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LEAFLET No. INS 3 – ATEX H. & H2.

Issue 13 - 06/01/2025

This leaflet applies to Controls fitted with SGS UK Limited and SGS Fimko Oy Approved Enclosures for Equipment or Protective Systems intended for use in Potentially Explosive Atmospheres.

Directive 2014/34/EU

UKSI 2016:1107 (as Amended) – Schedule 3A, Part 1

EN IEC 60079-0:2018

EN 60079-1:2014

NOTES:

Please read in conjunction with leaflet No. INS 1 for Pressure Switches and INS4 for Temperature Switches.

The purchaser should make the manufacturer aware of any external effects or aggressive substances that the equipment may be exposed to.

INSTRUCTIONS FOR FITTING GLANDS TO H & H2 TYPE BOXES

Make sure that the thread type on the gland matches that of the switch. The thread is M20 x 1.5 female and is identified by the stamping on the box adjacent to the cable entry. To maintain the explosion proof status of the unit, the fitted gland must be of a certified type for hazardous areas.

When fitting glands into the H or H2 switch or any other type of switch that consists of a separate box attached to a SIRCO switch, please observe the following:-

Ensure that the switch box is held securely before fitting the gland. **DO NOT** use the housing or bracket as the only support when tightening the gland.

On no account should the box be clamped on the mating surface between the box and cover. Failure to observe these precautions may result in the loosening of the box from the housing, and may effect the setting of the switch.

SGS UK Limited and SGS Fimko Oy **APPROVED SWITCHES**

SERIES 2000

Enclosures are manufactured under a very strict quality control and are machined, assembled and tested under strict supervision before a certificate is issued.

All the above-mentioned enclosures are fitted to the basic Series 2000 switch housing, therefore, installation and service instructions for that series apply to all models, except for the adjustment of the two-switch model and the identification of electrical connections.

ELECTRICAL CONNECTIONS ON SINGLE SWITCH APPROVED CONTROLS

The cover of the approved switch must first be removed (with a socket key – allen key), the cable must then be passed through a certified hazardous area gland, which should be fitted to the enclosure and connection made to the S.P.D.T. Microswitch to suit the circuit.

NOTE: Due care must be taken not to overtighten the terminals or disturb the position of the microswitch in the housing.

ON NO ACCOUNT MUST THE ENCLOSURE OR MICROSWITCH BE REMOVED FROM THE MAIN HOUSING.

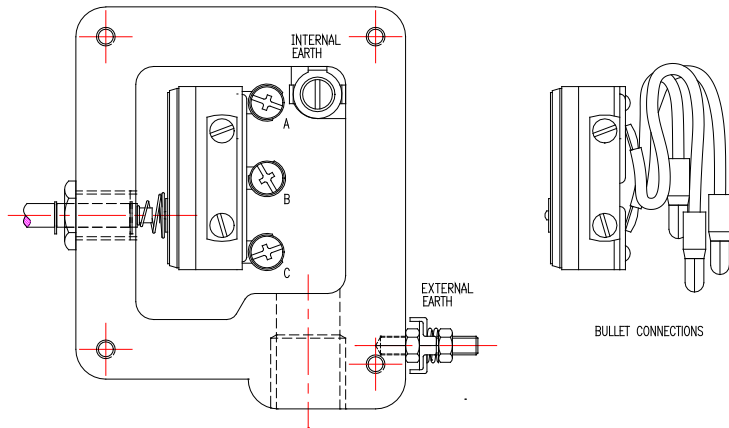
REPLACING THE MICROSWITCH

It rarely becomes necessary to replace the S.P.D.T. Microswitch within the explosionproof housing, but should the occasion arise, it should be done by a qualified engineer and the switch re-zeroed.

H TYPE SINGLE SWITCH BOX

STANDARD CONNECTION DETAILS

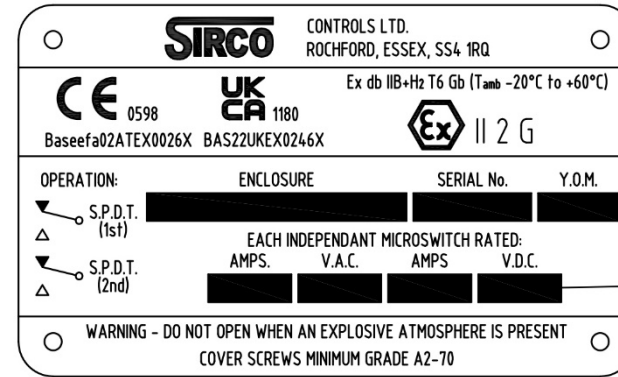
Showing either screw terminal or alternative bullet connections



Catalogue Listing	Common	Normally Open	Normally Closed
H(BZ-2R), H(BZ-R)	C	B	A
H(BZ-2R-722/331)	C	A	B
H(MT-4R)	C	A	B
H(BM-2R), H(BM-1R)	C	A	B
H(91SE1), H(91SE1-3N55) = As marked on terminal block			

