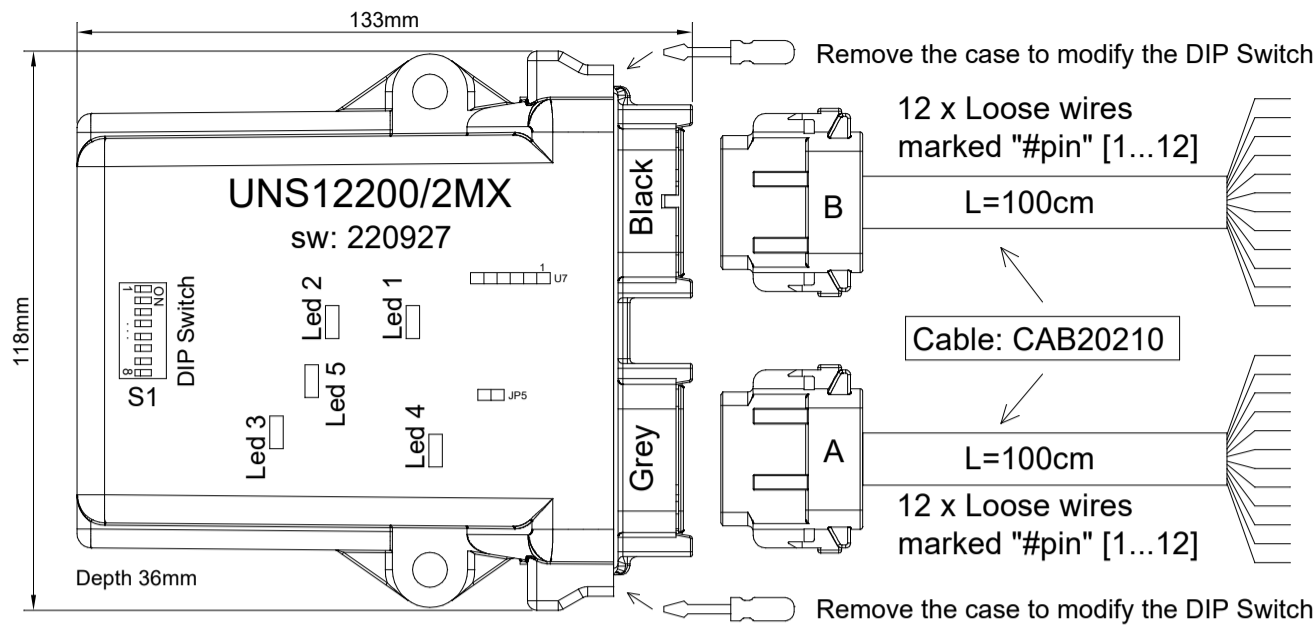


UNS12200/2MX - MULTIFUNCTION CONVERTER



PINOUT NMEA2000 - M12 MALE CONNECTOR	
1	Shield
2	NET-S (+V Supply)
3	NET-C (-V Supply) - Pin 10 Connector "A"
4	NET-H (CAN-H) - Pin 8 Connector "A"
5	NET-L (CAN-L) - Pin 9 Connector "A"

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

SINGLE ENGINE - EXTERNAL CONNECTION	
Connector "A" (DTM06-12SA - Grey) 1: Power supply (12...24Vdc) 2: GND 3: Low Oil Press (N.O., Active to GND if Engine is Run And $t > 10s$) 4: Over Temperature (N.O., Active to GND) 5: Battery Voltage 1 - [0..32.6]V 6: Gear Oil Pressure Input - [0..300] Ω 7: Aux 8: NMEA2000 NET-H (CAN-H) 9: NMEA2000 NET-L (CAN-L) 10: NMEA2000 NET-C 11: Aux 12: Aux	Connector "B" (DTM06-12SB - Black) 1: - 2: GND 3: Engine Speed Input - W [0..10k]Hz 4: Aux 5: Battery Voltage 3 - [0..32.6]V 6: Aux 7: Engine Temperature Input - [0..300] Ω 8: Engine Oil Pressure Input - [0..300] Ω 9: Fuel Level Percent Input - [0..300] Ω 10: Aux 11: Low Sys Volt Sel: Open=>V1_Th=8V, Gnd=>V1_Th=16V 12: Gear Oil Temperature Input - [0..300] Ω

