Product Catalog

2024 - 25

PPI
The Perfection Experts

MODBUS RTU & TCP-IP Input / Output Modules

Ethernet Input / Output Modules

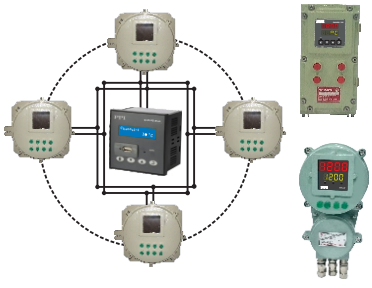
GSM / GPRS Input / Output Modules

Signal Isolators, Transmitters & Converters

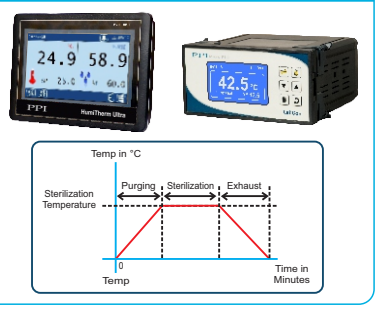
Data Loggers & Data Logging Systems

Process Indicators, Controllers & Scanners

Flameproof / Weatherproof Instruments



Micro PLC Based Control Systems for Lab Equipment



Temperature & Humidity Sensors

35 YEARS

www.ppiindia.net

MODBUS RTU & TCP-IP Input / Output Modules

Digital Input Modules

DIMS 816R

- 8 or 16 Digital Input Channels
- Input Type Programmable as -
  - Dry (Potential-free) Open/Close Contact
  - Wet Contact / High-Low Voltage Levels
  - PNP & NPN Sensor with 12VDC Internal Supply
  - PNP & NPN Sensor with 5 to 30VDC External Supply
- Programmable Filter Time Constant for each Input
- Monitors Level (High/Low) & Transition (High-to-Low & Low-to-High) Input Status
- Front Panel LED Indicators for DI Status
- Isolated RS485 Port for Modbus RTU Protocol with Programmable Slave ID, Baud Rate & Parity
- DIN-Rail Size : 22.5(W) X 101(H) X 119(D), mm
- Supply Voltage : 18 ~ 32 VDC (24 VDC Nominal)

Digital Output Modules

- **DOMS 816R**
  - 8 or 16 Channel Source Type Outputs
  - 9 to 30VDC, 75mA per Output
- **DOMS-12**
  - 12 Channel Sink Type Outputs
  - 5 to 30 V, 200 mA (Open Drain)
- 3 Digital Output Function Modes
  - On-Off Output
  - Re-Triggerable Pulse Output
  - Pulse Train Output
- Front Panel LED Indicators for DO Status
- Isolated RS485 Port for Modbus RTU Protocol with Programmable Slave ID, Baud Rate & Parity
- DIN-Rail Size : 22.5(W) X 101(H) X 119(D), mm
- Supply Voltage : 18 ~ 32 VDC (24 VDC Nominal)

DOMS 816R

DOMS-12

Analog Input Modules

AIMS-4/8X

- 4 (AIMS-4X) or 8 (AIMS-8X) Input Channels
- Input Type Versions
  - **U** : Universal (TC, Pt100, Volts, mV & mA)
  - **P** : All Channels RTD Pt100 (3-Wire)
  - **T** : Thermocouples / mV
  - **D** : DC V / mA
- 16 Bit Sigma-Delta ADC (± 32,768 Counts)
- Process Values Available as both 16-Bit Signed Integer & 32-Bit Single Precision Float
- 4 Programmable Soft Alarms per Channel
- Fast Channel Update Rate
- 2-wire, Half-Duplex, Start-Stop Synchronized RS485 Serial Port
- Three-way Isolation Eliminates Potential Ground Loops between Power, Inputs and RS485 Port
- DIN-Rail Size : 22.5(W) X 101(H) X 119(D), mm
- Supply Voltage : 18 ~ 32 VDC (24 VDC Nominal)

CIM Plus - 816

- 8 or 16 Analog Input Channels
- Universal Input : TC, Pt100, Volts, mV and mA
- 16 Bit Sigma-Delta ADC (±32, 768 Counts)
- Fast Channel Update Rate
- 4 Programmable Soft Alarms per Channel
- 2-wire, Half-Duplex, Start-Stop Synchronized, Isolated RS485 Serial Port.
- Wall Mounting : 115 (W) X 208 (L) X 52 (D), mm
- Supply Voltage : 85 to 264 VAC, 50/60 Hz

Analog Output Modules

AOMS-4/8U

- 4 (AOMS-4U) or 8 (AOMS-8U) Analog Output Channels
- Each Channel Independently Programmable for DC Current (0-20 mA, 4-20 mA & 0-10 mA) or Voltage (0-5 V, 1-5 V & 0-10 V) Output
- 14 Bit Output Signal Resolution
- Programmable Min / Max Counts Corresponding to Signal Low & Signal High Outputs
- Programmable Fail-Safe Output Signal Level Against Communication Link Failure
- Three-way Isolation Eliminates Potential Ground Loops between Power, Outputs and RS485 Port
- 2-wire, Half-Duplex, Start-Stop Synchronized RS485 Serial Port
- DIN-Rail Size : 22.5(W) X 101(H) X 119(D), mm
- Supply Voltage : 18 ~ 32 VDC (24 VDC Nominal)

Analog + Digital Input / Output Combo Modules

COMS 40C4

COMS 2288

COMS 4444

- **Models**
  COMS40C4 : 4 AI + 12 DI + 4 DO
  COMS2288 : 2 AI + 2 AO + 8 DI + 8 DO
  COMS4444 : 4 AI + 4 AO + 4 DI + 4 DO
- Universal Analog Inputs : Thermocouples, RTD Pt100, mA, mV, V
- Analog Outputs : V (0-5/10V) or mA (0/4-20mA)
- Digital Inputs : Dry / Wet Contact
- Digital Outputs : 9 to 30 VDC @ 75mA per O/P (Source)
- 4 Programmable Soft Alarms per Analog Input
- Three-way Isolation Eliminates Potential Ground Loops between Power, Inputs / Outputs and RS485 Port
- 2-wire, Half-Duplex, Start-Stop Synchronized, RS485 Serial Port.
- DIN-Rail Size : 22.5(W) X 101(H) X 119(D), mm
- Supply Voltage : 18 ~ 32 VDC (24 VDC Nominal)

Ethernet TCP-IP Analog Input Module

AIME-8U

- 8 Universal Analog Input Channels :
  TC, RTD Pt100, RTD Pt1000, Volts, mV & mA
- 16 Bit Sigma-Delta ADC (± 32,768 Counts)
- Process Values Available as both 16-Bit Signed Integer & 32-Bit Single Precision Float
- 4 Programmable Soft Alarms per Channel
- Fast Channel Update Rate
- Password Protected Web-Based Configuration
- Ethernet Connectivity at 10/100 Mbps with Automatic Cable Detection
- MODBUS TCP/IP Protocol Support
- DIN-Rail Size : 22.5(W) X 101(H) X 119(D), mm
- Supply Voltage : 18 ~ 32 VDC (24 VDC Nominal)

Ethernet Input / Output Modules

Industrial Grade IoT Module

TCW242

- 4 Digital Inputs, 4 Analog (0 -10V / 0-20mA) Inputs & 24 MODBUS RTU Sensors / User Registers
- 4 High Current Relay Outputs
- 4 Schedules for Real-Time Relay Control Outputs
- Web-Based Configuration & Control
- 24 Configurable Alarms
- Data Logging Capacity for Up to 70,000 Records
- Secured Email Transfer with TLS 1.0, TLS 1.1 and TLS 1.2 Support
- Periodical HTTP/HTTPS Post of XML/JSON Status Files for Client-Server Systems
- MODBUS TCP/IP Protocol Support
- MQTT 3.1.1 Protocol Support
- HTTP API Commands
- Network Time Protocol (NTP) & SNMP v.2 Support
- Rugged DIN-Rail / Wall-Mountable Enclosure
- Supply Voltage : 10 to 28 VDC

Energy Monitoring Module

TCW260

- 4 Isolated Digital Inputs with S0 Interface (EN62053-31) Compatibility
- ON/OFF & Counter Modes for the Digital Inputs
- 6 Isolated Analog Inputs (0/20mA or 0/10V)
- RS485 Isolated Interface for up to 24 MODBUS RTU Registers
- Up to 24 Channels for Voltage / Current or Energy Monitoring
- Up to 24 Categorized Alarms with Flexible Setup
- Data Logging Capacity for Up to 70,000 Records
- Periodical HTTP/HTTPS Post of XML/JSON Status Files for Client-Server Systems
- MQTT 3.1.1 Protocol Support
- HTTP API Commands
- Network Time Protocol (NTP) & SNMP v.2 Support
- Rugged DIN-Rail / Wall-Mountable Enclosure
- Supply Voltage : 10 to 28 VDC

Data Logging Module

TCW220

- 2 Digital Inputs, 2 Analog (0 -10V) Inputs & Upto 8 1-Wire Sensors
- 4 High Current Relay Outputs
- Data Logging Capacity for Up to 70,000 Records
- Password Protected Web Based Configuration & Control
- SNMP Traps for Alarm Alerts to Up to 5 Recipients
- MODBUS TCP/IP Support
- E-mails for Alarm Alerts to Up to 5 Recipients
- XML/JSON Status Files & HTTP API Commands for Client-Server Systems
- Network Time Protocol (NTP) Support
- Periodical HTTP Post for Client-Server Systems
- Supply Voltage : 10 to 28 VDC

'T + RH' Data Logging Module

TCW210TH

T+RH MODBUS Sensor

- Temperature & Humidity Data Logger for up to 70,000 Records
- Temperature, Humidity and Dew Point Graphical Presentation
- MODBUS TCP/IP Support
- SNMP v2 Support with Trap Alerts to up to 5 Recipients
- Secured Email Transfer with TLS 1.0, TLS 1.1 and TLS 1.2 Support
- XML/JSON and HTTP API Commands for Client-Server Systems
- Network Time Protocol (NTP) Support
- ThingSpeak Service Support
- Supply Voltage : 10 to 28 VDC