Switches fitted with bullet connectors		
Common	Normally Open	Normally Closed
Yellow	Red	Black

H2 TYPE TWIN AND TWO SWITCH IDENTIFICATION LABEL



Sirco enclosure type
Switch serial number
Year of manufacture

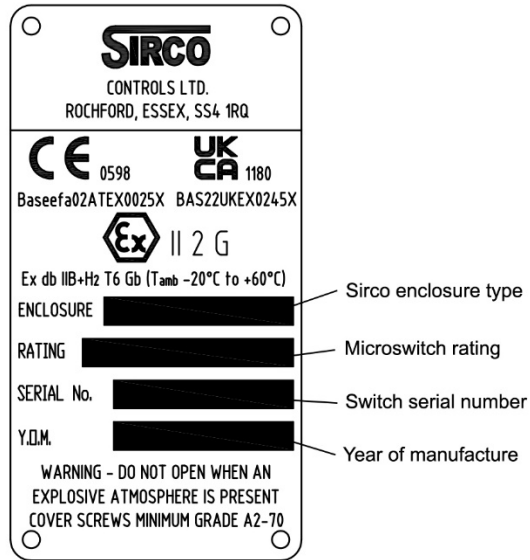
Microswitch ratings

CATALOGUE LISTING	SWITCH RATING	MICROSWITCH
H2(BZ-2R)	15A RES. 125, 250 or 480Vac 1/8 HP. 125Vac, 1/4 HP. 250Vac 1/4 A 250Vdc, 1/2 A 125Vdc	BZ-2R
H2(BZ-R)	15A RES. 125, 250, 480Vac 1/8 HP. 125Vac, 1/4 HP. 250Vac	BZ-R
H2(BZ-2R-722/331)	1A RES. 125Vac UP TO 1A RES. 24Vdc 0.5A IND. 24Vdc	BZ-2R-722/331
H2(BM-2R)	15A RES. 125, 250, 480Vac 2A RES. 30Vdc, 0.4A RES. 125Vdc 0.2 RES. 230Vdc	BM-2R
H2(BM-1R)	15A RES. 125, 250, 480Vac 2A RES. 30Vdc, 0.4A RES. 125Vdc 0.2A RES. 230Vdc	BM-1R

SPECIAL CONDITION FOR SAFE USE

The Maximum Plunger/Threaded Bush Flame Path Gap Shall Not Exceed 0.1mm

H TYPE SINGLE SWITCH IDENTIFICATION LABEL



CATALOGUE LISTING	SWITCH RATING	MICROSWITCH
H(BZ-2R)	15A RES. 125, 250 or 480Vac 1/8 HP. 125Vac, 1/4 HP. 250Vac 1/4 A 250Vdc, 1/2 A 125Vdc	BZ-2R
H(BZ-R)	15A RES. 125, 250, 480Vac 1/8 HP. 125Vac, 1/4 HP. 250Vac	BZ-R
H(BZ-2R-722331)	1A RES. 125Vac UP TO 1A RES. 24Vdc 0.5A IND. 24Vdc	BZ-2R-722331
H(MT-4R)	10A RES. 125Vac or dc 1/4 HP. 125Vac or dc (NON-POLARISED)	MT-4R
H(91SE1)	5A RES. 3A IND. 28Vdc 5A RES. 5A IND. 125 or 250Vac 50Hz	91SE1 91SE1-3
H(91SE1-3N55)	1A RES. 0.5A IND. 30Vdc	91SE1-3N55
H(BM-2R)	15A RES. 125, 250, 480Vac 2A RES. 30Vdc, 0.4A RES. 125Vdc 0.2 RES. 230Vdc	BM-2R
H(BM-1R)	15A RES. 125, 250, 480Vac 2A RES. 30Vdc, 0.4A RES. 125Vdc 0.2A RES. 230Vdc	BM-1R

SETTING THE H2 TYPE TWO OR TWIN SWITCH MODEL

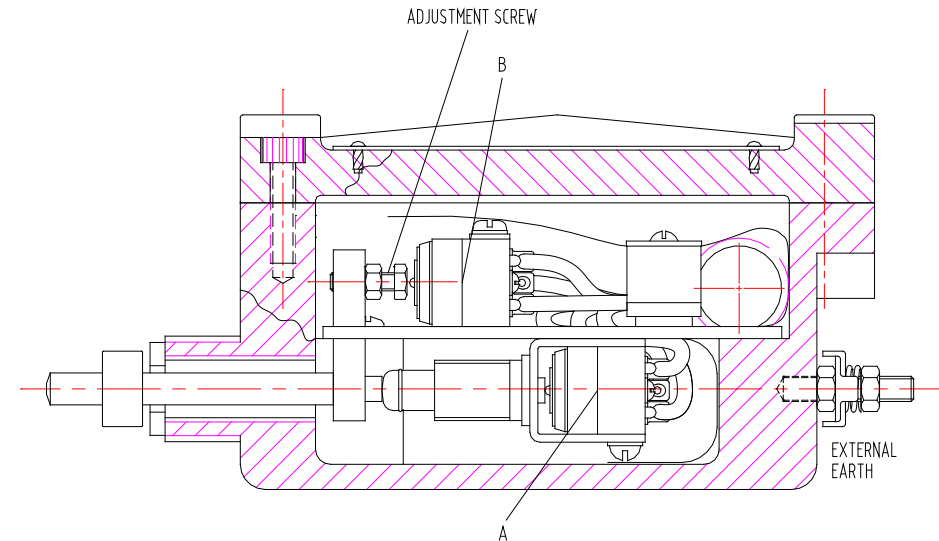
If the switch has not been factory set, it will be necessary to adjust the settings prior to the installation. To gain access to the adjustment screw for the top microswitch, remove the cover from the switch box on the side of the housing.

