

Electronic Components & monitoring systems



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Hazard Monitoring
Systems

Bearing Temperature
Sensors

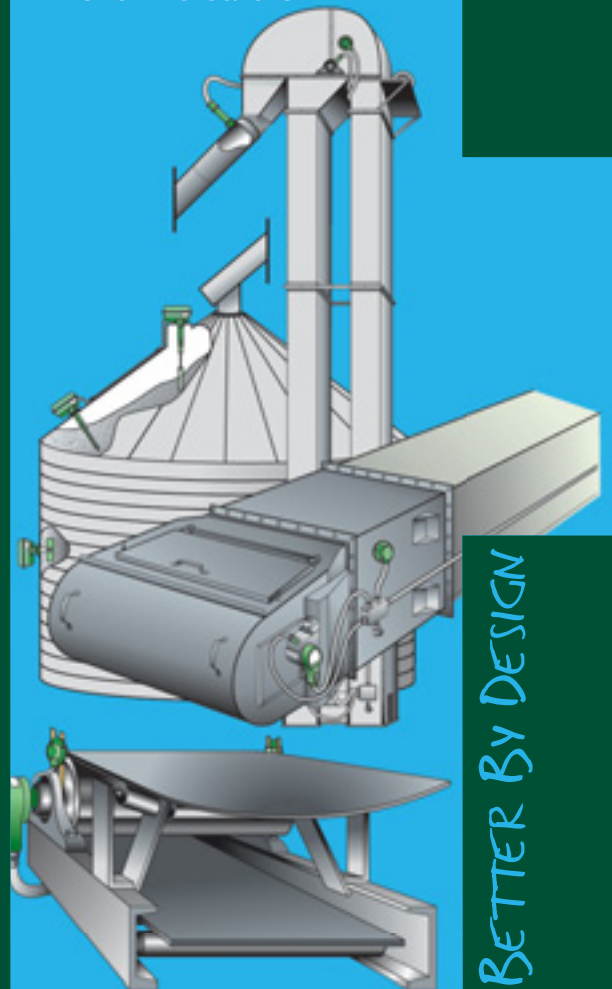
Misalignment Monitors

Speed Switches

Inductive Sensors

Junction Boxes

Level Indicators



BETTER BY DESIGN



IECEX





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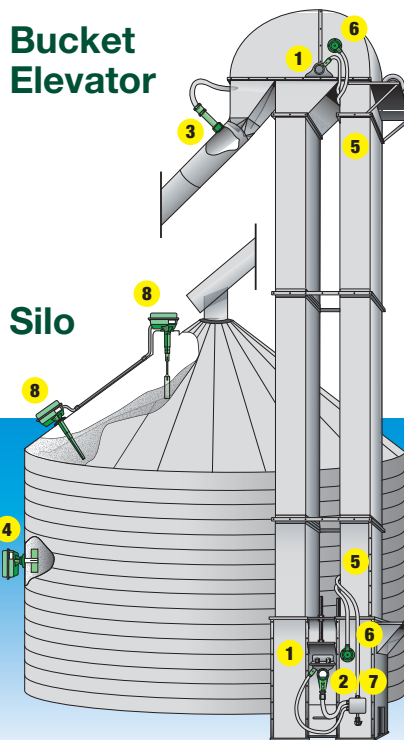


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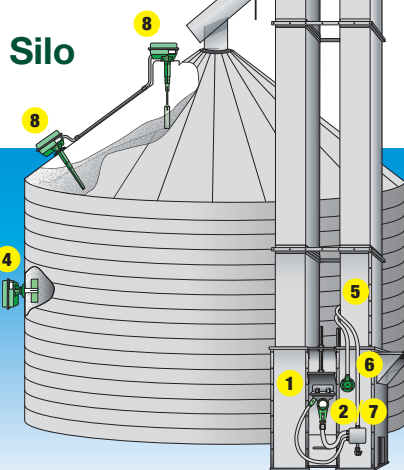


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Bucket Elevator



Silo



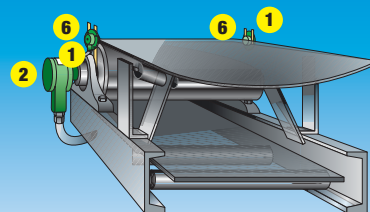
Chain Conveyor



Enclosed Belt Conveyor



Open Belt Conveyor



Sensors

1 Bearing Temperature Sensors

The WDB, MDB & ADB Series bearing temperature sensors are designed to screw directly into an existing grease zerk fitting on a bearing housing. Each sensor is fitted with a grease nipple to allow lubrication of the bearing without the need for removal of the sensor. The WDB series is available with either a PTC thermistor with various factory set trip points or a NTC thermistor with a user adjustable trip point, or as a Pt100 RTD version.



