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DECLARATION CE OF CONFORMITY

The undersigned:
 PIUSI S.p.A
 Via Pacinotti c.m. z.I. Rangavino
 46029 Suzzara - Mantova - Italy

HEREBY STATES
 under its own responsibility, that the equipment described below:
 Description: Diesel fuel dispenser
 Model: Piusi Box
 Serial number: refer to Lot Number shown on CE plate affixed to product
 Year of manufacture: refer to the year of production shown on the CE plate affixed to the product

is in conformity with the legal provisions indicated in the directives :
 - Machine Directive 2006/42/EC
 - Electromagnetic Compatibility Directive 2004/108/EC

The documentation is at the disposal of the competent authority following motivated request at Piusi S.p.A. or following request sent to the email address: doc_tec@piusi.com

The person authorised to compile the technical file and draw up the declaration is Otto Varini as legal representative.

Otto Varini

Suzzara, 01/01/2010

1.2.2. FIRST AID RULES

Contact with the product
 In the event of problems developing following EYE/SKIN CONTACT, INHALATION or INGESTION of the treated product, please refer to the SAFETY DATA SHEET of the fluid handled.

NOTE: Please refer to the safety data sheet for the product

SMOKING PROHIBITED
 When operating the dispensing system and in particular during refuelling, do not smoke and do not use open flame.

1.2.3. GENERAL SAFETY RULES

Wear protective equipment that is:
 - suited to the operations that need to be performed;
 - resistant to cleaning products.

Wear the following personal protective equipment during handling and installation:

- safety shoes;
- close-fitting clothing;
- protective gloves;
- safety goggles;
- instruction manual

! DANGER
 Never touch the electrical parts with wet hands.
 Do not switch the dispensing system on if the network connection cable or important parts of the apparatus are damaged, such as the inlet/outlet pipe, nozzle or safety devices. Replace the damaged pipe immediately.

1.3. DISPENSING SYSTEM PACKAGING

The dispensing system comes packed in a cardboard seal bearing the following markings:

- Box contents
- Label containing all information relating to the equipment (type, weight, etc.)

The person authorised to compile the technical file and draw up the declaration is Otto Varini as legal representative.

Otto Varini

Suzzara, 01/01/2010

1.1. GENERAL WARNINGS

Warnings
 To ensure operator safety and to protect the dispensing system from potential damage, workers must be fully acquainted with this instruction manual before attempting to operate the dispensing system.

Symbols used in the manual
 The following symbols will be used throughout the manual to highlight safety information and precautions of particular importance:

! WARNING
 This symbol indicates safe working practices for operators and/or potentially exposed persons.

! WARNING
 This symbol indicates that there is risk of damage to the equipment and/or its components.

NOTE
 This symbol indicates useful information.

Manual preservation
 This manual should be complete and legible throughout. It should remain available to end users and specialist installation and maintenance technicians for consultation at any time.

Reproduction rights
 All reproduction rights are reserved by Piusi S.p.A. The text cannot be reprinted without the written permission of Piusi S.p.A.
 © Piusi S.p.A.
 THIS MANUAL IS THE PROPERTY OF PIUSI INC.
 ANY REPRODUCTION, EVEN PARTIAL, IS FORBIDDEN.

1.2. SAFETY INSTRUCTIONS

1.2.1. SAFETY WARNINGS

Mains - preliminary checks before installation
 Before installation, make sure that the electric power supply network is fitted with a suitable earth-line and complies with the regulations in force.

! WARNING
 You must avoid any contact between the electrical power supply and the fluid that needs to be pumped.

Maintenance control
 Before any checks or maintenance work are carried out, switch the system's power off by disconnecting the terminals from the battery.

! WARNING
 It is strictly forbidden to support or transport the system using a power supply cable.
 It is strictly forbidden to support or transport the system using a suction or outlet pipe.

1.5. MACHINE AND MANUFACTURER IDENTIFICATION

The dispensing system comes with an identification plate; this is attached to the pump and contains the following information:
 type;
 lot number / Production year;
 technical data;
 use and maintenance handbook code

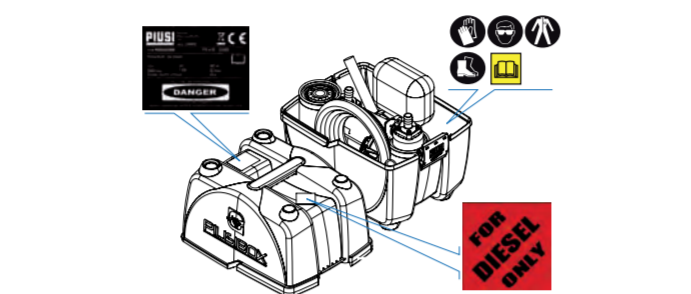
! WARNING
 Before installing, always make sure the type of dispensing system is correct and suitable for the available power supply (Voltage/Frequency)

1.6. PLATES POSITION

The dispensing system is equipped with decals and/or plates to provide operators with the necessary important information. Make sure that these do not deteriorate or become detached over time.

