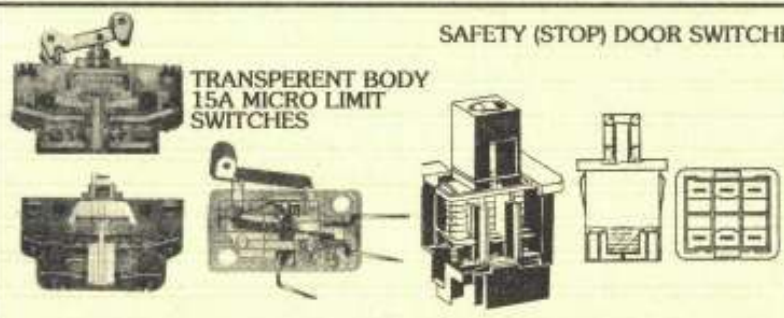
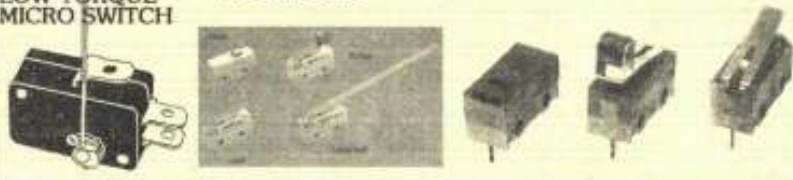
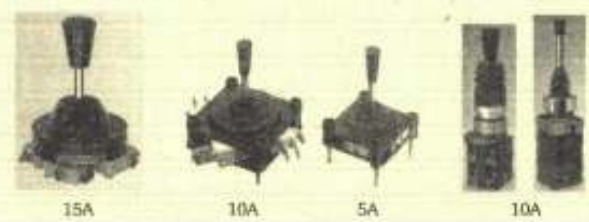


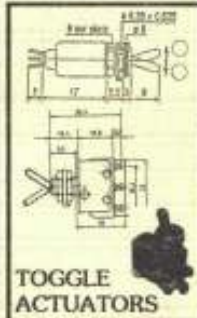
"R1" STANDARD MICRO SWITCHES

ALUMINIUM DIE CAST HOUSING & METAL CLAD WITH DIFFERENT ACTUATORS

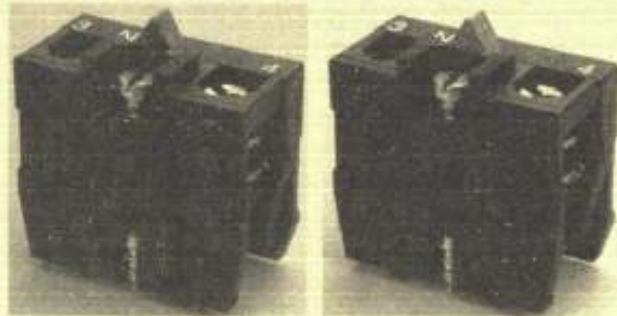
R3 MINIATURE MICRO SWITCHES

10A PUSH BUTTON SWITCHES

SAFETY (STOP) DOOR SWITCHES

WIRE OPERATED ROTARY ACTION LOW TORQUE MICRO SWITCH
5A "R4" SUB MINIATURE MICRO SWITCHES WITH ACTUATORS

JOY-STICK CONTROLLERS

METAL CLAD LIMIT SWITCHES 10 & 15A

1.5A, 3A, 5A, 10A & 15A AT 250V. AC. PUSH BUTTON SWITCHES


N. O & N. C. CONTACT ELEMENTS

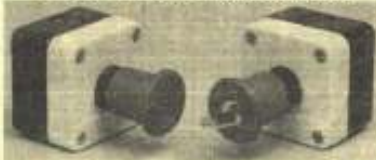


PUSH BUTTON SWITCHES
10Amp. 250 V. AC.
N. O. & N. C. contacts

DIFFERENT EXECUTIONS

H - 31 W - 29 D - 15

Trigger Action Emergency Stop



- H-68 W-68 D-102 D-WITH KEY 120
- Supplied with 1 N/O + 1 N/C contacts
 - Complies with European machinery directive on emergency stops
 - Suitable for internal and external uses