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2 Speed Switches

Monitors rotating machinery for dangerous underspeed conditions. An inductive sensing device located in the nose of the enclosure will detect a metal target. Set to the normal machine RPM, 4B Speedswitches provide alarm and shutdown signals underspeed and stopped motion. *Can be used with the Whirligig universal shaft sensor mount



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3 Binswitch

The Binswitch detects level or plug conditions for bulk granular solids or liquids in tanks, bins, or silos and can be used as a plug or choke detector in chutes, conveyors and elevator legs.



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4 Roto Level Series

The Roto Level Series are rotary paddle switches designed to detect high and low levels of bulk granular solids in bins, tanks, silos, and as blockage detectors in spouts.



page 10

5 WDA 3

The WDA Series are non-contacting extended range magnetic sensors used to detect ferrous targets (such as bucket bolts or steel buckets) at a distance of up to 100mm from the sensor. It can also be used as a chain break detector.



page 5

6 Touchswitch

The Touchswitch is an electro-mechanical limit-switch style sensor with no moving parts. It is designed to detect belt tracking and misalignment problems on bucket elevators and conveyors. Unlike a rub block that utilizes friction (heat) to activate, the Touchswitch is pressure sensitive for safer and more reliable monitoring.



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7 Inductive Sensors

4B inductive proximity sensors are designed to detect shaft speed, shaft position, gate position, or object presence. No contact is made between the sensor and the target being monitored. Sensors will detect a ferrous object at 1/2" and a non-ferrous metal object at a distance of 5/16". *Can be used with the Whirligig universal shaft sensor mount



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8 Autoset Series

The Autoset Series are self-contained point level monitors with digital displays for high, intermediate, or low-level detection of liquids, powders or free-flowing granular solids. The Autoset Series incorporates simple push-button calibration with microprocessor enable/disable switch for total protection of stored values. Once the unit is calibrated for a specific application, it never has to be re-calibrated.



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HAZARD MONITORING SYSTEMS

Combined Monitoring Systems

The **T500 Elite - Hotbus** is a serial communication system specially designed to monitor up to 256 sensors, including continuous bearing temperature and belt misalignment. With automatic machine shutdown capability and PLC/PC compatibility this advanced microprocessor based system offers low cost installation, versatility and easy system expansion. Logging and trending software is also available for historic data analysis and preventative and predictive machine maintenance.

The **Watchdog Elite** is a microprocessor controlled unit with combined belt speed, belt alignment, bearing temperature, pulley alignment and plugged condition monitoring for bucket elevators and conveyors. An LCD screen displays machine status messages (available in four different languages) and a super-bright LED display shows belt speed. Calibration and set-up parameters are accessed via a password and front panel touch buttons.



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Serial network system for continuous monitoring of bearing temperature, belt misalignment, and more



Combined belt speed, belt alignment, bearing temperature, pulley alignment and plugged condition monitoring system

Combined Monitoring Systems

T500 Elite - Hotbus

Features

- Continuous bearing temperature monitoring with user adjustable trip points
- RS485 serial communication
- Monitors up to 256 sensors
- 4 second scan time with 256 sensors installed
- Works with many types of sensors
- Enter your own sensor/location names for easy identification
- Alarm and shutdown features
- Can be connected to logging and trending software
- Gateways available for various PLC connections

Sensor options

- WDB, MDB, ADB: bearing temperature
- Touchswitch: belt alignment
- M300 Speedswitch: speed
- Autoset Series: level indicator
- Roto-Level Series: level indicator
- Binswitch: level and plug indicator

Input supply voltage

100 to 240 VAC
24 VDC
(universal supply)

Sensor supply

Use external 24 VDC supply

Approvals

- Europe - ATEX
- USA, Canada - CSA
- Worldwide - IECEx

H x W x D

246 x 188 x 102mm

Applications

Bucket elevators and conveyors

Watchdog Elite

Features

- Monitors elevators and conveyors
- User friendly menu set-up
- LED belt speed indication
- LCD message screen displaying status
- Fully programmable to optimize elevator/conveyor operation
- LED alarm indication and power status
- Relay contacts and RS485 outputs
- PLC interface (optional)
- Alarm and shutdown features

Sensor options

- WDB, MDB, ADB: bearing temperature
- WDA Series: motion alignment
- Touchswitch: belt alignment
- Inductive Proximity Sensors: speed (P100V34A/P300V34AI)
- Binswitch: plugswitch

Input supply voltage

100 to 240 VAC
24 VDC
(universal supply)

Sensor supply

24 VDC

Approvals

- Europe - ATEX
- USA, Canada - CSA
- Worldwide - IECEx

H x W x D

308 x 241 x 137mm

Applications

Bucket elevators and conveyors

For more detailed product information, please visit: www.go4b.com

HAZARD MONITORING SYSTEMS

Temperature Monitoring

The **T400 Elite - Hotswitch** is a microprocessor controlled temperature monitor, which works in conjunction with PTC temperature sensors to monitor up to 48 bearings and can provide an alarm and automatic shutdown when a high bearing temperature condition is detected.



Bearing temperature monitor

Belt Alignment Monitoring

The **A400 Elite** is a microprocessor based control unit which uses high power magnetic sensors that detect moving metallic buckets or bolts from either one or two bucket elevators. The unit is able to provide an alarm and automatic shutdown of the elevator when a belt misalignment/underspeed condition is detected.



