

4 Quadrant Actuator Driver

DATA SHEET

Description

The 4Q actuator driver is designed to drive the most types of HEINZMANN actuators. In particular those of the series StG 64, StG 90 and StG 180.

The unit works as a positioner and is able to process any type of position setpoint signal coming from some engine speed control system.

The 4Q actuator driver comes equipped with analogue, digital and PWM inputs as well as analogue and digital outputs. All inputs are isolated. The driver is short-circuit-proof and protected against polarity reversal.

Its compact design allows reasonable installation in cabinets with limited space. Due to degree of protection IP20, all required connections can be easily done via removable terminals.

With HEINZMANN's communication tool DcDesk setup of the unit and configuration of inputs and outputs can be done easily and quickly.



Features

Suitable for HEINZMANN actuator series StG 64, StG 90 and StG 180

ARM M4 core processor

Position setpoint via analogue, PWM signal or CAN/Modbus communication protocol

Digital inputs

Analogue & digital outputs

Alarms, monitoring functions

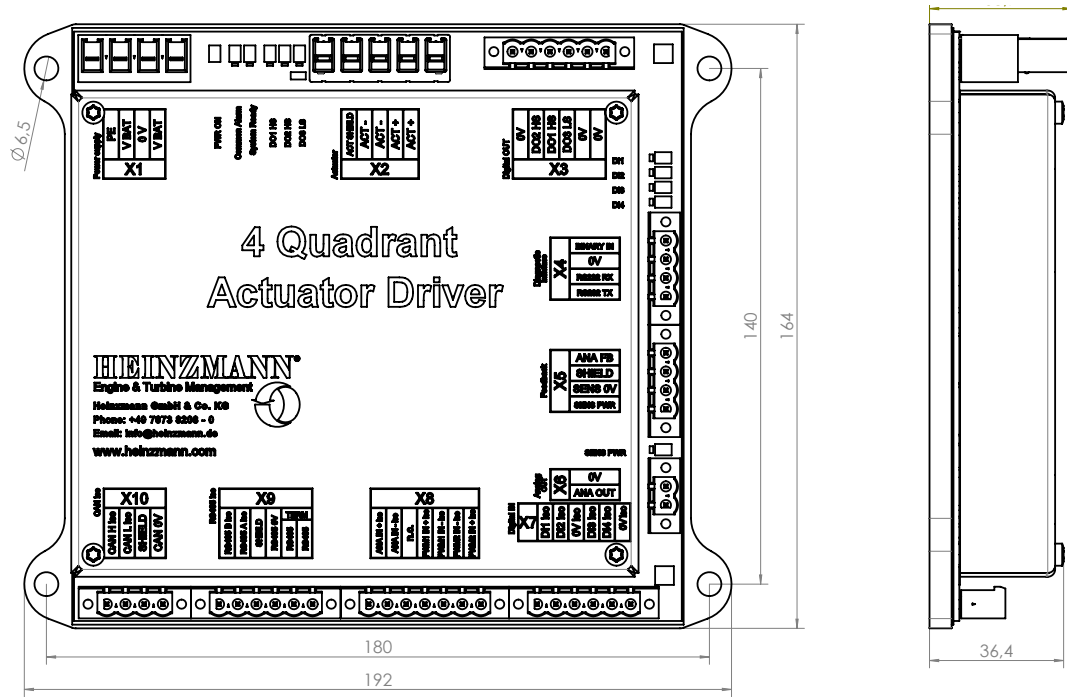
Actuators

- Suitable for HEINZMANN actuators of the series StG 64, StG 90 and StG 180 in particular
- Further applications on request

Application range

- Diesel engines
- Gas engines
- Steam turbines

Dimensions



Technical data

CPU	ARM CORTEX M4, 16 bit ADC, external EEPROM (error memory), real time clock (error messaging) capacitor buffered, window watchdog, voltage supervision, protection against overheating
4Q full bridge	15 A continuous, 30 A peak current, overcurrent shut-down, real-4Q control (PWM 100 kHz), power stage output filtering
Power supply	24 or 48 VDC, inrush current limited 10 A, undervoltage (18 V) and protected against polarity reversal, overcurrent (33 A) and overvoltage (65 V) limited
Current consumption	unit approx. 300 mA plus actuator current
Communication	1 × CAN electrically isolated 1 × RS-485 electrically isolated (e.g. Modbus) 1 × RS-232
Ambient temperature	-40 ... +70 °C
Degree of protection	IP20
Weight	approx. 1.1 kg

Inputs and Outputs

Analogue input	Actuator setpoint input: 0 ... 5 V or 4 ... 20 mA, electrically isolated Position Feedback: HEINZMANN actuators 1.6 ... 2.8 V or 0 ... 5 V configurable
Digital inputs	4× digital input, electrically isolated 1× binary safety input with wire fault and short circuit monitoring
PWM inputs	2× PWM 0 ... 20 kHz or digital input, electrically isolated
Analogue output	0 ... 5 V (max. load 5 mA), e.g. analogue position signal
Digital outputs	2× digital out high-side 2.5 A (e.g. status output or lamps) 1× digital out low-side 0.5 A short and open circuit detection, overtemperature detection
Feedback supply voltage	5 or 8 VDC