



TEMPERATURE SWITCH

**LOW COST
WEATHERPROOF**

Prince SERIES

- HIGH REPEATABILITY ● COMPACT ●
- TAMPER PROOF SETPOINT ADJUSTMENT ●



PRINCE972 IN GH ENCLOSURE

Switzer Series 900 gas filled Temperature Switch is specifically designed for OEMs using components of high reliability.

These compact instruments, incorporate mechanical

movements restricted to absolute minimum which ensures long term stability.

Style GH Pressure Die Cast Aluminium housing is best suited for harsh and outdoor mountings.

GENERAL SPECIFICATIONS

Enclosure

Style GH Pressure die cast Aluminium, weatherproof to IP : 66

Range Refer Ordering Matrix

Range Setting External with lock

Sensor Gas filled thermal system actuating a Phosphor Bronze Bellows.

Wetted Parts Copper / 316 SS Bulb

Repeatability ± 1% FSR (Note 1)

Scale Accuracy ± 5 % FSR

Switching

Element Instrument quality snap acting microswitch 1 × SPDT or 2 × SPDT (Note 5 & 6)

Rating 15A, 250V AC

Differential

Max. Working Temp. 300°C

Ambient Temperature (-)10 to 60°C

Connection

To Thermowell **Std.** : None

Opt. : Sliding packing gland assembly with 1/2" BSPM connector to firmly hold armour to user Thermowell (Note 8)

Electrical

Std. : 3/4" ET Nylon Cable gland for 8 mm OD cable.

Opt. : 1/2" NPTF direct cable entry 3/4" NPTF through Adaptor

Mounting

Back panel / Wall

Weight

600 Gms.

ORDERING MATRIX

Example

GH 972 A 3 3

HOUSING

Pressure Die Cast Aluminium
weatherproof to IP:66 ———— **GH**

ON-OFF DIFFERENTIAL

Narrowband Adjustable – Std. ———— **972**

RANGE

Range	Diff. (Adj.) (Note 3)	MWT	
25 to 90°C	4 to 20°C	300°C	A
70 to 150°C	6 to 30°C	300°C	B

THERMAL SYSTEM *

3M Copper Bulb & Capillary with 304SS Armour ———— **3**
 5M Copper Bulb & Capillary with 304SS Armour ———— **4**
 3M 316 SS Bulb & Capillary with 304SS Armour ———— **6**
 5M 316 SS Bulb & Capillary with 304SS Armour ———— **7**

* Armour will be of 6 mm dia.

SWITCH CODE §

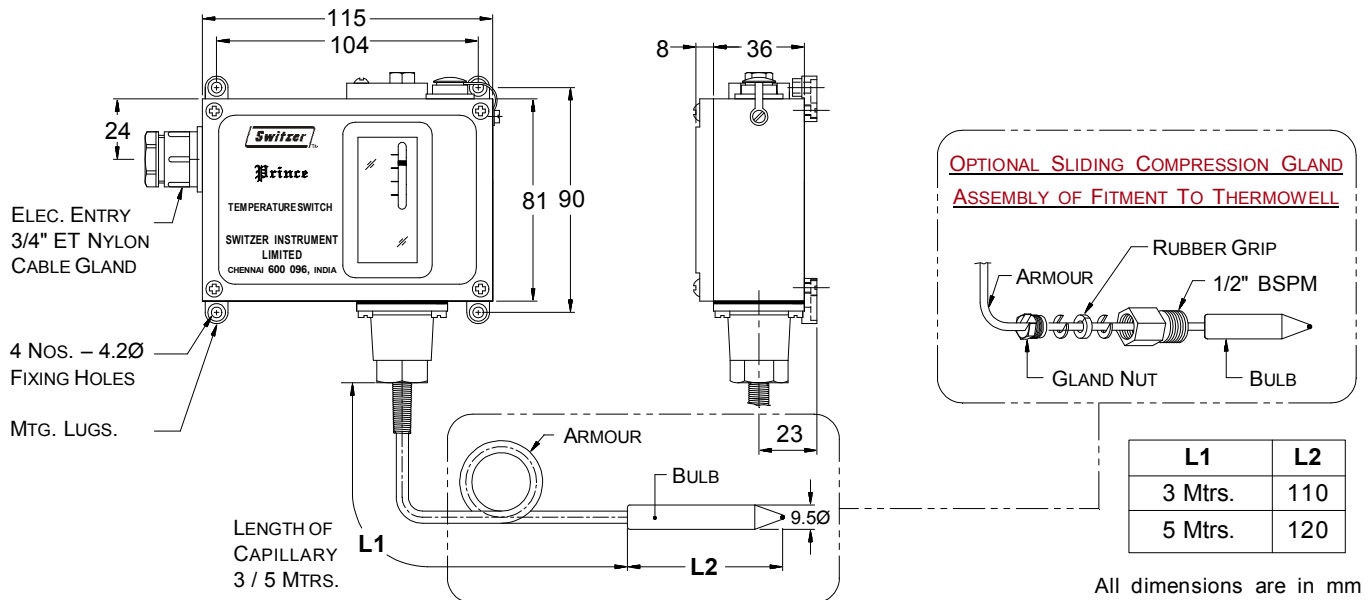
One SPDT Microswitch 15A, 250V AC ———— **3**
 2 × SPDT Microswitches 15A, 250V AC (Note 5) ———— **33**

§ DC Rating — Resistive : 0.5A 110V; 0.25A 220V; 8A 24V
 — Inductive : 0.2A 110V; 0.1A 220V; 7A 24V

NOTES

1. Accuracy and repeatability are same for a Temperature Switch, which is a switching device and not a measuring / indicating instrument.
2. Select working range of the instrument such that the set temperature lies in the mid 50% of the Instrument range.
3. Switching differentials are at midscale and will vary with range setting and operating conditions.
4. On and off settings should not exceed the upper and lower range value.
5. DPDT action is achieved by 2 × SPDT switches synchronised to practical limits i.e., ± 2% of FSR. Apply a multiplication factor of 1.5 to the minimum differential value for DPDT switching.
6. Contact life of microswitches are 5×10^5 switching cycles for nominal load. To quench DC sparks, use diode in parallel with inductance, ensuring polarity. A 'R-C' network is also recommended with 'R' value in Ohms equal to coil resistance and 'C' value in micro Farads equal to holding current in Amps.
7. A more versatile and wide range of temperature switches are available in series 700.
8. 304SS or 316SS Thermowell with 1/2" NPTM or 3/4" NPTM connection is available at extra cost.
9. A shift of ± 2% may be observed when temperature falls from full Maximum Working Temperature.
9. **Accuracy figures are exclusive of test equipment tolerance on the claimed values.**
10. **All performance data guaranteed ± 5%.**

MOUNTING DIMENSIONS



This is not a contractual document. Prior notification of changes in specifications is impracticable due to continuous improvement

FOR **SWITZER'S** OFFICES IN INDIA

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<http://www.switzerprocess.co.in/offices.htm>