



# HOTBUS

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## 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.



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## 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 + 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



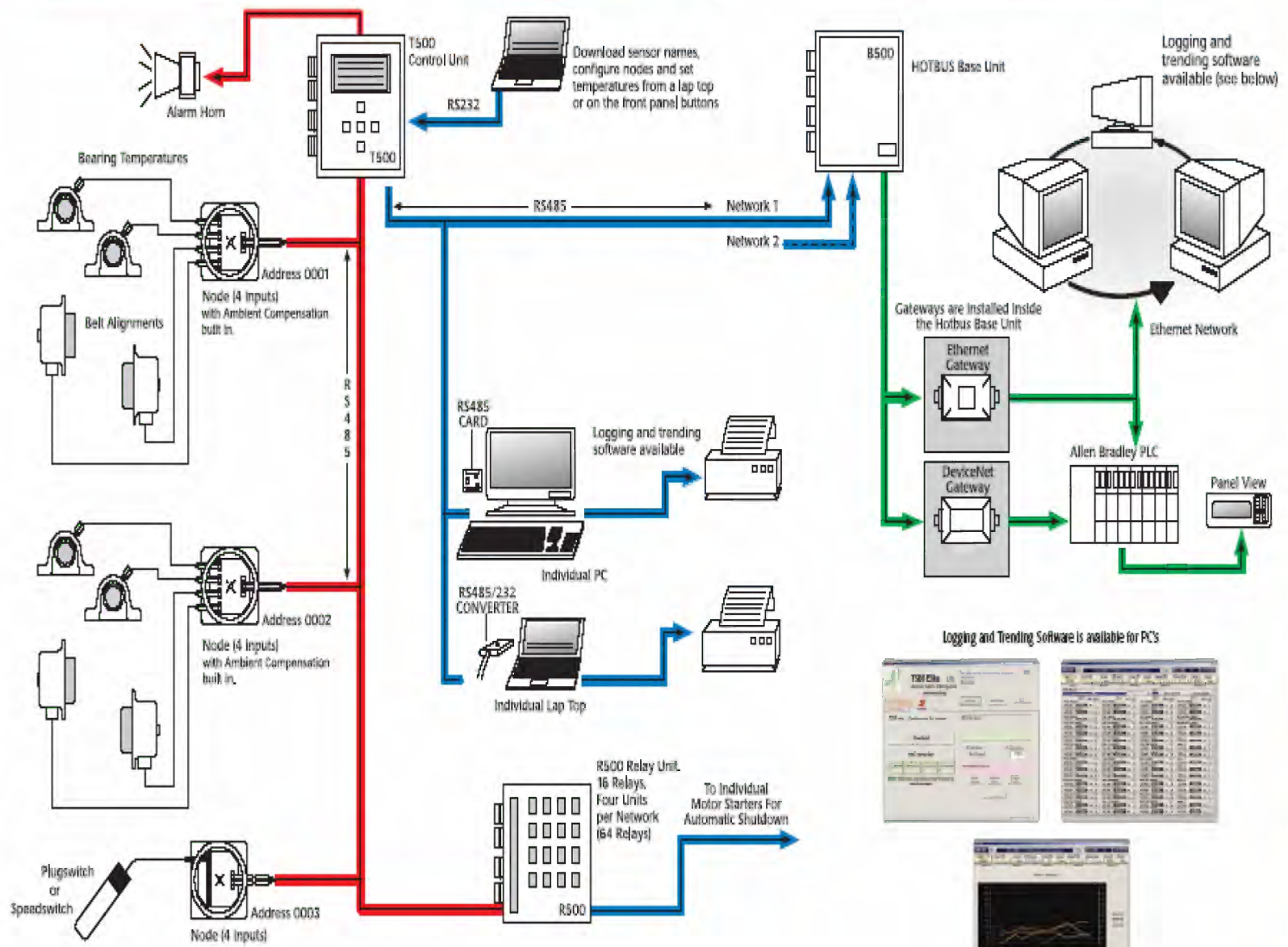




**LEVEL 1**  
Simple Low Cost  
Digital Communication System

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

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



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



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

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Product Information