Product Overview
Cost Effective MQTT Gateway

MSG-21
Masibus IoT Gateway

Features
- 4G Modem (LTE Cat1)
  - Support frequency band: GSM : 900/1800MHz
  - LTE FDD : B1/B3/B5/B7/B8/B28/B31/B72
  - LTE Cat1: 10 Mbps (DL) 5 Mbps (UL)
- Remotely monitoring data on MQTT server
- Retains the data in-case of network failure
- Embedded web server for easy configuration
- Configurable RS-485 baud rate, parity and stop bit

Wireless I/O for Automation

MSC
Masibus Smart Converter
(Zigbee Wireless Solution)

Features
MSC-PS-MS
- Integrates multiple Modbus RTU slaves into single profibus network
MSC-ME-MS
- Supports max upto 64 Modbus RTU slave devices on RS-485
MSC-ME-ZB
- Supports upto 64 Modbus RTU slave devices on RS-485 & ZigBee
MSC-ZB-RS
- Number of ports: 1 RS-485 (Wired) & 1 ZigBee (Wireless)
**Masibus Solar Offerings**

**SBM-S-1225-2025**
String Box Monitor (For Solar Industry)

**Features**
- 8/12/16/20 Analog input channels for current with built-in shunts
- String voltage input: 0-1500 VDC
- 2 Temperature inputs for RTD sensors & 2 digital inputs
- 1 On-board temperature sensor
- On-board Zigbee module (Optional) for wireless communication
- Self-powered from string power using DC-DC converter

**Wireless String Monitoring Box for Solar Plant**

**String Box Monitor - Connection/Configuration**

**String Combiner Box**
- Positive Busbar
- Negative Busbar
  - Positive Side Fuses
  - Negative Side Fuses

**Solar PV Modules**
MTS300R masTER Redundant GPS Time Server

Features
- 19" 3U Rack mount modular architecture
- Maximum 36 number of timing output can be provided

- Remote alarm notification using SNMP v1, v2, v3 and syslog, remote configuration using SSH, web, SNMP, telnet
- Supporting timing protocols are IEEE 1588 PTP (Power and power utility profile), NTP/SNTP, IRIG-B AM and IRIG-B TTL, FDM, 2.048 MHz, frequency O/P, fiber optic O/P, NMEA, proprietary serial O/P, NTP v2/v3/v4 with MD5 authentication with symmetric and auto key management
- Supporting networking protocols: IPv4, IPv6, UDP, TCP, SNMP, SSH, SCP, HTTP, HTTPS, SYSLOG, telnet
- Redundant and non-redundant GPS master time synchronization unit with internal comparator and switching module for redundancy

MTS200R masTER Time-Sync

Features
- 19" 1U Rack mount modular architecture
- Maximum 12 number of timing output can be provided based on the configuration selected

Slave Clock

- DDU-TDC
- DDU-CL
- DDU-HZ
- DDU-DY
- DDU-TD

Time Synchronization for Process Industry

- GPS Antenna
- GPS Antenna
- 230 VAC Supply
- Domain 1
- Terminal 1 Server
- Ethernet Switch
- DCS System
- DCS System

- GPS Master Clock MTS300R
- Vibration Monitoring System
- System 1 Server
- PLC
MC-1-DE  MC-1-DH
GPS Time Sync Unit

Features
- GNSS based time server in compact DIN-Rail /panel/wall mount enclosure
- Supporting timing protocols are SNTP/NTP, IRIG-B AM and IRIG-B TTL, NMEA, proprietary serial O/P
- Remote alarm notification, remote configuration using telnet
- 22 satellite parallel tracking

MTS200L
masTER Time-Sync

Features
- 19" 1U Rack mount modular architecture
- Maximum 16 number of timing output can be provided
- Power supply redundancy can be provided
- Supporting timing protocols are IEEE 1588 PTP (Power and power utility profile), SNTP/ NTP, IRIG-B AM and IRIG-B TTL, FDM, 2.048 MHz frequency O/P, fiber optic O/P, NMEA, proprietary serial O/P
- Supporting networking protocols: IPv4, UDP, SNMP, telnet
- Remote alarm notification using SNMP, remote configuration using SNMP v1, v2, telnet

