Product Catalog

Sorenson Lighted Controls

SOLICO ™

Illuminating Innovation

Round Indicators

Rectangular Indicators

LED, Rear Mount **and Specialty Indicators**

1-800-275-7089   solico.com

Our Facility

Sorenson Lighted Controls (SOLICO) continues its 50 year history of producing a complete range of indicator lights utilizing neon, incandescent and LED lamps in North America. Offering both standard and customized solutions we provide local support through the manufacturer's representative agencies and sell through a network of franchised distribution partners to provide the timely delivery of our products to the marketplace.

Manufacturing Facility in Tijuana, Mexico

Sorenson Lighted Controls, Inc. sales and engineering personnel will help you determine the best indicator for your application, or help you with a custom design. As our products may be used in **a wide variety of applications, the final responsibility in determining the suitability of our products for a specific application rests with you.**

It may be possible to build a part number from this catalog that cannot be manufactured. We have included information for each series noting construction limitations. Certain constructions may require components in the lead wires.

We reserve the right to make changes to our products, without prior notice, to improve performance or take advantage of new technologies. The limit of our responsibility under these circumstances **is to maintain product fit, function and performance.**

Warranty

Sorenson Lighted Controls, Inc. warranties our products for a period of 1 year from date of delivery. The warranty covers defects in materials and workmanship for parts that have been used according to our most recently published specifications and have not been modified by the customer. Any products found defective must be returned to Sorenson Lighted Controls, Inc. for evaluation via a Return Material Authorization (RMA). Parts found defective will be reworked or replaced at no charge to the customer. No other warranties or compensation apply to returned material found to be defective.
It is the customer's responsibility to determine the suitability of our products for the end use in their application.

For the most up to date information on our products visit www.solico.com

PRODUCT SERIES

All SoLiCo products are RoHS
Agency Approvals:
The majority of our indicators carry Agency approvals. Please contact us for the latest Agency information for the specific series and voltages you require.

cULus   CE   TÜVRheinland®   cULus   RoHS   **REACH**

Series 18, 21, 24
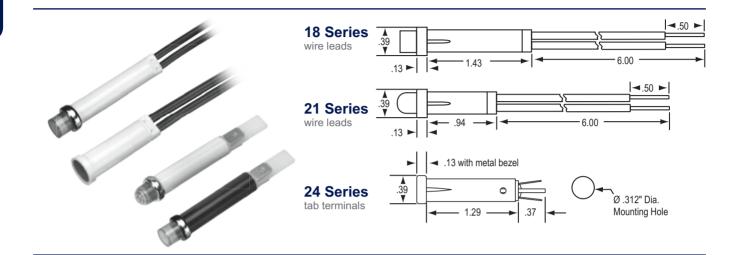
Features
- Press fits into .312" panel hole
- LED, incandescent, and neon illumination
- Three lens styles available
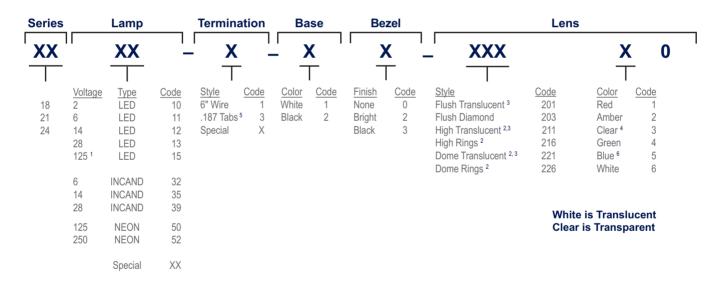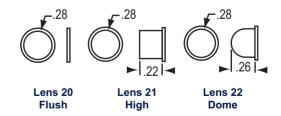
Specifications
- Body Material: Nylon
- Lens Material: Polycarbonate
- Bezel Material: Brass (Plated)
- Wire Gauge: 18 ga.
- Wire Strip: 1/2"
- Terminals: .187 Tabs
- Panel Thickness: .030" min
- Certifications: Contact Us

18 Series wire leads

.39 .13 1.43 6.00 .50

21 Series wire leads

.39 .13 .94 6.00 .50

24 Series tab terminals

.39 .13 with metal bezel 1.29 .37 Ø .312" Dia. Mounting Hole

Series	Lamp			Termination		Base		Bezel		Lens			
XX	**XX**			– **X**		– **X**		**X**		– **XXX**		**X**	**0**

Series	Lamp			Termination		Base		Bezel		Lens			
	Voltage	Type	Code	Style	Code	Color	Code	Finish	Code	Style	Code	Color	Code
18	2	LED	10	6" Wire	1	White	1	None	0	Flush Translucent [3]	201	Red	1
21	6	LED	11	.187 Tabs [5]	3	Black	2	Bright	2	Flush Diamond	203	Amber	2
24	14	LED	12	Special	X			Black	3	High Translucent [2,3]	211	Clear [4]	3
	28	LED	13							High Rings [2]	216	Green	4
	125 [1]	LED	15							Dome Translucent [2,3]	221	Blue [6]	5
										Dome Rings [2]	226	White	6
	6	INCAND	32										
	14	INCAND	35										
	28	INCAND	39										
	125	NEON	50										
	250	NEON	52										
		Special	XX										

White is Translucent
Clear is Transparent

Lens 20 Flush .28

Lens 21 High .28 .22

Lens 22 Dome .28 .26

Additional Options Available:
Contact Factory

1. Series 18 Only
2. Bezel Required
3. Translucent Lens is not recommended for use with LED
4. Specify LED Color
5. Series 24 only
6. Blue neon not available on Series 21
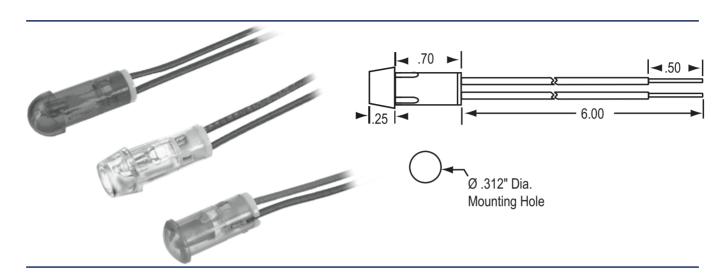
Series 19

Features
- Press fits into .312" panel hole
- Body and lens are one piece construction
- LED, incandescent, and neon illumination
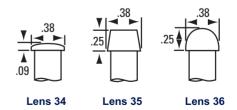
Specifications
- Body & Lens Material: Polycarbonate
- Wire Gauge: 22 ga.
- Wire Strip: 1/2"
- Panel Thickness: .030" min
- Certifications: Contact Us

.70   .50   .25   6.00

Ø .312" Dia.
Mounting Hole

Series		Lamp			Termination		Base		Bezel		Lens			
XX		**XX**			**X**		**X**		**X**		**XXX**		**X**	**0**
19	Voltage	Type	Code		Style	Code	Color	Code	Finish	Code	Style	Code	Color	Code
	2	LED	10		6" Wire	1	N/A	0	None	0	Semi-Dome	342	Red	1
	6	LED	11		Special	X					Cylinder	352	Amber	2
	14	LED	12								Dome	362	Clear [1]	3
	28	LED	13										Green	4
													Blue	5
	6	INCAND	32											
	14	INCAND	35											
	28	INCAND	39											
	125	NEON	50											
	250	NEON	52											
		Special	X											

.38   .09   **Lens 34**

.38   .25   **Lens 35**

.38   .25   **Lens 36**

Additional Options Available:
Contact Factory

1. Specify LED Color

Series 22, 23
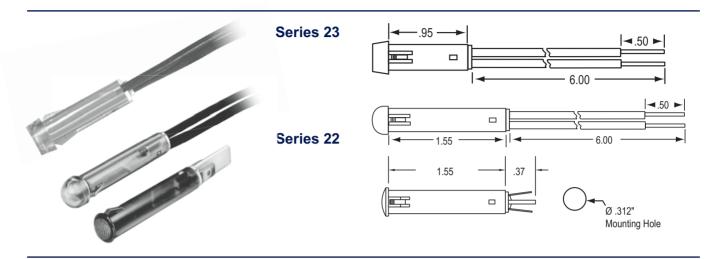
Features
• Snap fits into .312" panel hole
• Body and lens are one piece construction
• LED, incandescent, and neon illumination
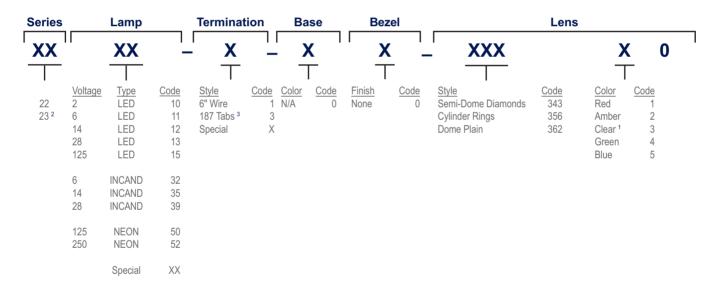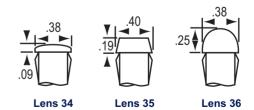
Specifications
• Body & Lens Material: Polycarbonate
• Terminals: .187 Tabs
• Wire Gauge: 18 ga.
• Wire Strip: 1/2"
• Panel Thickness: .025" to .060" max
• Certifications: Contact Us

