

ZT514 DIFFERENTIAL INDICATOR /CONTROLLER

Introduction

Ztech's digital Universal input differential process indicator model ZT514 is designed to indicate difference of two process parameters like temperature, level, flow, pressure etc as per the process requirement for various applications with computation of input 1 minus inputs 2. It can display the process value with the resolution of maximum 4 digits. The range is selectable from -1999 to 9999 scale with selectable decimal resolution for linear input signals. It can generate max four relay output (on/off on either of the inputs or on difference selectable) for various application with hi/lo selection. The hysteresis is programmable throughout the range. It can generate analog output as retransmission on difference & either of the input signals & give computer connectivity port on Modbus protocol or GSM connectivity as an optional feature. They are very reliable, accurate employing the latest technology. They undergo stringent tests to assure quality performance.

Features

Input	: Universal inputs(2 Channel) Linear Input :(0-10VDC, 0-1VDC,0-100mV),Current(0-20mA,4-20mA) Non Linear Input: Thermocouple types, E, J, K, L, N, R, S, and T Non Linear input: Resistance thermometer: Pt100, CU53, And P46
Display	: 0.56"(12mm) Super Bright Red LED Display (4 Digit)
Display Parameters	: PV1 Channel 1,PV2 Channel 2,Diff=(PV2-PV1)
Display Range	: Linear Input:-1999 to 9999 For RTD: -50.0 to 600.0 For Thermocouple J (-175 to 730 Degree),K (-250 to 1300 Degree) R (0 to 1800 Degree),S (0 to 1800 Degree) T (-200 to 400 Degree),N (-200 to 1300 Degree) B (0 to 1800 Degree),E (-200 to 1000 Degree)
High Accuracy	: 0.1% of Span (Linear),0.25% of Span(Non Linear)

Configuration Functions/Parameters

Configuration Data	: 4 Tactile Membrane Keys for Data Configuration
Indication	: Alarm /Communication Indication
Message	: Error Message

Output

Retransmission(PV1,PV2,Diff.)	: 2*4-20mA (Opto & Galvanic Isolated) (600 Ohms Loading Capacity) 2*0-10V DC(Opto & Galvanic Isolated)
Control Alarm Relay	: Max 4 Relay / Channel (5A/230VAC)
Communications	: RS 485
Compatible with GPRS /GPS	: Yes

Special Function (Optional)

- PV1,PV2,Difference output in scroll mode
- Universal input
- Field Calibration not require for change to other input
- Alarm output Hi/Lo, fail safe, with programmable hysteresis.
- All calibration/configuration can be done from front keys
- PC/GSM connectivity with SCADA software.
- Input sensor fail output upscale/downscale user define from front keys.
- Input Signal Filter Option
- Alarm Acknowledgment Function
- No Calibration require for different types of input in case of Universal Input



Differential Indicator /Controller

ZT514

Specification :Environmental

Ambient Temperature Range : 0 To 55 °C (For Integral Flow Meter)

Ambient Humidity Range : 5 To 95 % Rh (Non-Condensing)

Security : Password Protection for Configuration of Data

Power Supply : 90 - 260 VAC 50/60Hz,24VDC,12VDC

Specification : Physical

Weight : 500 to 900 gms.

Enclosure : ABS plastic molded, Weather / Flame Proof

Protection :

Dimension : 96(H)*96(W)110(D)

Mounting : Panel, Wall ,Pipe

Application

Delta Pressure Delta Temperature Measurement

Cooling Tower Application

BTU Application

Air conditioning Plant

Ordering Code

ZT514-XX X X X X X X X X (10 Digit Code)

Option 1:Input Signal Channel-1

- 0 - Universal (0/4 – 20mAdc, mV, V, Cu53, Pt.100),Tc
- 1 – Fix RTD
- 2 – Fix 4-20mA
- 3 – Fix 0-10VDC
- 4 – Fix Thermocouple
- 5 – Fix mV input
- 6 – Fix Voltage input
- 7 – User Define

Option 2:Input Signal Channel-2

- 0- Universal (J K R S T, 0 – 20mAdc, mV, V, Pt.100, Cu53)
- 1 – Fix RTD
- 2 – Fix 4-20mA
- 3 – Fix 0-10VDC
- 4 – Fix Thermocouple
- 5 – Fix mV input
- 6 – Fix Voltage input
- 7 – User Define

Option 3:Power(X)