Bucket elevator belt alignment monitoring system

The **B400 Elite** is a microprocessor based control unit which uses sensors to detect belt misalignment by pressure (Touchswitch) from one or two elevators/conveyors. The unit is able to provide an alarm and automatic shutdown of the elevator/conveyor when a belt misalignment condition is detected.



Conveyor or bucket elevator belt alignment monitoring system

Alarm Monitoring

The **X400 Elite - Alarmswitch** is a microprocessor based control unit which is able to accept contact style signals in 8 separate zones. Alarm and status LEDs provide quick location of the alarm. A single local and optional remote alarm mute push button acknowledges any alarm condition.



Centralized alarm monitoring system

Temperature Monitoring

T400 Elite - Hotswitch Features

- Monitors 8 zones with up to 6 PTC sensors in each zone (48 total)
- Status LEDs provide quick location of the hot bearing condition
- Sensors are positively mounted grease through
- Alarm mute
- RS485 serial communication (optional)
- PLC board with 8 contact outputs (optional)

Sensor options

- WDB - MDB - ADB Series: bearing temperature
- Extensive range of sensors available from 50 - 100°C

Input supply voltage

100 to 240 VAC
24 VDC
(universal supply)

Sensor supply

12 VDC

Approvals

- Europe - ATEX
- USA, Canada - CSA
- Worldwide - IECEx

H x W x D

246 x 188 x 102mm

Applications

Bucket elevators and conveyors

Belt Alignment Monitoring

A400 Elite Features

- Uses up to 4 magnetic (reluctance) alignment sensors
- Monitors alignment of belts in two separate elevators or top and bottom alignment in one elevator
- Includes 2 separate alarm and 2 separate stop relays
- Simple, reliable, consistent. Fully functional test via push button on front panel
- RS485 serial communication (optional)

Sensor options

- WDA Series: motion alignment
- BAP Series: motion alignment

Input supply voltage

100 to 240 VAC
24 VDC
(universal supply)

Sensor supply

24 VDC

Approvals

- Europe - ATEX
- USA, Canada - CSA
- Worldwide - IECEx

H x W x D

246 x 188 x 102mm

Applications

Belt bucket elevators

B400 Elite Features

- Uses up to 4 touch or capacitive alignment sensors
- Monitors alignment of belts in two separate machines or top and bottom alignment in one machine
- Includes 2 separate alarm and 2 separate stop relays
- Simple, reliable, consistent. Fully functional test via push button on front panel for general testing
- RS485 serial communication (optional)

Sensor options

- Touchswitch: force activated
- Binswitch: capacitance proxy (open belt conveyors)

Input supply voltage

100 to 240 VAC
24 VDC
(universal supply)

Sensor supply

24 VDC

Approvals

- Europe - ATEX
- USA, Canada - CSA
- Worldwide - IECEx

H x W x D

246 x 188 x 102mm

Applications

Belt bucket elevators and conveyors

Alarm Monitoring

X400 Elite Alarmswitch Features

- Monitors up to 8 zones
- Multiple alarm inputs from different sensors
- LED alarm indication and power status
- Alarm mute – local and remote
- Test feature
- RS485 serial communication (optional)
- PLC board (optional)

Sensor options

- Autoset Series: level indicator
- Roto-Level Series: level indicator
- Binswitch: level and plug indicator
- M Series Speedswitch: speed
- Touchswitch: belt alignment

Input supply voltage

100 to 240 VAC
24 VDC
(universal supply)

Sensor supply

24 VDC

Approvals

- Europe - ATEX
- USA, Canada - CSA
- Worldwide - IECEx

H x W x D

246 x 188 x 102mm

Applications

Bucket elevators, conveyors, silos and bins



BEARING TEMPERATURE SENSORS

WDB7 LUG STYLE

The **WDB7** series is a lug style NTC, PTC, Pt100 thermistor model for continuous **surface temperature monitoring** and has been designed to bolt directly onto a bearing housing, motor, gearbox, or machine casing. The mounting hole is 8mm from the factory, but can be drilled up to 13mm if needed. The sensor can be connected to a PLC or to a hazard monitoring system, such as 4B's T500 Hotbus Elite, Watchdog Elite, or T400 Elite. The connections are not polarity sensitive therefore special connections requirements are eliminated.

WDB8

The **WDB8** series is a range of bearing temperature sensors designed to screw directly into an existing grease zerk fitting on a bearing housing. Each sensor is fitted with a grease nipple to allow lubrication of the bearing without the need for removal of the sensor. The WDB Series is available with either a PTC thermistor with various factory set trip points or an NTC thermistor with a user adjustable trip point.

