

## TrackSwitch A400 “elite”

### Bucket Elevator Belt Misalignment System Detects Tracking and Alignment Problems on Bucket Elevators

#### APPLICATION

The TrackSwitch A400 “elite” Elevator Belt Monitoring System uses an electronic control unit and high power magnetic sensors (instead of inherently dangerous rub block sensors) to monitor the alignment of the belt in bucket elevators. Each control unit incorporates two independent monitoring circuits for early detection of belt misalignment on one or two bucket elevators. The magnetic sensors detect the position of steel bolt heads or steel buckets as they pass through the sensor’s adjustable magnetic field. Nuisance/false alarms are tuned out of the system during installation by setting a tolerance window on each sensor, which allows for normal belt wander. Status lights on the control unit indicate the alignment condition of the belts on the elevators and internal alarm and shutdown relay contacts provide warnings and automatic elevator shutdown control during severe belt misalignment. An optional plug-in module provides RS485 serial communication for similar devices to be connected on a single multi-drop loop to a computer or PLC.

#### FEATURES

Non-contacting System: easy on-site installation and no moving parts for long-term reliability

Two independent circuits: can monitor two separate elevators.

Two different outputs: Relay contacts and RS485 (PLC/PC)

Test feature: for simple system testing.

Approved Installation/Start Up Service Available  
 24-Hour Hotline at Peoria Office  
 Data Sheets and Manual Available Upon Request

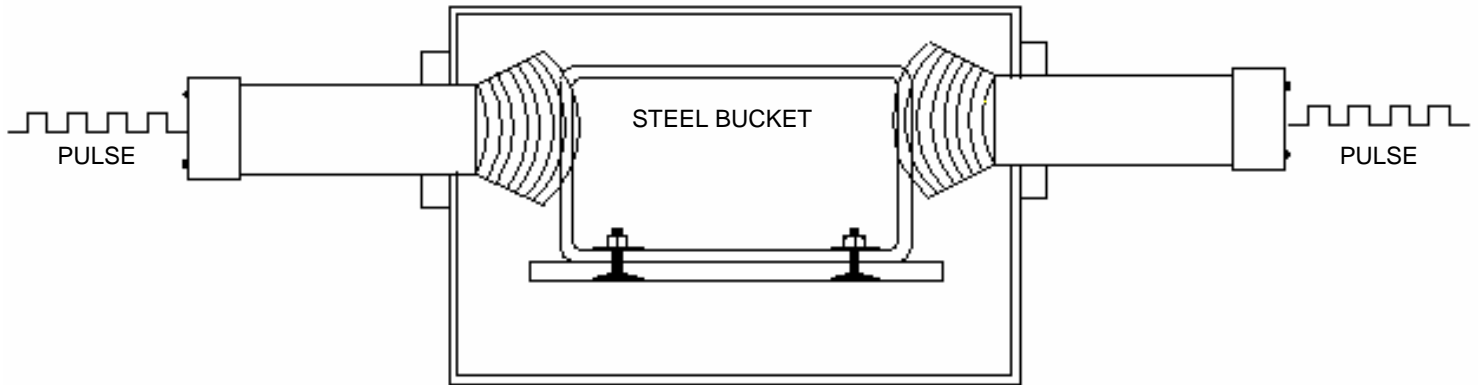


Please refer to instruction manual for correct installation.  
 Information subject to change or correction. May 2007.