- 0 – 90 to 260 VAC
- 1 – 24 VDC
- 2 – User Define

Option 4:Digital Output

- 0 - No relay
- 1 - One relay
- 2 - Two relay
- 3 - Three relay
- 4 - Four relay

Option 5:Analog Output

- 0 - None
- 1 - 4 – 20mAdc isolated (Single O/P)
- 2 - 4 – 20mAdc isolated (Dual O/P)
- 3 - 0-10Vdc isolated (Single O/P)
- 4 - 0-10Vdc isolated (Dual O/P)

Option 6:Communication Output

- 0 - None
- 1 – RS485 Modbus RTU
- 2 – GPRS/GSM Connectivity

Option 7:Display Size

- 0 – 0.56"Seven Segment Digit(Normal Display)
- 1 – 0.8" Seven Segment Digit
- 2 – 1.8" Seven Segment Display
- 3 – 2.3" Seven Segment Display
- 4 – 4.0" Seven Segment Display
- 5 – 6.0" Seven Segment Display
- 6 – 8.0" Seven Segment Display
- 7 – 4.0" Outdoor LED Display
- 8 – 6.0" Outdoor LED Display
- 9 – User Define Indoor/Outdoor LED/Seven segment Display

Option 8:Dimension

- 0 – 96(W) * 96(H) * 95(D)mm
- 1 – Weather proof Sheet metal box
- 2 – Flame proof class IIA IIB without Push Button 2" Pipe Mounted(054 Drawing)
- 3 – Flame proof class IIA IIB with Push Button Wall Mounted(061 Drawing)
- 4 – Flame proof class IIA IIB without Push Button 2" Pipe Mounted
- 5 – Flame proof class IIA IIB Wall Mounted
- 6 – Special Enclosure

