SU16 Series
Fiber Optic Sensors

- DIN rail mountable
- Light on/dark on selectable
- Mutual interference protection
- Pigtail quick disconnect or cable versions

Fiber Optic Diffuse and Thru-Beam Mode

See page 740

2 versions available:
- High sensitivity/high power
- High speed (/130)

Sensing Range: Determined by fiber optic cable

Output: NPN, PNP

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SU16 Series Fiber Optic

Photoelectric SU16 Series Fiber Optic

Fiber Optic Diffuse and Thru-Beam Mode

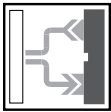| Specifications	High Power		High Speed
SENSING RANGE	Determined by cable*	Determined by cable*	Determined by cable*
SENSITIVITY ADJUSTMENT	Yes	Yes	Yes
MODEL NUMBER(S)	SU16-K/102/115/126a ⚡	SU16-K/102/115b/126a	SU16-K/102/115/126a/130
	SU16-K/82a/103/115 ●	SU16-K/82a/103/115b	SU16-K/82a/103/115/130 ●
OUTPUT: Transistor, Open Collector /102	1 NPN	1 NPN	1 NPN
/103	1 PNP	1 PNP	1 PNP
SUPPLY VOLTAGE	10-30 VDC	10-30 VDC	10-30 VDC
HYSTERESIS	10.6%	10.6%	20%
RESPONSE TIME	≤ 500 µs	≤ 500 µs	≤ 50 µs on, ≤ 70 µs off
SWITCHING FREQUENCY	1 kHz	1 kHz	8 kHz
LIGHT SOURCE	Visible red LED	Visible red LED	Visible red LED
ELECTRICAL CONNECTION	2-meter cable, PVC covered 3-conductor	152 mm pigtail, PVC covered, quick disconnect type V1	2-meter cable, PVC covered 3-conductor
ADDITIONAL DATA	*See pages 741-742*		

⚡ Stocked item
● Typical delivery 4 weeks or less
  Consult factory for all other models

Mounting Instructions

The 35 mm DIN mounting track provides an easy method for mounting the SU16 Series. The track is available in 1-meter sections.

1. Latch the amplifier unit onto DIN rail.

2. Push the amplifier downwards until locking tab is secured.

3. For extra mounting support, optional EW35 end brackets should be installed. (Sold separately)

FIBER OPTIC CABLES

See pages 761-796 for fiber optic lengths and specifications.
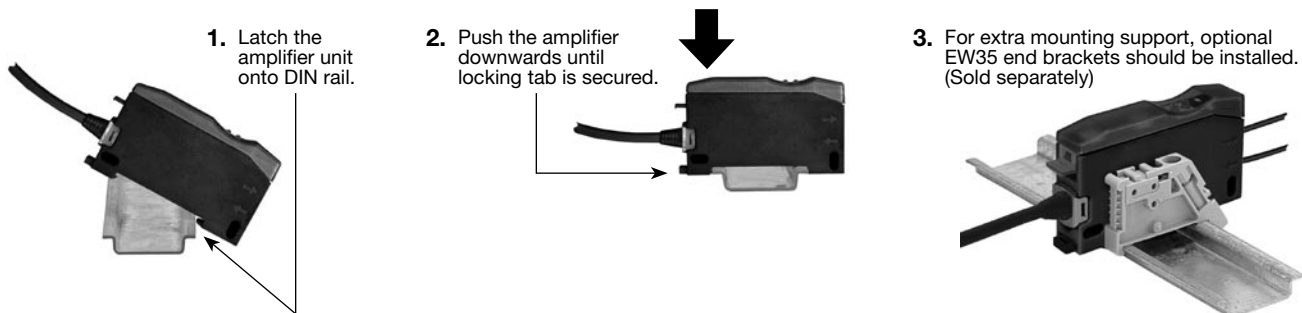
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Series Specifications

SU16 Series Specifications

LOAD CURRENT	100 mA max.
VOLTAGE DROP	≤ 1.0 VDC
SHORT CIRCUIT AND OVERLOAD PROTECTION	Yes
REVERSE POLARITY PROTECTION	Yes
VOLTAGE RIPPLE	10%
LED(s)	Yes (2)*
CURRENT CONSUMPTION	≤ 35 mA
OPERATING MODE	Light on/dark on
OPTIONAL OFF-DELAY TIMING	40 ± 10 ms
PROTECTION (IEC)	IP40
TEMPERATURE RANGE WORKING	-4 ºF to +131 ºF
STORAGE	-40 ºF to +158 ºF
HOUSING MATERIAL	Polycarbonate
APPROVALS	CE

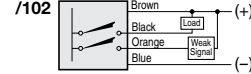*See dimensional drawings for LED functions.
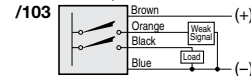
Wiring Diagrams

DC

Cable Connection

Light On/Dark On
NPN Output
/102
Brown (+)
Black   Load
Orange   Weak Signal
Blue (−)

Light On/Dark On
PNP Output
/103
Brown (+)
Orange   Weak Signal
Black
Blue (−)   Load

Quick Disconnect
Note: Wiring diagrams show quick disconnect pin numbers.

