



PRECIMEASURE CONTROLS PVT. LTD.

IM-1071-04

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TEMPERATURE INDICATOR, MODEL - 1071

MANUAL

GENERAL SPECIFICATION:

PRECIMEASURE Model - 1071 is a high performance, Bi-metallic Temperature Indicator/Controller instrument, mainly used for the protection of Distribution Transformers and Industrial Process Control Equipments.

- Segment dial, vertical mounting
- Range 0-120°C
- 2° graduation.
- Accuracy $\pm 4^\circ\text{C}$ between 40°C to 110°C.
- Case material Aluminum, Sensing bulb material Brass.
- IP55 Protection as per IEC 529 Test cat-II.
- No external power supply required for indication or operation
- Available up to two control switches
- Sealed system which requires no trimming or periodic site adjustments
- Maximum Temperature indicating pointer facility.
- Directly Mounted on the Transformer & Other Process Control Equipments.

INSTALLATION:

MOUNTING:

1. Unpack the instrument carefully from the packing
2. Unscrew the M6 HEX SCREW of the Union/Pocket.
3. Remove the Union/Pocket from the Instrument.
4. Fix the Union/Pocket on to Transformer firmly by using Appropriate Spanner
5. Install the Instrument through the Union/Pocket (insert fully), Set to required direction and then tighten the M6 HEX SCREW to Optimum.
6. Care to be taken that, Sensing bulb is not to be damaged while tightening.
7. Make sure that instrument is mounted in vertical position.

HANDLING:

1. Handle the Instrument with utmost care.
2. Before storing or transportation, pack the instrument in the same way as received from the factory.

MAXIMUM POINTER:

A maximum indicating pointer red in colour is provided, which indicate the Maximum Temperature attained by the instrument and it can be reset to the Actual Temperature by using MAXIMUM POINTER RESET KNOB provided at the bottom of the Instrument.

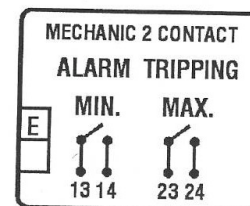
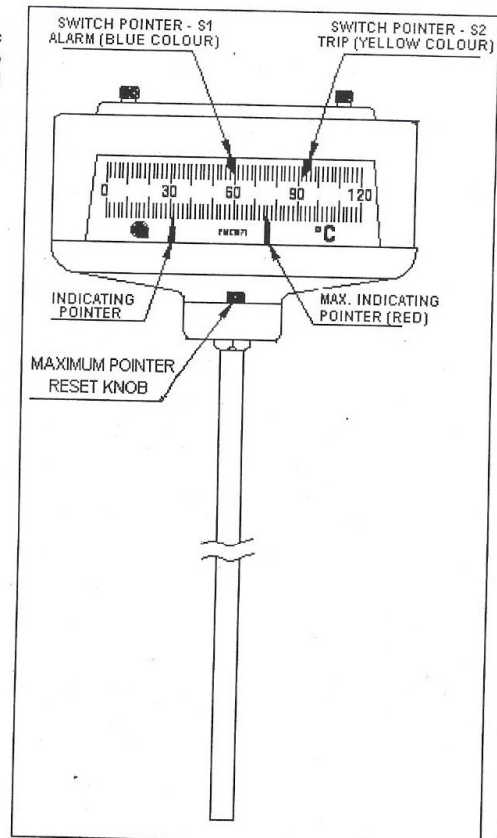
Slowly push the MAXIMUM POINTER RESET KNOB in anti-clockwise direction till red maximum pointer reaches indicating pointer.

ELECTRICAL CONNECTIONS:

All electrical connections are provided through terminal block at the inside back portion of the case. A Cable Gland is provided for this purpose. A wiring diagram is provided inside the instrument. The connection shall be given as shown in Figure.

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SWITCHES:

Positive action switching has been added to the dependable indicating mechanism for **Alarm** and **Trip** duties. The switches are Normally Close/Open Micro Switches, Rated 5 amps at 250V AC. They are adjustable from 20°C to 105°C to individual scale and contacts are potential free switches, and Switch Accuracy of $\pm 4^\circ\text{C}$. The switches close on temperature rise. Insulation tested to ground at 2KV for 1 minute.