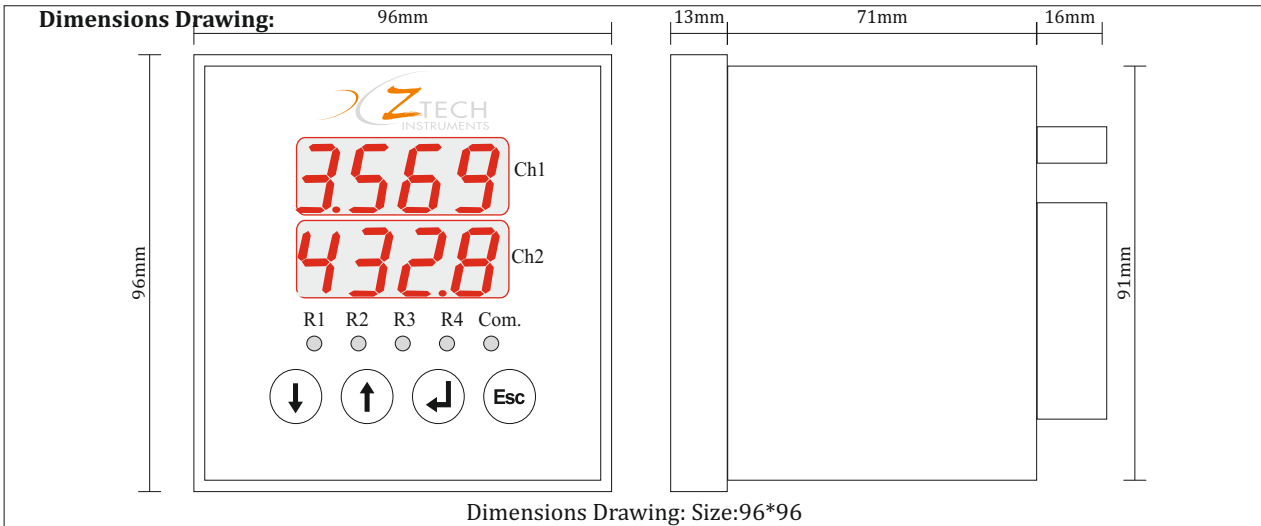
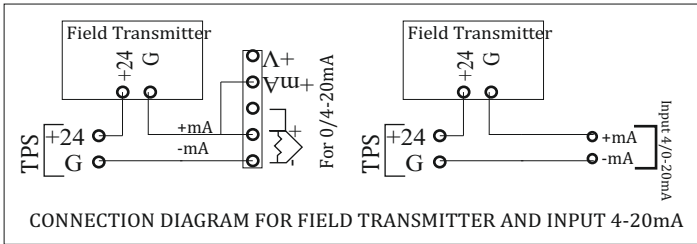
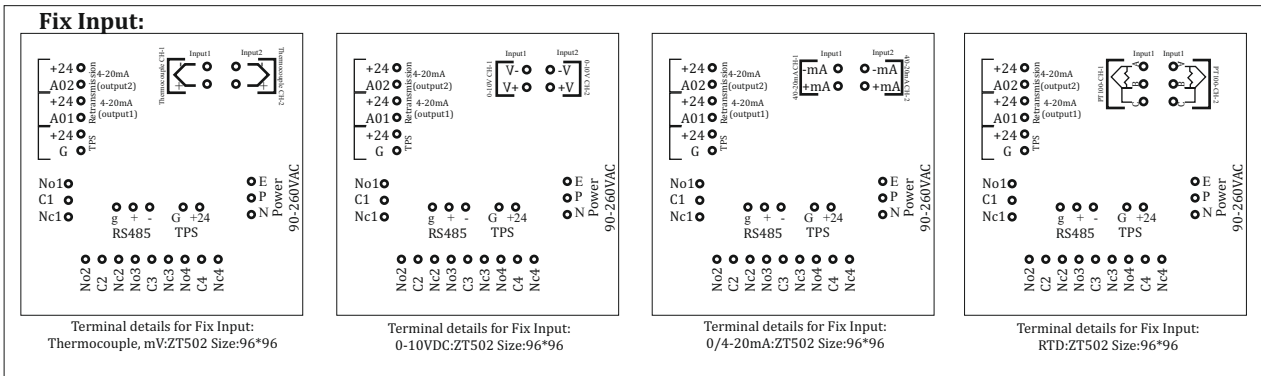
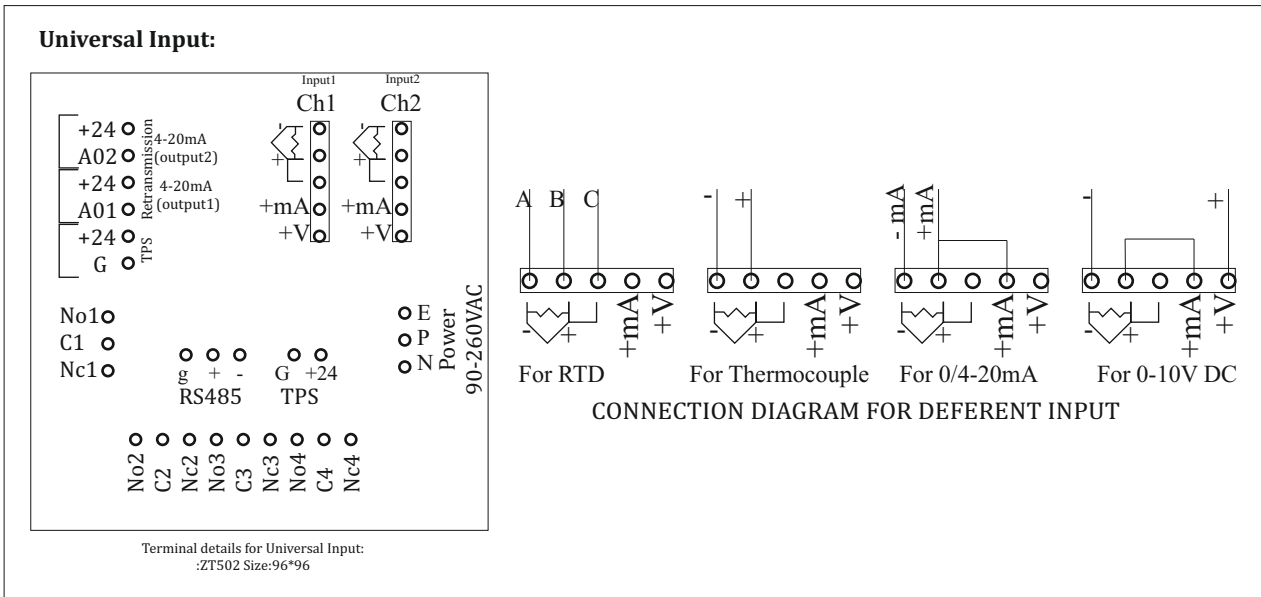
Option 9:(X)

