

## PANDAROS DC 6

### DATA SHEET

#### Description

The DC 6 is HEINZMANN's second generation of digital PANDAROS controls for small- sized high-speed engines.

This highly efficient speed governor is based on a 16-bit microprocessor. The DC 6 control unit offers two separate speed pickup inputs, inductive or Hall type.

Integrated CAN provides external communication. DC 6 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. In combination with HEINZMANN's small, medium and large range actuators or the Bosch EDC™ pump DC 6

control unit provides the ideal solution for small high-speed engines and turbine applications. The advanced DC 6 hardware is fully compatible with any predecessor. All DC 6 software versions can be used without any change.



#### Actuators

PANDAROS DC 6 is the control device for the PANDAROS family.

| PANDAROS Systems               | StG 6/10 | StG 16/30/40 | StG 2005/2010/2040/2080 | StG 2005/2040-DP |
|--------------------------------|----------|--------------|-------------------------|------------------|
| PANDAROS I                     | x        |              |                         |                  |
| PANDAROS II                    |          |              | x                       |                  |
| PANDAROS III                   |          | x            |                         |                  |
| PANDAROS IV                    |          | x            |                         |                  |
| PANDAROS V                     |          |              |                         | x                |
| PANDAROS VI digital positioner | x        | x            | x                       |                  |

#### Features

Extended generator and vehicle application

Two separate speed pickups possible

Additional analogue inputs for synchronising and isochronous load sharing

Overspeed protection

Start fuel limitation regarding engine temperature for optimum fuel quantity during start and run-up phase and reduction of start-up smoke to a minimum

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 load factor 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 2000 communication tool or hand programmer

Governor and sensor monitoring

Error and operating data logging

## Applications

- Stationary applications, e.g. generator sets or power stations
- Dual fuel applications
- Gas, water and steam turbines
- Heat pumps

## Technical data

### General specification

|                             |                                                                     |
|-----------------------------|---------------------------------------------------------------------|
| Supply voltage              | 24 VDC, 12 VDC                                                      |
| Operating voltage range     | 9 ... 33 VDC                                                        |
| Supply current              | 300 mA (plus actuator current)                                      |
| Operating temperature range | -40 ... 80 °C                                                       |
| Protection level            | IP00 or IP55                                                        |
| Connections                 | IP00, spring cage terminal optional; IP55, plugs due to application |
| Vibration                   | 7 g / 10 ... 400 Hz                                                 |
| Humidity                    | 95 % rel. humidity at 55 °C                                         |
| Insulation                  | > 1 MΩ at 48 VDC                                                    |
| Weight                      | IP00: 1.2 kg<br>IP55: 3 kg                                          |
| Compliances                 | 2004/108/EG; GL (positioner only)                                   |

### I/O specification

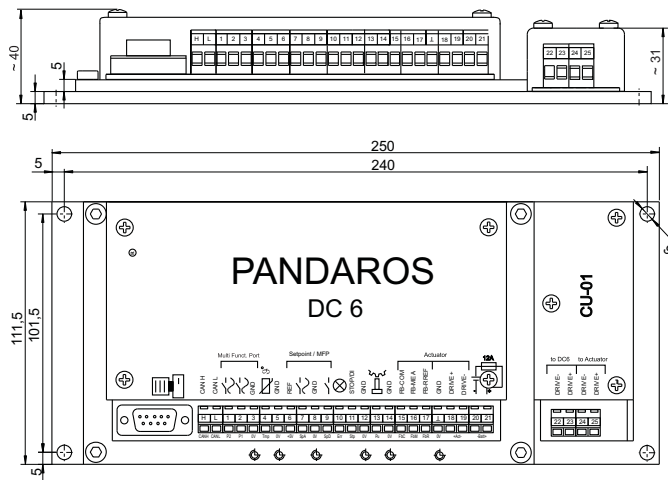
|                         |                 |   |                                                       |
|-------------------------|-----------------|---|-------------------------------------------------------|
| Inputs                  | Pickup          | 1 | Hall type, 10 ... 9000 Hz                             |
|                         | Pickup          | 1 | Inductive sensors, 0.5 ... 30 Vpp / 50 ... 9000 Hz    |
|                         | Analogue        | 3 | 0 ... 5 V or 4 ... 20 mA                              |
|                         | Temperature     | 1 | PT200, PT1000, NTC, NI1000                            |
|                         | Digital 1 / PWM | 3 | 24 VDC, (< 1 V / > 5 V)                               |
|                         | Digital 2       | 1 | 24 VDC, (< 1 V / > 5 V)                               |
| Outputs                 | Analogue        | 2 | 4 ... 20 mA                                           |
|                         | Digital / PWM   | 2 | 0.3 A, low side, 10 ... 90 %, short circuit protected |
|                         | Sensor supply   | 1 | 5.0 VDC, 50 mA max.                                   |
|                         | Alarm output 1  | 1 | 0.3 A, low side, short circuit protected              |
| Communication interface | on-board        | 1 | HEINZMANN Service Interface                           |
|                         | on-board        | 1 | CAN 2.0B                                              |

## Certificates

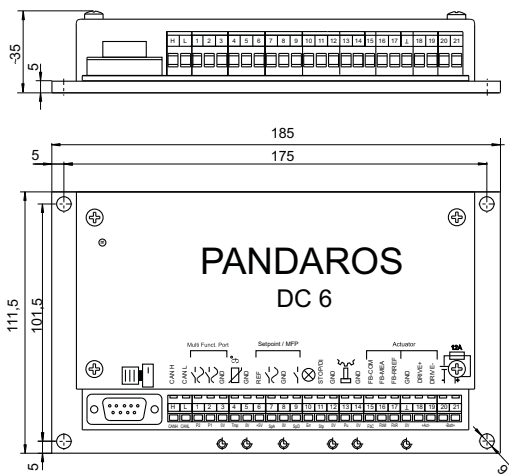
Certificates on request

# Dimensions

IP00 with coil unit CU-01



IP00 without coil unit CU-01



IP55, any version

