Q12-7 series

Ø12.7 mm (0.5") half inch panel mount
LED indicators



DISTINCTIVE FEATURES

8 mm colored diffused epoxy lens or 8 mm water clear super bright LEDs

2VDC - 220VAC

(2.8 x 0.8) solder lug/faston terminals, pins or (200 mm long) wire terminations



ENVIRONMENTAL SPECIFICATIONS

- IP67 sealing option (EN60529)
- Operating & Storage Temperature Range:
  Rear plastic body: -30 °C to +65° C (–22 °F to +149 °F)
  Rear epoxy body: -40 °C to +85° C (–40 °F to +185 °F)

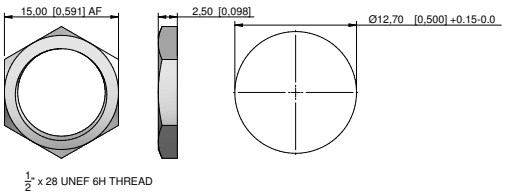
GENERAL SPECIFICATIONS

- Max Reverse Voltage: 5 V
- Viewing Angle: 30–100° (dependant on model)
- Life Expectancy: 100,000 hours
- Torque: 75 cNm
- Maximum panel thickness 7 mm
- Insulation resistance : 4,000 MΩ at 500 VDC

MATERIALS

- Plated brass bezel finished in bright chrome, black or satin grey and moulded polycarbonate rear body

MOUNTING



The company reserves the right to change specifications without notice.

All LED characteristics are dependent upon environmental conditions. Therefore published data should be considered nominal and subject to variations.

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ELECTRICAL SPECIFICATIONS

STANDARD LED INTENSITY

LED COMPONENT SPECIFICATIONS			
	Prominent and Recessed	Flush	Forward Voltage
HE Red	350 mcd	N/A	2.0 V
Green	60 mcd	N/A	2.2 V
Yellow	50 mcd	N/A	2.1 V
Blue	800 mcd	330 mcd	3.3 V (Flush : 3.1 V)
White	1,200 mcd	1.560 mcd	3.3 V (Flush : 3.1 V)
Orange	100 mcd	N/A	2.2 V
Bi-color (Typical) (Red/Green)	20/10 mcd	N/A	2.0 V/2.2 V
Tri-color (Typical) (Red/Green/Yellow)	80/15/13 mcd	N/A	2.0 V/2.2 V/2.1 V

Bi-color - The color is changed by reversing the polarity of the supply voltage.
Tri-color - The indicator has red and green LEDs, when both connected yellow is produced.

SUPER BRIGHT LED INTENSITY

LED COMPONENT SPECIFICATIONS			
	Prominent and Recessed	Flush	Forward Voltage
HE Red	3,000 mcd	N/A	2.2 V
Green	8,000 mcd	N/A	3.3 V
Yellow	1,100 mcd	N/A	2.0 V
Blue	1,500mcd	N/A	3.3 V
White	1,200 mcd	N/A	3.3 V
Orange	2,000 mcd	N/A	2.2 V

HYPER BRIGHT LED INTENSITY

LED COMPONENT SPECIFICATIONS			
	Prominent and Recessed	Flush	Forward Voltage
HE Red	1,900 mcd	1,120 mcd	2.2 V
Green	3,500 mcd	1,560 mcd	3.3 V
Yellow	N/A	1,120 mcd	2.0 V
Orange	N/A	1,120 mcd	2.2 V

- The operating voltage must not be exceeded by more that 10% as this will result in reduced life expectancy
- Luminous intensity is measured at 20 mA on a discrete LED unless otherwise stated.
- Luminous intensities and color shades of white LEDs may vary within a batch.
- Luminous intensity will be reduced with lower operating current.

Voltage	Operating Voltage (Min to Max)	Operating Current (Typical All Types)
02 (No Resistor)	1.8 to 3.3 VDC	20 mA max
6 VDC	5.4 to 6.6 VDC	20 mA
12 VDC	10.8 to 13.2 VDC	20 mA
24 VDC	21.6 to 26.4 VDC	20 mA
28 VDC	25.2 to 30.8 VDC	20 mA
110 VAC	99 to 121 VAC	6 mA
220 VAC	207 to 235 VAC	3 mA

* Customer to supply resistor for desired operating current.

ADDITIONNAL INFORMATION ON LED COMPONENTS

- Recommended usage:
  - Standard: Homogenous light output that is good for indoor applications.
  - Hyper Bright: Homogenous light output that is good for outside viewing and is daylight visible.
  - Super Bright: A water clear LED that is good for long distance viewing and is daylight visible.

