

IQ series

Sealed pushbutton switches • bushing \varnothing 16 mm •
snap-in mounting • momentary



DISTINCTIVE FEATURES

- Snap-in mounting for easy installation
- Momentary models
- Illuminated or non-illuminated
- Flat round actuator for optional marking
- Sealed to IP54



ENVIRONMENTAL SPECIFICATIONS

- Front panel sealing : IP54 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 m Ω max.
- Insulation resistance : 1 G Ω min. at 500 VDC
- Dielectric strength : 1,500 Vrms



LED COMPONENT SPECIFICATIONS

LED color	Forward current	Typ. forward voltage	Max. forward voltage
Super red (LOS)	20 mA	2.1 V	2.3 V
Yellow (LOY)	20 mA	2.1 V	2.3 V
Green (LOG)	20 mA	2.1 V	2.3 V
Blue (LOB)	20 mA	3.2 V	3.8 V
White (LOW)	20 mA	3.35 V	4.25 V
Red/Green (LSG)	20 mA	Red: 1.95 V / Green: 2.1 V	2.5 V
Yellow/green (LYG)	20 mA	Yellow: 2 V / green: 2.1 V	2.5 V

A resistor must be series-connected by the user.
Resistor value = $\frac{\text{supply voltage} - \text{LED forward voltage}}{\text{LED forward current}}$

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

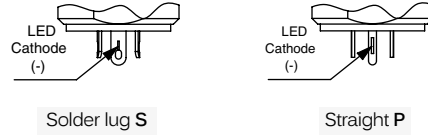
- Panel thickness :
with flat seal : 2.20 mm (.088) max.
without flat seal : 3 mm (.118) max.
- Total travel : 1.6 mm (.062) \pm 0.3 mm
- Typical operating force : 4 N \pm 2 N
- Low level or mechanical life : 1,000,000 cycles
- Soldering : 320 °C (608 °F) max. for 3 sec.

MATERIALS

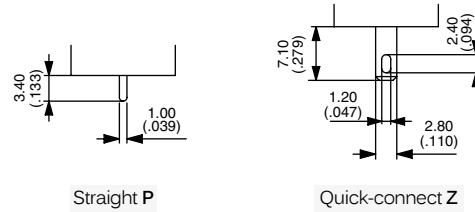
- Case : thermoplastic UL94-V0
- Actuator : polyamide 6/6
- Bushing/bezel : polyamide 6/6
- Contacts :
4 and 7 : silver, gold plated
2 : silver (screw terminals)
- Multi-wire leads AWG20, section 0.6 mm²
- LED wire : AWG26, section 0.12 mm²
- Lens : polycarbonate
- Terminal seal : epoxy

TERMINALS

ILLUMINATED MODELS

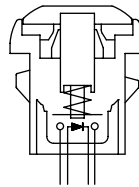


NON-ILLUMINATED MODELS



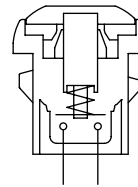
ELECTRICAL FUNCTIONS

ILLUMINATED MODELS



Function 3 (NO)

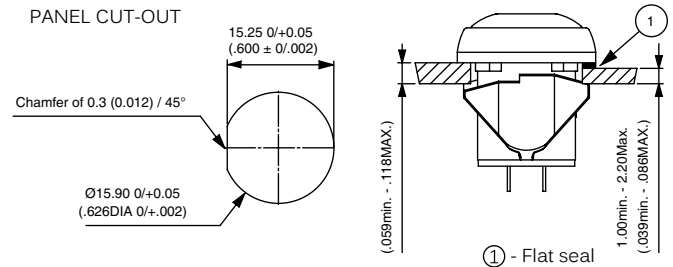
NON-ILLUMINATED MODELS



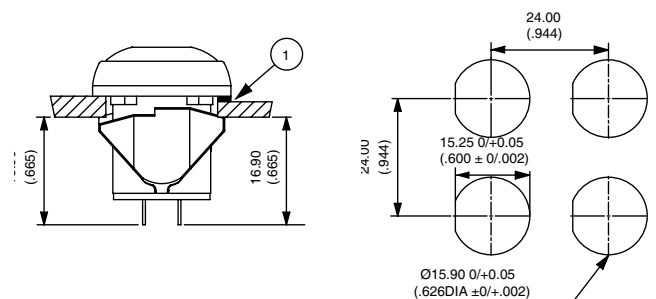
Function 3 (NO)

