Masibus Product Range

Data Acquisition & Protection Units | Controllers | Indicators
Signal Conditioners & Transmitters | Power Meters & Transducers
Time Sync & Display Units | Vibration Monitoring & Predictive Maintenance | Calibrators

masibus®

DATA ACQUISITION & PROTECTION UNITS

8208-XP

8040

8208-IP

8208

85XX⁺

8204

Scanners, Data Loggers

8040 128-Channel Data Logger/ DAQ Module

- 16 - 128 channels configuration
- Scans 128 channels in 3 seconds
- 2 x 16 character LCD operator display terminal
- Battery backed memory with RTC
- Ethernet port/ USB port/ RS485 port
  Applications for 8040
- Data acquisition and control application
- RTU, Remote I/O for PLC/ DCS
- Environmental data monitoring
- Transformer/ vibration monitoring and protection
- Heat tracing circuit monitoring and control

85XX⁺ 8/16/24 Channel Scanner/ Protection Relay cum Data Logger

- 8/ 16/ 24 channel configuration
- Networking (communication and data logging)
- Modularity; Comprehensive alarm/ trip logic
  Applications for 85XX⁺
- Motor/ generator protection: winding and bearing temperature
- Transformer monitoring and protection as a SCADA RTU

8204 4-Channel Scanner/ Protection Relay

- Universal input
- Communications for remote monitoring
- Compact 1/8 DIN mounting
- Comprehensive alarm/ trip logic programming
  Applications for 8204
- Machines protected by speed monitoring
- Motors, gear boxes

8208 8-Channel Scanner/ Protection Relay

- Fast sampling rate with instantaneous relay activity
- Universal input Communications for remote monitoring
  Applications for 8208
- Machine condition monitoring
- As a distributed I/O for interface with PLC/ DCS/ DAS
- Monitoring and protection of pumps, transformers, fans and blowers etc

8208-IP 4/8 Channel Weather Proof Scanner

- IP65 Weather proof protection
- 4/ 8 channel configuration
- Comprehensive alarm/ trip logic programming
- Operating temperature: 0-70° C
  Applications for 8208-IP
- Monitoring of air compressors, pumps, transformers, DG set, fans and blowers
- Electrical sub-station monitoring

8208-XP 4/8 Channel Ex-Proof Scanner

- Universal input per channel
- Ex-proof protection for Gas groups IIA & IIB, IP65, Zone-1 (optional: IIC group)
- Operation by front touch sense keys
- Fast Sampling rate with instantaneous relay action
- Four relays for alarm/trip
- RS485 Serial communication port
  Applications for 8208-XP
- Hazardous areas like Chemical/ Oil & Gas/ Petrochemical industries
- Mining Equipment monitoring and protection
- Fire detection and annunciation, Gas compressors
- Pharma application

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DATA ACQUISITION & PROTECTION UNITS

SBM-S-1225

MINT I/Os

HT16u

SMART

Input/ Output Modules, String Box Monitor & Portable Logger

MINT DI 16 & MINT DO 16
MINT AI 8 & MINT AO 8

- Modbus serial, ethernet, profibus port options
- High speed communication
- LEDs for fault, communication & power
  Applications for MINT series
- Cost effective field interface to PLC/ DCS
- Remote IOs for monitoring & control
- SCADA and building automation
- Infrastructure monitoring
- Asset management

SBM-S-1225 String Box Monitor (Shunt based)

- 8/12 analog input channels for current with built-in shunts
- String Voltage Input: 0-1000 VDC
- Temperature inputs for RTD sensors
- Digital inputs
- 1 on-board temperature sensor
- Calculated DC Power
- RS485 port (Modbus RTU protocol)
- Diagnostics and status LEDs
  Applications for SBM-S-1225
- Solar PV string current, voltage, temperature, etc.
- Breaker status monitoring

HT16u Humidity-Temperature Smart Logger

- Compact RH/T Smart Logger with integral LCD display
- Max/ Min readings with reset
- Logs up to 400,000 records with time stamp
- Hi/Lo alarm status
- USB Port for configuration, logged data retrieval and aux power
- Long battery life with status indication
- Operation by front keys
- SMART-HT software allows configuration and viewing of logged data
  Applications for HT16u
- Pharmaceutical Industry
- Clean rooms & warehouses/ Food industry & cold storages
- HVAC Systems
- Laboratory & Medical Industries

