



CPK Automotive
Systems for a cleaner future



Heinzmann Group

Facts & Figures

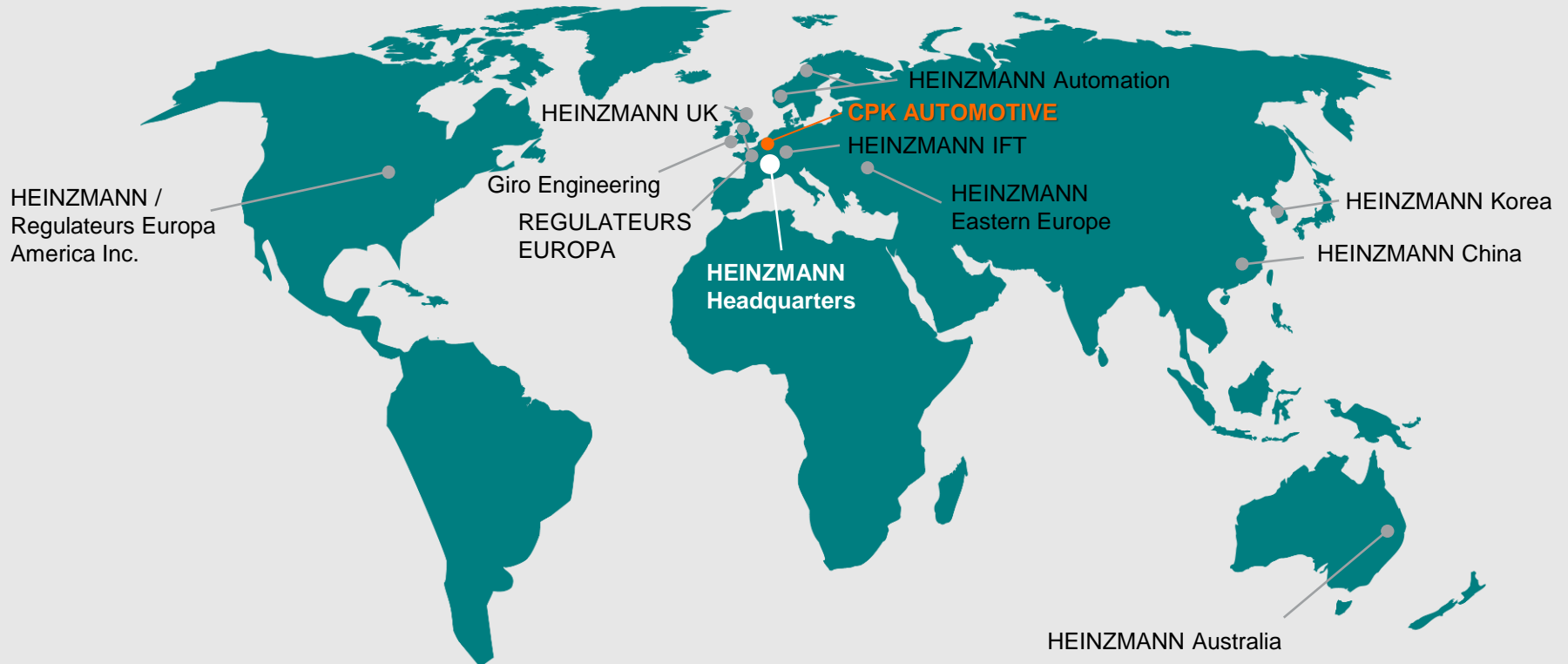
Products



History & Philosophy

Our Solutions

- Emission Control and Monitoring
- SCR Dosing System
- Real-Time Data Monitoring
- E-Mobility



