

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

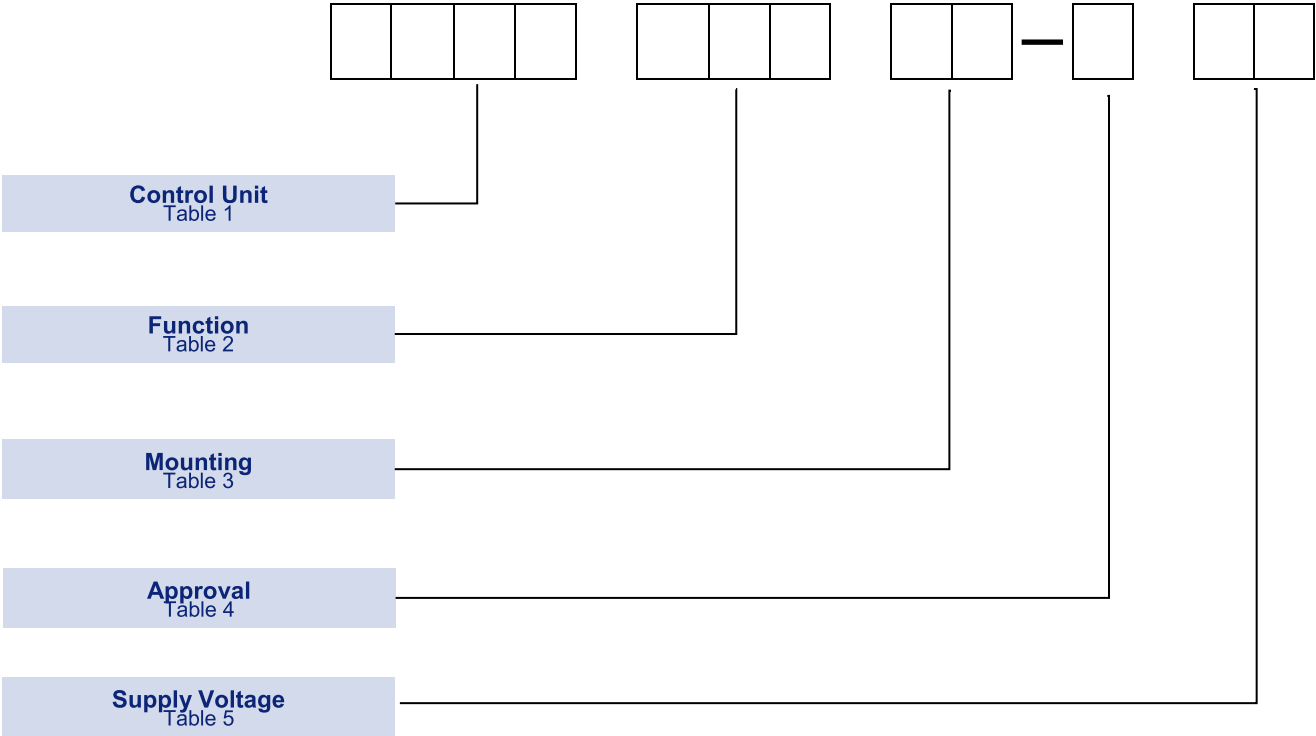
How can we help you?

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

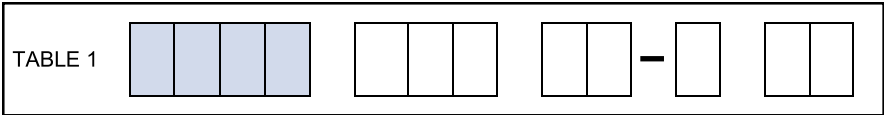
+44 (0)1252 729140

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.

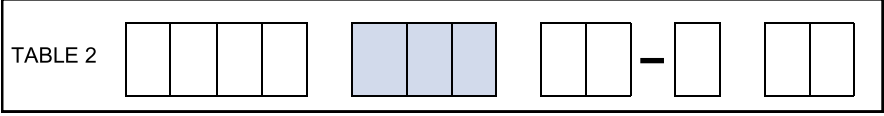


Models



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

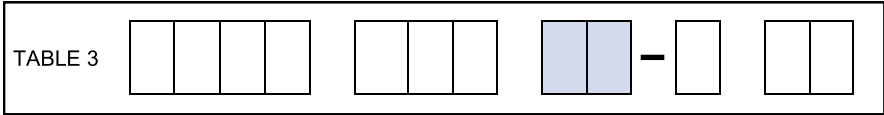
Function



- Standard unit
- Differential measurement
- Ideal for Open Channel Flow

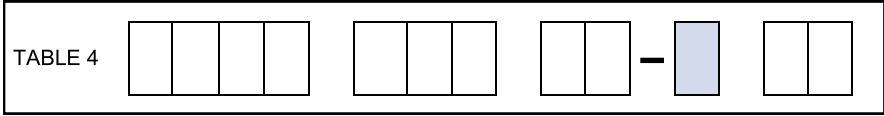
Description	Code
Single HART transmitter input. 4-20mA and 4 relay outputs	901
Dual HART transmitter inputs. 4-20mA and 4 relay outputs	902
Single HART transmitter input, logging and data download, 2 relay outputs	90F

