

Technical Datasheet



Control Unit

Universal HART controller

Model: DMCU900 series

Key Features

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



Series Overview

The DMCU900 Series Universal Controller provides an interface between Delta Mobrey Ultrasonic Transmitters and operators or control systems.

All models have a large LCD display with push button menu driven programming. Options are available for data logging, with download facility. The DMCU900 provides an intrinsically safe power supply for I.S. transmitters. The wall mount model has a protective hinged lid with clear visibility of the display.

The DMCU900 series provides full functionality for configuration and diagnostics of any Delta Mobrey HART ultrasonic transmitter.

Other products

Other HART capable products we can offer:

- Ultrasonic level transmitters
- Pressure transmitters



Product applications

When used with Delta Mobrey Ultrasonic Level Transmitters;

- Display of tank level or volume, of linear or non-linear tanks
- Pump control for tanks, wet 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
- Acts as a HART master for Delta Mobrey Ultrasonic Level Transmitters

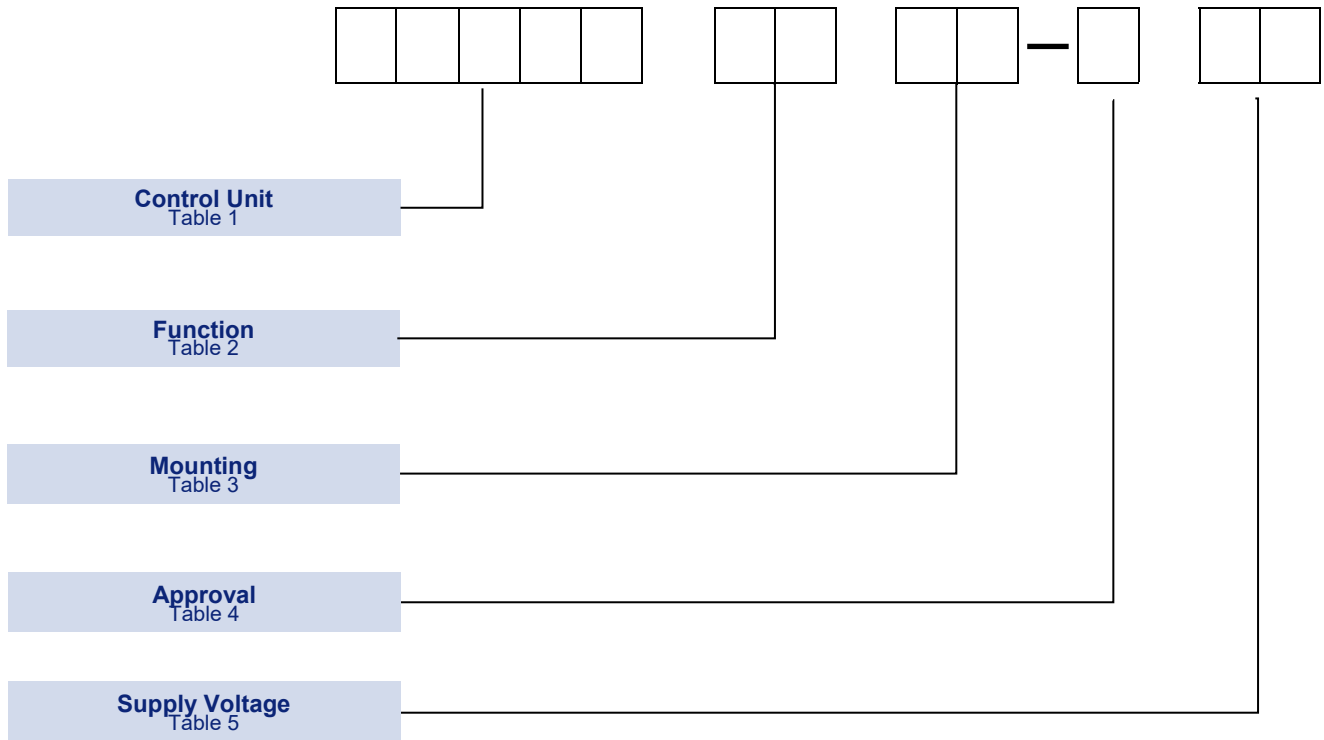
How can we help you?