MDB

The **MDB** series is a range of bearing sensors manufactured to screw directly into a bearing housing through the existing 1/4" BSP threaded grease zerk (can be installed in 1/8" NPT grease zerk fitting with an adapter). Each sensor is fitted with a grease zerk to allow lubrication of the bearing without the need for removal of the sensor. The sensor is fitted with a M12 connector for use with a separately supplied cable and socket assembly which can be connected directly to a PLC or to a hazard monitoring system, such as 4B's T500 Hotbus Elite, Watchdog Elite, or T400 Elite. The connections are not polarity sensitive therefore special connection requirements are eliminated.

ADB

The **ADB** series have been designed to allow the depth of the sensor to be adjustable depending on your application. Three standard versions are available with probe lengths of 2, 4 and 8 inches (other lengths available for special order). The sensors screw directly into a bearing housing through the existing grease zerk thread. Each sensor is fitted with a grease zerk to allow lubrication of the bearing without the need for removal of the sensor. The ADB style sensors are available with a standard NTC thermistor for 4B's Hotbus and Watchdog systems, or a 4-wire Pt100 - RTD type for PLC and DCS systems.



Bearing Temperature Sensors

WDB7 – Lug Style

Features

- Surface mount installation
- 8mm to 13mm bolt entry
- 1/2" NPT conduit entry
- Continuous temperature monitoring

Sensor options

- NTC -10 to +105 °C
- PTC
- Pt100 -10 to +105 °C

Input supply voltage

12/24 VDC

Compatible 4B control unit

- Watchdog
- T500
- T400

Approvals

- Europe – ATEX
- USA, Canada – CSA
- Worldwide – IECEx

Applications

Surface temperature control

WDB8

Features

- Screw in positive mount installation
- Grease zerk for bearing lubrication
- 1/4" BSP (brass body)
- Cable with protective anti-bend cover

Sensor options

- NTC -10 to +105 °C
- PTC
- Pt100 -10 to +105 °C

Input supply voltage

12/24 VDC

Compatible 4B control unit

- Watchdog
- T500
- T400

Approvals

- Europe – ATEX
- USA, Canada – CSA
- Worldwide – IECEx

Applications

Bearing temperature control

MDB8

Features

- Screw in installation
- Grease zerk for bearing lubrication
- Wiring connector

Sensor options

- NTC, PTC or contact versions
- Pt100 version available (2, 3 or 4-wire)

Input supply voltage

12/24 VDC

Compatible 4B control unit

- Watchdog
- T500
- T400

Approvals

- Europe – ATEX
- USA, Canada – CSA
- Worldwide – IECEx

Applications

Bearing temperature control

ADB8

Features

- Screw in positive mount installation
- Grease zerk for bearing lubrication
- Adjustable depth (50, 100, 200mm probes)
- 1/4" NPT (brass body)
- NTC or Pt100 RTD versions – continuous temperature

Sensor options

- NTC or Pt100 4 wire
- Adjustable depth (50, 100, 200, 300mm probes)

Input supply voltage

12/24 VDC

Compatible 4B control unit

- Watchdog
- T500
- T400

Approvals

- Europe – ATEX
- USA, Canada – CSA
- Worldwide – IECEx

Applications

Bearing temperature control



Bearing temperature sensor on belt conveyor



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MISALIGNMENT MONITORS

Touchswitch

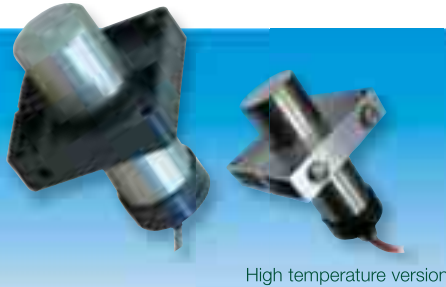
The **Touchswitch** is an electro-mechanical limit switch with no moving parts, that detects the misalignment of both pulleys and belts in conveyors and bucket elevators. The sensor detects the lateral force of the belt or pulley and activates a voltage free relay contact. This relay contact can be used to activate an alarm or shutdown the machine. The sensors are normally installed in pairs on opposite sides of the belt/pulley.



Touchswitch
Belt/pulley misalignment sensor

WDA High Power Sensor

The **WDA** sensor detects moving ferrous material and is designed for use with bucket elevators to detect buckets, for measurement of speed and alignment. It is a non contacting extended range sensor to detect targets which are up to 100mm from the sensor. It can also detect ferrous bolts where non ferrous buckets are being used. The sensor is used in conjunction with a PLC or with a Watchdog, T500 Elite or A400 Elite control unit.



High temperature version

WDA
Belt alignment/speed and chain break monitor

BAP

The **BAP** detects moving ferrous material and is designed for use with bucket elevators to detect buckets, for measurement of speed and alignment. It can also detect ferrous bolts where non ferrous buckets are being used. The sensor is used in conjunction with a PLC or with a Watchdog, T500 Elite or A400 Elite control unit.



