

GENERAL

The Binswitch Mark II is a Capacitance Sensor which detects the presence or absence of liquids and bulk granular material ie grain feeds, seeds and chemicals etc.

The Binswitch Mark II is multi voltage and is supplied with a two colour L.E.D and two controls. The L.E.D indicates the presence or absence of material and the time delay sequence when material arrives and leaves. Controls are provided to set the range (sensitivity) and the time delay.

INSTALLATION

The Binswitch may be mounted horizontally or vertically. If the Binswitch must be located in the path of an abrasive material, use in conjunction with the Binswitch Abrasion Shield part no. BAS. It is important that the Binswitch is not located in the direct flow path of an abrasive material.

Three alternative assemblies are available with Binswitch units. See Fig 1A, Fig 1B and Fig 1C.

FIG 1A
CUT AND DRILL HOLES AS SHOWN INTO CONVEYOR, SILO ETC. AND ATTACH MOUNTING PLATE (SMP) USING 6 M8 x 20 (5/16 X 3/4) BOLTS, NUTS & WASHERS OR USE EXISTING LEVEL INDICATOR MOUNTING PLATE, SLIDE BINSWITCH INTO POSITION AND SECURE BY TIGHTENING MOUNTING PLATE ADAPTOR (MPA) **DO NOT OVERTIGHTEN**

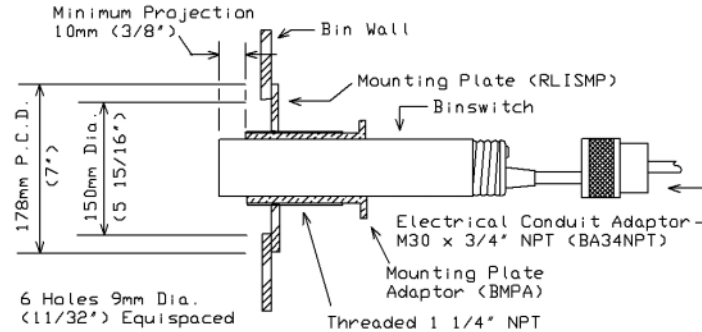


FIG 1B
CUT HOLE AS SHOWN INTO CONVEYOR, SILO ETC. ATTACH MOUNTING GLAND (PG36) USING LOCKNUT. SLIDE BINSWITCH INTO POSITION AND SECURE USING CLAMP. **DO NOT OVERTIGHTEN**

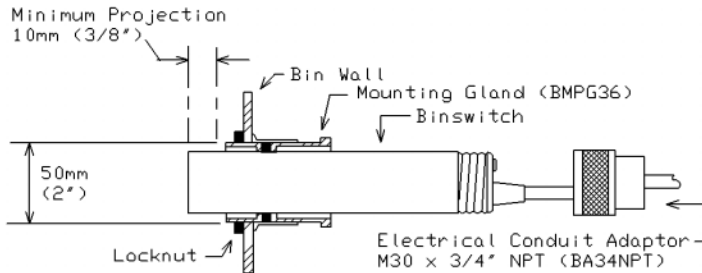
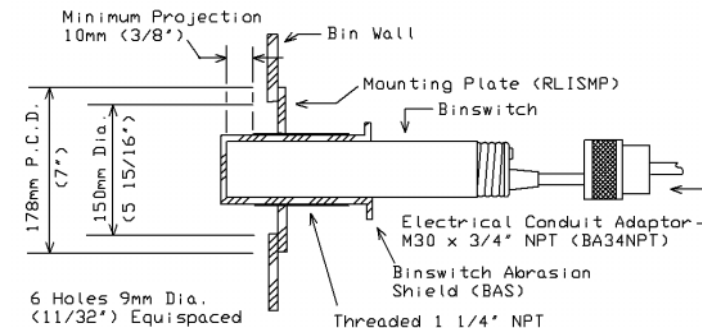
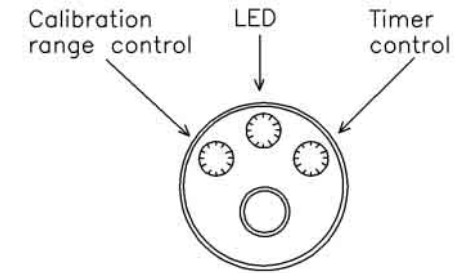
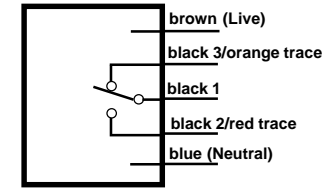


