

CEM-380-10 CEM-380-EM CEM-380-SD

Complete with electronic transmitter (electronic pressure switch) and digital pressure gauge for pump water pressure.



It is equipped with display to the following functions:

- pump protection exclusion
- battery and oil lights
- protections intervention
- hour-meter
- timer
- pump water pressure gauge
- fuel level indicator
- tachometer
- battery voltmeter
- oil pressure gauge
- engine thermometer

Assembly on
the machine and
in the open air.

INSTRUCTION AND USER MANUAL

PROTECTS THE MOTOR PUMP GROUP SET BY THEM IN THE EVENT OF:

- low oil pressure
- over-temperature
- belt breakage
- minimum fuel level
- available A1
- A2 (low diesel pressure)
- low coolant level
- insufficient pump water pressure
- pump water overpressure



Tel. +39 0521/772021

E-mail: info@elcos.it – <https://www.elcos.it>

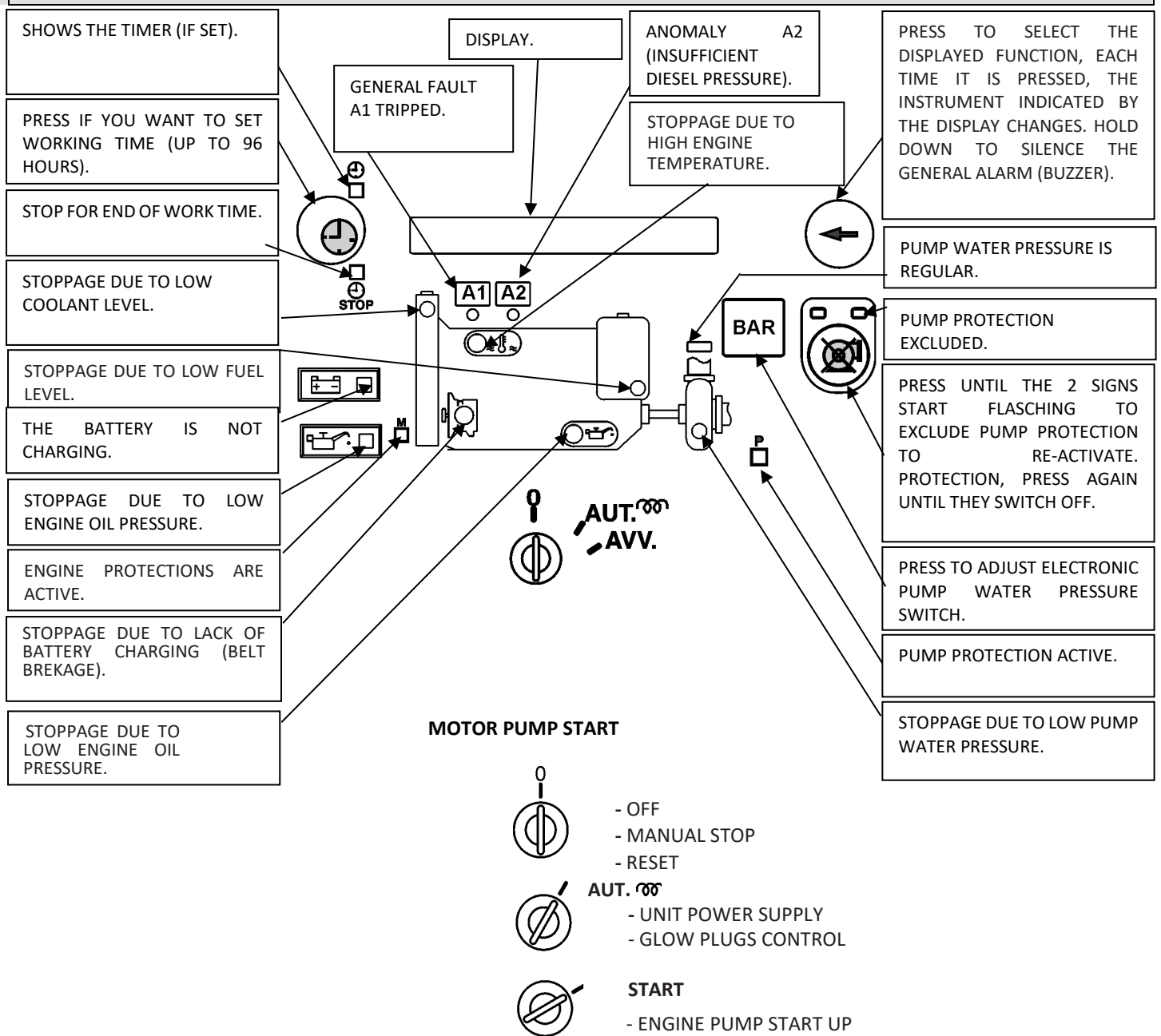
CONTENTS

PANEL FOR CONTROL AND PROTECTION OF IRRIGATION MOTOR PUMPSET	1
CONTENTS	2
CHRONOLOGY OF MANUAL REVISIONS	2
BRIEF INSTRUCTIONS	3
TYPES	3
OPERATION	4
SETTING ELECTRONIC PRESSURE SWITCH ADJUSTMENT (TRANSMITTER) WATER PUMP	4
TIMER	4
PUMP PROTECTION EXCLUSION	4
ENGINE PROTECTIONS	5
CONTROLLING THE CONNECTION OF THE PUMP WATER ELECTRONIC PRESSURE GAUGE (TRANSMITTER)	5
PUMP PROTECTION	5
STOPPING THE ENGINE PUMP	5
EMERGENCY STOP	6
GLOW PLUGS PREHEATING	6
GENERAL ALARM	6
INSTRUMENT	6
WIRING DIAGRAM	7
WIRING DIAGRAM	8
WIRING DIAGRAM	9
INFORMATION REGARDING THE CONNECTION	10
CEM-380-SD CONNECTORS	10
USER PROGRAMMING	11
TECHNICAL PROGRAMMING	12
NOTICES	13
ELECTROMAGNETIC COMPATIBILITY	14
TECHNICAL DATA	15
DIMENSIONS	16
ORDERING DATA	17
ACCESSORIES ON REQUEST	17
ACCESSORIES ON REQUEST	17
SUPPORT FOR INSTALLATION ON BASE	17