Delta Mobrey offers fast, efficient and knowledgeable support when and where you need it. Please visit our website at www.delta-mobrey.com to find your local support centre or call us on:

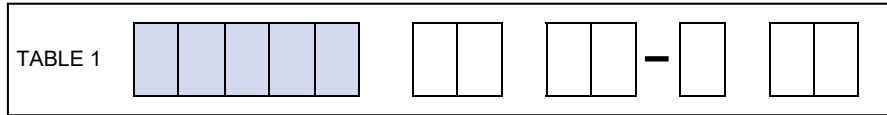
+44 (0)1252 729140

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.

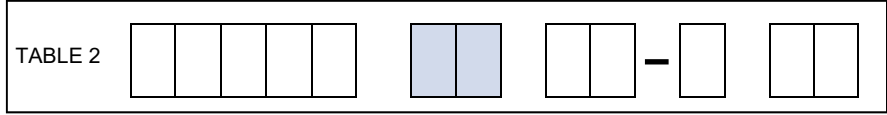


Models



Description	Code
Control unit. HART transmitter input(s)	DMCU9

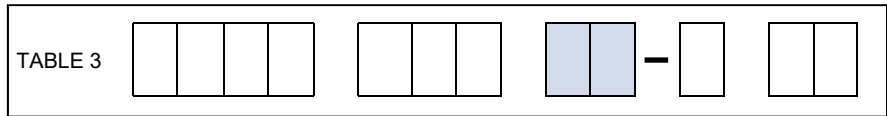
Function



Standard unit
Dual Hart transmitter inputs is for differential measurement.
Ideal for Open Channel Flow

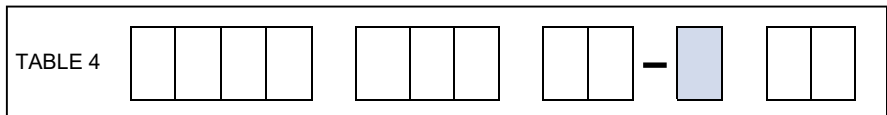
Description	Code
Single HART transmitter input. 4-20mA and 4 relay outputs	01
Dual HART transmitter inputs. 4-20mA and 4 relay outputs	02
Single HART transmitter input, logging and data download, 2 relay outputs	0F
Single HART transmitter input. 4-20mA and 5 relay outputs	11

Mounting



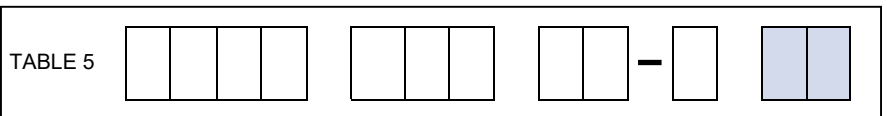
Description	Code
Wall mount	WX
Panel mount (only for 01 & 11 function)	PX

Approval



Description	Code
Safe area use only	N
ATEX hazardous area approval Ex II (1) G [Ex ia Ga] IIB, Ex II (1) D [Ex ia Da] IIIC	A

Supply



Description	Code
85 to 255V AC 50-60Hz 12VA	no code
11.4-40 V DC or 11.4-28 V AC 50-60Hz 12VA or 11W	24

Liquid Level & Flow Measurement
 Model: DMCU900

Technical Specification

DMCU900 series: all models		DMCU9*1**-*	
Mounting	Wall mount or Panel mount	Transmitter input	One HART transmitter input
Display	128 x 64 LED dot matrix	Output	1 x 4-20mA
Housing material	60mm x 30mm	Relays	DMCU901*** 4 relay outputs DMCU911*** 5 relay outputs
Ambient Temperature	Polycarbonate		All relays: SPDT 250V AC, 5A
Ingress protection	-20°C to +50°C		
	IP65		
DMCU9**WX-A (mains supply)		DMCU902**-*	
Supply voltage	85 to 255V AC 50-60Hz	Transmitter inputs	Two HART transmitters input (for differential measurement)
Power requirements	12VA	Output	1 x 4-20mA
		Relays	4 SPDT 250V AC, 5A
DMCU9**WX-A24 (low voltage supply)		DMCU90F**-*	
Supply voltage	11.4-40 V DC or 11.4-28 V	Transmitter input	One HART transmitter
Power requirements	AC 50-60Hz	Output	1 x 4-20mA
	12VA or 11W	Relays	2 SPDT 250V AC, 5A
		Additional function	Data logging
		Additional output	SD card slot and RS485 comms

