

Rapid Crash Detection for All Machines

Spectra™ Blue monitors machine tools for collisions that result from programming errors, incorrect tool offsets, mislocated or oversized parts, and other factors found in modern manufacturing processes. Any of these circumstances result in significant damage to the machine, cutting tools, and part fixtures.

Spectra™ Blue detects and responds to a catastrophic condition in less than 5 milliseconds. Rapid response minimizes damage, repair costs, machine downtime, and lost production. Proper machine protection can increase the serviceable life of the machine and help in producing higher quality parts.

Spectra™ Blue is a microprocessor-based multi-sensor monitoring platform. Two models are available to meet demanding application requirements. The BL-1 model provides single-station collision detection. The BL-2 model is designed to protect a machine with two stations. Either model utilizes the same programming and sensors, reducing the learning curve and enhancing the ease of application and use.

Spectra™ Blue Human-Machine-Interface (HMI) is provided through Montronix's graphical display (GLCD) or the Integrated Process Monitor (IPM) software. Both products provide an intuitive interface that allows the user to visualize and understand the current state of the manufacturing process, identify and recover from process interruptions, and teach or modify monitoring parameters.

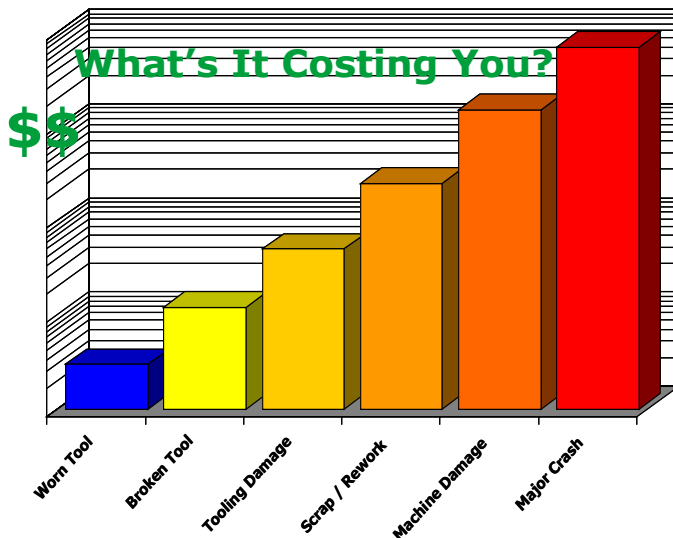


**Up to 100 X Faster Than
Monitoring Motor/Drive Power**

**Rapid Detection Minimizes
Damage & Downtime**

**Provides Protection
During ALL Machine Motions**

**Low Cost!
One Crash Payback Typical!**



Process, Machine, and Tool Monitoring for New or Existing Machines

Spectra™ Blue Specifications

Functions

- Teach Standard
- Machine Collision Detection Standard
- Tool Collision Detection Standard

Human Machine Interface

- GLCD Optional
- Integrated Process Monitor Standard
- M-View Optional
- PDA Interface⁴ Optional

Logging & Reporting

- Event Log
 - Alarm History Standard
 - Graphic Display Standard
 - Text History Standard
 - Time/Date Stamp Standard

Signal Processing, Monitoring & Limits

- Signal Processing Techniques
 - Average Standard
- Limits, Fixed Standard
- Maximum Limits/Tool 1
- Limits/sensor 1
- Upper Limits 1

Environmental

- Storage Temperature: 0° - 65°C
(32° - 150°F)
- Operating Temperature 0° - 50°C
(32° - 120°F)
- Input Power Required 24VDC, 30 Watts
- Approvals & Certifications CE, CSA, ETL, FCC

Mounting

- Bracket Standard
- DIN Rail Optional

Interfacing & Control: CNC, Network, Fieldbus,

LAN

- Discrete I/O Standard
- CNC Connection Standard
- Interbus Optional¹
- Profibus Optional¹
- Ethernet Optional
- Teach Function Standard
- Tool Select Standard
- Rapid Feed Monitor Standard
- Turret Index Function Standard

Sensors²

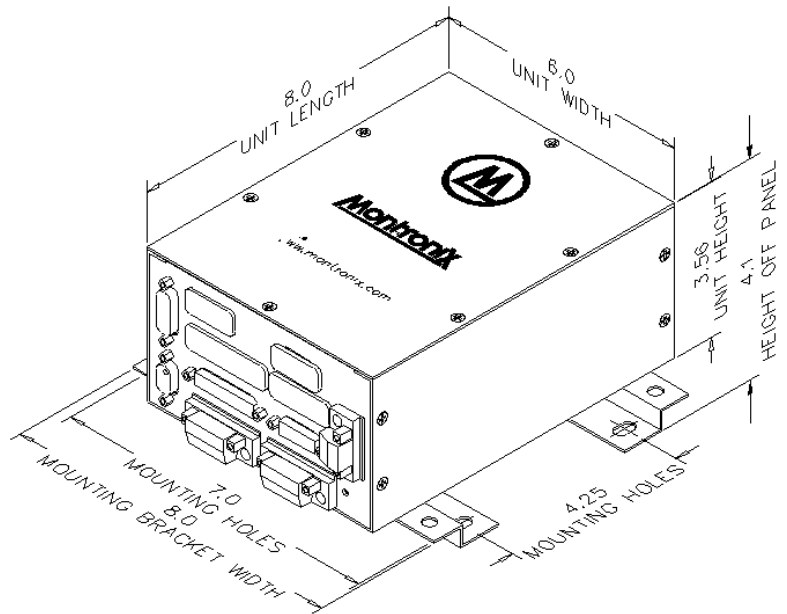
- Sensors / Tool 1
- Sensors, Maximum 1 (BL-1); 2 (BL-2)
- Stations 1 (BL-1); 2 (BL-2)
- Tools/Workpiece 3
- Workpieces / Station 1
- Force Standard
- Vibration Standard
- Power (DGM) Standard (Optional)
- Acoustic Emission Standard
- Digital Drive Monitoring⁵ Optional
- Other Analog³ Optional

NOTES:

- 1 - Interbus or Profibus: only 1 may be selected.
- 2 - Sensor type and quantity is a function of the Spectra™ model selected. Consult your local Montronix sales representative for assistance.
- 3 - Montronix line of Spectra™ models accepts most standard sensor inputs. Consult your local Montronix sales representative for assistance with sensor selection and integration.
- 4 - PDA - Personal Digital Assistant
- 5 - Digital Drive Monitoring requires either a Profibus or Interbus option.

The Montronix Advantage™

Montronix tool and process monitoring solutions are utilized in manufacturing industries worldwide. Applications span virtually all aspects of metal removal operations: from the manufacture of aircraft engine parts made of nickel-based alloys to steel bearing and gear components; from cast iron cylinder liners and brake components to aluminum engine blocks. Montronix products are reliable and easy to use. Montronix detects and diagnoses machining problems and helps you reduce manufacturing costs. Montronix solutions enable you to "Cut with Confidence™".



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