



DIGITAL INDICATOR

K – 3701

- **FIELD MOUNTING**
- **WEATHERPROOF**
- **VERSATILE**
- **HIGH ACCURACY**
- **HIGH RELIABILITY**
- **LED OR LCD DISPLAY**
- **SMPS FOR AC & DC SUPPLIES**
- **ALARM & ANALOG OUTPUT**



Series K – 3701 indicator is designed and manufactured using the latest state-of-the-art-technology. The indicator is housed in high impact engineering polymer (polyester) weatherproof enclosure. The instrument is

versatile, compact, easy to install and has wide options to suit customer requirements. Various options include choice of resistance elements, thermocouples current or voltage inputs.

SALIENT FEATURES

- High Stability & high input impedance ensured through low drift signal conditioning Op.Amp and A/D conversion circuitry
- Wide range of temperatures from -50°C to $+1200^{\circ}\text{C}$ for thermocouples and -150°C to $+750^{\circ}\text{C}$ for Pt 100 Resistance Elements
- Choice of “current” or “voltage” inputs
- ‘1’ or ‘2’ Alarm outputs
- Linear analog current or voltage output for any range. This range can be different from the instrument display indication range.
- Overflow indication.

GENERAL SPECIFICATION

Input Type	Current / Voltage 4 – 20 mA / 1 – 5V DC	Thermocouple	Pt 100 RTD
Instrument Range	-1999 to +1999 counts	K -50 to 1200°C J -50 to 700°C T -50 to 400°C	Range A : -100.0 to 199.9°C Range B : -150 to 750°C
Accuracy	± 0.05% of reading ± 1 count	K ± 0.2% of reading ±0.5°C J ± 0.3% of reading ±0.5°C T ± 0.3% of reading ±0.5°C	± 0.2 % of reading ± 1 digit
Resolution	1 / 0.1 / 0.01 / 0.001 count, Jumper selectable	---	0.1° for < 200°C range 1.0° for > 200°C range
Input Impedance	75 Ω for current input 100 K Ω for Voltage input	30 M Ω typical	---
Cold Junction Compensation	---	Automatic by precision thermistor	---
Sensor Operation Mode	---	---	4 wire constant current, † Voltage sensing
Sensor Break Indication	---	Automatic Up Scale / Down Scale	---
Ambient Temperature	0 to 50°C		
Display	3½ digit, 7 Segment LCD, 12.7 mm or 3½ digit, 7 Segment LED, 14.2 mm		
Power Supply	1) 90 to 250V AC / 100 to 300V DC; 2) 18 to 32V DC		
Power Consumption	7VA (maximum)		
Sensor Input	Through Screw Terminals		
Retransmission Output	Standard — Current : 4 – 20 mA ; Voltage: 1 – 5V DC Optional — Current : 0 – 20 mA ; Voltage: 0 – 5V, 0 – 10V DC		
Relay Output	For 1 setpoint SPDT change over relay contact rated at 5A 230V AC / 28V DC (Res) For 2 setpoints SPDT change over relay contact each rated at 5A,230V AC/28V DC (Res). Adjustable Deadband of 20 counts maximum.		
Case	Style 'DP' Engineering Polymer (Polyester) weatherproof to IP:65		
Overall Dimensions	122 (W) × 120 (H) × 91 (D) mm		
Mounting	Surface / Wall		

† For 3-wire RTD, furnish the size of conductor and the cable length (transmission distance) between the sensor & the instrument. The cable resistance correction will be limited to maximum of 15 ohms per lead.

ORDERING MATRIX

K – 3701 INDICATORS (FIELD MOUNTED TYPE) SUITABLE FOR USE WITH THERMOCOUPLE, RTD, CURRENT, VOLTAGE INPUTS

Basic Catalog No. _____ **K – 3701**

(Specify following suffix Nos. to the basic catalog No. for other specifications & options)

INPUT TYPE

Type K Thermocouple _____ **K**
 Type T Thermocouple _____ **T**
 Type J Thermocouple _____ **J**
 Type Pt 100 Platinum Resistance _____ **P**
 Current 4 – 20 mA^④ _____ **C**
 Voltage 1 – 5V DC^④ _____ **V**

POWER SUPPLY

90 to 250V AC / 100 to 300V DC _____ **A**
 18 to 32V DC _____ **B**

DISPLAY

LED _____ **E**
 LCD _____ **C**

ALARM OPTIONS

No Alarm _____ **0**
 1 Alarm _____ **1**
 2 Alarms _____ **2**

Note : Please specify Alarm configuration (High / Low) while ordering.