MC-1-U
GPS Master Clock

Features
- 19" 1U Rack mount architecture
- Maximum 10 number of timing output can be provided
- Supporting timing protocols are SNTP/NTP, IRIG-B AM and IRIG-B TTL, NMEA, proprietary serial O/P
- Supporting networking protocols: IPv4, UDP, SNMP, telnet
- Remote alarm notification using SNMP, remote configuration using SNMP v1, v2, telnet

GPS Wireless Master Clock- MC-2

Features
- Receives automatic time from network of GPS satellites
- Transmits the time to clocks through RF or serial
- Synchronization of server time system through RS-232/RS-485

Wireless Slave Clock- DDU-24/26

Features
- Each clock can act as repeater to extent network range
- Works in stand-alone mode if network fails
- DDU-24 / DDU-26 is also available in Ex-proof enclosure for gas group IIA and IIB (IP65)

Wireless Slave Clock- DDU-44/46

Features
- Use of unlimited slave clocks within transmitter’s range
- Optional TP (LAN Interface) with IEEE 802.3af compliant PoE
- Retains time during loss of power/time code
TT7S
Isolated & Programmable Temperature Transmitters

**Features**
- Universal input (RTD, Thermocouple, Ohm, mV)
- Full three port isolation
- Linearized output
- Highly accurate
- Fully programmable for input type & range

TT7S00-HR
2-Wire Transmitter Pt-100 input

**Features**
- Multi-range design
- Output linear to temperature
- Analog linearized for 0.1% linearity
- Sized for DIN B heads and bigger
- Sensor break selection for upscale or downscale

TPT-20
Tap Position Transmitter

**Features**
- Microcontroller based
- Compact DIN-Rail mounting
- 4 digit red digital display for tap position
- Easy configuration using keys & display
- Programmable tap number upto 100

TT7S10-D/TT7S10-XP
Loop Powered Temperature Transmitter with Display

**Features**
- Universal input (RTD, Thermocouple, Ohm, mV)
- Available in below options
  - TT7S10-D: DIN-Rail mount with 0.3", 4 digit LED display
  - TT7S10-XP: Wall or 2" pipe mount Ex-proof transmitter with touchsense keys
  - 0.56", 4 digit LED display in single compartment
  - 0.39", 4 digit LED display in dual compartment
- 1.5 KV RMS isolation between input & output
- Linearized output
- Highly accurate
- Fully programmable for input type & range
- Digital filter
- Easy configuration using keys and display
**Transmitter Offerings**

**DPT7S10 Differential Pressure Transmitter**

**Features**
- Wide loop supply voltage range from 10VDC to 36VDC
- Custom built LCD 4-digit display
- Configurable unit measurement in mmWC / Pa
- Available in compact and lightweight design for easy and simple wall mount installation
- Configurable by front keypad (Available in device with display)

**HT7S11S Humidity and Temperature Transmitter**

**Features**
- Wide loop supply voltage range from 10VDC to 36VDC
- Custom built LCD display
- Configurable temperature unit measurement in celsius/ fahrenheit/kelvin
- Available in wall and duct mount
- Configurable by front keypad (Available in device with display)

**T/RH Transmitter and DP Transmitter for Clean Room Application**
**Active Field Interface Modules**

**MAS-AI-U-08-D**

8 Channel Linearized RTD/TC Input

**Features**
- Input (Field side): For linear type: 0-4-20 mA, 0-1-5VDC, 0-10VDC
- For: RTD/TC: Input: RTD Pt100 and thermocouple (J,K,T,E,R,S,N & B)
- Each channel is configurable for input type
- Output (PLC side): 0/4-20 mA, 0/1-5VDC, 0-10VDC
- 3-Way isolation for analog signals/channel to channel isolation 1.5 KV AC +/- 0.1% accuracy across span
- Zero and span calibration possible for each channel through the mini USB port
- LED indication for signal over/under
- Dimensions in mm: 225(L) x 90(W) x 90(D)

**Reduce PLC Cost with Signal Conditioner for Temperature Monitoring Application**

**MAS-CBCT-07-D**

MCC/ VFD Feeder Monitoring FIM

**Features**
- Multi-channel configurations
- Input (Field side): Current: 0-5A AC, 0-1A AC, 0-300mA AC, 0 - 10mA
- Voltage: 0-150VAC, 0-300VAC, 0-450VAC
- Output (PLC Side): 4-20 mA, 0/1-5VDC, 0-10VDC
- 3-Way isolation for analog signals/channel to channel isolation
- Re-Transmission to interface with DAS/SCADA/PLC
- Dimensions in mm: 275(W) x 126(H) X 90(D) mm

