

INSTALLATION INSTRUCTIONS



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TECHNICAL INFORMATION

BINSWITCH - BASIC MODEL PART Nos. BS1V10FC/BS2V10FC

644-016(C)

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WARRANTY INFORMATION

1. EXCLUSIVE WRITTEN LIMITED WARRANTY

ALL PRODUCTS SOLD ARE WARRANTED BY THE COMPANY (4B COMPONENTS LIMITED, (4B) BRAIME ELEVATOR COMPONENTS LIMITED, AND (4B) S.E.T.E.M. Sari) HEREIN AFTER REFERRED TO AS 4B TO THE ORIGINAL PURCHASER AGAINST DEFECTS IN WORKMANSHIP OR MATERIALS UNDER NORMAL USE FOR ONE (1) YEAR AFTER DATE OF PURCHASE FROM 4B. ANY PRODUCT DETERMINED BY 4B AT ITS SOLE DISCRETION TO BE DEFECTIVE IN MATERIAL OR WORKMANSHIP AND RETURNED TO A 4B BRANCH OR AUTHORIZED SERVICE LOCATION, AS 4B DESIGNATES, SHIPPING COSTS PREPAID, WILL BE, AS THE EXCLUSIVE REMEDY, REPAIRED OR REPLACED AT 4B'S OPTION.

2. DISCLAIMER OF IMPLIED WARRANTY

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3. NO WARRANTY "BY SAMPLE OR EXAMPLE"

ALTHOUGH 4B HAS USED REASONABLE EFFORTS TO ACCURATELY ILLUSTRATE AND DESCRIBE THE PRODUCTS IN ITS CATALOGS, LITERATURE, AND WEBSITES, SUCH ILLUSTRATIONS AND DESCRIPTIONS ARE FOR THE SOLE PURPOSE OF PRODUCT IDENTIFICATION AND DO NOT EXPRESS OR IMPLY A WARRANTY AFFIRMATION OF FACT, OF ANY KIND OR A WARRANTY OR AFFIRMATION OF FACT THAT THE PRODUCTS WILL CONFORM TO THEIR RESPECTIVE ILLUSTRATIONS OR DESCRIPTIONS. 4B EXPRESSLY DISCLAIMS ANY WARRANTY OR AFFIRMATION OF FACT, EXPRESSED OR IMPLIED, OTHER THAN AS SET FORTH IN THE EXCLUSIVE WRITTEN LIMITED WARRANTY STATEMENT ABOVE, INCLUDING, WITHOUT LIMITATION, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

4. LIMITATION OF DAMAGES

ANY LIABILITY FOR CONSEQUENTIAL, INCIDENTAL, SPECIAL, EXEMPLARY, OR PUNITIVE DAMAGES, OR FOR LOSS OF PROFIT WHETHER DIRECT OR INDIRECT, IS EXPRESSLY DISCLAIMED.

Dear 4B Customer

Congratulations on your purchase. 4B appreciates your business and is pleased you have chosen our products to meet your needs.

Please read in its entirety and understand the literature accompanying the product before you place the product into service. Please read the safety precautions carefully before operating the product. With each product you purchase from 4B, there are some basic but important safety considerations you must follow to be sure your purchase is permitted to perform its design function and operate properly and safely, giving you many years of reliable service. Please read and understand the Customer Safety Responsibilities listed below. Failure to follow this safety directive and the Operation Manuals and other material furnished or referenced, may result in serious injury or death.

SAFETY NOTICE TO OUR CUSTOMERS

- A. In order to maximize efficiency and safety, selecting the right equipment for each operation is vital. The proper installation of the equipment, and regular maintenance and inspection is equally important in continuing the proper operation and safety of the product. The proper installation and maintenance of all our products is the responsibility of the user unless you have asked 4B to perform these tasks.
- B. All installation and wiring must be in accordance with Local and National Electrical Codes and other standards applicable to your industry. (Please see the article "Hazard Monitoring Equipment Selection, Installation and Maintenance" at www.go4b.com.) The installation of the wiring should be undertaken by an experienced and qualified professional electrician. Failure to correctly wire any product and/or machinery can result in the product or machine failing to operate as intended, and can defeat its design function.
- C. Periodic inspection by a qualified person will help assure your 4B product is performing properly. 4B recommends a documented inspection at least annually and more frequently under high use conditions.
- D. Please see the last page of this manual for all warranty information regarding this product.