FIG 1A
CUT AND DRILL HOLES AS SHOWN INTO CONVEYOR, SILO ETC. AND ATTACH MOUNTING PLATE (SMP) USING 6 M8 x 20 (5/16 X 3/4) BOLTS, NUTS & WASHERS OR USE EXISTING LEVEL INDICATOR MOUNTING PLATE, SLIDE BINSWITCH INTO POSITION AND SECURE BY TIGHTENING BINSWITCH ABRASION SHIELD (BAS) **DO NOT OVERTIGHTEN**



WIRING DIAGRAM/REAR CONTROLS & INDICATOR.



Contacts shown in de-energised condition.

INSTALLATION & CALIBRATION

1. Connect to power and suitable control circuit
2. Check - No material around the tip of the probe
3. Carefully turn both controls (range & timer) fully counterclockwise to stop
Note! The total movement of the control is 4 full turns. To prevent damage the screw adjuster continues to rotate after 4 full turns.
4. Check the permanent green light is illuminated
5. The unit must be installed before calibration takes place.
With no material around the probe and nothing in contact with the end of the sensor, rotate range control clockwise until light changes to red. Slowly rotate counterclockwise until light changes to green. Optimum setting can usually be obtained by rotating the control a further 10° counterclockwise.
6. The desired time delay is achieved by rotating the timer control clockwise to increase time. Note! The light will flash during timing sequence.

GENERAL SPECIFICATION

Supply - 12-240 VDC, 24-240 VAC

Fuse - Feed from fused supply rated 5 amp max

Ambient Temperature -30° C (-22° F) +70° C (+158° F)

Sensitivity - Detection range 25 mm typical

Output - 1 set of voltage free relay change over contacts rated at 3 AMPS 240 VAC non-inductive.

Fail-Safe - Relay reverts to de-energised state on power failure.

Calibration - Potentiometer (screw driver supplied). Bin must be empty when calibrating.

Indicator - Two colour L.E.D indicates presence or absence of material and timer function sequence. L.E.D flashes when timer is in operation.

Cable - Supplied with 2 metres (6 ft) 5 wire cable.

Connections - See diagram.

Enclosure - Plain body with one end threaded (M30 x 1.5 x 10 mm) to suit conduit threads available - see table.

Protection - IP 67/NEMA 6 & 6P. Dust tight and water resistant.

Timer - Programmable 0-1 or 0-5 mins (on make or break).

ELECTRICAL ADAPTORS & FITTINGS

PART REF

SMP	SIDE MOUNTING PLATE
TMP	TOP MOUNTING PLATE
BMPA	MOUNTING PLATE ADAPTOR
BAS	BINSWITCH ABRASION SHIELD
BMPG36	GLAND MOUNT ASSEMBLY
A34NPT	CONDUIT ADAPTOR M30 TO 3/4NPT

INSTALL

SMP	SIDE MOUNTING PLATE
TMP	TOP MOUNTING PLATE
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SEQUENCE OF OPERATION