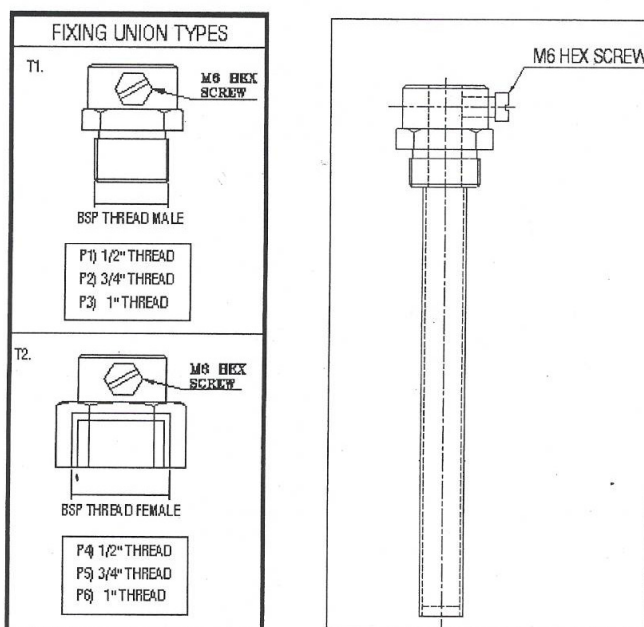
SWITCH SETTING:

Both the switches are adjustable from 20°C to 105°C to individual scale with accuracy of $\pm 4^\circ\text{C}$. To set the Switch Pointer to the new value follow the steps given below very carefully:

1. Open the Top Cover of the Instrument by Removing Two Knurled Head Knobs
2. Slightly slacken the Alarm / Trip Screw provided for switch setting, adjust the Switch Pointer to the required temperature and **Tighten back the screw firmly.**
3. Close the Top Cover back to its position and tight back the Knurled Knobs.

