

The Width Monitor™

a better yard stick for textile finishing



FABRIC WIDTH SENSOR

SERIES 2400

**DIGITAL... ZERO TO NINETY FEET!
ACCURACY... \pm 0.1 INCH!**

- No Adjustments... regardless of colors, shades, or patterns, from very sheer to completely opaque... **unaffected by cloth position or play** within a 5-inch throat.
- New Sectional Design... 12.7 to 51.1" sections cover full cloth width... or edges only with dead zone between.



STRANDBERG ENGINEERING LABORATORIES, INC.
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- General Information -

Tensions throughout the textile finishing process cause cloth width distortions. Accurate measurement and control at critical points can better assure a correct delivered width... and the best possible yield.

The critical points are everywhere the cloth is subjected to tension, especially where it is variable and especially where it can cause sufficient distortion to make delivery at a specified width impossible.

The most critical point is after the goods are framed to a desired width and heat set on the tenter. Just 0.4 inch excess width in 40-inch goods means 1% loss in fabric density... necessitating 1% more overfeed... and 1% less yield. One inch too much reduces yield more than 2%.

Without accurate monitoring of cloth width, yield is out of control.

It's a bad place to rely on a 50¢ yard stick. Too much is at stake. Just one inch in 40 can lose a full third of a company's profits. There is another reason... the customer. Too much is no problem. He can scrap the excess. But, who will do the scrapping if the goods are too narrow to fit his pattern?

Because excess width stretches the fabric and reduces its density and because prices are based on density, accurate width measurement is a first consideration when better yield and better customer satisfaction are sought. Overfeed regulation on the basis of fabric density can never recover what is lost in excess width. So, accurate width measurement is the right place to start.

Preset frame width is just not reliable. It is the delivered width that counts. And, this depends upon what the fabric does on its own after it is released and all subsequent tensions are removed. By locating the transducer near final delivery where the fabric is relaxed, true final width measurement is assured.

The WIDTH MONITOR, Series 2400, consists of a family of precision, non-contact photoelectric width sensors and light sources designed to cover virtually all fabric and carpet width measuring applications. Four sensors are available in increments of 12.7" (323mm) to 51.1" (1,298mm). These can be arranged, as desired, for full span or for a dead zone in the center. The dead zone is adjustable in 0.1" steps to 999.0" (25,397mm), which provides a measuring range wider than 90 feet (27.4 meters).

Automatic compensation for fabric opacity eliminates the need for operator adjustments, and precision collimation eliminates the need for precise fabric positioning over the sensors. Vertical flop and play do not affect the readings from this outstanding sensor. There are no moving parts. The full sensor range is electronically scanned in less than a hundredth of a second. Virtually no width variations go undetected.

- Specifications -

Weights, Dimensions, and Ranges

Sensors	Weights lb(kg)	Dimensions w h d "(mm)			Ranges "(mm)
WM-240R-12.7	6.0(2.7)	15.9(404)	4.7(119)	3.6(90)	12.7(323)
WM-240R-25.5	10.6(4.8)	28.7(729)	"	"	25.5(648)
WM-240R-38.3	15.2(6.9)	41.5(1,054)	"	"	38.3(973)
WM-240R-51.1	19.8(9.0)	54.3(1,379)	"	"	51.1(1,298)

Light Sources

WM-240E-30.5	11.0(5.0)	36.8(935)	"	"	30.5(775)
WM-240E-42.5	13.0(5.9)	48.0(1,219)	"	"	42.5(1,080)
WM-240E-54.5	19.8(9.0)	60.0(1,524)	"	"	54.5(1,384)

Interface

WMI-240	23.4(10.6)	15.5(394)	12.3(312)	6.3(160)
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Configurations

- Order one WM-240R-12.7, one WM-240E-30.5, and one WMI-240
- Order one WM-240R-25.5, one WM-240E-30.5, and one WMI-240
- Order two WM-240R-12.7, two WM-240E-30.5, and one WMI-240
- Order one WM-240R-38.3, one WM-240E-42.5, and one WMI-240
- Order one WM-240R-51.1, one WM-240E-54.5, and one WMI-240
- Order two WM-240R-25.5, two WM-240E-30.5, and one WMI-240
- Order two WM-240R-38.3, two WM-240E-42.5, and one WMI-240
- Order two WM-240R-51.1, two WM-240E-54.5, and one WMI-240

Center Dead Zone	0-999.9", adjustable
Accuracy	±0.1" (2.5mm)
Power Requirements	115/230 volts a-c
Mounting	Any position, allow up to 5" (127mm) space between sensors and light sources
Temperature Range	32-158 °F (0-70 °C)
Relative Humidity Range	0-100%, non-condensing
Fabric Scan Rate	100 per second
Output	one pulse per 0.1" (2.54mm) of fabric width, including latch and reset, for connection to monitors, process controls, and personal computers



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