Acuity
Laser Measurement

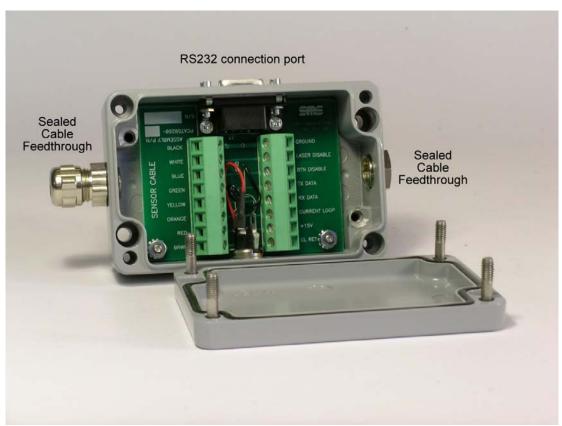*Power and Data interface box*
For the AR200 laser sensor

User's Manual

For use with AR200™ Rev. 1.06
August 16, 2005

Acuity
A product line of Schmitt Measurement Systems, Inc.
2765 NW Nicolai St.
Portland, OR 97210
www.acuityresearch.com

Sealed
Cable
Feedthrough

AC Power Supply
Connection socket

This is a photo of the connectivity box which shows the sealed, cable gland where the AR200's cable feeds through into a wire termination block. Also displayed is the connection socket for the AC power supply.

RS232 connection port

Sealed
Cable
Feedthrough

Sealed
Cable
Feedthrough

SENSOR CABLE

BLACK
WHITE
BLUE
GREEN
YELLOW
ORANGE
RED
BRWN

GROUND
LASER DISABLE
BTN DISABLE
TX DATA
RX DATA
CURRENT LOOP
+15V
CL RET

This photo reveals the inside of the connectivity box. This box is NEMA-4X and can be wall or bracket mounted. It is also possible to take signals out of the connectivity box using the convenient terminal block connections and the second sealed cable feedthrough.

AR200 POWER SUPPLY/ SERIAL INTERFACE
INSTALLATION INSTRUCTIONS:
1. TRIM CONDUCTORS FROM SENSOR CABLE TO 2 INCHES
2. STRIP .2 INCHES OF INSULATION FROM EACH CONDUCTOR.
3. CUT OFF AND DISCARD UNINSULATED SHIELD WIRE.
4. REMOVE LID FROM POWER SUPPLY INTERFACE BOX
5. PUSH POWER SUPPLY CABLE THROUGH CABLE GLAND ON THE
SENSOR CABLE SIDE OF THE BOX SO THE OUTER SHEATH IS FLUSH
WITH THE INSIDE SURFACE OF THE CABLE GLAND.
6. CLAMP EACH CONDUCTOR INTO THE TERMINAL BLOCK PER
COLOR LABELING.
7. PLUG POWER SUPPLY AND SERIAL CABLE INTO INTERFACE BOX.
8. IF OTHER USER CONTROLS ARE TO BE USED, ATTACH THEM TO
OTHER INTERFACE TERMINAL BLOCK.
9. REPLACE THE LID AND TIGHTEN SCREWS.

AR200 SENSOR

CABLE GLAND

POWER SUPPLY/ INTERFACE BOX

6' SERIAL CABLE

PCB TOP DETAIL

WALL MOUNT POWER SUPPLY

SENSOR CABLE

BLACK	GROUND
WHITE	LASER DISABLE
BLUE	BTN DISABLE
GREEN	Tx DATA
YELLOW	Rx DATA
ORANGE	CURRENT LOOP
RED	+15 VDC
BROWN	CL RET.

Ø6.700 ⍏ 6.000

3.386 [86.0]

.236 [6.0]

M4x0.7 - 6H
⌴ Ø8.000 ⍏ 7.500

.236 [6.0]

.315 [8.0]

2.047 [52.0]

2.518 [64.0]

.315 [8.0]

Ø4.900 THRU
⌴ Ø9.000 ⍏ 17.000

4.722 [119.9]

3.857 [98.0]

.147 [3.7]