

HT-CL-AF1000LS

Common features:

- Stand-alone device or for connection to HUEGLI TECH Controllers
- Compatible with Lambda probe type Bosch LSU 4.2 / LSU 4.9
- Special SW algorithms protect sensor heaters from thermo-shock during coldstarts.
- Configuration via USB and PC software
- Communication via CAN bus (supports various protocols)
- Communication via Modbus RTU RS485
- Input Power 7-30 VDC
- -40°C - +85°C
- DIN Rail 35mm



CuteLine Lambda and Mixer Module

Simple control of gas volume: the output of the Lambda probe is processed through a PID loop and the result fed to the gas-mixer to vary the amount of gas supplied.

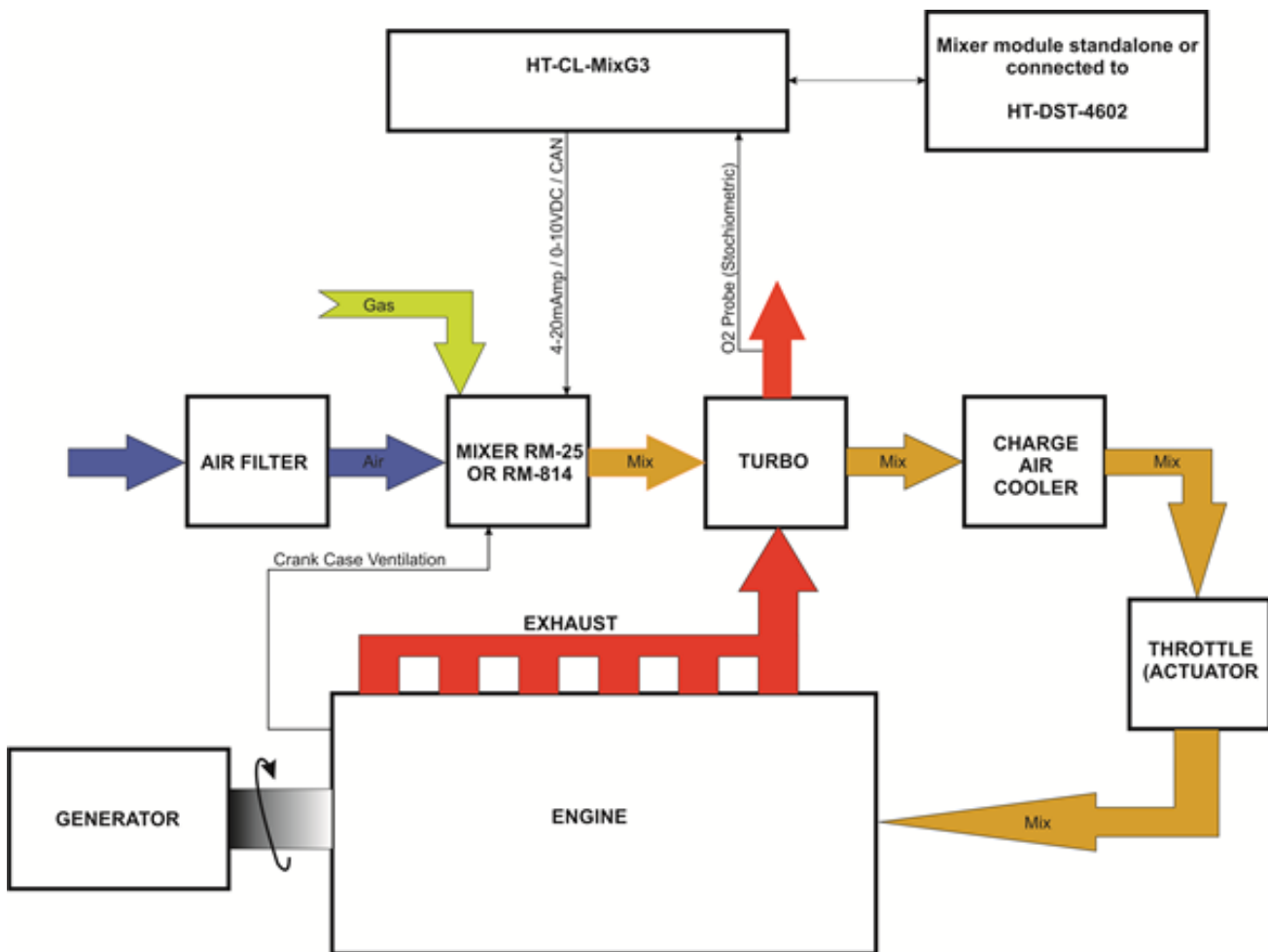
Efficient gas volume regulation has a name: HUEGLI TECH CuteLine HT-CL-AF1000LS.

The direct CAN Bus Communication with the Gas Mixer and/or the Gen-Set Controller works simply and effectively, with the minimum of cabling.

System Overview

A **Lambda probe** (λ -probe) is a sensor that measures the remaining oxygen in the exhaust gas. From this the air/fuel ratio is determined. By means of a suitable mixer (Huegli Tech RM-814, RM-25 or RMV-98) the ring-gap position is set so that the nitrogen oxide content is minimised. An air/fuel mixture with total combustion of all the oxygen from the air is referred to as $\text{Lambda} = 1$ (λ).

The Lambda probe is the key element in the lambda control loop for catalytic exhaust gas filtration (commonly: regulated catalyst). The solid-state electrochemical voltage (Nernst cell) measurement principle is used. The units recommended are the Bosch, LSU 4.2 und LSU 4.9.



The lambda controller AF-1000LS includes an integrated power supply for the heating circuit of the lambda probe. This is required to bring the sensor rapidly to the required working temperature.

Technical Data

Input Power.....	7-30VDC, with reverse polarity protection
Output Power.....	Lambda Probe IN : Maximum 0.75A, with 24VDC input voltage @ 25°C
.....	Lambda Probe OUT: Maximum 0.08A with 24VDC input voltage @ 25°C
No. of Inputs.....	2, binary, non isolated
No. of Outputs.....	2 for Mixer Control, non isolated
Sensors / range.....	Lambda probe Bosch LSU 4.2 / LSU 4.9
Supported communications protocols	Can Bus HT Controller J1939, ModBus RTU (for module configuration)
Operating Temp. range.....	-40 to +70 °C (-40 to +158°F)
Storage Temp. range.....	-40 to +85 °C (-40 to +185°F)
Relative Humidity.....	5 to 95%, non condensing
Dimensions (incl. connectors).....	30 x 110 x 94 mm
Mass (incl. connectors).....	205g
Wiring diameter.....	AWG 22 to 12
Mounting.....	DIN Rail 35 mm

Other Modules:

HT-CL-AF1000LS: O2 Probe (LSU 4.2) Lambda Controller

HT-CL-AF1500P: Pressure-regulated Lambda controller

HT-CL-MIXRMV: Dual Driver Module for Mixer RMV-40-ZXX



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