Heinzmann Facts & Figures



1897
Established



65 Mio.
Sales

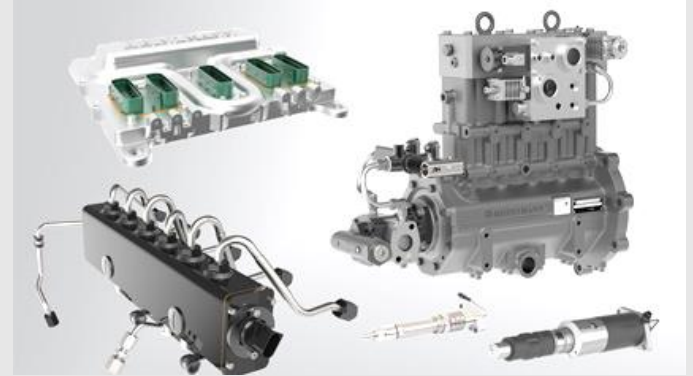
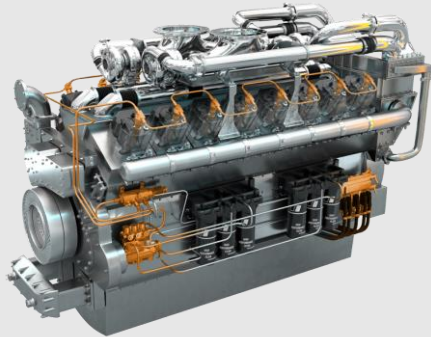


400
Employees
worldwide



40
Countries

Technologies empowering efficiency



CPK History & Philosophy

Sustainable Stand-alone Solutions

Safer



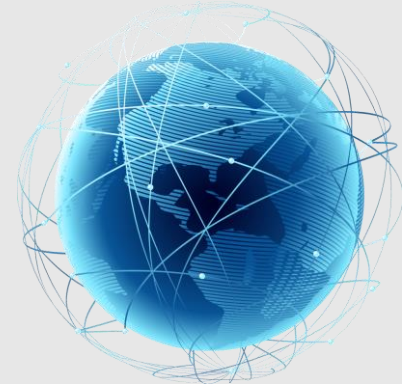
Data-Monitoring

Cleaner



Emission-Reducing

Efficient



Cloud-Connectivity

CPK History & Philosophy

Sustainable Stand-alone Solutions



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Data-Monitoring

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Cloud-Connectivity

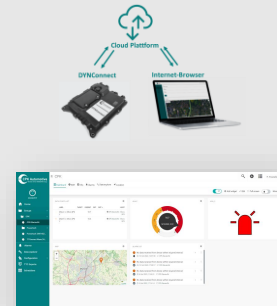
Emission Control and Monitoring System



SCR Dosing System



DYNConnect Real-Time Data Monitoring



CPK History & Philosophy

Sustainable Stand-alone Solutions



Safer



Data-Monitoring

Cleaner



Emission-Reducing

Efficient



Cloud-Connectivity

Emission Control and Monitoring System



SCR Dosing System



DYNConnect Real-Time Data Monitoring



1966

50+ Years Experience

+

200.000+ Systems

TOGETHER to a Green

Future

Solutions for Emission Control and Monitoring



Monitoring of exhaust aftertreatment systems

Since 1999: Development of systems for diesel exhaust gas aftertreatment

Data Loggers: More than 200,000 systems in OEM and Retrofit Applications worldwide

- ✓ Wide range of automotive data loggers
- ✓ Suitable for all On-Road and Off-Road applications:
Commercial vehicles, Construction machines,
Mining, ...
- ✓ Measurement of engine exhaust back pressure,
temperature and RPM
- ✓ NOx Measurement of exhaust gas available
- ✓ On-Road or Off-Road Display
- ✓ Up to 8 x Inputs, 8 x Outputs
- ✓ Modbus and CAN bus communication interface
- ✓ Specific software for exporting and analyzing
collected data

