

GENERAL DESCRIPTION

The **MultiCONT** unit is a universal interface between **NIVELCO's** HART-capable intelligent level transmitters and the other elements of the process control system like the PC-s, PLC-s, displays and the actuators. Besides its role as an interface, the **MultiCONT** ensures the powering of the 2-wire transmitters while being capable of complex control tasks. The **MultiCONT** unit supports communication with a maximum of 15 standard or 4 Ex ia certified **NIVELCO's** HART-capable 2- and / or 4-wire transmitters. If **MultiCONT** is used with **NIVELCO's** **MicroTREK** or **PilotTREK** microwave level transmitters the maximum number of transmitters in a loop should not exceed 6 pcs. for normal transmitters and 2 pcs. for Ex version transmitters. If a system contains more transmitters than one **MultiCONT** can handle, further **MultiCONT** units can be wired in series via an RS485 line. Remote programming of the transmitters and downloading of the parameters and measured data is possible using the **MultiCONT**. The various outputs such as 4–20 mA, relays and digital outputs can be controlled using measured values and new values calculated from the measured values. The internal current outputs (max. 2 pcs.) of the **MultiCONT** can transfer and even modify information supplied by the transmitters. The built-in relays (max. 5 pcs.) can be freely programmed and assigned to the transmitters. If a system contains more transmitters than one **MultiCONT** can handle, further **MultiCONT** units can be organized in chain via RS485 interface. The large dot-matrix display allows visualization of a wide range of informative display functions. One special feature is the "Echo-Map" visualization when communicating with **NIVELCO's** **EchoTREK** and **EasyTREK** transmitters.

MAIN FEATURES

- As a Universal Process Controller provides for a flexible solution for commissioning a process control system consisting of any HART-based intelligent (level, temperature or pressure) transmitters
- Galvanically isolated 4–20 mA outputs for transmitters
- 1 to 15 (standard) or 1 to 4 (Ex ia) channels
- Highly informative large display
- Ex ia model is available
- Simple 6-button programming
- Trend logging into internal memory or SD memory card
- USB connector for downloading data from internal FLASH memory
- Expanding with Universal Interface Modules via RS 485 line
- Echo Map for EchoTREK and EasyTREK ultrasonic transmitters



MultiCONT
PRD-200

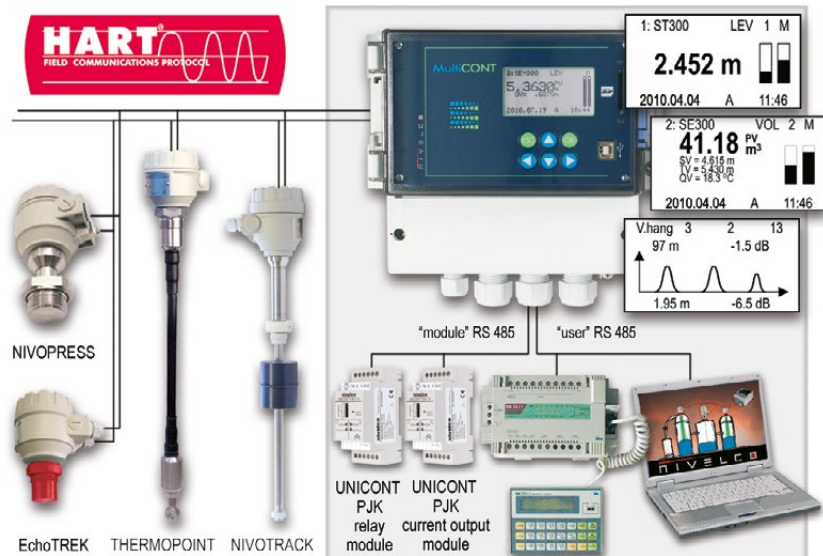
APPLICATIONS

- Remote programming, displaying of transmitters
- Power supply for 2-wire transmitters
- Process controller for HART capable transmitters
- Displaying measurement data Numerical and in bargraph mode
- Data transmission on RS 485 line (with HART or MODBUS protocol)
- Simple datalogging
- Trend logging or logging of flow measurement