BAP
Belt alignment/speed monitor

Belt Misalignment Monitors

TS1V4AI

Features

- Hardened, annealed stainless steel face
- External test knob for quick and simple sensor/system testing
- Not affected by dust or material build up
- Visual indication by an LED

Supply voltage
24 VDC

Compatible 4B Control Unit

- Watchdog
- T500
- B400

Approvals

- Europe - ATEX
- USA, Canada - CSA
- Worldwide - IECEx

Applications

Belt/pulley misalignment on elevators and conveyors

WDA3V34AI

Features

- Long range magnetic sensor unaffected by material build up
- Continuously monitors the moving elevator, with visual indication by an LED
- 25-100mm range depending on the size of the target, easily adjusted from the sensor itself or from the optional independent control unit
- Mounting bracket included
- Stainless steel construction
- High temperature version available

Supply voltage
24 VDC

Compatible 4B Control Unit

- Watchdog
- T500
- A400

Approvals

- Europe - ATEX
- USA, Canada - CSA
- Worldwide - IECEx

Applications

Belt alignment and speed sensor
Chain break monitor

BAP21V34AI

Features

- Magnetic sensor unaffected by material build up
- Continuously monitors the moving elevator, with visual indication by an LED
- 12-50mm range depending on the size of the target, easily adjusted from the sensor itself or from the optional independent control unit

Supply voltage
12/24 VDC

Compatible 4B Control Unit

- Watchdog
- T500
- A400

Approvals

- Europe - ATEX
- Worldwide - IECEx

Applications

Belt alignment and speed sensor



MISALIGNMENT MONITORS

CBS2

The **CBS2** is an electro-mechanical system to detect the misalignment of a belt conveyor. Two outputs are given at 15 and 30 degrees which can be used as alarm and stop signals respectively. Works in conjunction with a CBS2 Elite control unit. The sensors are normally installed in pairs, one on either side of the belt, and up to 4 sensors per CBS2 Elite control unit.



CBS2VNA
Conveyor belt alignment monitor

CBS2 Elite

The **CBS2 Elite** is the compatible control unit for CBS2 belt alignment sensors. The unit is able to provide an alarm and automatic shutdown of the conveyor when a belt misalignment condition is detected.



CBS2VOA
Control unit for belt alignment sensors

Bulldog

The **Bulldog** alignment and rip detection switch is an electro-mechanical system designed to detect dangerous belt misalignment and belt tear damage on open belt conveyors. The switch will detect horizontal misalignment of belts when contact is made with the roller; the roller arm will be forced to pivot by the belt activating a switch at **15° to trigger an alarm, and 30° to trigger a shut down**. The sensors are usually installed in pairs on opposite sides of the belt. A flexible wire is set below the running conveyor belt attached by a rare earth magnet at each end. If the belt is ripped or damaged the wire is pulled away releasing the magnet connection which in turn will activate a switch to trigger an alarm or shut down.



Bulldog
Belt Alignment & Rip Detection Switch

Conveyor Belt Alignment Monitor

CBS2VNA

Features

- Two outputs at 15 & 30 degrees for alarm and shutdown
- Nylon and stainless steel rollers available
- Self assembly adjustable support system

Supply voltage
110-240 VAC

Compatible 4B Control Unit
• CBS2 Elite

Approvals
• Europe – ATEX

Applications
Conveyor belt alignment monitoring

Control Unit for Belt Alignment Sensors

CBS2VOA

Features

- Control unit for CBS2VNA belt alignment sensors

Supply voltage
110-240 VAC

Compatible 4B Sensors
• CBS2VNA

Approvals
• Europe – ATEX, IP66

Applications
Conveyor belt alignment monitoring

Belt Alignment & Rip Detection Switch

Bulldog

Features

- Easy installation without calibration
- Solid construction
- Triggers an alarm at 15° and a shutdown of the machine at 30°
- Wire rope for optional belt rip detection

Supply voltage
110-240 VAC

Compatible 4B Control Unit
• Watchdog

Approvals
• Europe - ATEX
• Worldwide - IECEx

Applications
Conveyor belt alignment monitoring belt rip detection.

For more detailed product information, please visit: www.go4b.com



Conveyor Safety Stop Switch

- A safe and reliable means of stopping conveyors
- Double ended pull mechanism as standard
- Slack or taut wire operation
- Designed for operation in arduous environments, e.g. quarries, open cast mines
- Approvals: ATEX, CSA



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SPEED SWITCHES

Stopswitch

The **Stopswitch** is a straightforward shaft speed monitoring device. The 2-wire technology saves you time and makes installation hassle-free. If the shaft stops rotating, the **Stopswitch** will provide an output. It requires no calibration to operate and is a great tool for process control, motion verification and stopped shaft indication.



M100 Stopswitch
Stopped motion monitor

Slipswitch

User friendly and easy to install, the **Slipswitch** is a simple shaft speed monitoring device. Available in 2-wire and 5-wire models, the **Slipswitch** is self-calibrating and provides a 20% underspeed output to protect against dangerous belt slip and underspeed conditions.



M300 Slipswitch
Intelligent underspeed switch
2 or 5-wire version available

Speedswitch

A solid state unit with no moving parts, the **M800** is maintenance free. The unit operates using an inductive sensing device and requires no contact with the monitored machine. The **M800** is calibrated to the machine's normal RPM. If the shaft speed falls by 10%, the **M800** will alarm, and by 20% it will shut the machine down.