Analog Output Module

TCW280

- 2 Analog Voltage or Current Outputs with 12-Bit Resolution
- 4 Open Drain Outputs with PWM & ON/OFF Modes
- 2 Relays with NO / NC Contacts
- Password Protected Web Based Configuration & Control
- MODBUS TCP/IP Support
- SNMP Traps for Alarm Alerts to Up to 5 Recipients
- Periodical HTTP Post for Client-Server Systems
- XML/JSON Status Files & HTTP API Commands for Client-Server Systems
- Network Time Protocol (NTP) Support
- Supply Voltage : 10 to 28 VDC

Digital Input / Output Module

TCW181B-CM

- 1 Digital Input (Dry Contact & Logic Level)
- 8 Relay Outputs with NO / NC Contacts
- Password Protected Web Based Configuration & Control
- Email & SNMP Traps Sending for Alert Conditions
- XML & HTTP API Commands
- Rugged DIN-Rail / Wall-Mountable Enclosure
- Supply Voltage : 10 to 14 VDC

Remote Input / Output Modules

TCW122B-CM

- 2 Digital Inputs, 2 Analog (0 to 60VDC) Inputs & Up to Two 1-wire Sensors
- 2 Relays with NO / NC Contacts
- Password Protected Web Based Configuration & Control
- Smart Temperature and Humidity Monitoring and Control
- Email & SNMP Traps Sending for Alert Conditions
- XML & HTTP API Commands
- Supply Voltage : 10 to 14 VDC

Remote Relay Control Modules

TCW122B-RR

- 2 Digital Inputs (Dry Contact & Logic Level)
- 2 Relay Outputs with NO / NC Contacts
- Password Protected Web-Based Configuration
- 2 Devices can be Paired in "Client - Server" Modes for Remote Relay Control
- Manual or DHCP Network Configuration
- Device ID Filtering
- Supply Voltage : 10 to 14 VDC

Device mode :	Client	**Device mode :**	Server
Device IP :	77.85.132.175 (public)	**Device IP :**	77.82.132.112 (public static)
Server IP : Port :	77.82.132.112 : 60514	**Port :**	60514

GSM / GPRS Modules

Remote Input/Output + Data Logging Module

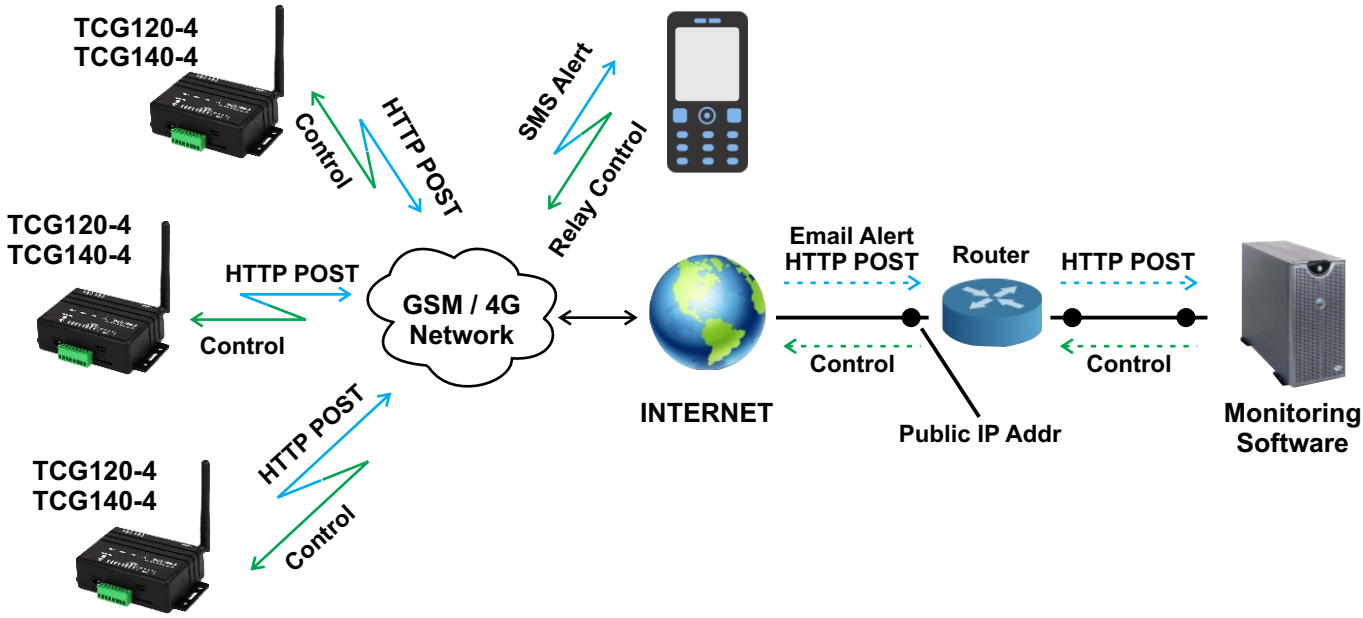
TCG140-4

- 4 Analog Inputs with 0-10VDC or 0-20mA Mode (WEB Control)
- Up to 8 1-Wire / MODBUS RTU Sensors Interface
- 2 Digital "Dry Contact" Inputs & 4 Relay Outputs with NO / NC Contacts
- LTE Cat.1 Communication with up to 5 Mbit Upload (Also Supports 3G & 2G)
- Multi-Band Connectivity
- Setup via USB (Windows Setup Program) or SMS
- Data Logger for Up to 70,000 Records
- Periodical Upload of Data Logger File to a Remote HTTP Server
- HTTP Post – XML Data is Sent Periodically to a Remote HTTP Server
- HTTP API Commands
- SMS Alarm Alerts (Up to 5 Numbers)
- Email Alarm Alerts (Up to 5 Email Recipients), SMTP with TLS Support
- Single Call Control for the Relays from Up to 5 Numbers
- Supply Voltage : 10 to 28 VDC

Remote Input/Output Monitoring Module

TCG-120-4

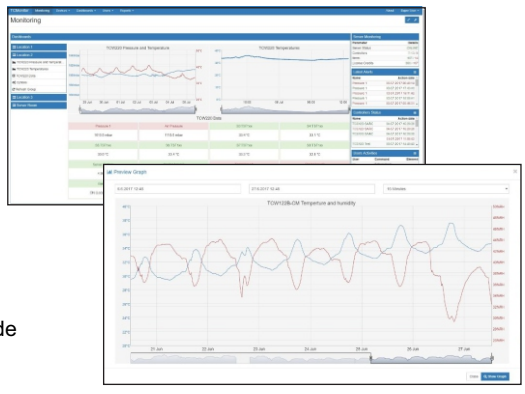
- 2 Digital Inputs & 2 Relay Outputs with NO / NC Contacts
- 2 Analog (0 to 60VDC) Inputs
- 1-Wire Support for Up to 4 Temperature & Humidity-Temperature Sensors
- LTE Cat.1 Communication with up to 5 Mbit Upload (Also Supports 3G & 2G)
- Multi-Band Connectivity
- Setup via USB (Windows Setup Program) or SMS
- SMS Alarm Alerts (Up to 5 numbers)
- Email Alarm Alerts (Up to 5 Email Recipients), SMTP with TLS Support
- Single Call Control - the Relays can be Controlled with a Single Call from up to 100 Numbers
- Push Mode – XML Data is Sent via HTTP Post to a Remote Server
- HTTP API Commands
- Supply Voltage : 10 to 28 VDC



PC Software for Ethernet / GSM Modules

TC Monitor - Remote Monitoring Software

- Minimum System Requirements
  - Operating System: Windows 10 or Later
  - Free Disk Space: 1 GB
  - RAM: 2 GB (4 GB Recommended)
  - Internet Connection
- Graphical & Data Dashboards for Better Visualization
- Distributed Monitoring of Controllers in "Client" Mode
- Alarm Notifications & User Activities Log
- Easy Access to the Raw Data Tables, Export in "csv" Format
- Database Management
- Sending Commands to Controllers in "Server" & "Client" Mode
- Command Status Log



Free License for Monitoring & Control of Up to 10 Parameters

Signal Isolators & Converters

Single TC/RTD Input - Single/Dual mA/V Output

SIG-351T
Single Output

SIG-352T
Dual Output

- Programmable Thermocouple (J, K, T, R, S, B, N) & RTD Pt100 Input
- Programmable Outputs : mA (0/4-20) / V (0-5/10)
- Settable Input & Output Ranges
- Single (SIG-351T) or Dual (SIG-352T) Output
- 1.5KV AC Isolation between Power Supply, Input, OP1 & OP2 (OP2 for model SIG-352T)
- Built-in Lead Resistance Compensation for RTD Input & CJC for Thermocouple Input
- Input Resolution/Accuracy :
  16 Bit / ± 0.25% of reading ± 1 LSD
- Output Resolution/Accuracy :
  14 Bit / ± 0.1% of FS
- Burden : 700Ω Max. for mA / 1KΩ Min. for V O/P
- Programmable Burnout (Scale Up / Scale Down)
- Parameter Configuration Using Free PC Tool
- Universal Power Supply : 20~265 V AC/DC
- DIN-Rail Mounting : 35(W) X 75(H) X 107(D)

Single mA/V Input - Single/Dual mA/V Output

- Programmable DC mA (0/4-20) or DC V (0-5/10) Input
- Programmable Outputs : mA (0/4-20) / V (0-5/10)
- 24VDC/30mA Excitation Supply for Transmitter, Isolated from Power, OP1 & OP2
- Settable Input & Output Ranges
- Single (SIG-351D) or Dual (SIG-352D) Output
- 1.5KV AC Isolation between Power Supply, Input, OP1 & OP2 (OP2 for model SIG-352D)
- Input Resolution/Accuracy :
  16 Bit / ± 0.20% of reading ± 1 LSD
- Output Resolution/Accuracy :
  14 Bit / ± 0.1% of FS
- Burden : 700Ω Max. for mA / 1KΩ Min. for V O/P
- Programmable Burnout (Scale Up / Scale Down)
- Parameter Configuration Using Free PC Tool
- Universal Power Supply : 20~265 V AC/DC
- DIN-Rail Mounting : 35(W) X 75(H) X 107(D)