TWIN ENGINE - EXTERNAL CONNECTION	
Connector "A" (DTM06-12SA - Grey) 1: Positive Power Supply 12/24V. Port Side 2: GND 3: Low Oil Press Port. (N.O., Active to GND if Engine Port is Running And $t > 10s$) 4: Low Oil Press Stbd. (N.O., Active to GND if Engine Stbd is Running And $t > 10s$) 5: Battery Voltage Port - [0..32.6]V 6: Gear Oil Pressure Input Port - [0..300] Ω 7: Gear Oil Pressure Input Stbd - [0..300] Ω 8: NMEA2000 NET-H (CAN-H) 9: NMEA2000 NET-L (CAN-L) 10: NMEA2000 NET-C 11: Aux 12: Aux	Connector "B" (DTM06-12SB - Black) 1: Positive Power Supply 12/24V. Stbd Side 2: GND 3: Engine Speed Input Port - W [0..10k]Hz 4: Engine Speed Input Stbd - W [0..10k]Hz 5: Battery Voltage Stbd - [0..32.6]V 6: Aux 7: Engine Temperature Input Port - [0..300] Ω 8: Engine Oil Pressure Input Port - [0..300] Ω 9: Gear Oil Temperature Input Port - [0..300] Ω 10: Engine Temperature Input Stbd - [0..300] Ω 11: Engine Oil Pressure Input Stbd - [0..300] Ω 12: Gear Oil Temperature Input Stbd - [0..300] Ω

SINGLE ENGINE - PGN TRANSMITTED ON NMEA2000					
Connettore	>>> Single Engine <<<	Type	PGN	Inst	Interval
Con#.Pin#	Aix Ai[x] Descrizione Single Engine				
ConA.Pin5	An3 Ai[0] Battery Voltage 1	VBatt	127508 (0x1f214)	0	1500ms
ConB.Pin5	An2 Ai[1] Battery Voltage 3	VBatt	127508 (0x1f214)	2	1500ms
ConA.Pin6	An5 Ai[2] Gear Oil Pressure Input	Vdo/Vsg/Vdo	127493 (0x1f205)	0	100ms
ConA.Pin7	An4 Ai[3] ----				
ConB.Pin7	An24 Ai[4] Engine Temperature Input	Vdo/Vsg/Vdo	127489 (0x1f201)	0	500ms
ConB.Pin8	An25 Ai[5] Engine Oil Pressure Input	Vdo/Vsg/Vdo	127489 (0x1f201)	0	500ms
ConB.Pin9	An26 Ai[6] Fuel Level Percent Input	Vdo/Vsg/Ame	127505 (0x1f211)	0	2500ms
ConB.Pin10	An27 Ai[7] ----				
ConB.Pin11	An28 Ai[8] Low Sys Volt Sel for V1 Th	OnOff	127489 (0x1f201)	0	500ms
ConB.Pin12	An29 Ai[9] Gear Oil Temperature Input	Vdo/Vsg/Vdo	127493 (0x1f205)	0	100ms
Con#.Pin#	Dix Di[x] Descrizione Single Engine				
ConA.Pin3	D_1 Di[0] Low Oil Press	OnOff	127489 (0x1f201)	0	500ms
ConA.Pin4	D_2 Di[1] Over Temperature	OnOff	127489 (0x1f201)	0	500ms
Con#.Pin#	Fix Fi[x] Descrizione Single Engine				
ConB.Pin3	F_1 Fi[0] Engine Speed Input	FrqIn	127488 (0x1f200)	0	100ms
ConB.Pin4	F_2 Fi[1] ----				
	Total Engine Hours	Internal	127489 (0x1f201)	0	500ms

