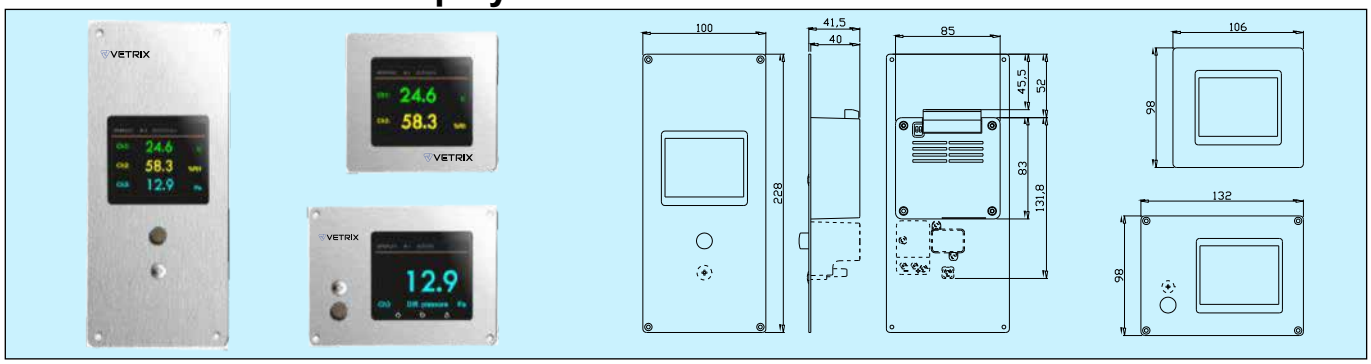
MFDP Multi-function Display Unit/Transmitter



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<250Ω(4~20mA) or >100KΩ(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>2KΩ; 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 Ø1.5mm^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, Ø 5 mm tube connection on back, or 1 pressure sampling screw on front panel.
Approval: CE

Models

Model	MFDP								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%
		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.