

IQ series

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



DISTINCTIVE FEATURES

- Snap-in mounting for easy installation
- Latching action 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 : 100 mA 24 VDC, 200,000 cycles
 - Code 7 : 4 A 12 VDC, 200,000 cycles
1 A 48 VDC, 200,000 cycles
3 A 48 VDC, 75,000 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 (L0S)	20 mA	1.95 V	1.95 V
Yellow (L0Y)	20 mA	2 V	2.05 V
Green (L0G)	20 mA	2.1 V	2.5 V
Blue (L0B)	20 mA	3.2 V	4 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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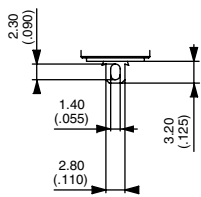
GENERAL SPECIFICATIONS

- Panel thickness :
with flat seal : 2.20 mm (.088) max.
without flat seal : 3 mm (.118) max.
- Total travel : 2.5 mm (.098) ± 0.3 mm
- Typical operating force : 5 N ± 2 N
- Low level or mechanical life : 200,000 cycles
- Soldering : 320 °C (608 °F) max. for 3 sec.

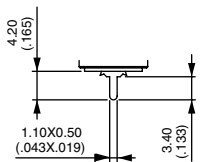
MATERIALS

- Case : thermoplastic UL94-V0
- Plunger : polyamide
- Bushing/bezel : polyamide
- Contacts : silver, gold plated (codes 4 and 7)
- Multi-wire lead AWG20, section 0.6 mm²
- LED wire : AWG26, section 0,12 mm²
- Lens : polycarbonate
- Terminal seal : epoxy

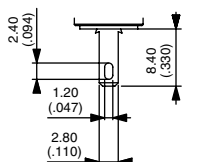
TERMINALS



Solder lug S



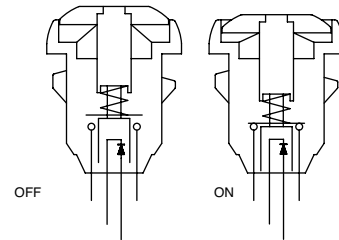
Straight P



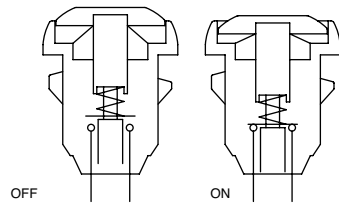
Quick-connect Z

ELECTRICAL FUNCTIONS

ILLUMINATED MODELS

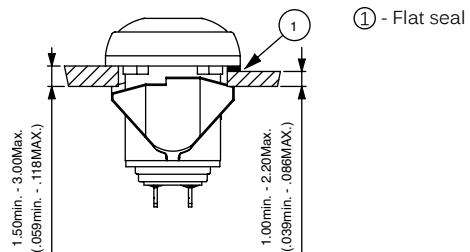
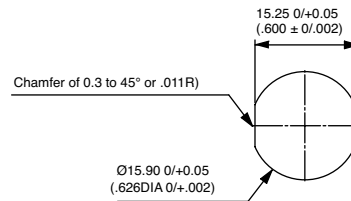