CHRONOLOGY OF MANUAL REVISIONS

Date	Revision	Description	Page
15/10/2024	1.00	First release	
13/03/2025	1.01	CEM-380-10 CEM-380-EM CEM-380-SD	

BRIEF INSTRUCTIONS



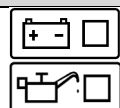
TYPES

The following table summarises the differences between the various models available:

TYPE	CONNECTIONS	EMERGENCY STOP BUTTON
CEM-380-10	FASTON	NO
CEM-380-EM	FASTON	YES
CEM-380-SD	SEALED	NO

OPERATION

OIL AND BATTERY INDICATOR LIGHTS



Lit up with key on "AUT", they switch off with the engine running and regular oil pressure and battery charge system.

SETTING ELECTRONIC PRESSURE SWITCH ADJUSTMENT (TRANSMITTER) WATER PUMP

PUMP PROTECTION

No adjusting is required.

The pump protection is enabled when warning lights **PUMP PROTECTION ACTIVE** come on after the water pressure has remained stable for 2 consecutive programmable minutes, in any case 10 minutes after the engine started. Intervention of the protection (5 seconds after the pressure goes up or down by **two bars**) stops the engine and is shown on the display:

OVERPRESSURE
PUMP WATER

However it is possible to change the **two bar** of pressure lowering (subpressure), by pressing button

BAR

or

This change is deleted, when the engine is stopped.

INSUFFICIENT
WATER PRESSURE

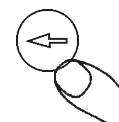
OVERPRESSURE remains set to two bars, this value is added to the working pressure (for example, working pressure 9 bars overpressure 11 bars)

Press to set the
SUBPRESSURE value.

Press to set the
SUBPRESSURE value

BAR

WORK. PRESS.	10
SUBPRESSURE	08



Press to select
the **WORKING**
PRESSURE.

TIMER

Enabled with key on "AUT", it makes it possible, if necessary, to have the motor pump work for an adjustable length of time (maximum 96 hours), at the end of which it stops and the **WORK TIME OVER** sign lights up on the display.

The work time is set by pressing the push-button  lights up until the desired  value appears on the DISPLAY.

On releasing the push-button, the timer automatically starts working, continuously displaying the remaining work time.

CANCELLING THE SET TIME

To zeroing the set time there are two methods: -keep the push-button  pressed until it reaches zero or
- **by turning the starter key onto "ZERO" (the engine pump will stop).**

PUMP PROTECTION EXCLUSION

(ENABLED ONLY WITH ENGINE RUNNING)

The push-button  excludes pump protection: exclusion is obtained by keeping it pressed for at least 3 consecutive seconds; the function is indicated by the two intermittent lights.

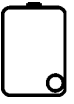


This exclusion is cancelled by pressing the push-button again or by turning the start key onto "ZERO".

ENGINE PROTECTIONS

The engine protections are enabled when the ENGINE PROTECTIONS ACTIVE light , comes on, (20 seconds after the end of starting impulse and however 1 minute after positioning the key on "AUT").

Interventions of the protection probes (fitted on the engine), indicated by the relevant lights, stop the engine, they are memorised and can be split into two groups:

Immediate for:		Delayed by 5 seconds for:	
- OIL PRESSURE SWITCH		- A1	
- OVERTEMPERATURE SWITCH		- A2 (LOW FUEL PRESSURE)	
		- BATTERY CHARGING ALTERNATOR (BELT BREAKAGE)	
		- FUEL LEVEL SWITCH	
		- flashing signal: 20% fuel reserve (T) (WITHOUT ENGINE STOP)	
		- Signal always on: stop for minimum fuel level (W)	
		- PROBE FOR COOLANT LEVEL	

CONTROLLING THE CONNECTION OF THE PUMP WATER ELECTRONIC PRESSURE GAUGE (Transmitter)

Turning the key to the AUT position stops the electronic pressure gauge.
Control is activated 1 minute after the completion of the starting pulse.

Intervention is highlighted by the relevant indicators and stops the motor pump after 2 seconds.

WATER TRANSMITTER
STOPPED



To exclude intervention, press the push-button PUMP PROTECTION EXCLUSION.

PUMP PROTECTION

The pump protection is enabled with the switching on of the ACTIVE PUMP PROTECTION (after 2 consecutive minutes of stable water pressure, indicated by the visual signal REGULAR PUMP PRESSURE  and in any case, 10 minutes after the start of the motor pump).

The intervention of the protection (5 seconds after the increase or decrease of the pressure) stops the engine and is indicated by the visual

signal for  LOW PUMP WATERPRESSURE or WATERPUMPOVERPRESSURE .

RESET : is obtained by turning the start key onto "ZERO".

STOPPING THE ENGINE PUMP

The control unit shut down the engine in three conditions:

- turning the starter key onto "ZERO".
- protection intervention.
- timer intervention at the end of the work period.
- The unit adapts to two different stop system:
- by working the ELECTROMAGNET for 20 seconds which pulls the STOP lever.
- by cutting off power to the SOLENOIDVALVE shutting off the flow of fuel.

EMERGENCY STOP

An emergency stop can be activated in any operating condition through the installation of one or more push-lock buttons. The emergency stop status is displayed on the screen.

Pressing the emergency button halts the engine, preventing start-up or ongoing operation. To restore, unlock the emergency button and reset the starter key to zero.

On the display it's reported.

EMERGENCY
STOP

The CEM-380-EM is equipped with an emergency button installed on the upper section of the dashboard. It comes as a standard feature, along with any additional emergency buttons installed on the "C" connector.

GLOW PLUGS PREHEATING

FACTORY- EXCLUDED

Is activated with key in AUT  the display shows the phrase

GLOW PLUGS
PREHEATING

The duration of the preheating action can be set.

