

# Bulldog

## Conveyor Belt Alignment & Rip Detection System



### APPLICATION

The Bulldog alignment and rip detection switch is an electro-mechanical system designed to detect dangerous misalignment of the conveyor and also detection of belt tear damage.

### METHOD OF OPERATION

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 **20° to trigger an alarm, and 35° to trigger a shut down** procedure of the conveyor. The sensors are usually installed in pairs on opposite sides of the belt.

A steel flexible wire is set below the running conveyor belt approximately 20-30mm 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.

### FEATURES

- ▶ ATEX an IECEx Zone 21 Approved
- ▶ Easy installation
- ▶ No calibration required
- ▶ Robust design
- ▶ 20° Alarm output
- ▶ 35° Stop output

### PART NUMBERS

**MBA2AI** - Mechanical Belt Alignment

**MBA2AI-SS** - Mechanical Belt Alignment with 126.5mm Stainless Steel Roller

**MBA2SS-0150** - Mechanical Belt Alignment with 150mm Stainless Steel Roller

**MBA2RAI**- Mechanical Belt Alignment with belt rip

**MBA2RAI-SS** - Mechanical Belt Alignment with belt rip and 126.5mm Stainless Steel Roller

**MBARSS-0150** - Mechanical Belt Alignment with rip and 150mm Stainless Steel Roller

**MBR2AI** - Mechanical Belt Rip only

**MBA2AI-SF** - Mechanical Belt Alignment with Stainless Steel Fittings

**MBA2RAI-SF** - Mechanical Belt Alignment with belt rip with Stainless Steel Fittings

### Additional Parts Available

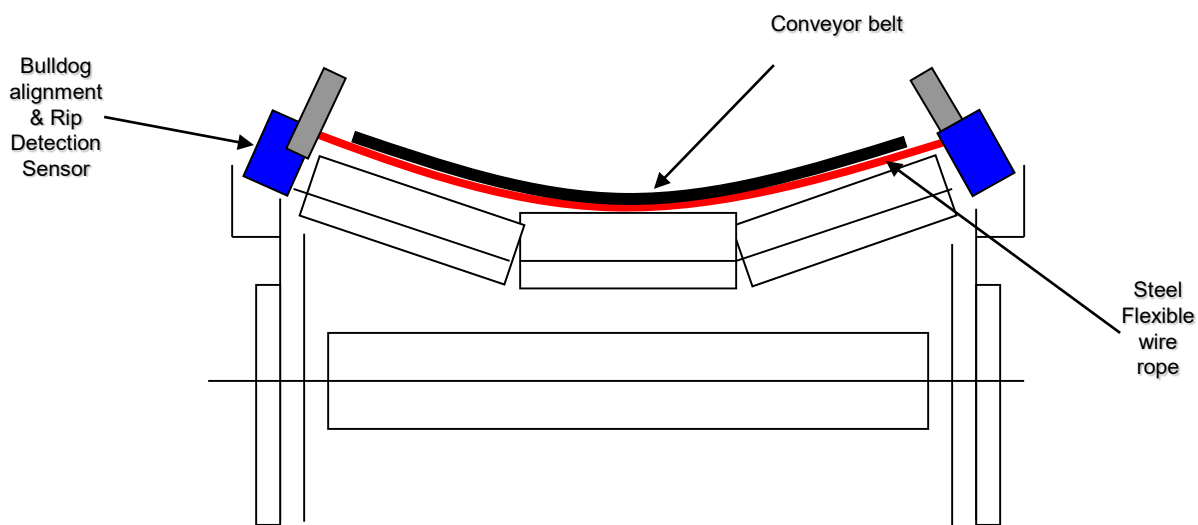
**MBA2SR-126** – 126.5mm Stainless Steel Roller Modkit (to upgrade existing unit from standard Nylon Roller)



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

## TECHNICAL SPECIFICATIONS

TYPE	MBA2AI, MBR2AI, MBA2RAI, MBA2ASS, MBA2RSS
APPROVALS	ATEX ZONE 21
SUPPLY	12-24VDC and 110-240VAC
RATING	5 Amps (must be fused externally)
CONTACT ALARM	ALARM: 1 Contact NO; 6 Amps; 240VAC (non inductive)
CONTACT STOP	STOP: 1 Contact NO; 6 Amps; 240VAC (non inductive)
DIMENSIONS	Height x Length x Width 88mm x 314mm x 113mm
CABLE ENTRY	1 x M25
WEIGHT	1.2Kg



## ACCESSORIES

- T500 HOTBUS Site-wide monitoring System
- IE Node (Industrial Ethernet Node)
- WDC4 – Watchdog Super Elite
- MBA2SR – Stainless steel rollers
- BRW – Belt Rip adjustable Wire rope with magnets & I bolts (made on demand and request on custom lengths are available)

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