Series 23

.95 | .50 | 6.00

Series 22

.50 | 1.55 | 6.00

1.55 | .37

Ø .312" Mounting Hole

Series	Lamp			Termination		Base		Bezel		Lens				
XX	XX		–	X	–	X		X	–	XXX			X	0

Series		Lamp			Termination		Base		Bezel		Lens		Lens	
22	Voltage	Type	Code	Style	Code	Color	Code	Finish	Code	Style	Code	Color	Code
23 [2]	2	LED	10	6" Wire	1	N/A	0	None	0	Semi-Dome Diamonds	343	Red	1
	6	LED	11	187 Tabs [3]	3					Cylinder Rings	356	Amber	2
	14	LED	12	Special	X					Dome Plain	362	Clear [1]	3
	28	LED	13									Green	4
	125	LED	15									Blue	5
	6	INCAND	32										
	14	INCAND	35										
	28	INCAND	39										
	125	NEON	50										
	250	NEON	52										
		Special	XX										

.38 | .09

.40 | .19

.38 | .25

Lens 34   **Lens 35**   **Lens 36**

Additional Options Available:
Contact Factory

1. Specify LED color
2. Components provided in leads when Series 23 is specified with lamp codes 11 - 15
3. Available with LED (2V) and incandescent lamps only, contact factory for additional information.

Series 35
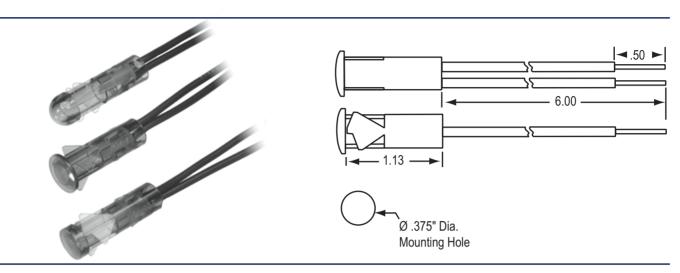
Features
• Snap fits into .375" panel hole
• Body and lens are one piece design
• LED, incandescent, and neon illumination
• Three lens styles available
• Splashproof
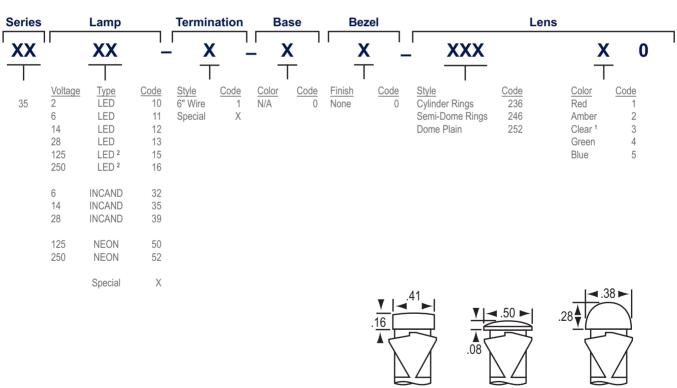
Specifications
• Body & Lens Material: Polycarbonate
• Wire Gauge: 20 ga.
• Wire Strip: 1/2"
• Panel Thickness: .032" to .094" max
• Certifications: Contact Us

.50

6.00

1.13

Ø .375" Dia.
Mounting Hole

Series	Lamp			Termination		Base		Bezel		Lens			
XX	XX			– X		X		X	–	XXX		X	0

	Voltage	Type	Code	Style	Code	Color	Code	Finish	Code	Style	Code	Color	Code
35	2	LED	10	6" Wire	1	N/A	0	None	0	Cylinder Rings	236	Red	1
	6	LED	11	Special	X					Semi-Dome Rings	246	Amber	2
	14	LED	12							Dome Plain	252	Clear [1]	3
	28	LED	13									Green	4
	125	LED [2]	15									Blue	5
	250	LED [2]	16										
	6	INCAND	32										
	14	INCAND	35										
	28	INCAND	39										
	125	NEON	50										
	250	NEON	52										
		Special	X										

.41
.16

.50
.08

.38
.28

Lens 23 **Lens 24** **Lens 25**

Additional Options Available:
Contact Factory

1. Specify LED Color
2. Requires components in wire leads

Series 64

Features

- Fits into .375 panel hole
- LED, incandescent, and neon illumination
- Sealed, NEMA 3-R
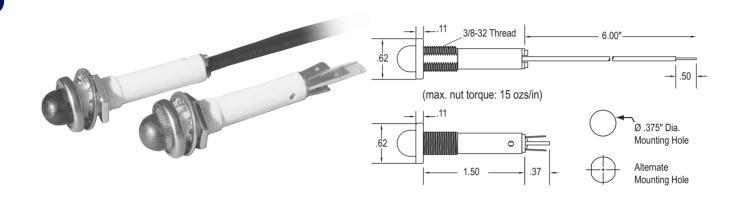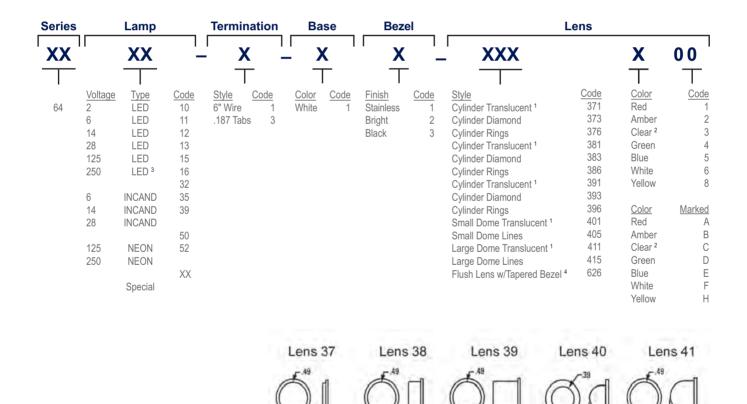
Specifications

- Body Material: Nylon
- Lens Material: Polycarbonate
- Wire Gauge: 18 ga.
- Wire Strip: 1/2"
- Terminals: .187 Tabs
- Panel Thickness: .030" to .250"
- Certifications: Contact Us

3/8-32 Thread
6.00"
.62
.11
.50
(max. nut torque: 15 ozs/in)

.62
.11
1.50
.37

Ø .375" Dia. Mounting Hole

Alternate Mounting Hole

Series	Lamp			Termination		Base		Bezel		Lens				
XX	**XX**			**X**		**X**		**X**		**XXX**		**X**	**0 0**	
64	Voltage	Type	Code	Style	Code	Color	Code	Finish	Code	Style	Code	Color	Code	
	2	LED	10	6" Wire	1	White	1	Stainless	1	Cylinder Translucent [1]	371	Red	1	
	6	LED	11	.187 Tabs	3			Bright	2	Cylinder Diamond	373	Amber	2	
	14	LED	12					Black	3	Cylinder Rings	376	Clear [2]	3	
	28	LED	13							Cylinder Translucent [1]	381	Green	4	
	125	LED	15							Cylinder Diamond	383	Blue	5	
	250	LED [3]	16							Cylinder Rings	386	White	6	
			32							Cylinder Translucent [1]	391	Yellow	8	
	6	INCAND	35							Cylinder Diamond	393			
	14	INCAND	39							Cylinder Rings	396	Color	Marked	
	28	INCAND								Small Dome Translucent [1]	401	Red	A	
			50							Small Dome Lines	405	Amber	B	
	125	NEON	52							Large Dome Translucent [1]	411	Clear [2]	C	
	250	NEON								Large Dome Lines	415	Green	D	
			XX							Flush Lens w/Tapered Bezel [4]	626	Blue	E	
		Special										White	F	
												Yellow	H	

Lens 37
.49
.05

Lens 38
.49
.20

Lens 39
.49
.41

Lens 40
.39
.28

Lens 41
.49
.41

Additional Options Available:
Contact Factory

1. Translucent Lens not recommended for use with LED
2. Specify LED Color
3. Wire Leads only
4. Bright Bezel only, use code 2