Is indicated on the display when the action has ceased

ENGINE
STARTING

GENERAL ALARM

This can be obtained by fitting on the outside an optical and/or acoustic signaller to be connected to the RED/GREEN wire. It is activated on protection intervention.

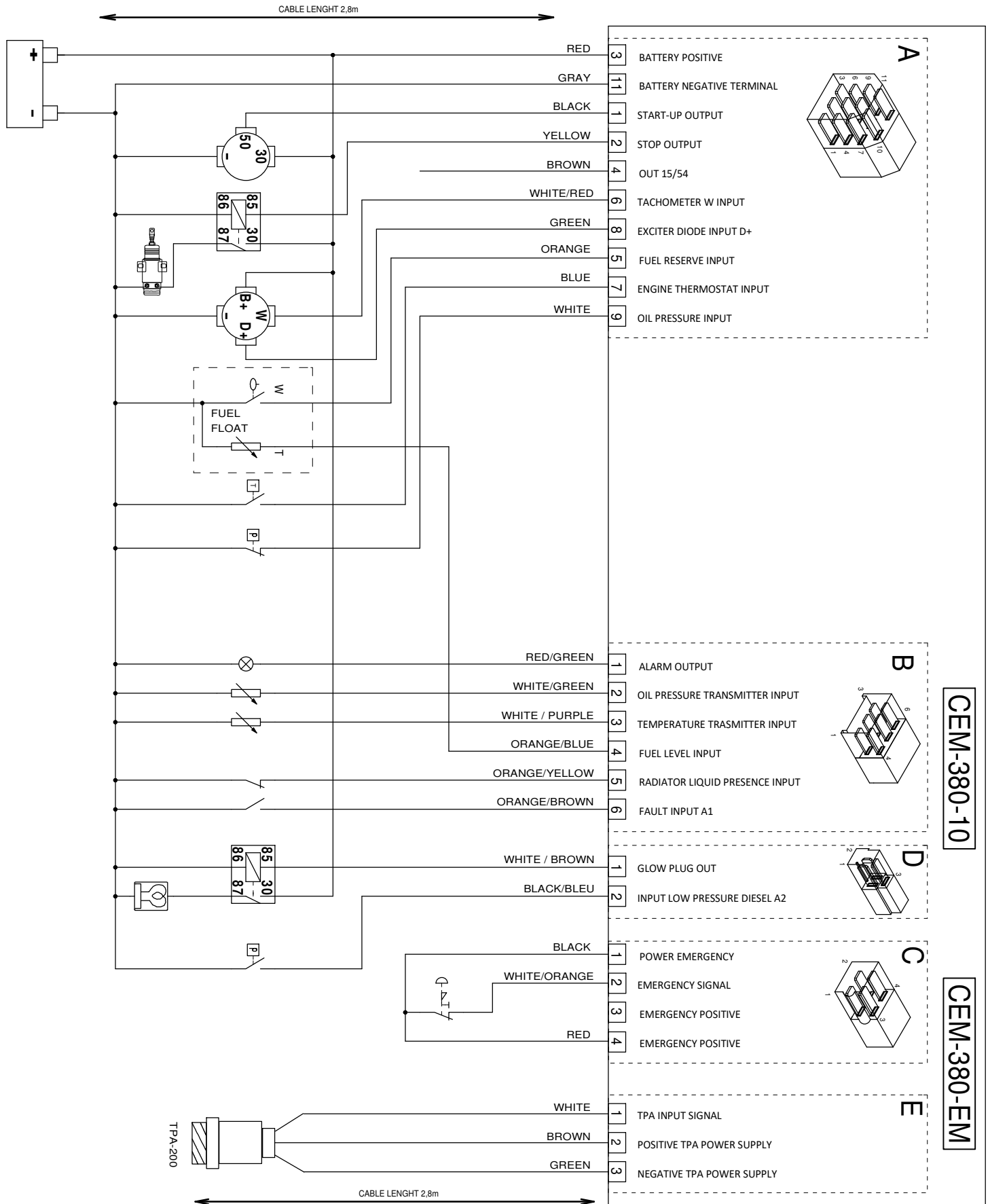
INSTRUMENT

The control unit comprises five instruments selectable in sequence by pressing the button



HOUR-METER	- Total hours of operation (with the engine running the signal : pulsates to indicate the correct functioning of the HOUR-METER.
PRESSURE GAUGE	- Pressure water pump.
TACHOMETER	- Speed of motor pump.
FUEL LEVEL INDICATOR	- Fuel level percentage.
VOLTMETER	- Battery voltage.
ENGINE THERMOMETER	- Engine temperature.
ENGINE PRESSURE GAUGE	- Engine oil pressure.