Controller & Data Logger

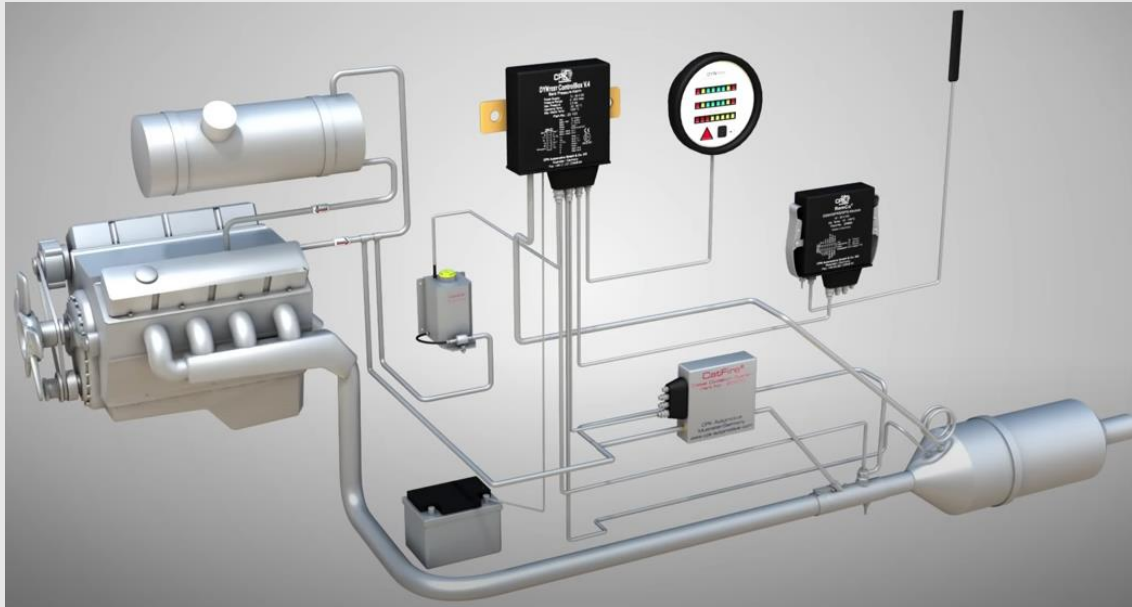


Analyser Software



Solutions for DPF Active Regeneration

Regeneration Modules: Active regeneration process for Exhaust Systems



More Information: https://www.youtube.com/watch?v=X_pKyxJJBZs

Regeneration Modules: Active regeneration process for Exhaust Systems

RegFire: Idle Burner



- ✓ Retrofit diesel burner designed for the regeneration of DPFs in idling mode
- ✓ Burner unit with electronically controlled vaporizer and a special long life glow plug
- ✓ Air pump for purging and vaporizing
- ✓ Two temperature sensors for process monitoring and control

CatFire: HC Dosing System



- ✓ Diesel post-injection
- ✓ Electronic control functions provided by the DYNTEST ControlBox
- ✓ Pump casing with connections for the fuel intake and pressure hoses
- ✓ Fuel intake and pressure hoses with fuel injector mount and an Injector nozzle

LiquiCat: Additive Dosing System



- ✓ FBC additive dosing module
- ✓ Electronically controlled, the module is a part of the DYNTEST ControlBox
- ✓ Adaptable to a wide range of operational requirements
- ✓ Dosing pump available in 12 V/DC and in 24 V/DC versions.

44th Federal Immission Control Regulation (44. BImSchV)

- ✓ For gas engine plants: Continuous monitoring of nitrogen oxide (NOx) emissions is required
- ✓ For combustion engine plants: Proof of continuous effective operation of the catalyst must be provided



ControlBox NOx

- ✓ NOx data logger especially developed for the new requirements in accordance with the 44th BImSchV
- ✓ The status of the CHP/biogas plant is permanently monitored, controlled and logged
- ✓ Automatic documentation of NOx daily averages, error messages and alarms
- ✓ Monitoring of temperature and back pressure to ensure the functionality of an aftertreatment system
- ✓ Standalone and self-sufficient solution for all engine types
- ✓ Definable inputs and outputs to be integrated into the existing plant control system
- ✓ The visualization and evaluation of the stored data via the comprehensive software

Cabinet with ControlBox NOx

- ✓ Easy retrofitting
- ✓ Simple documentation
- ✓ Fast delivery



Idle control: Automatic engine stop

- ✓ Practical solution to stop idling: Limits engine idle time to a parametrized value (2 ... 10 min.)
- ✓ Automatic warning before shutting down the engine
- ✓ Reduce fuel consumption, Save the engine and extend maintenance intervals
- ✓ Suitable for gas and diesel engines and all NRMM and On-Road applications
- ✓ Data logging of idle times/shutdowns
- ✓ Fast amortization of acquisition costs
- ✓ Robust and simple installation