Series 28, 29

Features
- Fits into .500" panel hole
- LED, incandescent, and neon illumination
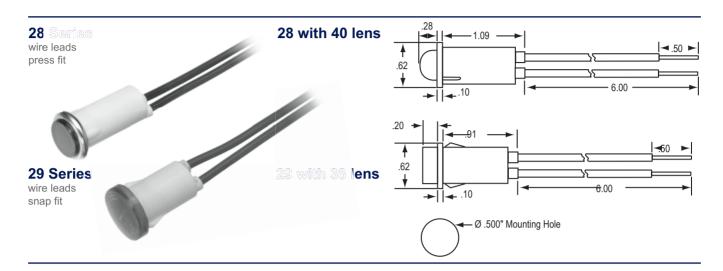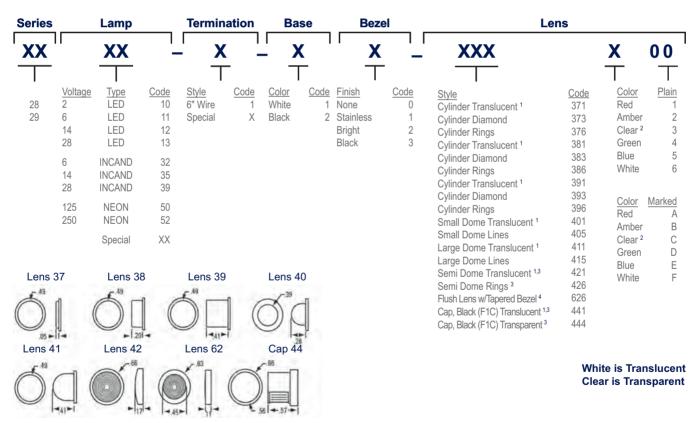- Many lens styles available

Specifications
- Body Material: Nylon
- Lens Material: Polycarbonate
- Bezel Material: Stainless Steel or Plated Brass
- Wire Gauge: 18 ga.
- Wire Strip: 1/2"
- Panel Thickness: .030" to .093
- Certifications: Contact Us

28 Series
wire leads
press fit

28 with 40 lens

29 Series
wire leads
snap fit

29 with 38 lens

.28 | 1.09 | .50
.62 | .10 | 6.00

.20 | .91 | .60
.62 | .10 | 6.00

Ø .500" Mounting Hole

Series	Lamp			Termination		Base		Bezel		Lens			
XX	**XX**		–	**X**	–	**X**		**X**	–	**XXX**		**X**	**0 0**

Series		Lamp			Termination		Base		Bezel		Lens			
		Voltage	**Type**	**Code**	**Style**	**Code**	**Color**	**Code**	**Finish**	**Code**	**Style**	**Code**	**Color**	**Plain**
28		2	LED	10	6" Wire	1	White	1	None	0	Cylinder Translucent [1]	371	Red	1
29		6	LED	11	Special	X	Black	2	Stainless	1	Cylinder Diamond	373	Amber	2
		14	LED	12					Bright	2	Cylinder Rings	376	Clear [2]	3
		28	LED	13					Black	3	Cylinder Translucent [1]	381	Green	4
											Cylinder Diamond	383	Blue	5
		6	INCAND	32							Cylinder Rings	386	White	6
		14	INCAND	35							Cylinder Translucent [1]	391		
		28	INCAND	39							Cylinder Diamond	393		
											Cylinder Rings	396	**Color**	**Marked**
		125	NEON	50							Small Dome Translucent [1]	401	Red	A
		250	NEON	52							Small Dome Lines	405	Amber	B
											Large Dome Translucent [1]	411	Clear [2]	C
			Special	XX							Large Dome Lines	415	Green	D
											Semi Dome Translucent [1,3]	421	Blue	E
											Semi Dome Rings [3]	426	White	F
											Flush Lens w/Tapered Bezel [4]	626		
											Cap, Black (F1C) Translucent [1,3]	441		
											Cap, Black (F1C) Transparent [3]	444		

Lens 37 | **Lens 38** | **Lens 39** | **Lens 40**

.49 | .49 | .49 | .39
.05 | .20 | .41 | .28

Lens 41 | **Lens 42** | **Lens 62** | **Cap 44**

.49 | .66 | .63 | .66
.41 | .17 | .45 | .56 | .57

White is Translucent
Clear is Transparent

Additional Options Available:
Contact Factory

1. Translucent Lens is not recommended for use with LED
2. Specify LED Color
3. Bezel not available
4. Bright Bezel only, use code 2

Series 30

Features
- Snap fits into .500" panel hole
- LED, incandescent, and neon illumination
- Many lens styles available

Specifications
- Body Material: Nylon
- Lens Material: Polycarbonate
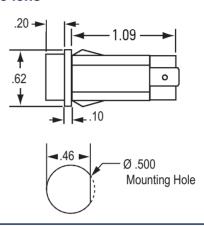- Bezel Material: Stainless steel or plated brass
- Terminals: .187 or .250 Tabs
- Panel Thickness: .030" to .093"
- Certifications: Contact Us

30 Series

30 with 38 lens

.20 → | 1.09
.62
.10
.46 → | Ø .500 Mounting Hole

Series	Lamp	Termination	Base	Bezel	Lens		
XX	XX	– X	– X	X	– XXX	X	0

30	**Voltage**	**Type**	**Code**							
	2	LED	10							
	6	LED	11							
	14	LED	12							
	28	LED	13							
	6	INCAND	32							
	14	INCAND	35							
	28	INCAND	39							
	125	NEON	50							
	250	NEON	52							
		Special	XX							

Termination		Base		Bezel	
Style	**Code**	**Color**	**Code**	**Finish**	**Code**
.187 Tabs	3	White	1	None	0
.250 Tabs	4	Black	2	Stainless	1
				Bright	2
				Black	3

Lens			
Style	**Code**	**Color**	**Plain**
Cylinder Translucent [1]	371	Red	1
Cylinder Diamond	373	Amber	2
Cylinder Rings	376	Clear [2]	3
Cylinder Translucent [1]	381	Green	4
Cylinder Diamond	383	Blue	5
Cylinder Rings	386	White	6
Cylinder Translucent [1]	391		
Cylinder Diamond	393	**Color**	**Marked**
Cylinder Rings	396	Red	A
Small Dome Translucent [1]	401	Amber	B
Small Dome Lines	405	Clear [2]	C
Large Dome Translucent [1]	411	Green	D
Large Dome Lines	415	Blue	E
Semi Dome Translucent [1,3]	421	White	F
Semi Dome Rings [3]	426		
Flush Lens w/Tapered Bezel [4]	626		
Cap, Black (F1C) Translucent [1,3]	441		
Cap, Black (F1C) Transparent [3]	444		

White is Translucent
Clear is Transparent

Lens 37   Lens 38   Lens 39   Lens 40

.49 | .49 | .49 | .39
.05 | .20 | .41 | .28

Lens 41   Lens 42   Lens 62   Cap 44

.49 | .66 | .63 | .66
.41 | .17 | .45 | .56 .57

Additional Options Available:
Contact Factory

1. Translucent Lens is not recommended for use with LED
2. Specify LED Color
3. Bezel not available
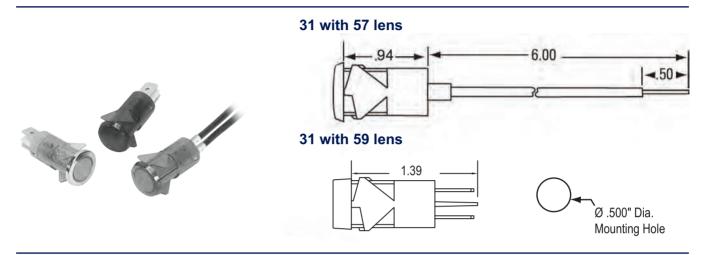*4. Bright Bezel only, use code 2*
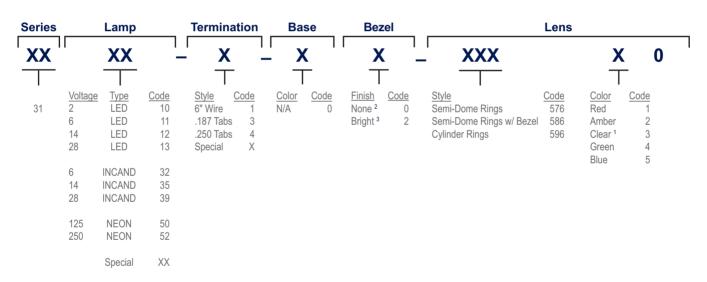
Series 31

Features
• Snap fits into .500" panel hole
• Body and lens are one piece design
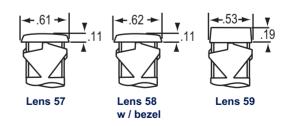• LED, incandescent, and neon illumination
• Splashproof

