



SEMAPHORE INDICATOR

# SPSR TYPE, SPSL TYPE

TERMINAL  
BLOCK

CONNECTOR

CONTROL  
CENTER PARTS

TEST TERMINAL

PILOT LAMP &  
INDICATOR

SWITCH

ELECTRONIC  
DEVICES

## SPECIFICATIONS (RATINGS, PERFORMANCE)

Specification	Type	SPSR/SPSL
Rated insulation voltage (Ui)		250V
Rated operational voltage		24V, 30V, 48V, 100 / 110V, 125V, 200 / 220V DC
Voltage fluctuation range		±15% (24V, 48V, 200 / 220V)
		-20 to 30% (100 / 110V, 125V)
Rated current		11mA
Insulation resistance		1,000MΩ or more (between live parts and mounting panel)
Withstand voltage		2,000V AC / 1min.
Lightning impulse		±4.5kV, 3 times for each pole (1.2 / 50μs)
Shock resistance		490m/s <sup>2</sup> , in 6-axis directions, 3 times each
Service life		100,000 times or more
Degree of protection		IP52
Operating temperature		-20 to 60°C
Storing temperature		-30 to 75°C
Relative humidity		45 to 85%
Altitude		2,000 m max.
Applicable wire size		AWG 20 to 14
Screw size		M3.5 x 8, with square washer
Panel thickness		1 to 6mm
Weight		Approx. 30g

\* For the overseas standard conformable ratings, refer to E47.



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## FEATURES

**1** The SPS type indicators have acquired TÜV and CCC certification, and conform to the EN (IEC) standard.  
Thus, these products have been certified as global standard products conformable with international standards.  
(TUV and CE marks are attached to the product body.)

**2** With the compact design, the SPS type indicator meets the requirements for size and weight reduction.



**3** With the energy-saving design, power consumption can be reduced to approx. one fourth that of conventional models.

\* Rated operating current at 24 V DC:  
(Conventional) SPR/L: approx. 37 mA  
SPSR/L: approx. 9 mA

**4** Twisted wires up to AWG14 size (equivalent to 2.5 mm<sup>2</sup>) can be connected.

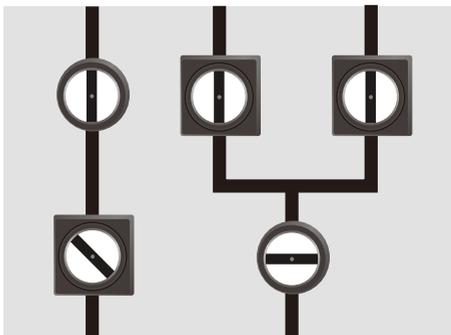
**5** To enhance safety, the terminal cover for wiring screw live parts is provided as a standard feature.

**6** The round and square types can be selected as the face shape of the indicator. Indication can be differentiated by the face shape, which enhances the panel design easily.



**7** Since the circuit status is indicated by the flag shape, erroneous recognition is prevented. The circuit ON/OFF status can be recognized at a glance.

(Conceptual image)



## HOW TO ORDER

# SPSR-20S-DC110-BBA

Basic type

Face shape

Code	Shape
R	Round
L	Square

Face dimensions

Code	Dimension	Flag width
2	φ25mm	4mm
	□28mm	
3	φ32mm	6mm
	□35mm	

Terminal

Code	Shape
S	Screw terminal

Rated operational voltage

Code	Voltage
DC024	24V DC
DC030	30V DC
DC048	48V DC
DC110	100 / 110V DC
DC125	125V DC
DC220	200 / 220V DC

Mounting hole size

Code	Mounting hole diameter
No code	φ20.5
A	φ22.3

\*A is special spec.