Turn to Release Stop



- H-68 W-68 D-82
- Suitable for both indoor and outdoor applications
 - Fitted with 1 N/C contact with provision for one additional block

Spring Return Stop



- H-68 W-68 D-72
- Suitable for both indoor and outdoor uses
 - Fitted with 1 N/C contact block with provision for one additional block

Spring Return Start



- H-68 W-68 D-72
- Suitable for both indoor and outdoor uses
 - Fitted with 1 N/O contact block with provision for one additional block

Stop/Start Spring Return



- H-104 W-68 D-62
- Stop button fitted with 1 N/C contact block
 - Start button fitted with 1 N/O contact block
 - Each actuator will accept one additional contact block

Start/Stop Selector



- H-104 W-68 D-77
- Fitted with 1 N/O contact
 - Key removable in 'O' position only

Start/Stop with Pilot Light



- H-134 W-68 D-62
- Stop button fitted with 1 N/C contact block
 - Start button fitted with 1 N/O contact block
 - Bulb supplied for pilot light suitable for 240V 220/250V use
 - Each switch will accept one additional contact block

Up/Down Stations Spring Return.



- 2 spring type supplied with 1 N/O contact on each push button (3 spring has additional N/C contact on stop button)
- Provision of additional contact on each push button

Up/Down



- H-70 W-120 D-66 FC 100 x 54
- Arrows can be moved round for right/left operation
 - Each push button fitted with a N/O contact block
 - Space to fit one additional block

Industrial Push Button Switches



- 22mm dia. fixing hole
- Finger protection is provided on contact blocks
- Suitable hole cutter
- Actuators will accept up to 3 contact blocks or 1 lampholder block plus 2 contact blocks

Selector Switches (Rotary Action)



- Up to 6 contact blocks can be fitted to each unit

Start/Stop



stock no.
start/stop
start/light/stop

Rotary Action Lever Selector



- The two position selector will operate all the contacts in the clockwise position whilst the 3-position selector will operate alternative contacts in both clockwise and anti-clockwise direction
- In centre position no contacts blocks are operated
- A maximum of 2 contact blocks may be fitted to these units

Non-Illuminated Momentary Push Buttons



- Each push button supplied with one contact block as below
- Total no. of contact blocks, 2 rows of three blocks any combination of N/O and N/C
- The momentary action can be changed to a latching action (push-push) by addition of a latching device to the rear of the switch.

Start/Stop Combinations



- Illuminated version has protection and supplied without contact blocks
- The sealing boot only fits the illuminated version



- Each joystick supplied with 1 N/O contact per direction
- Up to 2 contacts per direction can be used
- Legend plate supplied with each joystick

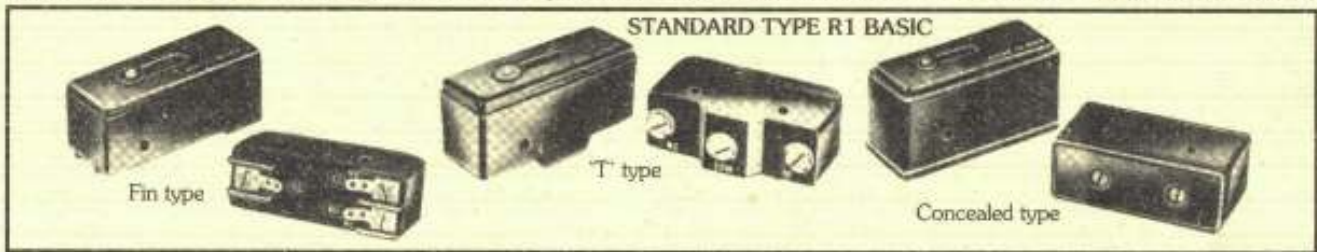
Industrial Joystick



- 22mm mounting hole
- Supplied with contact blocks which are removable for ease of wiring
- protection when mounted in a panel
- High wearing rubber stroud
- Non spring return

RECOM SNAP ACTION STANDARD MICRO SWITCHES SERIES "R1"

