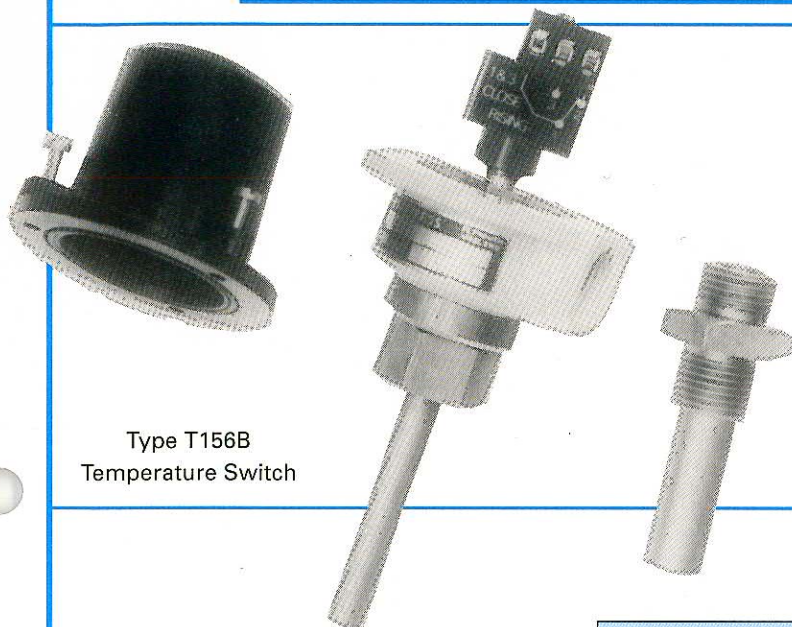




PYROPRESS



Type T156B
Temperature Switch

TEMPERATURE SWITCHES

Type T156B—T157B and HT156B—HT157B

- ◆ Temperature Range -10°C to $+240^{\circ}\text{C}$
- ◆ Robust construction
- ◆ Outstanding Environmental Immunity
- ◆ Easy installation and removal

INTRODUCTION

- ◆ These temperature sensitive switches are designed to detect a change of temperature occurring within the range -10°C to $+240^{\circ}\text{C}$.
- ◆ Reliability under the most arduous conditions of operation was the key factor considered in designing these instruments. This was achieved together with minimum cost by simplicity and robustness of construction and by minimising the design requirements to suit a specific type of application, e.g. over heating of cooling or lubricating systems, air temperature monitoring or electrical heating control.

- ◆ It will be appreciated from the illustrations that the non conductive switch casing used gives complete enclosure of electrical components which is a valuable asset in wet, dust laden or tropical conditions to I.P.67 standards.

These instruments will operate satisfactorily in any installed position. They can therefore be readily mounted direct on plant where points of access may be limited. This advantage is further aided by the method of fixing employed which enables the switchcase to be rotated as necessary to suit the cable entry position.

- ◆ The sensor can be provided with a separate pocket (Type T156B and HT156B) which simplifies the installation and removal of the unit when inserted into a liquid filled pipe or other vessel. As indicated overleaf four types of instrument can be supplied:—
- (a) Type T156B with loose pocket (-10 to $+120^{\circ}\text{C}$)
 - (b) Type T157B with screwed stem and no pocket (-10 to $+120^{\circ}\text{C}$)
 - (c) Type HT156B with loose pocket (80 - 240°C)
 - (d) Type HT157B with screwed stem and no pocket (80 - 240°C).

Ordering Procedure

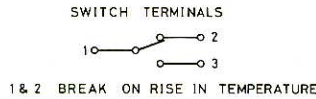
When ordering it will help to ensure you have the correct instrument for your application if you can provide the following information:

1. Maximum working temperature and pressure at sensor probe.
2. Switching set point required and whether on rising or falling temperature conditions.
3. Type number.
4. Fluid being monitored.
5. Whether separate pocket (Thermowell) required, i.e. Type T156B and HT156B.
6. Length of stem or pocket.
7. Stem or pocket thread size.
8. Voltage/current switching if lower than 12 volts/1mA. (Note maximum levels shown on drawings.)



