

Control System Ultra Display

Datasheet



The Ultra Display - a control system

The Ultra Display by M+W Products is a control system for FFUs in cleanroom facilities, that offers a closed loop. This control device offers the opportunity to control and monitor the speed of up to 62 FFUs by communicating via bus systems using different interfaces.

In regard to the communication with the FFUs the following interfaces are available: The Ultra Display by Exyte is a control system for FFUs in cleanroom facilities, that offers a closed loop.

This control device offers the opportunity to control and monitor the speed of up to 62 FFUs by communicating via bus systems using different interfaces.

In regard to the communication with the FFUs the following interfaces are available:

- LON-FTT10
- LON-RS485
- Exyte Bus
- Modbus RTU
- 0-10 V analog interface

Depending on the control mode, the control can be realized unregulated by defined setpoints of revolutions or regulated by a defined setpoint in ft/min or pascal. Respective a regulated run there is the opportunity to memorize the actual value by an interface

(0-10 V, 4-20 mA) via an internal differential pressure sensor or an external sensor (dP, LF).

To connect a customer's building control system, digital inputs or outputs are available. Based on the application of these inputs and outputs alerts can be displayed and in addition setpoints can be switched.

For the visualization of alerts an internal LED as well as a digital input are available.

The front cover integrates furthermore a housing which is intended for micro SD cards. Via the menu item "factory settings" the device settings in combination with the fan data base can be saved respectively read back on micro SD cards.

Value range and menu area

LEDs

Assignment of keys

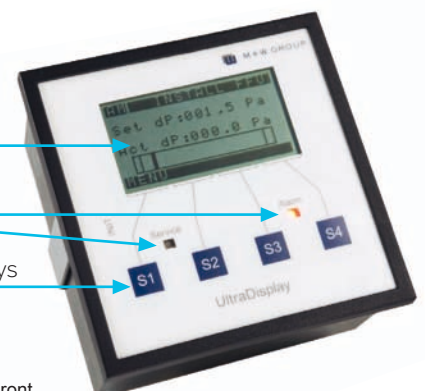


Abb. 1: Ultra Display Front

Technical Data

Power supply	9V – 30 VDC
Power input	2,4 W
Display	LCD 60 x 34 mm 16 columns, 6 lines
Bus transceiver	LON/FTT10 LON/RS485 Exyte Bus Modbus RTU
Internal pressure sensor	Differential pressure sensor 25 Pa 125 Pa 500 Pa
Analog Output	0-10 V
Analog Input	0-10 V, 4-20 mA
Digital Output 1 – Changeover contact	24 V / 2 A
Digital Output 2 – Changeover contact	24 V / 2 A
Digital Input 1	9 V – 30 VDC
Digital Input 2	9 V – 30 VDC
Dimensions	DIN-modular case Type B according to DIN IEC 61 554: Dimensions of the housing W/H/D [mm]: 96/96/51 Front frame W/H [mm]: 96/96 Housing W/H [mm]: 90/90
Protection class	IP 30
Operating temperature	0 ... +50 °C

Serial number and type

The different types of the Ultra Display are defined by the integrated differential pressure sensors.

Type-No.	Value range of the sensor
311369	up to 25 Pa
310741	up to 125 Pa
312599	up to 500 Pa
311370	without integrated differential pressure sensor

Serial numbers are built-on per type as follows: SN: YYYYWXXXX

YYYY: Year of the manufacturing of the Ultra Display

WW: Calendar week of the manufacturing

XXXX: continuous 4-digit number

Example: SN: 2014370003

Device was manufactured in CW 37 in 2014. The serial number 0003 is continuous. After 9999 manufactured Ultra Displays of this type it will start again with the serial number 0001.