SIG-351D
Single Output

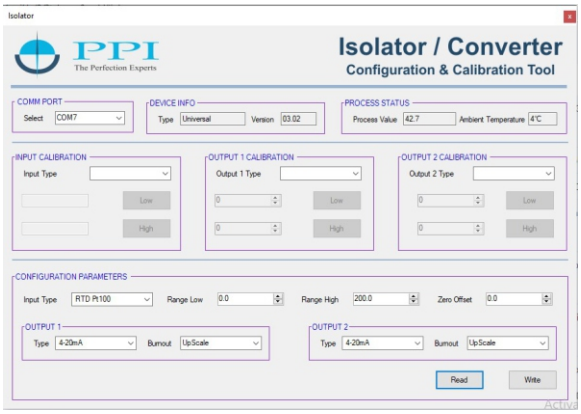
SIG-352D
Dual Output

Economic mA/V Single Input - Single Output

- Programmable Input : mA (0/4-20) / V (0-5/10)
- Programmable Output : mA (0/4-20) / V (0-5/10)
- Settable Input & Output Ranges
- 1.5KV AC Isolation between Power Supply, Input & Output
- Input Resolution/Accuracy :
  16 Bit / ± 0.20% of reading ± 1 LSD
- Output Resolution/Accuracy :
  14 Bit / ± 0.1% of FS
- Burden : 700Ω Max. for mA / 1KΩ Min. for V O/P
- Programmable Burnout (Scale Up / Scale Down)
- Parameter Configuration Using Free PC Tool
- Power Supply : 18~32 VDC (24 VDC Nominal)
- DIN-Rail Mounting : 22(W) X 75(H) X 107(D)

SIG-221D

Free PC Configuration Tool



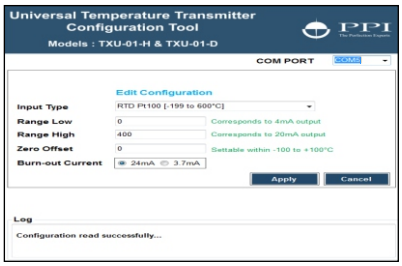
2-Wire, Non-Isolated, DIN-Rail / Head-Mount Temperature Transmitters

Programmable Thermocouple/RTD Transmitters

TXU-01-D

TXU-01-H

Configuration Tool



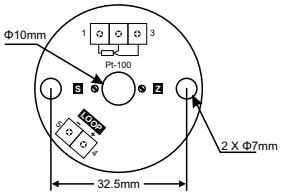
- Programmable Input Type : Pt100, J, K, R, S, T, B, N
- Programmable Temperature Range
- Software Linearization Using Look-up Table
- Built-in Lead Resistance Compensation for RTD & CJC for Thermocouple Input
- Input Accuracy : ± 0.25% of FS
- Output Accuracy : ± 0.1% of FS
- Free PC Based Configuration Tool
- DIN-Rail Size : 22(W) X 75(H) X 107(D), mm
- 12 to 36 VDC Supply Voltage (24 VDC Nominal)

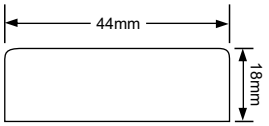
Fixed Range RTD Pt100 Transmitters

TXR-01-D

TXR-01-H

- RTD Pt100 3-Wire / 2-Wire Input
- Various Factory Set Ranges :
  -100 to 100°C
  -50 to 250°C, -50 to 150°C
  -20 to 250°C, -20 to 150°C
  0 to 400°C, 0 to 300°C, 0 to 250°C,
  0 to 200°C, 0 to 150°C, 0 to 100°C,
  0 to 50°C
- Custom Ranges on Request
- Input Accuracy : ± 0.25% of FS
- Output Accuracy : ± 0.1% of FS
- 12 to 36 VDC Supply Voltage
- DIN-Rail Size :
  22(W) X 75(H) X 107(D), mm





Data Loggers & Data Logging Systems

Universal Process Data Loggers with Graphic Display

ARC 0408R

4 / 8 Channels
128X64 Graphic Display
96(H) X 96(W) X 85(D), mm

ScanLog 96

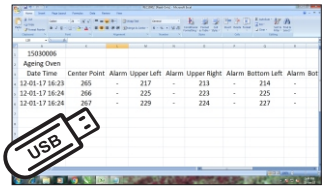
Single / Dual Channels
Alpha-numeric LCD Display
96(H) X 96(W) X 110(D), mm

ScanLog

4 / 8 / 12 / 16 Channels
160X80 Graphic Display
80(H) X 160(W) X 144(D), mm

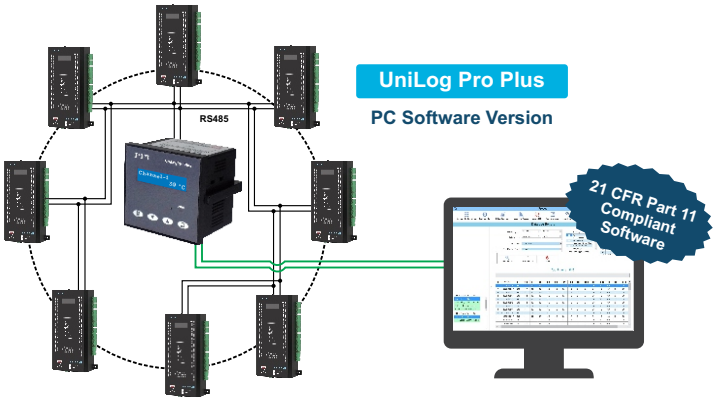
21 CFR Part 11 PC Interface

Pen-Drive Interface



- Pen-Drive (USB Port) & PC Interface (Serial Port) Versions
- Jumper-less Universal Input for Each Channel : Thermocouples, RTD Pt100, mV, V, mA
- Fast Channel Update Rate : 250 mS per Channel
- Each Channel with Up to 4 Programmable Soft Alarms
- Optional, 4 Common Relay Outputs for Alarms
- Optional 1 or 2 Excitation Voltage Outputs : 5V or 24V (Isolated)
- User Assigned Channel Names for Easy PV Identification
- Huge Built-in Data Storage Capacity
- Date / Time Stamped Process Value (PV) & Alarm Status Recording
- Continuous or Batch Recording with Programmable Recording Interval
- Event Generated Records : Power-up, Alarm Toggle, RTC / Recording Interval Changed
- Free 21 CFR Part 11 Compliant Software with PC Interface Version
- Easy Data Transfer to PC in Excel Format for Pen-Drive Version
- Supply Voltage : 85 to 264 VAC, 50/60 Hz

Modular Universal Process Data Loggers

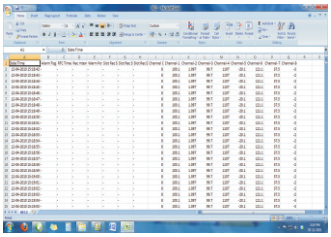


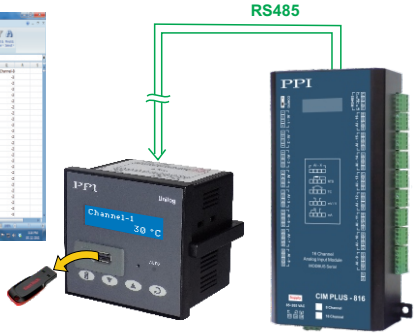
UniLog Pro Plus

PC Software Version

UniLog

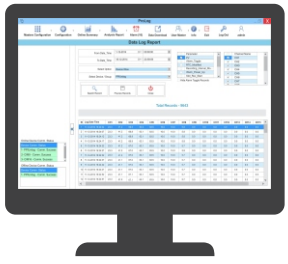
Pen-Drive Version





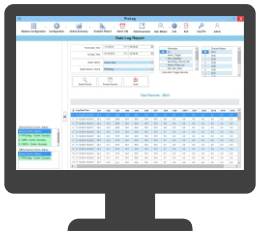
- 2X16 Character LCD Display
- UniLog Pro Plus : 8 to 128 Field-Expandable Channels
- UniLog : Fixed 8 or 16 Channels
- Jumper-less Universal Input for Each Channel : Thermocouples, RTD Pt100, mV, V, mA
- Fast Channel Update Rate : 250 mS per Channel
- Each Channel with Up to 4 Programmable Soft Alarms
- User Assigned Channel Names for Easy PV Identification
- Huge Data Storage Capacity : Appx. 38,56,000 Records
- Date / Time Stamped Process Value (PV) & Alarm Status Recording
- Continuous or Batch Recording with Programmable Recording Interval
- Event Generated Records : Power-up, Alarm Toggle, RTC / Recording Interval Changed
- Free 21 CFR Part 11 Compliant Software with PC Interface Version
- Easy Data Transfer to PC in Excel Format for Pen-Drive Version
- Supply Voltage : 85 to 264 VAC, 50/60 Hz

ProLog : 21 CFR Part-11 Compliant PC Software (Windows 10 & Above)

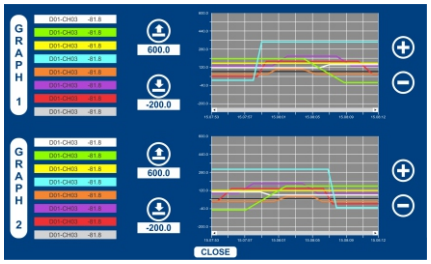


- Supports Multiple Data Logging Units
- Auto Start-up on PC Power-up
- Online Display in Graphical & Tabular Forms
- SMS and/or Email Alerts on Alarm Conditions
- Automatic Periodic Uploading of Stored Records
- Access Control According to Authority Level
- User Actions with Signing & Authorization
- Automatic Password Expiry
- Manual & Auto Back-up Facility with Archiving
- Data Log Reports with User Selectable Parameters & Channels with Configurable Title, Footer & Header
- Data Log Report, Alarm Log Report, History Graph & Audit Trail Report in PDF & EXCEL formats
- Audit Trail History of Critical Events & User Actions