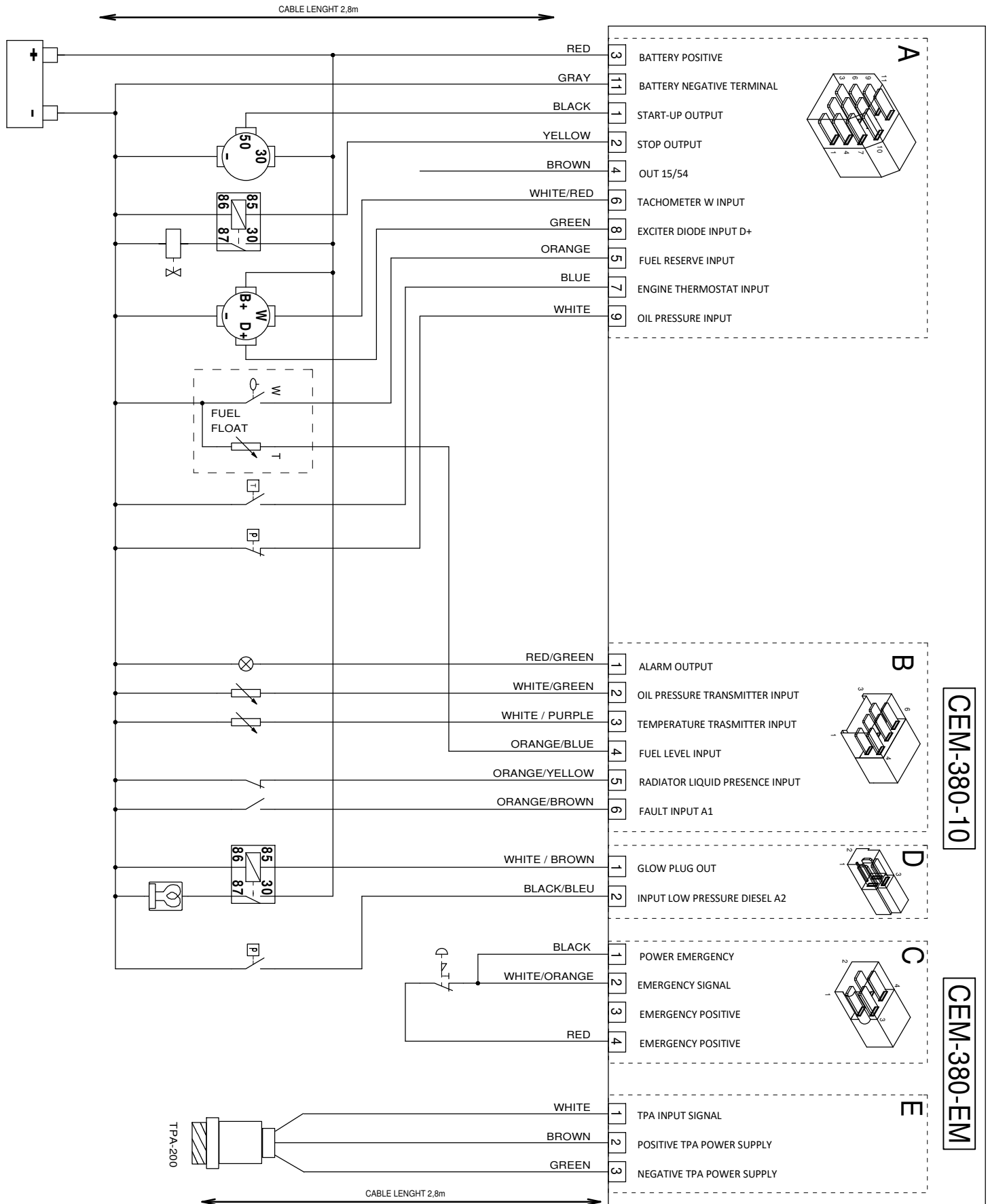
WIRING DIAGRAM CEM-380-10 / CEM-380-EM WIRING DIAGRAM WITH STOP ELECTRO-MAGNET



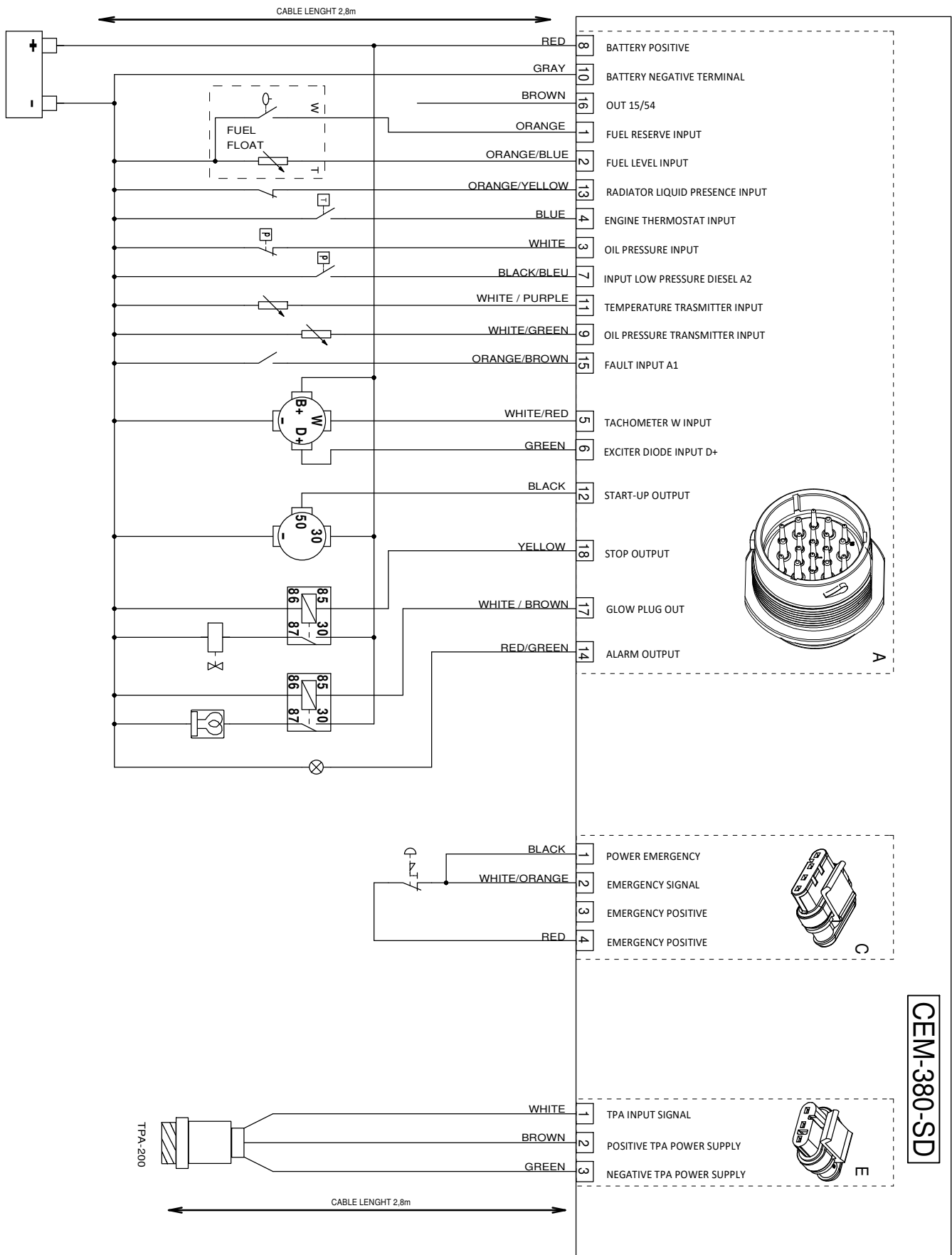
WIRING DIAGRAM

CEM-380-10 / CEM-380-EM

WIRING DIAGRAM STOP SOLENOID VALVE



WIRING DIAGRAM CEM-380-SD WIRING DIAGRAM STOP SOLENOID VALVE



INFORMATION REGARDING THE CONNECTION

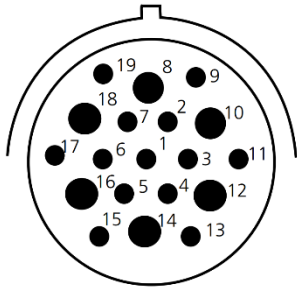
- **ATTENTION:** a relay is not required for loads with a current absorption below 3 A.
- **FUSE REPLACEMENT:** the fuses are located inside the control unit. To access them, remove the front panel by unscrewing the four securing screws. Replace fuses with ones of the same rating.
- If the "LOW COOLANT LEVEL" function is not used, connect the YELLOW/ORANGE to ground.
- The 15/54 OUTPUT of the starter key can be used to power the auxiliaries and/or a spotlight.
- Carefully insulate any unconnected wires.
- The control unit is designed to operate a stopping system via solenoid valve. To stop with an electromagnet, configure the corresponding parameter.

CEM-380-SD CONNECTORS

The following are the connectors of the CEM-380-SD control unit:

- HDP24-24-19PE: engine connection
- AMP 282088-1: emergency button connection
- AMP 282087-1: connection to the TPA-200

The following table provides the meaning of each terminal.

CONNECTOR	TERMINAL		FUNCTION		
HDP24-24-19PE	1	ORANGE	FUEL RESERVE INPUT		A
	2	ORANGE/BLUE	FUEL LEVEL INPUT		
	3	WHITE	OIL PRESSURE SWITCH INPUT		
	4	LIGHT BLUE	ENGINE THERMOSTAT INPUT		
	5	WHITE/RED	ALTERNATOR W INPUT (TACHOMETER)		
	6	GREEN	D+ ALTERNATOR INPUT		
	7	BLACK/BLUE	A2 FUEL PRESSURE SWITCH INPUT		
	8	RED	BATTERY POSITIVE INPUT		
	9	WHITE/GREEN	OIL PRESSURE TRANSMITTER INPUT		
	10	GREY	BATTERY NEGATIVE INPUT		
	11	WHITE/VIOLET	TEMPERATURE TRANSMITTER INPUT		
	12	BLACK	START-UP OUTPUT		
	13	ORANGE/YELLOW	RADIATOR LIQUID PRESENCE INPUT		