MOUNTING

PANEL CUT-OUT



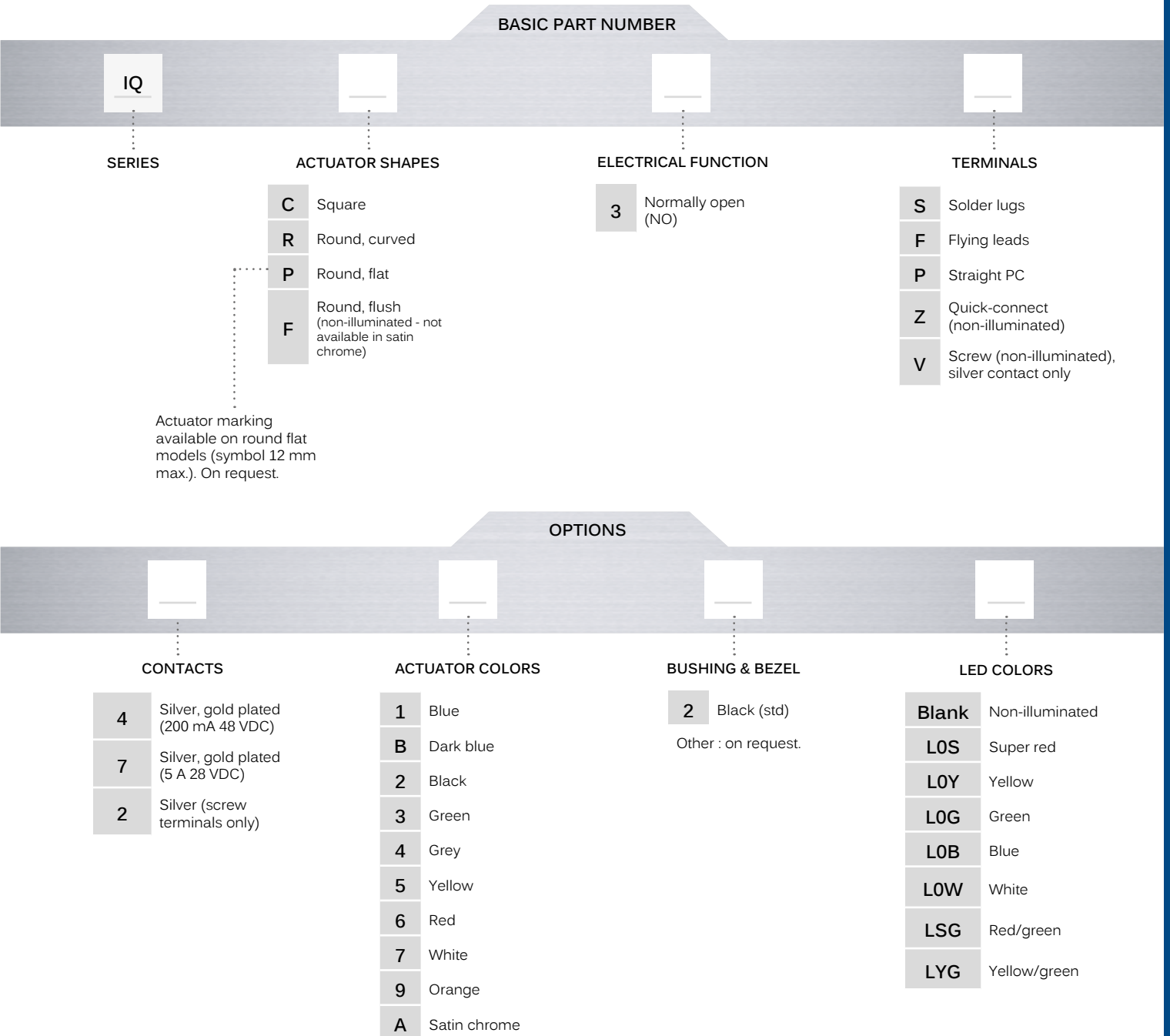
BACK OF PANEL SPACE REQUIREMENT - MATRIX MOUNTING



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BUILD YOUR PART NUMBER



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.