NON-ILLUMINATED MODELS



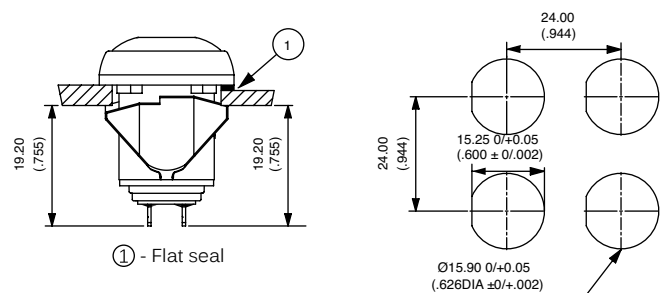
MOUNTING

PANEL CUT-OUT



① - Flat seal

BACK OF PANEL SPACE REQUIREMENT - MATRIX MOUNTING

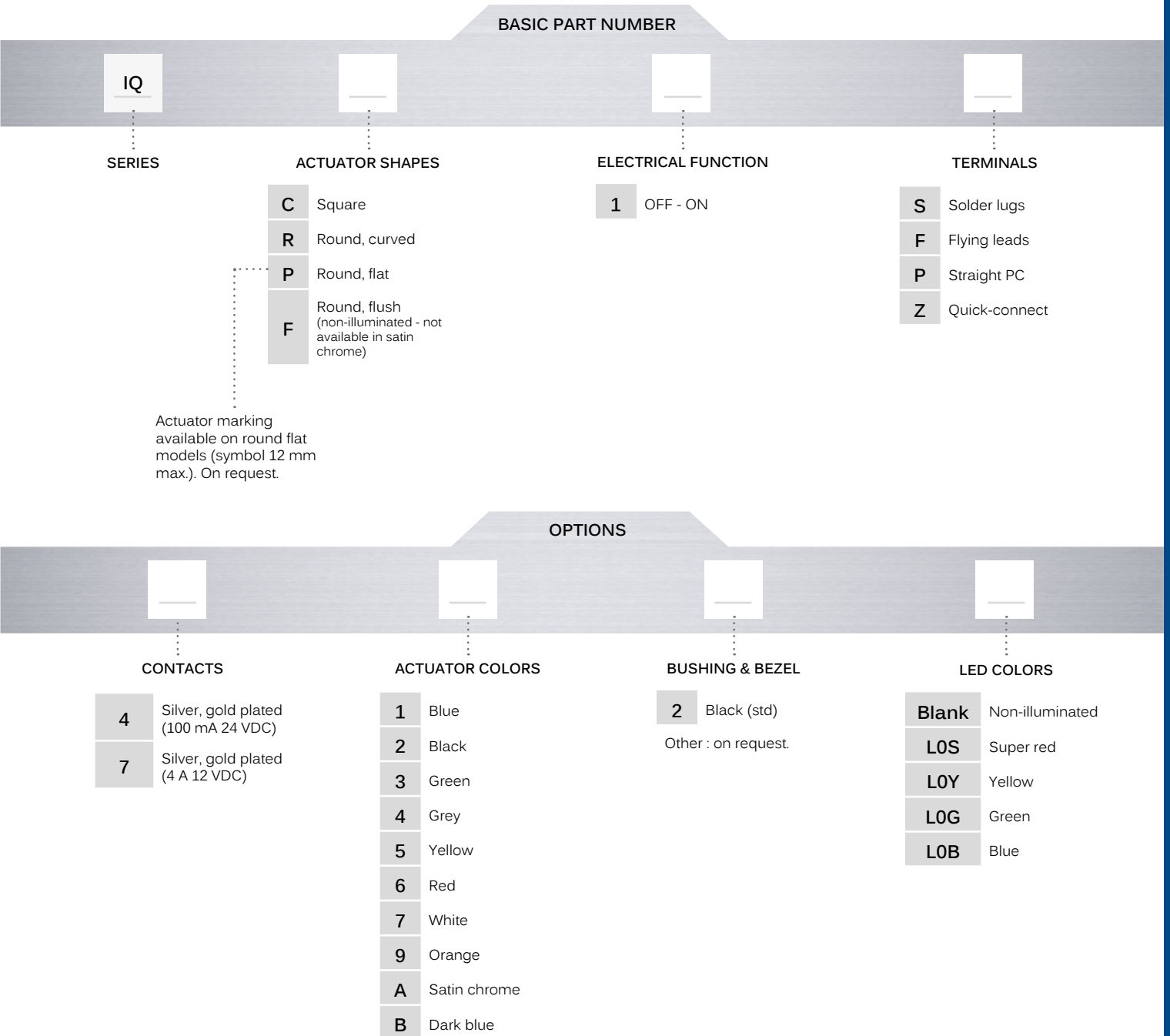


① - Flat seal

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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

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ROUND - ILLUMINATED SOLDER LUG TERMINALS



- Curved actuator
 - IQR1S** OFF - ON
- Flat actuator
 - IQP1S** OFF - ON

Also available with straight PC terminals : **IQ•1P**
and quick-connect terminals : **IQ•1Z**.