Touch Panel Universal Process Data Logger



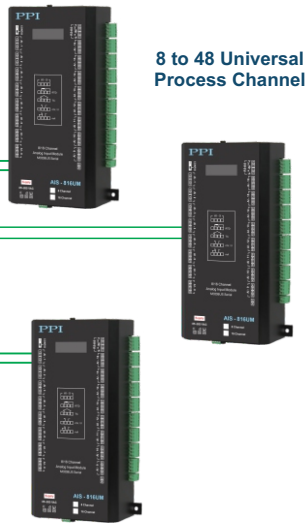
21 CFR Compliant
PC Software



UniLog Ultra

7" Color Touch Screen
30,000 Records Storage Capacity

RS485

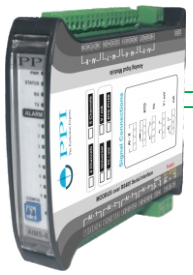


8 to 48 Universal
Process Channel

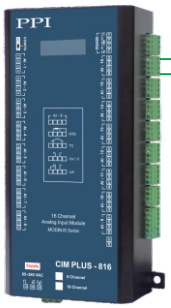
- Data Logging System Comprising Central 7" Touch Panel User Interface & One or More 8/16 Channel Process Interface Modules
- Expandable 8 to 48 Channels in Multiples of 8 Channels
- Each Channel with Up to 4 Programmable Soft Alarms
- Configurable Device & Channel Names
- Configurable Dashboard for 8 / 16 / 24 / 48 Channel Simultaneous PV View with Color Change for Alarm Indication
- Simultaneous Single/Dual Online Graph View for Upto 8 Channels Each
- Universal Input for Each Channel (Thermocouple / RTD / mV / V / mA)
- Large Data Storage Capacity : Appx. 30,000 Records
- Date / Time Stamped Recording of Process Values & Alarms
- Event Generated Records : Alarm Toggle, RTC Change, Recording Interval Change & Power-On
- Free 21 CFR Part 11 Compliant Software with PC Interface Version

Online Monitoring & Data Logging

AIMS-4/8X



CIM Plus-816



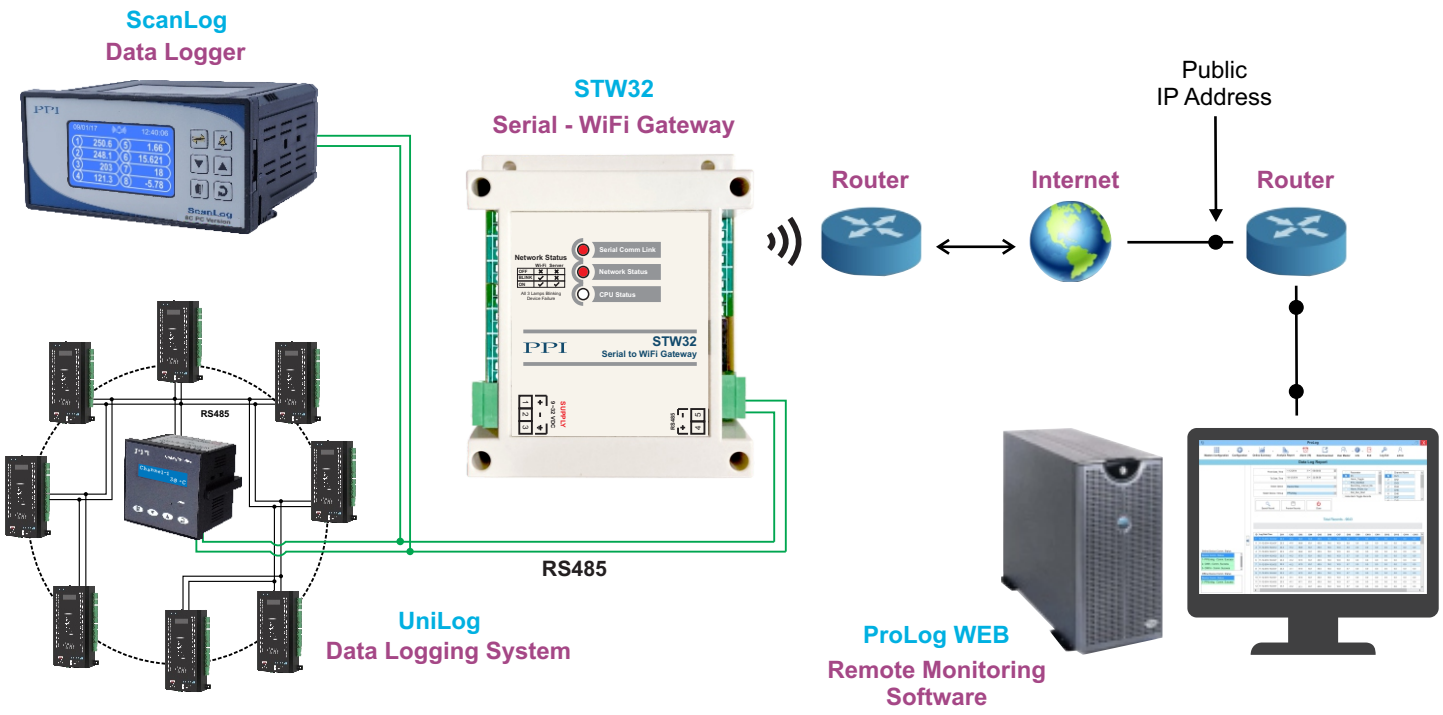
FREE
Data Logging Software

Scanex

Scanex Plus

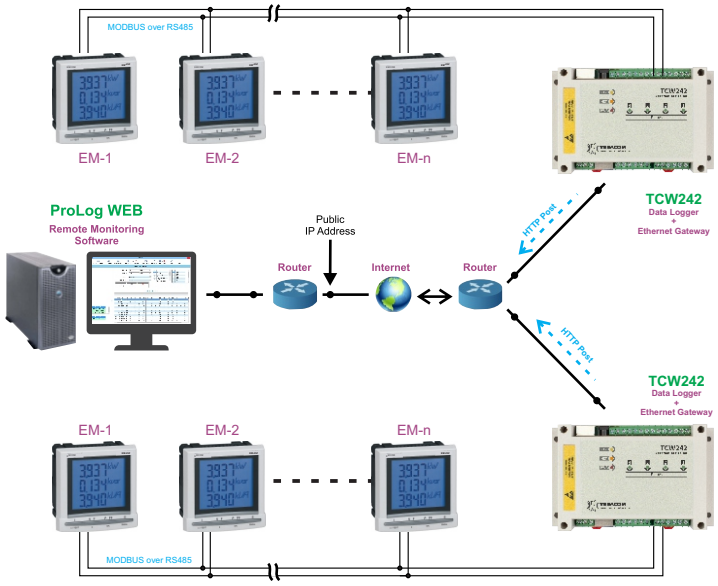
- Free Windows Based Data Logging Software (**ProLog**) Supports Multiple MODBUS Based Multi Channel Devices
- Supported Devices :
  Scanex : 4 / 8 / 12 / 16 Channel Universal Temperature Scanner
  Scanex Plus : 4 / 8 / 12 / 16 Channel Universal Process Scanner
  AIMS-4/8U : 4 / 8 Channel Universal Analog Interface Module
  CIM Plus 816 : 8 / 16 Channel Universal Analog Interface Module
- Programmable Recording Interval (Min 2 Seconds)
- Online Display of PV in Tabular & Graphical Forms with Alarm Indication
- Programmable Channel Naming & Grouping
- Manual & Auto Backup Facility with Archiving
- Data Log Reports with Configurable Title, Header & Footer
- Data Log Report, Alarm Log Report, History Graph & Audit Trail report in PDF & EXCEL Formats
- Multi-Level Password Protected Access

Web Based Data Logging System



- Supports Multiple Data Logging Units
- Can Be Installed on Windows Server / Non server & Linux Platforms
- Auto Start-up on PC Power-up
- Online Display in Graphical and Tabular Forms
- SMS, Email & App Based Push Notifications on Alarm Conditions
- Automatic Periodic Uploading of Stored Records
- Role-Based Access Control with Authority Levels
- User Actions with Digital Signing and Authorization
- Automatic Password Expiry and Enhanced Security
- Manual and Automated Back-Up Facility with Archiving
- Customizable Data Log Reports with User-Selectable Parameters, Channels, and Configurable Titles, Headers, and Footers
- Data Log Reports, Alarm Log Reports, History Graphs, and Audit Trail Reports in PDF and Excel Formats
- Audit Trail History of Critical Events and User Actions
- Web-Based Access from Any Modern Browser
- Mobile-Friendly Design for Real-Time Monitoring On-the-Go
- Cloud-Ready Deployment for Scalability
- Customizable Themes and Dashboards
- Real-Time Collaboration with Multi-User Support
- Data Export in Multiple Formats for Analysis and Sharing
- Email Report Scheduling for Automated Report Delivery
- Paperless Report Review and Approval Workflows with Electronic Signatures

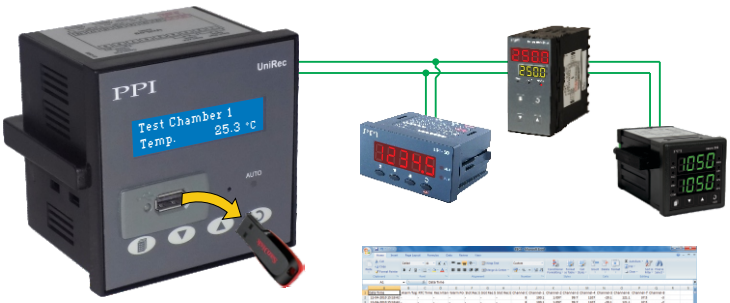
Web Based Energy Monitoring System



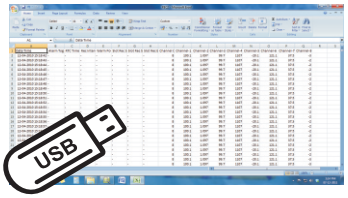
- Seamless Integration with any 3rd Party MODBUS over Serial (RS485) Enabled Energy Meters
- Powerful Web Based PC Software for End-to-End Energy Management Solution with the Following Salient Features :
  - ✓ Live Data on Dashboard with Channel-wise Grouping
  - ✓ Daily, Weekly & Monthly Customizable Reports for Energy Consumption Trend Analysis
  - ✓ Auto Emailing of Reports & Real Time Alarm Notifications
  - ✓ History Graphs and Audit Trails for Comprehensive Data Analysis
  - ✓ Role-Based Access Control for Security & Compliance
  - ✓ Mobile View Support for On-the-Go Monitoring
  - ✓ Data Export in Multiple Formats for Analysis and Sharing
  - ✓ Email Report Scheduling for Automated Report Delivery
  - ✓ Paperless Report Review and Approval Workflows with Electronic Signatures

Data Recorder for Indicators & Controllers

UniRec Pro
PC Interface



UniRec
Pen-Drive Interface



- Fetches & Records PV Data from a Range of PPI's Widely used Process Indicators & Controllers
- Supports Multiple Indicators / Controllers (Any Mix of Models)
- User Programmable Name for Each Channel
- Periodic (User Settable Interval) Recording of PV and Alarm Status
- Huge Data Storage Capacity (2 GB Memory, Approx. 38,56,000 Records)
- Date / Time Stamped Records
- Supply Voltage : 85 ~ 265 VAC