M800 Speedswitch
Intelligent underspeed switch
with three outputs

Stopswitch

M100 Stopswitch

Features

- Small 18mm diameter
- Totally sealed
- 5m cable
- Status LED's

Style

18mm cylindrical

Supply voltage

24 to 240 VAC
12/24 to 240 VDC
(universal supply)

Output

Stopped motion signal Triac
with maximum load of
200mA

Approvals

- Europe - ATEX
- USA, Canada - CSA

Applications

Process control.
Provides a signal when the
shaft has stopped rotating.

Slipswitch

M300 Slipswitch 2 or 5-wire

Features

- Totally sealed
- Auto calibration
- 2 or 5-wire connection
- 5m cable
- Status LED's

Style

30mm cylindrical

Supply voltage

24 to 240 VAC
12/24 to 240 VDC
(universal supply)

Output

1 x 20% underspeed relay

Approvals

- Europe - ATEX
- USA, Canada - CSA
- Worldwide - IECEx

Applications

Conveyors, bucket elevators,
any speed sensitive shaft for
automatic 20% underspeed
detection.

Speedswitch

M800 Speedswitch

Features

- Totally sealed
- Auto calibration
- 1/2-inch conduit entry with
2m cable
- Status LED's

Style

DIN (40mm x 40mm)

Supply voltage

24 to 240 VAC
12/24 to 240 VDC
(universal supply)

Output

1 x 10% underspeed relay
1 x 20% underspeed relay
1 x opto-isolated pulse
(All 3 outputs in 1 unit)

Approvals

- USA, Canada - CSA

Applications

Conveyors, bucket elevators,
any speed sensitive shaft for
automatic underspeed
detection with 10% alarm
and 20% shutdown.

Accessories for Speed Switches



Serial network system for continuous monitoring of bearing temperature, belt misalignment, and more.

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Combined belt speed, belt alignment, bearing temperature, pulley alignment and plugged condition monitoring system.

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X400 Elite AlarmSwitch

Alarm panel with 8 multi-voltage inputs and alarm indication LED's for use with many different sensors.

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Whirligig PAT #6,109,120

The Whirligig is the new standard for shaft speed monitoring. It is a three-in-one universal shaft sensor mount that makes installation simple and more reliable for all inductive shaft speed sensors. Your sensor mounts to the Whirligig and the complete assembly bolts to the machine's shaft. Machine and shaft vibration does not affect the performance of the sensor, as the whole assembly moves with the shaft. Personal safety is also improved since the rotating target is completely enclosed behind a tough plastic cover.

MagCon Magnetic Connector

PAT #6,964,209

2-inch diameter magnetic coupler with 150 lb of pulling force for connecting M12 thread to rotating shaft. Saves on drilling and tapping.

Tacho Display

Bright 1-inch high LED display unit for connection to any PNP or NPN transistor output sensor to indicate shaft speed. The unit incorporates a user-adjustable underspeed relay contact output. Quadrature display also available.

Encoder

The Encoder is a safe heavy-duty option for protecting against dangerous underspeed and belt slip conditions. With its tough aluminium or stainless steel construction (polyester version available), the Encoder is used in the most severe industrial environments. It requires no guards as rotating components are encased inside the aluminium encoder. And since the encoder is bolted to an moves with the shaft, it needs no brackets.

1 Shaft Encoder

Heavy-duty shaft mounted speed monitor/encoder

2 Wheel Encoder

Return belt mounted heavy-duty belt speed monitor/encoder

Speed Relay

DIN rail mounted speed relay can be used with any PNP or NPN pulsed output sensor for providing a user-adjustable underspeed relay contact output to alarm or shutdown machinery.



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All 4B speed sensors are compatible with the Whirligig universal shaft sensor mount.

* shown with M300 Slipswitch



INDUCTIVE SENSORS

P100 Inductive Sensor

Inductive proximity sensors used to signal the position of equipment in conveyors, elevators and other mechanical assemblies. Also used as pulse generators for speed detection.

P300 Inductive Sensor

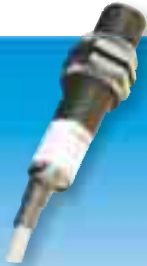
JUNCTION BOXES

4BJ Junction Boxes

4B Atex approved junction boxes allow for the easy installation of sensors in potentially explosive dust hazard environments.

D5M Inline Junction Box

The D5M's unique moulded body with Atex approved glands and mounting clip/bracket allows for in-line connection closer to the sensors simplifying connections and reducing the time of intervention during maintenance operations or repairs.



