Acuity ®

The Touch Panel Display can control Acuity laser sensors and display their distance readings. Using serial communications, this smart terminal includes software applications for calculating thickness and other dimensions without the need for a computer or software programming.

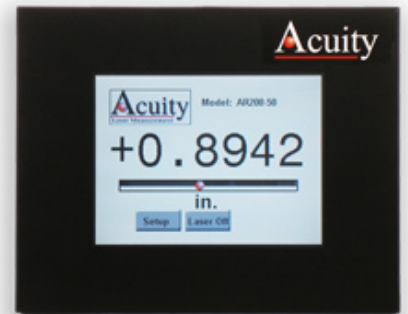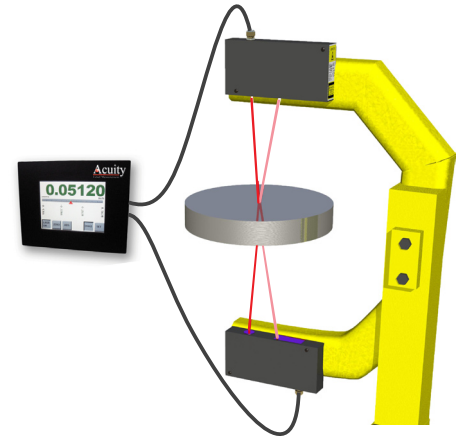## Product Description

The Acuity™ Touch Panel Display is a stand-alone terminal interface for use with Acuity laser distance sensors. These fully-enclosed units replace panel meters, alphnumeric displays and analog controllers by providing a modern interface through a full-color LCD and touch screen. The Touch Panel Display communicates with one or two Acuity sensors using their serial interfaces. Sensors can be easily configured using on-screen buttons to display and scale their distance outputs. Relative dimensions can be measured using a tare function. With dual RS232 serial inputs from two acuity sensors, the touch panel serves as a thickness gauge and display, an application which previously demanded a PC computer and custom software programming. Using a single RS485 serial interface, the Panel can transmit thickness and dimensional information to external devices. TPD's are available in 4 and 5.7" sizes.
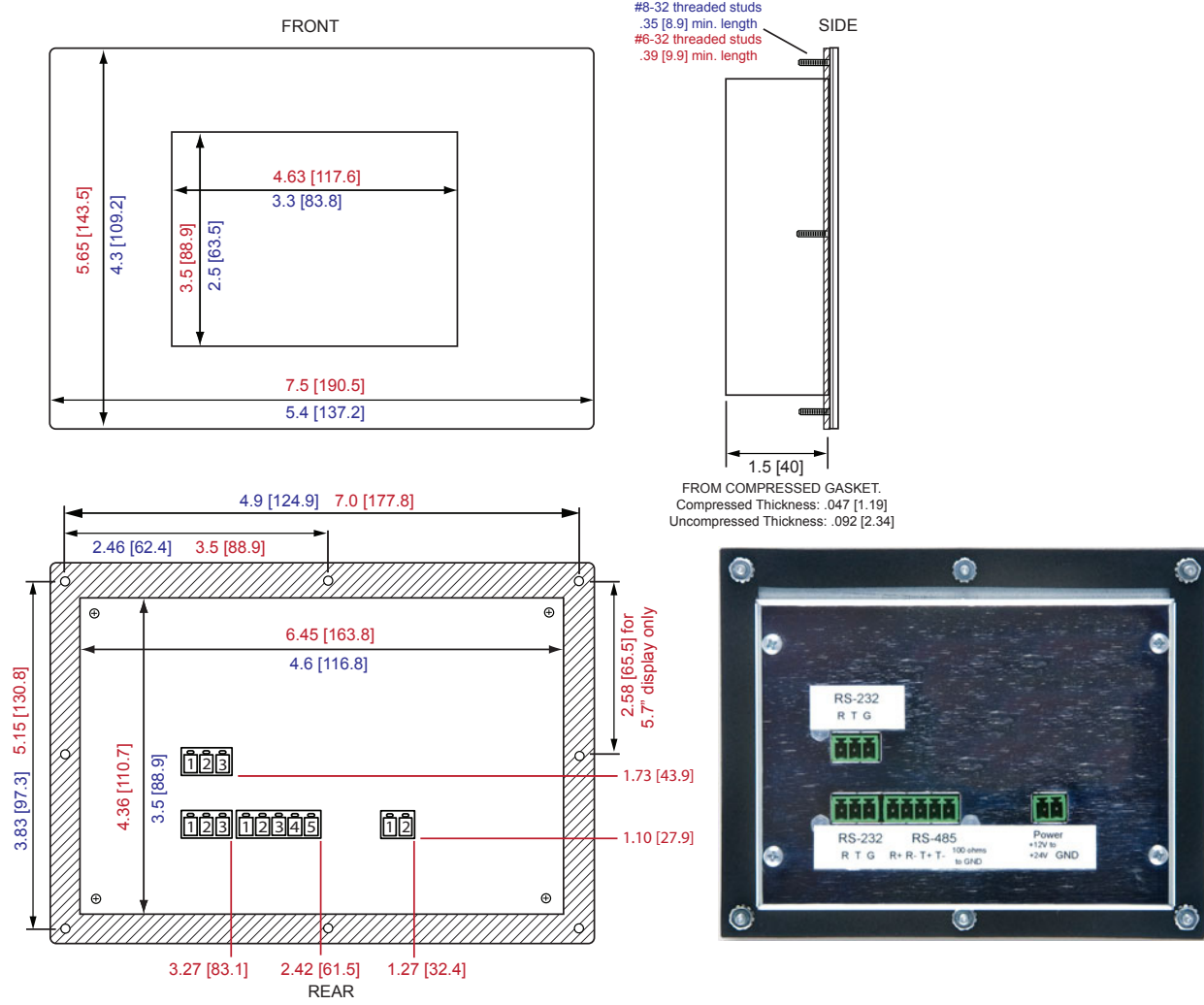
Benefits

