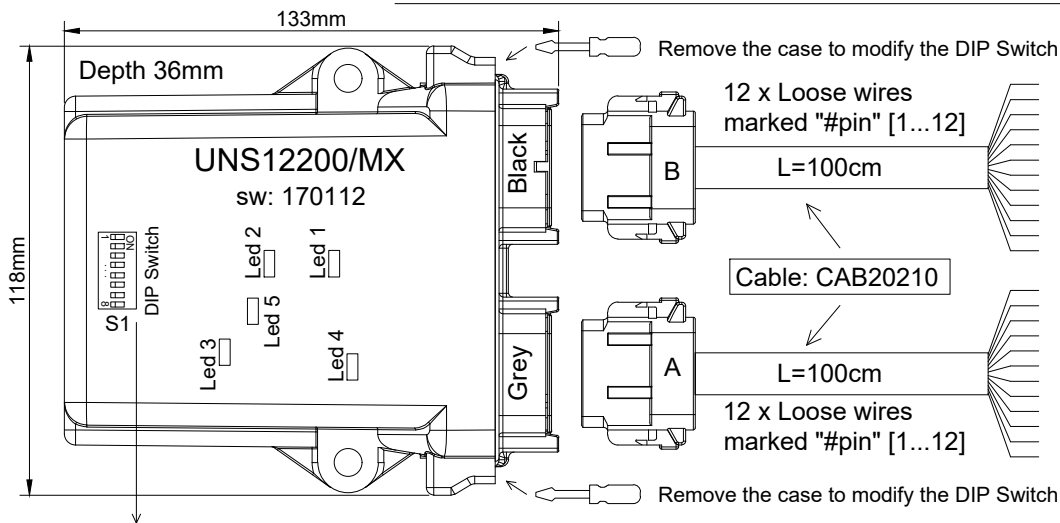


# UNS12200/MX - MULTIFUNCTION CONVERTER



## EXTERNAL CONNECTION

### Connector "A" (DTM06-12SA - Grey)

- 1: Power supply (12...24Vdc)
- 2: GND
- 3: Low Oil Press (\*\*\*)
- 4: Over Temperature (switch active when closed to gnd)
- 5: Battery Voltage 1 (0...32.6V)
- 6: Not Connected (NC)
- 7: Not Connected (NC)
- 8: NMEA 2000 NET-H (CAN-H)
- 9: NMEA 2000 NET-L (CAN-L)
- 10: NMEA 2000 NET-C (power supply V-)
- 11: Not Connected (NC)
- 12: Not Connected (NC)

(\*\*\*) switch active when closed to gnd and alarm enabled when engine is running (rpm>300rpm and t>10s)

### Connector "B" (DTM06-12SB - Black)

- 1: Not Connected (NC)
- 2: GND
- 3: Engine Speed (0...10000Hz = 0...16000rpm) (\*)
- 4: Not Connected (NC)
- 5: Battery Voltage 3 (0...32.6V)
- 6: Not Connected (NC)
- 7: Engine Water Temp Input (287...22Ω = 40...120°C)
- 8: Engine Oil Press Input (10...180Ω = 0...10bar)
- 9: Fuel Level % Input (10...180Ω = 0...100%)
- 10: Rudder Angle Input (10...95...180Ω = +40...-40°) (\*) (\*\*)
- 11: Low Sys Volt Sel (Open: V1\_Th=8V - GND: V1\_Th=16V)
- 12: Not Connected (NC)

(\*) with Gain Adj  
(\*\*) with Offset Adj

## DIP SWITCH DESCRIPTION

Dip	Function
1	Always OFF. - ON = Rudder calibration input: Zero Increases
2	Always OFF. - ON = Rudder calibration input: Zero Decrease
3	Always OFF. - ON = Rudder calibration input: Gain Increases
4	Always OFF. - ON = Rudder calibration input: Gain Decrease
5	Always OFF. - ON = Engine Speed calibration input: Gain Increase
6	Always OFF. - ON = Engine Speed calibration input: Gain decrease
7	OFF => ID=0. - ON => ID=1 for Engine Instance NMEA2000
8	OFF => ID=0. - ON => ID=1 for Device Instance NMEA2000