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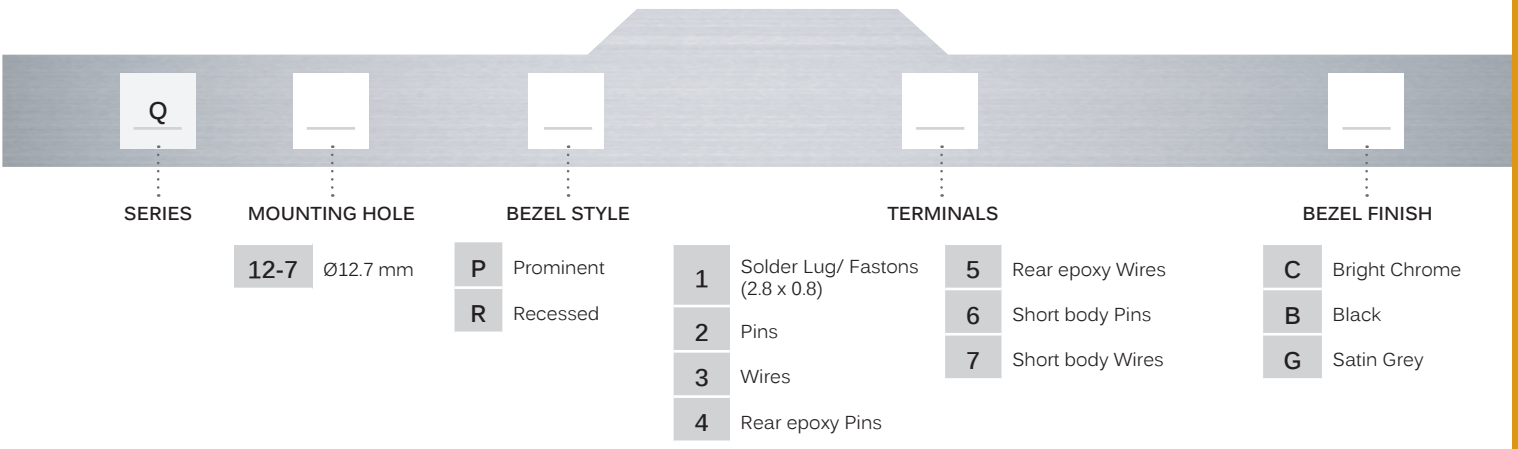
BUILD YOUR PART NUMBER

PROMINENT AND RECESSED BEZEL



SERIES

12-7	Ø12.7 mm

MOUNTING HOLE

BEZEL STYLE

P	Prominent
R	Recessed

TERMINALS

1	Solder Lug/ Fastons (2.8 x 0.8)
2	Pins
3	Wires
4	Rear epoxy Pins
5	Rear epoxy Wires
6	Short body Pins
7	Short body Wires

BEZEL FINISH

C	Bright Chrome
B	Black
G	Satin Grey



TYPE OF ILLUMINATION

XX	Fixed Light
KK	Flashing Light (12 V – 28 VDC)
YY	Bi-color
ZZ	Tri-color

LED COLOR

R	Red
G	Green
Y	Yellow
B	Blue
W	White
O	Orange
HR	Hyper Bright Red
HG	Hyper Bright Green
HY	Hyper Bright Yellow
HO	Hyper Bright Orange
SR	Super Bright Red
SG	Super Bright Green
SY	Super Bright Yellow
SB	Super Bright Blue
SW	Super Bright White
SO	Super Bright Orange
RG	Red/Green
RY	Red/Yellow
GY	Green/Yellow
RYG	Red/Yellow/ Green

VOLTAGE

02	no resistor*
06	6 VDC
12	12 VDC
12A	12 VAC/DC
24	24 VDC
24A	24 VAC/DC
28	28 VDC
28A	28 VAC/DC
110	110 VAC
220	220 VAC

SEALING

(Blank)	Unsealed
E	IP67

* please refer to the forward voltage in electrical specifications

ABOUT THIS SERIES

Notice: please note that not all combinations of above numbers are available.