Recom "R1" series snap action switches are rugged in construction featuring snap action contact movement and are manufactured in compliance with international standard. These have wide range of terminal types and actuating devices. The contact security is optimal due to high contact force of around 400 grms., serrated contact surfaces and contact wiping. These are rated at 5, 10 and 15 amps. at 250 & 415 volts AC. These Switches have very short differential travel of a maximum of 0.08 and are designed for very high repeat accuracy of operating position. The case moulding is thermosetting bakelite having high creepage resistance. The snap action system is achieved through Heat - Treated Beryllium Bronze hook spring. These switches withstand 2000 volts AC between metal part and 1000 volts AC for 1 minute between open contacts. The contact gap is a maximum of 0.7 milli mtr. These switches have a high electrical endurance of over 50000 operations at Gerated current and over 1 million operation at no load. Switches conform to ISS 6089 & for deffence use JSS 51201



List of types
Basic type
Pin plunger
Leaf-spring levers

Dimension drawings:
(with terminal type 1 as a change-over switch)

Pin plunger with extended over-travel

Short leaf-spring lever

Long leaf-spring lever

Leaf-spring lever with roller

List of types
Straight lever
Bent levers
Roller levers

Dimension drawings:
(with terminal type 1 as a change-over switch)

Straight lever 5 mm. length 69.4 mm

Bent lever, length 51.9 mm

Bent lever, length 28 mm

Roller lever length 46 mm

Roller lever length 66.5 mm

List of types
Straight reversing lever
Reversing levers with roller
Reversing lever with Swivel roller

Dimension drawings:
(with terminal type 1 as a change-over switch)

Straight reversing lever 5 mm. length 62.5 mm

Reversing lever with roller length 20.0 mm

Reversing lever with roller length 40 mm

Reversing lever with swivel roller length 22.2 mm

List of types
Pin plungers
Roller plunger

Dimension drawings:
(with terminal type 1 as a change-over switch)

Pin plunger with threaded sleeve for one-hole fixing

Pin plunger with oil-resistant sealing cap

Pin plunger with extended threaded sleeve for one-hole fixing

Roller plunger (stainless steel) with threaded sleeve for one-hole fixing

VT. List of types
Roller plungers
Roller lever

Dimension drawings:
(with terminal type 1 as a change-over switch)

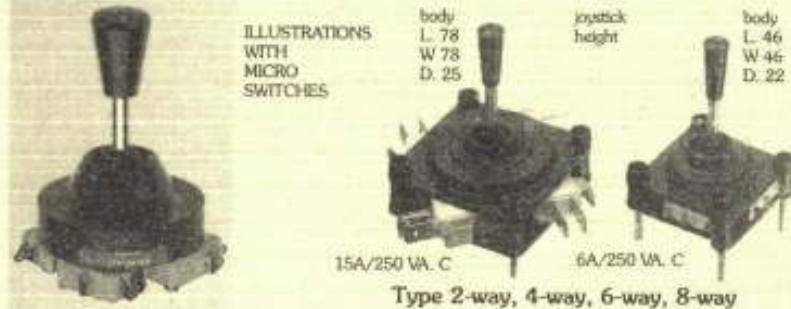
Roller-tipped plunger with threaded sleeve for one-hole fixing Roller may be turned through 90

Roller-tipped plunger with threaded sleeve for one-hole fixing and sealing cap Roller may be turned through 90

Rigid lever with nylon roller pivoted in side-plates



JOYSTICK CONTROLLERS/JOYSTICK SWITCHES WITH MICROSWITCHES/CONTACT BLOCKS



Type 2-way, 4-way, 6-way, 8-way

Robust construction, tamperproof design, convenient single-hole mounting and easy action ensure suitability for a wide variety of applications. Among 50 standard options are latching, momentary or stirring action, lift-to-operate or normal operation, two gates or four and either R3 or R4 switching. Up to two switches per gate using R3 switches; three switches per gate can be accommodated using the smaller R4 series.

Switches per gate	Number of gates	Micro Switch reference	Rating 250V ac	Dimensions Axial Height (max)	Effective Diameter
1	2	R4	5A	104	60
2	4	R3	10A	105	75
3	(stirring)	R4	5A	104	60

Assemblies can be made available with many different options including one or three gates and latching action in any of up to four directions. All units may be ordered with silicone cowls and 'O' rings for low temperature use down to -50°C.

Joy Stick controllers with 10A N. O. & N. C. contact blocks are available in Momentary or Stay put combinations.