SMART Software

- Masibus device configuration for Real time monitoring, data logging, reports generation and print facility
- Live & historical alarms
- Trend & report printing
- User privilege settings (five level)
- Four level soft alarms
- MKT values in report Auto/manual backup
- USFDA 21CFR Part 11 compliant with features like audit trails, tamper proof data management, authorization/ access control groups up to 5 levels, electronic signature components/ controls, etc.

CONTROLLERS

LC5248E-AT

TC548

TC596

LC5248L-AT

LC 5296-AT

LC5296-XP-AT

LC5296-XP-AT

5040

PID Controllers

5040 Auto-Tune PID Single Loop Controller

- Fast loop response time of 250 msec
- 4 Relay and 4 Digital outputs freely configurable
- 18 Alarm types
- Draw out design for ease of maintenance and replacement
  Applications for 5040
- Heat treatment furnaces
- Distillation and reactor control in chemical plants

LC5296-AT Auto-Tune PID Controller

- Auto-Tune PID
- Universal input (TC, RTD, Volts, mA)
- Fail safe design
- Display brightness control
  Applications for LC5296-AT
- Injection molding machines
- Food processing application
- Plastic extrusion process

ON-OFF/ PID Temperature Controllers
TC596/ TC548

- Average Energy Demand parameter as a diagnostic feature
- 10A On-Off/ Control Output Relay
- 3 Years Calibration with Auto Zero and Auto Span
- PV Display: TC596: 0.56" 7-Segment Red LED 4-Digit
  TC548: 0.4" 7-Segment Red LED 4-Digit
  Applications for TC596/TC548
- Injection molding and Packaging machines
- Food and Beverage
- Industrial Ovens
- Plastic Industry
- Hot Stamping Machines

LC5296-XP-AT Flame Proof Auto-Tune Controller

- For gas group I, IIA and IIB as per IS:2148/04 and
  IP65 as per 13346:04
- Available in single & dual compartment
- Touch sensitive keys for operation
- Auto-Tune PID control
- Relay/ SSR/ Analogue control output options
- Universal input (TC, RTD, Volts, mA)
  Applications for LC5296-XP-AT
- Hazardous areas in industries like chemicals, pharma,
  mining, oil & gas, petrochemicals, fertilizers, pesticides

LC5248L-AT/ LC5248E-AT Auto-Tune Controllers

- 1/16 DIN package
- Auto-Tune PID
- Fail safe design protecting the process in case of system
  malfunctioning
- Display brightness control
  Applications for LC5248L-AT/ LC5248E-AT
- Injection molding machines
- Packaging machines
- Plastic extrusion process
- Food processing applications

CONTROLLERS

| 5002U-P | 5006-RN | LC5296H | LC5296-XP-DC | LC 5296-DC |

On/Off Controllers

5002U-P On/Off & Proportional Controller

- Premium On/Off and proportional controller
- Fast loop response time of 250 msec
- Upto 4 independent programmable relay output
- 22 Alarm types
- Square root extraction for linear input type
  Applications for 5002U-P
- Heat treatment and re-heat furnaces
- Ceramic kilns, flow/ pressure control
- Distillation and reactor control in chemical plants
- Water and wastewater control

LC5296H & 5006-RN On/Off Controllers

- Different display size: 0.56" and 0.8" LED display for process value
- Universal input (TC, RTD, volts, mA)
- Fail safe design protecting the process in case of system malfunctioning
- Display brightness control
  Applications for On/Off controllers
- Heat treatment furnaces
- Water heating boilers
- Chillers
- Oven control

LC5296-XP-DC Flame Proof & LC5296-DC Dual Channel Indicators cum Controller

- Dual channel 0.56" red 7 segment LED display for process value
- Input types (RTD, V, mA)
- Transmitter power supply
  Applications for LC5296-XP-DC & LC5296-DC
- Hazardous areas in industries like chemicals, pharma, mining, oil & gas, petrochemicals, fertilizers, pesticides
- Condition monitoring
- Heat treatment furnaces

