G.MILANI S.A.S.

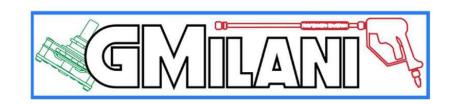
DI TETTONI FABRIZIO & C.

VIA CAVAGLIETTO, 25

28010 - CAVAGLIO D'AGOGNA NO (ITALIA)

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HOT WATER PRESSURE WASHER EQUIPMENT TLR FULL



Features:

- Power supply range: 90 to 520Vac 50/60Hz
- For three-phase motors up to 7.5Kw 10Hp
- For single-phase motors up to 5.5Kw 7.5Hp
- Managed by microprocessor
- · General On-Off in low voltage
- Hot activation On-Off
- Timed smoke fan control
- Timed diesel solenoid valve control
- Independent timed spark control
- Timed anti-limescale output
- Photocell control
- Thermostat input
- Diesel float input
- · Detergent float input
- · 4 outputs for LED indicator lights
- Low voltage pressure switch input
- · Motor thermal protection with intervention warning
- Power connections via 6.3mm Faston
- Control connections via Phoenix terminal blocks
- · Connector for PC interface
- Dimensions: 130 × 100 × 50 (W x L x H)
- Weight: 700g



The TLRFULL is the new electronic board designed to fully manage and control hot water pressure washers. Everything is managed by a microprocessor, which allows for easy and customizable configuration through the TesterTLR software, compatible with Windows Pcs.

Main Functions:

- **Customized Configuration:** The manufacturer can adjust timings, enable/disable functions, and view the hour counters (total and partial) directly from the software.
- **Traceability**: Each board is programmed with a unique serial number, visible through the software, to ensure the traceability of each device.
- **Intelligent Spark Management:** The spark ignition occurs only when needed and turns off when the flame is detected. This increases the igniter's lifespan.
- **Universal Power Supply:** The board operates with voltages ranging from 90 to 520 Vac (50/60 Hz), without the need for adjustments. It automatically detects the voltage and adapts accordingly.
- Advanced Hour Counter: It records working hours both for hot and cold conditions, and the number of
 thermal protection interventions due to overheating. It includes a partial counter that indicates when
 maintenance is needed. The operator can choose whether to allow the machine to continue working
 normally or to stop it after exceeding a preset time threshold.
- **Hour Counter Reset:** Through a specific button (which can be enabled/disabled via software), the operator can reset the partial hour counter after performing maintenance.



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Integrated Safety Features:

- Motor Thermal Protection: If the thermal fuse (on the pump motor) is triggered, the board shuts down
 the machine and signals the anomaly. It also detects when the temperature returns to normal
 parameters, allowing work to resume.
- **Photocell Control:** Ensures the safety of the operator and the machine. Any attempt to tamper with, malfunction, or break the photocell is detected, blocking the hot section. Only the manufacturer can disable this protection via software.

Customization via TesterTLR:

Thanks to the dedicated connector, it is possible to:

- · Customize timings and safety thresholds.
- Reverse or disable input control.
- View the serial number for traceability.

Configurable Functions:

- TotalStop activation time on power-up and when releasing the lance.
- Block for maximum continuous pump operating time.
- Block for inactivity (stand-by).
- Micro-leak detection (false starts), setting the number, minimum duration for recognition, and timing within which they must occur to trigger the alarm intervention.
- Detection of water shortage.
- · Detection of flame absence.
- Detection of diesel shortage.
- Smoke fan shutdown timing.
- Ordinary maintenance alert.
- Block for missed maintenance.
- Activation of anti-limescale at regular intervals (counted only when the pump is active).

Hardware Features:

- Power via 6.3mm Faston connectors.
- · Control and command via Phoenix terminal blocks.
- Outputs:
 - Pump motor: 3 relays of 40A each.
 - Fan motor: 1 relay of 8+8A (interrupts the 2 phases).
 - Spark: 1 relay of 10A.
 - Diesel solenoid valve: 1 relay of 10A.
 - Anti-limescale: 1 relay of 10A.
- 4 independent outputs for 12Vdc LED indicators.
- Protection: The board is coated with epoxy resin for dust and humidity protection.



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ALARM SIGNAL DESCRIPTION TLR FULL

LED 1 - Power:

OFF: no power to the equipment

ON: power present

Flashing (0.5s ON / 0.5s OFF): thermal protection triggered Flashing (2s ON / 0.5s OFF): temperature back to normal

LED 2 - Water:

OFF: normal operation

ON: no water

Flashing (0.5s ON / 0.5s OFF): false starts

2 flashes (1s pause): maximum pump time exceeded 3 flashes (1s pause): maximum stand-by time exceeded

5 flashes (1s pause): no detergent

LED 3 - Diesel:

OFF: normal operation

ON: no diesel

Flashing (0.5s ON / 0.5s OFF): no flame 6 flashes (1s pause): flame sensor error

LED 4 - Maintenance:

OFF: normal operation

ON: machine maintenance required

Simultaneous flashing (0.5s ON / 0.5s OFF) of all 4 LEDs:

Machine blocked due to missed maintenance