	14	RED/GREEN	ALARM OUTPUT		
	15	ORANGE/BROWN	A1 FAULT AVAILABLE INPUT		
	16	BROWN	15/54 OUTPUT		
	17	WHITE/BROWN	GLOW PLUG OUTPUT		
	18	YELLOW	STOP OUTPUT		
	19		Free		
AMP 282088-1	1	BLACK	EMERGENCY POWER INPUT		C
	2	WHITE/ORANGE	EMERGENCY SIGNAL INPUT		
	3	RED	EMERGENCY POSITIVE OUTPUT		
	4	RED	EMERGENCY POSITIVE OUTPUT		
AMP 282087-1	1	WHITE	TPA-200 SIGNAL INPUT		E
	2	BROWN	TPA-200 POSITIVE POWER SUPPLY OUTPUT		
	3	GREEN	TPA-200 NEGATIVE POWER SUPPLY OUTPUT		

USER PROGRAMMING

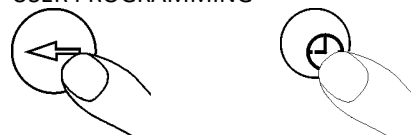
ACCESS TO PROGRAMMING MODE

Turn the key to 

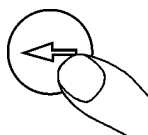
DO NOT SET IN RUNNING

Press (5") at the same time to
DISPLAY

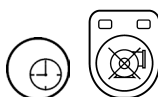
USER PROGRAMMING



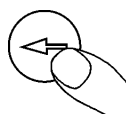
PROGRAMMAZIONI
UTENTE



PRESS TO DISPLAY THE
REQUIRED PROGRAMMING



PRESS TO ADJUST THE PARAMETER
(INCREASE OR DECREASE)



HOLD DOWN AND WAIT UNTIL
"PROGRAMMED" APPEARS TO SAVE THE
PARAMETER

EXIT FROM PROGRAMMING MODE

Re-position the
key to zero



USER PROGRAMMING			
Parameter	Factory settings	Range	Notes
SELECT LANGUAGE	ITALIANO	ITALIANO	Language choice.
		ENGLISH	
		FRANCAIS	
		DEUTSCH	
		ESPANOL	
		PORTUGUES	
TACHOMETER ADJUSTMENT			Start with the ignition key and bring the engine to idle at constant known speed for example via a portable tachometer. Displayed on the display programmed RPM value. Press the adjustment buttons until the correct indication appears on the display, then proceed to program the value.

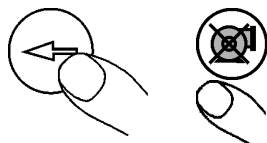
TECHNICAL PROGRAMMING

ACCESS TO PROGRAMMING MODE

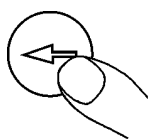
Turn the key to



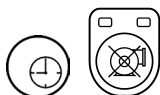
DO NOT SET IN RUNNING
Simultaneously press (5")
to select



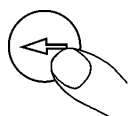
TECHNICAL PROGRAMMING



PRESS TO DISPLAY THE
DESIRED PROGRAMMING.