INDICATORS

406	408-M	CDU	409-4IN

408-2IN	FDU	409

Process Indicators

409 Indicator

- 0.56" 5-Digit, Red LED Display
- 21 Selectable input types
- Alarm/Trip relay
- Digital input-reset PV min/ max value
  Applications for 409
- Temperature and process indication
- Useful as remote terminal unit (RTU)
- Pressure/ level/ flow monitoring
- Plastics molding/ extrusion temperature monitoring
- Heat treatment - furnace temperature monitoring

409-4IN Large Display Indicator

- 4" (100mm) large LED display
- 21 Selectable input types (TC, RTD, mV, mA, V, Ω)
- In-built transmitter power supply
- PV write facility via serial input
- Available with 19" rack and IP65 wall mount enclosure
- Display brightness control
  Applications for 409-4IN
- Weighing platform
- Remote process supervision
- Temperature and process indication

406/408-M Indicator

- 4 Digit 0.56" or 0.8" LED display
- 8 Selectable input types (TC, RTD, mA, V)
- In-built transmitter power supply
  Applications for 406/408M
- Oven control, plastic extrusion process
- Packaging machines, chillers
- Water heating boilers

408-2IN Large Display Indicator

- 4 Digit LED display of 45mm (1.8") high
- 8 Selectable input types
- In-built transmitter power supply
  Applications for 408-2IN
- Remote Temperature/ Pressure/ level/ flow monitoring
- Plastics molding/ extrusion temperature monitoring
- Heat treatment - furnace temperature monitoring

CDU Clean Room Display Unit

- RH, Temperature and DP measurement
- Internal sensor option (ease of installation)
- Available in LED and touchscreen TFT LCD display options
- 3 programmable alarms with visual annunciation
- Real Time Clock with battery back-up
- Optional wireless connectivity with HT16Ew model

FDU Filter Display Unit

- Measures/ displays differential pressure for up to three
  Filters using inbuilt sensors
- Up to 3, 0.56", 4-digit Red LED Filter displays
- 3 programmable Hi/Lo alarms with Audio/visual
  annunciation and RS485 comm port
- Used for HVAC Filter condition monitoring
  Applications for CDU/FDU
- Pharmaceutical industry
- HVAC (Heating, Ventilation, Air conditioning, Cooling)
- Blood stations, pharmacies
- Horticultural and cultivation of plants
- Parma Environments monitoring applications
- Data acquisition, analysis and processing

INDICATORS

40005E

1008S

1008S-XP

1006H

LPI-1-XP-LED

409-W

LPI-1-P-LED

LPI-1-W-LED

Bar Graph Indicator

40005E Bar Graph Indicator

- Full 4 digit process display and 101 segment bar display
- Square root extractor
- Single and dual channel option
- Watchdog output
  Applications for 40005E
- Monitoring of level, vibration, flow, etc
- Alarm/ trip unit, On/Off controller
- Digital calibration and switch, gas detection
- Marine-utility monitoring on ships

Loop Powered Indicators

LPI-1 Loop Powered Indicators

- 4 Digit LED display options
- Panel or wall mounting options
- Compact and IP65 front/ housing
- Flame proof protection for gas groups IIA & IIB option
- Loop powered with low voltage drop
- Square root extraction
  Applications for LPI-1
- Measurement application such as pressure, flow, level, temp., humidity etc.
- Remote indication location used in liquid level sensing and control

Flow Indicator Totalizers

1006H 6-Digit Flow Counter/ Indicator/ Totalizer

- 6 Digit flow rate/ integrated total with rollover count
- Single input: current, voltage, pulse input or digital input
- Square root extractor
- Programmable K factor for freq input

1008S/1008S-XP 8-Digit Flow Indicator/ Totalizer

- 5 Digit flow rate and 8 digit batch/ integrated total with rollover count
- Square root extractor; pulse output
- Programmable K factor for freq input
- Mass flow measurement with additional pressure and temperature input
- 4 Configurable relays for flow/ batch
- Flame proof protection for gas groups IIA & IIB option
  Applications for 1008S/1006H
- Monitoring and controlling continuous and batch flow processes like: food packaging, batch filling, custody, fuel consumption, energy management, transfer, mixing operation in chemical/ pharma