**Line Voltage/Current, Earth Leakage Current Measurement & Protection for MCC/ VFD Feeders**

**MAS-RS-RL**

Modbus Relay Field Interface Module

**4/8 Channel Relay FIM**

**Features**
- Field interface for PLC/DCS/SCADA system

**Extending Digital Output to PLC System**

**MAS-DO-RL-08-D**

Field Interface Module

**Features**
- Coil voltage: 5V DC/12V DC/24V DC/48V DC
- Free wheeling diode across the relay coil for protection
- Jumpers for selection between positive/negative looping
**Passive Field Interface Modules**

**Features**
- No. of pins: 15/25/37/50
- Connection: One to One
- Module side termination: D- sub male/female connector
- Field side termination: Screw type/push-in type
- Compact in design
- Reduce installation and assembly time
- Mounting: Universal DIN-Rail- 35 mm

**Features**
- No. of pins: 16/20/40/50
- Connection: One to One
- Module side termination: FRC male/female connector
- Field side termination: Screw type/push-in type
- Compact in design
- Reduce installation and assembly time
- Mounting: Universal DIN-Rail- 35 mm

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**Effective Alternative to End to End Cabling**

**Conventional Wiring using Field TBs**

**Module Wiring using Masibus Passive FIMs**

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**Special FIMs**

- **MAS-AI-P-16-1L-D**
  16 Channel Analog Input FIM with PCB Mounted Resettable Fuse Protection

- **MAS-DQ-P-16-1L-D**
  16 Channel Digital Output FIM with PCB Mounted Resettable Fuse Protection

- **MAS-DI-P-16-1L-D**
  16 Channel Digital Input FIM with PCB Mounted Resettable Fuse Protection

- **MAS-DR-08-D**
  Diode Oring FIM with Incoming Redundant 24VDC Power Supply Feeder

- **MAS-PD-08-D-1**
  8 Channel Power Distribution Board for 24VDC@ 100mA/ 4A Load Current

- **MAS-PD-08-D-4**
  8 Channel Power Distribution Board for 24VDC@ 100mA/ 4A Load Current
85XX*
24-Channel Scanner/DAQ Module

Features
- 8/16/24 channel analog input
- Compact and rugged
- Alpha-numeric display for programmable tag no./Engg unit
- EMI/EMC type test qualified & CE marked
- Universal analog input module
- 16 Channel digital input module (Optional)

CONTROL ROOM

Gearbox Vibration, RPM, Sound, Temperature Monitoring System
Data Acquisition Offerings

8204
4-Channel Scanner

8208
8-Channel Scanner

8040
Data Logger

Features
- Universal input for each analog input
- Compact 1/4 (8208) 1/8 (8204) DIN mounting
- Front panel programming
- Fast sampling rate with instantaneous relay action
- Four relays for alarm/trip

Features
- 16-128 channels configuration
- Scans 128 channels in 3 seconds
- Two user dedicated serial communication ports + one OT/HMI port
- Ethernet port/USB port (Optional)
- 2 x 16 character LCD operator display terminal

DI-16/DO-16/AI-08/AO-08/MINT-CP
MINT Intelligent I/Os & Communication Processor

Features
- High performance IO system which can be connected with any brand of PLC / DCS / DAQ in centralized as well as in remote IO configuration
- 15 nos. of IO cards can be clubbed together in a row with one communication processor & same can be repeated for more rows
- Channel density for digital input & output is 16 channel & for analog input & output is for 8 channel. At card can accept universal input
- Can be integrated with existing plant network over Modbus RTU / Modbus TCP/IP protocol
- Smart I/Os to capture field sensors information to IIoT Gateway, which can further be pushed to cloud

Mint CP with I/O on Modbus TCP/IP to PLC & Mint I/O’s to HMI on RS-485-Modbus
VMS4SE
Multi-Channel Vibration Monitor
Features
- 4/8/12 channel vibration input module
- 8 Channel analog output
- Optional 8 channel universal analog input module
- 3 I/P & 2 O/P slots capacity
- Compact and rugged panel mount
- Extruded aluminum chassis with IP-55 front fascia

