



UP TO
70%
LESS WIRES

18	X	4	=	72
Main Units		Wires per Unit		Total Wires

Main and expansion wiring				
4	+	17	=	21
Wires (1 main unit)		17 Expansion Units (1 wire each)		Total Wires

For expansion unit amplifier, **JUST** connect one wire!

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

999.9% = Saturation

	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

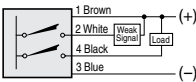
	Potentiometer Adjustable		Pushbutton Programming	
Model Number(s)	SU18-16/40a/110/115/126a	SU18-16/40a/110/115a/126a	SU18-40a/110/115/123	SU18-40a/110/115a/123
Sensing Range	Determined by cable	Determined by cable	Determined by cable	Determined by cable
Sensitivity Adjustment	Yes	Yes	Yes	Yes
Output  /110	4-in-1*	4-in-1*	4-in-1*	4-in-1*
Load Current	100 mA max.	100 mA max.	100 mA max.	100 mA max.
Voltage Drop	≤ 2.0 VDC	≤ 2.0 VDC	≤ 2.0 VDC	≤ 2.0 VDC
Short Circuit and Overload Protection	Yes	Yes	Yes	Yes
Reverse Polarity Protection	Yes	Yes	Yes	Yes
Supply Voltage	10-30 VDC	10-30 VDC	10-30 VDC	10-30 VDC
Voltage Ripple	10%	10%	10%	10%
LED(s)	Yes (2)	Yes (2)	Yes (2)	Yes (2)
Current Consumption	≤ 30 mA	≤ 30 mA	≤ 30 mA	≤ 30 mA
Operating Mode	Light on/dark on	Light on/dark on	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	≤ 300 ms	≤ 300 ms
Timer Function	On delay, off delay	On delay, off delay	On delay, off delay	On delay, off delay
Switching Frequency	6 kHz	6 kHz	6 kHz	6 kHz
Protection (IEC)	IP50	IP50	IP50	IP50
Light Source	Visible red LED 660 nm	Visible red LED 660 nm	Visible red LED 660 nm	Visible red LED 660 nm
Ambient Light Resistance	≤ 10,000 lux (sunlight)	≤ 10,000 lux (sunlight)	≤ 10,000 lux (sunlight)	≤ 10,000 lux (sunlight)
	≤ 5,000 lux (incandescent)	≤ 5,000 lux (incandescent)	≤ 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	Polycarbonate	Polycarbonate
Weight	1.6 oz	0.9 oz	1.6 oz	0.9 oz
Standards	EN 60947-5-2	EN 60947-5-2	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)

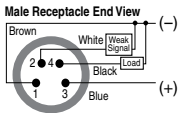
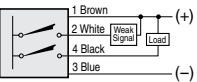
Cable Connection

Light On/Dark On
NPN Output
/110/126a



Pigtail Connection

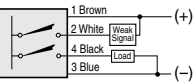
Light On/Dark On
NPN Output
/110/126a



Weak Signal Output: Output is on for insufficient gain.

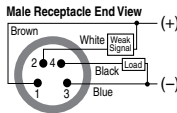
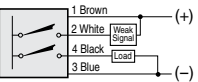
Cable Connection

Light On/Dark On
PNP Output
/110/123



Pigtail Connection

Light On/Dark On
PNP Output
/110/123



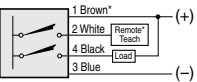
Weak Signal Output: Output is on for insufficient gain.

Main Unit	Expansion Unit
SU19/110/115/123	SU19.1/110/115
Determined by cable	Determined by cable
Yes	Yes
4-in-1*	4-in-1*
100 mA max.	100 mA max.
≤ 2.0 VDC	≤ 2.0 VDC
Yes	Yes
Yes	Yes
10-30 VDC	10-30 VDC
10%	10%
Yes (2)	Yes (2)
≤ 30 mA	≤ 30 mA
Light on/dark on	Light on/dark on
2 ms	2 ms
160 μs	160 μs
30 μs	30 μs
≤ 300 ms	≤ 300 ms
On delay, off delay, one shot	On delay, off delay, one shot
16 kHz	16 kHz
IP50	IP50
Visible red LED 660 nm	Visible red LED 660 nm
≤ 10,000 lux (sunlight)	≤ 10,000 lux (sunlight)
≤ 5,000 lux (incandescent)	≤ 5,000 lux (incandescent)
14 °F to 131 °F	14 °F to 131 °F
-4 °F to +158 °F	-4 °F to +158 °F
Polycarbonate	Polycarbonate
1.6 oz	1.6 oz
EN 60947-5-2	EN 60947-5-2
	
 2 m cable, PVC covered 4-conductor, #26 AWG	 2 m cable, PVC covered 1-conductor, #24 AWG

ELECTRICAL CONNECTION (SU19 SERIES)

Cable Connection

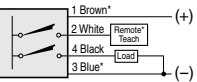
Light On/Dark On
NPN Output
/110/123



* Power to expansion unit is supplied through the main unit. Remote teach only available on main unit

Cable Connection

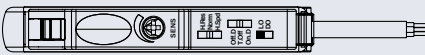
Light On/Dark On
PNP Output
/110/123



* Power to expansion unit is supplied through the main unit. Remote teach only available on main unit

Potentiometer version

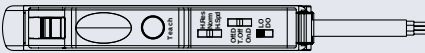
SU18-16/40a/110/115/126a
SU18-16/40a/110/115a/126a



Top view

Pushbutton version

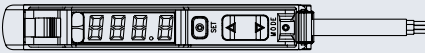
SU18-40a/110/115/123
SU18-40a/110/115a/123



Top view

Diagnostic display version

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



Top view

Dimensions (mm)