P100
Inductive Proximity Sensor



P300
Inductive Proximity Sensor



4BJ
Junction Boxes



D5M
Inline Junction Box

P100 Inductive Sensor

P1001V10A - normally closed
P1002V10A - normally open
P100V34A - NO/NC selected by polarity

- Features**
- IP 65
 - PLC compatible
 - Visual indication of output state by LED
 - 8mm detection range

Style
18mm cylindrical body with 1.5 ISO threaded body

Supply voltage
Universal voltage 24-240V AC/DC (P100V34A - 10-30VDC)

Output
FET Transistor with maximum load of 200mA (P100V34A - PNP or NPN, 100mA maximum load)

Approvals
• Europe - ATEX

Applications
Conveyors, elevators and other mechanical assemblies.
Note: For use with 4B control monitors use P100V34A/P300V34AI

P300 Inductive Sensor

P3001V10AI - normally closed
P3002V10AI - normally open
P300V34AI - NO/NC selected by polarity

- Features**
- IP 65
 - PLC compatible
 - Visual indication of output state by LED
 - 15mm detection range

Style
30mm cylindrical body with 1.5 ISO threaded body

Supply voltage
Universal voltage 24-240V AC/DC

Output
FET Transistor with maximum load of 200mA

Approvals
• Europe - ATEX
• Worldwide - IECEx

Applications
Conveyors, elevators and other mechanical assemblies.

4BJ Junction Boxes

- 4BJ Features**
- Robust glass reinforced nylon casing
 - Up to 4 gland inputs
 - Dust and water tight seal
 - Detachable cover for easy terminal access

Terminal springs
6 x 2.5mm² or 12 x 2.5mm²

Approvals
Europe – ATEX zone 21, IP66

Applications
Electrical installations in dust – explosive environments

D5M Inline Junction Box

- D5M Features**
- Inline junction box ideal for extending sensor cables within Atex hazard areas. ID zone 20 rated
 - Complete with Atex glands and mounting bracket

Terminal springs
5 x 2.5mm²

Approvals
Europe – ATEX zone 20, IP66

Applications
Electrical installations in dust – explosive environments

Whirligig universal shaft sensor mount for slip and speed switches

* shown with M300 Slipswitch



LEVEL INDICATORS

Autoset

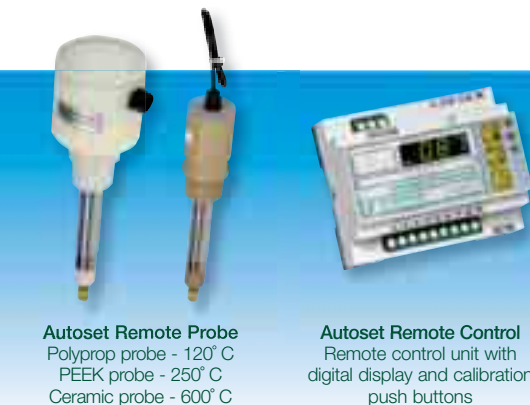
A user friendly, reliable point level indicator for bulk granular solids, powders and liquids. Digital display, push-button calibration and material build-up compensator make this unit the elite point level sensor.



A selection of screw-on stainless steel probes to suit your application.

Autoset Remote

A user friendly, reliable point level indicator for bulk granular solids or powders where there is high vibration and/or temperature involved. Remote electronic display/control unit allows for remote calibration/set-up away from vibration or heat.



Autoset

ATS6	ATS6 with Extended Power Shield	ATS6 Flush Probe
Features • Push button calibration • Digital display • Internal timer • Automatic material build-up compensator • Attachable SS probes	Features • Push button calibration • Digital display • Internal timer • Automatic material build-up compensator, 12 or 16 inches long • Attachable SS probes	Features • Push button calibration • Digital display • Internal timer • Automatic material build-up compensator • No moving parts
Style 1 inch BSP	Style 1 inch BSP	Style 100mm diameter probe with integral mount
Supply voltage 120/240 VAC 24 VDC (universal supply)	Supply voltage 120/240 VAC 24 VDC (universal supply)	Supply voltage 120/240 VAC 24 VDC (universal supply)
Output 1 set of voltage-free changeover relay contacts	Output 1 set of voltage-free changeover relay contacts	Output 1 set of voltage-free changeover relay contacts
Approvals • Europe - ATEX • USA, Canada - CSA	Approvals • Europe - ATEX • USA, Canada - CSA	Approvals • Europe - ATEX • USA, Canada - CSA
Applications Material point level indication in silos, bins and other vessels. Plug condition in chutes and discharges.	Applications Material point level indication in thick-walled concrete silos.	Applications Plugswitch for conveyors and bucket elevators.

Autoset Remote

Autoset Remote Probe	Autoset Remote Control
Features • No moving parts • No electronic components • Automatic material build-up compensator • Attachable SS probes • High temperature available	Features • Push button calibration • Digital display • Internal timer • DIN rail mountable
Style 1 inch BSP	Style DIN rail mountable enclosure
Supply voltage From control unit	Supply voltage 120/240 VAC 24 VDC (universal supply)
Output To control unit	Output 1 set of voltage-free changeover relay contacts
Approvals • Europe - ATEX	Approvals • Europe - ATEX
Applications Material point level indication in surge bins, vibratory feeders and high temperature processes.	Applications Material point level indication in surge bins, vibratory feeders and high temperature processes.



