

TU Series Ultrasonic Sensors



M30 (30 mm) plastic – DC or Analog Output

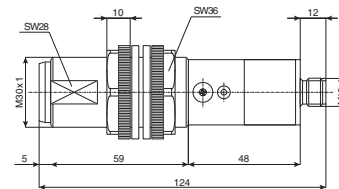
- High resolution
- DC output model available with adjustable sensitivity
- Complete overload protection
- IP67 rated
- LED status indicator on DC models

TU Series Ultrasonic DC Output Sensor Selection Chart						
Part Number		Sensing Range	Output State	Logic	Connection	Wiring
TU1-C0-0E	<--->	300 to 2500mm (11.81-98.43in)	N.O.	PNP	M12 (12mm) connector	Diagram 1

TU Series Ultrasonic Analog Output Sensor Selection Chart					
Part Number		Sensing Range	Output	Connection	Wiring
TU1-C1-0E	<--->	300 to 2500mm (11.81-98.43in)	0-10VDC	M12 (12mm) connector	Diagram 2

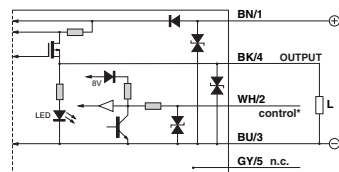
Specifications		
Type	TU1-C0-0E	TU1-C1-0E
Differential Travel	±2.0%	-
Repeat Accuracy	0.2%	±2mm
Operating Voltage	19-30VDC	
Linearity Error	-	≤0.3%
No-load Supply Current	≤35mA	
Load Current	≤500mA	≤5mA
Leakage Current	≤10µA	
Voltage Drop	≤2.5 volts	-
Output Type	PNP / N.O.	0-10VDC
Ultrasonic Frequency	130kHz	
Ultrasonic Beam Angle	8°	
Switching Frequency	1Hz	-
Max. Response Time	-	100ms
(tv) Time Delay Before Availability	≤200ms	≤1s
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 (connector)	124g (4.37oz)	

Dimensions



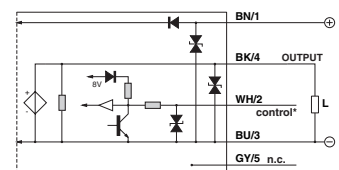
Wiring Diagrams

Diagram 1



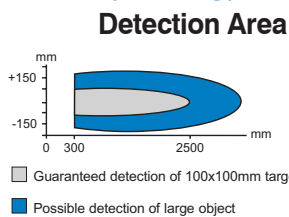
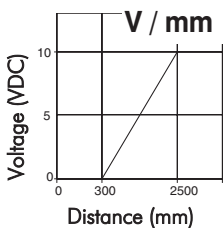
* Control wire can be used to inhibit sensor or to synchronize with another sensor.

Diagram 2



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

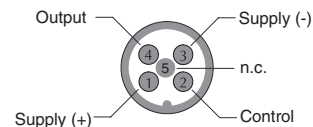
Characteristic Curves (analog)



Cables and Accessories

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

Connector



- 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