

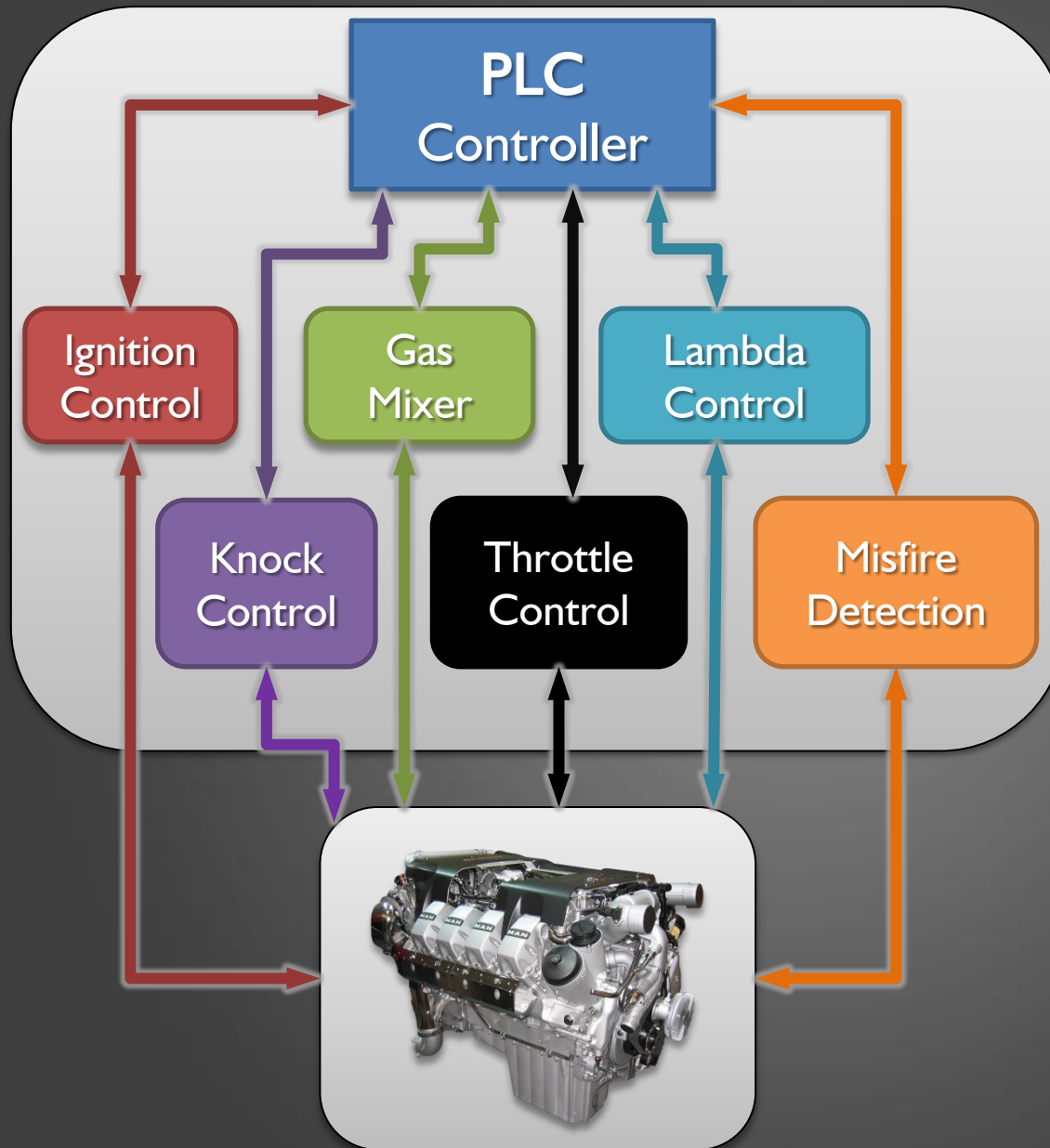
Engine Control Unit trijekt gas

trijekt
engine management



The engine management system for gas engines from 1 to 8 cylinders

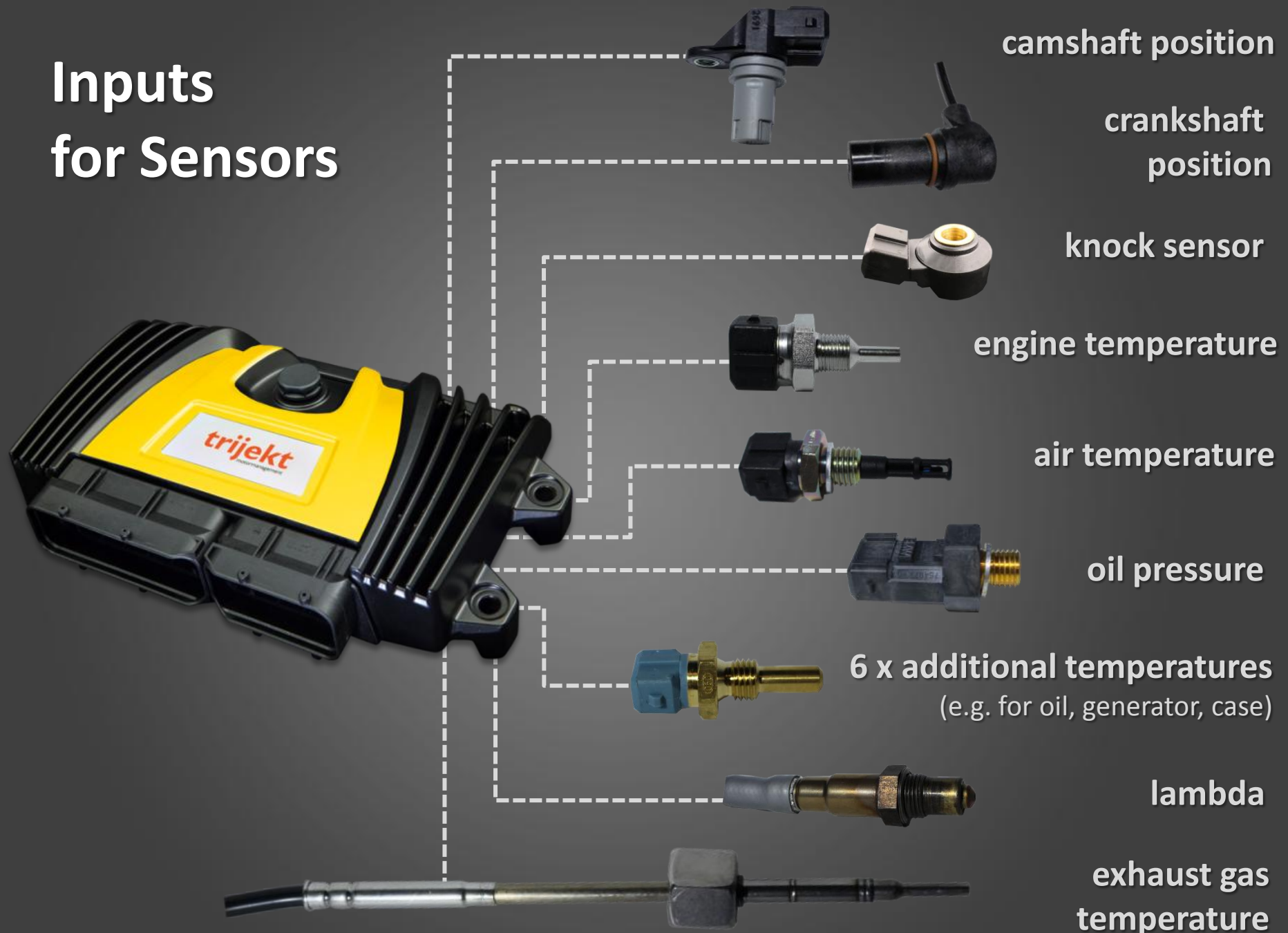
State of the Art



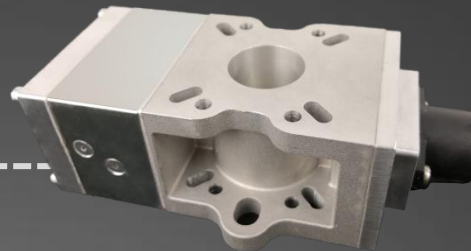
Solution with trijekt gas



Inputs for Sensors



Outputs for Actuators



throttle

- stepper motor
- DC-motor
- PWM

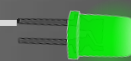


gas mixer

- stepper motor
- PWM



gas valve



18x digital outputs



4x integrated power stage (direct)

8x ignition outputs (for ext. ignition power stages)

Engine Control Unit trijekt gas



The engine management system for
gas engines from 1 to 8 cylinders

Special Features

trijekt gas is a complete engine management system and combines all the necessary functions to control a gas engine in just one control unit. This is why trijekt gas is particularly well suited for use in combined heat and power plants (CHP) and other stationary and mobile applications.

Technical Data

Inputs

- speed measurement via induction- or hall- sensor
- TDC measurement via induction- or hall-sensor
- lambda sensor
- set point load sensor (redundant)
- set point speed sensor
- throttle potentiometer (redundant)