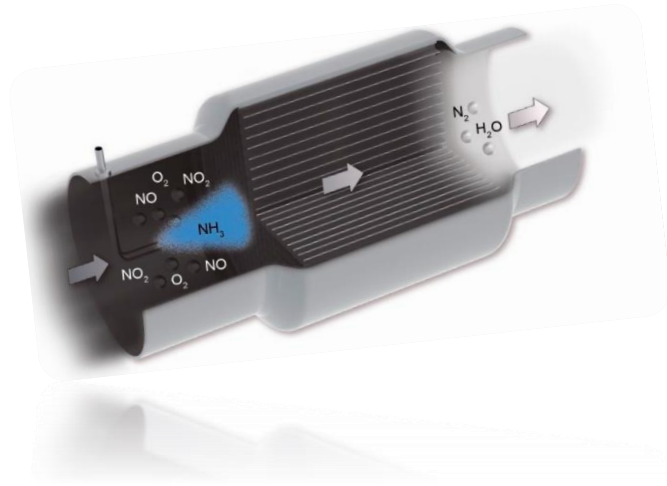


Pilot Project

- ✓ Installed on 100 public buses
- ✓ Average Idle reduce time of approx. 3 hours
- ✓ Average fuel consumption reduce of approx. 900 lit per day



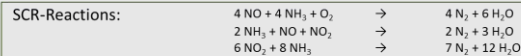
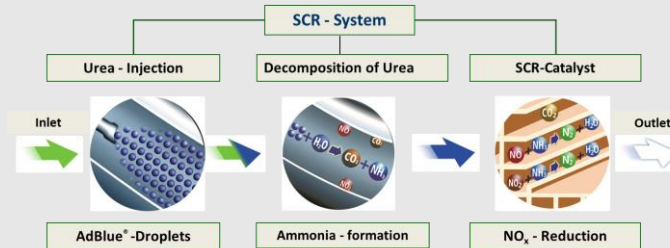
Solutions for SCR Dosing System



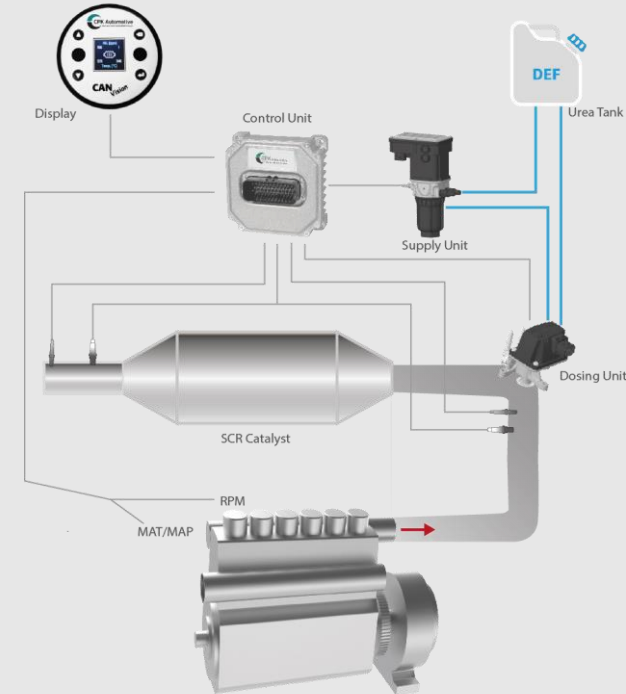
SCR Dosing System

Diesel Exhaust Fluid (DEF) dosing system for SCR applications

- ✓ Closed loop AdBlue Injection control system based on the pre and post catalyst NOx concentrations
- ✓ Fully independent, the only necessary engine information: Engine speed
- ✓ MAT/MAP Sensor provides air mass information
- ✓ Dosing rate up to 16 kg/h
- ✓ Airless Supply Unit and Dosing Unit
- ✓ Digital Display: CANVision