Cloud Based Condition Monitoring And Protection

VT7S12E
Dual Channel Vibration Transmitter
Features
- Compact DIN-Rail mounting
- 4 Digit LED display for value & 1 digit LED display for channel no.
- Dual channel (Optional single channel)
- Micro controller based
- Same model field configurable for acceleration, velocity or displacement range

Vibration Monitoring of AHU

VMS-R
Vibration Monitoring Rack
Features
- Compatible with most sensors and probes
- Accepts proximity input
- Programmable proximity input range
- Upto 10 slots for input/output
- Inbuilt flash memory for datalogging

VSW-160
Vibration Switch
Features
- 3 in 1 (Switch + Indicator + Transmitter)
- Remote sensor or inbuilt sensor option
- Bright 3½ digit, 7 segment LED display
- Touch sense keys for set point display & manual reset
- Area classification: Zone 1 & 2, gas groups: IIa/ IIB & IIC
9000C Signal Isolator

Features
- Available in Aux Powered (AP) and Loop Powered (LP) options
- Slim DIN-Rail mount design of 12.5mm for single output and 17.5mm for dual output
- Rugged & accurate 4 wire and 2 wire isolator
- Up to 2 outputs with short circuit protection
- CE certified model option
- HART pass through model

9000U+ Signal Isolator

Features
- Rugged & accurate 4 wire isolator
- Switch option for 0/4-20mA, 0/1-5V and 0-10V I/O select
- Extended universal power supply range: 20V to 265V DC
- 2.0KV three-port isolation
- Wide zero & span adjustment limits
- Front calibration facility via multiturn trimpot

9000LE Signal Isolator

Features
- BEST IN CLASS ACCURACY, < 0.1% of full span
- HART pass-through available with 2-wire transmitter supply configuration
- Less power consumption < 1.3W per channel
- High 2KV three-port isolation
- 2 Wire & 4 wire transmitter configuration option available

9000E Signal Isolator

Features
- Compact DIN-Rail mount design of 35mm for single and dual output
- 1.5 KV AC three port isolation
- Up to 2 outputs with short circuit protection
- High CMRR and NMRR
- High output load driving capability

Best Fit for VFD Application

- Speed
- 4-20mA
- RPM
- 4-20mA
- DCS
- 4-20mA
- VFD Drive
- Application For VFD Drive
- 9000L Signal Isolator-DOP
HT16u
Humidity/Temperature Data Logger

Features
- Compact RH/T smart logger with integral LCD display
- Max. / Min. readings with reset
- Logs up to 4,000,000 records with time stamp
- High / low alarms status
- Selection of temperature unit measurement in celsius or fahrenheit

Smart Software
Scalable Monitoring Archiving & Reporting Tool

Features
- Online monitoring, data logging and reporting
- Auto discovery of Masibus devices
- Audit trials and signature manifestations
- Real time trend/historic trend display
- Supports multiple third party Modbus (RS-485/ TCP-IP) devices
- Auto tag generation of Masibus devices
- Multiple pre-built report options
- Temper proof data management

SMART-HT
Software
2160-A
Multifunction Power & Energy Meter

Features
- Available in accuracy class 1.0 as per IS 13779 / IEC 62053-21
- Class 0.5s or 0.2s as per IS 14697 / IEC 62053-22
- True RMS measurement
- Field programmable CT/PT ratio & secondary value
- Four quadrant measurement
- RS-485 Modbus-RTU communication protocol
- Maximum demand and THD measurement

EM2140
Dual Source Energy Meter

Features
- Available in accuracy class 1.0 as per IS 13779 / IEC 62053-21
- True RMS measurement
- Field programmable CT/PT ratio
- Available EB/DG dual source energy measurement
- Independent programmable relay output for alarm trip
- Display parameters selection in run mode
- Phase healthy & reversal indication

MFT20
Multifunction Transducer

Features
- Available in accuracy class 0.5 or 0.2 as per IEC 60688 standard
- Field programmable CT/PT ratio
- True RMS, microcontroller based transducer
- 28 Electrical parameters can be mapped to analog O/P
- Field programmable up to two analog output
- GUI based site configuration software

MFT
Multifunction Transducer

Features
- Available in accuracy class 0.5 or 0.2 as per IEC 60688 standard
- Field programmable CT/PT ratio
- True RMS, microcontroller based transducer
- 30 Electrical parameters can be mapped to analog O/P
- Four analog & two digital outputs
- Long input range, site-configurable inputs, outputs and measurands
UC12
Universal Calibrator