CERTIFICATIONS

- ATEX approved [Ex ia]
- ATEX approved [Ex ia D]
- IEC approved [Ex ia]

TYPICAL NETWORK CONTROLLED BY MultiCONT



SYSTEM COMPONENTS

TECHNICAL DATA

Type	MultiCONT P□□ – 2□□ – □	
Power supply / power consumption / max. supply voltage	85...255 V AC 50...60 Hz / 12 VA / 255 V _{eff} ; 11,4...28 V AC 50...60 Hz / 12 VA / 28 V _{eff} ; 11,4...40 V DC / 11 W / 40 V DC	
Power supply voltage for transmitters	30 V DC / 60 mA (Ex version: 25 V DC / 22 mA)	
Graphic display	128 x 64 dot-matrix	
Relay	Max. 5 pcs, SPDT 250 V AC, AC1, 5 A	
Analogue output	Max. 2 pcs, galvanically isolated 4–20 mA, Max. load: 500 Ω, with overvoltage protection	
Number of powered transmitters	Max. 15 pcs standard, or max. 4 pcs Ex	
RS 485 interface	"user"	Galvanically isolated, HART and MODBUS protocol
	"module"	Galvanically isolated, HART protocol
Logger unit	Capacity: FLASH = 65000 entries; SD card = depends on the card! (max. 2 GB)	
Housing material	Polycarbonate (PC)	
Mounting	Wall mountable	
Ambient temperature	–4 °F to +122 °F	
Ingress protection	IP65	
Electrical protection	Class I. / III.	
Mass	2 lb	

Special data for Ex certified models

Ex marking	ATEX	See: www.nivelco.com
	IEC Ex ⁽¹⁾	
Intrinsically safe data		
Power supply voltage for transmitters		25 V DC / 22 mA
Ambient temperature		–4 °F to +122 °F

⁽¹⁾ Need of IEC is to be specified with order

SPECIAL FEATURES

Trend logging (optional)

Onboard logging capable versions of **MultiCONT** are able to store measurement values and three additional parameters of the connected transmitters in a measurement system into the internal FLASH memory or an SD memory card. The two modes, time-controlled and event-controlled logging modes can be used. Monitoring the average, minimum and maximum value or highest values of the flow can be used only for NIVELCO manufactured transmitters used in flow-metering mode. Content of the internal memory is retrievable through USB port, within the capacity of 65000 entries. Maximum capacity of the applicable SD card is 2 GB.

NIVISION (optional) Process Visualization Software

RS 485 capable versions of **MultiCONT** are able to communicate with NIVELCO's **NIVISION** process visualization software to indicate parameters of a process control system graphically on a process controller PC. The process, the measured values or any further processed values can be visualized also in tabular form with **NIVISION**. The **NIVISION** performs data logging, trend monitoring, database handling and various other tasks in addition to a basic visualization. The software is sold as a custom-tailored product.

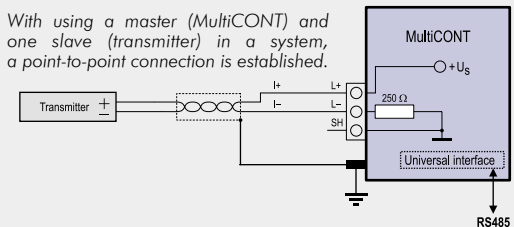
OUTPUT TYPE SELECTION

Outputs	Only display (without relay)	No. of relays				
		1 pc.	2 pcs.	3 pcs.	4 pcs.	5 pcs.
Only display (w.o. RS 485 or current output)	■	■	■	■	■	■
RS 485 Interface	■	■	■	■	■	■
1x 4-20 mA output	■	■	■	■	■	■
2x 4-20 mA output	■	■	■	■	■	■
RS 485 + 1x 4-20 mA analogue output	■	■	■	■	■	■
RS 485 + 2x 4-20 mA analogue outputs	■	■	■	■	■	■

COMMUNICATION BETWEEN MultiCONT AND TRANSMITTERS

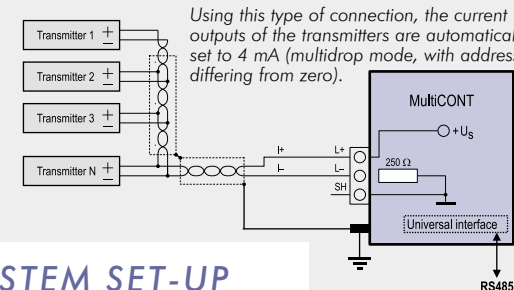
Point-To-Point connection

With using a master (**MultiCONT**) and one slave (transmitter) in a system, a point-to-point connection is established.



