



# MINI-BEAM Universal Voltage Series

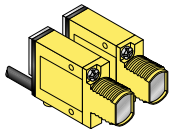
Universal voltage photoelectric sensors with electromechanical relay output



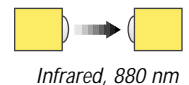
\*U.S. Patent no. 4356393

## MINI-BEAM Universal Voltage Series Features

- Popular, compact MINI-BEAM package
- Universal supply voltage: 24 to 240V ac, 50/60 Hz; 24 to 240V dc (1.5 watts or 2.5VA maximum)
- Easy-to-operate sensors with few necessary adjustments
- Light/Dark Operate select switch and 15-turn Gain potentiometer are protected by a gasketed clear acrylic cover
- Multiple sensing modes include: Opposed, Retroreflective, Diffuse, Divergent and Convergent, plus Glass and Plastic Fiber Optic models
- 3-amp SPDT (Single-Pole-Double-Throw) electromechanical relay output
- Exclusive, patented Alignment Indicating Device system (AID™\*) lights a rear-panel-mounted LED indicator whenever the sensor sees a light condition; superimposed pulse rate indicates received light signal strength
- Wide array of mounting options, including 18 mm in-line thread
- Integral, unterminated cables 2 m (6.5') or 9 m (30') long available



Their small effective beam size is ideal for accuracy-dependent applications, particularly when used with an aperture (see page 10). They have the power to burn through dust and dirt, and may even sense opaque materials through a thin-walled container.



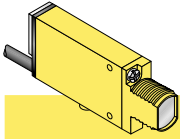
## MINI-BEAM Universal Voltage Series Opposed-Mode Emitters (E) and Receivers (R)

Models	Range	Cable*	Supply Voltage	Output Type	Excess Gain	Beam Pattern
SMU31E SMU31R	3 m (10')	E: 2-wire 2 m (6.5') R: 5-wire 2 m (6.5')	Universal 24 to 240V dc or 24 to 240V ac	SPDT Electro- mechanical Relay		
SMU31EL SMU31RL	30 m (100')	E: 2-wire 2 m (6.5') R: 5-wire 2 m (6.5')	Universal 24 to 240V dc or 24 to 240V ac	SPDT Electro- mechanical Relay		

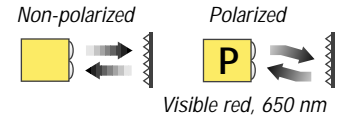
\*9 m (30') cables are available by adding the suffix "W/30" to the model number of any cabled sensor (e.g., SMU31E W/30).

**IMPORTANT: SEE SAFETY WARNING ON BACK PAGE**

# MINI-BEAM Universal Voltage Series



Excellent for sensing even small items where sensing is possible from one side only. Recommended for relatively clean environments where high excess gain is not required.



## MINI-BEAM Universal Voltage Series Retroreflective-Mode Sensors

Models	Range**	Cable*	Supply Voltage	Output Type	Excess Gain	Beam Pattern
<b>Non-Polarized</b>						
SMU315LV	5 m (15')	5-wire 2 m (6.5')	Universal 24 to 240V dc or 24 to 240V ac	SPDT Electro- mechanical Relay		
<b>Polarized Extended Range</b>						
SMU315LP	10 mm to 3 m (0.4" to 10')	5-wire 2 m (6.5')	Universal 24 to 240V dc or 24 to 240V ac	SPDT Electro- mechanical Relay		

\* 9 m (30') cables are available by adding suffix "W/30" to the model number of any cabled sensor (e.g., SMU315LV W/30)

\*\* Retroreflective range is specified using one model BRT-3 retroreflector (3" diameter). Actual sensing range may be more or less than specified, depending upon the efficiency and reflective area of the retroreflector(s) used. See page 9 and your current Banner Photoelectric Sensors catalog for more information about retroreflective targets.