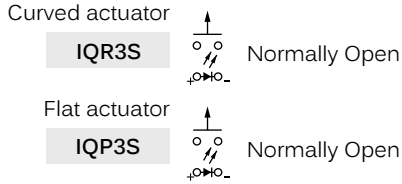


Mounting accessories : Standard hardware supplied : 1 flat seal

IQ series

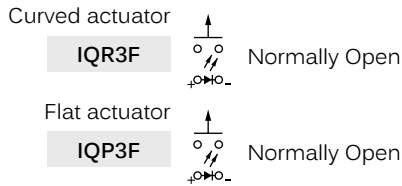
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ROUND - ILLUMINATED SOLDER LUG TERMINALS



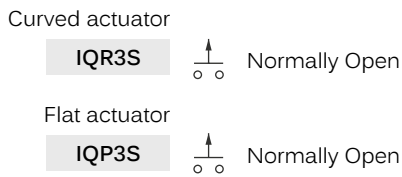
Also available with straight PC terminals : **IQ•3P4**.
LED color is indicated by the bottom of the switch.

ROUND - ILLUMINATED FLYING LEAD TERMINALS



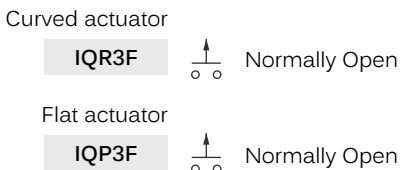
Wire colors : black : NO contact, red : LED anode (+), blue : LED cathode (-)

ROUND - NON-ILLUMINATED SOLDER LUG TERMINALS

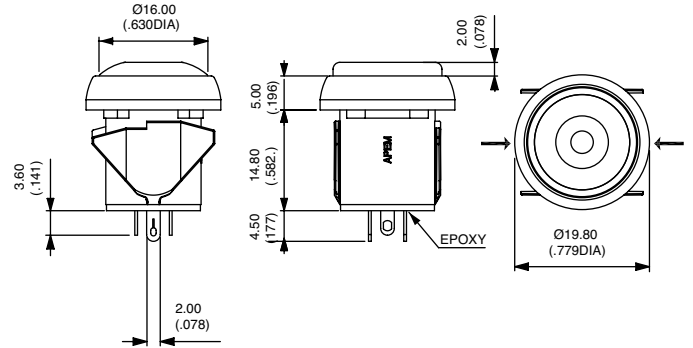


Also available with straight PC terminals : **IQ•3P4**
and quick-connect terminals : **IQ•3Z4**.