CUSTOMER SAFETY RESPONSIBILITIES

1. READ ALL LITERATURE PROVIDED WITH YOUR PRODUCT

Please read all user, instruction and safety manuals to ensure that you understand your product operation and are able to safely and effectively use this product.

2. YOU BEST UNDERSTAND YOUR NEEDS

Every customer and operation is unique, and only you best know the specific needs and capabilities of your operation. Please call the 24-hour hotline at 309-698-5611 for assistance with any questions about the performance of products purchased from 4B. 4B is happy to discuss product performance with you at any time.

3. SELECT A QUALIFIED AND COMPETENT INSTALLER

Correct installation of the product is important for safety and performance. If you have not asked 4B to perform the installation of the unit on your behalf, it is critical for the safety of your operation and those who may perform work on your operation that you select a qualified and competent electrical installer to undertake the installation. The product must be installed properly to perform its designed functions. The installar should be qualified, trained, and competent to perform the installation in accordance with Local and National Electrical Codes, all relevant OSHA Regulations, as well as any of your own standards and preventive maintenance requirements, and other product installation information supplied with the product. You should be prepared to provide the installer with all necessary installation information to assist in the installation.

4. ESTABLISH AND FOLLOW A REGULAR MAINTENANCE AND INSPECTION SCHEDULE FOR YOUR 4B PRODUCTS

You should develop a proper maintenance and inspection program to confirm that your system is in good working order at all times. You will be in the best position to determine the appropriate frequency for inspection. Many different factors known to the user will assist you in deciding the frequency of inspection. These factors may include but are not limited to weather conditions; construction work at the facility; hours of operation; animal or insect infestation; and the real-world experience of knowing how your employees perform their jobs. The personnel or person you select to install, operate, maintain, inspect or perform any work whatsoever, should be trained and qualified to perform these important functions. Complete and accurate records of the maintenance and inspection process should be created and retained by you at all times.

5. RETAIN AND REFER TO THE OPERATION MANUAL FOR 4B'S SUGGESTED MAINTENANCE AND INSPECTION RECOMMENDATIONS

As all operations are different, please understand that your specific operation may require additional adjustments in the maintenance and inspection process essential to permit the monitoring device to perform its intended function. Retain the Operation Manual and other important maintenance and service documents provided by 4B and have them readily available for people servicing your 4B equipment. Should you have any questions, please call the 4B location who supplied the product or the 24-hour hotline number in the USA-309-698-5611.

6. SERVICE REQUEST AND ONLINE PRODUCT REGISTRATION

If you have questions or comments about the operation of your unit or require the unit to be serviced please contact the 4B location who supplied the product or send your request via fax (309-698-5615), email (4b-usa@go4b.com), or call us via our 24-hour hotline number in the USA - 309-698-5611. Please have available product part numbers, serial numbers, and approximate date of installation. In order to assist you, after the product has been placed into service, complete the Online Product Registration section which is accessed via our website $\mathbf{www.go4b.com}$

INTRODUCTION

The BINSWITCH is a self contained, fully encapsulated capacitance sensor, housed in a 30mm dia. moulded body. It operates by detecting capacitance change when material is present.

INSTALLATION

The sensor may be mounted horizontally or vertically, using nuts provided or a suitable M30 x 1.5 fitting. The end of the sensor must be at least 20mm from the nearest metalwork. Alternatively the sensor will operate from the outside of non metallic vessels (max 6mm thickness). Ensure that the unit is wired as shown in the connections diagram & that wiring is kept separate from heavy current carrying cables. The supply polarity is not important. The load MUST have the same voltage rating as the supply being used & may be connected in either lead.

