

MINI-BEAM® Sensors SM31E/SM31R and SM31EL/SM31RL

MINI-BEAM Modifications			
Model Suffix	Modification	Description	Example of Model Number
W/30	9 meter (30') cable	All MINI-BEAM sensors may be ordered with an integral 9 m (30') cable in place of the standard 2 m (6.5') cable	SM31E W/30
MHS	Modified for High Speed	Standard dc MINI-BEAM sensors with 1 millisecond output response may be modified for 0.3 millisecond (300 μs) response. NOTE: Faster response comes at the expense of lower excess gain. Also, operating temperature range becomes -20° to +50°C (-4° to +122°F)	SM31EMHS NOTE: Emitter and receiver must both have MHS modification
QDP	Pigtail Quick Disconnect	All MINI-BEAMS may be built with a 150 mm (6") long integral cable which is terminated with the appropriate QD connector.	SM31EQDP



Apertures

Opposed mode MINI-BEAM sensors may be fitted with apertures which narrow or shape the effective beam of the sensor to more closely match the size or profile of the object to be sensed. A common example is the use of "line" or "slit" type aperture when wire or thread is sensed. Each model contains 20 apertures.

Model	Description		
AP31-020 AP31-040 AP31-100	0.5 mm (0.02") diameter, circular 1.0 mm (0.04") diameter, circular 2.5 mm (0.10") diameter, circular		
AP31-020H AP31-040H AP31-100H AP31-200H	0.5 x 6.4 mm (0.02" x 0.25"), horizontal slotted 1.0 x 6.4 mm (0.04" x 0.25"), horizontal slotted 2.5 x 6.4 mm (0.10" x 0.25"), horizontal slotted 5.1 x 6.4 mm (0.20" x 0.25"), horizontal slotted		
AP31-020V AP31-040V AP31-100V AP31-200V	0.5 x 12.7 mm (0.02" x 0.50"), vertical slotted 1.0 x 12.7 mm (0.04" x 0.50"), vertical slotted 2.5 x 12.7 mm (0.10" x 0.50"), vertical slotted 5.1 x 12.7 mm (0.20" x 0.50"), vertical slotted		
AP31-DVHX2	Kit containing two of each aperture		

Replacement Lens Assemblies

MINI-BEAM lens assemblies are field-replaceable.

Model	Description	
UC-300E	Replacement lens for E/R	
UC-300EL	Replacement lens for EL/RL or use for extending range of E/R	

Right-Angle Reflectors

MINI-BEAM right-angle reflectors are useful for tight sensing locations. NOTE: These reflectors significantly decrease excess gain.

Model	Description	
RAR-300SM	<ul style="list-style-type: none"> Side mount reflector Profile dimension of 14 mm (0.56") in the direction of the scan 	
RAR-300FM	<ul style="list-style-type: none"> Front mount reflector that attaches directly to the threaded barrel of most MINI-BEAMS Profile dimension of 34 mm (1.35") in the direction of the scan 	