

FLOW AND CONTENTS CONTROL MONITOR

FEATURES

- ◆ IS Supply to transmitter
- ◆ 4-20mA / HART input
- ◆ Isolated 4-20mA output
- ◆ 5 Control relays
- ◆ Multi-function back lit display
- ◆ Pre-programmed linearisation
- ◆ Contents
- ◆ Open channel flow



The MCU wall mounting control unit provided comprehensive control functionality for any 4-20mA or HART compatible transmitter. A backlit display gives clear visual indication of the measured value and status of all inputs and outputs.

Mounted in a non-hazardous area, the mains powered MCU901 provides a protected 24V dc power supply to the transmitter, which may be installed in a hazardous area.

The input signal from the transmitter may be offset, damped, scaled and linearised as required. A range of pre-programmed linearisation algorithms is user selectable.

The 4-20mA output signal may also be scaled to re-transmit all or just part of the input signal or calculated value.

5 relays are provided and are fully field programmable to perform a wide variety of control, fault indication or alarm duties.

The monitor is configured using an integral 6 button keypad and an easy to navigate menu structure. Many popular configurations are "Wizard assisted" enabling fast and accurate programming.

Typical applications include level, distance and contents measurement, plus open channel flow measurement in accordance with BS3680 Pt. 4, ISO1438/1 and ISO4359.

Control unit features and applications

- Tough polycarbonate weatherproof wall mount enclosure for internal or external mounting.
- Accepts any 4-20mA or HART compatible input, allowing standardisation of control room layout.
- Control units are 240/115V ac powered and provide an Intrinsically Safe 24V dc power supply to the transmitter.
- Supports two voltage free contact closure input, allowing override of control functions on external triggers.
- Pre-programmed tank shapes, flow algorithms and pump control routines simplify configuration. A 20 point DIY facility is provided for non-standard applications.
- Real time clock allows energy saving routines and pump efficiency calculations.
- 5 voltage free SPCO relays for alarm and control duties.
- 4-20mA 12 bit isolated current output proportional to calculated value.
- Clear visual display of measured value with units and relay status. Also used to guide user through programming menu.
- Wizard assisted programming, with password protection to prevent unauthorised access.

SPECIFICATION

Electrical

Power Supply

115V or 230V AC +/- 15%, 50/60Hz

Power Consumption

10VA nom, 18VA max.

Current input

4-20mA and/or HART Digital communications (Rev. 5)

Supplies 23V from 400A source resistance

Trigger Inputs

2 voltage free contact closures

Current Output

4-20mA isolated into 1 Kohm (12 bit)

Relays

5 SPCO, 5A at 240V AC

Cable Entry

5 Positions pre-drilled. 2 glands and 3 blanking plugs provided

Cable Connection

Cage clamp terminal blocks in separate terminals compartment

Mechanical

Material

Polycarbonate

Dimensions

Wall Mount: 213mm wide x 185mm high x 84mm deep.

Panel Mount: Cut out 139 wide x 69 high. Allow 165mm clearance behind panel.

Enclosure rating

Wall Mount: IP65 indoor/outdoor

Environmental

Installation category: 115V: Cat. III

230V: Cat. II

Pollution degree: 2

Altitude: 2000m max.

Relative humidity: 100%

Temperature

-40°C to +55°C.

Approvals

ATEX coding

II (1) G

CENELEC coding

[EEx ia] IIC

ORDER CODE: MCU 901 WX A

TYPICAL SENSORS USED WITH THIS MONITOR

Smart Differential Pressure Transmitter
widely used with Orifice Plates and Pitot Tubes for Flow Measurement



Ultrasonic Transmitter for Tank Contents and open Channel Flow Measurement.



Intelligent Hydrostatic Level Transmitter
Submersible and Hygienic Versions



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