



# SOLITRONICS ENGINEERING LTD.

TEL: (852) 2730-8145 FAX: (852) 2730-3245 E-mail: [info@solitronics.com](mailto:info@solitronics.com)

**High-Bright 2Hz Self-flashing LED Indicator for use as attention attracting warning indicator**

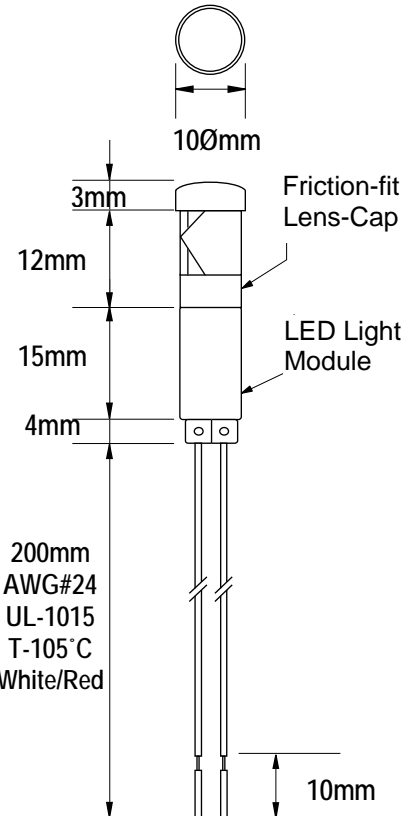
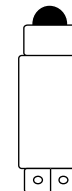
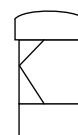
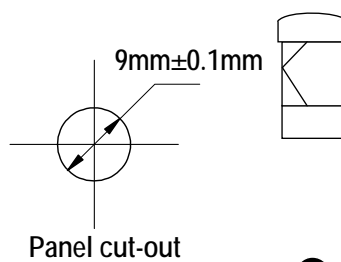
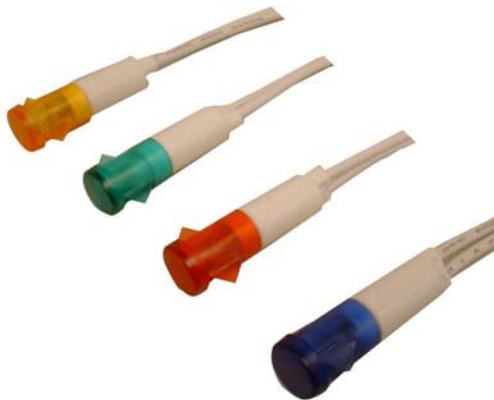
Date:  
**10<sup>th</sup> December, 2004**

Group  
**NI09-LED**

Part Number:  
**SEL-NI09-LED-XF-XX**

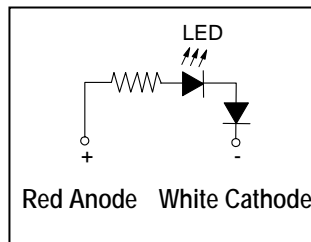
Data Sheet:  
**SEL-NI09-LED-01-V2**

Snap-fit Self-flashing LED-Indicator for 9Ø mm Panel Cut-out



**Mounting: 9Ømm hole  
Panel thickness: 0.8-2.5mm**

Lens-cap Material: Polycarbonate  
Lamp-module: Polycarbonate or Nylon 66  
PVC wire: AWG#24 UL-1015 T-105°C 500V



*2Hz Self-flashing LED Indicator with built-in Integrated Circuit and diode-protection for 6VDC, 12VDC & 24V DC*

+  
Red Anode

Solitronics P/N	Operating Voltage & Current	Lens Colour	LED Colour	Typical mcd at 20mA	Remarks
SEL-NI09-LED-RF-06	6-8V DC 20mA Peak	Red	High-Bright Red 660nm	390 mcd Min.	Diode Protected
SEL-NI09-LED-GF-06	6-8V DC 20mA Peak	Green	Hi-Bright Green 569nm	180 mcd Min.	Diode Protected
SEL-NI09-LED-AF-06	6-8V DC 20mA Peak	Amber	Hi-Bright Yellow 595nm	570 mcd Min.	Diode Protected
SEL-NI09-LED-RF-12	12-14V DC 20mA Peak	Red	High-Bright Red 660nm	390 mcd Min.	Diode Protected
SEL-NI09-LED-GF-12	12-14V DC 20mA Peak	Green	Hi-Bright Green 569nm	180 mcd Min.	Diode Protected
SEL-NI09-LED-AF-12	12-14V DC 20mA Peak	Amber	Hi-Bright Yellow 595nm	570 mcd Min.	Diode Protected
SEL-NI09-LED-RF-24	24-30V DC 20mA Peak	Red	High-Bright Red 660nm	390 mcd Min.	Diode Protected
SEL-NI09-LED-GF-24	24-30V DC 20mA Peak	Green	Hi-Bright Green 569nm	180 mcd Min.	Diode Protected
SEL-NI09-LED-AF-24	24-30V DC 20mA Peak	Amber	Hi-Bright Yellow 595nm	570 mcd Min.	Diode Protected