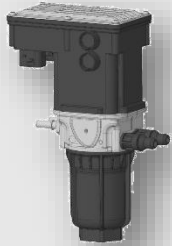


NO_x-Reduction by Ammonia (NH₃) under oxidising conditions

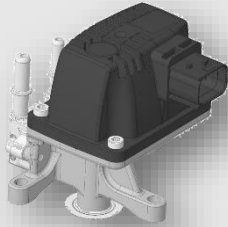


SCR Dosing System

SCR dosing system components



Supply unit



Dosing unit



Control unit



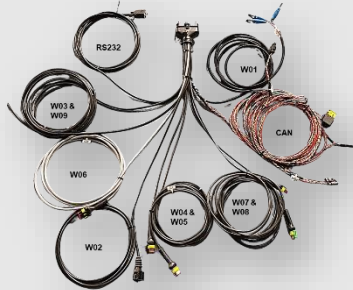
Two NOx sensors



Two Temperature sensors



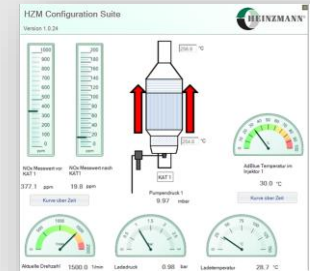
Manifold air pressure
and temperature sensor



Wiring harness



Display



Configuration software

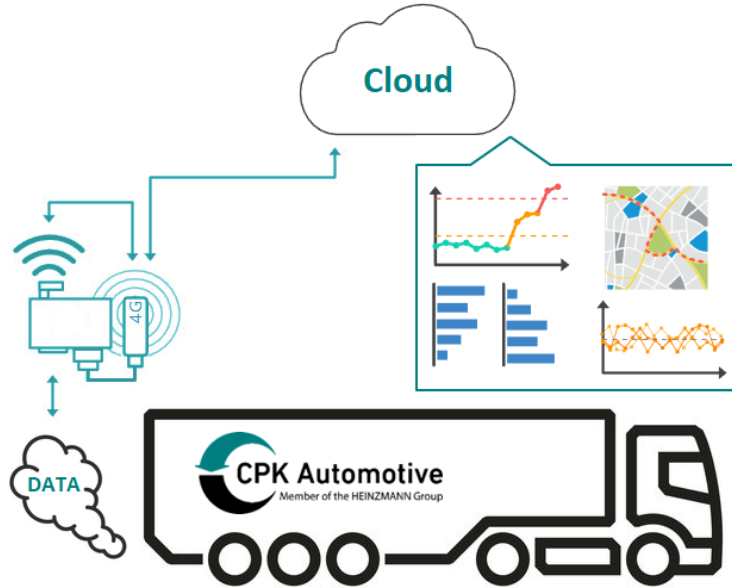
SCR Dosing System

Applications: Standalone and self-sufficient solution for all SCR retrofitting projects

- ✓ Off-Road vehicles
- ✓ On-Road vehicles
- ✓ Stationary, Power plants
- ✓ Marine

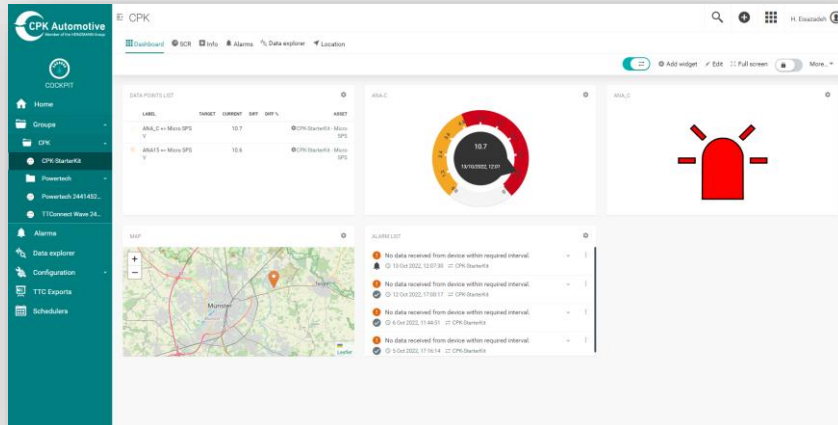


Real-Time Data Monitoring



DYNConnect as follower of CPK dataloggers with the option of connectivity to the Cloud Service

