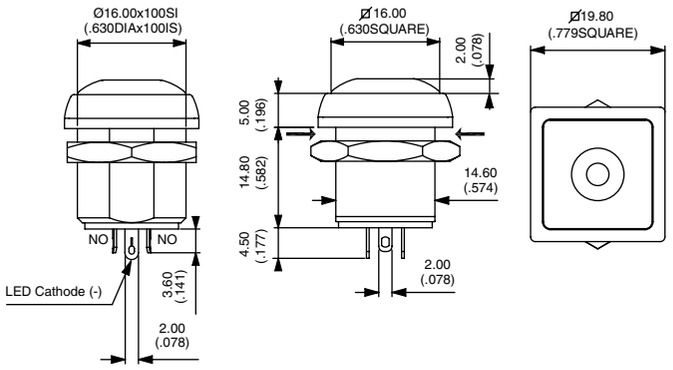


SQUARE - ILLUMINATED SOLDER LUG TERMINALS



IRC3S  Normally Open

→ FLAT



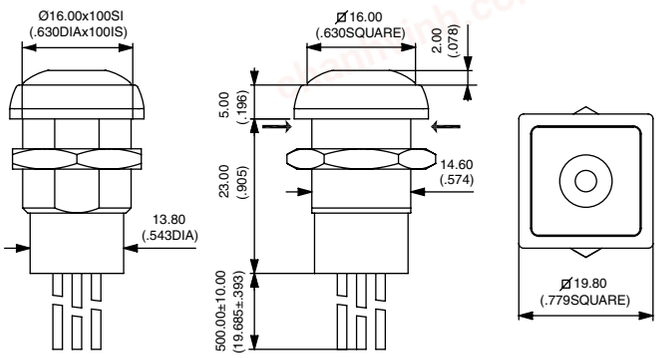
Also available with straight PC terminals : **IRC3P.**
LED color is indicated by the bottom of the switch.

SQUARE - ILLUMINATED FLYING LEAD TERMINALS



IRC3F  Normally Open

→ FLAT



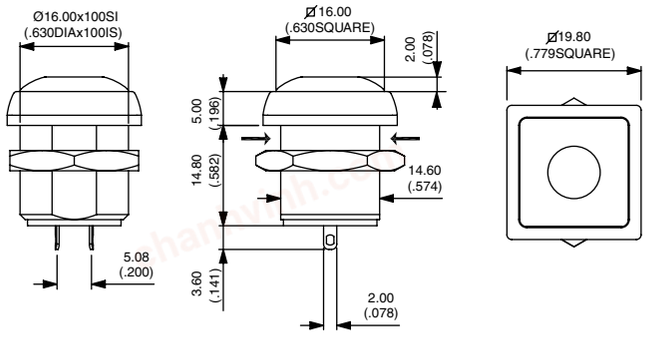
Wire colors : black : NO contact, red : LED anode (+), blue : LED cathode (-)

SQUARE - NON-ILLUMINATED SOLDER LUG TERMINALS



IRC3S  Normally Open

→ FLAT



Also available with straight PC terminals : **IRC3P**
and quick-connect terminals : **IRC3Z.**

IR series

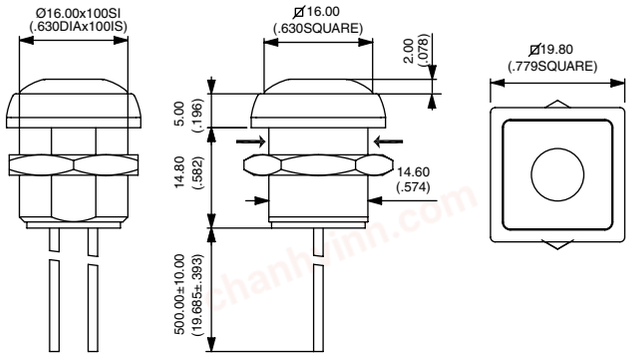
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SQUARE - NON-ILLUMINATED FLYING LEAD TERMINALS



IRC3F — Normally Open

FLAT

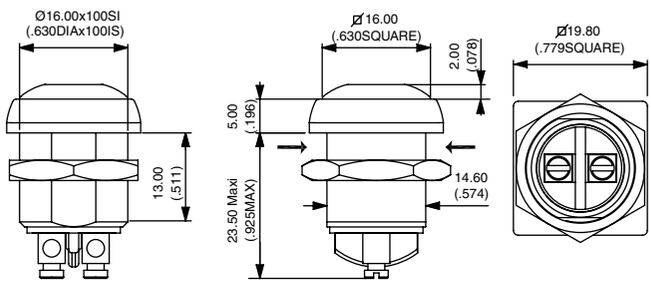


SQUARE - NON-ILLUMINATED SCREW TERMINALS



IRC3V — Normally Open

FLAT



CONTACTS

BASIC P/N

4	Silver, gold plated (200 mA 48 VDC)
7	Silver, gold plated (5 A 28 VDC)
2	Silver (screw terminals only)

ACTUATOR COLORS

BASIC P/N

1	Blue
B	Dark blue
2	Black
3	Green
4	Grey
5	Yellow
6	Red
7	White
8	Bright chrome
9	Orange
A	Satin chrome

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BUSHING AND BEZEL



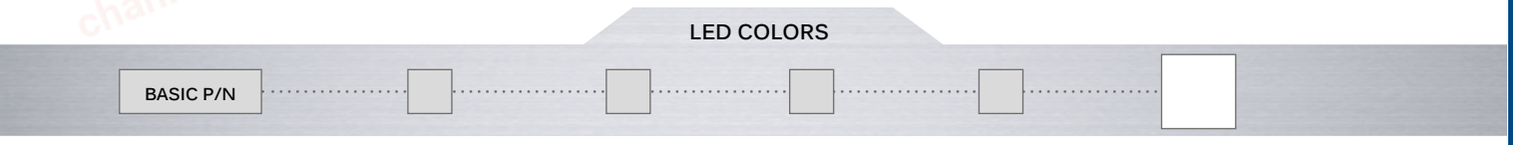
2	Black (standard)
7	White
0	Transparent (round bezel only)

ILLUMINATION



L	Central lens
B	Bezel (round only)

LED COLORS



0S	Super red
0Y	Yellow
0G	Green
0B	Blue
0W	White
SG	Red/green
YG	Yellow/green

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