- Gold faston terminal denotes anode (+), silver terminal denotes cathode (-)
- Standard and Bi-Colour are provided in Standard wire length is 200mm, 24AWG UL1061, Red wire denotes anode (+), Black wire denotes cathode (-) for other lengths consult APEM.
- Bi-color LEDs, by connecting the gold faston (+) one color is produced, by reversing the supply voltage another color is produced – bi-colors are available up to 28 VDC
- Take care when soldering to the faston terminals (recommended solder temperature 300 °C - 3 sec)
- Max voltage for pins and wires is 28 V
- Tri-color are not available with terminal option 1 and behind panel epoxy sealed with wires (option 4) or pins (option 5).
- 110 VAC and 220 VAC, short body terminal options, 5, 6 and 7 please consult the factory
- We recommend using Hyperbright or Superbright LEDs for use at 110 VAC and 220 VAC
- The Tri-color LED has red and green LEDs when both are connected yellow is produced
- Standard tri-color faston terminals are two anodes (+) and one cathode (-)
- Tri-color wires are one red (+) and one green (+) anode and one black (-) cathode
- Tri-color pins are center (–) cathode, shortest (+) anode pin green, longest (+) anode pin red

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BUILD YOUR PART NUMBER

FLUSH BEZEL

Q — SERIES

MOUNTING HOLE

12-7	Ø12.7 mm

BEZEL STYLE

F	Flush

TERMINALS

1	Solder Lug/ Fastons (2.8 x 0.8)
4	Rear epoxy Pins
5	Rear epoxy Wires

BEZEL FINISH

C	Bright Chrome
B	Black
G	Satin Grey

TYPE OF ILLUMINATION

XX	Fixed Light

LED COLOR

HR	Red
HG	Green
HY	Yellow
B	Blue
W	White
HO	Orange

VOLTAGE

02	no resistor*
06	6 VDC
12	12 VDC
12A	12 VAC/DC
24	24 VDC
24A	24 VAC/DC
28	28 VDC
28A	28 VAC/DC
110	110 VAC
220	220 VAC

SEALING

(Blank)	Unsealed
E	IP67

ABOUT THIS SERIES

Notice: please note that not all combinations of above numbers are available.

- Gold faston terminal denotes anode (+), silver terminal denotes cathode (-)
- Standard and Bi-Colour are provided in Standard wire length is 200mm, 24AWG UL1061, Red wire denotes anode (+), Black wire denotes cathode (-) for other lengths consult APEM.
- For LEDs with alternative voltages please consult APEM.
- Take care when soldering to the faston terminals (recommended solder temperature 300 °C - 3 sec)
- • Body options 2 and 6 are only available without integral resistor (02).
- 110VAC and 220VAC only available with solder lug/Faston terminals

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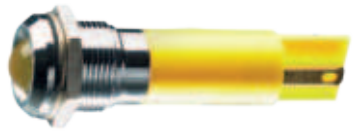
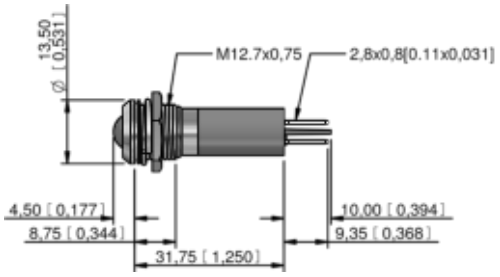
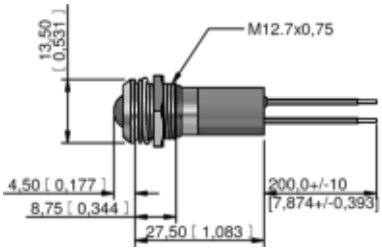
PROMINENT BEZEL