• Eliminates the need for software program development to manipulate and display dimensional data from Acuity sensors

• Performs calculations for thickness when using dual laser sensors

• Bright and easy-to-read display can be mounted in industrial panels or in your work area

• Designed for stand-alone use of Acuity AR200, AR700, AR1000, AR3000 and AR4000 laser measuring sensors

• Accepts user-defined distance offsets and offers a TARE function through the touch screen interface

• Intuitive setup through touch-screen interface. Secure operation with supervisory LOCK-OUT feature.

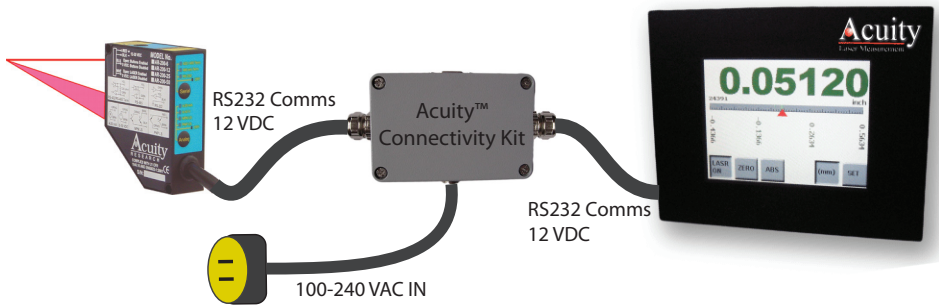## Touch Panel Display Specifications units in inches [metric]

	4" Screen Size	5.7" Screen Size
Supply Power	12 - 24 Volts DC ±10%, 6 Watts maximum	
Enclosed Outside Dimensions	137.7 W x 110.0 H x 38.1 D mm 5.42 W x 4.33 H x 1.50 D inches	190.5 W x 142.2 H x 38.1 D mm 7.5 W x 5.6 H x 1.50 d inches
Display Viewing Area	64.3 W x 63.5 H mm 3.31 W x 2.5 H inches	117.6 W x 88.9 H mm 4.63 W x 3.5 H inches
Display type	TFT, 256 Colors	TFT, 65,536 Colors
Viewing angles	+/- 65° Horizontal, 50° Up, 65° Down	+/- 60° Horizontal, 50° Up, 40° Down
Screen Resolution	320 x 240 (QVGA)	
Display Brightness	350 cd/m², 50,000 hours (typical) to half initial brightness	560 cd/m², 50,000 hours (typical) to half initial brightness
Touch Panel Type	Resistive	
Operating Temperature	-20° to 70°C, -4° to 158° F	
Environmental	NEMA – 4X, IP65 front bezel when panel-mounted with sealing gasket. Compliant with the RoHS directive regarding the reduced use of lead and other hazardous substances.	
Weight	70 grams, 1.4 lbs.	90 grams, 1.8 lbs.
Interface Options	Two RS232 with ESD protected transceiver One RS485 interface - Full or Half Duplex, 9600 to 230,400 Baud	
Interface & Power Connectors	two-part *Phoenix Contact* screw connector: MC 1.5/X-ST-3.81	
Certifications	FCC Part 15, Class A, CE Mark CISPR22, CNS13438, EN55022, ICES-003, VCCI	

Mechanical Dimensions units in inches [mm] Blue for 4" model, Red for 5.7" model

FRONT

#8-32 threaded studs
.35 [8.9] min. length
#6-32 threaded studs
.39 [9.9] min. length

SIDE

4.63 [117.6]
3.3 [83.8]

5.65 [143.5]
4.3 [109.2]

3.5 [88.9]
2.5 [63.5]

7.5 [190.5]
5.4 [137.2]

1.5 [40]

FROM COMPRESSED GASKET.
Compressed Thickness: .047 [1.19]
Uncompressed Thickness: .092 [2.34]

4.9 [124.9]   7.0 [177.8]
2.46 [62.4]   3.5 [88.9]

6.45 [163.8]
4.6 [116.8]

2.58 [65.5] for
5.7" display only

3.83 [97.3]   5.15 [130.8]
4.36 [110.7]
3.5 [88.9]

1.73 [43.9]

1.10 [27.9]

3.27 [83.1]   2.42 [61.5]   1.27 [32.4]

REAR

RS-232
R T G

RS-232   RS-485
R T G   R+ R- T+ T-   100 ohms
to GND

Power
+12V to
+24V   GND

Compatibility

The Touch Panel Display is designed for use with Acuity™ brand sensors. We suggest connecting the sensor(s) to the Display via the Acuity Connectivity Kit. The Connectivity kit makes it simple to bring both the RS232 serial interface and the DC voltage to between the Touch Panel Display and the sensor.

RS232 Comms
12 VDC

Acuity™
Connectivity Kit

RS232 Comms
12 VDC

100-240 VAC IN

Acuity
Laser Measurement

0.05120
inch

Contact Acuity

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Acuity®