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For more detailed product information, please visit: www.go4b.com

LEVEL INDICATORS

RLI Shaker

The RLI "Shaker" rotary paddle switch is used to detect high / low levels of bulk granular solids in bins, tanks and silos. It can also be used to detect plug conditions in spouts, where long life and failsafe detection is required.

Utilizing a unique stepper motor drive, the RLI "Shaker" rotates clockwise, then counter-clockwise and then shakes to shed any excess material build-up. If the paddle rotation is impeded at any time by the bulk material then the electronic circuit provides a signal for level indication or control.



RLI Shaker
Failsafe rotary level indicator

Roto-Safe

Rotary level indicators for point level indication of bulk granular materials in bins and silos. These electro-mechanical rotary units are simple to use and reliable. The **Roto-Safe** incorporates a sensor to detect that the paddle is rotating for failsafe monitoring.



Roto-Safe
Failsafe rotary level indicator

Binswitch

A popular range of capacitance proxy level/plug detectors for detecting dry bulk granular material level in bins, silos, hoppers and chutes. Available in 2-wire and 5-wire models, this simple but robust point level indicator has no moving parts, is self-contained with all potted electronics, and can be used in areas of high vibration. The units are simple to install on the sides or tops of steel bins/hoppers and are small enough to be used as plug detectors in discharge chutes.



Binswitch
Binswitch capacitive proximity sensor
2 or 5-wire version available

Accessories for Level Indicators



Serial network system for continuous monitoring of bearing temperature, belt misalignment, and more.

[page 2](#)



Combined belt speed, belt alignment, bearing temperature, pulley alignment and plugged condition monitoring system.

[page 2](#)

X400 Elite AlarmSwitch

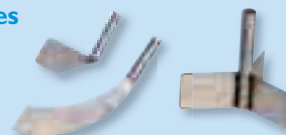
Alarm panel with 8 multi-voltage inputs and alarm indication LED's for use with any type of level indicator.



[page 3](#)

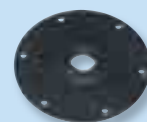
Rotary Level Paddles

Complete range of stainless steel paddles for Roto-Level Indicators.



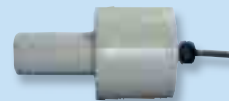
Mounting Plate

Powder-coated mild steel mounting plates with 1 1/4-inch NPT or 1 inch BSP, half or full coupling. Use with Autoset, Roto-Level Indicators and Binswitches with adapters. (Also available in stainless steel.)



BAS3 Abrasion Shield

Polyethylene abrasion shield for ATEX Binswitch



BMPA Mount

Urethane compression fitting mount for use with Binswitch. 1 1/4-inch NPT external thread.



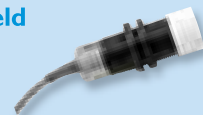
Gland Mount

Plastic gland mount for use with the Binswitch.



BTAS Teflon Abrasion Shield

Teflon Abrasion Shield screw-on end cap for ATEX Binswitch.



Adjustable Depth Level Kits

Kit RTS Kit CAPA

The adjustable depth level kits are an ideal solution for the quick installation of roto-level and capacitive level indicators in variable heights. On demand, they can be delivered with the sensor pre-installed and configured.



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Kit CAPA

Kit RTS

RLI Shaker

RLI Shaker

Features

- Failsafe rotation detection
- Glass-fibre reinforced nylon housing
- Vertical extensions to 2m (maximum) wire rope
- Shaking action for shedding material build-up
- User adjustable torque control
- Direct stepper motor drive
- No clutch and no gearbox
- Built in adjustable timer

Style

Rotary level indicator with 1 1/4-inch NPT mounting thread

Supply voltage

120/240 VAC
24 VDC
(universal supply)

Output

1 set of voltage-free changeover relay contacts

Approvals

- Europe - ATEX

Applications

Material point level indication in bins, silos, hoppers and other vessels where failsafe detection is required, or for dust hazard areas.

Roto-Safe

Roto-Safe

Features

- Failsafe paddle rotation detection
- Glass-fibre reinforced nylon housing
- Vertical extensions to 5m are available
- Internal sensitivity adjustment
- Adjustable timer
- Automatic power shut-off

Style

Rotary level indicator with 1 1/4-inch NPT mounting thread

Supply voltage

120/240 VAC
24 VDC
(universal supply)

Output

1 set of voltage-free changeover relay contacts

Approvals

- Europe - ATEX
- USA, Canada - CSA

Applications

Material point level indication in bins, silos, hoppers and other vessels where failsafe detection is required, or for dust hazard areas.

Binswitch

Binswitch

Features

- User adjustable sensitivity
- LED status lights
- Fully potted electronics
- 5m cable
- 2 or 5-wire device
- Relay contact output

Style

30mm cylindrical

Supply voltage

24 to 240 VAC
12 to 240 VDC
(universal supply)

Output

1 set of voltage-free changeover relay contacts

Approvals

- Europe - ATEX
- USA, Canada - CSA
- Worldwide - IECEx

Applications

Dry free flowing material level detection in bins, silos, hoppers and chutes.

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