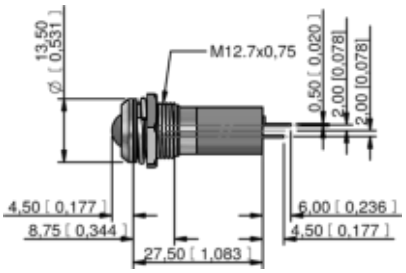
SOLDER LUG/FASTON



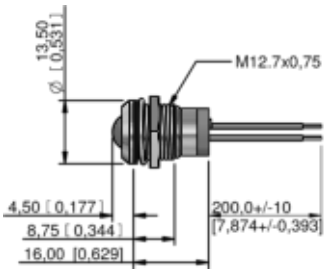
WIRES



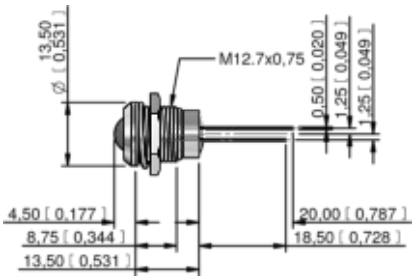
PINS



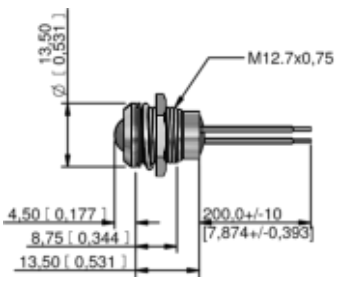
REAR EPOXY WIRES



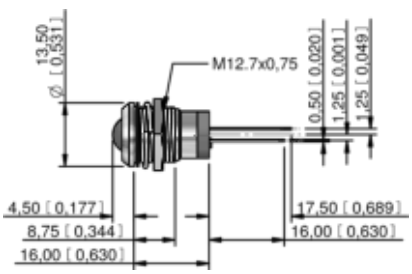
REAR EPOXY PINS



SHORT BODY WIRES



SHORT BODY PINS



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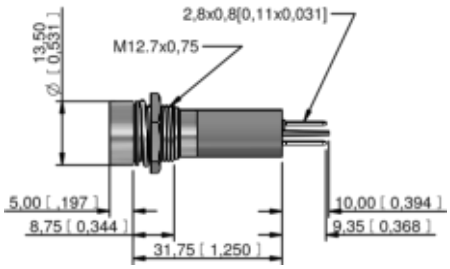
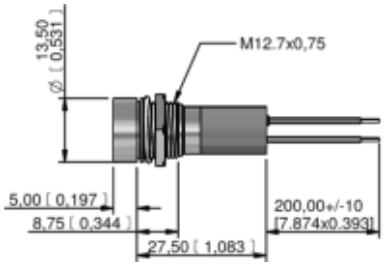
RECESSED BEZEL



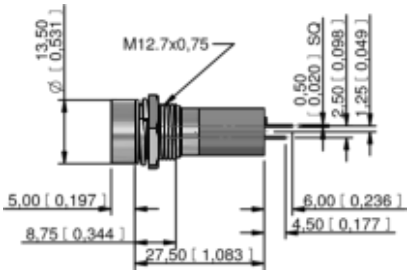
SOLDER LUG/FASTON



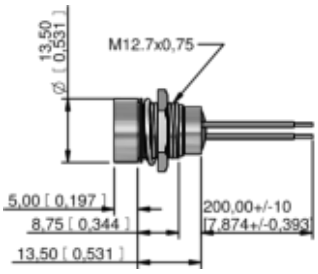
WIRES



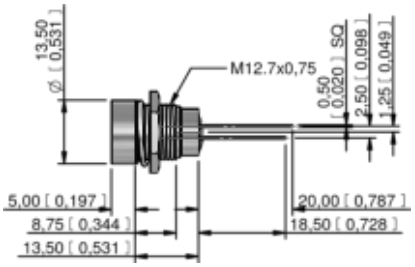
PINS



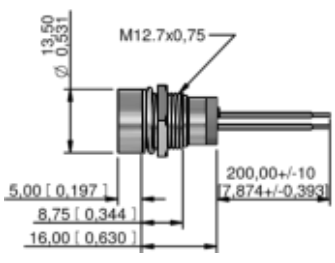
REAR EPOXY WIRES



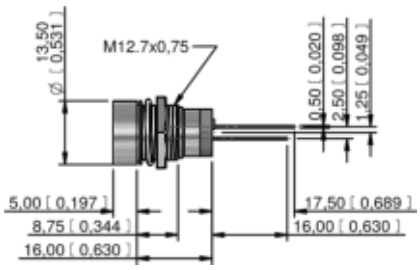
REAR EPOXY PINS



SHORT BODY WIRES



SHORT BODY PINS



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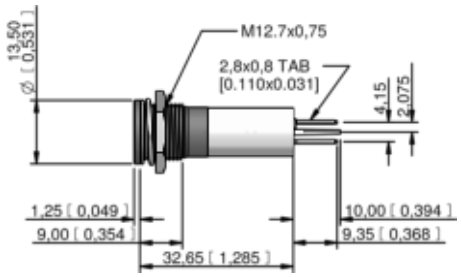
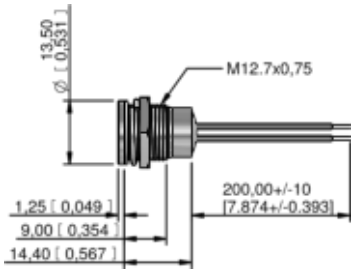
FLUSH BEZEL



SOLDER LUG/FASTON



REAR EPOXY WIRES



REAR EPOXY PINS