- int. air pressure sensor (ambient air pressure)
- ext. air pressure sensor (intake manifold pressure/boost)
- engine temperature sensor
- air temperature sensor
- oil pressure sensor
- 2x LSU4.9 wideband lambda sensor (1x standard, 1x optional)
- 5x special functional inputs for CHP
- 8x digital function inputs (6x standard, 2x optional)
- up to 6x additional temperature sensors
- 2x exhaust gas temperature sensors
- 2x knock sensors (optional)

Interfaces

- serial interface RS232
- CAN-bus

Size (LxWxH)

- about 210 x 120 x 40mm

Case

- high quality waterproof aluminum casing
- two-part connector with 121 terminals

Temperature range

- -40°C to 80°C (depending on the average total current)

Engine Control Unit

trijekt gas



Technical Data

Outputs

- 8x ignition outputs (for external ignition power stages)
- 4x integrated ignition power stage (optional)
- throttle (stepper motor, DC-motor, PWM)
- gas mixer (stepper motor, PWM)
- gas valve
- boost pressure control valve
- 18x programmable outputs
- outputs of unused functions are free programmable

Datalogger

- 4MB internal memory for data logging

Power Supply

- 12 Volt nominal voltage / 24 Volt (optional)

Software & Functions

- ✓ a variety of connection of series components