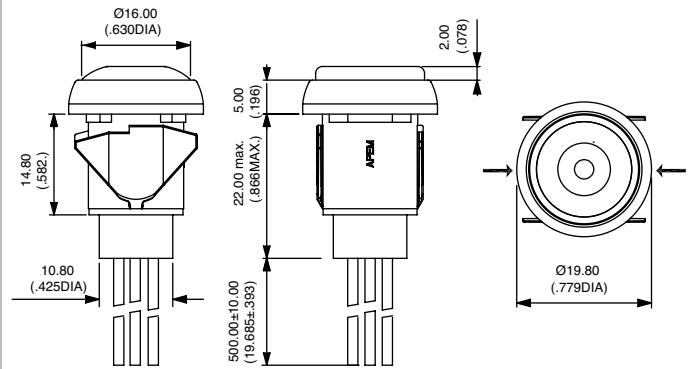
ROUND - NON-ILLUMINATED FLYING LEAD TERMINALS



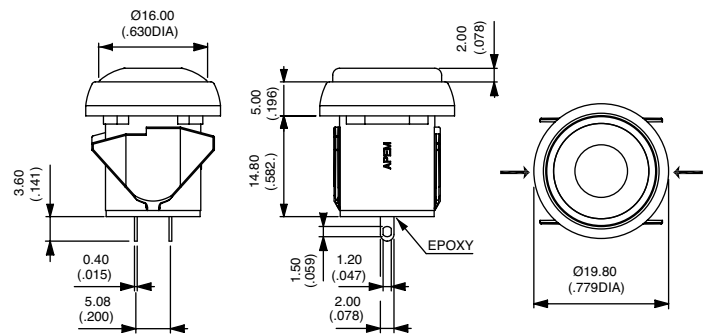
→ FLAT



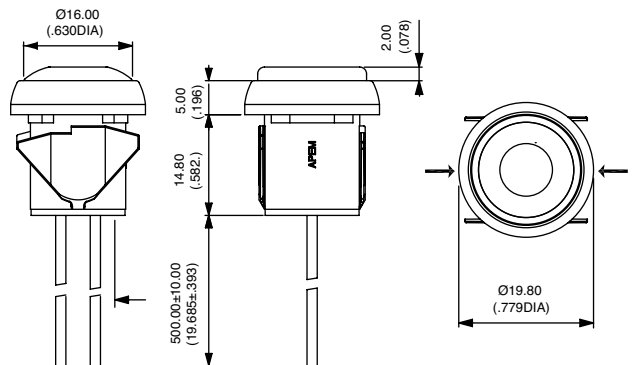
→ FLAT



→ FLAT



→ FLAT



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ROUND - NON-ILLUMINATED SCREW TERMINALS



Curved actuator

IQR3V



Normally Open

Flat actuator

IQP3V



Normally Open

SQUARE - ILLUMINATED SOLDER LUG TERMINALS



IQC3S



Normally Open

Also available with straight PC terminals : **IQC3P**.
LED color is indicated by the bottom of the switch.

SQUARE - ILLUMINATED FLYING LEAD TERMINALS



IQC3F



Normally Open

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

SQUARE - NON-ILLUMINATED SOLDER LUG TERMINALS



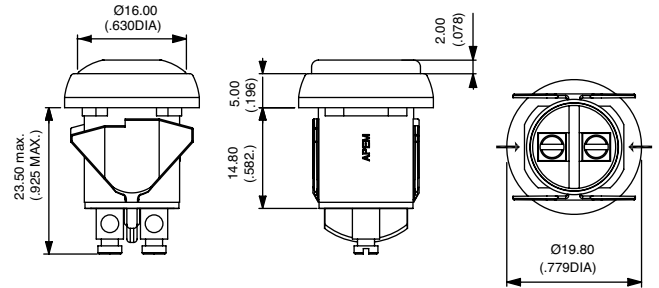
IQC3S



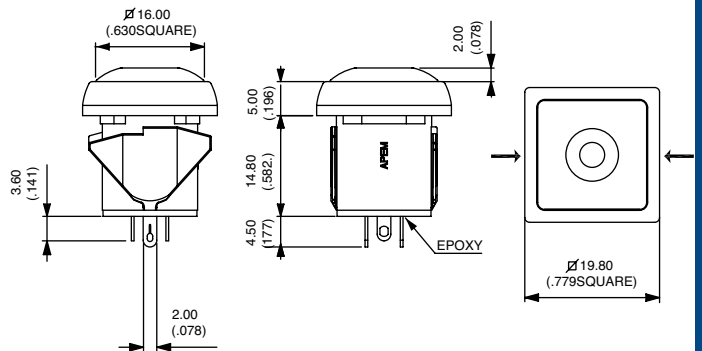
Normally Open

Also available with straight PC terminals : **IQC3P**
or quick-connect terminals : **IQC3Z**.

