

# Technical Datasheet



## Control Unit

### Universal HART control unit

Model: DMCU900 series

#### Key Features

- Controller for use with DMSP400, DMSP500 and DMSP900 series level transmitters
- Display measured values, control pumps, actuators and alarms
- Configure transmitters, access diagnostics
- Single or dual transmitter inputs
- 4-20mA and up to four relay outputs
- Data logging option with SD card and RS485 comms
- DC or AC power supply
- Galvanically isolated supplies to power intrinsically safe transmitters



#### Series Overview

The DMCU900 Series Universal Controller provides an interface between HART devices, operators or control systems.

Designed for use with Delta Mobrey ultrasonic transmitters.

Large LCD display with push button menu driven programming. Intrinsically safe power supply for transmitters. Data logging option with download facility.

#### Other products

Other HART capable products we can offer:

- Ultrasonic level transmitters
- Pressure transmitters



#### Product applications

- When used with Delta Mobrey ultrasonic transmitters;
- Display of tank level and volume, of linear or non-linear tanks
- Pump control for tanks, well wells, and sumps
- High or low alarms in storage tanks
- Open channel flow measurements of many weir and flume designs
- Differential measurement for blocked filter detection
- HART master for any HART device, to provide power, to configure, to display values, or to operate relays

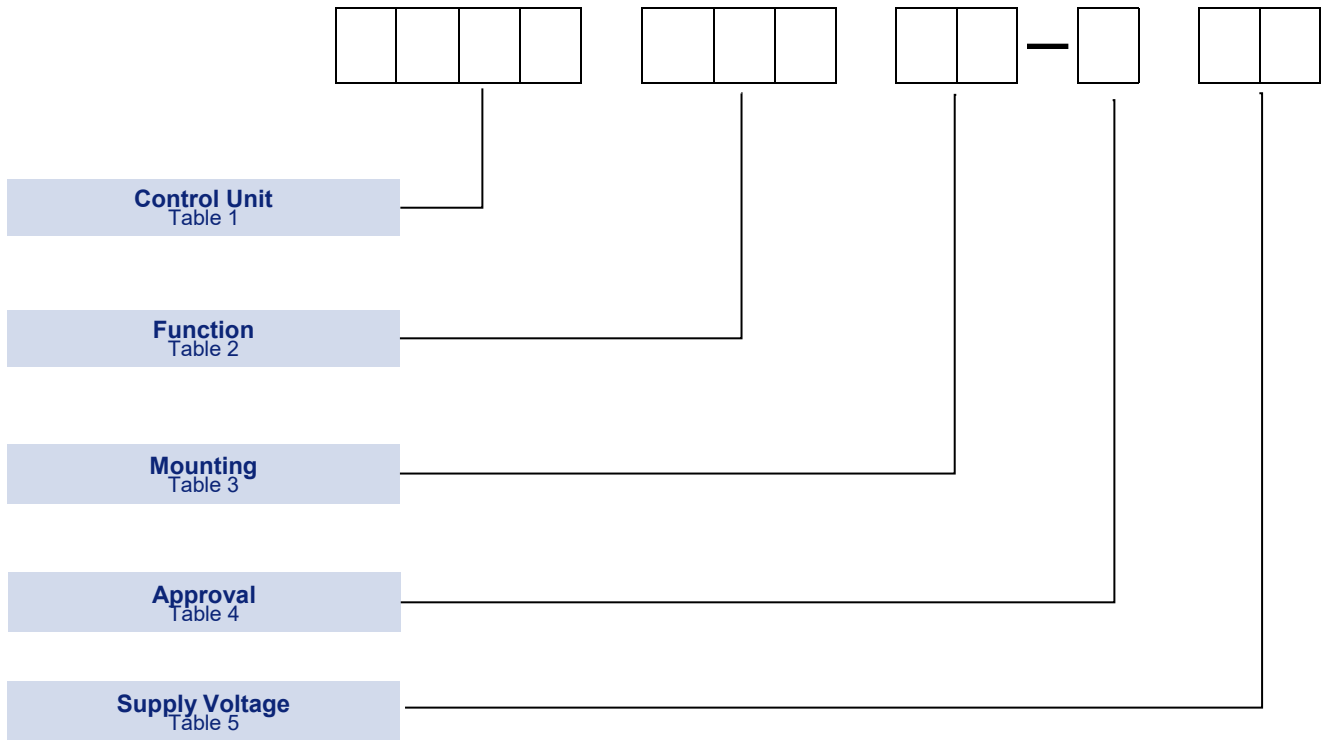
#### How can we help you?

Delta Mobrey offers fast, efficient and knowledgeable support when and where you need it. Please visit our web site at [www.delta-mobrey.com](http://www.delta-mobrey.com) to find your local support centre or call us on:

**+44 (0)1252 729140**

## How to order

DMCU900 controllers can be configured by selecting codes representing the desired features from the tables that follow. The chart below, describes how the model code is built up. For assistance in configuring a switch that best suits your needs, please contact your local sales office.