Two sizes of joystick microswitch assemblies moulded in black nylon for panel or surface mounting. The larger assembly is fitted with four R3 changeover microswitches, while the other has four R4 changeover microswitches while the other has four R4 changeover microswitches. The R3 and R4 microswitches can be directly replaced by un-screwing. The joystick can be moved anywhere within its travel limits. Depending on joystick position none, one or two (neighbouring) microswitches are activated. A rubber gaiter at the joystick base seals the mechanism against ingress of dirt when the assembly is panel mounted. Supplied complete with a circular panel bezel and two joystick guide inserts for limiting joystick movement to single and dual axis. The latter should be secured with an epoxy adhesive. Four fixing screws and nuts (M3-5) are supplied.

Switch ratings - R3 type: 10 A at 240 V a.c.
R4 type: 5 A at 240 V a.c.



These Industrial Joy-Stick controllers can be fitted with 1, 2, 4, 6 & 8 nos. of with N. O. & or N. C. contact blocks (maxm.) Stay-Put & or Momentary posi.

INDUSTRIAL JOY STICK CONTROLLER

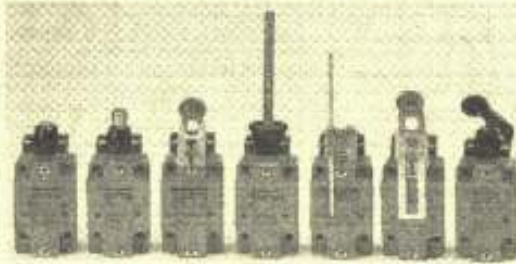
2 or 4 way JOY STICK CONTROLLER

LIMIT SWITCHES - 10 AMP 250 v. AC 1 SET OF N. O. N. C. & 2 SETS OF N. O. N. C. CONTACTS

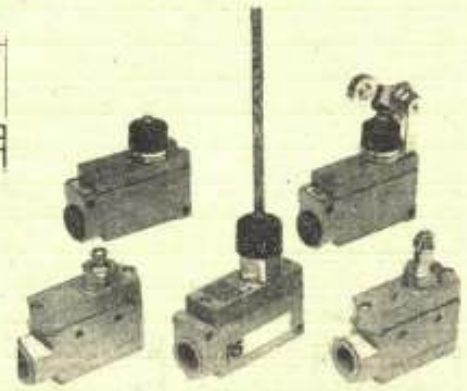
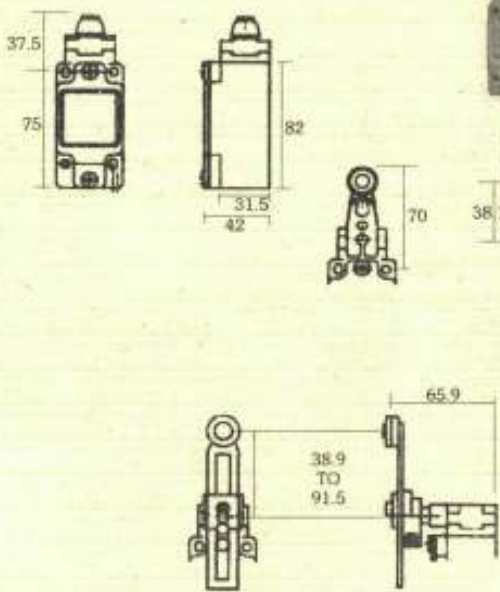
Developed to address Indian and Global standards with one offering. These range offers a comprehensive portfolio of limit switches addressing industrial applications. The following range spans the miniature standard in both metal and plastic versions and a very compact metal three conduit entry style. Also available are standard size limits comprising a complete range of actuator heads unique to the Recom offering is a universal voltage indicator style which accepts input voltages from 12 to 250 volts a.c. to d.c.