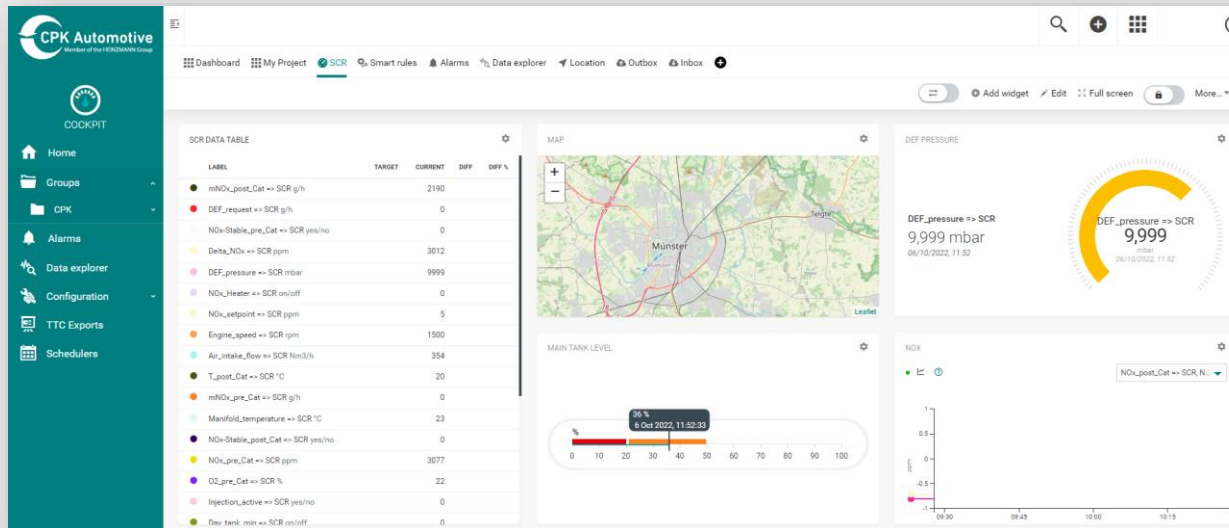
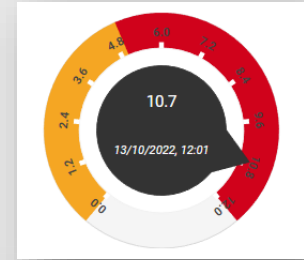
- ✓ Cellular (SIM Card), WIFI and GPS module
- ✓ Data transfer to Cloud platform via WIFI or 4G LTE (SIM-card necessary)
- ✓ CAN bus Interface
- ✓ Access to data in real-time
- ✓ Create and deploy advanced analytics models
- ✓ Data storage on Cloud platform up to 6 months (optional longer)



Real-Time Data Monitoring

DYNConnect data platform

- ✓ Easily connect to your data in a user-friendly design
- ✓ Manage & monitor your data volumes in real-time mode
- ✓ Present your data in a graphical layout with different widget possibilities
- ✓ Ensure your data security