## Technical Specification

<b>DMCU900 series: all models</b>		<b>DMCU901**.*</b>	
<b>Mounting</b>	Wall mount (Panel mount on request)	<b>Transmitter input</b>	One HART transmitter input
<b>Display</b>	128 x 64 LED dot matrix	<b>Output Relays</b>	4-20mA 4 SPDT 250V AC, 5A
<b>Housing material</b>	Polycarbonate		
<b>Ambient Temperature</b>	-20°C to +50°C		
<b>Ingress protection</b>	IP65 (except DMCU90F panel mount, see below)		
<b>DMCU90*WX-A (mains supply)</b>		<b>DMCU902**.*</b>	
<b>Supply voltage</b>	85 to 255V AC 50-60Hz	<b>Transmitter inputs</b>	Two HART transmitters (for differential)
<b>Power requirements</b>	12VA	<b>Output Relays</b>	4-20mA 4 SPDT 250V AC, 5A
<b>DMCU90*WX-A24 (low voltage supply)</b>		<b>DMCU90F**.*</b>	
<b>Supply voltage</b>	11.4-40 V DC or 11.4-28 V AC 50-60Hz	<b>Transmitter input</b>	One HART transmitter
<b>Power requirements</b>	12VA or 11W	<b>Output Relays</b>	4-20mA 2 SPDT 250V AC, 5A
		<b>Additional function</b>	Data logging
		<b>Additional output</b>	RS485
		<b>Ingress protection</b>	IP20 for DMCU90FPX only

<b>DMCU*** ** -A</b>	
<b>ATEX Ex marking</b>	Ex II (1) G [Ex ia Ga] IIB, Ex II (1) D [Ex ia Da] IIIC
<b>Intrinsically safe data</b>	Uo=30V; Io=140mA; Po=1W; Lo=4mH; Co=200nF; Um=253V

## Approvals

### EUROPEAN DIRECTIVES



#### **Low voltage Directive (LVD) 2014/35/EU**

Compliant to LVD

#### **Electromagnetic Compatibility Directive (EMC) 2014/30/EU**

Compliant to EMC directive



#### **ATEX Directive 2014/34/EU**

Intrinsically Safe: Associated apparatus

Certificate No. BKI20ATEX0018

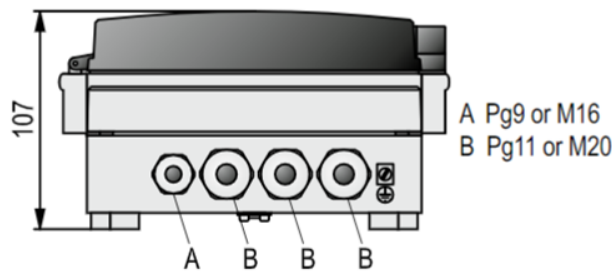
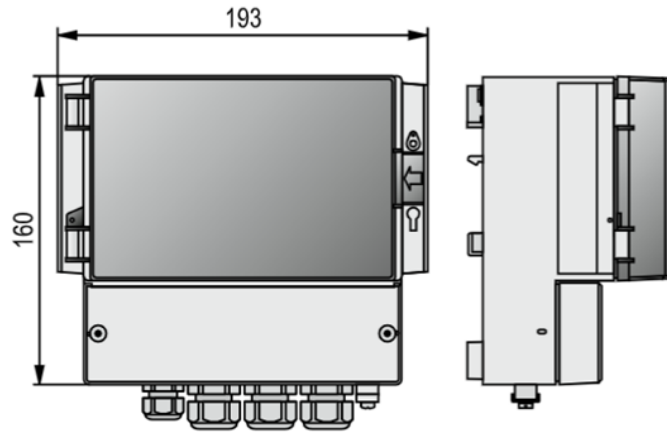
EN 60079-0, EN 60079-11

For connection to transmitters in Zone 0

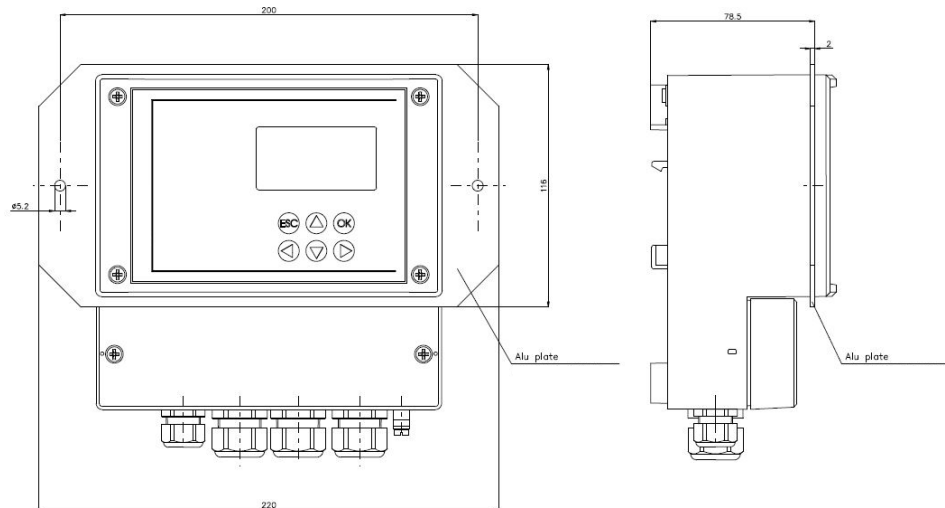


II (1) G  
[Ex ia Ga] IIB  
II (1) D  
[Ex ia Da] IIIC

**Dimensions**



Wall mount model



Panel mount model  
Panel cut out size: 166mm x 107mm

Liquid Level & Flow Measurement  
Model: DMCU900

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ISO9001  
FM00720