

Technical Datasheet



Control Unit

Universal HART control unit

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 four 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, operators or control systems.

All models have a large LCD display with push button menu driven programming. They provide an intrinsically safe power supply for I.S. transmitters. Options for data logging, with download facility.

The wall mount model has a protective hinged lid with clear visibility of the display.

Provides full functionality for configuration and diagnostics of Delta

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

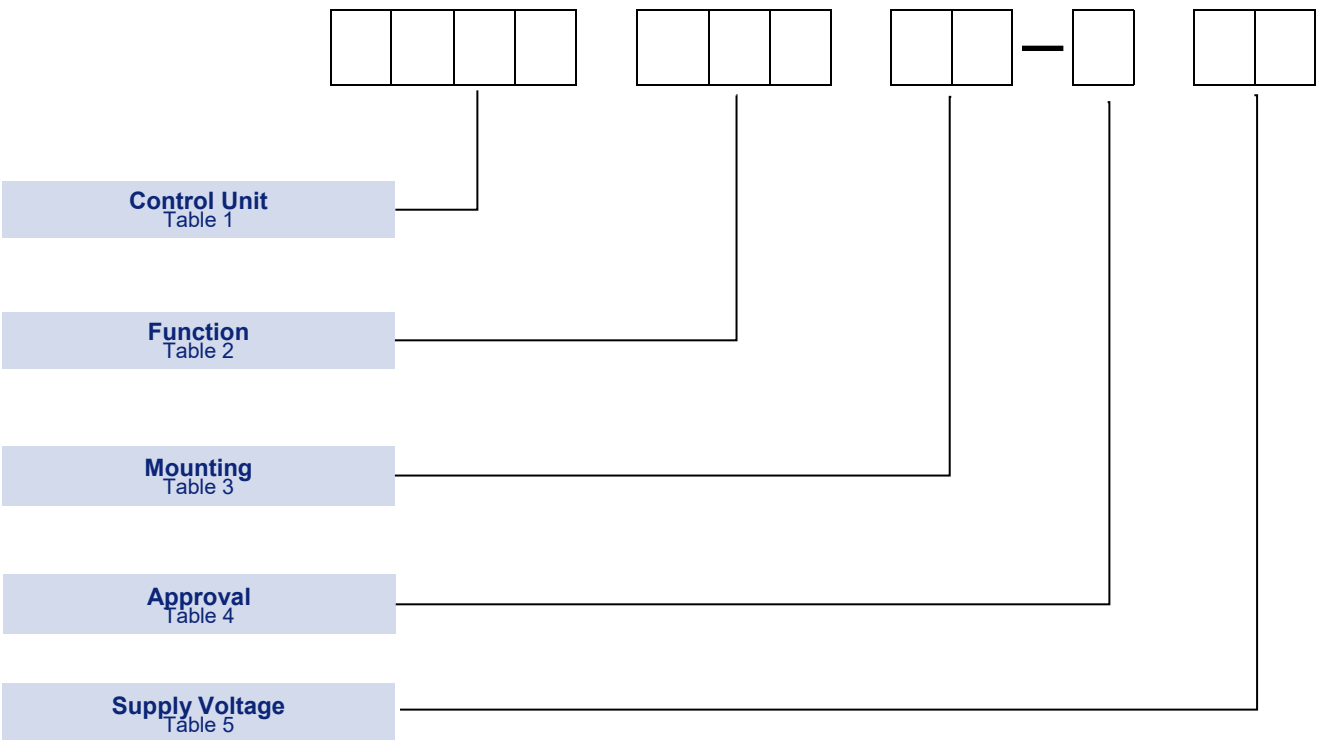
How can we help you?