Note: Extra high-brightness LED Self-Flashing Indicator with integrated I-C Circuit and with diode protection.  
*Also available as a LED light modules (i.e. without friction-fit polycarbonate lens cap.)*  
*Due to continuous development, all specifications are subject to change without prior notice.*



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Super-Bright Snap-fit LED Indicator with UL-1015 wire terminals

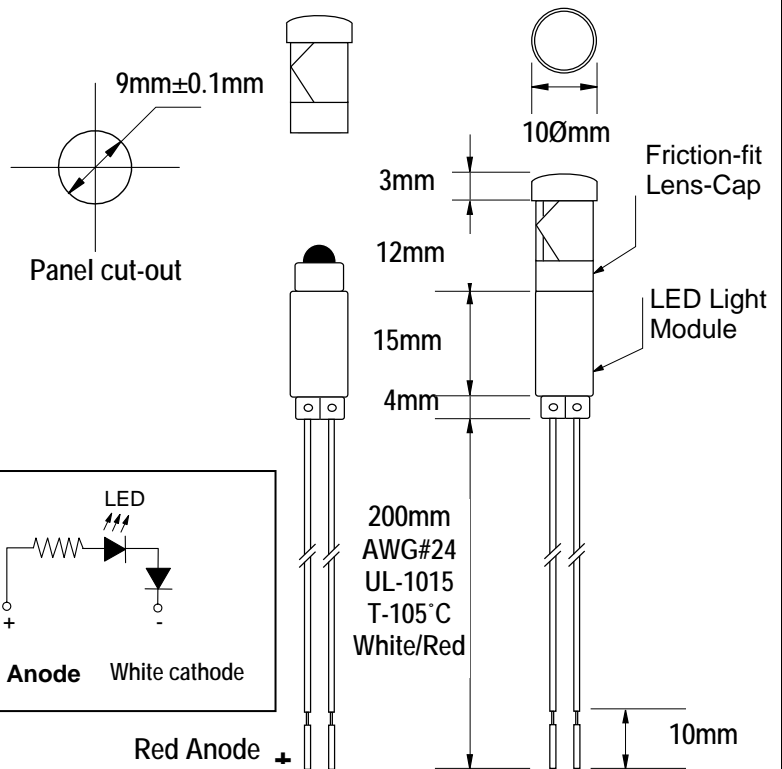
Date:  
**12<sup>th</sup> December 2004**

Group:  
**NI09-LED**

Part Number:  
**SEL-NI09-LED-XX-XXX**

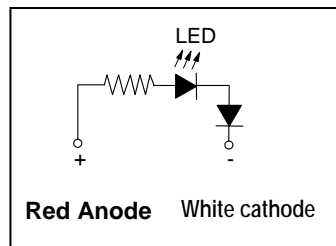
Data Sheet:  
**SEL-NI09-LED-02-V2**

12V-30V AC/DC Snap-Fit LED Indicator for 9Ømm Panel Cut-out



**Mounting: 9Ømm hole**  
**Panel thickness: 0.8-2.5mm**

Lens-cap Material: Polycarbonate  
Lamp-module: Polycarbonate or Nylon 66  
PVC wire: AWG#24 UL/CSA Approved  
UL-1015 T-105°C 500V Rated