Material Flow Conditions

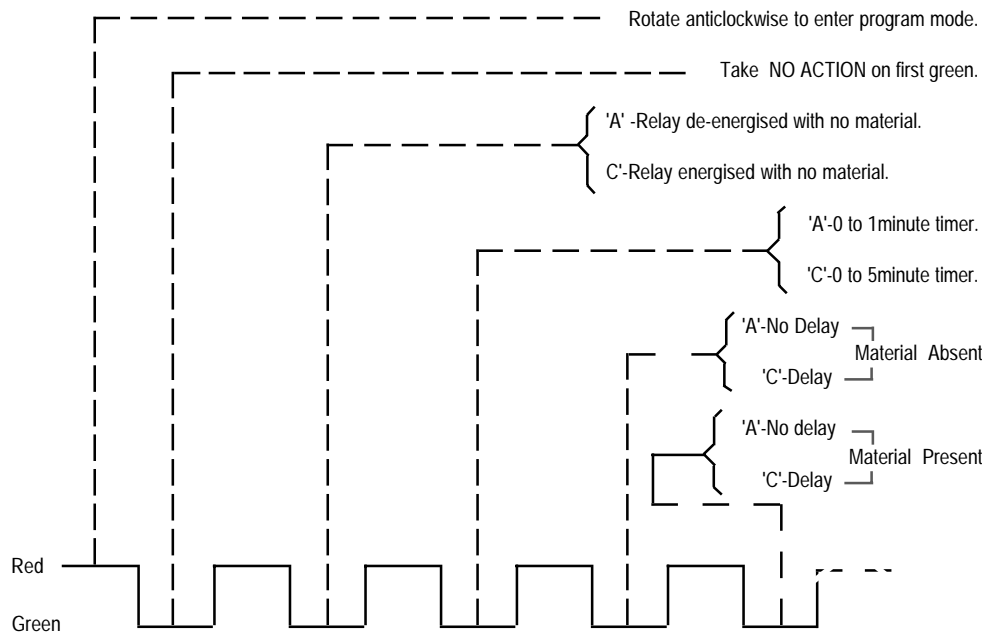
	L.E.D Status
No Material	Permanent Green Light
Material Arrives	Flashing 'Red' light
Material present after timing sequence has lapsed	Permanent 'Red' light
Material leaves	Flashing 'Green' light.
Material absent after timing sequence has lapsed	Permanent 'Green' Light

PROGRAMME SEQUENCE

The unit is factory set as follows (unless ordered specially):- a) 0-5 min. timer. b) Delay on make & break. c) Relay energised with no material. Alternative features can be selected by programming the unit as follows:- To enter program mode rotate time control fully clockwise, apply power and rotate time control fully counterclockwise before the LED changes from red to green. (This takes approximately 3 to 4 seconds)

The unit will step from red to green 5 or 6 times at 0.5s intervals. At each transition to green a separate function may be selected by altering the time control from fully clockwise to fully counterclockwise (or leave in the clockwise position) to select the required function as per the chart below.

'A'=Turn control counterclockwise 'C'= Turn control clockwise.



GUARANTEE

The equipment is covered by a 12 month guarantee from the date of despatch. Any faults arising due to faulty materials or workmanship within the guaranteed period will be corrected free of charge providing the equipment is returned to us freight paid.



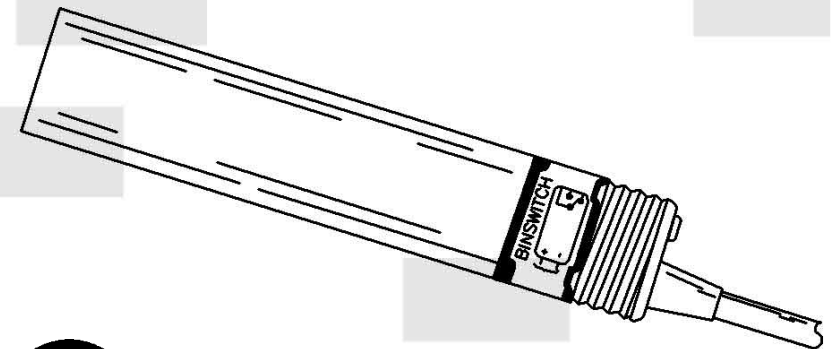
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INSTALLATION INSTRUCTIONS

TECHNICAL INFORMATION

BINSWITCH - PROGRAMMABLE MODEL PART No. BP1V1OFC