Features
- Compact, handheld, user friendly menu
- Available with EMI/EMC compliance
- Easy to read color graphical TFT LCD display
- Rechargeable lithium ion battery with enhanced power control for prolonged battery life
- Measure: mA/ V/ mV/ mA (24V)/ switch-test / RTD/ TC/ frequency/ pulse

LC 12
Loop Calibrator

Features
- Easy to read color graphical TFT LCD display
- Available with EMI/EMC compliance
- Rechargeable lithium ion battery with enhanced power control for prolonged battery life
- Simultaneously measure and source: mA, mV and V with dual readings on display
- 24 VDC loop power supply to power transmitters and loops

TC12*
Temperature Calibrator

Features
- Compact, handheld, user friendly menu
- Easy to read color graphical TFT LCD display
- Rechargeable lithium ion battery with enhanced power control for prolonged battery life
- Measure: mA/ V/ mV/ mA (24V)/ switch-test / RTD/ TC
- Source: resistance/ RTD/ TC

LC 11
Loop Calibrator

Features
- Easy to read color graphical TFT LCD display
- Rechargeable lithium ion battery with enhanced power control for prolonged battery life
- Measure or source: mA, mV and V readings
- 24 VDC loop power supply to power transmitters and loops
- Step/ramp functions with auto/man selection
Controller Offerings

TC596/TC548/TC548E
ON/OFF - PID Temperature Controller

Features
- Thermocouple/RTD input
- Average energy demand parameter for process diagnosis
- 10A relay for ON/OFF or PID controlling
- SV display in TC548E: 0.31” 7-segment green LED 4-digit
- Three years calibration with auto zero and auto span

5040/5040-XP
Single Loop Controller

Features
- Universal input selection
- Universal output including valve positioner output
- Auto-Tune PID with ratio control
- Fast loop response time of 250m sec
- 4 Relay and 4 digital outputs for control, alarms and events

5002U-P
Digital Process Controller

Features
- Unique one shot calibration method
- Premium ON/OFF or proportional controller
- Transmitter power supply
- Fast loop response time of 250m sec
- Up to 4 independent programmable relay output

TC5396
Auto-Tune PID Controller

Features
- Advanced Auto-Tune PID algorithm
- Universal input (TC, RTD, Volts, mA)
- 15 Alarm configurations
- RS-485 Modbus communication (Optional)
- Variety of re-transmission output (Optional)
CDU
Clean Room Display Unit

Features
- RH, temperature and DP measurement
- Internal sensor option (Ease of installation)
- Remote sensor option for RH+T measurement
- Available in LED and touchscreen TFT LCD display options
- 3 Programmable alarms with visual annunciation
- Data backfilling via DNP 3.0 avoiding data loss

FDU
Filter Display Unit (For AHU & BMS Systems)

Features
- Micro-controller based differential pressure indicator
cum transmitter up to 3 filters
- Software programmable filter ranges
- 3 Programmable Hi/Lo alarms with audio/visual annunciation
- RS-485 Modbus RTU communication for connectivity withBMS/ PLC/ SCADA etc.
- Built in AHU OFF/TRIP status LED indications via digital input

Dynamic Weighing Application

409-W
Load Cell Controller/ Indicator

SGT-18
Strain Gauge Transmitter (Load Cell)

Features
- Selectable load cell input ranges
- 5 Digit 0.56" LED display
- Local cell excitation voltage selectable from 5 to 15V DC
  (Factory set)
- Tare adjustment through keypad/DI
- User selectable gross and net values
- RS-485 interface (Optional) for connecting PLC/DCS
**Indicator Offerings**

**PHI-22-XP**
Flame-Proof pH Indicator

**Features**
- 5 Point calibration
- Slope/offset adjustment
- Built-in diagnostics
- User selectable: Auto/manual temperature compensation
- Electrode performance indicator

**1008S**
Flow Indicator-Totalizer

**Features**
- Features & performance like flow computer
- High accuracy, PT compensation, Fast sampling and totalize with precision even fast changing flow rates.
- 4 Relay output
- 2 Relay for flow rate alarm & 2 relay for pre/final batch total
- Batch start/stop, batch/integration total zero

**Mass Flow Measurement With Temperature And Pressure Compensation**

[Diagram of mass flow measurement system with temperature and pressure compensation]
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