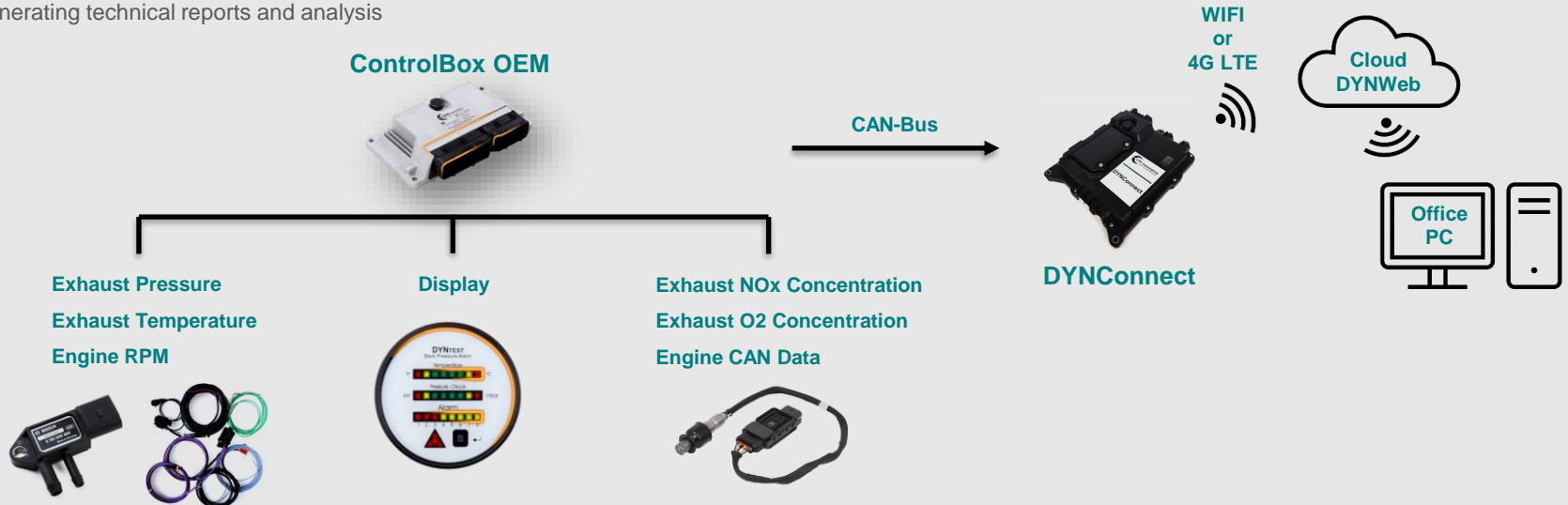


LABEL	TARGET	CURRENT	DIFF	DIFF %
mNOx_post_Cat => SCR g/h		2190		
DEF_request => SCR g/h		0		
NbStable_pre_Cat => SCR yes/no		0		
Delta_NOx => SCR ppm		3012		
DEF_pressure => SCR mbar		9999		
Nb_Heater => SCR on/off		0		
Nb_setpoint => SCR ppm		5		
Engine_speed => SCR rpm		1500		
Air_intake_flow => SCR Nm3/h		354		
T_post_Cat => SCR °C		20		
mNOx_pre_Cat => SCR g/h		0		
Manifold_temperature => SCR °C		23		
NbStable_post_Cat => SCR yes/no		0		
Nb_pre_Cat => SCR ppm		3077		
O2_pre_Cat => SCR %		22		
Injection_active => SCR yes/no		0		

Exhaust gas aftertreatment and cloud services

Solution for the remote condition monitoring of exhaust gas aftertreatment systems

- ✓ Data monitoring and logging by ControlBox OEM
- ✓ Parallel data transfer to Cloud platform via WIFI or 4G LTE (SIM-card necessary)
- ✓ Option to set separate alarms on the cloud platform and inform predefined users via email or SMS
- ✓ Receiving daily excel data via email
- ✓ Generating technical reports and analysis





CPK WallBox

- ✓ Charging Power up to 22 kW: One to three phase grid connection up to 32 A
- ✓ Easy Installation
- ✓ Only few screws needed, electricity cable input possible from three different directions
- ✓ Color Display: Shows charging status, time, charging power, consumption and notifications
- ✓ IP54 Protection: Protected from dust ingress and water spray
- ✓ Protected Power Supply: Robust power pack with internal protection and filter device
- ✓ Certified: CE, RoHS, WEEE, IE



Solutions for E-Mobility

CPK WallBox Connected

- ✓ Provides user management with up to 128 user accounts
- ✓ Access to each user's charging pattern and history
- ✓ Export charging reports as PDF



HopOn: Our Mobility and Transport Solution



HopOn – Our Mobility and Transport Solution

- ✓ 250 kg preload
- ✓ Dimensions of a standard Euro pallet
- ✓ Load securing by lashing eyes, recessed airline rails and container locking
- ✓ One-pedal driving - Regenerative Braking
- ✓ 20 km/h up to 30 km/h



HopOn – Our Mobility and Transport Solution

- ✓ Can be carried along by remote control during distribution.
- ✓ Can be moved in and out of the delivery truck under its own power.



Handy companion: Remote Control



Ideal dimensions: Only 84 cm wide



Contact – Systems for a clean future



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