V1 Type

Light On/Dark On
NPN Output
/102
1 Brown (+)
4 Black   Load
2 White   Weak Signal
3 Blue (−)

Male Receptacle End View
Black
Blue (−)
White
Load   Weak Signal
Brown (+)

Light On/Dark On
PNP Output
/103
1 Brown (+)
2 White   Weak Signal
4 Black
3 Blue (−)   Load

Black
Blue (−)   Load
Weak Signal
White
Brown (+)
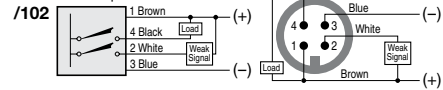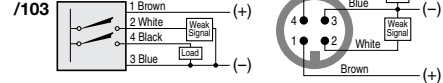
Attaching Fiber Optic Cables to SU16 Series

Lever

Fiber

Standard Fiber (ø2.2 mm diameter)
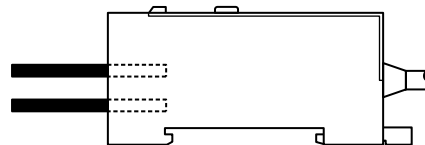
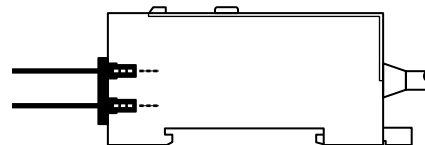**Slim Fiber** (ø1 mm diameter)

1. Unlock the lever on the top of the amplifier. The lever will spring open.

2. Insert a standard 2.2 mm diameter fiber optic cable into the housing until the cable goes no farther. For 1 mm diameter cables, insert fiber ends into the adapter and then slide the adapter into the sensor until it stops.

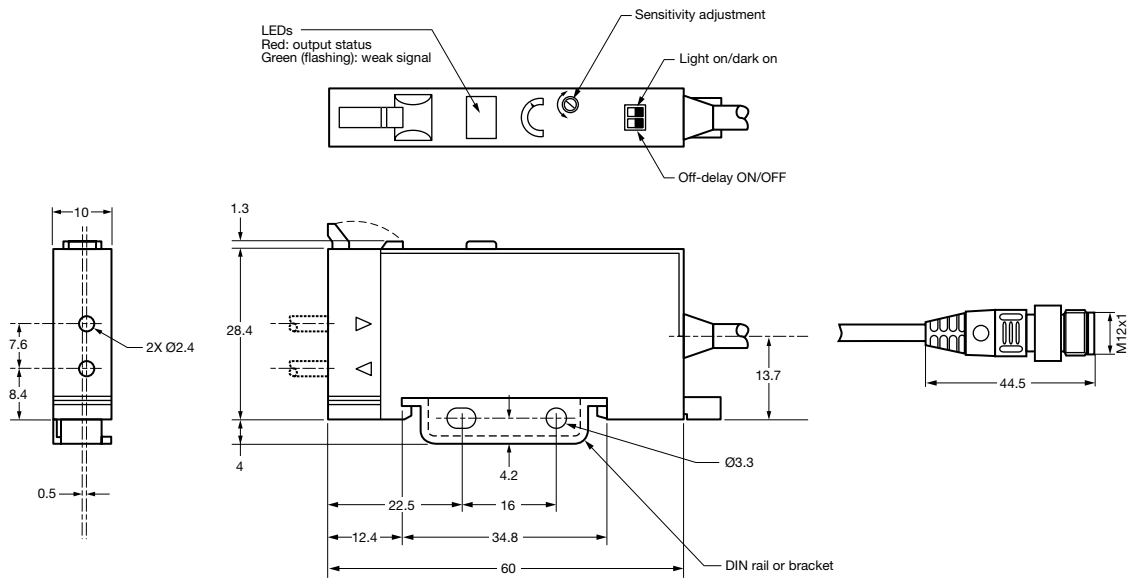3. Turn the lever so that it locks. If the lever is not locked, the spring will push it open.

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Photoelectric SU16 Series Fiber Optic

Dimensions (mm)

SU16 Series

LEDs
Red: output status
Green (flashing): weak signal

Sensitivity adjustment

Light on/dark on

Off-delay ON/OFF

10

1.3

28.4

7.6

8.4

2X Ø2.4

0.5

4

13.7

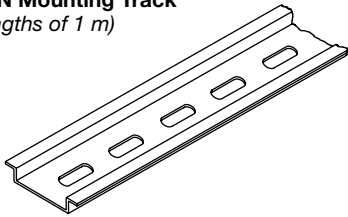4.2

Ø3.3

22.5

16

12.4

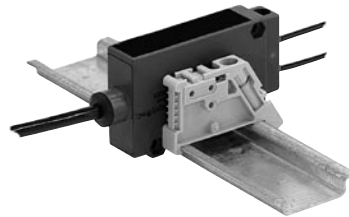34.8

60

DIN rail or bracket

M12x1

44.5

Accessories

35 mm DIN Mounting Track
(sold in lengths of 1 m)

DIN Track End Bracket Model EW35

See pages 761-796 for fiber optic lengths and specifications.

See pages 803-854 for cordsets

See pages 855-896 for additional accessories

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