

Hotbus Digital Monitoring System



APPLICATION

The T500 Elite monitors up to 256 sensors, bearing temperature, misalignment, speed sensors, and others. It consists of a field bus (max. 1Km) to which the HOTBOX modules are connected. A maximum of 64 HOTBOXES can be connected to the field bus.

FEATURES

- ▶ **Reduced wiring:** up to 256 sensors with one 4 conductor cable- 2 for communication & 2 for supply
- ▶ **High Speed:** 4 seconds scan time with 256 sensors installed
- ▶ **Universal system:** works with many types of sensors
- ▶ **User friendly:** enter your own sensor names
- ▶ **2-point temperature control**
 - Fixed temperature for alarm or machine shutdown
 - Variable temperature – taking account of ambient temperature for each Hotbox
- ▶ T500 module is **ATEX-approved** for zones 21& 22; Hotbox Nodes are ATEX-approved for zone 21; sensors are ATEX approved for zones 20 & 21
- ▶ The HotBus system can be connected to **logging & trending** software to continuously monitor bearing temperatures for preventative maintenance and historical data analysis



ATEX zones 21 & 22



**CLASS 2 div. 2
groups E,F,G**

Detailed specification, wiring diagrams and installation/operating instructions available immediately upon request.

CONTROL UNIT **T500 ELITE**

Atex-Certification Ex II 2D T125°C for zones 21 & 22 – for 24 Vdc
 Atex-Certification Ex II 3D T125°C for zone 22 - for 115-230 Vdc
 Power Consumption 10VA / 10 Watts
 Alarm Relay Normally Open 8A @250 VAC
 Communications RS485 2 Wire 19,200 Baud
 RS485 4 Wire 19,200 Baud
 Construction Polycarbonate
 Dimensions 246 x 188 x 102 mm
 Weight 1,3 Kg
 Conduit Entry 2 holes dia 28 mm
 Protection IP 65, NEMA 4X



RELAY UNIT **R500 ELITE**

Atex-Certification Ex II 2D T125°C for zones 21 & 22 -for 24 Vdc
 Atex-Certification Ex II 3D T125°C for zone 22 – for 115-230 Vdc
 Power Consumption 10VA / 10 Watts
 Relays 16 relays 5A @ 240VAC
 Communications RS485 2 Wire 19,200 Baud
 Construction Polycarbonate
 Dimensions 246 x 188 x 102 mm
 Weight 1,3 Kg
 Conduit Entry 2 holes dia 28 mm
 Protection IP 65, NEMA 4X



Hotbox-TN4A

Atex-Certification Ex II 2D T125°C for zones 21 & 22
 Power Consumption 3 mA
 Communications RS485 2 Wire 19,200 Baud
 Channels 4 Sensor Inputs
 Special Inbuilt Temperature Compensation
 Construction Polycarbonate
 Dimensions
 Weight
 Conduit Entry 4 holes M25
 Protection IP 65, NEMA 4X



COMMUNICATION BRIDGE **F500 ELITE**

Atex-Certification Ex II 2D T125°C for zones 21& 22 -for 24 Vdc
 Atex-Certification Ex II 3D T125°C for zone 22 – for 115-230 Vdc
 Power Consumption 10VA / 10 Watts
 Communications RS485 4 fils 19,200 Baud
 Construction Polycarbonate
 Dimensions 246 x 188 x 102 mm
 Weight 1,3 Kg
 Conduit Entry 2 holes dia 28 mm
 Protection IP 65, NEMA 4X
 Protocols Ethernet TCP/IP
 Modbus TCP/IP
 Modbus plus
 Devicenet



Belt Misalignment Sensor **TOUCHSWITCH**

Atex-Certification Ex II 1D T120°C & Ex II 2D T80°C
 Zones 20, 21 & 22
 Supply Voltage 24 VDC 60 mA
 Output SPTD relay contact 5A @ 240 VAC
 Construction Pressed seamless steel with epoxy
 Dimensions dia 89 x 45 mm
 Output cable or conduit 1/2" NPT
 Fixations 4 screws
 Protection IP 65, NEMA 4X
 Special Test button



Temperature sensor **WDB**

Type NTC (continuous temperature) -16 to + 110°C
 Type PTC (fixed) 80°C standard, others on demand
 Atex-certification Ex II 1D T125°C for zone 20, 21 & 22
 Installation screw into existing bearing grease nipple
 Supply Voltage 12 /24 Vdc
 Power Consumption 1mA
 Cable 2 conductors + blindage
 Construction zinc-plated steel
 Thread Size 1/8" NPT
 Protection IP 65, NEMA 4X
 Output cable or conduit



Rotation Monitor **M3005V10A**

Type Speed control
 Atex-Certification Ex II 1D T100°C for zones 20, 21 & 22
 Supply Voltage 24-240 V AC / DC
 Consumption 40 mA
 Cable 5 conductors
 Dimensions dia M 30 mm long. 92 mm
 Protection IP 65
 Output SPDT relay contact 3A @ 240VAC
 Start-up delay 1 to 30 seconds
 Speed range from 10 to 3600 pulses/ minute
 Trip-Point 20 % underspeed; magnetic adjustment