Red Anode +

Solitronics P/N	Voltage & Current	Lens Colour	LED Colour	Typ. mcd@10mA	Remarks
SEL-NI09-LED-R1-12S	12-14V AC/DC 8-15mA	Red	Super-Bright Red 660nm	1007-1890 mcd	Diode Protected
SEL-NI09-LED-G1-12S	12-14V AC/DC 8-15mA	Green	#Super-Bright Green 525nm	1080-2025 mcd	Diode Protected
SEL-NI09-LED-G1-12D	12-14V AC/DC 8-15mA	Green	Diffused Hi-Bright Green 565nm	106-199 mcd	Diode Protected
SEL-NI09-LED-A1-12S	12-14V AC/DC 8-15mA	Amber	Super-Bright Yellow 586nm	960-1800 mcd	Diode Protected
SEL-NI09-LED-A1-12D	12-14V AC/DC 8-15mA	Amber	Diffused Hi-Bright Yellow 585nm	306-574 mcd	Diode Protected
SEL-NI09-LED-B1-12S	12-14V AC/DC 8-15mA	Blue	#Super-Bright Blue 470nm	900-1687 mcd	Diode Protected
SEL-NI09-LED-R1-24S	24-30V AC/DC 6-10mA	Red	Super-Bright Red 660nm	757-1262 mcd	Diode Protected
SEL-NI09-LED-G1-24S	24-30V AC/DC 6-10mA	Green	#Super-Bright Green 525nm	810-1350 mcd	Diode Protected
SEL-NI09-LED-G1-24D	24-30V AC/DC 6-10mA	Green	Diffused Hi-Bright Green 565nm	80-132 mcd	Diode Protected
SEL-NI09-LED-A1-24S	24-30V AC/DC 6-10mA	Amber	Super-Bright Yellow 586nm	720-1200 mcd	Diode Protected
SEL-NI09-LED-A1-24D	24-30V AC/DC 6-10mA	Amber	Diffused Hi-Bright Yellow 585nm	230-382 mcd	Diode Protected
SEL-NI09-LED-B1-24S	24-30V AC/DC 6-10mA	Blue	#Super-Bright Blue 470nm	657-1125 mcd	Diode Protected

Note: #Items marked with # sign are sensitive to electrostatic electricity. Recommend use of 470K bleeding resistor across indicator terminals. Other voltages 36V AC/DC, 48V AC/DC, 60V AC/DC, 130V AC & 240V AC available upon request.  
*Due to continuous development, all specifications are subject to change without prior notice.*



# SOLITRONICS ENGINEERING LTD.

TEL: (852) 2730-8145 FAX: (852) 2730-3245 E-mail: [info@solitronics.com](mailto:info@solitronics.com)

High-Bright Snap-fit LED Indicator with UL-1015 wire termination

Date:

11th November 2006

Group:

NI09-LED

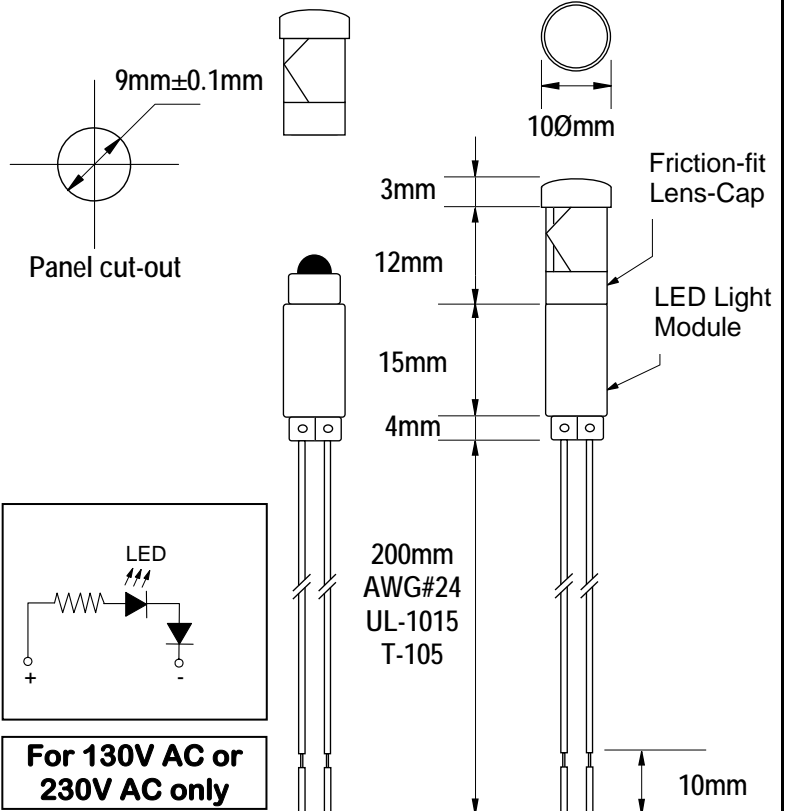
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SEL-NI09-LED-XX-XXX

Data Sheet:

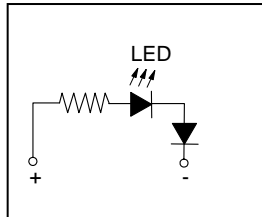
SEL-NI09-LED-03-V3

130V-230V AC Snap-fit LED Indicator for 9Ø mm Panel cut-out



**Mounting: 9Ømm hole**  
**Panel thickness: 0.8-2.5mm**

Lens-cap: GE Lexan Polycarbonate  
Lamp-module: Lexan Polycarbonate or Nylon 66  
PVC Wire: AWG#24 UL-1015 T-105°C 500V



**For 130V AC or  
230V AC only**

Solitronics P/N	Rated Voltage & Current	Lens Colour	LED Colour	Typ. mcd @3.0mA	Remarks
SEL-NI09-LED-R1-130S	130V AC only; 3.0mA	Red	Super-Bright Red 660nm	370 mcd	Diode protected
SEL-NI09-LED-G1-130S	130V AC only; 3.0mA	Green	#Super-Bright Green 520m	405 mcd	Diode protected
SEL-NI09-LED-A1-130S	130V AC only; 3.0mA	Amber	Super-Bright Yellow 586nm	360 mcd	Diode protected
SEL-NI09-LED-A1-130D	130V AC only; 3.0mA	Amber	Diffused Hi-bight Yellow 585nm	120 mcd	Diode protected
SEL-NI09-LED-B1-130S	130V AC only; 3.0mA	Blue	#Super-Bright Blue 470nm	337mcd	Diode protected
SEL-NI09-LED-R1-230S	230V AC only; 2.0mA	Red	Super-Bright Red 660nm	370 mcd	Diode protected
SEL-NI09-LED-G1-230S	230V AC only; 2.0mA	Green	#Super-Bright Green 520m	405 mcd	Diode protected
SEL-NI09-LED-A1-230S	230V AC only; 2.0mA	Amber	Super-Bright Yellow 586nm	360 mcd	Diode protected
SEL-NI09-LED-A1-230D	230V AC only; 2.0mA	Amber	Diffused Hi-bight Yellow 585nm	120 mcd	Diode protected
SEL-NI09-LED-B1-230S	230V AC only; 2.0mA	Blue	#Super-Bright Blue 470nm	337 mcd	Diode protected

Note: # Items marked with # sign are sensitive to electrostatic electricity.

Recommend use of 470K bleeding resistor across indicator terminals. Other ratings 12-14V AC/DC, 24-30V AC/DC, 36V AC/DC, 48V AC/DC, 60V AC/DC available upon request.

Due to continuous development all specifications are subject to change without notice.

Diffused-green type LEDs are not recommended for 130V and 230V AC operations due to inherent low-brightness.

Due to continuous development, all specifications are subject to change without notice.



# SOLITRONICS ENGINEERING LTD.

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High-Bright Snap-fit LED Indicator with UL-1015 wire termination

Date:

11<sup>th</sup> November 2006

Group:

**NI09-LED**

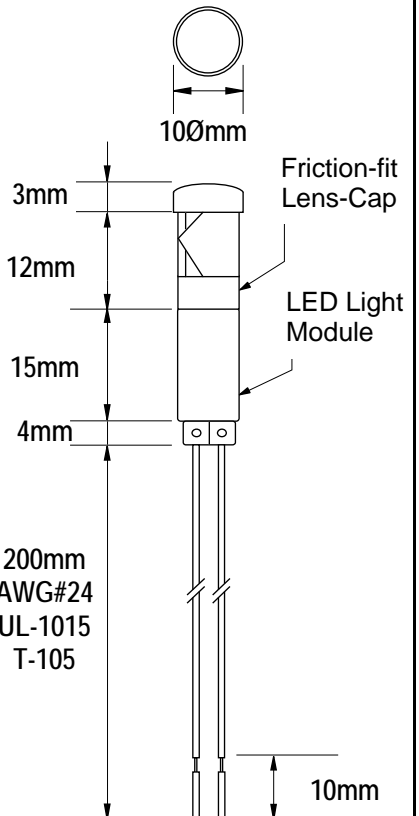
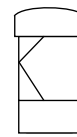
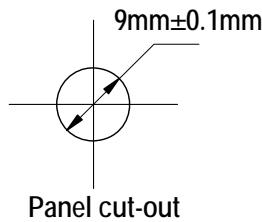
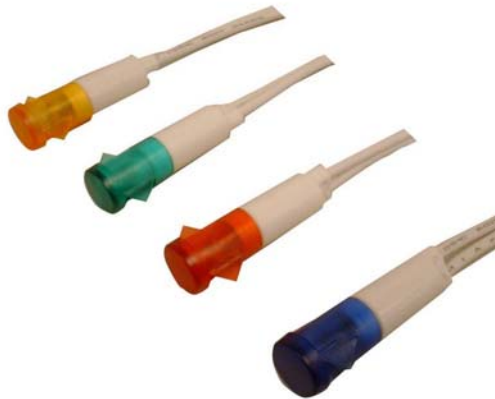
Part Number:

**SEL-NI09-LED-XX-XXX**

Data Sheet:

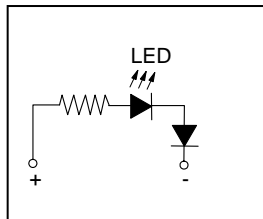
**SEL-NI09-LED-230-V2**

130V-230V AC Snap-fit LED Indicator for 9Ø mm Panel cut-out



**Mounting: 9Ømm hole**  
**Panel thickness: 0.8-2.5mm**

Lens-cap: GE Lexan Polycarbonate  
Lamp-module: Lexan Polycarbonate or Nylon 66  
PVC Wire: AWG#24 UL-1015 T-105°C 500V



**For 230V AC only**

Solitronics P/N	Rated Voltage & Current	Lens Colour	LED Colour	Typ. mcd @3.0mA	Life-Expectancy (MTBF)
SEL-NI09-LED-R1-230S	230V AC only; 2.0mA	Red	Super-Bright Red 660nm	370 mcd	80K Hrs
SEL-NI09-LED-G1-230S	230V AC only; 2.0mA	Green	#Super-Bright Green 520m	405 mcd	30K Hrs
SEL-NI09-LED-A1-230S	230V AC only; 2.0mA	Amber	Super-Bright Yellow 586nm	360 mcd	80K Hrs
SEL-NI09-LED-A1-230D	230V AC only; 2.0mA	Amber	Diffused Hi-bright Yellow 585nm	120 mcd	80K Hrs
SEL-NI09-LED-B1-230S	230V AC only; 2.0mA	Blue	#Super-Bright Blue 470nm	337 mcd	30K Hrs

Note: # Items marked with # sign are sensitive to electrostatic electricity.  
Recommend use of 470K bleeding resistor across indicator terminals.

Standard Packing:

MOQ (Minimum order qty.) : 100 pcs

SPQ (Standard Packing Qty.): 50 pcs per bundle; 2 bundles or 100 pcs per poly bag,

1k pcs per inner box, two inner boxes i.e. 2K pcs per export carton; G.W. per export carton: 8.5Kg

Due to continuous development all specifications are subject to change without notice.

Diffused-green type LEDs are not recommended for 130V and 230V AC operations due to inherent low-brightness.

Due to continuous development, all specifications are subject to change without notice.



12<sup>th</sup> December, 2004

PL-NI09-LED-V2

**PRICE LIST OF NI-09 SERIES SNAP-FIT LED INDICATOR FOR 90mm PANEL CUT-OUT**

**1. Snap-fit Self-flashing LED-Indicator for 12V & 24V DC only**

Data sheet SEL-NI09-LED-01

Solitronics P/N	Voltage & Current	Lens-colour	Led Colour	Typ. mcd@20mA	Ex-works per pc
SEL-NI09-LED-RF-12	12-14V DC only 20mA Peak	Red	High-Bright Red 660nm	390 mcd Min.	US\$0.75
SEL-NI09-LED-GF-12	12-14V DC only 20mA Peak	Green	High-Bright Green 569nm	180 mcd Min.	US\$0.80
SEL-NI09-LED-AF-12	12-14V DC only 20mA Peak	Amber	High-Bright Yellow 595nm	570 mcd Min.	US\$0.80
SEL-NI09-LED-RF-24	24-30V DC only 20mA Peak	Red	High-Bright Red 660nm	390 mcd Min.	US\$0.75
SEL-NI09-LED-GF-24	24-30V DC only 20mA Peak	Green	High-Bright Green 569nm	180 mcd Min.	US\$0.80
SEL-NI09-LED-AF-24	24-30V DC only 20mA Peak	Amber	High-Bright Yellow 595nm	570 mcd Min.	US\$0.80