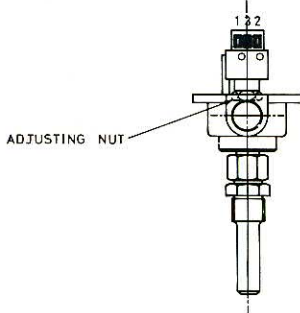
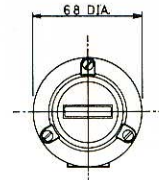
PYROPRESS

TYPE	TEMPERATURE SWITCH
T 156B	WITH LOOSE POCKET
T 157B	WITH SCREWED STEM
HT 156B	WITH LOOSE POCKET
HT 157B	WITH SCREWED STEM

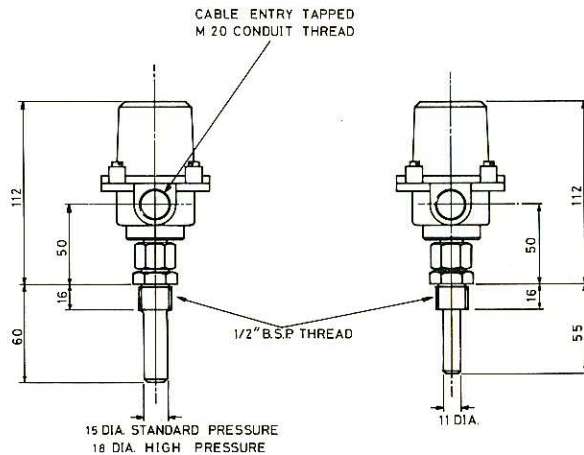


SWITCH RATING

250v A.C.	5 amps resistive	5 amps inductive
30v D.C.	5 amps resistive	3 amp inductive
250v D.C.	0.25 amps resistive	0.03 amps inductive



TYPICAL ARRANGEMENT DRAWING FOR REFERENCE ONLY



TYPE T156B & HT156B WITH LOOSE POCKET
GENERAL ARRANGEMENT

TYPE T157B & HT157B WITH SCREWED STEM

ALL DIMENSIONS IN MILLIMETRES

SPECIFICATION

This instrument contains within the stem a sealed metal bellows element which is filled under vacuum with a high efficiency, non toxic, heat transfer fluid to give fast and consistent response to temperature change. Any change in temperature about this stem causes expansion or contraction of the fluid which is transmitted directly by a push rod to a snap action S.P.C.O. microswitch. The Switching point is set by suitably locating the adjusting nut shown. This adjusting nut is provided with a nylon locking feature in the screw thread which prevents movement due to vibration.

Each instrument is tested before despatch and factory preset to operate as called for on your order. This set point together with terminal arrangements provided are shown on a label which can be viewed with cover removed.

Standard Adjustment Ranges	Max. Working Temperature	Standard Switching Differential
1. -10 to + 40°C	90°C	<5°C
2. 0 to 50°C	100°C	<5°C
3. 20 to 70°C	120°C	<5°C
4. 50 to 100°C	150°C	<5°C
5. 70 to 120°C	170°C	<5°C
6. 100 to 180°C	230°C	<10°C
7. 150 to 230°C	290°C	<10°C

Repeatability-3% of Range
(at operating temperatures up to 40°C)

Maximum Ambient Temp 85°C
Accuracy class 5% B56134

Calibrated without pocket with a temperature change of 2°C per minute

Environmental Protection

Switchcase protected against dust, wet and damp-laden atmosphere to IP67 standards

Stem/Pocket Thread Sizes

3/8" BSP	1/2" NPT
1/2" BSP	3/4" NPT
3/4" BSP	1" NPT
1" BSP	Special flanges

Max. Working Temperature

21 Bar (Standard Pocket)
350 Bar (High Pressure Pocket)

Standard Materials Used

- Stem and pocket — Stainless Steel stem and Brass pocket
- Adjusting screw — Brass
- Switch Base — Polyester Compound Glass Fibre Reinforced
- Switch cover — Phenolic Type GX to B.S.S. 771
- Switch block — Phenolic Type GX to B.S.S. 771

Electrical Conduit Entry

Tapped M20 x 1.5 conduit thread

Electrical Connections

Clamp type terminals are provided for 0.5 - 1.5 sq. mm cables
Connections and switch ratings are shown on above drawing

CONTINUOUS DEVELOPMENT MAY RESULT IN CHANGES OF SPECIFICATION WITHOUT PRIOR NOTICE



PYROPRESS

BELL CLOSE : PLYMPTON : PLYMOUTH : DEVON : PL7 4JH : ENGLAND
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