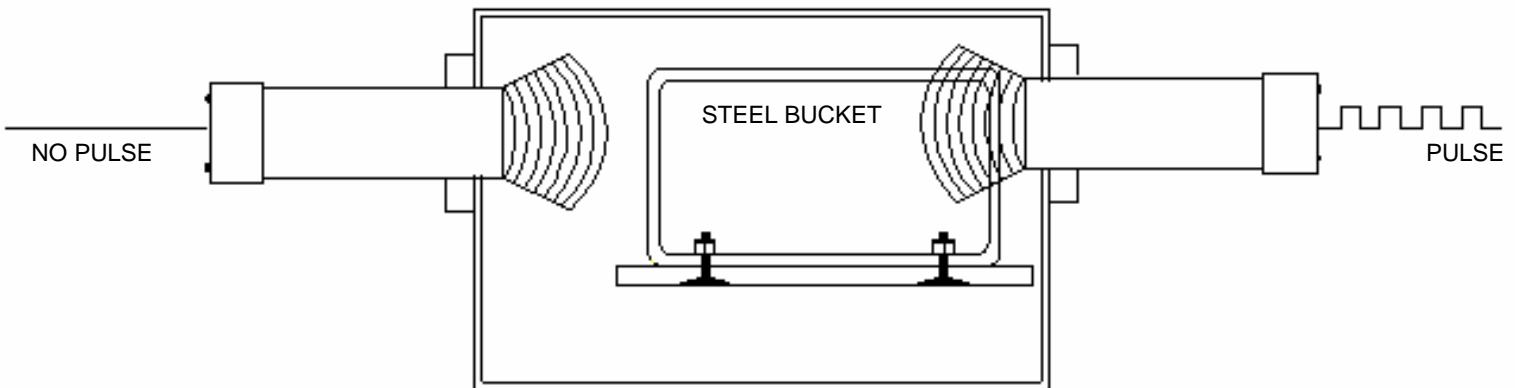


## Steel Buckets – Sensor Arrangement

**NORMAL RUNNING**



**BELT MISALIGNMENT**

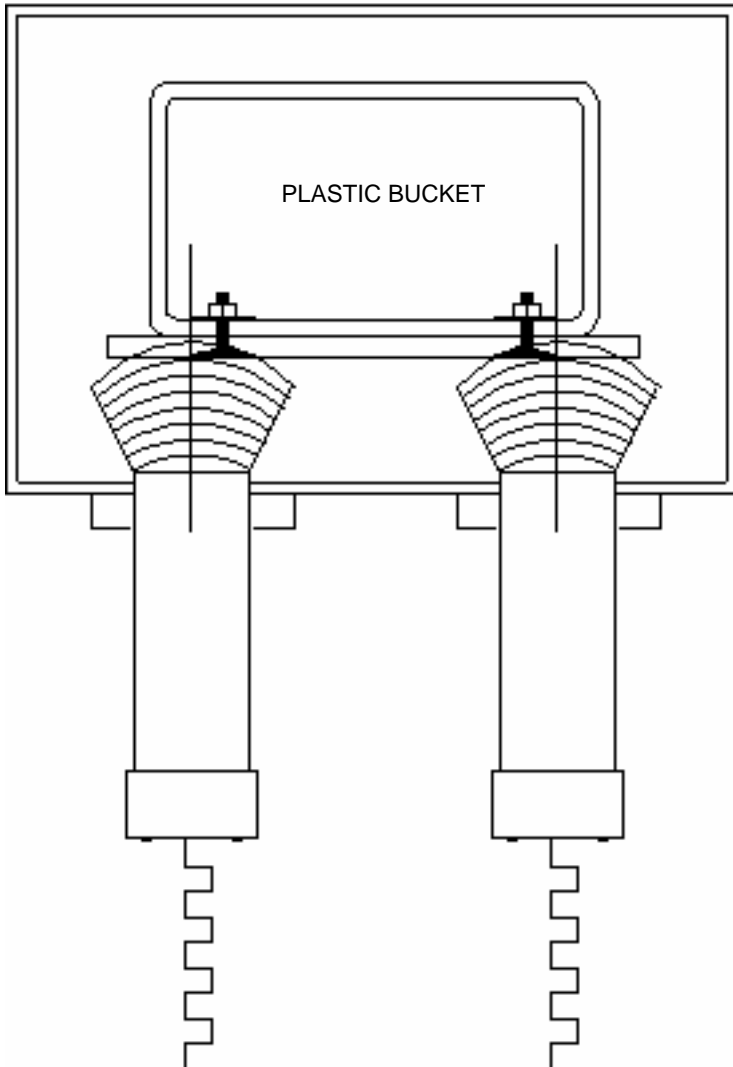


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## Plastic Buckets – Sensor Arrangement