**2. Snap-fit LED indicator for 12V AC/DC & 24V AC/DC**

Data sheet SEL-NI09-LED-02-D1

Solitronics P/N	Voltage & Current	Lens-Colour	Led Colour	Typ. mcd@3.0mA	Ex-works per pc
SEL-NI09-LED-R1-12S	12-14V AC/DC 8-15mA	Red	Super-Bright Red 660nm	1007-1890 mcd	US\$0.50
#SEL-NI09-LED-G1-12S	12-14V AC/DC 8-15mA	Green	#Super-Bright Green 525nm	1080-2025 mcd	US\$1.80
SEL-NI09-LED-G1-12D	12-14V AC/DC 8-15mA	Green	Diffused Hi-Bright Green 565nm	106-199 mcd	US\$0.50
SEL-NI09-LED-A1-12S	12-14V AC/DC 8-15mA	Amber	Super-Bright Yellow 586nm	960-1800 mcd	US\$0.55
SEL-NI09-LED-A1-12D	12-14V AC/DC 8-15mA	Amber	Diffused Hi-Bright Yellow 585nm	306-574 mcd	US\$0.52
#SEL-NI09-LED-B1-12S	12-14V AC/DC 8-15mA	Blue	#Super-Bright Blue 470nm	900-1687 mcd	US\$1.90
SEL-NI09-LED-R1-24S	24-30V AC/DC 6-10mA	Red	Super-Bright Red 660nm	757-1262 mcd	US\$0.50
#SEL-NI09-LED-G1-24S	24-30V AC/DC 6-10mA	Green	#Super-Bright Green 525nm	810-1350 mcd	US\$1.80
SEL-NI09-LED-G1-24D	24-30V AC/DC 6-10mA	Green	Diffused Hi-Bright Green 565nm	80-132 mcd	US\$0.50
SEL-NI09-LED-A1-24S	24-30V AC/DC 6-10mA	Amber	Super-Bright Yellow 586nm	720-1200 mcd	US\$0.55
SEL-NI09-LED-A1-24D	24-30V AC/DC 6-10mA	Amber	Diffused Hi-Bright Yellow 585nm	230-382 mcd	US\$0.52
#SEL-NI09-LED-B1-24S	24-30V AC/DC 6-10mA	Blue	#Super-Bright Blue 470nm	657-1125 mcd	US\$1.90

**3. Snap-fit 130V-230V AC LED indicator**

Data sheet SEL-NI09-LED-03-D1

Solitronics P/N	Voltage & Current	Lens-Colour	Led Colour	Typ. mcd@3.0mA	Ex-works per pc
SEL-NI09-LED-R1-130S	130V AC only 3.0mA	Red	Super-Bright Red 660nm	Typical 370 mcd	US\$0.55
#SEL-NI09-LED-G1-130S	130V AC only 3.0mA	Green	#Super-Bright Green 525nm	Typical 405 mcd	US\$1.85
SEL-NI09-LED-A1-130S	130V AC only 3.0mA	Amber	Super-Bright Yellow 586nm	Typical 360 mcd	US\$0.60
SEL-NI09-LED-A1-130D	130V AC only 3.0mA	Amber	Diffused Hi-Bright Yellow 585nm	Typical 120 mcd	US\$0.57
#SEL-NI09-LED-B1-130S	130V AC only 3.0mA	Blue	#Super-Bright Blue 470nm	Typical 337 mcd	US\$1.95
SEL-NI09-LED-R1-230S	230V AC only 2.0mA	Red	Super-Bright Red 660nm	Typical 370 mcd	US\$0.55
#SEL-NI09-LED-G1-230S	230V AC only 2.0mA	Green	#Super-Bright Green 525nm	Typical 405 mcd	US\$1.85
SEL-NI09-LED-A1-230S	230V AC only 2.0mA	Amber	Super-Bright Yellow 586nm	Typical 360 mcd	US\$0.60
SEL-NI09-LED-A1-230D	230V AC only 2.0mA	Amber	Diffused Hi-Bright Yellow 585nm	Typical 120 mcd	US\$0.57
#SEL-NI09-LED-B1-230	230V AC only 2.0mA	Blue	#Super-Bright Blue 470nm	Typical 337 mcd	US\$1.95

Note: Types with # mark indicates GAN LED which is sensitive to electrostatic electricity.

When used in environment susceptible to static electricity the use of a 470K bleeding resistor across terminals of the indicator is recommended. All specifications and offers are subject to change without notice.