Mounting



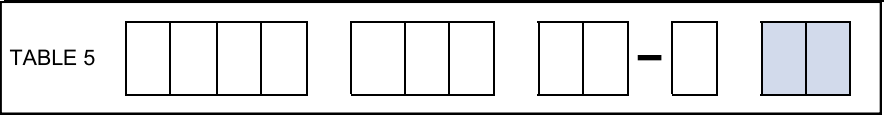
Description	Code
Wall mount	WX
Panel mount	PX

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 Not available for DMCU90FPX	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

Technical Specification

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

DMCU*** **-*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

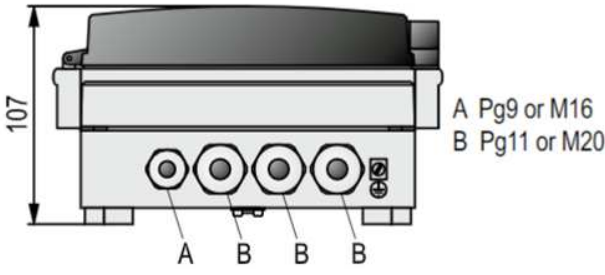
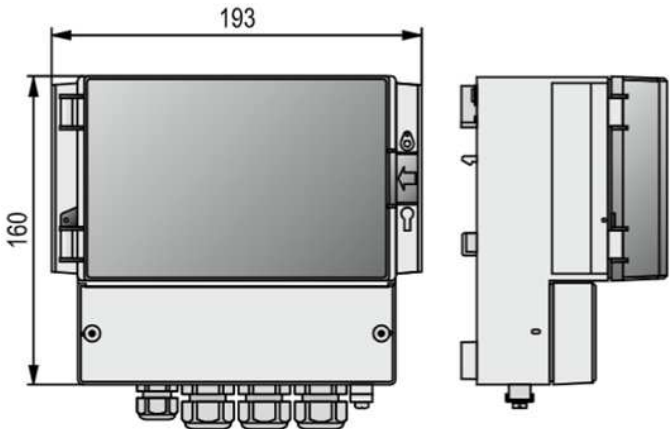
EN 60079-0, EN 60079-11

For connection to transmitters in Zone 0

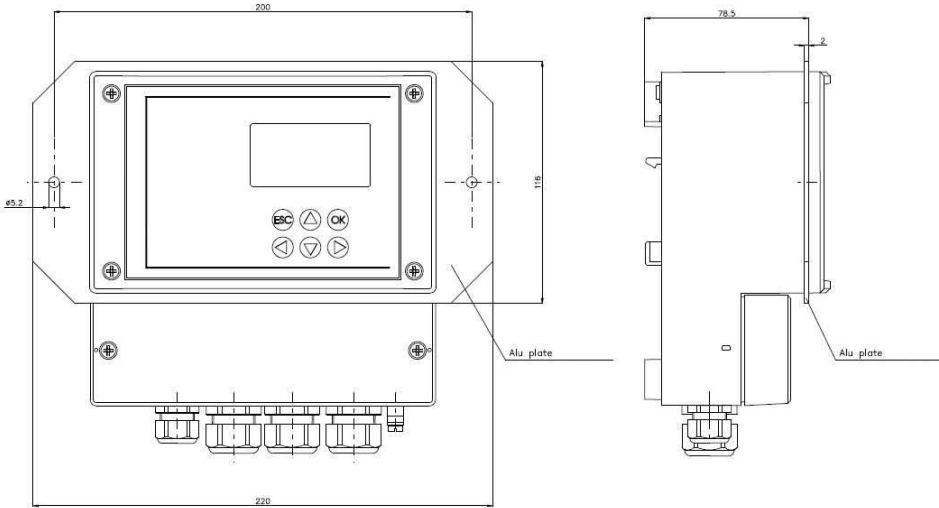


II (1) G
[Ex ia Ga] IIB
II (1) D
[Ex ia Da] IIIC

Dimensions



Wall mount model



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

Liquid Level & Flow Measurement
Model: DMCU900

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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