UniRec Pro (PC Interface)

- Accompanied with Windows Based Free PC Software for Record Transfer & Analysis with following Salient Features :
  - ✓ Online Data Display in Tabular & Graphical Forms with Alarm Indications
  - ✓ Automatic Periodic Record Fetching from UniRec Pro
  - ✓ Manual & Auto Back-up Facility with Archiving
  - ✓ Data Log Report, Alarm Log Report & History Graph in PDF & Excel Formats
- DIN-Rail Mount : 70(H) X 60(W) X 110(D), mm

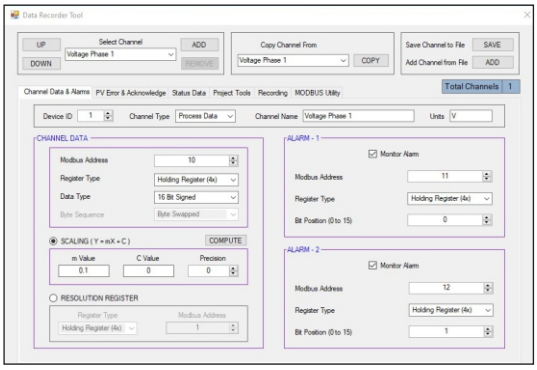
UniRec (Pen-Drive Interface)

- 2 X 16 Characters LCD Display
- Record Transfer to PC via Pen-Drive (Memory Stick)
- CSV formatted Records Facilitates Direct View in EXCEL Sheet
- Panel Mount : 96(H) X 96(W) X 65(D), mm

MODBUS Data Logger

- Monitor & Record Process Values & Alarms for Upto 25 Channels
- Free PC Software Tool for Easy Configuration
- Supports 16 & 32 Bit Data Including Single Precision Float for PV
- Process Value Scaling with Programmable Decimal Point
- Fault Status Monitoring & Acknowledge with User Set Messages
- User Programmable Channel Names
- Date / Time Stamped Records with Internal 2 GB Memory
- CSV Formatted Records for Direct View in Excel Sheet
- 2 X 16 Characters LCD Display for Channel-wise PV Indication with Alarm Status
- Programmable Recording Interval & Auto / Manual Display Mode

Free PC Configuration Tool



Process Indicators & Scanners

Universal Process Indicator

neuro 200

- Jumper-less Universal Input (Thermocouples, RTD Pt100, mA/mV/V)
- Programmable Range / Resolution for mA/mV/V Inputs
- Programmable Digital Filter & Zero Offset
- Built-in Lead Resistance Compensation for RTD Input & CJC for Thermocouple Input
- 32 Point User Linearization for mA/mV/V Inputs
- Facility to View & Store Min/Max Process Value
- User Selectable PV Units on Lower Readout
- 2 Programable Alarms with Relay Outputs
- Retransmission Output (0/4-20 mA) as Standard
- 24VDC Excitation Voltage (5VDC or 12VDC on Request)
- RS485 Serial Port (MODBUS RTU) as Standard
- Universal Supply Voltage : 85~264 VAC
- Dimensions (mm) : 48(H) X 48(W) X 94(D)

Advanced Universal Process Indicator

UPI-5D

- 5 Digits, 0.56" Height, Bright Red LED Display
- Jumper-less Universal Input (Thermocouples, RTD Pt100, mA/mV/V)
- 0.1 ºC/ºF Resolution for Thermocouple Inputs
- Programmable Range / Resolution for mA/mV/V Inputs
- Programmable Digital Filter & Zero Offset
- Square Root Extraction for Flow Rate Indication
- 32 Point User Linearization for mA/mV/V Inputs
- Facility to View & Store Min/Max Process Value
- 2 Programable Alarms with Relay Outputs
- Retransmission Output (0/4-20 mA) as Standard
- 24 VDC @ 40 mA Transmitter Excitation Voltage
- RS485 Serial Port (MODBUS RTU) as Standard
- Universal Supply Voltage : 85~264 VAC
- Dimensions (mm) : 48(H) X 96(W) X 82(D)

Enhanced Universal Process Indicator

- 2 Rows of 5 Digits Display (0.5" Height)
- Jumper-less Universal Input (Thermocouples, RTD Pt100, mA/mV/V)
- 0.1 ºC/ºF Resolution for Thermocouple Inputs
- Programmable Range / Resolution for mA/mV/V Inputs
- Programmable Digital Filter & Zero Offset
- 32 Point User Linearization for mA/mV/V Inputs
- Facility to View & Store Min/Max Process Value
- User Selectable PV Units on Lower Readout
- 4 Programable Alarms with Relay Outputs
- Retransmission Output (0/4-20 mA) as Standard
- 24 VDC @ 80 mA Transmitter Excitation Voltage
- RS485 Serial Port (MODBUS RTU) as Standard
- Universal Supply Voltage : 85~264 VAC
- Dimensions (mm) : 96(H) X 96(W) X 100(D)

neuro 100 EX

Extended Range Universal Process Indicator

- Enhanced Display Range : -19,999 to +99,999 Units, Suitable for Level & Volume Monitoring
- 2 Rows of 5 Digits Display (0.5" Height)
- User Selectable DC Linear Inputs : mA/mV/V
- Programmable Range & Resolution (1 / 0.1 / 0.01 / 0.001)
- 4 Programable Alarms with Optional Relay Outputs
- Retransmission Output (0/4-20 mA or 0-5/10 V)
- Programmable Digital Filter & Zero Offset
- User Selectable PV Units on Lower Readout
- 24 VDC @ 80 mA Transmitter Excitation Voltage
- RS485 Serial Port (MODBUS RTU) as Standard
- Universal Supply Voltage : 85~264 VAC
- Dimensions (mm) : 96(H) X 96(W) X 100(D)

neuro 100 Z

Flow Rate Indicator with Totalizer

FLOREX

- User Selectable DC Linear Inputs : mA/mV/V
- 5 Digit Flow Rate Indication with Programmable Time Base, Range and Resolution
- Square Root Extraction (ΔP to Flow Rate)
- 32-Point User Linearization for Non-Linear Input
- Facility to View & Store Min/Max Flow Rate
- Flow Rate Retransmission Output (0/4-20 mA)
- 2 Programable Flow Rate Alarms with Relay O/P
- 8 Digit Total Flow Indication with Automatic Roll-over & Over-flow Counts
- Recording of Total Flow Time (HH:MM:SS)
- Power-fail Retention of Total Flow & Time
- 2 Independent Total Flow Limits for Alarm & Batch Control with Relay Outputs
- 24 VDC @ 80 mA Transmitter Excitation Voltage
- RS485 Serial Port (MODBUS RTU) as Standard
- Universal Supply Voltage : 85~264 VAC
- Size (mm) : 96(H) X 96(W) X 100(D)

Process Indicators & Scanners

Economic Process Indicator with Alarms

Procex48

Procex72

Procex96

- 4 Digit, 7 Segment, Bright Red LED Display
- User Selectable DC Linear Inputs : mA/mV/V
- Programmable Range & Resolution (1 / 0.1 / 0.01 / 0.001)
- Programmable Zero Offset
- Facility to View & Store Min / Max Process Value
- Upto 2 Programmable Alarms with Optional Relay Outputs
- Universal Supply Voltage : 85~264 VAC
- Sizes (mm) :

  ProceX48 : 48(H) X 48(W) X 85(D)
  ProceX48H : 48(H) X 96(W) X 65(D)
  ProceX72 : 72(H) X 72(W) X 65(D)
  ProceX96 : 96(H) X 96(W) X 65(D)

Procex48H

Economic Temperature Indicator with Alarms

IndeX48+

IndeX72+

IndeX96+

- 4 Digit, 7 Segment, Bright Red LED Display
- User Selectable Inputs : J/K Thermocouples, RTD Pt100
- Programmable Digital Filter & Zero Offset
- Facility to View & Store Min / Max Process Value
- Upto 2 Programmable Alarms with Optional Relay Outputs
- Universal Supply Voltage : 85~264 VAC
- Sizes (mm) :

  IndeX48+ : 48(H) X 48(W) X 85(D)
  IndeX48H+ : 48(H) X 96(W) X 65(D)
  IndeX72+ : 72(H) X 72(W) X 65(D)
  IndeX96+ : 96(H) X 96(W) X 65(D)

IndeX48H+

'Temperature + Humidity' Indicator

HumiTherm-i Pro

- Universal Inputs (RTD/mA/V for Temperature & %RH) with Selection for Dry/Wet Configuration
- Min/Max Monitoring of Temperature & %RH
- Independent Zero Offset Adjustment for Temperature & %RH
- °C / °F Units Selection for Temperature Indication
- Factory Set Excitation Voltage (5/12/24 VDC @ 30 mA)
- 2 Independent Alarms for Temperature & %RH Each with Relay/SSR Outputs
- De-Humidifier Control with Relay Output
- RS485 Serial Port (MODBUS RTU) as Standard
- Universal Supply Voltage : 85~264 VAC
- Dimensions (mm) : 48(H) X 48(W) X 94(D)

Advanced 'Temperature + Humidity' Indicator

HumiTherm-iS Pro

- 2 Rows of JUMBO Bright Green 0.8" 7-Segment LED Display, Designed for Sunlight Readability
- Universal Inputs (RTD/mA/V for Temperature & %RH) with Selection for Dry/Wet Configuration
- Min/Max Monitoring of Temperature & %RH
- Isolated Retransmission Outputs for Temperature & %RH
- Free PC Software for Online Data Monitoring & Recording
- 2 Independent Alarms for Temperature & %RH Each with Relay/SSR Outputs
- On-Off Control Loops for Temperature & %RH
- 24V or 12V or 5V DC Excitation Voltage
- RS485 MODBUS/RTU Communication Port
- Universal Supply Voltage : 85~264 VAC
- Dimensions (mm) : 96(H) X 96(W) X 84(D)

