DC 9

DATA SHEET

Description

The DC 9 is HEINZMANN's digital control for small and middle-sized engines.

The highly efficient speed governor is based on a fast 16-bit microprocessor. The DC 9 control unit works with one inductive pickup. Additionally a Hall-type pickup is possible via multifunctional port.

DC 9 provides speed governor functions as well as positioner abilities. It is able to drive direct working actuators. Gear-type actuators require the extension module CU-01. The set point can be transmitted as a current, voltage or PWM signal to the control unit. For configuration DC 9 uses HEINZMANN's serial interface for connection with DcDesk 2000.

Several error recognition, indication and reporting functions are provided. For major alarm a separate output is applicable. The firmware allows configuration of input/output allocation as well as activation and parameterisation of functions.

DC 9 control allows any mode of operation as running at fixed or variable speed. In combination with HEINZMANN's small and medium range actuators DC 9 provides an excellent solution for diesel or gas engines.

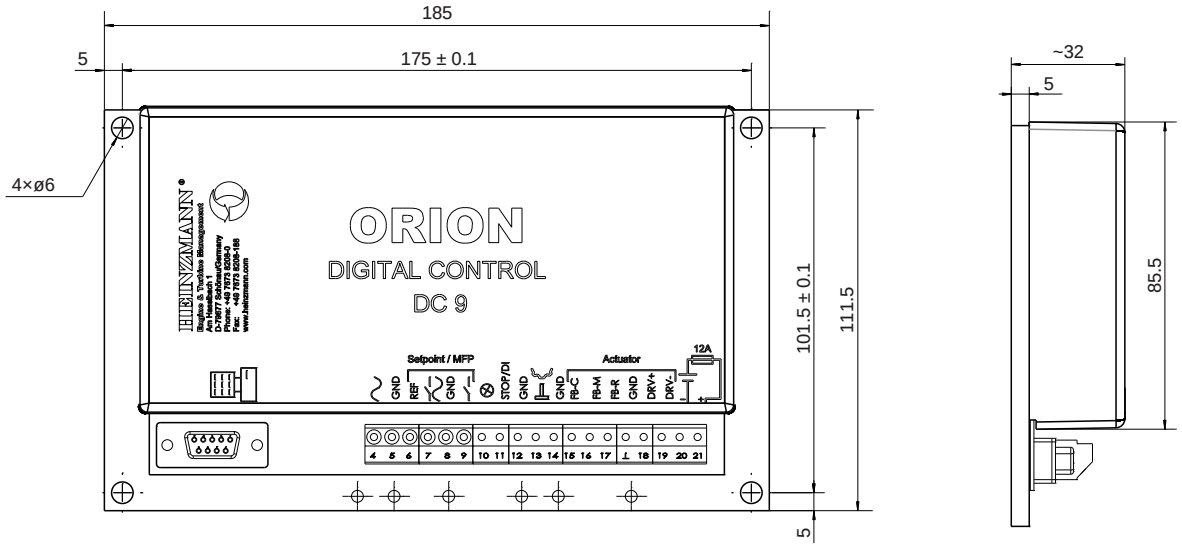
Applications

- Diesel engines, small and medium size
- Gas engines
- Genset applications

Features

- Additional analogue inputs for synchronising and isochronous load sharing
- Two separate speed pickups possible
- Positioner function
- Applicable to HEINZMANN direct acting actuators and combined with coil unit to actuators with gears
- Generator and vehicle application
- Overspeed protection, governor and sensor monitoring
- Reduction of start-up smoke to a minimum by start fuel limitation regarding several engine operation values
- Fuel limitation depending on speed, boost pressure and further parameters
- PID mapping of governors dynamic characteristic according to speed and load
- Idling and maximum speed control, velocity limitation and regulation for vehicle applications
- Easy parameterisation via HEINZMANN DcDesk 2000 communication tool or hand programmer
- Error and operating data logging

Dimensions



Technical data

General specification	
Supply voltage	9 … 32 VDC, nom. 24 VDC
Steady state current	approx. 300 mA (plus actuator current)
Degree of protection	IP00 for use in cabinet environment
Ambient temperature	-40 ... 80 °C
Storage temperature	-40 ... 85 °C
Permissible ambient humidity	< 98 % at 55 °C
Vibration	0.16 ... 4g at 5 ... 24 Hz, max. 4g at 25 ... 100 Hz
Shock	30g, 11 ms - half-sine
EMC requirements: Immunity emission	IEC61000-4-2, -3, -4, -5, -6 CISPR 16-2

I/O specification	
Pickups	1× inductive, 1× additional Hall sensor via multifunctional port P3
Temperature input	Pt 1000, NTC
Error output	1× 300 mA, ground switching
Alarm	1× binary output
Standard ports	
P2	Digital input
Multifunctional ports	
P1, optionally configurable	Analogue input 4 … 20 mA or 0 … 5 V
P3, optionally configurable	Digital input, PWM input 50 … 500 Hz, Pickup, Hall-type
P4, optionally configurable	Analogue input 0 … 5V, Digital input

HEINZMANN®

Heinzmann GmbH & Co. KG
Am Haselbach 1
D-79677 Schönau/Germany

Phone: +49 7673 8208 - 0
Fax: +49 7673 8208 - 188
Email: info@heinzmann.de