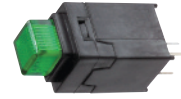
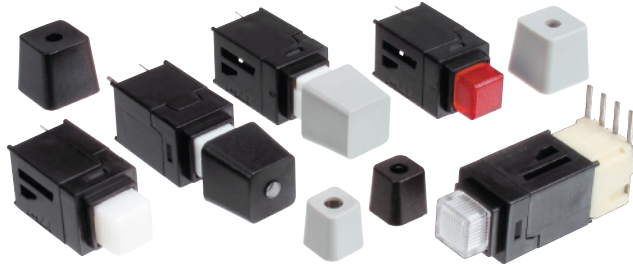


SERIES 39



ACTUAL SIZE

0.25 amp Miniature LED Lighted Pushbutton Switches

This highly reliable low cost pushbutton features bifurcated contacts that have wiping, self-cleaning action. The PC terminals allow for vertical mounting, while an optional connector allows for right angle mounting.

KEY FEATURES:

- Momentary or maintained action
- Lighted (T-1 LED) or non-lighted
- Variety of button and keycap styles
- Wave solderable
- Bifurcated silver contacts

APPLICATIONS

- Control panel assemblies
- Recording equipment
- Telecom switching systems
- Scientific instrumentation
- Telecom test gear

ORDERING INFORMATION:

Switches

Part Number	Lighted	LED Color	Button Color	Button Style	Action
39-12101	Yes*	—	Clear	Button	Momentary
39-12111	Yes*	—	Red	Button	Momentary
39-12113	Yes*	—	Yellow	Button	Momentary
39-12114	Yes*	—	Smoke Grey	Button	Momentary
39-12502	No	—	White	Button	Momentary
39-12503	No	—	Red	Button	Momentary
39-12509	No	—	Black	Button	Momentary
39-12601	Yes	Red	Clear	Button	Momentary
39-12611	Yes	Red	Red	Button	Momentary
39-12712	Yes	Green	Green	Button	Momentary
39-12801	Yes	Yellow	Clear	Button	Momentary
39-12813	Yes	Yellow	Yellow	Button	Momentary
39-13101	Yes*	—	Clear	Button	Maintained
39-13113	Yes*	—	Yellow	Button	Maintained
39-13611	Yes	Red	Red	Button	Maintained
39-22100	Yes*	—	—	Keycap	Momentary
39-22500	No	—	—	Keycap	Momentary
39-23100	Yes*	—	—	Keycap	Maintained
39-23500	No	—	—	Keycap	Maintained

* LED not included; LED support 80-390003 supplied in bulk.

Button/Keycap Colors

Part Number	Lighted	Color	Cap Size
80-390101	Yes*	White	Large
80-390102	Yes*	Light Grey	Large
80-390103	Yes*	Dark Grey	Large
80-390104	Yes*	Black	Large
80-390106	No	Light Grey	Large
80-390107	No	Dark Grey	Large
80-390108	No	Black	Large
80-390110	Yes**	Light Grey	Small
80-390111	Yes**	Black	Small
80-390112	No	Light Grey	Small

* Required light pipe 80-390100 (order separately)
** Requires light pipe 80-390109 (order separately)

Connectors

Part Number	Mount
39-800001	In-Line
39-800002	Right Angle

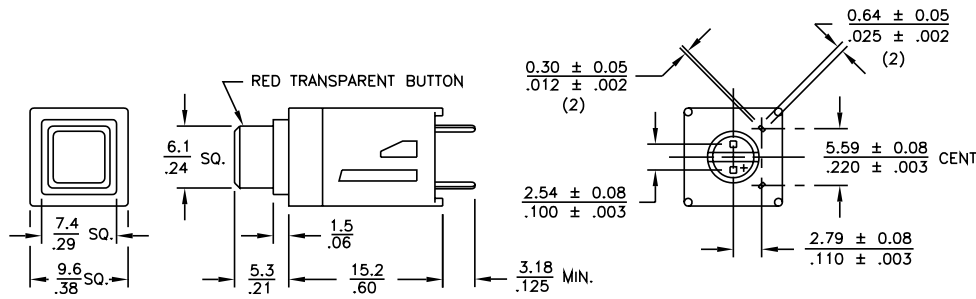
STANDARDS / AGENCY / RATINGS:



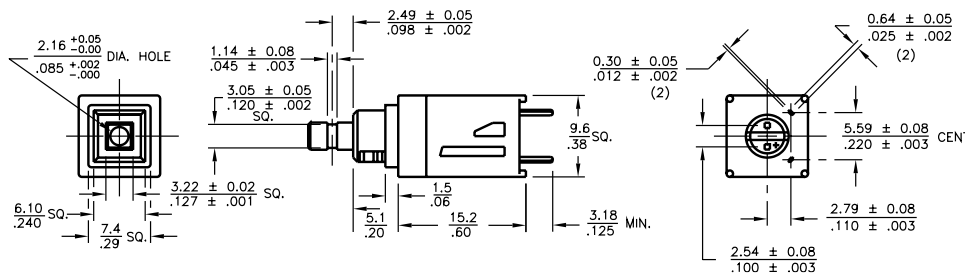
Contact an Authorized Distributor
or Factory for Pricing

SERIES 39—0.25 AMP MINIATURE LED LIGHTED PUSHBUTTON

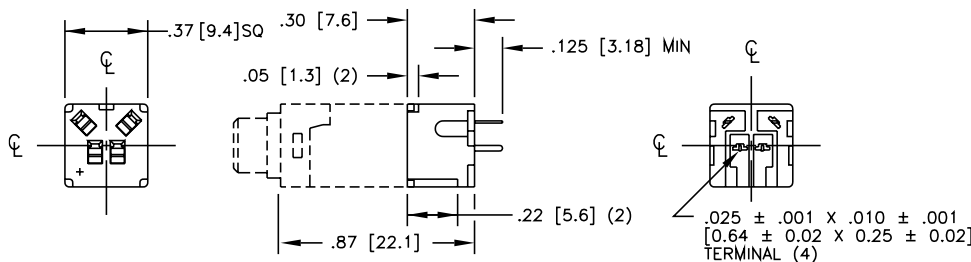
STANDARD BUTTON STYLE



KEYCAP BUTTON STYLE



IN-LINE CONNECTOR



MECHANICAL / ELECTRICAL CHARACTERISTICS:

Action:

SPST-NO-DB (Form X)

Button travel:

3.05 mm (.120 in) nominal

Operating Force:

113 grams nominal

Contact Resistance:

Initial: 25 milliohms max.

End of life: 50 milliohms max.

Contact bounce:

Initial: 1 millisecond max.

End of life 3 milliseconds max.

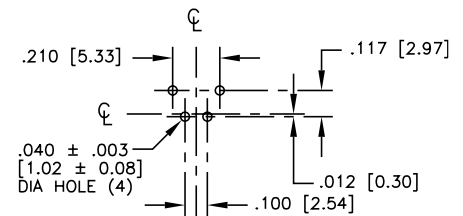
Electrical life:

Momentary: 1 million cycles

Maintained: 25,000 cycles

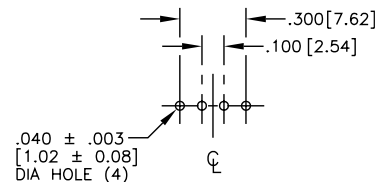
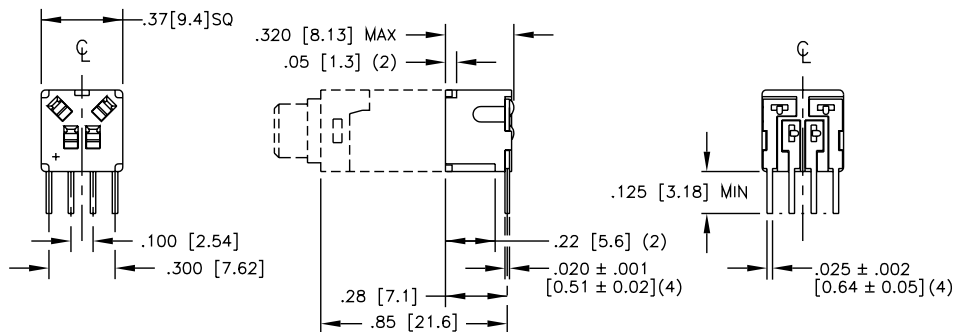
Electrical rating:

.25A @ 30 VDC res.



