

DC 10

DATA SHEET

Description

Digital control DC 10, smallest member of HEINZMANN's controller series comprises a complete and efficient governor for speed and load control of small size combustion engines, ensuring optimum engine behaviour and performance.

It is able to drive HEINZMANN's direct working small range actuators in 2Q-operation. Power connection of an actuator is made up by a cable moulded with DC 10. Signal input and communication is done via a Tyco-type plug. DC 10 is designed and optimised to act in concert with high precision inductive feedback with PWM output. So it can serve as positioner control combined with appropriate actuators as well.

Small in size it is intended for direct engine mounting.

DC 10 offers two separate speed pickup inputs, inductive or Hall type.

External communication is possible via integrated CAN bus for configuration and parametrisation.

Additional multifunctional I/O-port offer extended control features, e.g. limitation functions or monitoring of engine temperatures.



Features

Extended configurable multifunctional ports for input and output

Two separate speed sensors possible at the same time, inductive or Hall type

Speed dependent monitoring functions with or without engine stop

Overspeed protection

CAN communication

Easy adaption of governors dynamic characteristic by parameterisation with HEINZMANN DcDesk communication tool

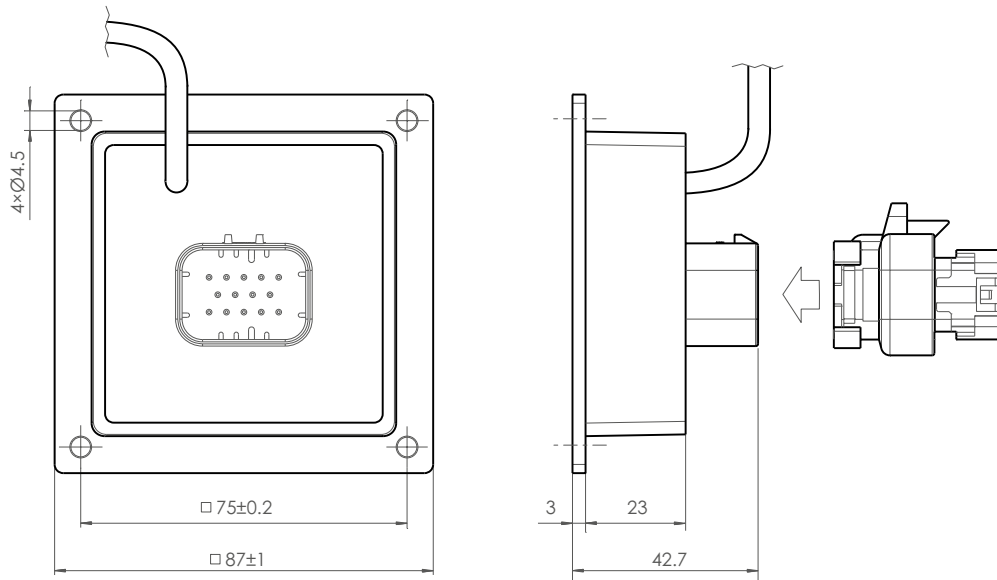
Applicable actuators

- StG 3005/3010
- LA series - linear actuators

Applications

- Diesel and gas engines
- Genset applications
- Positioners

Dimensions



Technical data

General specification

Supply voltage	7 ... 32 VDC (nom. 12 or 24 VDC)
Current consumption	nom. < 3 A, max. 6 A for 60 s
Degree of protection	IP6K9K or IP67, depending on version
Operating temperature	-40 ... +105 °C
Vibration	10 ... 20 Hz < 1.75 mm 21 ... 45 Hz < 0.24 m/s 46 ... 2000 < 7g
Shock	30g, 11 ms half sine
Permissible ambient humidity	< 98 % at 55 °C
Weight	approx. 0.4 kg
Wiring	Plug TYCO 14 pole

I/O specification

Pickups	1 × inductive, 0.3 ... 30 Vpp, 15 ... 9000 Hz 1 × Hall type, $U_{low} < 1.2 V$, $U_{high} > 5.5 V$, 1 ... 9000 Hz
Sensor supplies	1 × 5 V < 50 mA
Actuator output	2Q, 3.5 A continuous, 7 A for $t < 20 s$
Multifunktional ports (MFP)	
MFP 1	0 ... 5 V / 4 ... 20 mA analogue input or binary input
MFP 2	0 ... 5 V / 0 ... 10 V analogue input, binary input, 0 ... 5 V analogue output
MFP 5	0 ... 5 V analogue input, binary input, PWM input 50 ... 500 Hz, $U_{low} < 2 V$, $U_{high} > 5 V$ temperature input PT1000; NI1000; PT200; Bosch NTC DS-S2-TF; Jumo NTC 2K3A1-25, pickup 2 (Hall type)
MFP 6	0 ... 5 V analogue input, binary input, pickup 1 (inductive)
Only available in variants without CAN	
MFP 3	0 ... 5 V analogue input, binary input
MFP 4	0 ... 5 V analogue input, binary input

Communication interface	1 × Heinzmann service interface 1 × CAN 2.0B
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