409-W Strain Gauge Indicator

- 5 Digit, 0.56" LED display
- Selectable load cell input ranges
- Selectable excitation voltage from 5 to 15V (factory set)
- RS485 / Retransmission output
- Tare adjustment through Keypad/DI
- User selectable Gross and Net values
  Applications of 409-W
- Dynamic and static weighing applications
- Signal convertor for use with PLC/DCS system

SIGNAL CONDITIONERS & TRANSMITTERS

9000C	9000U⁺	9000L	UT-94	SGT-18

TT7S10	TT7S10-H	TT7S11S	TT7S10-XP	TT7S10-D

Signal Isolators & Transmitters

9000U⁺ / 9000C / 9000L – Signal Isolators

- Slim and Compact design
- Universal Power Supply Range: 20V to 265V DC or AC
- Three port isolation
- Single/ dual output options
- 9000U+ with wide range of input/ output signal types (mA, mV, VDC)
- 9000L with 4-20mA input and 4-20mA/0-10VDC output type
- High CMRR and NMRR
- HART pass through feature
  Applications for Signal Isolators
- Field interface device
- Isolation of field signals & distribution of signals
- Distribution of signals
- Impedance matching of transmitters and receiver instruments

UT-94 Universal Transmitter with Display

- Smart universal transmitter with local display
- Three port isolation
- Software selectable mA and V output
- In-built transmitter power supply
- Digital filter & square root extractor

SGT-18 Strain Gauge Transmitter

- Selectable load cell input ranges.
- Load cell excitation voltage selectable from 5 to 15V DC (factory set)
- Tare adjustment through Keypad/ DI
- User selectable Gross and Net values
- Zero and Span calibration by front Keypad
- Retransmission o/p
- Programmable high/low alarm relay (optional)
- RS485 Interface (optional)
- 4 Digit LED display
  Applications for SGT-18
- Signal conversion for use with PLC and SCADA systems
- Dynamic and static weighing applications

TT7S Temperature Transmitters

- Loop/ AUX powered models, head and DIN rail mount
- Isolated and linearized output
- Universal RTD, T/C, mV and Ohm input
- Online PC programmable
- Sensor break upscale/ downscale option
- Loop powered Transmitter available with 4 digit LED display and Flame proof version
  Applications for TT7S
- Signal Isolation between system and field
- Remove high common mode voltage/ ground loop currents

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HT7S

HT16Ew

FIB I/O

Humidity and Temperature Transmitters

HT7S Humidity cum Temperature Transmitter

- Measuring range 0-100% RH
- Linearized analog 4-20 mA signal output
- Class-A RTD Pt-100 sensor
- Available in wall/ duct mount and flame proof options
  Applications for HT7S
- Ideal for HVAC application, weather telemetry
- Building automation, clean rooms, research laboratories
- Pharmaceutical labs/ industries

HT16Ew Wireless Temp./ RH Transmitter and Logger

- Battery operated (rechargeable option available)
- Low power consumption
- Full function LCD display
- Works on long range zigbee wireless protocol
- Logs up to 400,000 records
- Hi/Lo alarm status
  Applications for HT16Ew
- Pharmaceutical warehouse/ plant temp./ RH monitoring
- Automatic data capture for 21CFR compliance
- Monitoring of cold storage, laboratory, store rooms etc.

Field Interface Boards

8/16 Channel Analog & Digital I/O FIB

- Variety of Analog and Digital I/O modules
- In-built protection where required
- Compact size and high stability
- Independent zero and span adjustment for each channel
- Eliminates long installation time and costly wiring errors

8 Channel RTD / Thermocouple FIB

- 8 Channel Linearized RTD/TC input
- Fully Programmable for Input type & Range
- Sensor break detection

4/8 Channel Modbus Relay FIB

- 4/ 8 Channel option
- Compact universal DIN rail mount with RS485 communication
- Output can be expanded up to 31 expansion modules per controller
- Slave ID selection can be done using DIP switch

