

# VISIBILITY SENSOR

- **COMPACT, MODULAR DESIGN**
- **EASY INSTALLATION & MAINTENANCE**
- **VISIBLE LIGHT FOR GREATER ACCURACY**
- **WIDE DYNAMIC RANGE**
- **DIGITAL AND ANALOG OUTPUTS**
- **EXTENSIVE SELF-DIAGNOSTICS**
- **NATIONAL WEATHER SERVICE APPROVED**

The Belfort Model 6230A Visibility Sensor is a highly reliable, compact and rugged atmospheric visibility sensor. It combines new digital signal processing with the proven reliability of the previous analog model.

The sensor can be used to replace existing transmissometers, while providing better stability, accuracy and maintainability, at a much lower price. Applications include visibility measurements at airports, lighthouse, along highways and on ships, as well as for meteorological observations. The sensor can also be used in the detection of hazards to transportation caused by fog, snow, smoke, blowing sand, etc. The Model 6230A uses the Forward Scatter Principle to measure the atmospheric extinction coefficient and visibility. A high intensity Xenon strobe transmitter is used to illuminate the sensor's scatter volume. This results in a high signal-to-noise ratio and reduces the effects of natural background light variations.

Accurate visibility measurements are possible over a standard range of 0.01 to more than 30 miles, the widest dynamic range available. The use of light within the visible spectrum allows the sensor to most accurately simulate human perception of visibility.

Field calibration is simple and can even be accomplished during periods of impaired visibility. Digital and optional analog outputs simplify integration of the sensor into networks or systems.



The Belfort Visibility Sensor has been extensively tested and widely accepted by the World Meteorological Organization, the British Meteorological Office, the U.S. National Weather Service and the Canadian Atmospheric Environment Service. The sensor is being installed as part of the National Weather Service's Automated Surface Observing System (ASOS) Program.

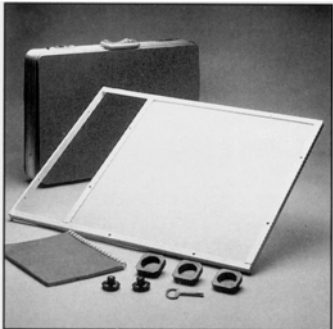
THE STANDARD  
OF MEASUREMENT

**BELFORT** INSTRUMENT

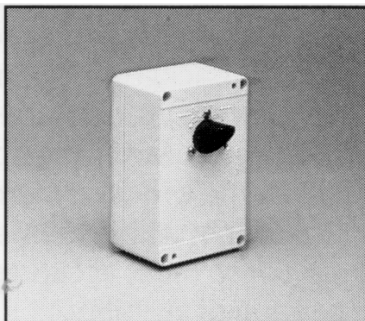
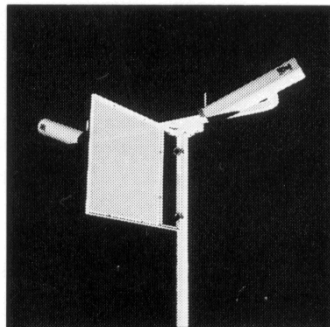
## STANDARD FEATURES

- ▼ Uses visible light – proven the most reliable source for accurately simulating human perception of visibility
- ▼ Digital output or combination digital and analog output will meet most interface requirements
- ▼ Single pedestal mounting for easy, inexpensive installation
- ▼ Modular construction for rapid, easy field replacement of parts
- ▼ Self-diagnostics assure operator of correct performance at all times
- ▼ Large scattering volume exceeding 0.75 ft.<sup>3</sup> (0.21m<sup>3</sup>)

## OPTIONS



▼ CALIBRATION KIT



▼ DAY/NITE SENSOR

## VISIBILITY SENSOR Model 6230A

## SPECIFICATIONS

Power Requirements ...	110/220 VDC (optional – 12/24 VDC)
Range .....	17 ft. – 30 miles (5 m – 50 km)
Accuracy .....	+/- 10% of reading
Scatter Angle .....	20 to 50 degrees
Illumination Source ...	Xenon flash lamp
Sample Volume .....	.75 ft. <sup>3</sup> (.021 M <sup>3</sup> )
Time Constant .....	>1 sec. (selectable)
Flash Rate .....	2 Hz
Output .....	RS232C @ 2400 Baud
Environmental .....	-67° to +140° F (-55° to + 60° C)
MTBF .....	> 10 years (MIL-217E)
EMI .....	MIL-STD-461
Dimensions:	
Sensor .....	19" H x 64" W x 25" D (48.3 x 162.6 x 63.5 cm)
Support .....	10.0 ft. (3 m)
Weight:	
Sensor .....	30 lbs. (13.6 kg)
Support .....	34 lbs. (15.4 kg)

### *For Further Information, Contact:*

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