- Suitable for most industrial applications
- Bifurcated contacts for switching wide current and voltage requirements
- Galvanically isolated contacts for switching different polarities between circuits
- Safety switches with forced disconnect mechanism- independently tested

Safety contacts: IN/C (10A lth)
Auxiliary contacts: IN/O (10A lth)
Body material: Metal or Plastic



MICROSWITCHES IN INDUSTRIAL METAL HOUSINGS AS LIMIT SWITCHES



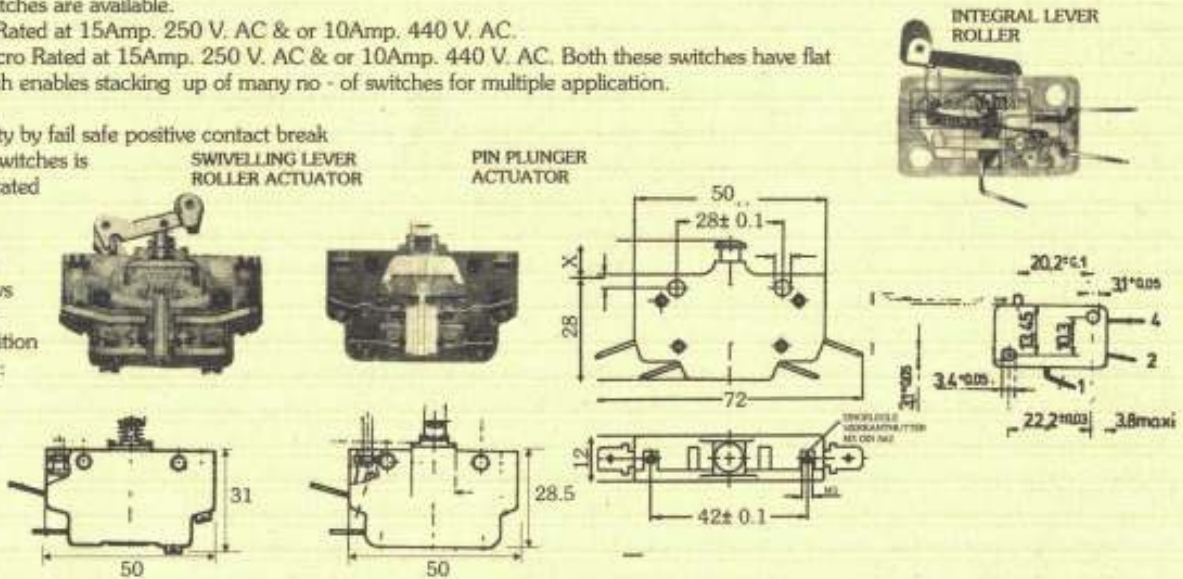
TRANSPARENT MICRO SWITCHES

These are available in Transparent poly-carbonate Moulded casing which enables the users to see the contact condition while in use. Two type of switches are available.

- A) Heavy Duty Rated at 15Amp. 250 V. AC & or 10Amp. 440 V. AC.
- B) Miniature Micro Rated at 15Amp. 250 V. AC & or 10Amp. 440 V. AC. Both these switches have flat surfaces which enables stacking up of many no - of switches for multiple application.

FEATURES :

- High reliability by fail safe positive contact break
- Ganging of switches is greatly facilitated by their flat design
- Transparent housing allows inspection of contact condition
- Termination : Screws and flat tabs available