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**Neon Indicator with AWG#24 UL/CSA Approved  
T-105°C UL-1015 wire termination for electrical  
equipment or electrical appliance for 110V-240V**

Date:

*20<sup>th</sup> January, 2003*

Group:

**NI09-NEON**

Part Number:

**SEL-NI09-XXX-XXX**

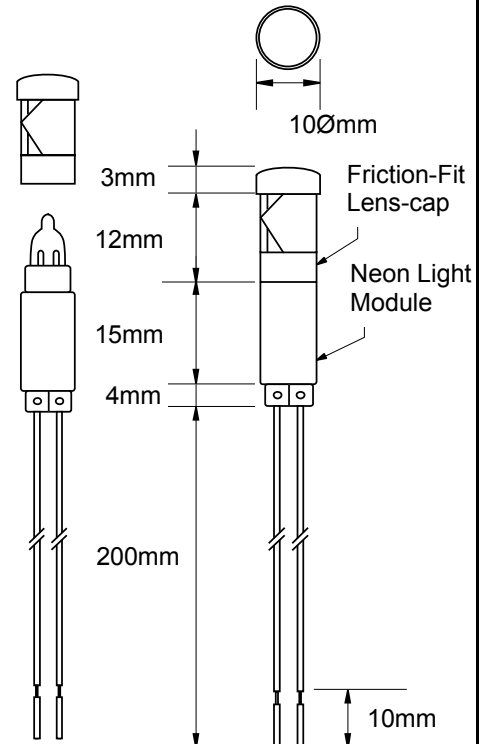
Data Sheet:

**SEL-NI09-NE-002****(Draft Specifications D1)****Snap-fit Neon-Indicator for 9Ømm Panel Cut-out**

Mounting: 9Ømm Hole  
Panel thickness: 0.9-2.5mm

Lens-cap: Lexan Polycarbonate  
Neon-module: Polycarbonate  
or Nylon 66

- Available with Red, Amber or Green Lens
- Friction-fit detachable polycarbonate Lens
- For 110-130V 50/60Hz or 220/240V 50Hz Mains
- Supplied with 200mm AWG# 24 UL/CSA Approved
- T-105°C UL-1015 600V appliance cable
- Also available with 0.50mm sq. silicone wire



Solitronics P/N	Mains-voltage and Current	Neon-Lamp/Resistor combination	Strike Voltage	Lens-Colour	Remarks
SEL-NI09-UHB-110R	110-125V 2.40mA	NE613/30HB+R27K	95V Max.	Red	Ultra High Brightness
SEL-NI09-HB-110R	110-125V 1.60mA	NE613/30HB+R33K	95V Max.	Red	Super High Brightness
SEL-NI09-HB-2-110R	110-125V 1.15mA	NE613/30HB-2+R47K	95V Max.	Red	High Brightness
SEL-NI09-HB-2-110A	110-125V 1.15mA	NE613/30HB-2+R47K	95V Max.	Amber	High Brightness
#SEL-NI09-HB1X-110R	110-125V 1.25mA	NE613/30HB1X+R47K	65V Max.	Red	Medium Brightness
SEL-NI09-HB1X-110A	110-125V 1.25mA	NE613/30HB1X+R47K	65V Max.	Amber	Medium Brightness
#SEL-NI09-G2X-110G	110-125V 1.35mA	NE613/30G2X+R47K	85V Max.	Green	Green fluorescent
SEL-NI09-G-110G	110-125V 1.80mA	NE613/30G+R33K	85V Max.	Green	Hi-Bright Green fluorescent
SEL-NI09-UHB-230R	230-240V 2.40mA	NE613/30SHB+R68K	95V Max.	Red	Ultra High Brightness
SEL-NI09-HB-230R	230-240V 1.60mA	NE613/30HB+R100K	95V Max.	Red	Super High Brightness
#SEL-NI09-HB-2-230R	230-240V 1.15mA	NE613/30HB-2+R150K	95V Max.	Red	High Brightness
SEL-NI09-HB-2-230A	230-240V 1.15mA	NE613/30HB-2+R150K	95V Max.	Amber	High Brightness
#SEL-NI09-HB1X-230R	230-240V 1.15mA	NE613/30HB1X+R150K	65V Max.	Red	Medium Brightness
SEL-NI09-HB1X-230A	230-240V 1.15mA	NE613/30HB1X+R150K	65V Max.	Amber	Medium Brightness
#SEL-NI09-G2X-230G	230-240V 1.35mA	NE613/30G2X+R150K	85V Max.	Green	Green fluorescent
SEL-NI09-G-230G	230-240V 1.80mA	NE613/30G+R100K	85V Max.	Green	Hi-Bright Green fluorescent

Note: # Indicate popular recommend types. All specifications are subject to change without prior notice.