NOTE
 Should this situation arise, please contact our support department and arrange to have the damaged or missing plates sent back and replaced where necessary. The decals present are as follows:

- protection gloves
- safety goggles
- close-fitting clothing
- safety shoes.



1.7. TECHNICAL SPECIFICATIONS

Dimensions	
Length	400 mm / 14.75 inch
Depth	300 mm / 11.8 inch
Height	425 mm / 16.7 inch

Weight	
BASIC Version	9.5 kg / 21 lb
PRO Version	12 kg / 26.5 lb

	FUSE	ELECTRICAL POWER (V)	CURRENT (A)	MAXIMUM CUR-RENT (A)	FLOW RATE (L/min)	FLOW RATE (gpm)	MAX PRESSURE (bar)	MAX PRESSURE (psi)
12V PRO/BASIC	25	12	22	17	45	11.9	1.4	20.3
24V PRO/BASIC	15	24	12	9	45	11.9	1.4	20.3

(*) Referred to the operations in by-pass mode.

1.8. INTENDED USE

Intended use
 The dispensing system "PIUSI BOX" was designed and built to dispense diesel fuel.

Conditions of use
 The dispensing system "PIUSI BOX" should be used by observing the following conditions:
 Max. temperature of dispensed product: +35 °C
 Min temperature of dispensed product: -11 °C
 Max. temperature of dispensed product permitted by materials: +40 °C
 Equivalent continuous sound pressure level at the workstation: $s75\text{ dB(A)}$
 Make sure that the pump operates within its nominal operating parameters.

Fluid Permitted
 DIESEL FUEL at a VISCOSITY from 2 to 5.35 cSt (at a temperature of 37.8° / 100°F C). Minimum Flash Point (PM): 55°C / 131°F

! WARNING
 Flammable liquids and explosive atmosphere
 The system "PIUSI BOX" was not designed for dispensing of diesel, petrol, flammable liquids with flash point <math><55^{\circ}\text{C}/131^{\circ}\text{F}</math>, or for operation in environments with potentially explosive atmosphere. The use in the above mentioned conditions is forbidden.

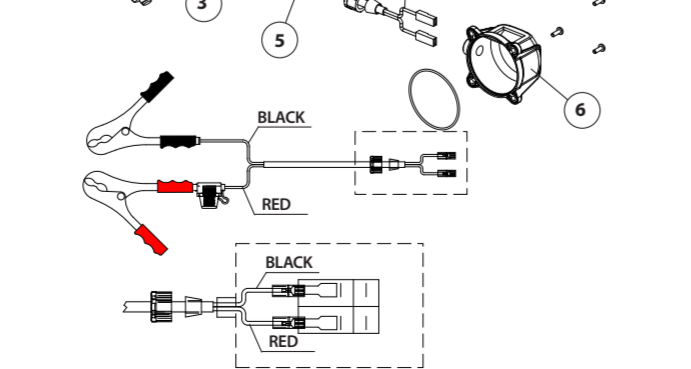
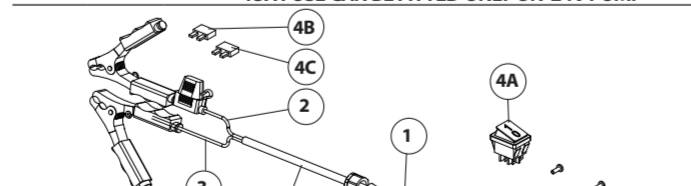
! WARNING
 Environmental conditions
 TEMPERATURE: min. -20 °C / max +60 °C
 RELATIVE HUMIDITY: max. 90%
 The temperature limits shown apply to the pump components and must be respected to avoid possible damage or malfunction.