ROUND - ILLUMINATED FLYING LEAD TERMINALS



- Curved actuator
 - IQR1F** OFF - ON
- Flat actuator
 - IQP1F** OFF - ON

Wire colors : black : contact, red : LED anode (+), blue : LED cathode (-)

ROUND - NON-ILLUMINATED SOLDER LUG TERMINALS



- Curved actuator
 - IQR1S** OFF - ON
- Flat actuator
 - IQP1S** OFF - ON

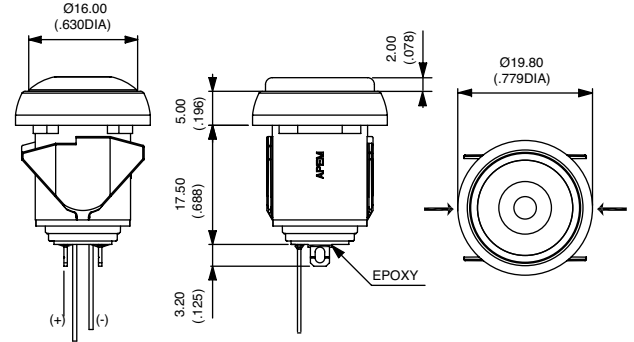
Also available with straight PC terminals : **IQ•1P**
and quick-connect terminals : **IQ•1Z**.

ROUND - NON-ILLUMINATED FLYING LEAD TERMINALS

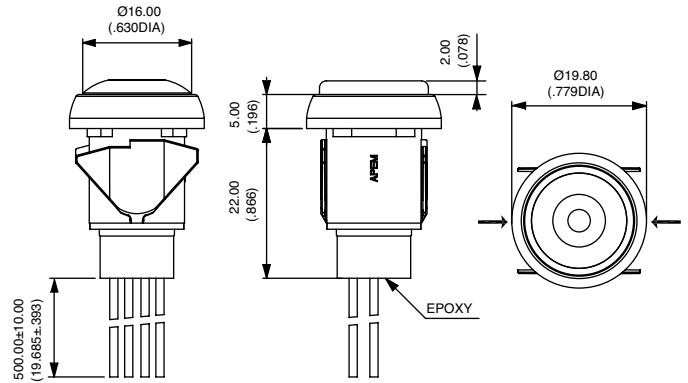


- Curved actuator
 - IQR1F** OFF - ON
- Flat actuator
 - IQP1F** OFF - ON

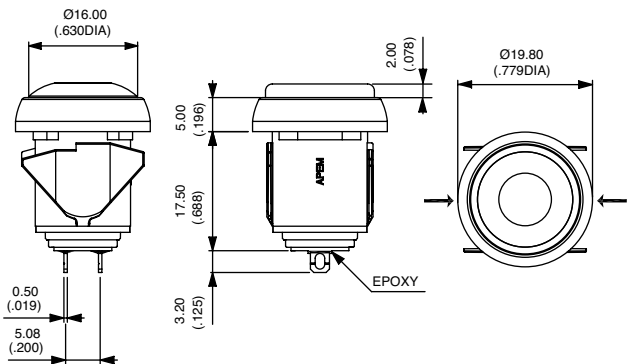
→ FLAT



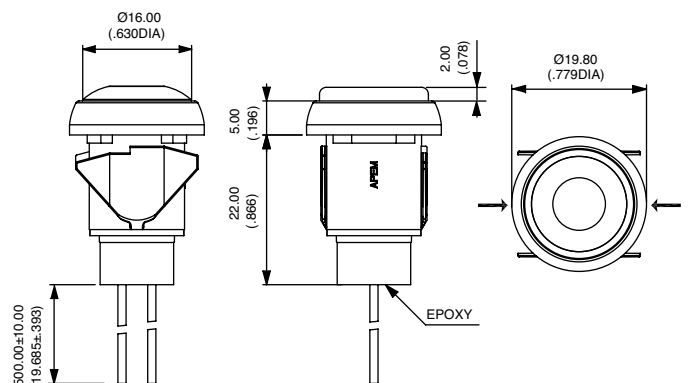
→ FLAT



→ FLAT



→ FLAT



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SQUARE - ILLUMINATED SOLDER LUG TERMINALS



Curved actuator

IQC1S

OFF - ON

Also available with straight PC terminals : IQC14
& quick-connect terminals : IQC1Z.

SQUARE - ILLUMINATED FLYING LEAD TERMINALS



Curved actuator

IQC1F

OFF - ON

Wire colors : black : contact, red : LED anode (+), blue : LED cathode (-)

SQUARE - NON-ILLUMINATED SOLDER LUG TERMINALS



Curved actuator

IQC1S

OFF - ON

Also available with straight PC terminals : IQC1P
& quick-connect terminals : IQC1Z.