Universal Process / Temperature Scanners with Alarms & Relay Outputs

- 4, 8, 12 & 16 Channel Versions
- Min/Max PV Monitoring for Each Channel
- Programmable Range / Resolution for mA/mV/V Inputs
- 4 Programable Alarms for Each Channel
- 4 Common Alarm Relay Outputs (1 per Soft Alarm) **OR** Up to 16 Independent Alarm Relay Outputs (1 per Channel)
- Front Panel Alarm Status LEDs & Ack Key
- Free PC Software for Online Data Recording
- Fast Channel Update Rate : 0.25 Seconds
- Auto/Manual Display Scan Mode
- Zero Offset Adjustment for Each Channel
- RS485 Serial Port (MODBUS RTU) as Standard
- Universal Supply Voltage : 85~264 VAC
- Dimensions (mm) : 96(H) X 192(W) X 100(D)

ScaneX Plus
Universal Process Scanner

Jumper-less Universal Input
Thermocouples, RTD Pt100, mA, mV, V
for Each Channel

ScaneX
Universal Temperature Scanner

Jumper-less Universal Temperature Input
Thermocouples, RTD Pt100
for Each Channel

Single / Dual Loop Process Controllers

Universal Single Loop Process Controllers

- Universal Input (Thermocouples, RTD Pt100, DC Linear mA/mV/V)
- Built-in Lead Resistance Compensation for RTD & CJC for TC Input
- 24VDC @ 30mA Excitation Voltage for Transmitters
- Programmable Range / Resolution for DC Linear Inputs
- Programmable Input Signal Conditioning (Digital Filter & Zero Offset)
- Self Tune PID (with Auto/Manual Bump-less Transfer), On-Off or Pulsed On-Off Control
- Uni-Directional / Bi-Directional Control
- Universal Main Control Output (Relay / SSR Drive / mA or V), Isolated from other Circuits (Models neuro 102V Plus & neuro 202L Plus only)
- Built-in 16 Segment Ramp / Soak Setpoint Profile
- Optional, Remote & Auxiliary Setpoint Input
- Optional, Alarms & PV/SP Retransmission Outputs
- RS485 Serial Port (MODBUS RTU) as Standard
- Universal Supply Voltage : 85~264 VAC, 50/60 Hz
- Various DIN Standard Sizes :
  neuro 202 : 48 (H) X 48 (W) X 94 (D), mm
  neuro 102V Plus : 96 (H) X 48 (W) X 100 (D), mm
  neuro 202L Plus : 96 (H) X 96 (W) X 84 (D), mm

neuro 202

neuro 202L Plus

neuro 102V Plus

5 Digit Enhanced Universal Process Controller

neuro 102 EX

- 2 Rows of 5 Digits Display (0.5” Height)
- Universal Input (Thermocouples, RTD Pt100, DC Linear mA/mV/V)
- Programmable Range / Resolution for DC Linear Inputs
- Programmable Input Signal Conditioning (Digital Filter & Zero Offset)
- 32 Point User Defined Linearization for DC Linear Input
- Up to 3 Analog Outputs, 5 Digital Outputs & 2 Digital Inputs
- Self Tune PID, On-Off, Pulsed Control Mode
- Auto / Manual Control with Bumpless Transfer
- Uni-Directional / Bi-Directional Control
- Built-in 16 Segment Ramp / Soak Profile
- Auxiliary Control Set Point with Remote Switching Input
- Optional Programmable Alarms / Retransmission Outputs
- Optional Serial Communication Port
- Universal Supply Voltage : 85~264 VAC
- Dimensions (mm) : 96(H) X 96(W) X 100(D)

Universal Multi-Program Profile Controller

- Universal Input (Thermocouples, RTD Pt100, DC Linear mA/mV/V)
- 16 Profiles (Programs) of 16 Segments Each (8 Ramp + 8 Soak)
- Facility to Link Programs to Build Larger Profiles (Upto 256 Segments)
- Programmable Hold Band for Each Profile
- Online Profile Pause, Segment Skip / Advance
- Programmable Repeat Cycles for Each Profile
- Programmable Event Outputs per Segment
- Self Tune PID, On-Off, Manual Control Mode
- Uni-Directional / Bi-Directional Control
- Programmable Alarms, Retransmission Outputs & RS485 Serial Port
- Universal Supply Voltage : 85~264 VAC
- Dimentions (mm) : 48(H) X 48(W) X 110(D)

neuro 105

Open Loop Motorized Valve Controller

- Universal Input (Thermocouples, RTD Pt100, DC Linear mA/mV/V)
- Auto / Manual Control with Bumpless Transfer
- Forward - Reverse Relay Outputs for Motorized Valve Control
- Programmable Inertia and Backlash Time for Accurate Valve Control
- In-built 8 Segment Ramp/Soak Profile
- Optional Auxiliary Control Set Point with Remote Switching Input
- Programmable Alarms, Retransmission Outputs & RS485 Serial Port
- Universal Supply Voltage : 85~264 VAC
- Dimensions (mm) : 48(H) X 48(W) X 110(D)

neuro 104

Single / Dual Loop Process Controllers

Versatile Temperature Controller with Timer

Zenex Pro

- Universal Temperature Input (J, K, T, R, S, B, N Thermocouples & RTD Pt100)
- Programmable Digital Filter & Zero Offset
- Built-in Lead Resistance Compensation for RTD Input & CJC for Thermocouple Input
- Self Tune PID or On-Off Control
- Heat (Reverse) or Cool (Direct) Control Mode
- Relay / SSR & DC mA/V Control Output Versions
- Built-in Programmable Timer
- Auxiliary Control : Blower/Alarm/Compressor with Time Delay
- Digital Input for Low Water Level Detection
- RS485 Serial Port (MODBUS RTU) as Standard
- Universal Supply Voltage : 85~264 VAC
- Dimensions (mm) : 48(H) X 48(W) X 94(D)

Dual Channel Temperature PID Controller

Delta Pro

- 4 Digit Display for Each Channel
- Two Independent Control Loops in One Compact Enclosure
- Independent Programmable Input Types : RTD Pt100 & J / K / T / R / S / B / N Thermocouples
- Selectable Control - Self-Tune PID or On-Off
- Overshoot Inhibit Feature for PID Control
- SSR Control Outputs
- Independent Auxiliary Control for Blower / Alarm
- Factory Set Relay / SSR for Auxiliary Control Outputs
- RS485 Serial Port (MODBUS RTU) as Standard
- Universal Supply Voltage : 85~264 VAC
- Dimensions (mm) : 48(H) X 48(W) X 94(D)

'Temperature + Humidity' Controller

HumiTherm-c Pro

- Independent Displays for Temperature & Humidity
- Selectable Input Types for Temperature & Humidity Channels
- Dry / Wet Version Available
- Sensor Excitation Voltage (Factory Set 5/12/24 VDC @ 30 mA)
- Independent Zero Offset Adjustment for Temperature & Humidity
- Independent Self Tune PID Control Loop for Temperature & Humidity
- SSR Outputs for Heating and Humidification Control
- Relay / SSR Outputs for Compressor & Alarm
- Digital Input for Low Water Level Detection
- RS485 Serial Port (MODBUS RTU) as Standard
- Universal Supply Voltage : 85~264 VAC
- Dimensions (mm) : 48(H) X 48(W) X 94(D)

Advanced 'Temperature + Humidity' Controller

HumiTherm-cS Pro

- 2 Rows of JUMBO Bright Green 0.8" 7-Segment LED Display, Designed for Sunlight Readability
- Universal Inputs (RTD/mA/V) for Temperature & %RH with Selection for Dry/Wet Configuration
- 24V or 12V or 5V DC Excitation Voltage
- Isolated Retransmission Outputs for Temp & %RH
- Independent Programmable Alarms for Temperature & %RH with Common Relay Output
- Free PC Software for Online Data Monitoring & Recording
- Self Tune PID or On-Off Control Loops for Temp & %RH with Relay/SSR/mA/V Outputs
- Compressor Control Output (Relay / SSR) with Time Delay
- Digital Input for Low Water Level Detection
- RS485 MODBUS/RTU Serial Communication Port
- Universal Supply Voltage : 85~264 VAC
- Dimensions (mm) : 96(H) X 96(W) X 84(D)

Economic PID/On-Off Temperature Controller

OmniX48

OmniX72

OmniX96

- Dual Row 4 Digit Display
- Jumper-less Selectable J/K Thermocouples & RTD Pt100 Inputs
- Programmable Digital Filter & Zero Offset
- Built-in Lead Resistance Compensation for RTD Input & CJC for Thermocouple Input
- Self Tune PID or On-Off Control
- Overshoot Inhibit Feature
- Programmable Heat / Cool Control Mode
- Relay & SSR Drive Control Output
- Universal Supply Voltage : 85~264 VAC
- Dimensions (mm) :
  OmniX48 : 48(H) X 48(W) X 85(D)
  OmniX72 : 72(H) X 72(W) X 65(D)
  OmniX96 : 96(H) X 96(W) X 65(D)

Economic Temperature Controller with Timer

OmniX48+

OmniX72+

OmniX96+

- Jumper-less Selectable J/K Thermocouples & RTD Pt100 Inputs
- Programmable Digital Filter & Zero Offset
- Self Tune PID or On-Off Control
- Built-in Lead Resistance Compensation for RTD Input & CJC for Thermocouple Input
- Overshoot Inhibit Feature
- Heat (Reverse) or Cool (Direct) Control Mode
- Relay & SSR Control Output Versions
- Programmable Timer with Front / Remote Start
- Auxiliary Control : Blower / Alarm / Compressor with Time Delay
- Universal Supply Voltage : 85~264 VAC
- Dimensions (mm) :
  OmniX48 + : 48(H) X 48(W) X 85(D)
  OmniX72+ : 72(H) X 72(W) X 65(D)
  OmniX96+ : 96(H) X 96(W) X 65(D)

Single / Dual Loop Process Controllers

Open Frame Dual Set-point Temperature Controller with Programmable Input / Output & TIMER

- Jumper-less Selectable J/K Thermocouples & RTD Pt100 Inputs
- Programmable Digital Filter & Zero Offset
- Self Tune PID or On-Off Control
- Heat (Reverse) or Cool (Direct) Control Mode
- Both Output-1 & Output-2 are User Configurable as Relay or SSR
- In-built Programmable Timer
- Auxiliary Control (Output-2) : Blower / Alarm / Compressor with Time Delay
- Universal Supply Voltage : 85~264 VAC
- Dimensions (mm)

  Control Board : 95(H) X 95(H)

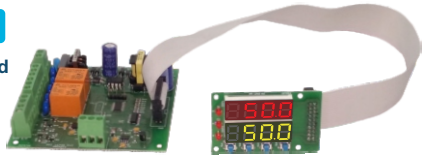
  Display Board :