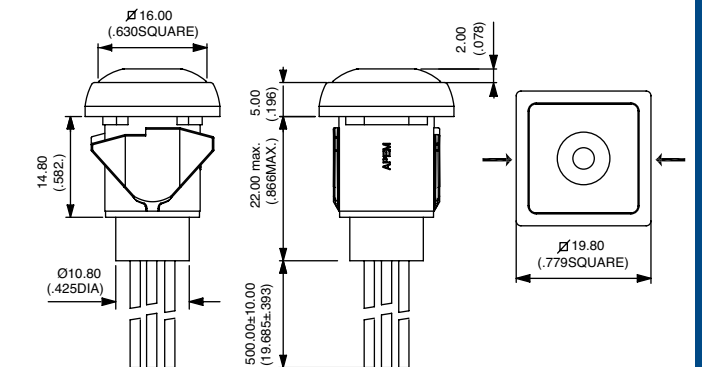
→ FLAT



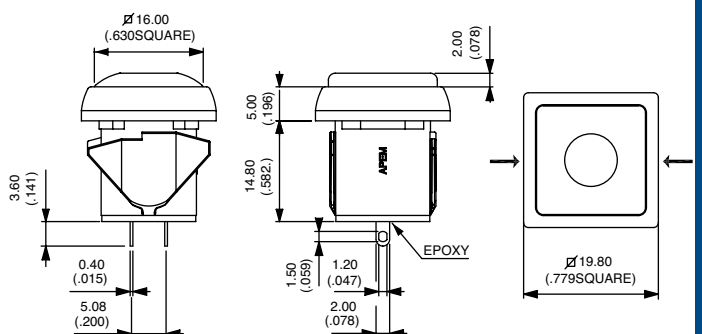
→ FLAT



→ FLAT



→ FLAT




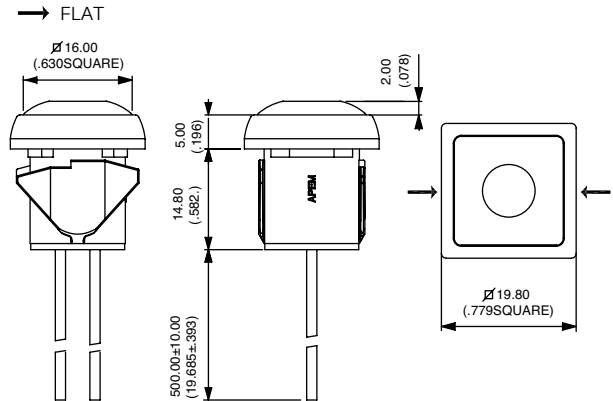
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SQUARE - NON-ILLUMINATED FLYING LEAD TERMINALS




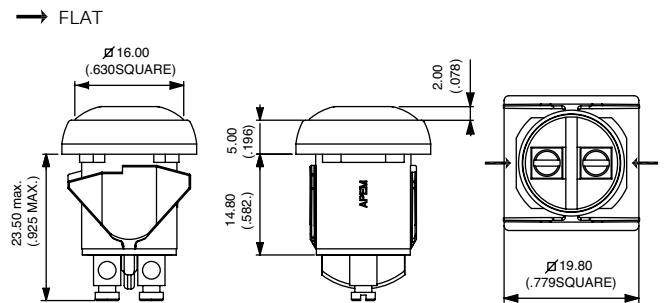
IQC3F  Normally Open



SQUARE - NON-ILLUMINATED SCREW TERMINALS



IQC3V  Normally Open



CONTACT MATERIALS

BASIC P/N



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

Contacts 4 and 7 only for solder lug and flying lead terminals.
Contacts 2 only for screw terminals.

ACTUATOR COLORS

BASIC P/N



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

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BUSHING AND BEZEL



2 Black (standard)

LED COLORS



Blank	Non-illuminated
LOS	Super Red
LOY	Yellow
LOG	Green
LOB	Blue
LOW	White
LSG	Red/green
LYG	Yellow/green