PRESS TO ADJUST THE PARAMETER
(INCREASE OR DECREASE)



HOLD DOWN AND WAIT UNTIL
"PROGRAMMED" APPEARS TO SAVE THE
PARAMETER

EXIT FROM PROGRAMMING MODE

Re-position the key to zero



TECHNICAL PROGRAMMING

Parameter	Factory settings	Range	Notes
STOPPING SYSTEMS	ENERGIZED IN RUN MODE	ENERGIZED IN STOP MODE ENERGIZED IN RUN MODE	CHOICE STOPPING SYSTEMS ARRANGEMENT. The control panel to command SOLENOID: valve (ENERGIZED IN RUN MODE) or a ELECTROMAGNET (EXCITED IN STOP MODE).
SELECT LANGUAGE	ITALIANO	ITALIAN ENGLISH FRENCH GERMAN SPANISH PORTUGUESE	Language choice.
BATTERY VOLTAGE	12V	12 V 24 V	
TACHOMETER ADJUSTMENT			Run the engine at a constant and known rpm value (for example by means of a portable revolution counter). The programmed RPM value will appear on the display. Press the adjustment buttons until the correct indication appears on the display, then proceed to program the value.
CHOICE OF FUEL FLOAT	VEGLIA	VEGLIA VCO DATCOM W	FUEL FLOAT CHOICE. See table below for types. W = contact.
MODIFY HOUR METER			Allows adjusting the hour meter.
TACHOMETER	ENGAGED	ENGAGED OFF	SWITCHING OFF AND ON PROCEDURE OF INSTRUMENTS.

LEVEL INDIC. DIESEL	ENGAGED	ENGAGED	
		OFF	
BATTERY VOLTMETER	ENGAGED	ENGAGED	
		OFF	
PREHEATING TIME	0s	0÷60s	Glow plug preheating time, 0 sec, pre-heating off.
LOW TIME. WATER PRESSURE	5s	5÷300	Intervention time for low pump water pressure.
CHARGING ALTERNATOR	ENGAGED	ENGAGED	EXCLUSION CHARGING ALTERNATOR. EXCLUSION THE CHARGING ALTERNATOR In the absence of the alternator, you choose EXCLU. With the choice EXCLUDED the battery is not charged.
		OFF	
ENGINE TEMP.	OFF	ENGAGED	ENGINE THERMOMETER EXCLUSION. With the choice EXCLUDED the motor temperature is not displayed.
		OFF	
OIL PRESSURE	OFF	ENGAGED	ENGINE OIL PRESSURE GAUGE EXCLUSION With EXCLUDED the engine oil pressure does not is displayed.
		OFF	
TRANSD. CHOICE ENGINE TEMP.	TTAO/402	...	CHOICE OF MOTOR PRESSURE TRANSDUCER TYPE See table below for types.
TRANSD. CHOICE OIL PRESSURE	TPO/403	...	CHOICE OF MOTOR TEMPERATURE TRANSMITTER TYPE See table below for types.
DIFFERENTIAL OVERPRESSURE	2.0BAR	1.0÷3.0 BAR	PUMP WATER OVERPRESSURE SETTING. The control unit is set with overpressure differential of 2 bar that is automatically added to the working pressure (for example, working pressure 9 bar, overpressure 11 bar). The differential can be set from 1 at 3 bar. With working pressure between 1.5 and 4 bar, the differential is fixed at 1 bar.
DIFFERENTIAL UNDERPRESSURE	2.0BAR	0.5÷3.0 BAR	PUMP WATER LOW PRESSURE SETTING The control unit is set with low differential pressure of 2 bar that is automatically subtracted to the working pressure. If differential can be set from 0,5 at 3 bar. With working pressure between 1,5 ÷ 4 bar, the differential is fixed at 1 bar.
UNIT OF MEASUR. PRESSURE	BAR	BAR kPa psi	UNIT OF MEASUR. PRESSURE CHOICE.
UNIT OF MEASUR. TEMPERATURE	°C	°C °F	
RADIATOR LEVEL PROBE	FUNZ. NORMALE	NORMAL OPERATION REVERSED OPERATION	RADIATOR LEVEL PROBE CHOICE.
DELAY PUMP PROTECTIONS	120s	30÷600s	

Fuel float tables		
TYPE	0 %	100 %
VEGLIA	300 ohm	0 ohm
VDO	10 ohm	181 ohm
DATCON	240 ohm	37 ohm

Pressure transmitter tables.										
TYPE	0BAR	1BAR	2BAR	3BAR	4BAR	5BAR	6BAR	7BAR	8BAR	9BAR
TPO/403	270 ohm	251 ohm	203 ohm	157 ohm	114 ohm	79 ohm	47 ohm	32 ohm	23 ohm	1 ohm
VDO	10 ohm		50 ohm		85 ohm		119 ohm		152 ohm	
VDO 29/10	9 ohm	38 ohm	57 ohm	77 ohm	99 ohm	114 ohm	134 ohm	149 ohm	164 ohm	180 ohm
LOMBARDINI	10 ohm	31 ohm	52 ohm	71 ohm	90 ohm	107 ohm	124 ohm	140 ohm	156 ohm	170 ohm
[10-180] ohm	10 ohm	27 ohm	44 ohm	61 ohm	78 ohm	95 ohm	112 ohm	129 ohm	146 ohm	163 ohm
[240-33,5] ohm	240 ohm	219 ohm	199 ohm	178 ohm	157 ohm	137 ohm	116 ohm	95 ohm	75 ohm	54 ohm
DD6E	7 ohm	39 ohm	72 ohm	104 ohm	132 ohm	159 ohm	187 ohm	215 ohm	242 ohm	270 ohm
VSG40030	259 ohm	215 ohm	172 ohm	139 ohm	106 ohm	83 ohm	60 ohm	46 ohm	32 ohm	21 ohm