Refer to the Installation, Maintenance and Operating instructions leaflet No. INS.1 for a complete guide to the set-up and calibration procedure.

The first setting to be adjusted will be on the bottom microswitch (see A in the diagram below). Proceed as described, setting this microswitch to the desired lowest input setting.

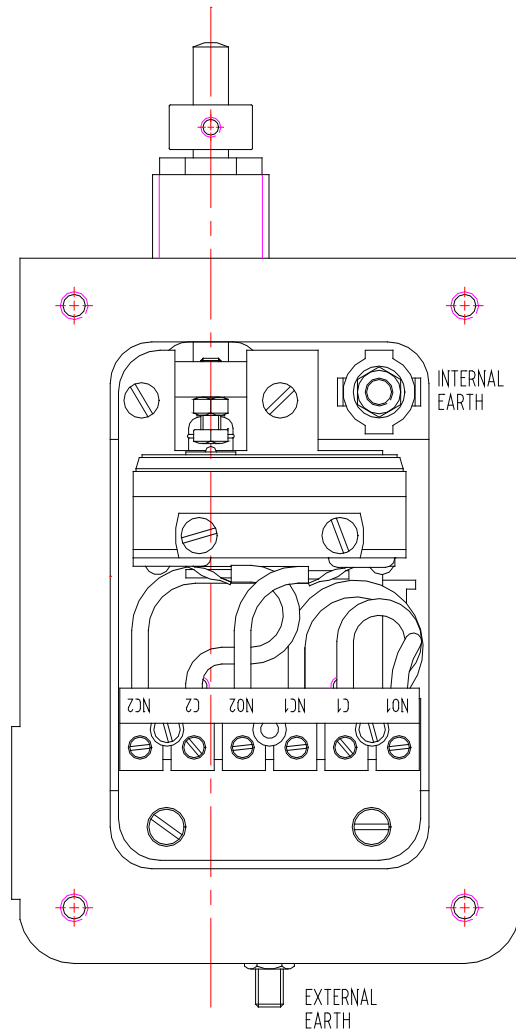
Raise the input to the switch to move the actuator arm to its over-travel position, this will enable a further setting to be made to the top switch (B). Release the locknut on the adjustment screw and adjust the screw as required, taking care to retighten the nut once the required setting has been reached.

Carefully replace the cover on the switch box and recheck the set points.



H2 TYPE TWO OR TWIN SWITCH BOX

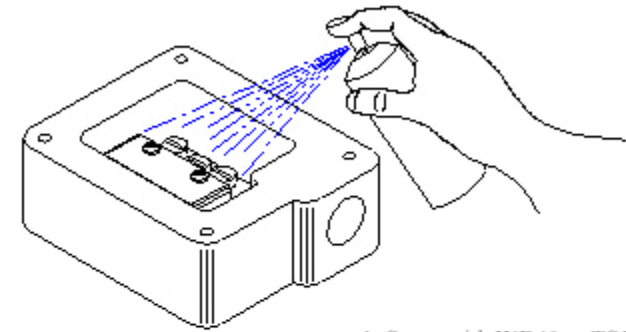
CONNECTION DETAILS



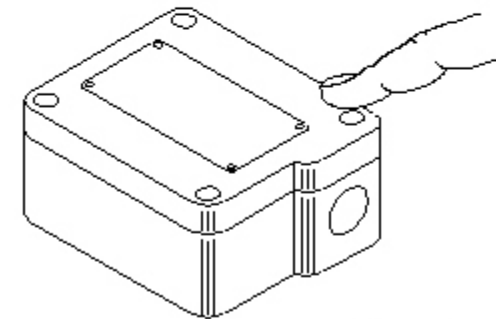
SPECIAL CONDITION FOR SAFE USE

The Maximum Plunger/Threaded Bush Flame Path Gap Shall Not Exceed 0.1mm

WATERPROOFING THE MICROSWITCHES



1 Spray with WD40 or TS10 water repellent after connecting up the cables



2 Fill each socket screw recess with grease after tightening down cover