View of plugs

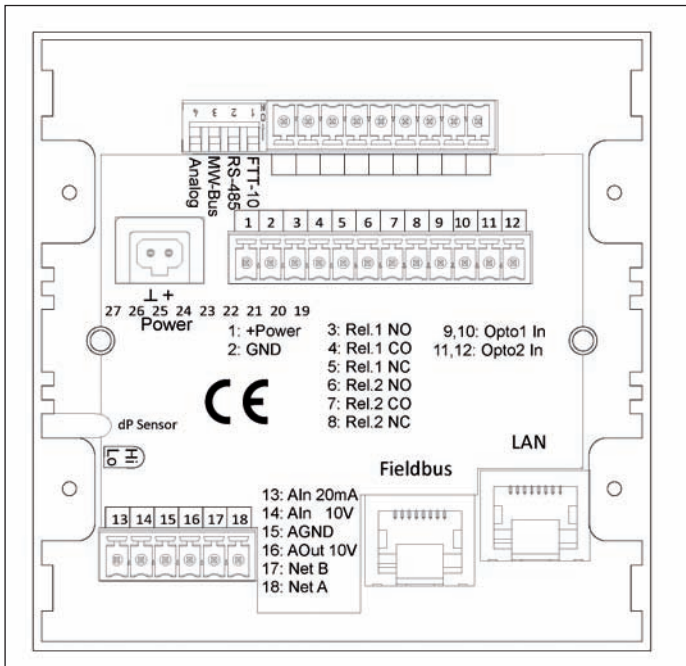


Fig. 2: Rear view

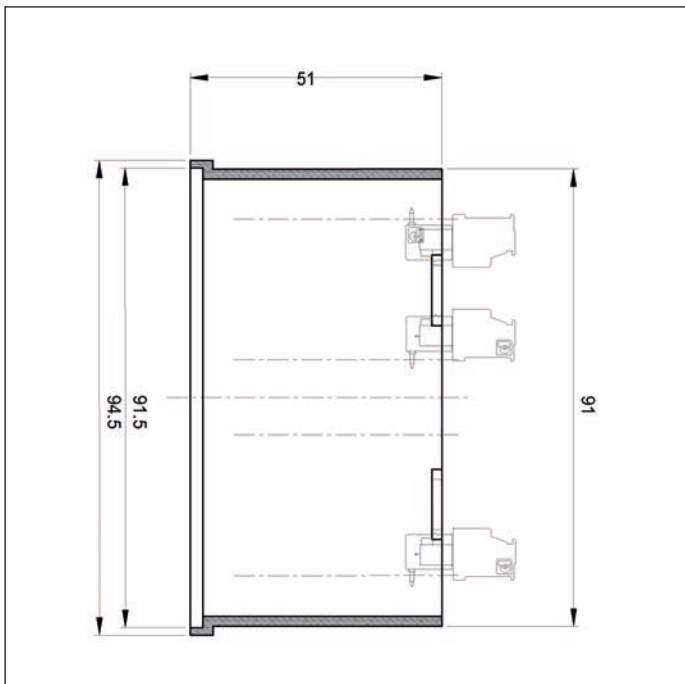


Fig. 3: Side view

View of plugs

Contact	Type	Description
Power	2pol Exyte	Power supply 9 V
Fieldbus	8pol. – RJ45	FTT10 / RS485 / Exyte Bus / Modbus RTU
LAN	8pol. – RJ45	Ethernet interface
dP Sensor	2 tubes	Internal differential pressure sensor Hi/Lo

Pin	Specification	Description
1	+Power	9-30 VDC
2	GND	0 VDC
3	Rel.1 NO	Changeover contact 1 : Make contact
4	Rel.1 CO	Changeover contact 1 : Radix
5	Rel.1 NC	Changeover contact 1 : Break contact element
6	Rel.2 NO	Changeover contact 2 : Make contact
7	Rel.2 CO	Changeover contact 2 : Radix
8	Rel.2 NC	Changeover contact 2 : Break contact element
9	Opto1 In	Digital Input 1 +
10	Opto1 In	Digital Input 1 -
11	Opto2 In	Digital Input 2 +
12	Opto2 In	Digital Input 2 -
13	Ain 20 mA	Analog Input (0)4-20 mA
14	Ain 10 V	Analog Input 0-10 V
15	GND	Analog ground
16	AOut 10 V	Analog Output 0-10 V
17	Net B	FTT10 / RS485 / Exyte Bus / Modbus RTU
18	Net A	FTT10 / RS485 / Exyte Bus / Modbus RTU
19-27	N.c.	No function

LED	Colour	Function
Service	Green	Fieldbus active
Alarm	Red	Display collective fail

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