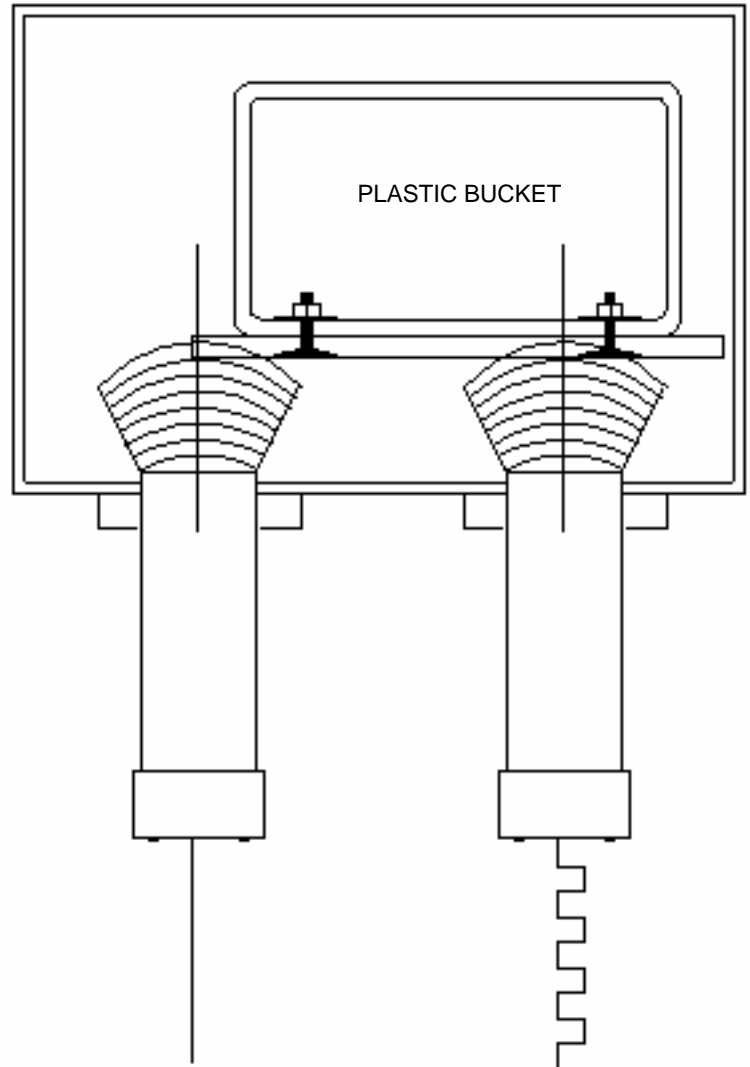
NORMAL RUNNING



PULSE

PULSE

BELT MISALIGNMENT



NO PULSE

PULSE

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



## CONTROL UNIT SPECIFICATIONS

<b>Part Number:</b>	A4002V345FC
<b>Power Supply:</b>	110 to 240VAC / 12 to 24VDC
<b>Power Consumption:</b>	10VA / 10 Watts
<b>Fuse:</b>	2A Maximum
<b>Outputs:</b>	Alarm - one open contact 8A @ 250VAC Stop 1- one closed contact 8A @ 250VAC Stop 2 - one closed contact 8A @ 250VAC RS485 Module (optional)
<b>Inputs:</b>	4 individual pulsed inputs, 12VDC, 20-4000 per minute.
<b>Sensor Supply:</b>	12VDC, 150mA
<b>Protection:</b>	IP65 NEMA 4, 4X
<b>Approvals:</b>	FM and CSA Class 2 Div.1 – Pending ATEX (Europe) – Pending
<b>Height x Width x Depth</b>	9.7" x 7.4" x 4"
<b>Weight:</b>	3 lbs.
<b>Sensors:</b>	FM & CSA Approved Class 2 Div.1 12VDC. Adjustable magnetic range 1-4"

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