Multipoint connection (Multidrop). Multiple slaves connected in parallel

Using this type of connection, the current outputs of the transmitters are automatically set to 4 mA (multidrop mode, with address differing from zero).



SYSTEM SET-UP

There is a Master-Slave relation between **MultiCONT** and the connected transmitters. Through the **MultiCONT** the transmitters can be programmed or their parameters checked and modified. Reading the process values of the transmitters is easy to do by the **MultiCONT**. In case of using **MultiCONT** with multiple transmitters, the units should be addressed with numbers (Short address) differing from zero. Using two transmitters with the same Short address is not possible. **MultiCONT** can handle a number of max. 15 transmitters with HART communication. When using 2-wire transmitters, the current output of the transmitters will be limited to 4 mA, because of the capacity of the **MultiCONT**'s power supply, which is rated at 60 mA with standard transmitters.

MultiCONT P-200

Wall mountable universal multichannel process controller unit to remote program and read all NIVELCO transmitters featuring HART communication, expandable with relay and current output modules

Type

P - 2 -

E	Standard, non expandable
R	Expandable

Version

P - 2 -

W	IP65 Enclosure
C	IP65 Enclosure, transparent cover
D	IP65 Enclosure, transparent cover, logger

Input

P - 2 -

1	Single channel for one unit
2	2 channels for up to 2 units
4	4 channels for up to 4 units
8	8 channels for up to 8 units
M	15 channels for up to 15 units

Output*

P - 2 -

0	Display
1	Display and 1 relay
2	Display and 2 relays
3	Display and 3 relays
4	Display and 4 relays
5	Display and 1 relay and 1 current output
6	Display and 2 relays and 1 current output
7	Display and 3 relays and 1 current output
8	Display and 4 relays and 1 current output
9	Display and 4 relays and 2 current outputs
A	Display and RS485
B	Display, RS485 and 1 current output
C	Display, RS485, 1 current output and 2 relays
D	Display and 5 relays
E	Display, RS485 and 5 relays
R	Display, RS485, 1 current output and 1 relay
Y	Display, RS485, 2 current output and 4 relays

* Other output configurations on request

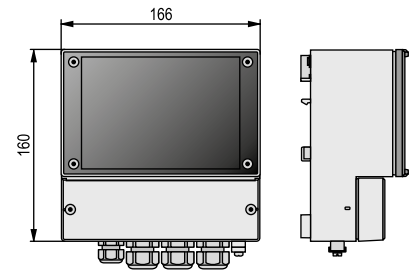
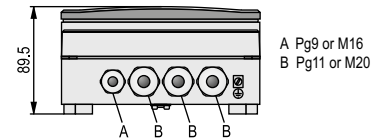
Power supply / Approval

P - 2 -

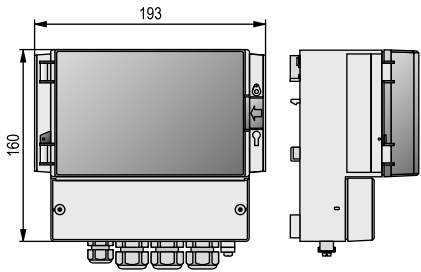
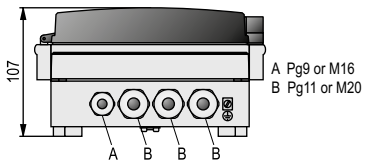
1	85-255 V AC
2	11.4-28 V AC and 11.4-40 V DC
5	85-255 V AC / Ex (max. 4 channels)
6	11.4-28 V AC and 11.4-40 V DC / Ex (max.4 channels)

Note: Please check relevant page for the prices of UNICONT PJK

Need of IEC is to be specified with order



PEW-200



PEC-200