Specifications
• Body & Lens Material: Polycarbonate
• Wire Gauge: 20 ga.
• Wire Strip: 1/2"
• Terminals: .187 or .250 Tabs
• Panel Thickness: .040" to .093
• Certifications: Contact Us

31 with 57 lens

31 with 59 lens

Ø .500" Dia.
Mounting Hole

Series	Lamp	Termination	Base	Bezel	Lens	
XX	XX	– X	– X	X	– XXX	X 0

Series	Voltage	Type	Code	Style	Code	Color	Code	Finish	Code	Style	Code	Color	Code
31	2	LED	10	6" Wire	1	N/A	0	None [2]	0	Semi-Dome Rings	576	Red	1
	6	LED	11	.187 Tabs	3			Bright [3]	2	Semi-Dome Rings w/ Bezel	586	Amber	2
	14	LED	12	.250 Tabs	4					Cylinder Rings	596	Clear [1]	3
	28	LED	13	Special	X							Green	4
												Blue	5
	6	INCAND	32										
	14	INCAND	35										
	28	INCAND	39										
	125	NEON	50										
	250	NEON	52										
		Special	XX										

Lens 57

**Lens 58
w / bezel**

Lens 59

Additional Options Available:
Contact Factory

1. Specify LED Color
2. Lens 57 and 59 only
3. Bright - Lens 58 only

Series 67

Features
- Fits into .500" panel hole
- LED, incandescent, and neon illumination
- Sealed, NEMA 3-R

Specifications
- Body & Lens Material: Polycarbonate
- Bezel Material: Stainless steel or plated brass
- Terminals: .187 or .250 Tabs
- Panel Thickness: .031" to .125"
- Certifications: Contact Us

Ø.500

Mounting Hole (Typ)

Alternate Mounting Hole

1.00

.05

.62

.62

1.44

(max. nut torque: 50 ozs/in)

Series	Lamp			Termination		Base		Bezel		Lens			
XX	XX			– X		X		X –		XXX		X	0
67	Voltage	Type	Code	Style	Code	Color	Code	Finish	Code	Style	Code	Color	Code
	2	LED	10	.187 Tabs	3	N/A	0	None	0	Cylinder Translucent [1]	371	Red	1
	6	LED	11	.250 Tabs	4			Stainless	1	Cylinder Diamond	373	Amber	2
	14	LED	12					Bright	2	Cylinder Rings	376	Clear [2]	3
	28	LED	13					Black	3	Cylinder Translucent [1]	381	Green	4
										Cylinder Diamond	383	Blue	5
	6	INCAND	32							Cylinder Rings	386	White	6
	14	INCAND	35							Cylinder Translucent [1]	391		
	28	INCAND	39							Cylinder Diamond	393	Color	Marked
										Cylinder Rings	396	Red	A
	125	NEON	50							Small Dome Translucent [1]	401	Amber	B
	250	NEON	52							Small Dome Lines	405	Clear [2]	C
										Large Dome Translucent [1]	411	Green	D
										Large Dome Lines	415	Blue	E
										Flush Lens w/Tapered Bezel [4]	626	White	F
										Cap, Black (F1C) Translucent [1,3]	441		
										Cap, Black (F1C) Transparent [3]	444		

Lens 37

.49

.05

Lens 38

.49

.20

Lens 39

.49

.4

Lens 40

.39

.28

Lens 41

.49

.41

Lens 62

.83

.45

Cap 44

.66

.56 .57

White is Translucent
Clear is Transparent

Additional Options Available:
Contact Factory

1. Translucent Lens is not recommended for use with LED
2. Specify LED Color
3. Bezel not available
4. Bright Bezel only, use code 2

Series 68

Features
- Snap fits into .500" panel hole
- LED, incandescent, and neon illumination
- Many lens styles available
- Splashproof

Specifications
- Body Material: Polycarbonate
- Lens Material: Polycarbonate
- Bezel Material: Stainless Steel or Plated Brass
- Wire Gauge: 20 ga.
- Wire Strip: 1/2"
- Terminals: .187 or .250 Tabs
- Panel Thickness: .030" to .093
- Certifications: Contact Us
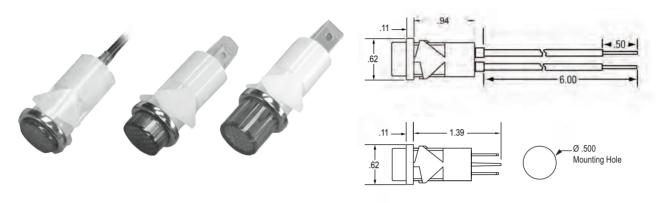
Shown with lens 38

Series	Lamp		Termination	Base	Bezel	Lens		
XX	XX		– X	– X	X	_ XXX	X	0

68	Voltage	Type	Code
	2	LED	10
	6	LED	11
	14	LED	12
	28	LED	13
	125	LED [4]	15
	250	LED [4]	16
	6	INCAND	32
	14	INCAND	35
	28	INCAND	39
	125	NEON	50
	250	NEON	52
	480	NEON [4]	54
	600	NEON [4]	55

Termination

Style	Code
6" wire	1
.187 Tabs	3
.250 Tabs	4

Base

Color	Code
N/A	0

Bezel

Finish	Code
None	0
Stainless	1
Bright	2
Black	3

Lens

Style	Code
Cylinder Translucent [1]	371
Cylinder Diamond	373
Cylinder Rings	376
Cylinder Translucent [1]	381
Cylinder Diamond	383
Cylinder Rings	386
Cylinder Translucent [1]	391
Cylinder Diamond	393
Cylinder Rings	396
Small Dome Translucent [1]	401
Small Dome Lines	405
Large Dome Translucent [1]	411
Large Dome Lines	415
Semi Dome Translucent [1,3]	421
Semi Dome Rings [3]	426
Flush Lens w/Tapered Bezel [5]	626
Cap, Black (F1C) Translucent [1,3]	441
Cap, Black (F1C) Transparent [3]	444

Color	Plain
Red	1
Amber	2
Clear [2]	3
Green	4
Blue	5
White	6

Color	Marked
Red	A
Amber	B
Clear [2]	C
Green	D
Blue	E
White	F

White is Translucent
Clear is Transparent

Lens 37 **Lens 38** **Lens 39** **Lens 40**

Lens 41 **Lens 42** **Lens 62** **Cap 44**

Additional Options Available:
Contact Factory

1. Translucent Lens is not recommended for use with LED
2. Specify LED Color
3. Bezel not available
4. Wire Leads only
5. Bright Bezel only, use code 2

Series 65

Features
• Fits into .690" panel hole
• Threaded mount
• LED cluster lighting
• Daylight Visible
• Supplied w/ hex nut, lock washer and gasket
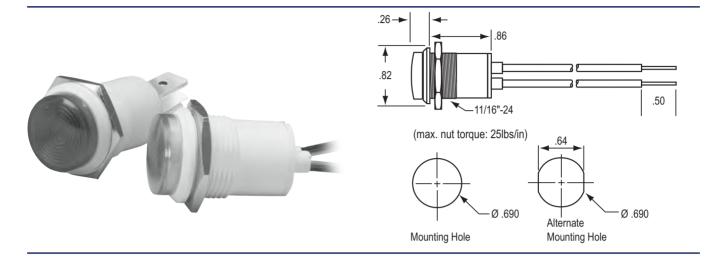• Sealed, NEMA 3-R

Specifications
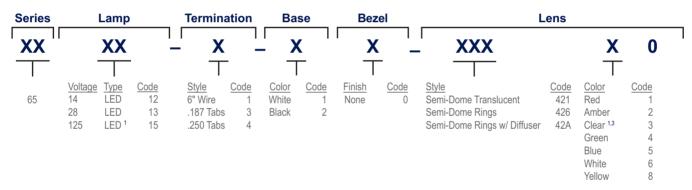• Body Material: Nylon
• Lens Material: Polycarbonate
• Wire Gauge: 20 ga.
• Wire Strip: 1/2"

• Terminals: .187 or .250 Tabs
• Panel Thickness: .050" to .187
• Certifications: Contact Us

.26 .86 .82 11/16"-24 .50 .64

(max. nut torque: 25lbs/in)

Ø .690 Mounting Hole

Ø .690 Alternate Mounting Hole

Series	Lamp			Termination		Base		Bezel		Lens			
XX	XX			— X		X		X		XXX		X	0

	Voltage	Type	Code
65	14	LED	12
	28	LED	13
	125	LED[1]	15

Style	Code
6" Wire	1
.187 Tabs	3
.250 Tabs	4

Color	Code
White	1
Black	2

Finish	Code
None	0

Style	Code
Semi-Dome Translucent	421
Semi-Dome Rings	426
Semi-Dome Rings w/ Diffuser	42A