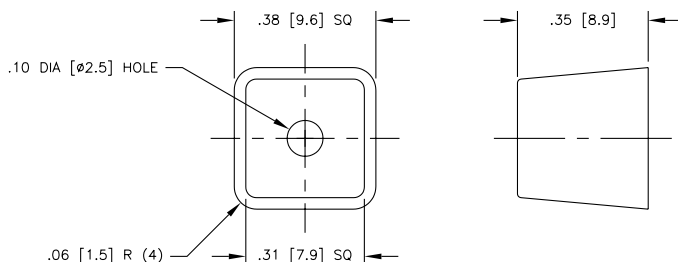
RECOMMENDED P.C.B. HOLE PATTERN

RIGHT ANGLE CONNECTOR



RECOMMENDED P.C.B. HOLE PATTERN

LARGE LIGHTED KEYCAP



TW Switches

Engelking Elektronik GmbH

Albstrasse 16

D-78609 Tuningen

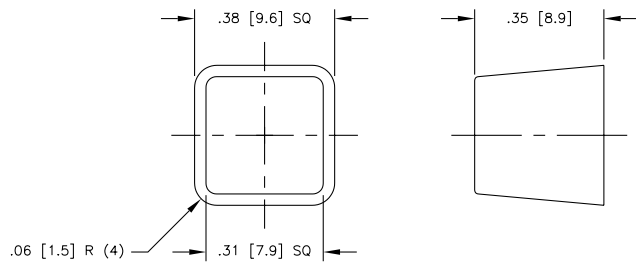
07464 9865-0

07464 9865-71 (Fax)

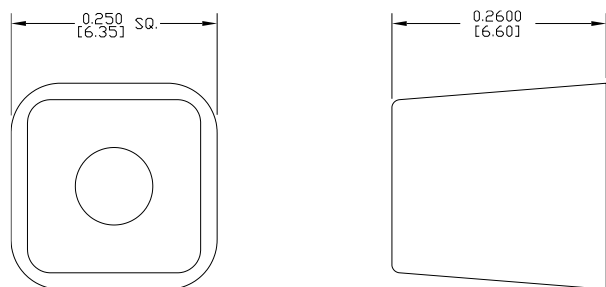
Contact an Authorized Distributor
or Factory for Pricing

SERIES 39—0.25 AMP MINIATURE LED LIGHTED PUSHBUTTON

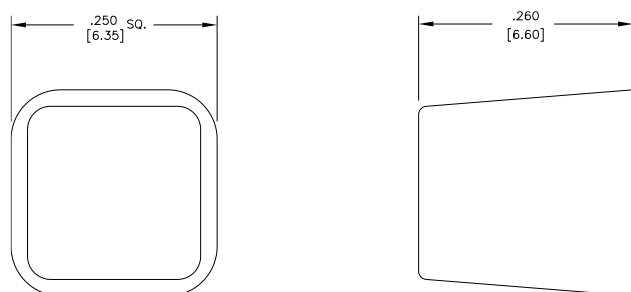
LARGE UNLIGHTED KEYCAP



SMALL LIGHTED KEYCAP



SMALL UNLIGHTED KEYCAP



ITW Switches

Engelking Elektronik GmbH

Albstrasse 16
D-78609 Tuningen
Tel: +49 (0) 7464 9865 0
Fax: +49 (0) 7464 9865 71

sales@itw-switches.de
www.itw-switches.de