# SOLITRONICS ENGINEERING LTD.

TEL: (852) 2730-8145 FAX: (852) 2730-3245 E-mail: [info@solitronics.com](mailto:info@solitronics.com)

**Neon Indicator with AWG#24 UL/CSA Approved T-105°C UL-1015 wire termination for electrical equipment or electrical appliance for 110V-240V**

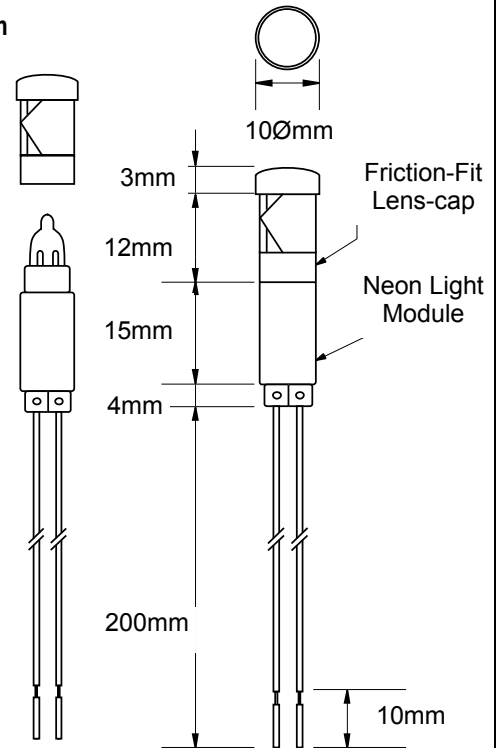
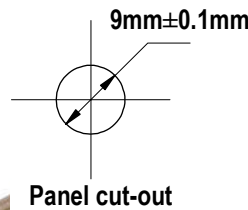
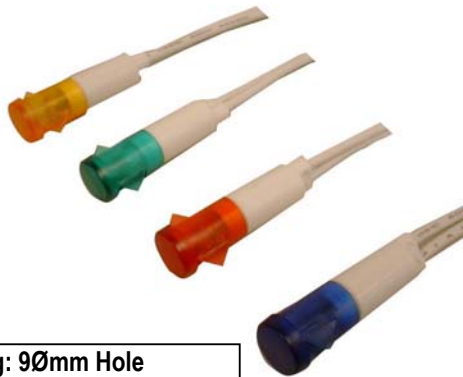
Date:  
**9<sup>th</sup> January 2003**

Group  
**NI09-NEON**

Part Number:  
**SEL-NI09-XXX-XXX**

Data Sheet:  
**SEL-PL-NI09-NE-001  
(Draft Specifications D1)**

**Snap-fit Neon-Indicator for 9Ømm Panel Cut-out**



Mounting: 9Ømm Hole  
Panel thickness: 0.9-2.5mm

Lens-cap: Lexan Polycarbonate  
Neon-module: Polycarbonate  
or Nylon 66

- Available with Red, Amber or Green Lens
- Friction-fit detachable polycarbonate Lens
- For 110-130V 50/60Hz or 220/240V 50Hz Mains
- Supplied with 200mm AWG# 24 UL/CSA Approved
- T-105°C UL-1015 600V appliance cable
- Also available with 0.50mm sq. silicone wire

Solitronics P/N	For Mains voltage & Current	Neon-Lamp/Resistor combination	Strike Voltage	Lens-colour & Type	Ex-works per 1,000 pcs
SEL-NI09-HB2-110R	110-125V 1.15mA	NE613/30HB-2+R47K	95V Max.	Red	US\$200.00
SEL-NI09-HB2-110A	110-125V 1.15mA	NE613/30HB-2+R47K	95V Max.	Amber	US\$200.00
SEL-NI09-HB1X-110R	110-125V 1.25mA	NE613/30HB1X+R47K	65V Max.	Red	US\$200.00
SEL-NI09-HB1X-110A	110-125V 1.25mA	NE613/30HB1X+R47K	65V Max.	Amber	US\$200.00
SEL-NI09-G2X-110G	110-125V 1.35mA	NE613/30G-2X+R47K	85V Max.	Green	US\$250.00
SEL-NI09-HB2-230R	230-240V 1.15mA	NE613/30HB-2+R150K	95V Max.	Red	US\$200.00
SEL-NI09-HB2-230A	230-240V 1.15mA	NE613/30HB-2+R150K	95V Max.	Amber	US\$200.00
SEL-NI09-HB1X-230R	230-240V 1.25mA	NE613/30HB1X+R150K	65V Max.	Red	US\$200.00
SEL-NI09-HB1X-230A	230-240V 1.25mA	NE613/30HB1X+R150K	65V Max.	Amber	US\$200.00
SEL-NI09-G2X-230G	230-240V 1.35mA	NE613/30G2X+R150K	85V Max.	Green	US\$250.00

Note: All specifications are subject to change without prior notice.