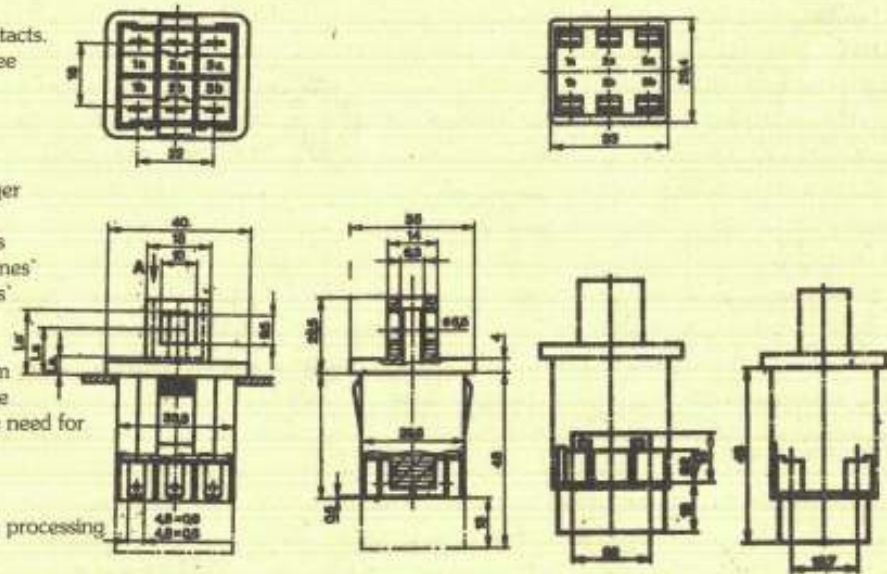
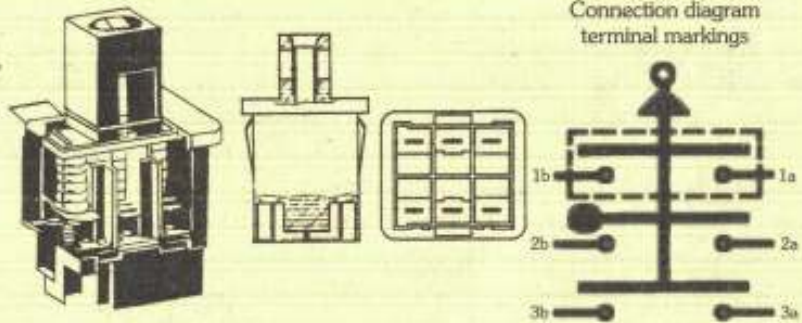


SAFETY DOOR SWITCH (STOP SWITCH)

Safety Door Switch is used in Office Equipment like Xerox, Fax machines & in other equipment where Electric Supply is Cut-Off when the Door of the equipment is opened thus ensuring Safety to Human Life.

Characteristic features

- All-poles cut-out for the main and neutral contacts together with a low-voltage contact (with a retard of 0.8mm) for driving electronics.
- Isolates the equipment from the mains with increased or double insulation. 8mm contact gap, 8mm creepage-and clearance distances between individual poles and to exposed conductive parts.
- Fail-safe breaking of the normally open contacts. Reliable contact breaking guaranteed by three reset springs acting independently.
- Switching-on due to error or through carelessness is totally excluded. Plunger is surrounded by a shroud which precludes unintentional switching by the hand test-finger or with a coin.
- Complies with international safety standards 'Safety of electrically energized office machines', 'Office Appliances and Business Equipments', 'Electronic Data-Processing Units and Systems'.
- Simplified fitting by means of snap-in system (no extra fixing elements required). The large over-travel of minimum 6.5mm obviates the need for adjustment of the switch-on position.

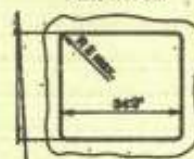


Applications : As a safety door-switch in:

- Office machines such as photocopiers, data processing equipment, sorting machines, etc.
- Vending machines A Switch cabinets
- Industrial appliances for hospitals, hotel and catering trades, laundries and launderettes, etc. When machines and appliance are operated it must be ensured that no danger is present for the operator due to electrical-shock or from moving parts when the door is opened or covers removed.

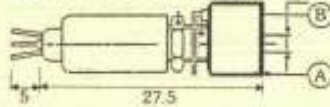


Panel cut-out



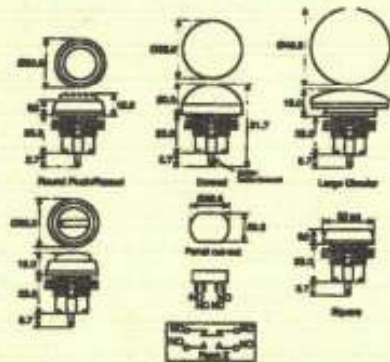
1.5A, 3A, 5A, 10A & 15A AT 250 V. AC. PUSH BUTTON SWITCHES

Sub. miniature Push Button
1.5 A/-250V or 2.5 A/ 110V AC



S. P. D. T. Sub miniature Push Button switch of Rating 1.5 A/ 250V or 2.5 A/110V AC. The switch is operated thro' square Button, or pin plunger Available as stay put change over NO-OFF 2 posi. switch for use in electronic Instrument & telecom equipment. Also available as momentary contact spring return. S. P. S. T. or S. P. D. T. switching combination with soldering type terminals.