SQUARE - NON-ILLUMINATED FLYING LEAD TERMINALS

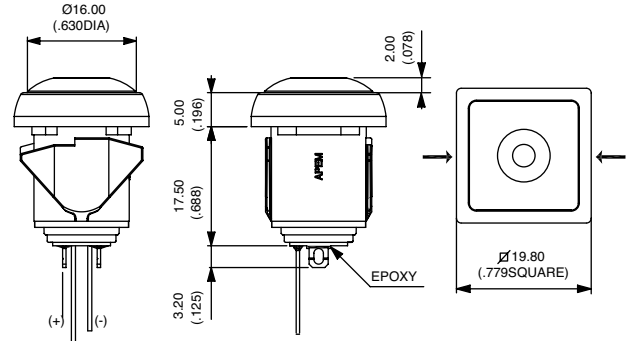


Curved actuator

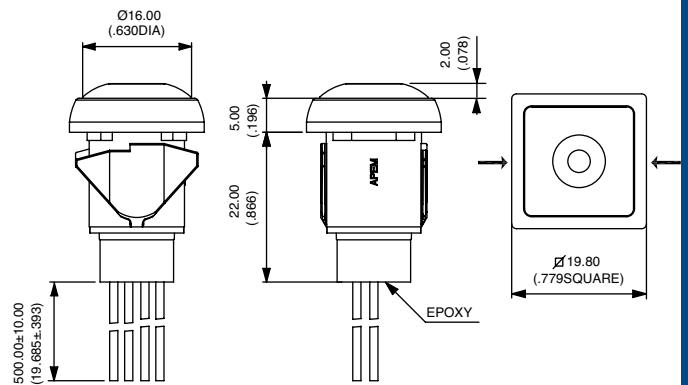
IQC1F

OFF - ON

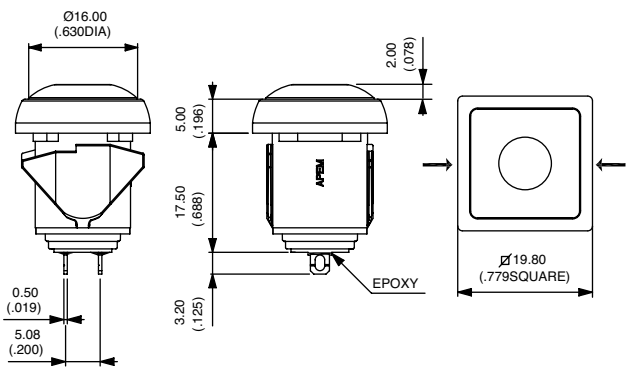
→ FLAT



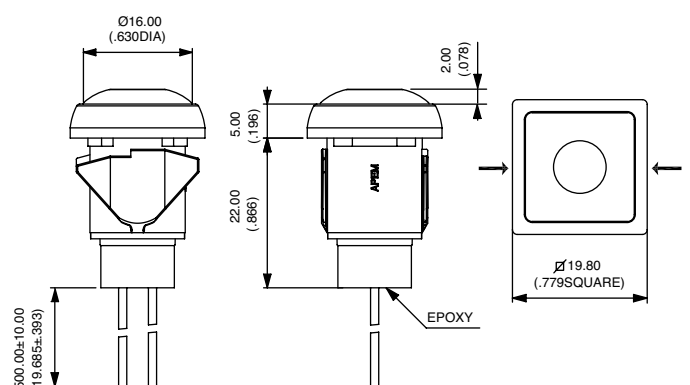
→ FLAT



→ FLAT



→ FLAT



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CONTACT MATERIALS



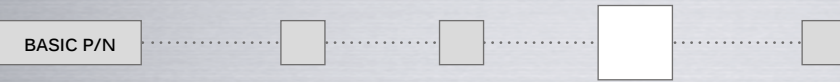
- 4 Silver, gold plated (100 mA 24 VDC)
- 7 Silver, gold plated (4 A 12 VDC)

ACTUATOR COLOR



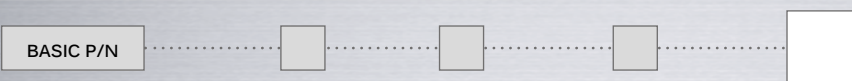
- 1 Blue
- B Dark blue
- 2 Black
- 3 Green
- 4 Grey
- 5 Yellow
- 6 Red
- 7 White
- 9 Orange
- A Satin chrome

BUSHING AND BEZEL



- 2 Black (standard)

LED COLORS



- Blank Non-illuminated
- LOS Super Red
- LOY Yellow
- LOG Green
- LOB Blue