! WARNING
 Electrical power supply
 The dispensing system should be powered by a safe source: battery or power supply 12/24v with safety transformer.
 In accordance with the model, the pump must be powered by a direct current line, the nominal values of which are indicated on the table in the paragraph "g - electrical specifications".
 The maximum acceptable variations from the electrical parameters are:
 Voltage: +/- 10% of the nominal value

! ATTENTION
 Power supply from lines with values that do not fall within the indicated limits could cause damage to the electrical components and reduction of working performance

- SPECIFICATIONS**
- Cables with faston connector coupling for connection to the power supply line
 - RED cable: positive pole (+)
 - BLACK cable: negative pole (-)
 - Terminal strip box (protection class IP55 in conformance with the directive EN 60034-5-97) complete of:
 4A ON/OFF switch;
 4B Safety fuse against short circuits and overcurrent, 25a fuse for 12v models
 4C Safety fuse against short circuits and overcurrent, 15a fuse for 24v models
 power cable complete of pincers for connection to the battery

! ATTENTION
 IT IS THE RESPONSIBILITY OF THE INSTALLER TO CARRY OUT THE ELECTRICAL CONNECTIONS IN COMPLIANCE WITH THE APPLICABLE REGULATIONS. DO NOT INVERT FUSES TO AVOID ANY MOTOR DAMAGE OR MALFUNCTION.
 25A FUSE CAN BE FITTED ONLY ON 12V PUMP
 15A FUSE CAN BE FITTED ONLY ON 24V PUMP



1.9. INSTALLATION

! ATTENTION
 Functioning under by-pass conditions is only allowed for brief periods of time (2-3 minutes maximum).

! WARNING
 All products not listed in the "Intended Use" and "Treated Product Characteristics" paragraphs are to be considered not permitted, improper and therefore prohibited. Piusi Inc. accepts no responsibility for damage to persons or property caused by failure to comply with this requirement.

! WARNING
 The use of accessories that are unsuitable and were not provided with the system is strictly prohibited. Piusi Inc. accepts no responsibility for damage to persons, property or the environment caused by failure to comply with this requirement.

! WARNING
 The "PIUSI BOX" dispensing system has been specifically designed for use in a dry place. If installed outside, an adequate protective covering must be provided.

! WARNING
 As per the current legislation, the "PIUSI BOX" dispensing system must be installed in premises that are sufficiently well-lit.

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1.11. OPERATION AND USE

! WARNING
 During operation the motor may be hot: be careful.

! WARNING
 For the proper functioning of the system, allow a 20-minute stop for every 20 minutes of dispensing.

! WARNING
 Do not run the pump dry. This can cause serious damage to its components.

! WARNING
 Operation of the pump without dispensing is only admitted for periods of no longer than 3 minutes.

! WARNING
 We recommend that the pump remains switched off whenever the system is not in use.

! WARNING
 If ever the voltage is lagging, push the switch to the OFF position and return the nozzle to its rest position with its lever not activated.

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1.13. TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	CORRECTIVE ACTION
THE MOTOR IS NOT TURNING	Lack of electric power	Check the electrical connections and the safety systems.
	Rotor jammed	Check for possible damage or obstruction of the rotating components.
	Motor problems	Contact the Service Department
	burned fuse	replace the fuse
THE MOTOR TURNS SLOWLY WHEN STARTING	Low voltage in the electric power line	Bring the voltage back within the anticipated limits
	Low level in the suction tank	Refill the tank
	Foot valve blocked	Clean and/or replace the valve
	Filter clogged	Clean the filter
LOW OR NO FLOW RATE	Excessive suction pressure	Lower the pump with respect to the level of the tank
	High loss of head in the delivery circuit (working with the by-pass open)	Use shorter tubing or of greater diameter
	By-pass valve blocked	Dismantle the valve, clean and/or replace it
	Air entering the pump or the suction tubing	Check the seals of the connections
	Low rotation speed	Check the voltage at the pump Adjust the voltage and/or use cables of greater cross-section
	The suction tubing is resting on the bottom of the tank	Raise the tubing
INCREASED PUMP NOISE	Cavitation occurring	Reduce suction pressure
	Irregular functioning of the by-pass	Dispense fuel until the air is purged from the by-pass system
LEAKAGE FROM THE PUMP CASING	Air present in the diesel fuel	Verify the suction connections
	Drive shaft seal damaged	Check and replace the seal in position A if necessary
	Pump chamber cover seal damaged	Check and replace the seal in position B if necessary
	Hose-end fitting seal damaged.	Check and replace the seal in position C if necessary

Safety instructions
 The dispensing system was designed and built to require a minimal amount of maintenance. Before carrying out any maintenance work, disconnect the dispensing system from any electrical and hydraulic power source. During maintenance, the use of personal protective equipment (PPE) is compulsory. In any case always bear in mind the following basic recommendations for a good functioning of the dispensing system

Measures to be taken
 Whenever there is risk of frost, empty the circuit and the pump, taking care to place the pump in an environment where the temperature is no lower than 0°C/32°F.

Check that the labels and plates found on the dispensing system do not deteriorate or become detached over time.

ONCE A WEEK:
 - Check that the pipe connections are not loose to prevent any leaks;
 - Check and keep the filter installed on the suction line clean.

ONCE A MONTH:
 - Check that the electrical supply cables are in good condition.

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