Perfect fit for embedded applications
**Paperless Recorders in variety of applications**

**Energy data monitoring for equipment:** Easy visualization and data management

- Can be applied for regulation/guideline: Medical (hospital)/Food
- Just fit use for heat treatment: Furnace (Vacuum, electric etc), Curing

You can optimize the model for your application: You can select the necessary options.

**Medical equipment sterilization in Hospital (Autoclave)**

**Sterilize medical equipment (linen, instruments etc) and monitor/record the data**

- **Benefits**
  - Effective data management and monitoring
  - F0 calculation and criteria based batch release
  - On board cycle PASS/FAIL: message system
  - Minimises human error factor

- **Medical sterilization**
  Features of the recorder allow automatic batch release checks for both sterilization cycles and leak tests to be performed.
  The operator is notified of cycle PASS/FAIL, by a large visual message reducing human error.
  Batch release is based upon F0 or time above temperature including criteria for pressure readings as well, especially for the leak test.

- **Medical guideline**
  Using the FX1000 recorder will aid compliance to the relevant standards associated with sterilization, including quality system (ISO13485), chemical indicator standard (ISO11140) which state the requirements of data recording.

**Temperature data monitoring in Food sterilization**

**Process data (temp, pressure) monitoring/recording following HACCP guideline.**

- **Benefits**
  - Easy/effective data management
  - F0 calculation

- **Environment chamber**
  Display and recording data of Environmental testing

- **Benefits**
  - Automatically computes relative humidity from dry bulb temperature and wet bulb temperature (/M1, /PM1, /PWR1 options)
  - Easy/effective data management (Computed results (temperature and humidity etc can be recorded)

**Energy monitoring in plastic injection molding**

**Steam flow for plastic molding injection process is measured and recorded.**

- **Benefits**
  - Easy/effective data management
  - Total steam amount calculation (energy visualization)
  - User can try to reduce the amount.

- **Environment chamber**
  Display and recording data of Environmental testing

- **Benefits**
  - Automatically computes relative humidity from dry bulb temperature and wet bulb temperature (/M1, /PM1, /PWR1 options)
  - Easy/effective data management (Computed results (temperature and humidity etc can be recorded)

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**Data management and Energy monitoring for vacuum furnace equipment**

**Vacuum data monitoring/recording and easy visualization of power consumption for furnace**

Measure power data directly and convert to hourly/daily/monthly format (/PWR1 option).
Vacuum pressure on log scale can be monitored (/LG1 option).

- **Benefits**
  - Easy/effective data management
  - The furnace data can be recorded and printed for end user report, which can be sent as heat treatment result.
  - User can analyze the daily/monthly data and implement energy saving action later.

**Temperature data monitoring in Food sterilization**

**Process data (temp, pressure) monitoring/recording following HACCP guideline.**

- **Benefits**
  - Easy/effective data management
  - F0 calculation

**Curing**

Record the curing process data (temperature, pressure)

- **Benefits**
  - Easy/effective data management

**Environment chamber**

Display and recording data of Environmental testing

- **Benefits**
  - Automatically computes relative humidity from dry bulb temperature and web bulb temperature (/M1, /PM1, /PWR1 options)
  - Easy/effective data management (Computed results (temperature and humidity etc can be recorded)

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**Robust and compact design**

- IP65
  - Short depth and light weight (approx. 2.3kg)

**Networking**

- Ethernet (option)
- Serial (RS422/485) (option)

**Measurement**

- Universal Input types
  - Max. 125 ms sampling interval
- Channels: 2, 4, 6, 8, 10, 12

**Display**

- 5.7-inch, wide viewing-angle TFT

**Record**

- 400 MB internal memory
- CF data storage (option)
- USB interface (option)

**Energy data monitoring for equipment: Easy visualization and data management**

**Can be applied for regulation/guideline:** Medical (hospital)/Food

**Just fit use for heat treatment:** Furnace (Vacuum, electric etc), Curing

**You can optimize the model for your application:** You can select the necessary options.
Digital Indicating Controllers with Ladder Sequence Control

**Affordable General Purpose Model**

- **UT32A**
- **UT35A**

Control period: 200ms
- 0.1% measuring accuracy
- 4 target setpoints (PID numbers)
- 2 DI and 3 DO (standard)
- Up to 7 DI and 8 DO with option
- Limit controller function (option)*1
- Communication port*3 (option)

Control period: 50/100/200 ms
- 0.1% measuring accuracy
- Remote input and up to 4 AI (option)*2
- Cascade, feed-forward control etc available
- 8 target setpoints (PID numbers)
- 3 DI and 3 DO (standard)
- Up to 9 DI and 18 DO with option
- Communication port*3 (option)

**Program Controllers with Ladder Sequence Control**

**Easy-to-use General-purpose Model**

- **UP35A**

Control period: 200 ms
- 0.1% measuring accuracy
- 2 or 4 patterns
- 2 PV events, 4 time events
- 3 DI and 3 DO (standard)
- Up to 8 DI and 8 DO with option
- Communication port*3 (option)

**Advanced Model for Precision Control**

- **UP55A**

Control period: 100/200 ms
- 0.1% measuring accuracy
- 30 patterns
- 8 PV events, 16 time events
- Remote input and up to 4 AI (option)*2
- 8 DI and 8 DO (standard)
- Up to 9 DI and 18 DO with option
- Communication port*3 (option)

*1: Only for UT35A
*2: Universal inputs and 2 voltage inputs
*3: UT32A/UP32A: Only RS485 serial communication available
UT35A/UT55A: Selectable from RS485/ProfiBus-DP/DeviceNet/Ethernet communication available

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**Related products**

- Digital Indicating Controllers with Ladder Sequence Control
  - Affordable General Purpose Model
  - Advanced Model for a Variety of Applications
- Program Controllers with Ladder Sequence Control
  - Easy-to-use General-purpose Model
  - Advanced Model for Precision Control

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*VigilantPlant is Yokogawa’s automation concept for safe, reliable, and profitable plant operations. VigilantPlant aims to enable an ongoing state of Operational Excellence where plant personnel are watchful and attentive, well-informed, and ready to take actions that optimize plant and business performance.*

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