  Large : 84.5(H) X 89.5(W)

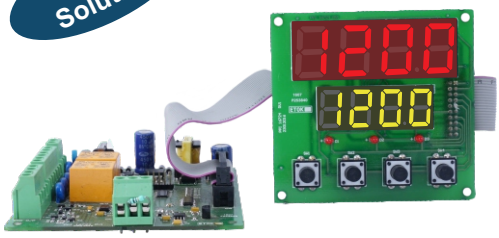
  Small : 40(H) X 66(W)

OmniX BTC 48

Small Display Board



OEM Solution



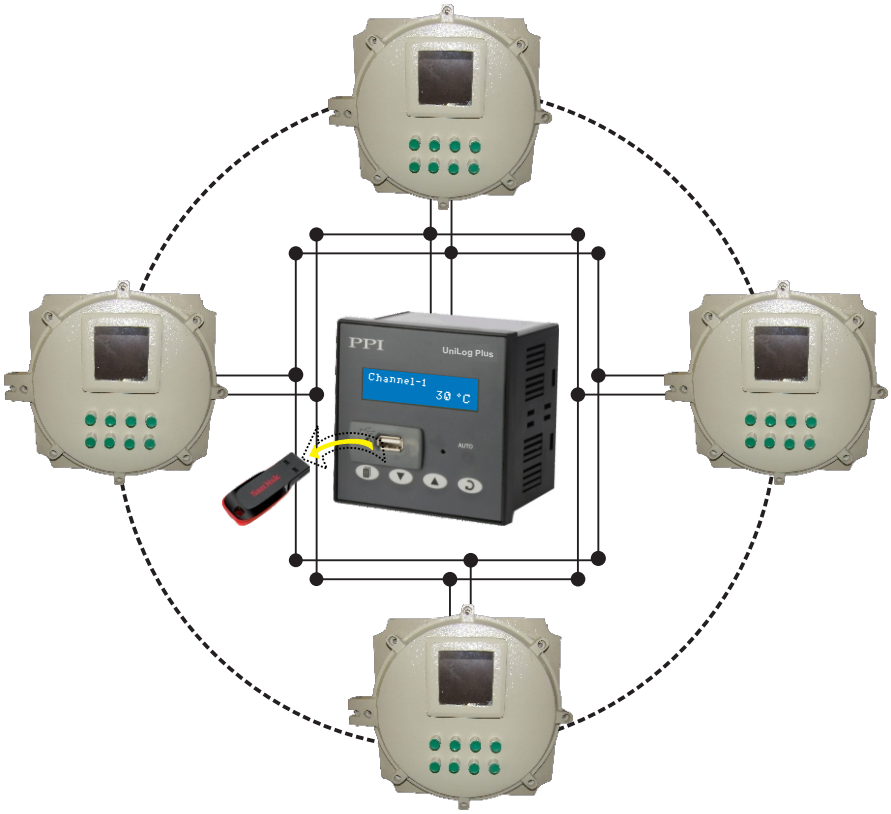
OmniX BTC 96

Large Display Board

Flameproof / Weatherproof Instruments

Indicators, Scanners, Data Loggers & Controllers

Data Logging System



Temperature / Process Controller

Temperature / Process Indicators

Temperature / Process Scanners

- Flameproof Certified Enclosure suitable for Gas Group IIA & IIB, as per IS 2148 (Gas Group IIC Available on Request)
- Weatherproof Certified Enclosure as per IP-55 of IS 2147
- Single / Multi Channel Temperature Indicator / Scanner, Single / Dual Setpoint Temperature Controllers, Universal Process Indicators / Controllers, 'Temperature + Humidity' Indicator / Controller, Data Loggers

Micro PLC Based Control Systems for Laboratory Equipment

BOD Incubators / Stability Chambers / Humidity Chambers / Lab Ovens / Muffle Furnaces / Autoclaves / Deep Freezers / Cooling Cabinet / Chillers .....

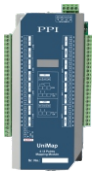
Controller for 'Stability Test' / 'Humidity' Chamber

Micro PLC Control + 7" Touch Panel Display with Recording & 21 CFR Part 11 PC Software

HumiTherm Ultra

Micro PLC Controller

Touch Panel



Mapping Unit

Micro PLC Control + LCD Graphic Display with Recording & 21 CFR Part 11 PC Software

HumiTherm Plus

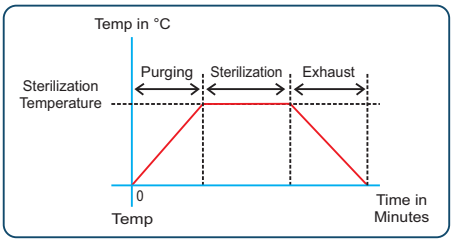
HumiTherm GD

- Data Recording with In-built Memory
- PC Interface with 21 CFR PC Software
- Direct Printer Interface
- GSM Module for SMS Alerts
- Standby Sensor & Control Gadgets Interface
- Password Protected Door Locking

Controller for Hospital & Laboratory Autoclaves

Gravity Displacement Cycle

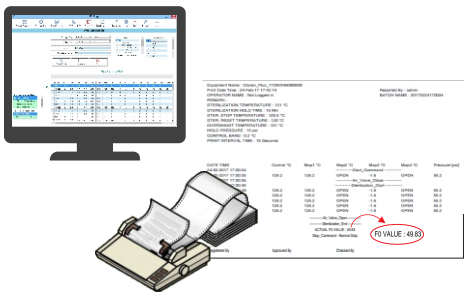
Clavex Pro



Clavex GD

Clavex Plus

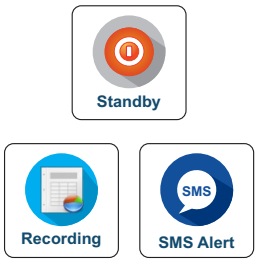
- Recording
- 4 Channel Mapping
- Pressure Indication
- F_0 Value Calculation
- PC Software
- Printer Interface



Control System with Thermal Mapping

Micro PLC Control + 7" Touch Panel Display

For Lab Ovens / Furnaces / BOD Chambers etc.



LabCon Ultra

Touch Panel

Micro PLC Controller + Mapping

Micro PLC Control + LCD Graphic Display

LabCon

- 5 Temperature Channels for Control & Mapping
- Data Recording with In-built Memory
- PC Interface with 21 CFR PC Software
- Direct Printer Interface
- GSM Module for SMS Alerts
- Standby Sensor & Control Gadgets Interface

Multi-Purpose Temperature Controller

For Lab Ovens / Furnaces / BOD Chambers etc.

- Universal Temperature Input
- ON-OFF or Self Tune PID Control Loop
- 'Heat Only', 'Cool Only' & 'Heat + Cool' Control
- Door Open Detection Input
- RS485 MODBUS Serial Communication Port
- **FREE** 21 CFR Compliant Software for Data Logging

Zenex Plus

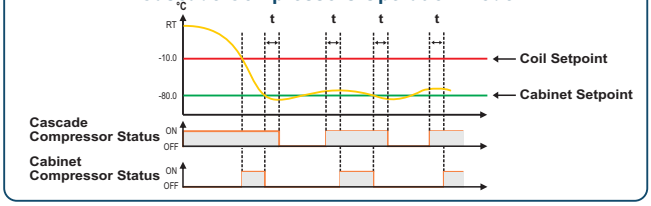
Refrigeration Control System

For Deep Freezers / Ultra - Low Cooling Cabinets Single or Cascade Compressor Control

FrizCon

- Single / Dual Sensor Input
- Door Open & Compressor Pressure Fault Input
- In-built Time Delay for Compressor Switching

Cascade Compressors Operation Mode



Weatherproof / Flameproof Protection Head Thermocouples

Weather-Proof Head

Flame-Proof Head

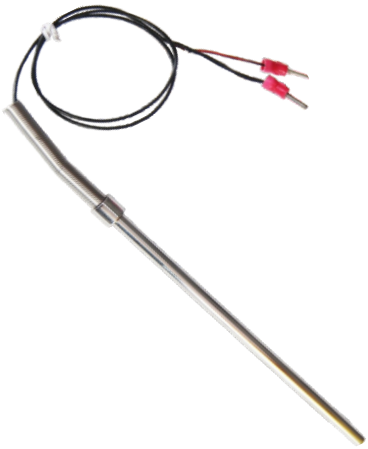
Ceramic Block Termination

- Suitable for Non-Corrosive / Non-Acidic Applications
- Various Element Types : J, K, T, R, S, B, N, etc.
- Grounded & Ungrounded Junctions
- Simplex / Duplex Assembly
- Different SS Grade Sheaths : SS304, SS310, SS316, SS321, Inconel 600/800, HRS 446, Hastalloy, etc.
- Various Sheath Diameters & Stem Lengths
- Variety of Mounting Assemblies : SS/Aluminium Flanges, Fixed / Adjustable SS Compression Fittings, etc.
- Screw Type Terminals on Ceramic Block inside Weather/Flame - Proof Protection Head
- Mineral Insulated (MI) for Superior-Response & High-Temperature Applications

Machine-Compacted Mineral Insulated (MI) Sheath

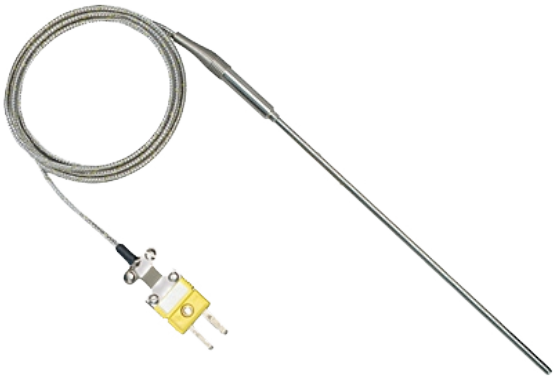
Transition Joint Thermocouples

With PTFE/PTFE Cable



With FG/FG/SS Braided Cable

Cable with Protective SS Flex Hose



- Suitable for Non-Corrosive / Non-Acidic Applications
- Various Element Types : J, K, T, R, S, B, N, etc.
- Variety of Cable Types : PVC/PVC, PTFE/PTFE, PTFE/PTFE / SS Braiding, FG/FG/SS Braiding, etc.
- Grounded & Ungrounded Junctions
- Simplex / Duplex Assembly
- Different SS Grade Sheaths : SS304, SS310, SS316, SS321, Inconel 600/800, HRS 446, Hastalloy, etc.
- Various Sheath Diameters & Stem Lengths
- Variety of Mounting Assemblies : SS/Aluminium Flanges, Fixed / Adjustable SS Compression Fittings, etc.