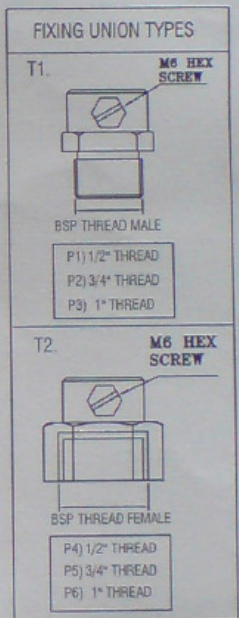
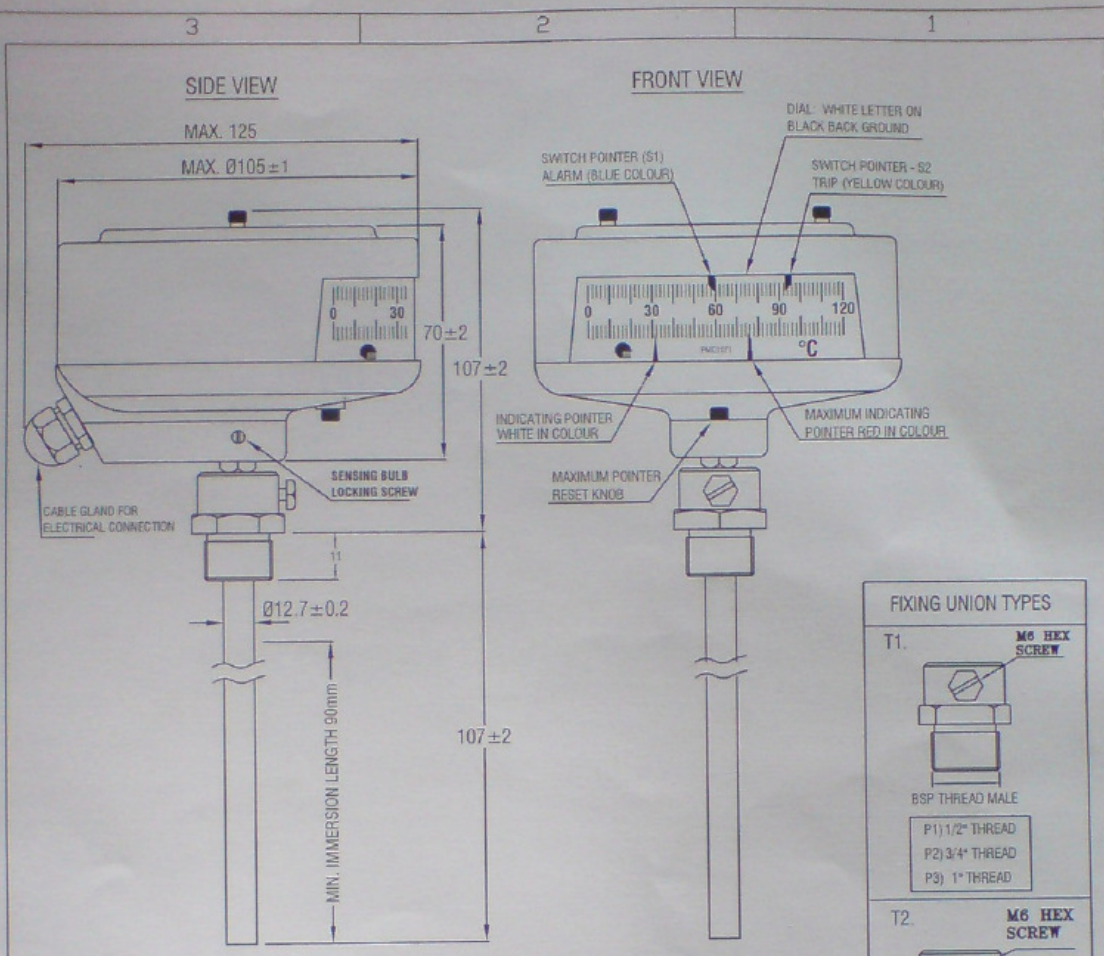
AMBIENT TESTING:

Immerse the sensing bulb in to the well-stirred water or oil bath. Keep the bath temperature at 40°C, Use Standard Mercury in Glass Thermometer or Standard Digital Thermometer for comparing with the instrument. Take the reading indicated by the instrument after **five minutes** and compare with the thermometer reading.



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DIAL : SEGMENT DIAL ANGULAR SWEEP 105°
 RANGE : 0-120°C
 ACCURACY : ±4°C BETWEEN 40°C TO 110°C
 PROTECTION DEGREE : IP55 - OUTDOOR MOUNTING
 CASE : ALUMINIUM
 FINISH : POWDER COATED LIGHT GRAY (IS631)

NO. OF CONTACTS : 2
 MICRO SWITCH RATING: 5A-240V AC / 0.25A-220V DC
 SWITCH ADJUSTABLE RANGE: 20°C TO 105°C
 CABLE GLAND CLAMPING RANGE: 4.0mm TO 10mm



*GEN. NOTE: SHARP EDGES NOT ALLOWED.			TOLERANCE MEDIUM IS : 2102		MATERIAL: AS ABOVE FINISH: AS ABOVE		
4	--	DIMN. CHD / ADDED AND NOTE ADDED.	09/11/2007	ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED		PREPARED <i>DHANRAJ</i> 07.03.06	
3	--	ACCURACY CHD FROM 3°C TO 4°C & DIMN 88 CHD TO 107mm	22/09/2007			CHECKED <i>[Signature]</i> 21/06/07	
REV.No.	ZONE	BRIEF RECORD	DATE			APPROVED <i>[Signature]</i> 21/11/07	DRAWING NO.: 3175/R4
SCALE: N.T.S		TITLE: OVERALL DIMENSIONS FOR TEMPERATURE INDICATOR & CONTROLLER (STEM Ø12.7, LENGTH 107mm) (MODEL : 1071)				SUPERSEDES : 3175/R3 & 3188/R3	1 No.