



E²CORE-driver

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E²CORE-driver is a compact and robust driver for typical actuators on mixture-charged gas engines.

E²CORE-driver covers the fast and accurate position control of two DC servo motors and a stepper motor.

For this application, E²CORE-driver is the most compact module on the market.

Well-proven actuators are pre-installed as profiles and ready for immediate use, actuating throttle valves, exhaust wastegates, turbocharger bypass valves, variable gas mixers or gas metering devices.

In addition, the engine speed is precisely measured and monitored. Many common sensors and signal patterns are preconfigured.

Thanks to the well documented CAN interface, E²CORE-driver can be fully integrated in a wide variety of control systems. AVAT supplies appropriate libraries on request.

The E²SERVICE visualization is used as a powerful tool for service and commissioning.

HIGHLIGHTS

- The most compact assembly on the market
- Direct connection to common actuators
- Robust and precise position control
- Engine speed measurement
- Overspeed monitoring
- Library for Bachmann PLC included (others on request)

APPLICATION AREA

DESIGNATION	E ² CORE-driver
Part number	3 000 400
AMBIENT CONDITIONS	
Operating temperature	-25 ... +75 °C
Storage temperature	-25 ... +85 °C
Humidity	0 ... 95% relative humidity, not condensing
Vibration resistance	IACS UR E10.7 vibration, IEC 60068-2-6 2 ... 13.2 Hz: s = ±1.0 mm; 13.2 ... 100 Hz: a = ±0.7 g
Protection class	IP20 (EN 60529)
ELECTRICAL DATA	
Supply voltage	24 V DC (18 ... 32 V)
Max. current consumption (2 dedicated power supplies)	Logic: 2.5 A / 24 V, 60 W, external fuse 6 A Actuators: 10 A / 24 V, 240 W, external fuse 16 A
EMC limit values	DIN EN 61000-6-2 and DIN EN 61000-6-4
ELECTRIC INTERFACES	
Speed sensors	Passive 2-wire sensors: signal threshold 2 ... 100 V _{pp} or active sensors: input voltage range ±53 V DC
Actuator driver	2 × DC servo drive, 6 A max.; supply position feedback 7.5 V (e.g. Heinzmann StG 10 / 30 / 2010 / 2040 / 2080) 1 × stepper motor 1.8 A (bipolar drive); encoder or 2 limit switches
Digital signals	6 × digital input, IEC 61131-2 type 3; 4 × digital output, 500 mA / 24 V respectively
DATA INTERFACES	
Interface to PLC	CANopen, optional CAN SAE-J1939
Service interface	USB 2.0
MECHANICAL DATA	
Dimensions in mm (H×W×D)	119 × 165 × 61
Installation	35 mm top hat-rail, DIN EN 60715