Frame color

Code	Color
B	Black (N1.5)

Flag color

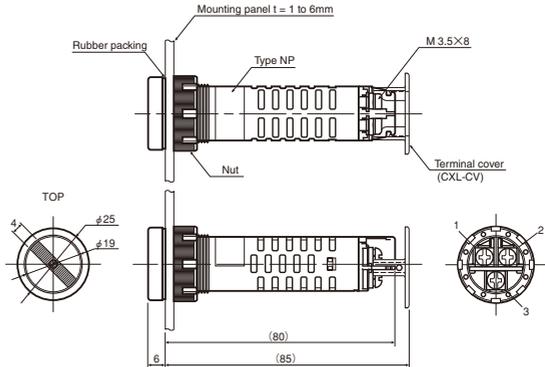
Code	Color
B	Black (N1.5)

Flag shape

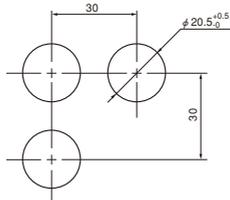
Code	① Input	② Input	No input
0	⊖	⊕	⊘
1	⊕	⊖	⊘
2	⊕	⊖	⊙

## STANDARD PRODUCTS

### SPSR-2□S



● Mounting hole



● Applicable accessories

Terminal cover	CXL-CV
Tightening tool	SPS-Q

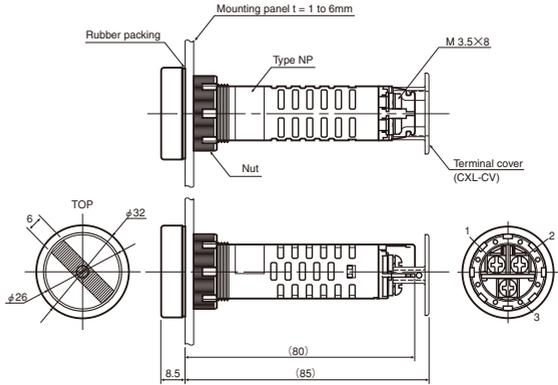


SEMAPHORE INDICATOR

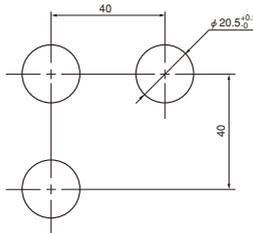
# SPSR TYPE, SPSL TYPE

## STANDARD PRODUCTS

### SPSR-3 S



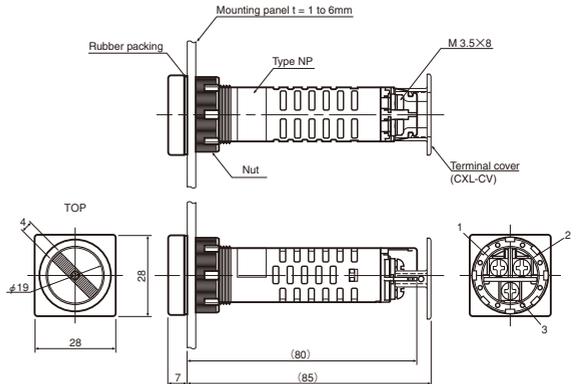
● Mounting hole



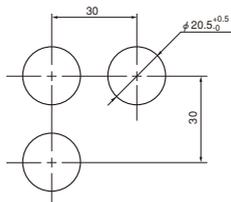
● Applicable accessories

Terminal cover	CXL-CV
Tightening tool	SPS-Q

### SPSL-2 S



● Mounting hole



● Applicable accessories

Terminal cover	CXL-CV
Tightening tool	SPS-Q

# PILOT LAMP & INDICATOR

TERMINAL BLOCK

CONNECTOR

CONTROL CENTER PARTS

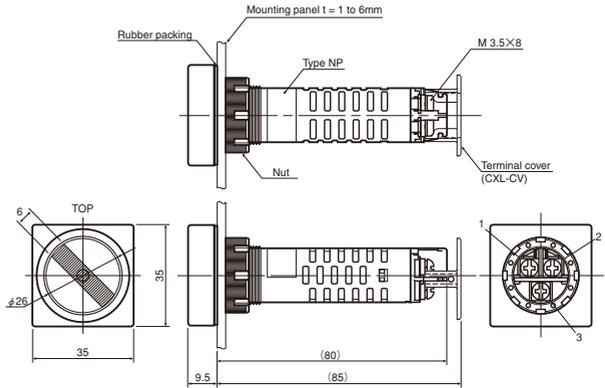
TEST TERMINAL

PILOT LAMP & INDICATOR

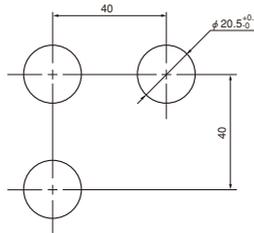
SWITCH

ELECTRONIC DEVICES

## SPSL-3□S



### ● Mounting hole



### ● Applicable accessories

Terminal cover	CXL-CV
Tightening tool	SPS-Q

## ACCESSORIES

### Terminal cover

(Order unit: 10)

#### ● CXL-CV



\* The terminal cover is provided as standard equipment.

### Tightening tool

#### ● SPS-Q



\* Tightening tool for a nut.

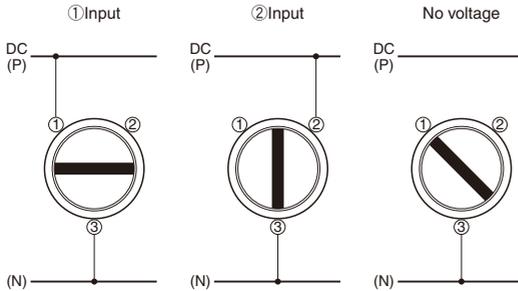


SEMAPHORE INDICATOR

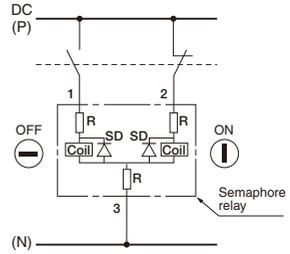
# SPSR TYPE, SPSL TYPE

## OPERATION AND CIRCUIT SPECIFICATIONS

### ● Operation chart



### ● Circuit diagram



## OVERSEAS STANDARD CONFORMABLE RATINGS (EN60947/IEC60947)

### (1) Basic ratings and applications

No.	Item	Basic rating and application	IEC standard No.
