



Productivity through Precision.

Acuity Laser – part of Schmitt  
Measurement Systems, Inc.

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Fax: +1 503.223.1258

www.acuitylaser.com

**Acuity® AR 700 Part Number Guide**

AR700 Ordering Information

AR700	
Part #	Description
	<b>AR700-0125 Laser Sensors</b>
AP7010001	AR700-0125, 3.175mm Span, 1mW Visible, RS232, 0-10V, 4-20mA
	<b>AR700-0250 Laser Sensors</b>
AP7010002	AR700-0250, 6.35mm Span, 1mW Visible, RS232, 0-10V, 4-20mA
	<b>AR700-0500 Laser Sensors</b>
AP7010005	AR700-0500, 12.7mm Span, 1mW Visible, RS232, 0-10V, 4-20mA
	<b>AR700-1 Laser Sensors</b>
AP7010010	AR700-1, 25.4mm Span, 1mW Visible, RS232, 0-10V, 4-20mA
	<b>AR700-2 Laser Sensors</b>
AP7010020	AR700-2, 50.8mm Span, 1mW Visible, RS232, 0-10V, 4-20mA
AP7020020	AR700-2, 50.8mm Span, 5mW Visible, RS232, 0-10V, 4-20mA
	<b>AR700-4 Laser Sensors</b>
AP7010040	AR700-4, 101.6mm Span, 1mW Visible, RS232, 0-10V, 4-20mA, w/o Bandpass
AP7020040	AR700-4, 101.6mm Span, 5mW Visible, RS232, 0-10V, 4-20mA, w/o Bandpass Filter
AP7022040	AR700-4, 101.6mm Span, 1mW Visible, RS232, 0-10V, 4-20mA, w/ Bandpass Filter
AP7034040	AR700-4RP, 101.6mm Span, 5mW Visible, RS232, 0-10V, 4-20mA, w/ Bandpass Filter
	<b>AR700-6 Laser Sensors</b>
AP7220060	AR700-6, 152.4mm Span, 5mW Visible, RS232, 0-10V, 4-20mA, w/o Bandpass Filter
AP7222060	AR700-6, 152.4mm Span, 5mW Visible, RS232, 0-10V, 4-20mA, w/ Bandpass Filter
AP7234060	AR700-6RP, 152.4mm Span, 5mW Visible, RS232, 0-10V, 4-20mA, w/ Bandpass Filter
	<b>AR700-8 Laser Sensors</b>
AP7220080	AR700-8, 203.2mm Span, 5mW Visible, RS232, 0-10V, 4-20mA, w/o Bandpass Filter
AP7230080	AR700-8, 203.2mm Span, 20mW Visible, RS232, 0-10V, 4-20mA, w/o Bandpass Filter
AP7222080	AR700-8, 203.2mm Span, 5mW Visible, RS232, 0-10V, 4-20mA, w/ Bandpass Filter
AP7232080	AR700-8, 203.2mm Span, 20mW Visible, RS232, 0-10V, 4-20mA, w/ Bandpass Filter
AP7234080	AR700-8RP, Road Profile Option, 203.2mm Span, 20mW Visible, RS232, 0-10V, 4-20mA, w/ Bandpass Filter
	<b>AR700-12 Laser Sensors</b>
AP7220120	AR700-12, 304.8mm Span, 5mW Visible, RS232, 0-10V, 4-20mA, w/o Bandpass Filter
AP7230120	AR700-12, 304.8mm Span, 20mW Visible, RS232, 0-10V, 4-20mA, w/o Bandpass Filter
AP7420120	AR700-12, 304.8mm Span, 20mW Visible, RS232, 0-10V, 4-20mA, w/o Bandpass Filter
AP7430120	AR700-12, 304.8mm Span, 20mW Visible, RS232, 0-10V, 4-20mA, w/ Bandpass Filter
AP7422120	AR700-12RP, Road Profile Option, 304.8mm Span, 20mW Visible, RS232, 0-10V, 4-20mA, w/ Bandpass Filter
AP7432120	AR700-12, 304.8mm Span, 5mW Visible, RS232, 0-10V, 4-20mA, w/o Bandpass Filter
AP7434120	AR700-12, 304.8mm Span, 20mW Visible, RS232, 0-10V, 4-20mA, w/o Bandpass Filter
	<b>AR700-16 Laser Sensors</b>
AP7420160	AR700-16, 406.4mm Span, 5mW Visible, RS232, 0-10V, 4-20mA, w/o Bandpass Filter
AP7430160	AR700-16, 406.4mm Span, 20mW Visible, RS232, 0-10V, 4-20mA, w/o Bandpass Filter
AP7422160	AR700-16, 406.4mm Span, 5mW Visible, RS232, 0-10V, 4-20mA, w/ Bandpass Filter
AP7432160	AR700-16, 406.4mm Span, 20mW Visible, RS232, 0-10V, 4-20mA, w/ Bandpass Filter
AP7434160	AR700-16RP, Road Profile Option, 406.4mm Span, 20mW Visible, RS232, 0-10V, 4-20mA, w/ Bandpass Filter
	<b>AR700-24 Laser Sensors</b>
AP7620240	AR700-24, 609.6mm Span, 5mW Visible, RS232, 0-10V, 4-20mA, w/o Bandpass Filter
AP7630240	AR700-24, 609.6mm Span, 20mW Visible, RS232, 0-10V, 4-20mA, w/o Bandpass Filter
AP7622240	AR700-24, 609.6mm Span, 5mW Visible, RS232, 0-10V, 4-20mA, w/ Bandpass Filter
AP7632240	AR700-24, 609.6mm Span, 20mW Visible, RS232, 0-10V, 4-20mA, w/ Bandpass Filter