## INTERNAL DIAGNOSTIC LED

- Led 1 (green): 5VP - ON => Ok
- Led 2 (green): 3V3P - ON => Ok
- Led 3 (green): CPU - If Main Running => blinking with T\_On=1s + T\_Off=1s. Otherwise failure => ON (and also during the PowerOn) or OFF.
- Led 4 (green): FAULT - ON => Cumulative Fault
- Led 5 (green): CanBus Status - ON: message transmission or reception.

## PGN TRANSMITTED ON NMEA2000

Engine Temperature	127489	(0x1f201)
Engine Oil Pressure	127489	(0x1f201)
Fuel Level Percent	127505	(0x1f211)
Rudder Angle	127245	(0x1f10d)
Engine Speed	127488	(0x1f200)
Battery Voltage 1	127508	(0x1f214)
Battery Voltage 3	127508	(0x1f214)
Low Oil Pressure	127489	(0x1f201)
Over Temperature	127489	(0x1f201)
Low System Voltage	127489	(0x1f201)

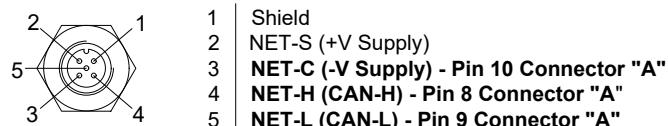
## DIP SWITCH ENGINE CUSTOMIZATION

Dip	SINGLE ENGINE		DUAL ENGINE	
	OFF	ON	PORT	STBD
7	OFF	ON	OFF	ON
8	OFF	ON	OFF	ON

## S1 CUSTOMIZATION BY DEFAULT

Dip 1 = OFF	Dip 4 = OFF	Dip 7 = OFF
Dip 2 = OFF	Dip 5 = OFF	Dip 8 = OFF
Dip 3 = OFF	Dip 6 = OFF	

## PINOUT NMEA2000 - M12 MALE CONNECTOR



### Deutsch Connectors:

"A" DTM06-12SA (CON70389) + WM-12S (CON70391) + 12x0462-201-20141 (CON70216/5) + DTM12S-BT (CON70914)  
 "B" DTM06-12SB (CON70390) + WM-12S (CON70391) + 12x0462-201-20141 (CON70216/5) + DTM12S-BT-BK (CON70913)

### Deutsch Accessories:

Pin Extractor: SRK-RT-01  
 Crimping Tool: HDT-48-00

## TECHNICAL SPECIFICATIONS

Protection grade: IP68  
 Power Supply: 9...32Vdc  
 Current Consumption: <500mA  
 Weight: <0.5kg

Temp. Range: -20...+70°C  
 IMC: IEC60945  
 Dimension: 118x133x36mm

Rev:	Date:	Descrizione modifiche - Description of changes:
0	12/01/17	Prima emissione
1	15/02/19	Modifica descrizione funzione Dip-Switch 7-8
2	25/01/20	Inserimento pinout connettore M12-5pin
3	21/07/21	Inserita note con collegamento singolo e doppio motore a DIP Switch N° 7 - 8 e modificato layout disegno

Se non diversamente specificato, tutte le dimensioni sono da intendersi in mm e le tolleranze delle quote ±0.1mm

## SAN GIORGIO S.E.I.N. GENOVA - ITALY

Tel. 010-8301222 - www.sangiorgiosein.com

Wiring diagram NMEA2000 Converter

Number: <b>D170113</b>	Product code: <b>UNS12200/MX</b>	Sheet: <b>1/1</b>	Size: <b>A4</b>
Compiled: <b>Silvestri M.</b>	Checked: <b>Casaretto G.</b>	Approved: <b>Manuelli M.</b>	