  Applications for FIB
- Protect expensive control systems against field faults
- Eliminate ground loop problems
- Isolate and translate field signals
- Field interface for PLC/ DCS/ SCADA
- Reduce cost/channel for RTD/ TC input

POWER METERS & TRANSDUCERS

2160-A (LED)

2310

2330

2160-A (LCD PANEL)

PM 2140

EM 2140

Meters

2160-A Multifunction Power and Energy Meter

- Accuracy class 0.5s/0.2s as per IS14697/ IEC 62053-22
- 4 lines 4 digit 0.4"LED display optional large multi-line backlit LCD panel
- 100+ Electrical parameter display
- Standard: Isolated RS485 (modbus-RTU protocol)
- Standard: Pulse output
- Total harmonic distortion (THD), maximum demand (optional)

EM 2140 Dual Source Energy Meter

- Accuracy class 1.0 as per IS 13779/ IEC 62053-21
- Compact flush panel mounting
- Field programmable CT/PT ratio
- Ultra bright 8 digit LED display 0.36" with auto scaling capability
- Optional pulse output / relay output
- Optional EB/DG dual source input
- Isolated RS485 (Modbus-RTU protocol)
- Password protection for set parameters
- Permanent memory based energy storing along with other parameters like ON hour, load hour and power interruption count

PM 2140 Multifunction Meter

- Energy accuracy class 1.0 as per IS 13779/ IEC 62053-21
- Better than 0.5% accuracy for instantaneous parameters
- Compact flush panel mounting
- Field programmable CT/ PT ratio
- Ultra bright 3 line 4 digit LED Display 0.4" for PM2140 with auto scaling capability
- Optional analog output/ relay output
- Isolated RS485 (Modbus-RTU protocol)
- Password protection for set parameters
- Permanent memory based energy storing along with other parameters like ON hour, load hour and power interruption count

  Applications for energy meters
- HT/LT panels
- EMS system
- Equipment efficiency
- HVAC and building application

VAF 2310/ 2330 – V, A, F & VAF Indicator Range

- View 3 parameters (volt/ amp/ freq) in single meter (1 ph & 3 ph config)
- Accuracy class 1.0
- LED indicator for each parameter
- ON hour/ run hour/ RPM (in 3 phase, 3 line)
- Maximum current and voltage control through relay (optional)
  Applications for VAF Indicator
- Industrial control panel/ control relay panel
- Test benches, lab equipment

TRANSDUCERS

AC Line Transducers

MFT

Transducers

AC Line Transducers

- High accuracy class 0.25%
- Confirms to IEC 60688
- Range available: V/ I/ W/ VAR/ PF/ F
- mA/mV/V output available (single/ dual)
- 1 Ph and 3 Ph configuration available
- Excellent long term stability
- Low burden
- Transient protected
- Good isolation & impulse resistance
- Minimum ripple at the output
- Fast response
- ABS DIN rail mounting
  Applications for transducers
- Generating/Transmission Distribution stations
- Building management
- Load Dispatch center
- Power Equipment's OEMs
- HT/LT Panels
- Substation Automation
- SCADA
- Local and Central monitoring systems

Multi Function Transducer

- Fully programmable device
- Measure voltage, current, frequency and power factor
- Programmable output: Max 4 analog and 2 digital
- Standard RS485 modbus communication
  (optional ethernet modbus TCP/ IP)
- PC based configuration software
- Up to 30 parameter can be mapped to analog output
- Analog o/p accuracy as per IEC60688
- Accuracy class 0.5s/ 0.2s as per IS14697/
  IEC 62053-22 for energy
- LCD with back-lit to display various parameters (optional)
  Applications for transducers
- Energy/ building management
- HT/ LT panels
- Process equipment
- Motors

