

Ultrasonic Sensors

500mm and 2m Sensing Range



Ultrasonic Switch Point Output

AC Switch Point Output

- 500mm (20") and 2m (6.5') models
- 120VAC powered
- 330° visibility of LEDs
- Fingertip range adjustability (simply turn the knob to adjust the range)
- 700mA maximum load current



Specifications

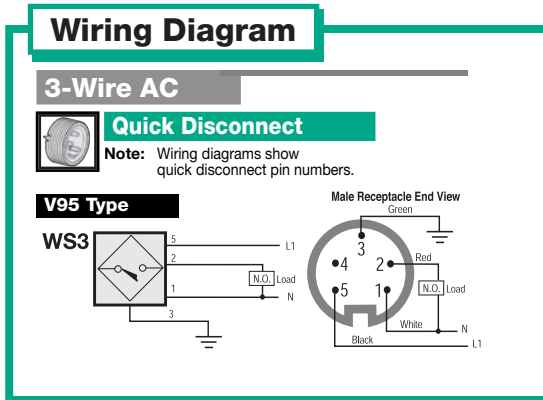
ADJUSTABLE SENSING RANGE	70-500mm	200mm-2m
UNUSABLE AREA	0-70mm	0-200mm
MODEL NUMBER(S)	UB500-30GM65-WS3-BHMS5	UB2000-30GM65-WS3-BHMS5
OUTPUT: Thyristor Suffix WS3	Normally open	Normally open
LOAD CURRENT	≤700mA	≤700mA
LEAKAGE CURRENT	≤0.6mA	≤0.6mA
VOLTAGE DROP	≤1.5VAC	≤1.5VAC
SHORT CIRCUIT AND OVERLOAD PROTECTION	No	No
SUPPLY VOLTAGE	90-140VAC	90-140VAC
LED(s)	Yes (2)	Yes (2)
CURRENT CONSUMPTION	≤75mA	≤75mA
REPEATABILITY	≤5mm	≤20mm
HYSTERESIS	≈15mm	≈30mm
SWITCHING FREQUENCY	15Hz	3.5Hz
STANDARDS	EN 60947-5-2	EN 60947-5-2
PROTECTION IEC	IP65	IP65
STANDARD TARGET	100mm x 100mm flat plate	100mm x 100mm flat plate
TEMPERATURE RANGE		
WORKING	-14°F to +158°F	-14°F to +158°F
STORAGE	-40°F to +185°F	-40°F to +185°F
HOUSING MATERIAL	Nickel-plated brass	Nickel-plated brass
TRANSDUCER	Epoxy resin/silica composite	Epoxy resin/silica composite
BLACK RING	PUR	PUR
TRANSDUCER FREQUENCY	400kHz	175kHz
RESPONSE TIME	≤45ms	≤90ms
TEMPERATURE DRIFT	See page 246	See page 246
APPROVALS		
UL LISTED General Purpose	Yes	Yes
CE SR CERTIFIED General Purpose	Yes	Yes
ELECTRICAL CONNECTION	 Quick disconnect type V95	 Quick disconnect type V95

Adjustment Procedures

(same for both units)

1. Place the target at the desired distance.
2. Turn the sensing potentiometer (on the back of the unit) counterclockwise until the red output LED turns off.
3. Slowly turn the potentiometer clockwise. The sensing range is set when the red output LED turns on.

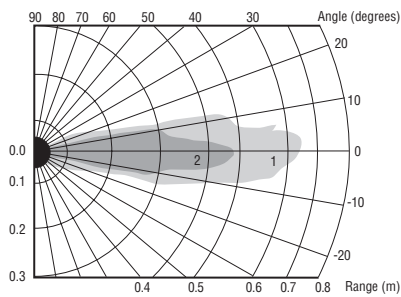
NOTE: Only the "far" span limit is adjustable. The "near" span limit is fixed at 70mm for the UB500 and 200mm for the UB2000.



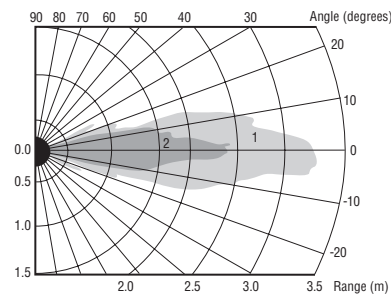
Target Response Curves

The surface area, shape and density of a target determine where it can be detected. The diagrams below illustrate two targets and their corresponding areas of detection. The target must lie completely in its specified sensing envelope to ensure accurate detection.

UB500-30GM65...



UB2000-30GM65...



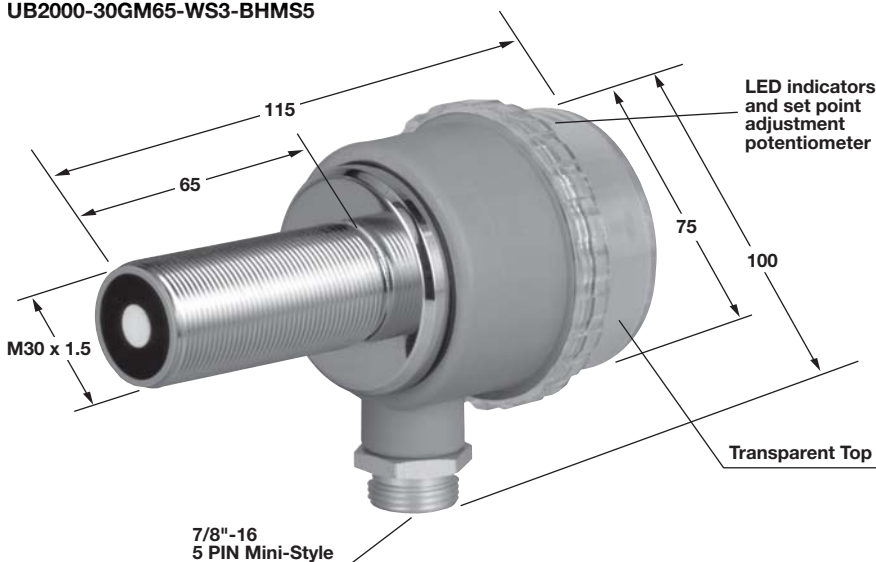
Curve 1: Flat plate 100 mm x 100 mm
Curve 2: Round bar, Ø 25 mm

Dimensions (mm)

Models

UB500-30GM65-WS3-BHMS5

UB2000-30GM65-WS3-BHMS5



See pages
827-874
for cordsets