Color	Code
Red	1
Amber	2
Clear[1,3]	3
Green	4
Blue	5
White	6
Yellow	8

**White is Translucent
Clear is Transparent**

LED Light Output (mcd)[2]
Red	10k typ.
Green	15k typ.
Blue	7k typ.
White	12k typ.
Yellow	8k typ.
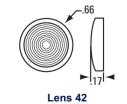
.66 .17

Lens 42

Additional Options Available:
Contact Factory

1. Reduced Intensity
2. Daylight Visible LED's may require ESD handling
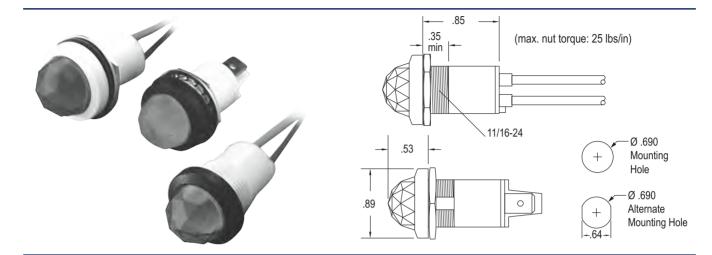*3. Specify LED color*

Series 66

Features
- Fits into .690" panel hole
- Threaded mount
- LED cluster lighting
- Daylight Visible
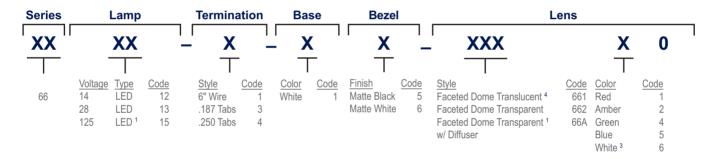- Supplied w/ hex nut, lock washer and gasket
- Splashproof

Specifications
- Body Material: Nylon
- Lens Material: Polycarbonate
- Wire Gauge: 20 ga.
- Wire Strip: 1/2"
- Terminals: .187 or .250 Tabs
- Panel Thickness: .050" to .187
- Certifications: Contact Us

.85
.35 min
(max. nut torque: 25 lbs/in)
11/16-24
.53
.89
.64

Ø .690 Mounting Hole
Ø .690 Alternate Mounting Hole

Series	Lamp			Termination		Base		Bezel		Lens				
XX	**XX**			**– X**		**– X**		**X –**		**XXX**			**X**	**0**
66	Voltage	Type	Code	Style	Code	Color	Code	Finish	Code	Style	Code	Color	Code	
	14	LED	12	6" Wire	1	White	1	Matte Black	5	Faceted Dome Translucent [4]	661	Red	1	
	28	LED	13	.187 Tabs	3			Matte White	6	Faceted Dome Transparent	662	Amber	2	
	125	LED [1]	15	.250 Tabs	4					Faceted Dome Transparent [1] w/ Diffuser	66A	Green	4	
												Blue	5	
												White [3]	6	

White is Translucent

LED Light Output (mcd) [2]
Red	10k typ.
Green	15k typ.
Blue	7k typ.
White	12k typ.
Yellow	8k typ.
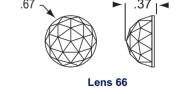
.67
.37
Lens 66

Additional Options Available:
Contact Factory

1. Reduced Intensity
2. Daylight visible LED's may require ESD handling
3. Translucent only
4. White only

Series 43, 44, 45

Features
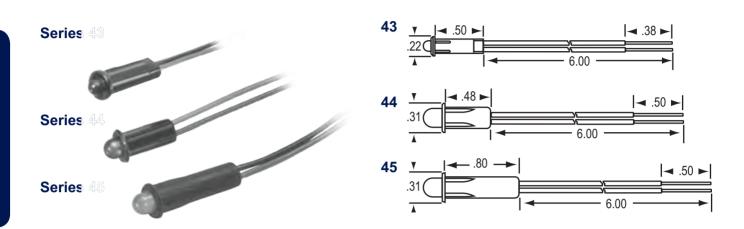- Series 43 - 3mm size LED
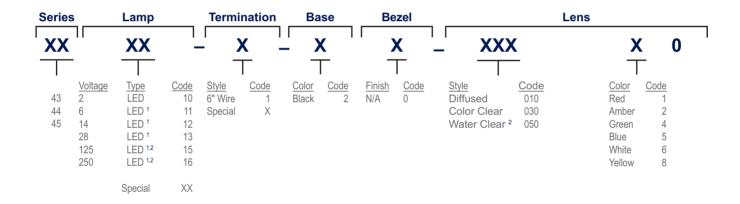- Series 44 & 45 - 5mm LED
- Press Fit

Specifications
- Body Material: Nylon
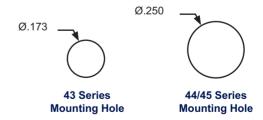- Wire Gauge: Series 43 - 26 ga., 3/8" Strip
  Series 44/45 - 24 ga., 1/2 " strip
- Certifications: Contact Us

Series 43

Series 44

Series 45

43 .50 | .38 | .22 | 6.00

44 .48 | .50 | .31 | 6.00

45 .80 | .50 | .31 | 6.00

Series	Lamp		Termination	Base	Bezel	Lens		
XX	**XX**		**– X**	**X**	**X**	**– XXX**	**X**	**0**

	Voltage	Type	Code	Style	Code	Color	Code	Finish	Code	Style	Code	Color	Code
43	2	LED	10	6" Wire	1	Black	2	N/A	0	Diffused	010	Red	1
44	6	LED [1]	11	Special	X					Color Clear	030	Amber	2
45	14	LED [1]	12							Water Clear [2]	050	Green	4
	28	LED [1]	13									Blue	5
	125	LED [1,2]	15									White	6
	250	LED [1,2]	16									Yellow	8
		Special	XX										

Contact factory with your specific LED requirements

Ø.173

Ø.250

43 Series Mounting Hole

44/45 Series Mounting Hole

Additional Options Available:
Contact Factory

1. For voltages greater than 2V the appropriate external resistor will be provided in the lead
2. Not available on Series 43

Series 46, 47

Features
- Series 46 - 3mm size LED
- Series 47 - 5mm LED
- Threaded body - secured with lockwasher & nut
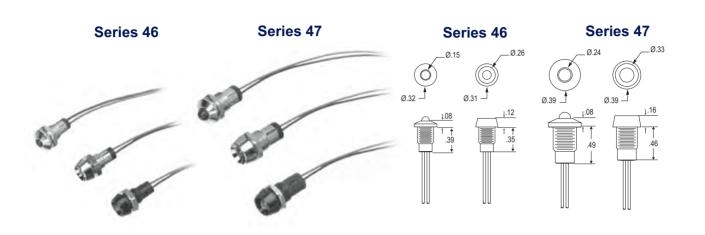- Black or Bright finish

Specifications
- Body Material: Brass (Plated)
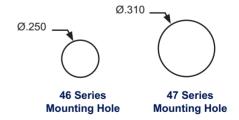- Wire Gauge: Series 46 - 26 ga.
  Series 47 - 24 ga.
- Wire Strip: 3/8"
- Certifications: Contact Us

Series 46 **Series 47** **Series 46** **Series 47**

Ø.15 Ø.26 Ø.24 Ø.33
Ø.32 Ø.31 Ø.39 Ø.39
.08 .12 .08 .16
.39 .35 .49 .46

Series	Lamp		Termination	Base	Bezel	Lens	
XX	**XX**		**– X**	**– X**	**X**	**– XXX**	**X 0**

	Voltage	Type	Code
46	2	LED	10
47	6	LED [1]	11
	14	LED [1]	12
	28	LED [1]	13
		Special	XX