SPECIAL OPTIONS

Nonez _____ **0**
 Retransmission signal Current output 4 – 20 mA standard _____ **1**
 Retransmission signal Voltage output 1 – 5V DC standard _____ **2**
 Retransmission signal optional (0 – 20 mA or 0 – 5V or 0 – 10V DC) _____ **3**

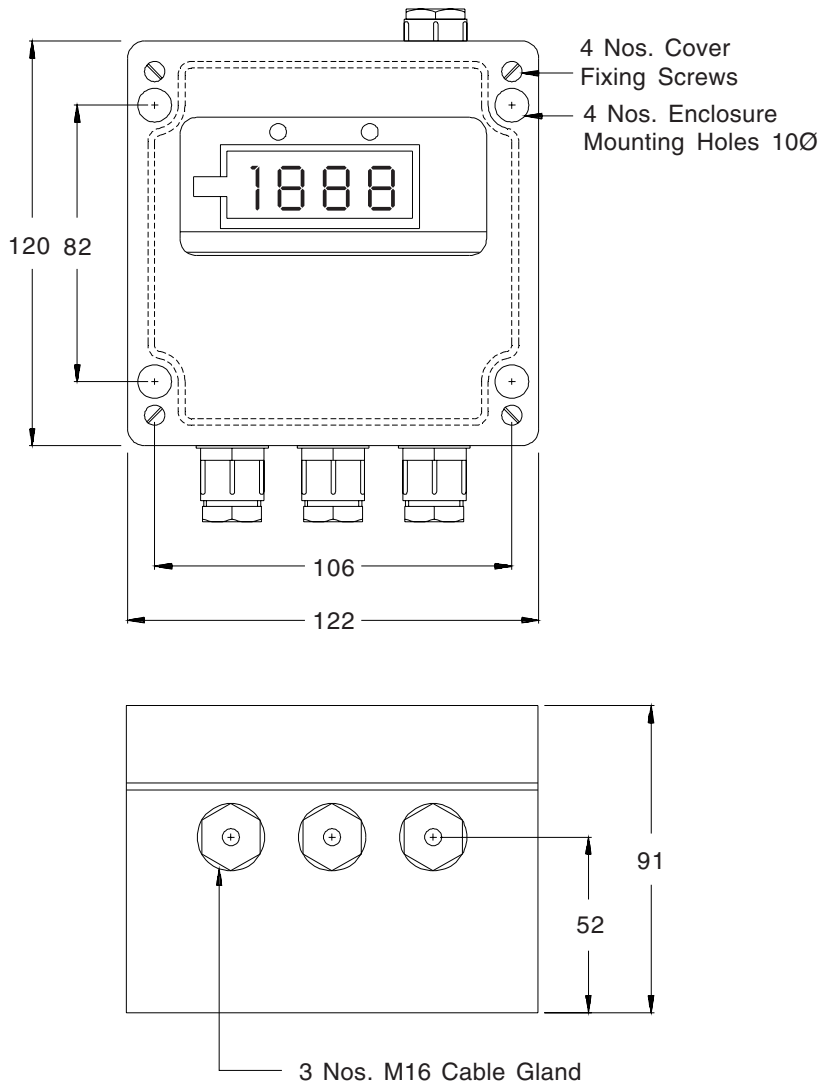
Note : Please specify the range Retransmission output if it is not the same as instrument display range.

NOTES

- ① All quoted accuracies relate to instruments only and do not include sensor errors.
- ② Retransmission signal can be calibrated to ranges other than full range. Please specify the required range while ordering. Otherwise instrument will be calibrated for full display range.
- ③ Customer to specify deadband in degree centigrade which can be set during manufacturing. If not specified, deadband will be set for 3°C. Maximum adjustable deadband upto 20°C.
- ④ Standard current and voltage input are shown above in Ordering Matrix. 0 – 20 mA and 0 – 5V DC optionally available. Other non-standard voltage or current input, can be provided on request.



MOUNTING DIMENSIONS



All dimensions are in mm

Prior notification of changes in specifications is impracticable due to continuous improvement.

FOR **SWITZER'S** OFFICES IN INDIA

CHECK AT:

<http://www.switzerinstrument.com/offices.htm>