- 0 – None

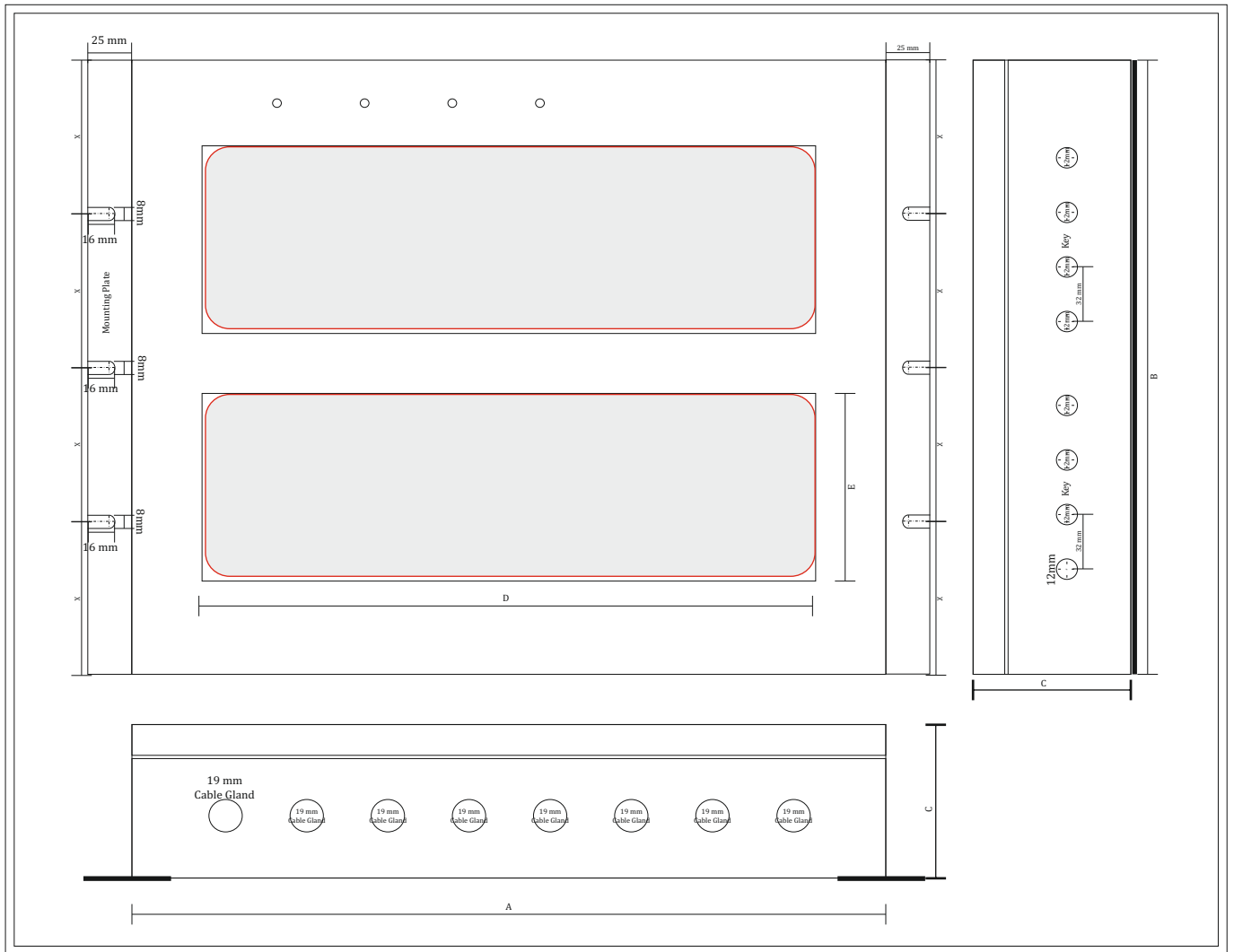
Option 10:(X)

- 0 – None

Terminal Details:



Metal Plate Jumbo Display Dimensions



Digit Size	A(mm)	B(mm)	C(mm)	D(mm)	E(mm)
1.8"(4-Digit)	225	260	90	150	50
1.8"(5-Digit)	265	260	90	190	50
2.3"(4-Digit)	265	280	90	195	65
2.3"(5-Digit)	310	280	90	242	65
4"(4-Digit)	430	360	90	350	110
4"(5-Digit)	520	360	90	440	110
6"(4-Digit)	520		90	440	160
6"(5-Digit)	630		90	550	160
6"(5-Digit)LED	675		125	635	160

Note: All Dimension are in mm
Error: +/-5mm

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