Termination
Style	Code
6" Wire	1
Special	X

Base
Color	Code
Dome	7
Recess	8

Bezel
Finish	Code
Bright	2
Black	3

Lens
Style	Code
Diffused	010
Color Clear	030
Water Clear	050

Color	Code
Red	1
Amber	2
Green	4
Blue [3]	5
White	6
Yellow	8

Contact factory with your specific LED requirements

Ø.250 Ø.310

46 Series Mounting Hole **47 Series Mounting Hole**

Additional Options Available:
Contact Factory

1. Voltages greater than 2V require components in lead wire(s)

Series 13

Features
- Snap fits into 1.200" x .640" panel cutout
- Incandescent and neon illumination
- Two lens styles available
- Suggested for High Temperature applications
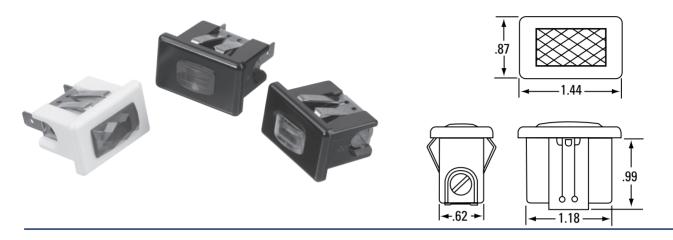- Two termination styles available
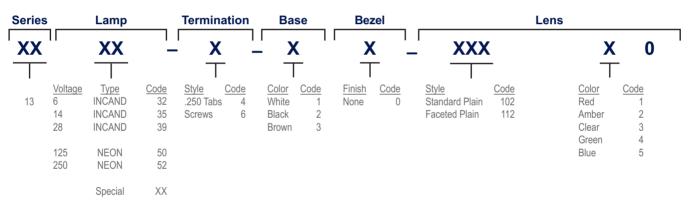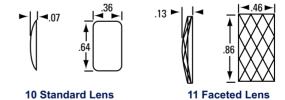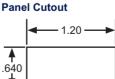
Specifications
- Body Material: Phenolic
- Lens Material: Polycarbonate
- Terminals: .250 Tabs
- Panel Thickness: .045 to .065
- Certifications: Contact Us

.87
1.44
.62
.99
1.18

Series	Lamp			Termination		Base		Bezel		Lens				
XX	**XX**			**X**		**X**		**X**		**XXX**			**X**	**0**

Series		Lamp			Termination		Base		Bezel		Lens		Lens Color	
	13	Voltage	Type	Code	Style	Code	Color	Code	Finish	Code	Style	Code	Color	Code
		6	INCAND	32	.250 Tabs	4	White	1	None	0	Standard Plain	102	Red	1
		14	INCAND	35	Screws	6	Black	2			Faceted Plain	112	Amber	2
		28	INCAND	39			Brown	3					Clear	3
		125	NEON	50									Green	4
		250	NEON	52									Blue	5
			Special	XX										

.07
.36
.64

.13
.46
.86

10 Standard Lens

11 Faceted Lens

Panel Cutout

1.20
.640

Additional Options Available:
Contact Factory

Series 15

Features
• Snap fits into 1.125" x .550" panel cutout
• LED, incandescent and neon illumination
• Matte Finish
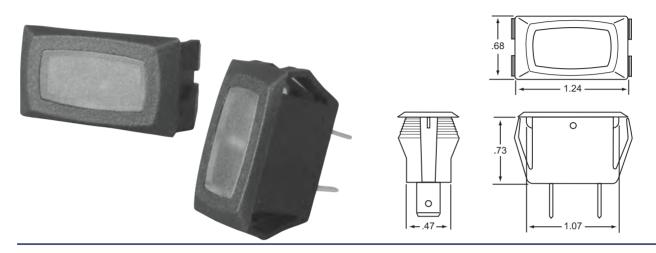• Dummy (hole plugs)available

Specifications
• Body Material: Nylon
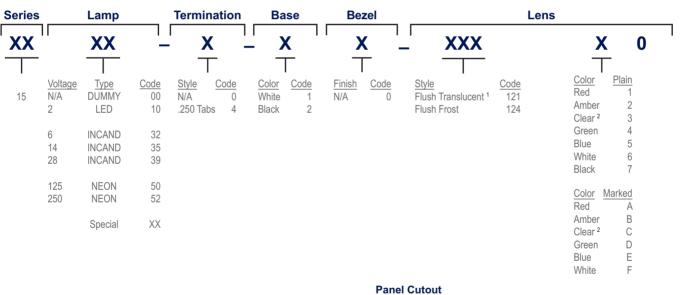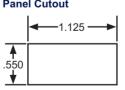• Lens Material: Polycarbonate
• Terminals: .250 Tabs
• Panel Thickness: .025 to .187
• Certifications: Contact Us

.68
1.24
.73
.47
1.07

Series	Lamp			Termination		Base		Bezel		Lens				
XX	**XX**		–	**X**	–	**X**		**X**	–	**XXX**			**X**	**0**
	Voltage	Type	Code	Style	Code	Color	Code	Finish	Code	Style	Code		Color	Plain
15	N/A	DUMMY	00	N/A	0	White	1	N/A	0	Flush Translucent [1]	121		Red	1
	2	LED	10	.250 Tabs	4	Black	2			Flush Frost	124		Amber	2
													Clear [2]	3
	6	INCAND	32										Green	4
	14	INCAND	35										Blue	5
	28	INCAND	39										White	6
													Black	7
	125	NEON	50											
	250	NEON	52										Color	Marked
													Red	A
		Special	XX										Amber	B
													Clear [2]	C
													Green	D
													Blue	E
													White	F

Panel Cutout

1.125
.550

White is Translucent
Clear is Transparent

Additional Options Available:
Contact Factory

1. Translucent Lens is not recommended for use with LED
2. Specify LED Color

Series 16, 17

Features
- Snap fits into 1.450" x .830" panel cutout
- Incandescent and neon illumination
- Single or dual lenses
- Dummy (hole plugs) available

Specifications
- Body Material: Nylon
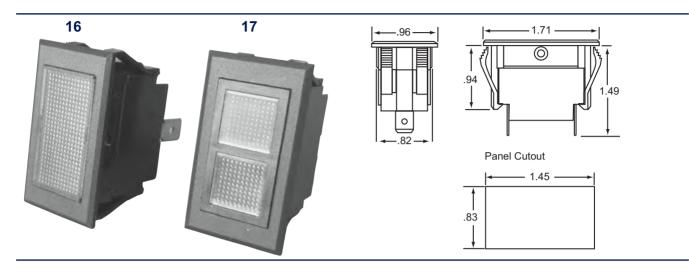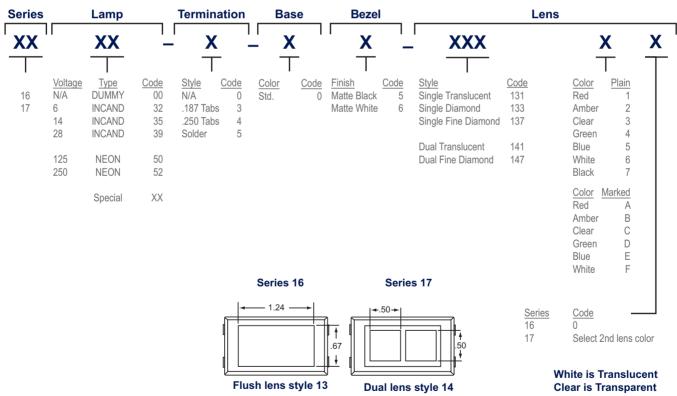- Lens Material: Polycarbonate
- Wire Gauge: 18 ga.
- Terminals: .187 & .250 Tabs, Solder Lugs
- Panel Thickness: .030 to .240
- Certifications: Contact Us

16 **17**

.96   1.71

.94   1.49

.82

Panel Cutout

1.45

.83

Series	Lamp			Termination		Base		Bezel		Lens				
XX	**XX**			**X**		**X**		**X**		**XXX**			**X**	**X**
	Voltage	Type	Code	Style	Code	Color	Code	Finish	Code	Style	Code	Color	Plain	
16	N/A	DUMMY	00	N/A	0	Std.	0	Matte Black	5	Single Translucent	131	Red	1	
17	6	INCAND	32	.187 Tabs	3			Matte White	6	Single Diamond	133	Amber	2	
	14	INCAND	35	.250 Tabs	4					Single Fine Diamond	137	Clear	3	
	28	INCAND	39	Solder	5							Green	4	
										Dual Translucent	141	Blue	5	
	125	NEON	50							Dual Fine Diamond	147	White	6	
	250	NEON	52									Black	7	
		Special	XX									Color	Marked	
												Red	A	
												Amber	B	
												Clear	C	
												Green	D	
												Blue	E	
												White	F	

Series	Code
16	0
17	Select 2nd lens color

White is Translucent
Clear is Transparent

Series 16 **Series 17**

1.24   .50

.67   .50

Flush lens style 13 **Dual lens style 14**

Additional Options Available:
Contact Factory

Series 25, 26, 27

Features
- Snap fits into panel cutout
- Incandescent and neon illumination
- Single or dual lenses
- Dummy (hole plugs) available