- ✓ semi and fully sequential, map controlled ignition
- ✓ gas mixer control
- ✓ speed control (fixed or variable)
- ✓ various types of load control (switchable modes)
- ✓ power control
- ✓ 4x programmable special functions
- ✓ set points via CAN-bus
- ✓ various speed measurement possibilities
- ✓ configurable password protection up to four levels

- ✓ extensive logical functions for switching outputs and error memory
- ✓ lambda control (fixed or variable set point)
- ✓ self adaptive
- ✓ boost pressure control
- ✓ defined start and stop procedure
- ✓ SAE J1939 interface
- ✓ misfire detection
- ✓ ignition energy optimization
- ✓ knock control (optional)

Engine Control Unit trijekt gas



Designed for use
close to the engine

Quality

Since we always focus our activities on quality, a quality management system is a matter of course for us. We are certified according to DIN EN ISO 9001:2015.

Conformity

DIN EN ISO 9001:2015

EMC Directive 2014/30/EU

- EN 61000-6-1 (Immunity for residential environments)
- EN 61000-6-2 (Immunity for industrial environments)
- EN 61000-6-3 (Emission standard for residential environments)
- EN 61000-6-4 (Emission standard for industrial environments)

RoHS Directive 2011/30/EU (RoHS 2)



www.trijekt.com