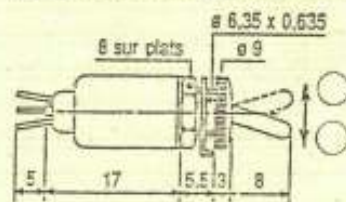
10A/250V AC



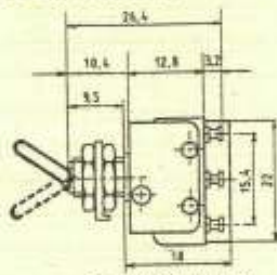
A range of single pole panel mounting switches for harsh environments. These switches are available in a choice of five pushbutton styles and a two-position rotary actuator. The large circular style is particularly suitable for applications where a large actuation area is required and is available in momentary and 'pull-to-reset' latching versions.

- Panel sealed ● Highest impact rating (9)
- Non-sparking alloy construction
- Supplied with lock nut and sealing washer

PUSH BUTTON SWITCHES WITH TOGGLE ACTUATOR



1.5 A/-250V AC

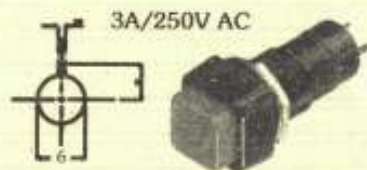


5 A/-250V AC



10 & 15 A --250V AC

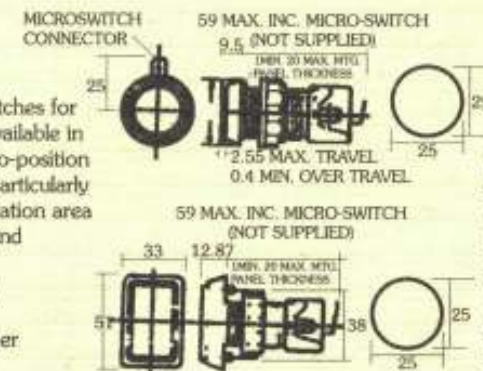
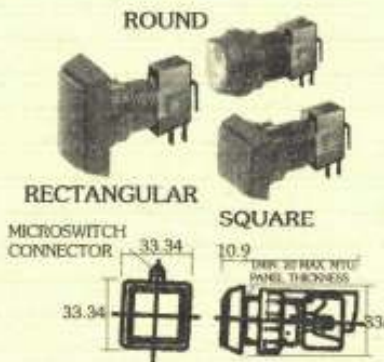
Description: Micro switches are available with toggle actuator suitable to mount on M12 hole for 15 & 10 Amps. and M6 hole for 5 Amp & 1.5 Amp. rating. All the Micro switches have contact configuration of 1 NO/1NC (changeover). Switches are available with screwing, soldering or Push- ON type terminals.



Panel cut-out for 1.5 & 3A Overall length 37.8
Max. depth behind panel 28
Bezel 15.5 Button 11x11

A square-faced SPST push-button switch available in alternate or momentary action, with silver contacts rated at 250V a.c., 3A. A suitable punch and die is available. Type: Alternate red button, momentary red button, alternate black button, momentary black button, alternate cream button, momentary cream button.

15A/250V ILLUMINATED PUSH BUTTON SWITCHES



EXTRA LARGE ILL. PUSH BUTTONS ROUND 44MM DIA



25mm Dia hole for Fixing



EXTRA LARGE ILL. PUSH BUTTONS SQUARE 44MM

A range of circular, rectangular and square push-button (non-latching) actuator/ indicators for use with R3 microswitches and T31/4 wedge bulbs supplied without microswitch or bulb. When used as an indicator only, a button inhibitor ring (supplied) is fitted as follows: Remove the switch carrier from the rear body moulding (snap fit). Remove the button and spring by squeezing the guide prongs at the rear together and withdrawing the button assembly from the front. Fit the inhibitor ring behind the button head, discard the spring and replace assembly in the switch body. Body, retaining nut and inhibitor ring are moulded in black high impact ABS; the switch carrier in white acetal copolymer resin and the push button/ lens in polycarbonate. Max operating temperature 55°C. Note: These actuators should not be illuminated for long periods by lamps exceeding 2 Watts.

Type: lens colour, Rectangular: Blue, Yellow, Green, Red, Circular: Blue, Yellow, Green, Red, Square: Blue, Yellow, Green, Red