Temperature transmitter tables										
TYPE	25°C	50°C	70°C	80°C	85°C	90°C	95°C	100°C	120°C	130°C
TTAO/402	896 ohm	365 ohm	196 ohm	145 ohm	127 ohm	110 ohm	97 ohm	85 ohm	53 ohm	30 ohm
VDO/120	544 ohm	197 ohm	97 ohm	70 ohm	60 ohm	51 ohm	44 ohm	38 ohm	22 ohm	17 ohm
VDO/150	909 ohm	324 ohm	157 ohm	113 ohm	97 ohm	83 ohm	72 ohm	62 ohm	37 ohm	29 ohm
BERU	4036 ohm	1259 ohm	560 ohm	387 ohm	324 ohm	273 ohm	231 ohm	196 ohm	106 ohm	80 ohm
VEGLIA		708 ohm	399 ohm	245 ohm	210 ohm	175 ohm	153 ohm	130 ohm	75 ohm	59 ohm
JCB/1707	503 ohm	200 ohm	105 ohm	78 ohm	67 ohm	59 ohm	51 ohm	45 ohm	9	
LOMBARDINI	927 ohm	322 ohm	155 ohm	112 ohm	96 ohm	83 ohm	71 ohm	62 ohm	36 ohm	29 ohm
F16173	2130 ohm	834 ohm	435 ohm	323 ohm	280 ohm	243 ohm	213 ohm	186 ohm	114 ohm	91 ohm
VSG40028	1896 ohm	813 ohm	387 ohm	275 ohm	234 ohm	199 ohm	171 ohm	145 ohm	80 ohm	64 ohm
DUTG	1232 ohm	579 ohm	294 ohm	159 ohm	142 ohm	126 ohm	109 ohm	92 ohm	56 ohm	35 ohm
DAEWOOD	446 ohm	153 ohm	73 ohm	52 ohm	44 ohm	38 ohm	32 ohm	28 ohm	16 ohm	12 ohm

NOTICES

Only for starting and surveillance of the diesel motor pump and stops it if there are anomalies in the parts controlled by probes. It has been designed to be installed also on the machine.

WARNING: ADHERE CLOSELY TO THE FOLLOWING ADVICE



- Install in such a way that there is always adequate heat disposal.
- Always follow the Wiring Diagram when making connections.
- All technical interventions must be performed with the engine stationary and terminal 50 of the starter motor disconnected.
- Check that the line loading and the consumption of the connected equipment are compatible with the described technical characteristics described in the technical data.
- Always install under other equipment which produces or spreads heat.
- Never use a battery charger for the emergency start-up, the control unit could be damaged.
- In order to safeguard people and equipment, before connecting an external battery charger, disconnect the electrical system terminals from the battery poles. Never disconnect the battery terminals with the motor pump running

THIS CONTROL UNIT IS NOT SUITABLE FOR OPERATING IN THE FOLLOWING CONDITIONS:



- Where the environmental temperature is outside the limits indicated in the Technical Data.
- Where there are high levels or heat from radiation caused by the sun, ovens or the like.
- Where there is the risk of fire or explosions.
- Where the control unit can receive strong vibrations or knocks

ELECTROMAGNETIC COMPATIBILITY

This control unit functions correctly only if inserted in plants which conform with the CE or UKCA marking standards; it meets the exemption requirements of the standard EN61326-1 but it cannot be excluded that malfunctions could occur in extreme cases due to particular situations.

The installer has the task of checking that the disturbance levels are within the requirements of the standards.

CONDUCTION AND MAINTENANCE

The following maintenance operations should be performed every week:



- check that the indicators function;
- check the batteries;
- check that the conductors are tight, check the condition of the terminals.

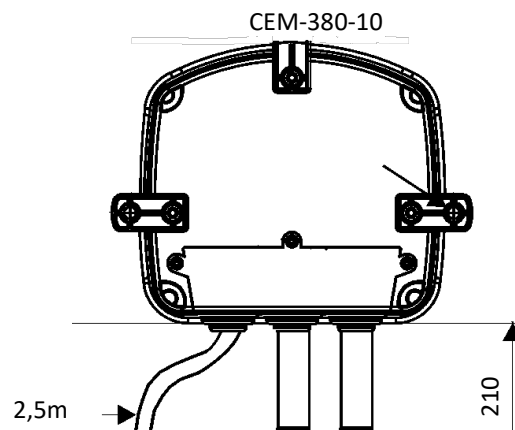
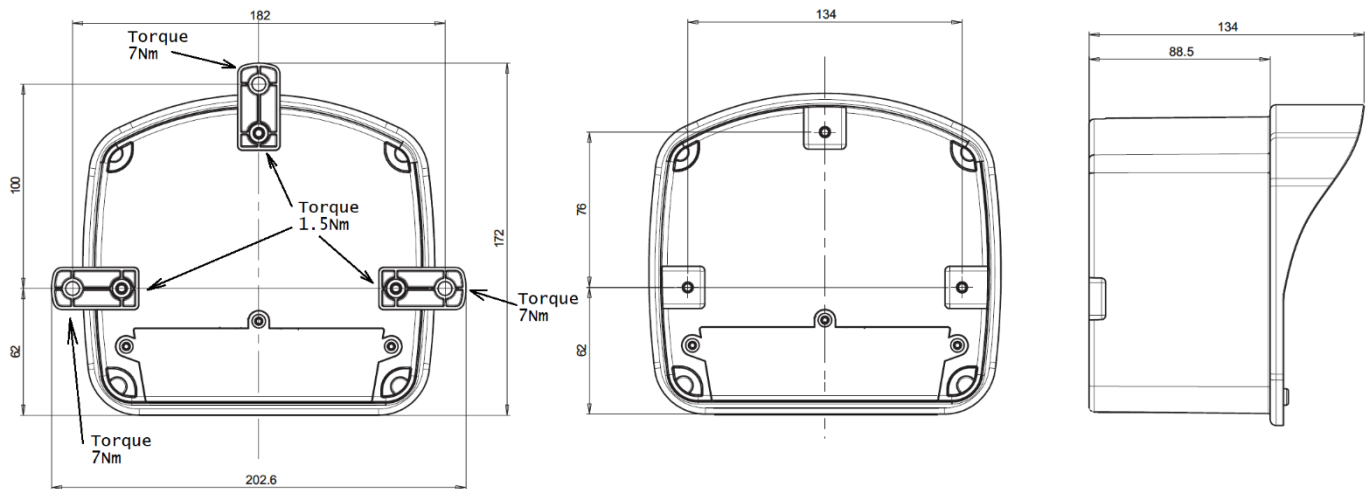
YOUR ELECTRICAL TECHNICIAN CAN ASK US ANYTHING ABOUT THIS CONTROL UNIT
BY TELEPHONING ONE OF OUR TECHNICIANS

