Subject to change without notice!
Rev. 1701

Control unit M-Pulse2

Application

The control and evaluation electronics M-Pulse2 combines highest metal sensitivity with reliability and an easy handling. Due to the latest electronics in it´s inside the M-Pulse2 provides an effecient fade-out of the product effect and adapting digital filters. A variety of connectivity and expansion options allow great flexibility for the control of perpheral units or other equipment as well as for processing commands. The comprehensive user management and documentation of all data make the M-Pulse2 to first choice in quality control - for example in the food industry.

Function

Modern receiver technology paired with effective signal evaluation collects all sensor data with the highest precision. In the process, the resolution of the data logging with up to 31 bits is an absolute first. Completely maintenance-free operation by means of automatic drift compensation and a continuous internal self-diagnosis are standard features. All sensors from the Pulsotronic product range are supported. For special applications, sensors with multiple-frequency technology can also be equipped.

A quartz accurate signal generation and the modern receiver technology completely replace calibration measures. Downtimes and production losses are a thing of the past.

A multitude of different interfaces enable seamless integration into any production environment. Like the previous version, the M-Pulse2 it is also available with Ethernet. In the process, all events can be logged and evaluated in accordance with HACCP, ISO or IFS.

Equipment & specific characteristics

User friendless

The use of a colour TFT display with touch makes the operation of the device very easy. A familiar user interface with intuitive input elements will quickly lead even inexperienced personnel to their destination. For the best possible user convenience, the language settings are continuously adapted on the basis of the user settings. In this manner, every user can individually select his/her language theme.

QuickLearn

In addition to the familiar possibilities of compensating for the inherent effects of products, the M-Pulse2 offers a safe and fast way of learning these effects. With just a turn of the hand, this procedure can be performed in a matter of seconds, thanks to QuickLearn.

Digitale signal analysis

The signal evaluation is already initiated on the electronic detection of the signals by the digital measurement receiver. This is recorded in real time and with the highest 31-bit precision, which is a novelty and unique to the entire market of metal detection. The reprocessing of the signals with a fast multiprocessor system is a standard feature which offers powerful algorithms for fault signal and product effect fade-out. For special applications, changes in the product effect can be updated by means of product tracking.

Networking

The device has a 10/100 MBit Ethernet interface as an integral component. It can be used to transfer all device and process data to a PC. An internal memory buffers the last 10,000 messages, if the network is offline.

The device also has its own HTTP server. In the process, the device can be managed without additional software! In particular, that means the possibility of remote maintenance and transmission of updates.

An additional serial interface and multiple IO ports offer the possibility the control to fully integrate in any automation environment.

Modern electronics

A number of innovations, addition to the multiple-frequency technology, have been implemented in the electronics of the M-Pulse2. Special emphasis was placed on interference resistance (EMC) and stability. Quartz-based signal generators eliminate the phenomena of drift and ageing. The multi-processor system can even be updated at all times using remote maintenance. The entire electronic system has a modular design and can be modified to meet elevated requirements or a change in tasks.

Despite the improved scope of output, the power consumption is around just 15 watts (typical).

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Technical data

Mechanical data	
Dimensions	B x H x T: 250 x 330 x 160 mm
Weigth	ca. 4.600 g
Handling	
Display & Keyboard	320 x 240 TFT (65.536 colors) incl. touch + multifunctions- and arrow keys
Conditions of use	
Storage temperature	-10°C .. 60°C
Operating temperature	0°C .. 50°C
Protection class	IP 65
Supply voltage	85 - 264 VAC; 50/60 Hz alternativ: 24 VDC
Power consumption	typ. 15 W; max. 40 W
Electrical connection	3 m cable; L1,N,PE; 1,5 mm²
Sensitivity	(see sensor or device)
Interfaces	
Sensor - transmitter	50 Ohm; overload- & short-circuit proof (50 .. 1.000 kHz)
Sensor - receiver	HDC-IQ - digital receiver (31 bit) with sensor-readjustment and monitoring multi-frequency technology (max. 4 frequency)
Digital inputs	8 inputs.; optical isolated; V_{IL} = -5 .. 1,5V; V_{IH} = 6 .. 50V multifunction-key (function selectable) motor error ejection and level guard product trigger external start; external enable; external error
Analog inputs	1 input.; 0 .. 10 V; resolution 10 bit speed
Digital outputs	7 outputs.; PNP-open collector; max. 1.000 mA; overload- & short circuit proof 2x device state, 2x ejection, 2x signal, belt run
Analog outputs	1 output.; 0 ..10 V; resolution 12 bit; max. 10 mA over- & short circuit proof desired speed
Relay	2x change-over contact; max. 230 V / 2 A
Network	Ethernet; RJ45; 10/100 Mbit
Serial interface	RS232 (all types and formats)

Order information & accessories

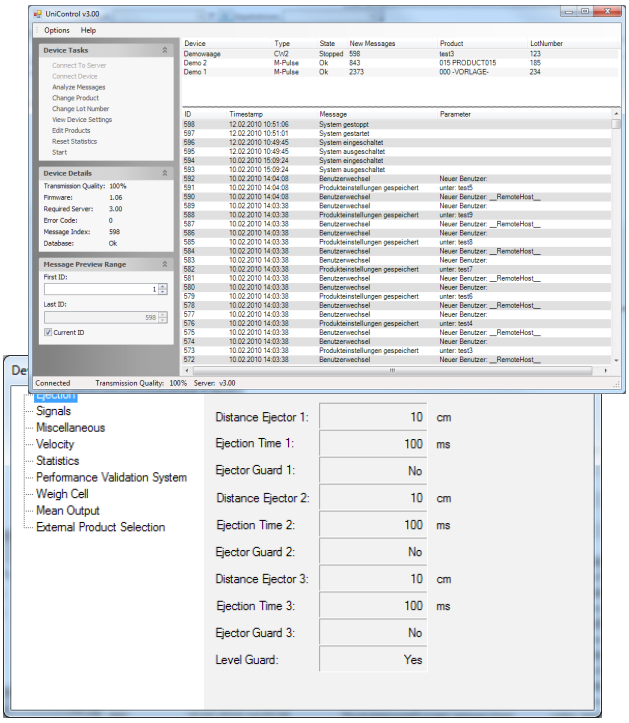
Designation	Order number
M-Pulse2 control unit (Hygenic Design)	16730000035
M-Pulse2 control unit (standard)	16730000037
M-Pulse2 connecting kit Ethernet	with 10 m cable: 08900000025
Software UniControl	08900200006
OPC-Server UA for software UniControl	08900200004
additional user license for software UniControl	08900200002

Beyond the components listed above many other optional components are available depending on the type of device. Exact informations is given in the particular data sheets.

Software UniControl

The modern network concept of the new M-Pulse2 metal detectors is entirely Ethernet based (optional WLAN). The UniControl software packages handles the archiving and evaluation of all recorded data. These are quickly and securely saved on an SQL server. In addition, device settings can be displayed and changed from the PC. Thanks to the versatility of the UniControl, all other devices, such a Checkweigher, are also supported. The multi-user architecture enables access to these functions and data for multiple users from anywhere in your network at the same time!

Feel free to contact us for a free demo version.



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