

**SU18-16
POTENTIOMETER**

POTENTIOMETER SENSITIVITY ADJUSTMENT

- Mechanical teach

LED INDICATOR

- Bright and large LEDs

DETECTION MODE SELECTION

- Normal, high speed, high resolution

TIMER MODE SELECTION

- Timer off, on delay, off delay

LO/DO SELECTION

- Light on, dark on

**SU18
PUSHBUTTON**

FIBER LOCK KEY

- Lock fibers to the amplifier

PUSHBUTTON PROGRAMMING

- Auto teach

DIN RAIL LOCK

- Easy installation and quick release on the DIN rail

**SU19
MAIN AND EXPANSION**

LED INDICATOR

- Status green and yellow LEDs

DIAGNOSTIC DISPLAY

- 4-digit display

SET KEY

- Make selection, teach-in

UP AND DOWN KEY

- Browse menu, fine-tuning of sensitivity and time delay

MODE KEY

- Enter or exit maintenance mode (for menu selection)

Percentage display

The percentage display is easily interpreted. A single decimal point gives it the added resolution. Interpretation is easy, and set-up time is minimized.

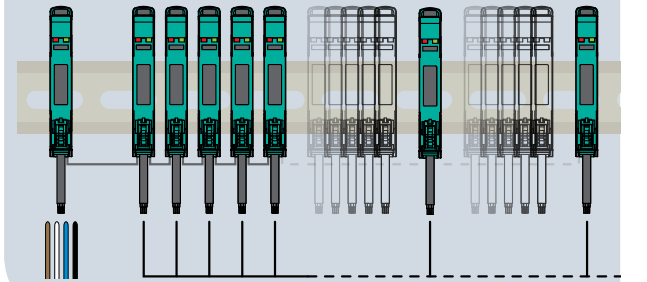
100.0% = Switching threshold

300.0% = Triple the light needed to switch the output

999.9% = Saturation

ADVANTAGE OF GANG-MOUNTING METHOD

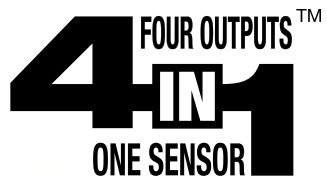
UP TO 70% LESS WIRES	Traditional wiring	18 Main Units	x 4 Wires per Unit	= 72 Total Wires
	Main and expansion wiring	4 Wires (1 main unit)	+ 17 Expansion Units (1 wire each)	= 21 Total Wires



For expansion unit amplifier, JUST connect one wire!

MAIN UNIT-EXPANSION UNIT INTERFACE








- Gang-mounting of up to 18 amplifiers
- Cross-talk protection
- Lower installation costs



COMPARISON

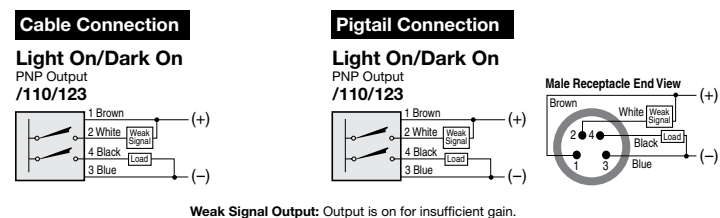
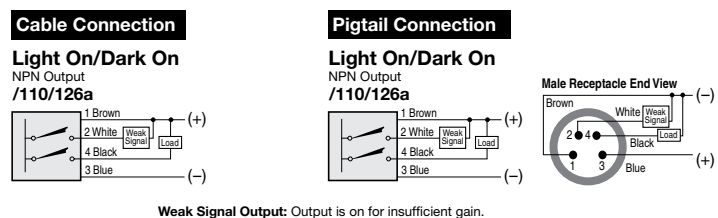
	SU18-16 Potentiometer	SU18 Pushbutton	SU19 Main and Expansion
Indication	Green and yellow LEDs	Green and yellow LEDs	Green and yellow LEDs
4-Digit Display	No	No	Yes
Potentiometer Adjustment	■		
Pushbutton Programming		■	■
Clear Object Detection			■
Remote-Teach Input		■	■
Quick Disconnect Models	■	■	
Switching Frequency	6 kHz	6 kHz	16 kHz
Gang-Mounting			■