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<b>AR700-32 Laser Sensors</b>	
AP7620320	AR700-32, 812.8mm Span, 5mW Visible, RS232, 0-10V, 4-20mA, w/o Bandpass Filter
AP7630320	AR700-32, 812.8mm Span, 20mW Visible, RS232, 0-10V, 4-20mA, w/o Bandpass Filter
AP7622320	AR700-32, 812.8mm Span, 5mW Visible, RS232, 0-10V, 4-20mA, w/ Bandpass Filter
AP7632320	AR700-32, 812.8mm Span, 20mW Visible, RS232, 0-10V, 4-20mA, w/ Bandpass Filter
<b>AR700-50 Laser Sensors</b>	
AP7620500	AR700-50, 1.27m Span, 5mW Visible, RS232, 0-10V, 4-20mA, w/o Bandpass Filter
AP7630500	AR700-50, 1.27m Span, 20mW Visible, RS232, 0-10V, 4-20mA, w/o Bandpass Filter
AP7622500	AR700-50, 1.27m Span, 5mW Visible, RS232, 0-10V, 4-20mA, w/ Bandpass Filter
AP7632500	AR700-50, 1.27m Span, 20mW Visible, RS232, 0-10V, 4-20mA, w/ Bandpass Filter

<b>Part#</b>	<b>Description</b>
<b>AR700 Connectivity Kits</b>	
AQ7000001	Connectivity Kit w/DB9 Serial Cable – US Plug
AQ7000002	Connectivity Kit w/DB9 Serial Cable – EU Plug
AQ7000005	Connectivity Kit w/Serial to USB Cable – US Plug
AQ7000006	Connectivity Kit w/Serial to USB Cable – EU Plug
AQ7000008	Connectivity Kit w/DB9 Serial Cable for AR700 with Single Point Thickness 100V-240V US Connectivity Kit for Class 3B Laser – US Plug
AQ7000011	Connectivity Kit w/Serial to USB Cable – EU Plug
AQ7000012	Connectivity Kit for Class 3B Laser – EU Plug
<b>AR700 Touch Panel Display</b>	
AQ9900007	TOUCH PANEL PC, 7: ACUITY STANDARD
AQ9900008	TOUCH PANEL PC, 8: ACUITY STANDARD
<b>AR700 Cables</b>	
CBA700205	AR700 Cable Assembly 5M Quick Disconnect Straight Flying Leads
CBA700210	AR700 Cable Assembly 10M Quick Disconnect Straight Flying Leads
CBA700305	AR700 Cable Assembly 5M Quick Disconnect Right Angle Flying Leads
CBA700310	AR700 Cable Assembly 10M Quick Disconnect Right Angle Flying Leads

See page 3 for ordering descriptions, if needed.

Please note that cables need to be selected and included in your order.



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**Bandpass Filter:** Internally installed. Suggested for outdoor applications or when measuring to bright or radiating targets.

**Higher Laser Power:** Diode upgrades to visible red 20mW (660 nm, Class 3B) for high sample rates on dark surfaces or in high ambient light.

**Road Profiling Option:** Package for AR700-6 or -8. Includes specialized optics, upgraded diode, bandpass filter and signal processing firmware optimized for use in high-speed longitudinal road surface profiling.

**Cables:** For custom cable requirements, please let us know.

**Connectivity Kits:** Acuity sells a connectivity kit to aid in connecting your laser to a power supply and serial port. This product includes a 120V, 15 VDC, AC power supply; a serial cable with DB9 connector; and a solid-state, NEMA-4X interface box. The interface box includes two sets of terminal blocks for simple input (from sensor) and output (to your selected device), a DB9 male serial connector out, and a barrel style power connector in. You can either pass through the wiring to another unterminated cable, connect a DB9 serial cable directly to the interface box, or both at the same time.

AQ7000001 - 120 V version with an US-style plug

AQ7000002 - 240 V version with a European-style plug

AQ7000005 – w/ serial to USB cable for ease of connection into industrial computers - US plug

AQ7000006 – w/ serial to USB cable for ease of connection into industrial computers - Euro plug

**Touch Panel Display:** Stand-alone terminal interface for use with Acuity laser distance sensors. These fully enclosed units replace panel meters, alphanumeric displays, and analog controllers by providing a modern interface through a full-color LCD and touch screen. The Touch Panel Display communicates with one to six Acuity sensors or using RS-232 serial interfaces. The touch panel can be easily configured using on-screen buttons to display, scale, and even graph the sensors' distance outputs. Relative dimensions can be measured using a tare function. With two Acuity sensors, the touch panel can serve as a thickness gauge. Limits can be programmed into the touch panel to give a visual warning to operators that the target is too close or too far or too thick or too thin. With a USB flash drive, measurements can be logged and saved for further analysis.