Specifications
- Body Material: Nylon
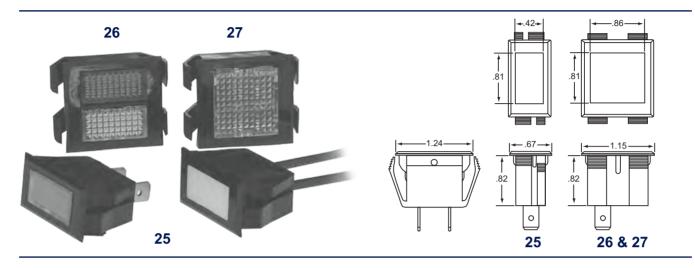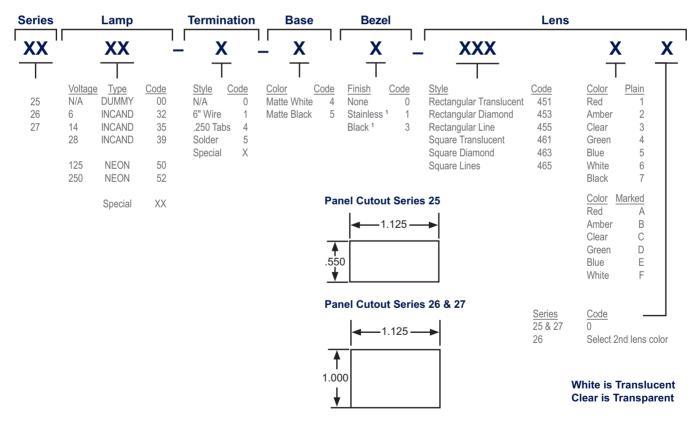- Lens Material: Polycarbonate
- Wire Gauge: 18 ga.
- Terminals: .250 Tabs, Solder Lugs
- Panel Thickness: .020 to .250
- Certifications: Contact Us

26 **27**

25

.42 .86

.81 .81

1.24 .67 1.15

.82 .82

25 **26 & 27**

Series	Lamp			Termination		Base		Bezel		Lens				
XX	**XX**			**X**		**X**		**X**		**XXX**			**X**	**X**
	Voltage	Type	Code	Style	Code	Color	Code	Finish	Code	Style	Code		Color	Plain
25	N/A	DUMMY	00	N/A	0	Matte White	4	None	0	Rectangular Translucent	451		Red	1
26	6	INCAND	32	6" Wire	1	Matte Black	5	Stainless [1]	1	Rectangular Diamond	453		Amber	2
27	14	INCAND	35	.250 Tabs	4			Black [1]	3	Rectangular Line	455		Clear	3
	28	INCAND	39	Solder	5					Square Translucent	461		Green	4
				Special	X					Square Diamond	463		Blue	5
	125	NEON	50							Square Lines	465		White	6
	250	NEON	52										Black	7
		Special	XX											

Color	Marked
Red	A
Amber	B
Clear	C
Green	D
Blue	E
White	F

Series	Code
25 & 27	0
26	Select 2nd lens color

Panel Cutout Series 25

1.125

.550

Panel Cutout Series 26 & 27

1.125

1.000

White is Translucent
Clear is Transparent

Additional Options Available:
Contact Factory

1. Series 25 and 26 only

Series 33, 34

Features
- Snap fits into 1.280 x .375 panel cutout
- Incandescent and neon illumination
- Many lens styles available
- Dummy (hole plugs) available

Specifications
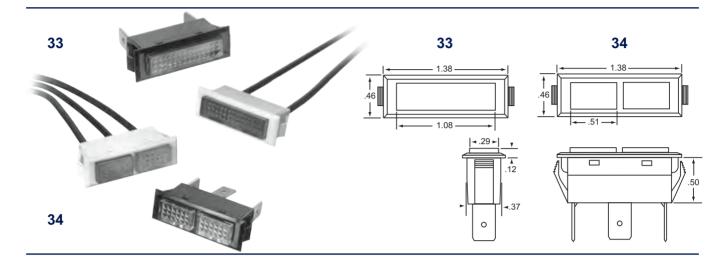- Body Material: Nylon
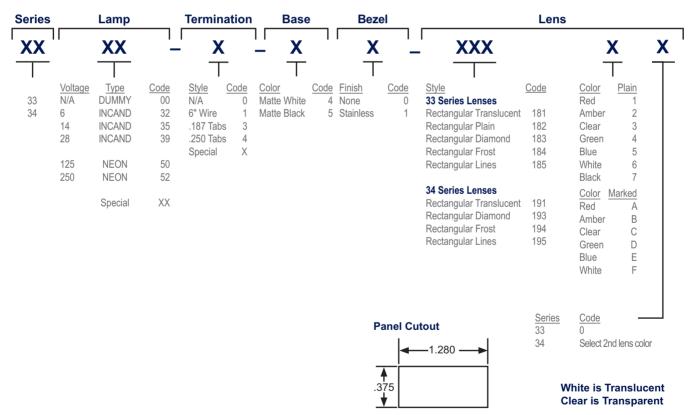- Lens Material: Polycarbonate
- Wire Gauge: 18 ga.
- Wire strip: 1/2"
- Terminals: .187 or .250 Tabs
- Panel Thickness: .030 to .100
- Certifications: Contact Us

33

34

33

1.38
.46
1.08
.29
.12
.37

34

1.38
.46
.51
.50

Series	Lamp			Termination		Base		Bezel		Lens			
XX	XX	–		X	–	X		X	–	XXX		X	X

Series

33	
34	

Lamp

Voltage	Type	Code
N/A	DUMMY	00
6	INCAND	32
14	INCAND	35
28	INCAND	39
125	NEON	50
250	NEON	52
	Special	XX

Termination

Style	Code
N/A	0
6" Wire	1
.187 Tabs	3
.250 Tabs	4
Special	X

Base

Color	Code
Matte White	4
Matte Black	5

Bezel

Finish	Code
None	0
Stainless	1

Lens

Style	Code
33 Series Lenses	
Rectangular Translucent	181
Rectangular Plain	182
Rectangular Diamond	183
Rectangular Frost	184
Rectangular Lines	185
34 Series Lenses	
Rectangular Translucent	191
Rectangular Diamond	193
Rectangular Frost	194
Rectangular Lines	195

Color	Plain
Red	1
Amber	2
Clear	3
Green	4
Blue	5
White	6
Black	7

Color	Marked
Red	A
Amber	B
Clear	C
Green	D
Blue	E
White	F

Series	Code
33	0
34	Select 2nd lens color

Panel Cutout

1.280
.375

White is Translucent
Clear is Transparent

Additional Options Available:
Contact Factory

Series 10, 60

Features
- Lens mounts from front, indicator from behind panel
- Incandescent and neon illumination
- 10 Series has wire leads only
- 60 Series available with wire leads or tab terminals

Specifications
- Body Material: Nylon
- Lens Material: Polycarbonate
- Wire Gauge: Series 10 - 20 ga
  Series 60 - 18 ga
- Wire Strip: 1/2"
- Terminals: .187 Tabs or .250 Tabs
- Panel Thickness: .030 - .780 [2]
- Certifications: Contact Us
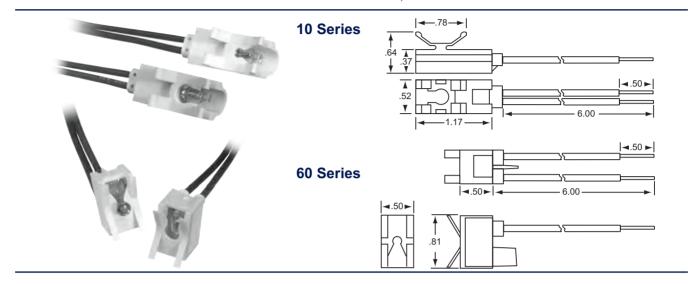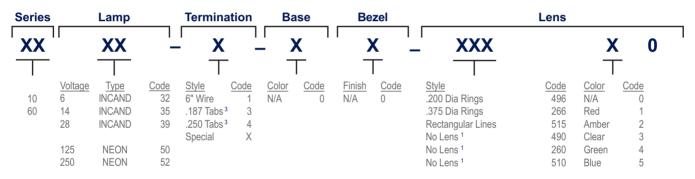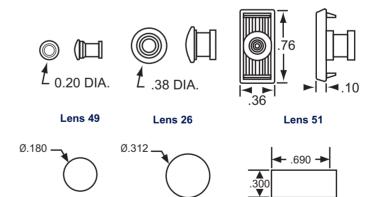
10 Series

60 Series

Series	Lamp		Termination	Base	Bezel	Lens			
XX	XX		– X	– X	X	– XXX		X	0

	Voltage	Type	Code	Style	Code	Color	Code	Finish	Code	Style	Code	Color	Code
10	6	INCAND	32	6" Wire	1	N/A	0	N/A	0	.200 Dia Rings	496	N/A	0
60	14	INCAND	35	.187 Tabs[3]	3					.375 Dia Rings	266	Red	1
	28	INCAND	39	.250 Tabs[3]	4					Rectangular Lines	515	Amber	2
				Special	X					No Lens[1]	490	Clear	3
	125	NEON	50							No Lens[1]	260	Green	4
	250	NEON	52							No Lens[1]	510	Blue	5

