

SU Series Ultrasonic Sensors



M18 (18 mm) plastic –DC or analog output

- High resolution
- 2 DC models available with adjustable sensitivity
- 3 analog models available
- Complete overload protection
- IP67 rated
- LED status indicator on DC models

Cables and Accessories

Cables and accessories can be found starting on page 17–48.

SU Series Ultrasonic DC Output Sensor Selection Chart

Part Number		Sensing Range	Output State	Logic	Connection	Wiring
SU1-B0-0A	<--->	100 to 600mm (3.94-23.62in)	N.O.	PNP	2m (6.5') axial cable	Diagram 1
SU2-A0-0A	<--->	200 to 1500mm (7.87-59.06in)		PNP	2m (6.5') axial cable	

SU Series Ultrasonic Analog Output Sensor Selection Chart

Part Number		Sensing Range	Output	Connection	Wiring
SU1-B1-0A	<--->	100 to 600mm (3.94-23.62in)	0-10VDC	2m (6.5') axial cable	Diagram 2
SU1-B1-0E	<--->			M12 (12mm) connector	
SU2-A1-0E	<--->	200 to 1500mm (7.87-59.06in)	M12 (12mm) connector		

Specifications

Type	SU1-B0-0A	SU2-A0-0A	SU1-B1-0*	SU2-A1-0E
Differential Travel	±2.5%	±2.0%	-	
Repeatability	0.2%		±2mm	
Operating Voltage	15-30VDC		18-30VDC	
Linearity Error	-		≤0.3%	
No-load Supply Current			≤35mA	
Load Current	≤500mA		≤5mA	
Leakage Current			≤10µA	
Voltage Drop	≤2.5 volts		-	
Output Type	PNP / N.O.		0-10VDC	
Ultrasonic Frequency	300kHz	180kHz	300kHz	180kHz
Ultrasonic Beam Angle	8°			
Switching Frequency	25Hz	8Hz	-	
Max. Response Time	-		50ms	150ms
(tv) Time Delay Before Availability	≤200ms		≤500ms	
Control Input	Hold / Sync			
Sensitivity Adjustment	Yes		-	
Input Voltage Transient Protection	Yes, only if transient peak does not exceed 30VDC			
Input Power Polarity Reversal Protection	Yes			
Output Power Short-Circuit Protection	Yes (switch auto-resets after overload is removed)			
Temperature Range	-25° to +70° C (-13° to 158° F)			
Temperature Compensation	Yes			
Protection Degree	IEC IP67			
LED Indicators	Yellow (output energized)		-	
Housing Material	PBT			
Tightening Torque	3Nm (2.21lb./ft.)			
Weight (cable/connector)	54g (1.90oz) / 38g (1.34oz.)			

PLC Overview

DL05/06 PLC

DL105 PLC

DL205 PLC

DL305 PLC

DL405 PLC

Field I/O

Software

C-more HMIs

Other HMI

AC Drives

Motors

Steppers/ Servos

Motor Controls

Proximity Sensors

Photo Sensors

Limit Switches

Encoders

Pushbuttons/ Lights

Process

Relays/ Timers

Comm.

TB's & Wiring

Power

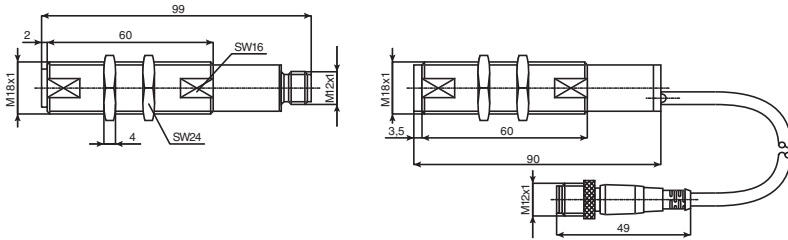
Enclosures

Appendix

Part Index

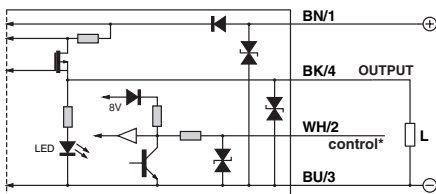
SU Series Ultrasonic Sensors

Dimensions



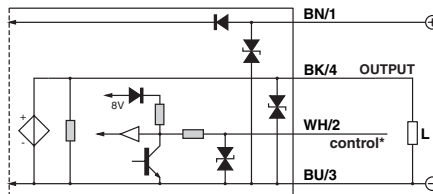
Wiring Diagrams

Diagram 1



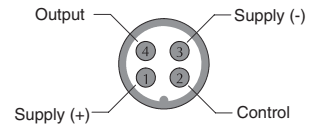
* Control wire can be used to inhibit sensor or to synchronize with another sensor.

Diagram 2



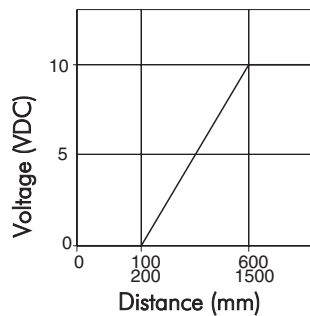
* Control wire can be used to inhibit sensor or to synchronize with another sensor.

Connectors

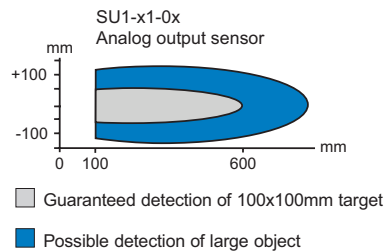


Characteristic Curves

Analog Output



Detection Area SU1 Analog output



Detection Area SU2 Analog output

