

# DC 8

## DATA SHEET

### Description

Heart of the digital control DC 8 is a very rapid and highly powerful microprocessor.

The DC 8 provides speed governor functions as well as positioner abilities. Besides that, DC 8 can be applied as peripheral module in control systems to extend I/O abilities of main controller and drive another actuator.



Two separate speed pick-up inputs are implemented, inductive or Hall type.

The set point can be transmitted as a current, voltage, PWM or CAN signal to the control unit. Operating states of the system are supplied as analogue and digital output signals. For communication, DC 8 provides a galvanically insulated CAN bus interface, that meets Bosch CAN Spec. 2.0B standard or ISO11898, plus HEINZMANN's serial interface for connection with DcDesk.

DC 8 is able to drive direct working as well as gear-type actuators which however require the extension module CU01. Setting torques up to 30 Nm are possible.

Several error recognition, indication and reporting functions are provided. Major alarms and status indications are displayed by LEDs on the housing. DC 8 software is designed for universal use while providing extra functionality. The firmware allows configuration of input/output allocation as well as activation and parameterisation of functions.

The DC 8 control allows any mode of operation as running at fixed or variable speed.

In combination with HEINZMANN's small, medium and large range actuators or the Bosch eDC™ pump DC 8 provides an excellent solution for diesel or gas engines or turbines in industrial applications.

### Application range

- Genset application, mains & island-parallel
- Industrial engine application

### Features

- Positioner function
- Limiting functions depending on speed or boost pressure
- Indifference to slow voltage changes of the supply
- Individually configurable I/Os
- Galvanically insulated customer interfaces
- Engine shutdown protection
- Engine monitoring functions
- Error logging

### Certificates

On request

# Technical data

## General specification

Supply voltage	18 ... 32 VDC, nom. 24 VDC
Current consumption	< 0.5 A + actuator current consumption + sensor supplies
Degree of protection	IP00 for use in cabinet environment
Ambient temperature	-40 ... +80 °C
Storage temperature	-40 ... +85 °C
Permissible ambient humidity	< 95 % at 55 °C
Vibration	ICE60068-2-6 2.0 Hz ... 25 Hz at 1.6 mm 26 ... 100 Hz at 4g max.
EMC: Immunity/Emission	IEC61000-2, -3, -4, -5, -6 DIN 55011

## I/O specification

Pick-ups/Sensor supplies	2× inductive, 0.5 ... 30 Vpp, 50 ... 9000 Hz 2× 24 V, < 300 mA; 1 × 5 V, < 50 mA
Actuator output	7 A (8 A for t < 60 s)
Analogue inputs	AI-1, galvanically insulated 4 ... 20 mA configurable AI-2 & AI-3, galvanically insulated 0 ... 5 V / 0 ... 10 V / PWM AI-4 ... AI-6, not insulated 4 ... 20 mA / 0 ... 5 V / 0 ... 10 V Temperature, 2 × Pt1000 / NTC / Ni1000
Analogue outputs	AO-1, galvanically insulated 4 ... 20 mA PWM, galvanically insulated 10 ... 90 %, 50 ... 500 Hz, < 300 mA
Digital inputs	DI-1 ... DI-6, galvanically insulated DI-7 & DI-8, not insulated
Digital outputs	DO-1 ... DO-3, galvanically insulated DO-4 & DO-5, not insulated
Optical status interface	6× status LEDs
Communication	1× CAN galvanically insulated 1× CAN not insulated CAN protocol: HEINZMANN CAN protocol, CANopen, DeviceNet, SAE J1939, Other protocols on request
Configuration tool	HEINZMANN serial interface for HEINZMANN DcDesk

## Dimensions