0.20 DIA.
.38 DIA.

Lens 49 **Lens 26** **Lens 51**

.76
.36
.10

Ø.180
Ø.312
.690
.300

Mounting Hole **Mounting Hole** **Panel Cutout**

Lens 49 mounting hole .180" dia
Lens 26 mounting hole .312 " dia.
Lens 51 mounting hole .690" x .300"

Additional Options Available:
Contact Factory

1. If Ordered without lens, lens style must still be specified, Pattern and color are "0"
2. Nominal range. Alternate lenses (style 26) are available to fit thicker panels. Please consult factory
3. Series 60 only

Rear Mount Indicators

Lamps & LED's

Neon Lamps (AC)

Neon lamps are constructed of a glass envelope, containing two electrodes and a mixture of inert gases. When a voltage is applied, above the "breakdown" voltage, the gas between the electrodes ionizes, creating the familiar orange-red "glow". They are rugged, reliable, cost effective and generate little heat. While light output is lower than incandescent lamps, neons are the most widely used light sources for indicators used at line voltages. Normally lighting with a red-orange glow, neons are also available in both green and blue by using special gasses and phosphorescent coatings inside the glass envelope.

All neon lamps require a current limiting resistor in series with the lamp. The value of this resistor is determined by three criteria: the manufacturer's specified operating characteristics, the desired brightness, and the required lamp life. While neon lamps have a typical life of 25,000 hours, this is directly proportional to the operating current. Higher current gives greater brightness, but shorter life. Although suited to both AC and DC operation, life when operated on DC is approximately 60% that of AC operation.

Catalog Number	Color	Volts	Life Hours
50	Amber	125V	25,000
52	Amber	250V	25,000
50	Green	125V	15,000
52	Green	250V	15,000
50	Blue	125V	10,000
52	Blue	250V	10,000

Please Note: *All neon illuminated indicator lights ordered with a green lens will be provided with a green neon lamp; blue lenses will be provided with a blue neon lamp.*

Incandescent Lamps (AC/DC)

Incandescent lamps are best known for their bright white light output. When an electrical current is passed through the filament, it glows "white hot" creating light. The trade-off in incandescent lamps is their susceptibility to physical shock and vibration, as the filament becomes very fragile at its elevated operating temperatures. We recommend mounting the indicator away from any vibration source, and / or cushioning the lamp within the indicator assembly with a resilient potting compound.

Catalog Number	Volts	Size	Amps	Life Hours
32	6.3V	T - 1¾	.04	50,000
33	10V	T - 1¾	.04	5,000
35	14V	T - 1¾	.08	50,000
39	28V	T - 1¾	.04	25,000

Incandescent lamps can also generate significant heat, which should be considered in your application. Similar to neon lamps, operating an incandescent lamp at less than rated current will significantly increase its useful life. Using a 14 volt incandescent lamp in a 12 volt circuit will reduce the light output by about 30%, but will increase its life by a factor of four. **Potting for Incandescent lamps is standard**.

LEDs (DC)

Note: Daylight Visible LED's require ESD handling

Light Emitting Diodes, or LEDs as they are more commonly known, are cousins to the semiconductor devices like transistors and integrated circuits, and are fabricated with similar processes. The color of the LED is determined by the combination of materials used during the fabrication process. LED's are now available in a wide variety of colors including white, and in intensities approaching that of incandescent lamps. Bi-color LEDs are available in several color combinations.

LEDs are available in three primary styles; water clear lens for highest brightness but smallest viewing angle, color clear lens for increased viewing angle at a somewhat reduced light output, and color diffused lens for the widest viewing angle at greater reduction in light output. Light output for LEDs is measured in millicandellas (mcd) and is specified by minimum and typical values.

LEDs are DC (direct current) devices, although SoLiCo can provide a number of our products configured to use LEDs as AC (alternating current) devices.

LEDS: Due to rapidly changing LED technology, not all devices listed in our catalog may be available as described. We reserve the right to supply the closest equivalent device in appearance and performance.

Please contact us to discuss your specific LED indicator requirements. We have the experience and technical knowledge to find your solution.

Technical Specifications

Material Specifications

Wire length tolerance is:	± ¼" on leads less than 12"
	± ½"; leads 12" to 36"
	± 1" on leads greater than 36"
Strip length tolerance is:	± ¹⁄32"
LED maximum operating temperature is:	70°C

Housing Materials	Operating Temperature	UL Rating
High-Temperature Nylon (bases)	140°C	94V-2
Polycarbonate (lenses & bases)	115°C	94V-2
Chemical Resistant Nylon (66 Series only)	100°C	Contact Factory

Nominal operating temperature listed. Specific temperatures vary according to material thickness. Please consult factory.

Imprinting

Hot Stamping

Hot stamping uses a heated metal die, engraved with the required legend, under pressure to force ink into a plastic surface, offering excellent durability. Hot stamping is normally done in black or white, and is best suited to text and simple line art. If no ink color is specified, hot stamping will be done in black, and the orientation of the imprint will be horizontal.

Hot stamp charges are "per imprint", which is defined as a marking applied in one operation. The tooling charge for a Hot Stamp Die (not already available) is $185.00 per die. Minimum quantity is 100 pieces. A set-up charge of $35.00 will apply to quantities of less than 500 pieces per legend.

Pad Printing

Pad printing (also known as transfer printing), uses a soft rubber pad to pick up ink from an engraved plate and transfers it to the part to be marked. Pad printing is normally done in black or white, but can be done in any color for which ink is available. If no ink color is specified, white ink will be used. Text and images can be very accurately reproduced with this method. For additional durability in abrasive or high-wear applications, a clear overcoat can be applied over the marking.

Pad print charges are "per hit", which is defined as a marking applied in one operation. The artwork and plate charge for a Pad Print Plate (not already available) is $185.00. Depending on size and complexity, multiple legends can be accommodated on a single plate, please contact the sales department for details. Minimum quantity is 100 pieces per legend. A set up charge of $35.00 will apply to quantities of less than 500 pieces.

Marking Orientation

Horizontal Lens **Horizontal Legend**	**Vertical Lens** **Vertical Legend**	**Vertical Lens** **Horizontal Legend**	**Series 27** **Standard Orientation**
HORIZONTAL	VERTICAL	HORIZ PRINT	

Marking Department

Pad Printing

SoLiCo has the capability of pad printing on almost any of our product surfaces. Pad printing, sometimes referred to as transfer printing, is especially well suited for curved or irregular surfaces. Our equipment can produce high resolution results on convex, concave, and flat caps as well as all lenses and most switch accessories. We can produce a variety of text and custom symbols. If a specific symbol or word is not available we can produce the cliché to accommodate almost any request that can physically fit on the product surface. Standard ink color is white, black is optional, and custom ink colors are available as special purchase options.

Hot Stamp

Hot stamping, while one of the oldest technologies, still offers a cost-effective permanent marking. A heated die, with the image to be marked, and a special foil (ribbon) are pressed onto a plastic surface, depositing the "ink" into the surface. Hot stamping is best suited for text, and low-resolution graphics. As the pigment is actually "melted" into the surface, it provides excellent durability, and good visual contrast.

Yag Laser

SoLiCo's most recent addition to our marking department is our YAG Laser. It is a high-power, high-speed unit with the ability to produce extremely high-resolution graphics. It has a 12" x 12" stage, allowing multiple parts to be marked with a single set-up. Depending on the base material, it is suitable for direct imaging, or using an opaque overcoat, producing a reverse-image style of marking.

Value Added & Custom Lighting Assemblies

SOLICO offers extensive Value Added services as well as the ability to design custom assemblies to meet your specific requirements. Pictured here are just a few of the Value Added products and custom lighting assemblies SOLICO has produced for our customers.

SOLICO Value Added services include, but are not limited to, special length and color wire leads, lead termination, hot stamping and pad printing of legends, custom colored lenses, variety of neon, incandescent, and LED voltages and ratings and the fabrication of wire harnesses. SOLICO also builds a variety of LED and neon flashers.

SOLICO excels in the development and production of value-added and custom products with one of the shortest lead times in the industry. Our engineering department uses an advanced 3D CAD system which can provide drawings via e-mail or fax to our customers, in order to expedite the design review process of your project.

Call our sales department to discuss what Sorenson Lighted Controls can do for your next lighting project.

100 Shield Street
West Hartford, CT 06110 USA
Phone: 860-527-3092
Fax: 860-527-6047
catalog@solico.com
1.800 .275.7089

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SOLICO

Illuminating Innovation ™

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