SPECIFICATIONS

Model Number(s)	Potentiometer Adjustable		Pushbutton Programming	
	SU18-16/40a/110/115/126a	SU18-16/40a/110/115a/126a	SU18-40a/110/115/123	SU18-40a/110/115a/123
Sensing Range	Determined by cable		Determined by cable	
Sensitivity Adjustment	Yes		Yes	
Output  /110	4-in-1*		4-in-1*	
Load Current	100 mA max.		100 mA max.	
Voltage Drop	≤ 2.0 VDC		≤ 2.0 VDC	
Short Circuit and Overload Protection	Yes		Yes	
Reverse Polarity Protection	Yes		Yes	
Supply Voltage	10-30 VDC		10-30 VDC	
Voltage Ripple	10%		10%	
LED(s)	Yes (2)		Yes (2)	
Current Consumption	≤ 30 mA		≤ 30 mA	
Operating Mode	Light on/dark on		Light on/dark on	
Response Time	<i>high resolution</i>	2 ms	2 ms	2 ms
	<i>standard</i>	160 μs	160 μs	160 μs
	<i>high speed</i>	80 μs	80 μs	80 μs
Readiness Delay	≤ 300 ms		≤ 300 ms	
Timer Function	On delay, off delay		On delay, off delay	
Switching Frequency	6 kHz		6 kHz	
Protection (IEC)	IP50		IP50	
Light Source	Visible red LED 660 nm		Visible red LED 660 nm	
Ambient Light Resistance	≤ 10,000 lux (sunlight)		≤ 10,000 lux (sunlight)	
	≤ 5,000 lux (incandescent)		≤ 5,000 lux (incandescent)	
Temp. Range	<i>working</i>	14 °F to 131 °F	14 °F to 131 °F	14 °F to 131 °F
	<i>storage</i>	-4 °F to +158 °F	-4 °F to +158 °F	-4 °F to +158 °F
Housing Material	Polycarbonate		Polycarbonate	
Weight	1.6 oz		1.6 oz	
Standards	EN 60947-5-2		EN 60947-5-2	
Approvals				
Electrical Connection	 2 m cable, PVC covered, 4-conductor, #26 AWG	 200 mm pigtail, PVC covered, quick disconnect	 2 m cable, PVC covered, 4-conductor, #26 AWG	 200 mm pigtail, PVC covered, quick disconnect

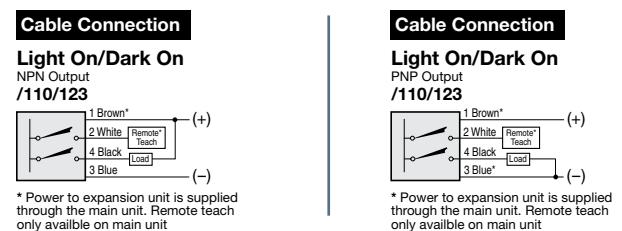
* NPN normally open, NPN normally closed, PNP normally open, PNP normally closed

ELECTRICAL CONNECTION (SU18 SERIES)



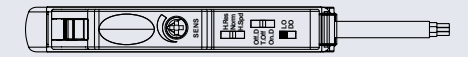
Model Number(s)	Main Unit	Expansion Unit
	SU19/110/115/123	SU19.1/110/115
Sensing Range	Determined by cable	
Sensitivity Adjustment	Yes	
Output 4-in-1* /110	4-in-1*	
Load Current	100 mA max.	
Voltage Drop	≤ 2.0 VDC	
Short Circuit and Overload Protection	Yes	
Reverse Polarity Protection	Yes	
Supply Voltage	10-30 VDC	
Voltage Ripple	10%	
LED(s)	Yes (2)	
Current Consumption	≤ 30 mA	
Operating Mode	Light on/dark on	
Response Time	<i>high resolution</i>	2 ms
	<i>standard</i>	160 μs
	<i>high speed</i>	30 μs
Readiness Delay	≤ 300 ms	
Timer Function	On delay, off delay, one shot	On delay, off delay, one shot
Switching Frequency	16 kHz	16 kHz
Protection (IEC)	IP50	
Light Source	Visible red LED 660 nm	
Ambient Light Resistance	≤ 10,000 lux (sunlight)	
	≤ 5,000 lux (incandescent)	
Temp. Range	<i>working</i>	14 °F to 131 °F
	<i>storage</i>	-4 °F to +158 °F
Housing Material	Polycarbonate	
Weight	1.6 oz	
Standards	EN 60947-5-2	
Approvals		
Electrical Connection	 2 m cable, PVC covered, 4-conductor, #26 AWG	 2 m cable, PVC covered, 1-conductor, #24 AWG

ELECTRICAL CONNECTION (SU19 SERIES)



Potentiometer version

SU18-16/40a/110/115/126a
SU18-16/40a/110/115a/126a



Top view

Pushbutton version

SU18-40a/110/115/123
SU18-40a/110/115a/123



Top view

Diagnostic display version

SU19/110/115/123
SU19.1/110/115



Top view

Dimensions (mm)