TIME SYNCHRONIZATION & DISPLAY UNITS

MC-1-DE

MC-1-DH

DDU-TDC

MTS200R

MC-1-U

DDU-CL

MTS300R

TDR-4

Time Synchronization Units

GPS Master Clocks

- High performance and cost-effective synchronization solutions
- Mounting options: 19" rack (1U, 2U & 3U sizes), DIN rail, wall and panel
- 12 satellite parallel channel tracking
- Available in redundant and non-redundant configuration
- Multiple output options like PPS, IRIG-B Modulated, IRIG-B TTL, PPS, PPM, PPH, NTP, PTP, PRP, FO, NMEA-0138 (RMC), NGTS, T-format, diagnostic relay outputs
- Networking protocols: IPv4, IPv6, TCP, UDP, DHCP, HTTP, HTTPS, SNMP, SSH, SCP, SYSLOG, Telnet etc

TDR-4 Time Distribution Rack

- Accepts signals like 1PPS, IRIG-B modulated and RS232 from GPS master clock
- Max four outputs per card
- Six different types of output cards in single rack
- Any card can be inserted in any slot
- Total 36 outputs available from single rack
- Compact 19'', 3U rack mount enclosure
- Facility to interface redundant GPS clock
  Applications for Time synchronization units
- For time synchronization with event logger, disturbance recorder, numerical relay, ABT metering, slave clocks, windows server, PLC/DCS/SCADA, Unix, Linux, telecommunication, EMS system

DDU Digital Display Units

- 4" (100mm) Large display
- Available in different variants: Time, Date, day, frequency, calendar
- Multiple time frame inputs: NMEA-0183 [RMC]/ NGTS/ T-Format, NTP protocol, IRIG-B modulated, IRIG-B TTL
- Retains time during loss of power/ time code manual time setting
- Configurable time zone
- Wall/ rack/ table-top mounting for IP20 enclosure
- Wall/ hanging-type mounting for IP65 enclosure
  Applications for DDU
- Synchronization with GPS system in electrical utilities: Generation, transmission, energy and demand monitoring

TIME SYNCHRONIZATION & DISPLAY UNITS

MC-2

DDU-44

DDU-24

DDU-XP

DDU-46

DDU-26

Wireless GPS Master & Slave Clocks

MC-2 Wireless GPS Master Clock

- Receives automatic time from network of GPS satellites
- Transmits the time to clocks through RF or Serial
- Synchronization of Server time system through RS232/ RS485
- 6 digit 0.56" (14mm) LED Display
- Status LED indications
- Compact ABS plastic enclosure along with Antenna
- Table-top or Wall-mount option
- Retains time during loss of power/time code
- Communication loss indication

Applications for Wireless GPS Master & Slave Clocks
Synchronization with GPS System in
- Pharmaceutical Industry and Process Industry
- Factory/ Offices/ Warehouse/ Canteen/ Clean room
- School/ College/ Healthcare units (hospital, laboratory)

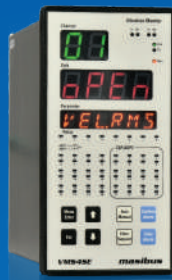### DDU-24/ 26 DDU-44/ 46 Wireless Slave Clock

- 4 digit, 2.3" (57mm), Large LED Display for DDU-24
- 4 digit, 4" (100 mm), Large LED Display for DDU-44
- 6 digit, 2.3" (57 mm), Large LED Display for DDU-26
- 6 digit, 4" (100 mm), Large LED Display for DDU-46
- Best suited for clean room applications
- Each clock can act as repeater to extent network range
- Supports serial time frame Inputs NMEA-0183[RMC]
- NGTS/ T-Format
- Works in stand-alone mode if network fails
- Wall Mount, Panel Mount or Flush mount option
- DDU-24 / DDU-26 is also available in Ex-proof Enclosure for gas group IIA and IIB (IP65)
- Optional NTP [LAN Interface] with IEEE 802.3af compliant PoE
- Manual Time Setting (In case of GPS Failure)
- International Time zone option
- 12 Hour and 24 Hour Time Format
- Time and Date Display (Front keypad selectable)
- Communication loss indication

VIBRATION MONITORING & PREDICTIVE MAINTENANCE PRODUCTS

VT7S12E

VMS-4SE

VSW-160

409-S RPM

VMS-R

VM908

Vibration Transmitters/ Switches

VT7S12E Dual Channel Vibration Transmitter

- Input type: accelerometer
- Acceleration, velocity or displacement (field selectable range)
- Dynamic buffered signal output for analysis
- 4 Relays
- 4-20mA output proportional to vibration level per channel
  Applications for VT7S12E
- Measurement of overall vibration in rotating machines
- VT7S12E can be used stand alone one instrument for all types of vibration parameter and range