DMCU9** *-A	
ATEX Ex marking	Ex II (1) G [Ex ia Ga] IIB, Ex II (1) D [Ex ia Da] IIIC
Intrinsically safe data	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

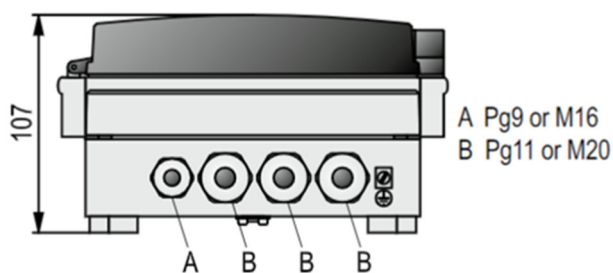
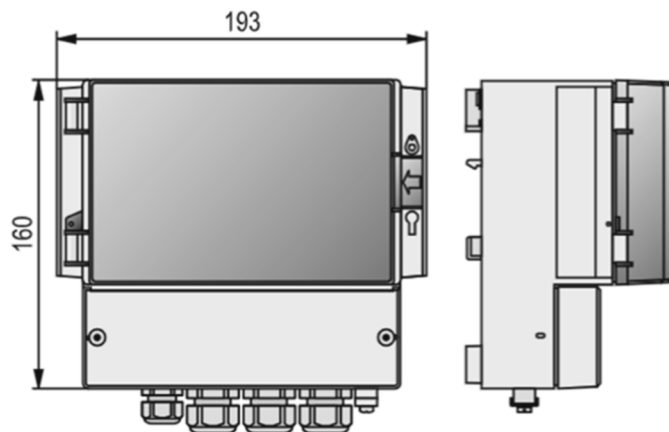
EN IEC 60079-0, EN 60079-11

For connection to transmitters in Zone 0

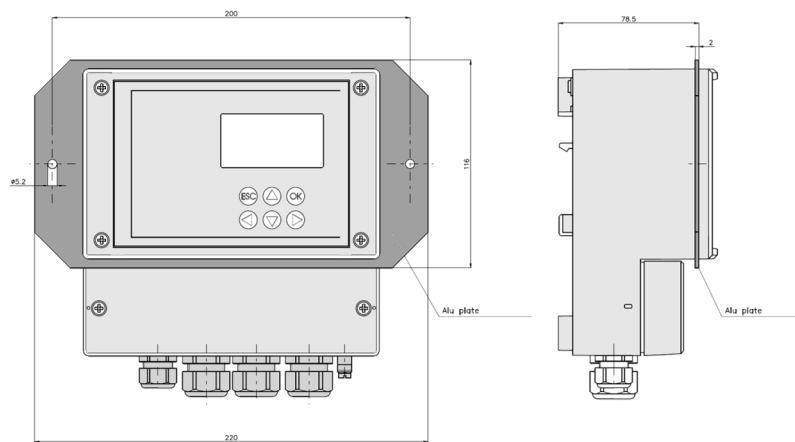


II (1) G
[Ex ia Ga] IIB
II (1) D
[Ex ia Da] IIIC

Dimensions



Wall mount model for all functions



Panel mount model (only for function 01 & 11)
Panel cut out size: 166mm x 107mm

Liqud Level & Flow Measurement
Model: DMCU900

In the interest of development and improvement Delta Mobrey Ltd, reserves the right to amend, without notice, details contained in this publication. No legal liability will be accepted by Delta Mobrey Ltd for any errors, omissions or amendments.

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