With Quick Disconnect Connector

Weatherproof / Flameproof Protection Head RTDs

Weather-Proof Head

Flame-Proof Head

With BSM Connectors

SS Head With Triclover Flange

Machine-Compacted Mineral Insulated (MI) Sheath

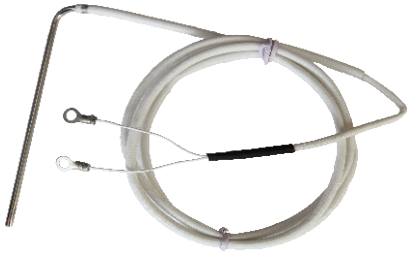
- Suitable for Low Temperature / Non-Corrosive / Non-Acidic Applications
- Various Element Types : Pt100, Pt200, Pt500, Pt1000, Cu50, Ni120, etc.
- 2 / 3 / 4 - Wire Configurations
- Simplex / Duplex Assembly with Class-A / Class-B Accuracy
- Different SS Grade Sheaths : SS304, SS310, SS316, SS321, Inconel 600/800, HRS 446, Hastalloy, etc.
- Various Sheath Diameters & Stem Lengths
- Variety of Mounting Assemblies : SS/Aluminium Flanges, Fixed / Adjustable SS Compression Fittings, etc.
- Screw Type Terminals on Ceramic Block inside Weather / Flame - Proof Protection Head
- Mineral Insulated (MI) for Superior-Response & High-Temperature Applications

Transition Joint RTDs

PTFE/PTFE Cable / FG/FG/SS Braided Cable

Cable with Protective SS Flex Hose

With Quick Disconnect Connector



L - Shape (90° Bend) / U - Shape

- Suitable for Low Temperature / Non-Corrosive / Non-Acidic Applications
- Various Element Types : Pt100, Pt500, Pt1000, Cu50, Ni120, etc.
- Variety of Cable Types : PVC/PVC, PTFE/PTFE, PTFE/PTFE / SS Braiding, FG/FG/SS Braiding, etc.
- 2 / 3 / 4 - Wire Configurations
- Simplex / Duplex Assembly with Class-A / Class-B Accuracy
- Different SS Grade Sheaths : SS304, SS310, SS316, SS321, Inconel 600/800, HRS 446, Hastalloy, etc.
- Various Sheath Diameters & Stem Lengths
- Variety of Mounting Assemblies : SS/Aluminium Flanges, Fixed / Adjustable SS Compression Fittings, etc.

Application-Specific Thermocouples

RCA Sheath for High Temperature

Ceramic Beaded for Muffle Furnace

Silicon Nitride Sheath for Casting

Triplex Multi-Level for Reactors

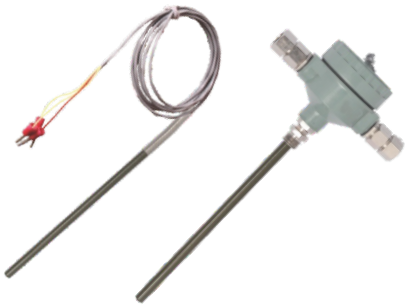
Application-Specific RTDs

Homogenizers RTDs

Triclover Flange

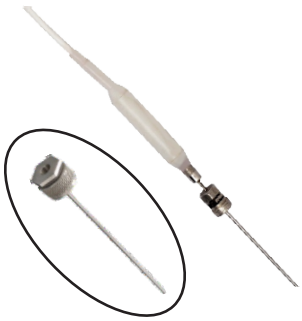
Triclover Flange & Bush

Teflon Coated RTDs



Autoclave RTDs

Food Retort RTDs



Dry/Wet Bulb RTDs

Bayonet Thermocouples & RTDs

- For Barrel & Die Temperature Sensing in Plastics Industries
- J, K, RTD Pt100 Types
- Fixed / Adjustable Types
- Straight / Bent (45° / 90°) Constructions
- Integral FG/FG/SS Braided Cable in Standard / Custom Lengths
- 1/4" BSP or 1/2" BSW Process Connections

Washer Thermocouples & RTDs

- For Flat Surface Temperature Sensing in Packaging & Rubber-Moulding Machines
- J, K, RTD Pt100 Types
- Available for both Fixed & Moving Sealing Plates
- Standard Washer Size : 1/4" ID X 1/2" OD X 1.5mm Thick
- Integral FG/FG/SS Braided Cable in Standard / Custom Lengths

Thermowells

- Fabricated / Bar-stock Construction in Straight / Tapered Shapes
- Different SS Grade Sheaths : SS304, SS310, SS316, SS321, Inconel 600/800, HRS 446, Hastalloy, etc.
- Various Sheath Diameters & Stem Lengths
- With Screwed or Flanged Process Connections

Accessories

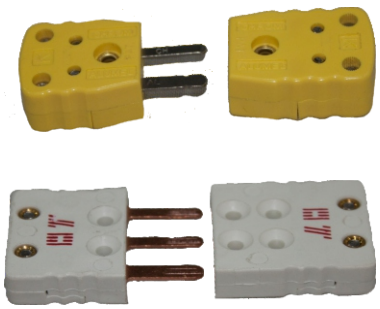
Adjustable Fittings & Flanges

- **Adjustable Compression Fitting**
  Materials : SS316, SS304, SS321
  Threads : NPT, BSP, others
- **Adjustable Flange**
  Materials : SS316, SS304, Aluminum
  Shapes : Oval / Round & Other
- **Adjustable Triclover Flange**
  Material : SS316

Original Conductor & Compensating Cables

- For Various Thermocouples & RTDs
- Single/Multi-Strands with Different Gauges
- Insulations : PVC, PTFE, FG, etc.
- Metal Over-Braiding & Flex Hose

Quick Disconnect Connectors



- For Various Thermocouples & RTDs
- Special Plastic or Ceramic Body
- International Color Coding
- Miniature & Standard Sizes

Humidity & T+RH Sensors

RH-10

- **Humidity Sensor**
- Wall Mounting with 3 Meter PVC Cable (Other Cable Lengths on Request)
- Measuring RH Range : 20 to 95 %RH
- Accuracy : ± 3 %RH
- Operating Temp. Range : +55°C Max.
- Excitation Voltage : 5 VDC
- Output : 0 to 3.3 VDC

RH35-A

- **Humidity Sensor**
- Linear & Calibrated Voltage Output : 1 to 3.6 VDC Output for 0 to 100%RH
- Rigid & Sturdy Housing
- Compact Size, Easy Installation
- Enhanced Inside Protection through Coated Materials
- PTFE Filter for Protection Against Dusty Environment
- Supply Voltage : 5 VDC ± 0.25V
- Dimensions : 15 mm Dia X 80 mm Long

STH 9C / STH 9D

- **Temperature + Humidity Sensor**
- STH 9C : 4-20 mA Outputs
  STH 9D : MODBUS RTU Output
- High Precision, Long Term Stability & Good Anti-Interference
- Compact Size, Simple Installation
- Reverse Polarity Protected Current Outputs
- Over-Voltage & Reverse Polarity Protected Power Supply
- Wide Supply Voltage Range : 12 to 36 VDC
- High Protection Grade of IP65

THS130

Wall Mounting

THS140

Duct Mounting

- **Temperature + Humidity Sensor**
- Wall (THS130), Duct (THS140) Mounting
- Suitable for HVAC & Environmental Monitoring
- Measuring RH Range : 0 to 100 %RH
- Measuring Temp. Range : 0 to 65°C (THS130) & 0 to 50°C (THS140)
- Accuracy : ± 3 %RH, ± 0.3°C
- Excitation Voltage : 15 to 35 VDC
- Output : 4 to 20 mA

THS302

Duct Mounting
-40 to 100ºC

- **Temperature + Humidity Sensor**
- Duct Mounting
- High Temperature Application
- Measuring RH Range : 0 to 100 %RH
- Measuring Temp. Range : **-40 to +100°C**
- Accuracy : ± 2 %RH, ± 0.15°C
- Excitation Voltage : 8 to 35 VDC
- Output : 4 to 20 mA
- Probe Size : 12 mm Dia X 243 mm Length
- Flange : Plastic, 62 mm Dia

THS303

Duct Mounting
-40 to 120ºC

- **Temperature + Humidity Sensor**
- Duct Mounting
- High Temperature Application
- Measuring RH Range : 0 to 100 %RH
- Measuring Temp. Range : **-40 to +120°C**
- Accuracy : ± 2 %RH, ± 0.15°C
- Excitation Voltage : 8 to 35 VDC
- Output : 4 to 20 mA
- Probe Size : 12 mm Dia X 243 mm Length
- Mounting : Adjustable BSP Type Fitting

THS306

Remote Mounting
Teflon Cable
-40 to 150ºC

- **Temperature + Humidity Sensor**
- Remote Mounting (Teflon Cable)
- Very High Temperature Application
- Measuring RH Range : 0 to 100 %RH
- Measuring Temp. Range : **-40 to +150°C**
- Accuracy : ± 2 %RH, ± 0.15°C
- Excitation Voltage : 8 to 35 VDC
- Output : 4 to 20 mA / 0 to 5 V / 0 to 10 V
- Probe Size : 12 mm Dia X 260 mm Length
- Probe Material SS304
- Mounting : Adjustable BSP Type Fitting

THS806

Remote Mounting
Teflon Cable
-40 to 200ºC

- **Temperature + Humidity Sensor**
- Remote Mounting (Teflon Cable)
- Ultra High Temperature Application
- Measuring RH Range : 0 to 100 %RH
- Measuring Temp. Range : **-40 to +200°C**
- Accuracy : ± 2 %RH, ± 0.15°C
- Excitation Voltage : 8 to 35 VDC
- Output : 4 to 20 mA / 0 to 5 V / 0 to 10 V
- Probe Size : 12 mm Dia X 260 mm Length
- Probe Material SS304
- Mounting : Adjustable BSP Type Fitting

PPI
The Perfection Experts

Process Precision Instruments (An ISO 9001 : 2008 Company)

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35 YEARS