Choke Switch **BS15V10A**

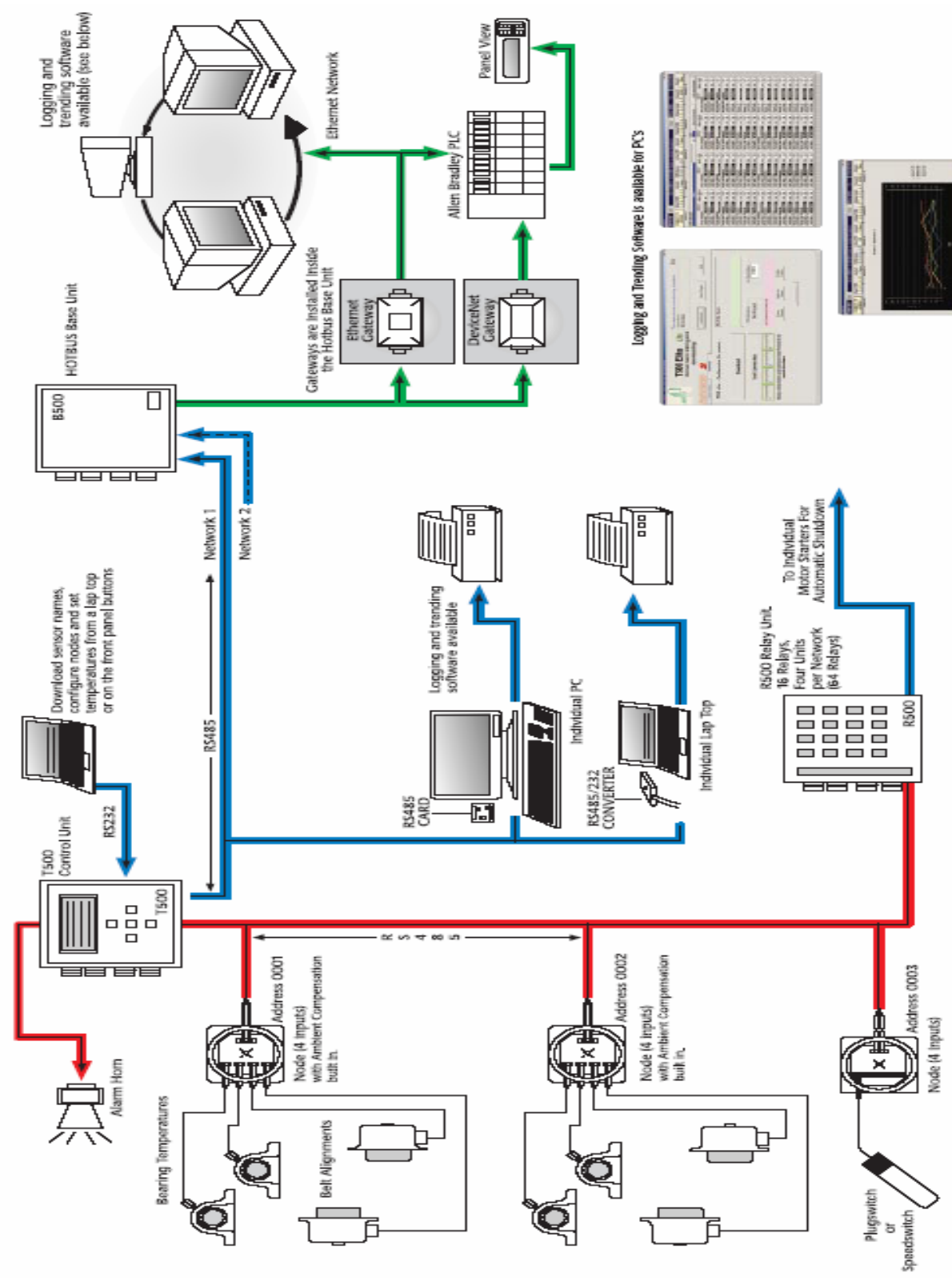
Type Capacitive sensor
 Atex-Certification Ex II 1D T100°C for zone 20, 21 & 22
 Supply Voltage 24-240 V AC / DC
 Consumption 40 mA
 Cable 5 conductors
 Dimensions dia M 30 mm long. 92 mm
 Protection IP 65
 Output SPDT relay contact 3A @ 240VAC
 Option Abrasion shield BAS2



LEVEL 1
Simple Low Cost
Digital Communication System

LEVEL 2
Direct Communication to Computers
and Automatic Control of Motor Starters

LEVEL 3
Gateways for Communication
to Ethernet and Industrial PLCs



Logging and Trending Software is available for PCs



Nodes accept Continuous Bearing Temperature Sensors, Belt Alignment sensors and relay contacts from level indicators and set point speed monitors.