Delta Mobrey offers fast, efficient and knowledgeable support when and where you need it. Please visit our 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

TABLE 1			-	
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Description	Code
Control unit. HART transmitter input(s)	DMCU

Function

Standard unit

Differential measurement

Ideal for Open Channel Flow

TABLE 2			-	
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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

TABLE 3			-	
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Description	Code
Wall mount	WX
Panel mount	PX

Approval

TABLE 4			-	
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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

TABLE 5			-	
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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	Wall mount (Panel mount on request)	Transmitter input	One HART transmitter input
Display	128 x 64 LED dot matrix 60mm x 30mm	Output Relays	4-20mA 4 SPDT 250V AC, 5A
Housing material	Polycarbonate		
Ambient Temperature	-20°C to +50°C		
Ingress protection	IP65		
DMCU90*WX-A (mains supply)		DMCU902**.*	
Supply voltage	85 to 255V AC 50-60Hz	Transmitter inputs	Two HART transmitters (for differential measurement)
Power requirements	12VA	Output Relays	4-20mA 2 SPDT 250V AC, 5A
DMCU90*WX-A24 (low voltage supply)		DMCU90F**.*	
Supply voltage	11.4-40 V DC or 11.4-28 V AC 50-60Hz	Transmitter input	One HART transmitter
Power requirements	12VA or 11W	Output Relays	4-20mA 2 SPDT 250V AC, 5A
		Additional function	Data logging
		Additional output	SD card slot and RS485 comms

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

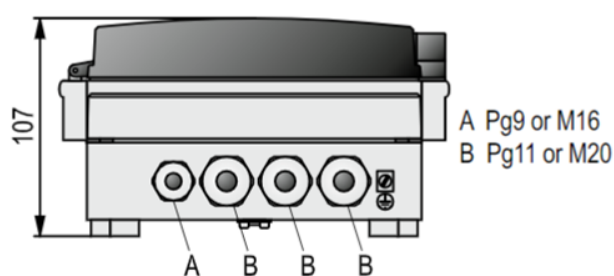
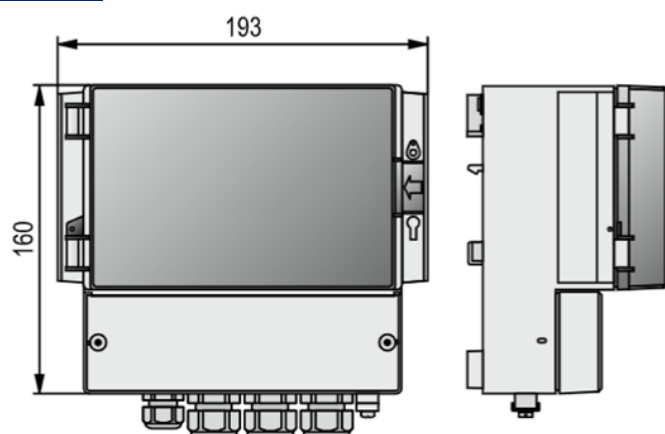
EN 60079-0, EN 60079-11

For connection to transmitters in Zone 0

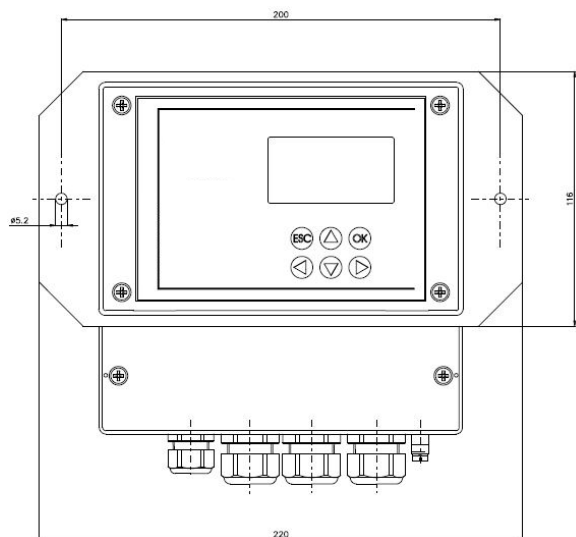


II (1) G
[Ex ia Ga] IIB
II (1) D
[Ex ia Da] IIIC

Dimensions



Wall mount model



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