

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

IECEX



**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 ½ " 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 + bllndage
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

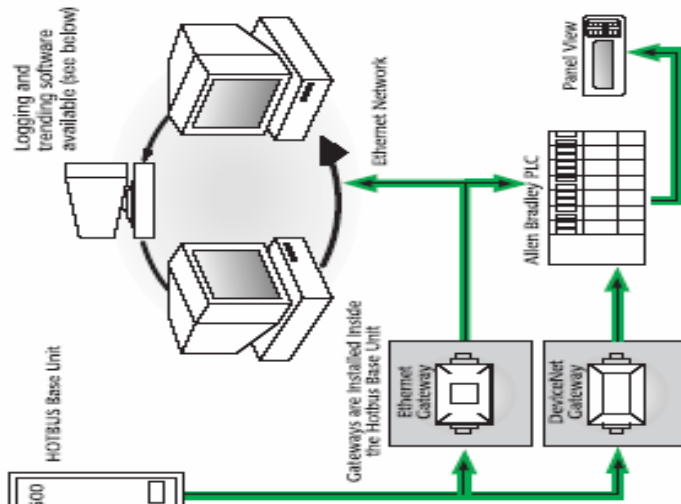
**Choke Switch BS15V10A**

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



Please refer to instruction manual for correct installation .
Information subject to change or correction. July 2007.

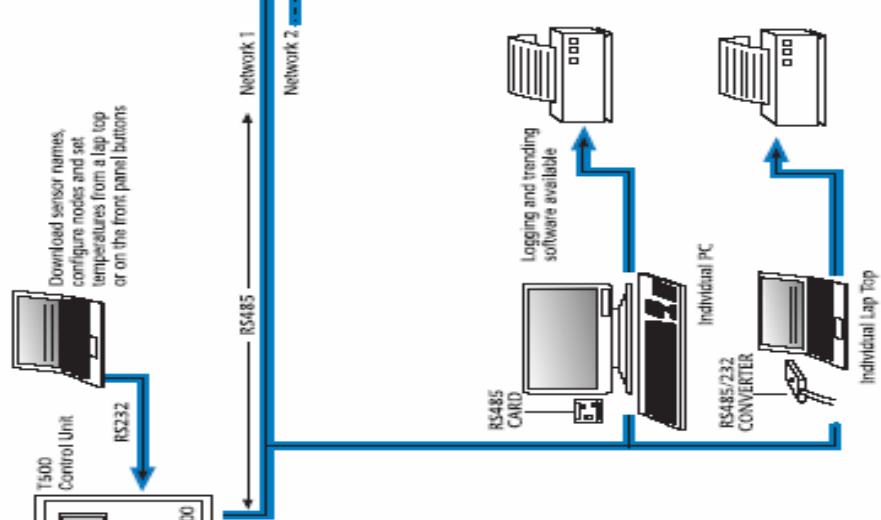
LEVEL 3
Gateways for Communication to Ethernet and Industrial PLC's



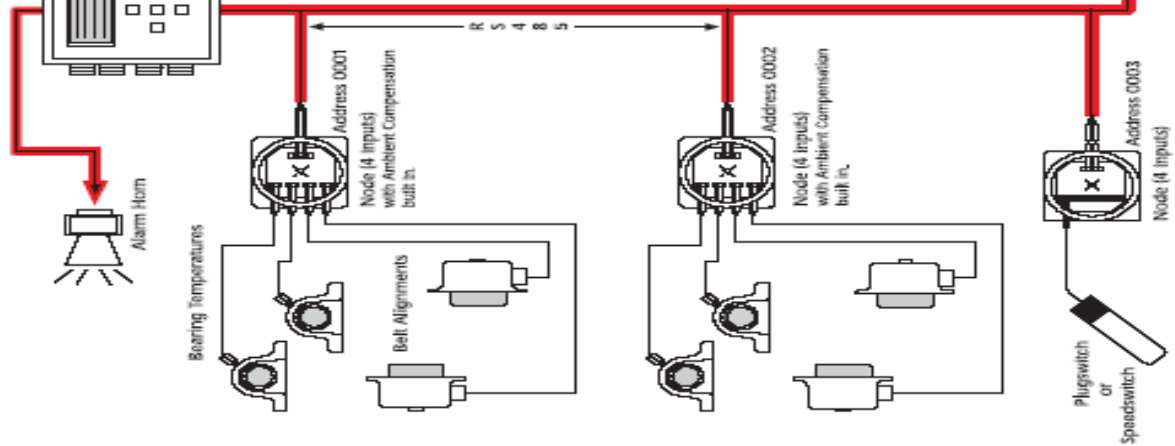
Logging and Trending Software is available for PCs



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



LEVEL 1
Simple Low Cost Digital Communication System



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

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