VSW160 Vibration Switch

- Three in one (transmitter, indicator and switch)
- Remote sensor and In-built sensor option
- Relay output with status indicator
- Available in IP65/ flame proof version (optional)
  Applications for Vibration switch
- Vibration switch provides essential protection for critical fans, pumps, motors and other industrial machines
- Ideal for CTID fan monitoring

Portable

VM908 Vibration Meter

- 3½ LCD digital display
- Parameter: displacement, velocity, acceleration
- Portable meter for periodic monitoring
  Applications for VM908
- Measure offline vibration data from critical equipment; compare data with ISO standards to know maintenance requirement of equipment

Vibration/ RPM Monitor

VMS-4SE Multi-channel Vibration Monitor

- 4/8 Channels vibration monitor
- Measurement parameter: displacement, velocity, acceleration
- RS485/ Ethernet port output for communication
- 4-20mA Buffer output

VMS-R Rack Based Vibration Monitor

- 19" Rack based Vibration Monitor
- Accepts Accelerometer and Proximity input
- Programmable Proximity input range
- Upto 9 Input / Output Slots
- Inbuilt Flash memory for Datalogging
- Windows based utility software for configuration
- Dual RS485 port (Modbus RTU protocol), Ethernet port / USB port
- Buffered output for analysis, Relay/ Open Collector output
- Diagnostics and status LEDs
  Applications for Vibration Monitor
- Provides continuous, overall and periodic monitoring and Protection for pump/ motor/ generator/ turbine

409-S RPM Monitor

- RPM - display - switch
- Various RPM range available
- Relay and analog output
  Applications for 409-S RPM
- Machine speed monitoring and protection
- Provides non-contact measurement of rotor speed

13

CALIBRATORS

LC11

LC12

RS12

TC12+

UC12

Portable Calibrators & Simulator

iCAL LC11/ LC 12 Loop Calibrators

- Measures and source mV, V and mA signals
- Easy to read color graphical LCD display
- Square root, x^2, step/ ramp functions
- Data logging
  Applications for LC11/ LC12
- Loop check and calibration
- Calibration of transmitters and transducers
- Switch test and calibration
- Drift test of transmitters and transducers

uCAL UC12 Universal Calibrator

- Measures: mA/ V/ mV/ mA (24V)/ switch-test/ RTD/ TC/ frequency/ pulse signals
- Source: mA/ V/ mV/ mA (2W)/ resistance/ RTD/ TC/ frequency/ pulse signals
- Step/ ramp functions with auto/ man selection
- Data logging to measure long time drift
- Max/ min/ average, filter settings, tare facility, adjustable backlight, alarm annunciation (on display and buzzer), glance screen mode features
- Compatible to pulsed RTD transmitter
- HART loop resistor
  Applications for UC12
- Laboratory and site calibration purpose
- Simulation of resistance for position indicators
- Sources mV signals for load cell amplifiers
- Check flow measurement instruments vide frequency/ pulse parameters

tCAL TC12+ Temperature Calibrator

- Measure: mA/ V/ mV/ mA (24V)/ Switch-test / RTD/ TC
- Source: Resistance/ RTD/ TC
- Step/Ramp functions with Auto/ Man selection
- Data Logging to measure long time drift
- Compatible to Pulsed RTD transmitter
  Applications of TC12+
- Calibrating and checking temperature indicator/ controllers,
- recorders, temperature transmitters, signal conditioners, etc.
- Laboratory and site calibration purpose
- Measure and simulate for thermocouple
- Calibration and Drift test of Transmitters and Transducers

RS12 Temperature Simulator

- Simulation of Pt-100 resistance thermometers
- With 12 calibration points
- Direct temperature output 12 switched steps
- Allows 2, 3 or 4 wire connections
- Compact size
  Applications for RS12
- Precision testing and calibration
- Food industry
- Medical science

Sales Service: TOLL FREE (India)

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