1	Rated operational voltage	24V, 48V, 100 / 110V, 125V, 200 / 220V DC	IEC60947-5-1; 5.1-d
2	Rated operational current	11mA max.	IEC60947-5-1; 5.1-e
3	Rated insulation voltage (Ui)	250V	IEC60947-5-1; 5.1-f
4	IP code	IP 52	IEC60947-5-1; 5.1-l

### (2) Normal operating conditions

No.	Item	Normal operating condition	IEC standard No.	
1	Ambient temperature	-5°C to 40°C	IEC60947-1; 6.1.1	
2	Altitude	2,000 m max.	IEC60947-1; 6.1.2	
3	Atmospheric condition	Humidity: 90% max. (at 20°C), 50% (at 40°C) Microscopic environment: Pollution degree: 3	IEC60947-1; 6.1.3	
4	Conditions during transport and storage	-25°C to 55°C +70°C for short periods (within 24 hours)	IEC60947-1; 6.2	
5	Mounting of single hole mounted devices	φ 20.5mm	IEC60947-5-1; 6.3.1	
6	Range of panel thickness	1 to 6mm	IEC60947-5-1; 6.3.1.2	
7	Minimum distances between centres of mounting holes	SPSR/L-2□	30mm	IEC60947-5-1; 6.3.1.3
		SPSR/L-3□	40mm	

### (3) Structure and performance

No.	Item	Structure and performance	IEC standard No.
1	Connecting capacity	Twisted wire: AWG20 (2 pieces max.)	IEC60947-1; 7.1.7
		Round crimp terminal: AWG14 to 20 (2 pieces max.)	IEC60947-1; AnnexD
2	Withstand voltage	Power-frequency withstand voltage: 2,000V AC / 1min.	IEC60947-5-1; 7.2.3
3	Durability	Mechanical durability: 100,000 operations	IEC60947-5-1; AnnexC

Remarks: The SPS type indicators have acquired TÜV certification for the above items. For detailed information, contact Fuji Electric Industry.