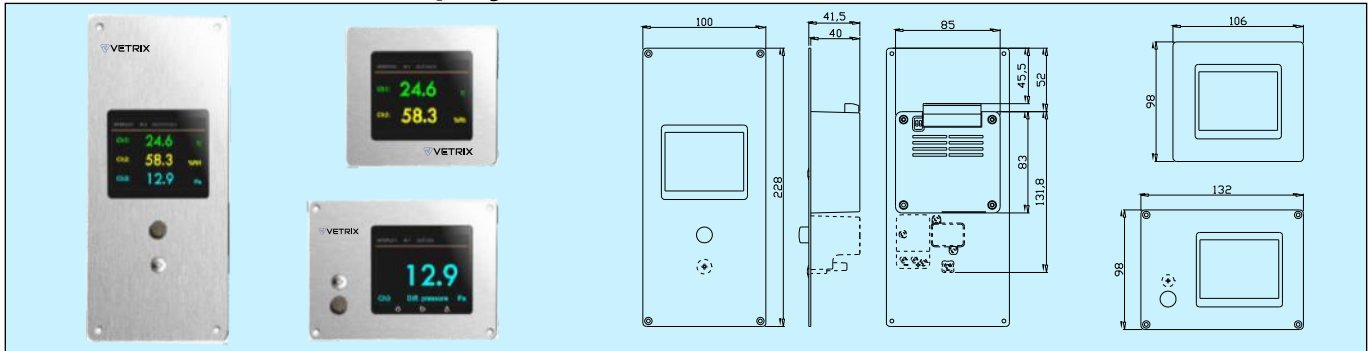


MFPD Multi-function Display Unit/Transmitter



Applications & Features

- Designed for flush mount, measure and display environment temperature, humidity and diff. pressure
- 316L front panel, PMMA window, flat surface, no dust stay, good for all detergents, sanitizers and bactericides
- Parallel or alternatively display input channels 1 to 3
- Large high light 3.2" color TFT LCD display
- Multiple inputs and outputs for different applications
- High accuracy sensor, 100% field changeable
- Optional 3 analog 4~20mA/0~10V inputs signals
- Optional 3 analog 0~10V outputs signals
- Optional RS485/Modbus RTU and key functions
- Compatible to any DDC/PLC/SCADA or other data collect and control systems
- Very high performance/price ratio: replace the single channel(T/RH/DP) display instruments, provide value added multi-function combination including local measurement, displaying and networking

Specifications

Display

Display: high light 3.2" color TFT LCD, resolution 320×240

Display panel material: PMMA

Resolution: ±0.1 engineering unit

Channels: 1~3 channels, parallel (simultaneously) or single row (alternate) display

Engineering unit: 3 preset units, °C/°F, %RH and Pa

Update time: <1s

Housing

Front panel material: 316L stainless steel, 1.5mm thick

Back housing parts: fire-proof ABS+PC UL94 V-0 class

Protection: front panel IP65 (built-in temp. & humidity sensor cap IP54)

Weight: MINI: about 380g; Horizontal: about 450g; Vertical: about 650g

Technical Specifications

Power Supply: 16~28VAC/16~35VDC

Consumption: 0.5VA

Built-in sensor:

| | Temperature | Humidity | Diff. pressure |
|-----------------|---------------------------|------------------------------|--|
| Range | 0~50°C | 0~100%RH | 0~60Pa |
| Accuracy | 0.4°C or 0.3°C (@15~40°C) | 3% or 2%RH (@25°C, 20~80%RH) | 1% or 0.5%FS |
| Nonlinear | / | <0.1%RH | / |
| Repeatability | ±0.1°C | ±0.1%RH | / |
| Hysteresis | / | ±1.0%RH | / |
| Long term drift | <0.02°C/Year | <0.25%RH/Year | <0.5%FS/Year |
| Response time | <90s (in slow air) | <40s (25°C, in slow air) | 0.5~30s |
| Temp drift | / | / | <0.05%FS/°C(zero) <0.08%FS/°C(span) |
| Temp. comp. | / | / | 0~50°C |
| Medium Temp. | / | / | 0~60°C |
| Work Temp. | / | / | 10xFS(over load) 15xFS(burst) |

Analog inputs: max. 3×(4~20mA/0~10V); over voltage and reverse polarity protection; accuracy< 0.1%FS; $R_L < 250\Omega$ (4~20mA) or $> 100K\Omega$ (0~10V); range : default 0~50°C /0~100%RH/0~60Pa, available range -50~100°C /0~100%RH /-100~100Pa

Analog outputs: max. 3×(0~10V); over voltage and reverse polarity protection; accuracy as low as 0.2%FS; $R_L > 2K\Omega$; range: same as analog inputs

Keys: set/reset alarm, DP re-zero, calibration, set display mode, etc.

Communication: 1 USB for parameter checking and setting, 1 RS485/Modbus RTU, R/W enable, 9600 baud rate

Terminals: max $\varnothing 1.5mm^2$

Work Environment: 0~50°C, 0~95%RH (no cond.)

Storage Environment:-10~70°C

Process connection: Built-in T/RH sensor: a waterproof, air breathable filter and sensing cap on front panel. Built-in diff. pressure sensor: 2 conical nozzles, $\varnothing 5$ mm tube connection on back, or 1 pressure sampling screw on front panel.

Approval: CE

Models

| Model | MFPD | | | | | | Multi-function Display Unit |
|--------------------|------|---|--|--|---|---|--|
| Temp. Hum. Input | | 0 | | | | | N/A |
| | | 1 | | | | | Analog signals (2 channels) |
| | | 2 | | | | | Built-in T/Rh sensor, accuracy 0.4C/3% |
| | | 3 | | | | | Built-in T/Rh sensor, accuracy 0.3C/2% |
| | | 8 | | | | | RS485-Modbus RTU |
| Diff. Press. Input | | 0 | | | | | N/A |
| | | 1 | | | | | Analog signal(1 channel) |
| | | 2 | | | | | Built-in DP sensor, accuracy 1% |
| | | 3 | | | | | Built-in DP sensor, accuracy 0.5% |
| | | 8 | | | | | RS485-Modbus RTU |
| Output | | 0 | | | | | N/A |
| | | 1 | | | | | 0~10Vx1 (diff. pressure) |
| | | 2 | | | | | 0~10Vx2 (T/Rh) |
| | | 3 | | | | | 0~10Vx3 (T/Rh+DP) |
| | | 8 | | | | | RS485-Modbus RTU |
| Keys | | | | | 0 | | N/A |
| | | | | | | 1 | 3 keys |
| Panel Port | | | | | | 0 | N/A |
| | | | | | | 1 | 1 pressure sampling screw on front panel |
| Panel Types | | | | | | M | MINI type |
| | | | | | | H | Horizontal type |
| | | | | | | V | Vertical type |
| Screw Hole | | | | | | 0 | N/A |
| | | | | | | 1 | 4 holes at corners, with SS screws |

1. When selecting RS485, only the selected channel has the corresponding function, and the other channels do not have.
2. When the built-in temperature / humidity sensor is selected, the front panel has a corresponding sampling cap.
3. The total number of output channels should NOT be more than input.
4. MINI model does not have any built-in sensors, and can not have diff. pressure port on front panel.