TECHNICAL DATA

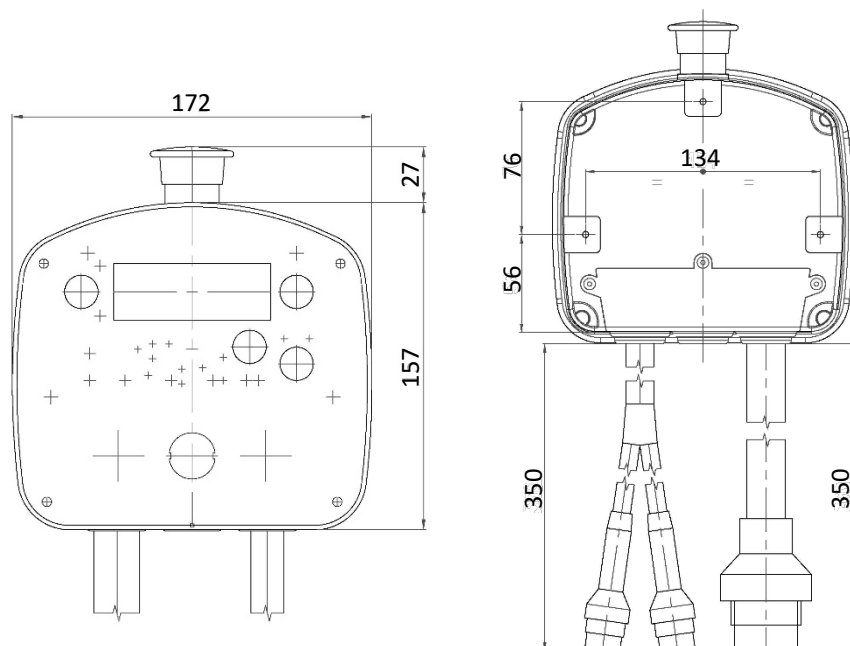
DATO	CEM-380-10 / CEM-380-EM	CEM-380-SD
BATTERY VOLTAGE SUPPLY	12 VDC 24 VDC	
VOLTAGE SUPPLY	8 ÷ 32V	
CIRCUIT LOADING WITH KEY AT ZERO	0MA	
TACHOMETER	MAX 4000 RPM PRECISION ± 10 RPM	
TIMER	1 ÷ 96H	
INSTRUMENTS PRECISION: BATTERY VOLTMETER, FUEL LEVEL GAUGE	2%	
HOURL-METER	5 DIGIT	
MAX LOAD OF THE OUTPUTS:		
STARTING MOTOR	BLACK WIRE= 40 A	PIN 12 = 13 A
STOPPING	YELLOW WIRE= 3 A	PIN 18 = 3 A
PREHEATING	WHITE/BROWN WIRE= 3 A	PIN 17 = 3 A
15/54	BROWN WIRE= 3 A	PIN 16 = 3 A
GENERAL ALARM	RED/GREEN WIRE= 3 A	PIN 14 = 3 A
PUMP WATER PRESSURE GAUGE	0 ÷ 21 BAR	
PUMP WATER PRESSURE TRANSMITTER:		
MAXIMUM PERMISSIBLE PRESSURE	21 BAR	
WITH PRESSURE 4 ÷ 14 BAR	DIFFERENTIAL 2 BAR	
WITH PRESSURE 1 ÷ 4 BAR	DIFFERENTIAL 1 BAR	
Degree of protection:		
BOX FRONT	IP54	
REAR	IP23	
CONNECTOR	IP20	IP65
INSTALLATION CONDITIONS	FOR EXTERNAL USE	
TEMPERATURE RANGE	-20 ÷ +60°C	
WEIGHT	1000 G	

DIMENSIONS

Fixing system: With two or three clamps



CEM-380-EM



ORDERING DATA

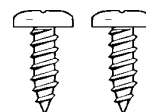
Type	Code
CEM-380-10	00210734
CEM-380-EM	00210720
CEM-380-SD	00210709

ACCESSORIES ON REQUEST

Type		Code
CEM-380-10 CEM-380-EM	PRE-WIRED FEMALE CONNECTOR TYPE CEM-380-10	70804450
CEM-380-SD	PRE-WIRED FEMALE CONNECTOR TYPE CEM-380-SD	70804469
	EMERGENCY BRIDGE CONNECTOR KIT CEM-380-SD	70804468
	CABLE FOR TPA-200 CEM-190	40500262
KIT RODS CEP/CEM		40804362
PUMP WATER PRESSURE TRANSMITTER TYPE TPA-200		70500255
NIPPLE F1/4" GAS – M3/8" GAS		70190241

ACCESSORIES ON REQUEST

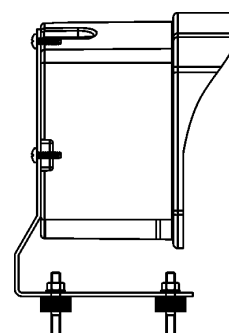
Type	Code
ROD ELECTRODE (complete with: rivet connection, bolt, nut, washer, seal and female connector) type AST-015/00	40241012
SCREW ELECTRODE (complete with lugs) type E-25	40190115



SUPPORT FOR INSTALLATION ON BASE

Type CRU-003

Code



CONFORMITY
CE **UK**
CA