TWIN ENGINE - PGN TRANSMITTED ON NMEA2000					
Connettore	>>> Twin Engine <<<	Type	PGN	Inst	Interval
Con#.Pin#	Aix Ai[x] Descrizione Single Engine				
ConA.Pin5	An3 Ai[0] Battery Voltage Port	VBatt	127508 (0x1f214)	0	1500ms
ConB.Pin5	An2 Ai[1] Battery Voltage Stbd	VBatt	127508 (0x1f214)	1	1500ms
ConA.Pin6	An5 Ai[2] Gear Oil Pressure Input Port	Vdo	127493 (0x1f205)	0	100ms
ConA.Pin7	An4 Ai[3] Gear Oil Pressure Input Stbd	Vdo	127493 (0x1f205)	1	100ms
ConB.Pin7	An24 Ai[4] Engine Temperature Input Port	Vdo	127489 (0x1f201)	0	500ms
ConB.Pin8	An25 Ai[5] Engine Oil Pressure Input Port	Vdo	127489 (0x1f201)	0	500ms
ConB.Pin9	An26 Ai[6] Gear Oil Temperature Input Port	Vdo	127493 (0x1f205)	0	100ms
ConB.Pin10	An27 Ai[7] Engine Temperature Input Stbd	Vdo	127489 (0x1f201)	1	500ms
ConB.Pin11	An28 Ai[8] Engine Oil Pressure Input Stbd	Vdo	127489 (0x1f201)	1	500ms
ConB.Pin12	An29 Ai[9] Gear Oil Temperature Input Stbd	Vdo	127493 (0x1f205)	0	100ms
Con#.Pin#	Dix Di[x] Descrizione Twin Engine				
ConA.Pin3	D_1 Di[0] Low Oil Press Port	OnOff	127489 (0x1f201)	0	500ms
ConA.Pin4	D_2 Di[1] Low Oil Press Stbd	OnOff	127489 (0x1f201)	1	500ms
Con#.Pin#	Fix Fi[x] Descrizione Twin Engine				
ConB.Pin3	F_1 Fi[0] Engine Speed Input Port	FrqIn	127488 (0x1f200)	0	100ms
ConB.Pin4	F_2 Fi[1] Engine Speed Input Stbd	FrqIn	127488 (0x1f200)	1	100ms
	Total Engine Hours Port	Internal	127489 (0x1f201)	0	500ms
	Total Engine Hours Stbd	Internal	127489 (0x1f201)	1	500ms

SINGLE ENGINE - DIP SWITCH DESCRIPTION		
#	Dip	Function
1	OFF	Quantity Engines Number. Off = Single Engine
2	OFF	Hour Counter Calibration Selector / Off = Engine Speed Calibration Selector
3	OFF	\ 3=Off e 4=Off => VdoType. 3=On e 4=Off => VegliaType
4	OFF	/ 3=Off e 4=On => AmericanType
5	OFF	Engine Speed calibration input. On = Gain Increase
6	OFF	Engine Speed calibration input. On = Gain Decerese
7	OFF	Engine Instance Offset. Off = 0. On = 1
8	OFF	NMEA 2000 Dev. Instance. Off = 0. On = 1

TWIN ENGINE - DIP SWITCH DESCRIPTION		
#	Dip	Function
1	ON	Quantity Engines Number. On = Twin Engine
2	OFF	Hour Counter Calibration Selector / Off = Engine Speed Calibration Selector
3	OFF	On=Engine Speed Port calibration input: Gain Increase
4	OFF	On=Engine Speed Port calibration input: Gain Decerese
5	OFF	On=Engine Speed Stbd calibration input: Gain Increase
6	OFF	On=Engine Speed Stbd calibration input: Gain Decerese
7	OFF	Engine Instance Offset. Off = 0. On = 2
8	OFF	NMEA 2000 Dev. Instance. Off = 0. On = 1

INTERNAL DIAGNOSTIC LED	
Led 1:	5VP. Acceso =>Ok.
Led 2:	3V3P. Acceso =>Ok.
Led 3:	CPU. Se Main Run =>Led 3 blinking T_On=1s + T_Off=1s. Se Debug Running =>Led 3 blinking T_On=100ms + T_Off=100ms. Altrimenti fisso acceso o spento.
Led 4:	UNS12200/2MX FAULT. Acceso =>Fault cumulativo di UNS12200/2MX.
Led 5:	CanBus Nmea2000 Status. Acceso: messaggio in trasmissione oppure in ricezione.

TECHNICAL SPECIFICATIONS	
Protection grade:	IP68
Power Supply:	9..32Vdc
Current Consumption:	<500mA
Temp. Range:	-20..+70°C
IMC:	IEC60945
Dimension:	118x133x36mm

NOTE	
JP5:	Chiuso = terminazione con 120ohm della linea dati CanBus Nmea2000.
U7.Pin_2 e U7.Pin_3:	Chiuso = trasmissione dei messaggi NMEA dei dati istantanei e diagnostici.

Rev:	Date:	Descrizione modifiche - Description of changes:	SAN GIORGIO S.E.I.N. GENOVA - ITALY	
0	25/11/22	Prima emissione	Tel. 010-8301222	www.sangiorgiosein.com
1	16/03/23	Modificato codice strumento UNS12200/2MX	Wiring diagram NMEA2000 single and twin engine converter	
			Number: D221125	Product code: UNS12200/2MX
			Sheet: 1/1	Size: A3
			Compiled: Silvestri M.	Checked: Manuelli M.
			Approved: Manuelli M.	

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