

DC 12

DATA SHEET

Description

DC 12 is HEINZMANN's latest member of the ORION family of digital controls for small and medium-sized high-speed engines.

This highly efficient speed governor is based on a 16-bit microprocessor. Small in size it is intended for direct engine mounting.

It offers two separate speed pickup inputs, inductive or Hall type.

Integrated CAN provides external communication.

DC 12 is able to drive direct working actuators in 4Q-operation. In combination with HEINZMANN's small and medium range actuators DC 12 control unit provides the ideal solution for small and medium-size high-speed engines.



Actuators

- StG 3005/3010
- StG 4002
- StG 2005 DP/2040 DP
- LA series

Applications

- Diesel engines, small and medium size
- Gas engines
- Genset applications
- Off-road vehicle applications
- Positioner

Features

Generator and off-road vehicle application

Two separate speed pickups possible

Overspeed protection

PID mapping of governors dynamic characteristic according to speed, temperature and load

Idling and maximum speed control, velocity limitation and regulation for vehicle applications

Fuel limitation depending on speed, boost pressure, temperature and further parameters for optimal engine behaviour and in order to protect the engine

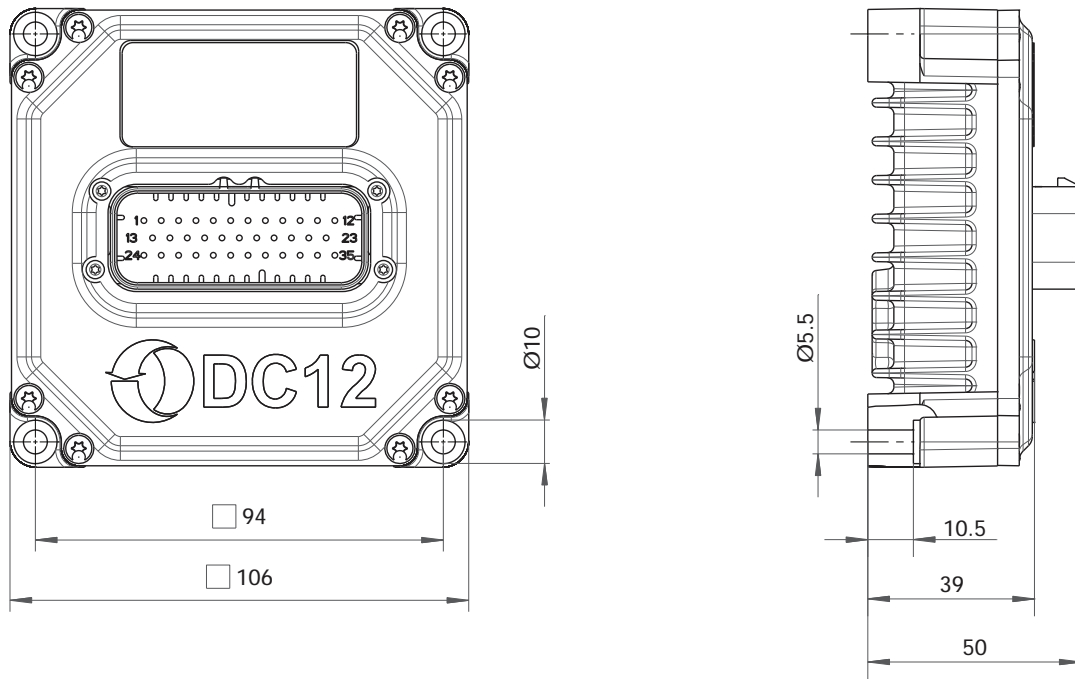
Speed dependent monitoring of oil pressure with or without engine stop for engine protection

Communication via CAN easy parameterisation via HEINZMANN DcDesk communication tool

Governor and sensor monitoring error and operating data logging

4Q-operation

Dimensions



Technical data

General specification	
Supply voltage	7 ... 32 VDC (nom. 24 VDC)
Steady state current	< 0.2 A + actuator current consumption + sensor supplies
Protection grade	IP6K9K
Ambient temperature	-40 ... 80 °C
Storage temperature	-40 ... 105 °C
Permissible ambient humidity	< 98 % at 55 °C
Vibration	10 ... 20 Hz < 2 mm 21 ... 63 Hz < 0.24 m/s 64 ... 2000 < 9g

I/O specification	
Pickups	1× inductive, 0.5 ... 30 Vpp, 50 ... 9000 Hz 1× Hall type 10 ... 9000 Hz, PWM input or digital input applicable optional
Sensor supplies	2 x 5 V < 50 mA each
Actuator output	4Q, 3.5 A continuous, 7 A for t < 20 s
Analogue inputs	3× analogue input 0 ... 5 V, assignable as binary inputs by parameter 2× temperature input, not insulated, Pt1000/NTC
Analogue outputs	1× analogue output 0 ... 5 V, 5 mA
Digital inputs	2× digital input, not insulated
Digital outputs	1× digital output low side 0.5 A, not insulated
Communication	1× CAN not insulated CAN protocol: HEINZMANN CAN protocol, CANopen, DeviceNet, SAE J1939 Other protocols on request
Configuration tool	HEINZMANN standard serial interface for HEINZMANN DcDesk
Wiring	Plug TYCO 35 pole

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