DO NOT connect to supply without a suitable load.

SPECIFICATION

Max. speed......4Hz.

OutputFET rated @ 200mA max.

Output State BS1V10FC - Not Covered-O/P On (8V drop max).

- Covered-O/P Off (1.6mA leakage max.)

BS2V10FC - Covered-O/P On (8V drop max.)

Not Covered-O/P Off (1.6mA leakage max.)

Sensing Distance..... 25mm Max. (Metal target).

Calibration Potentiometer. Container to be

empty when calibrating.

Cable Fitted 2 metres, 2 core.

Can be extended if required.

Enclosure Moulded polycarbonate.

Threaded 30mm x 1.5mm.

Protection.....IP65.

PLC Use Some PLC's may need an

additional input load to operate

with this device

COMMISSIONING - BS1V10FC

Check that connections are correct & apply power. A red LED indicator is provided on BS1V10FC, for Output ON. Commissioning consists of adjusting the sensitivity potentiometer clockwise until unit switches OFF (latched). Then turn potentiometer anticlockwise until unit switches ON, rotate potentiometer further anticlockwise to suit material being detected & operating range required. (Rotating control anticlockwise reduces sensitivity).

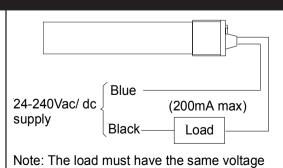
COMMISSIONING - BS1V20FC

Check that connections are correct & apply power.

A red LED indicator is provided on BS2V10FC. for detecting/output

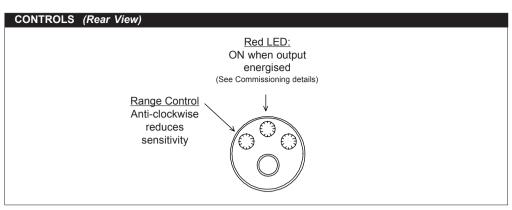
ON. Commissioning consists of adjusting the sensitivity potentiometer clockwise until unit switches ON (latched).

Then turn potentiometer anticlockwise until unit switches OFF, rotate potentiometer further anticlockwise to suit material being detected & operating range required. (Rotating control anticlockwise reduces sensitivity).



Note: The load must have the same voltage rating as supply being used.

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Three alternative mounting 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

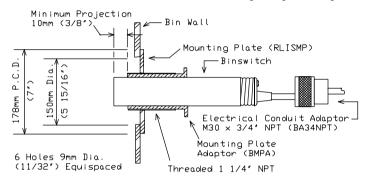


FIG 1B
CUT HOLE AS SHOWN INTO
CONVEYOR, SILO ETC.
ATTACH MOUNTING GLAND
(PG36) USING LOCKNUT.
SLIDE BINSWITCH INTO
POSITION AND SECURE USING
CLAMP.
DO NOT OVERTIGHTEN

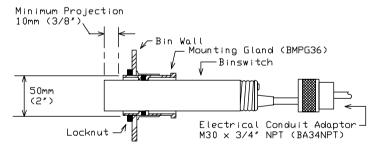
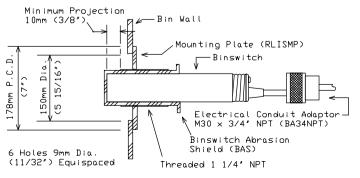


FIG 1A
CUT AND DRILL HOLES AS
SHOWN INTO CONVEYOR,
SILO ETC. AND ATTACH
MOUNTING PLATE (SMP)
USING 6 M8 x 20 (5/16 X 3/4)
BOLTS, NUTS & WASHERS OR
USE EXISTING LEVEL
INDICATOR MOUNTING PLATE,
SLIDE BINSWITCH INTO
POSITION AND SECURE BY
TIGHTENING BINSWITCH
ABRASION SHIELD (BAS)
DO NOT OVERTIGHTEN



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