MVC 01-20

DATA SHEET

Description

The MVC 01-20 is a member of HEINZMANNs DARDANOS Electronic Fuel Injection (EFI) controller series for industrial diesel, dual-fuel or gas engines or combinations of them. Additional to its primary purpose of speed control it provides features beneficial for engine performance, such as optimised fuel efficiency, increase of engine power, lower environmentally harmful emissions.

MVC 01-20 serves engines with up to 20 cylinders and is compatible with any solenoid based fuel injection system. It comprises precise injection control with up to five injections per cylinder and stroke.

For diesel common rail systems it can drive solenoids with selectable voltage in a range of 24, 48 or 90 VDC.

MVC 01-20 comes with a comprehensive number of inputs and outputs. They are entirely independent of each other and offer a wide range of opportunities for adapting the control system to individual demands.

MVC 01-20 uses two independent CAN bus lines with various protocols for communication. For configuration and adjustment HEINZMANNs communication software DcDesk can be applied advantageously. It offers all features required for configuration, commissioning, testing and servicing, integrated engine and sensor monitoring functions and also a solenoid click test tool for wiring check. It allows adjustment of connected device while the system is running and observation of the response directly. Additionally, it comprises a lot of graphical features and records of data.

Applications

➡ Electronic fuel injection at diesel engines, stationary and mobile
➡ Gas admission valves for gas or dual-fuel engines

Features

Up to five injections per cylinder and stroke

Convenient number of selectable I/Os for optimal engine operation and monitoring

Voltage ranges of 24, 48 or 90 VDC to drive solenoids, selectable upon preference

Integrated engine monitoring functions

Cylinder faults and sensor monitoring functions

Proven functionality for marine, generator, locomotive & vehicle applications

Compatible with any solenoid based fuel injection system

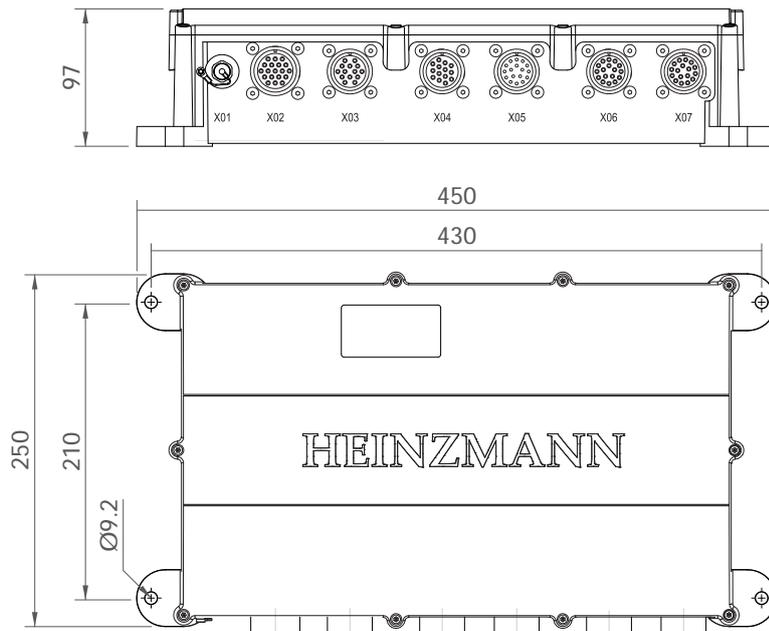Two independent CAN bus lines (various protocols)

Technical data

General specification	
Supply voltage	18 ... 32 VDC (nom. 24 VDC)
Ambient temperature	-40 ... +80 °C
Permissible ambient humidity	< 98 % at 55 °C
Vibration	10 ... 20 Hz; max. 2 mm 21 ... 64 Hz; max. 0.24 m/s 65 ... 2000 Hz; max. 9 g
Shock level	< 30g, 11 ms - half sine wave
EMC	EN 61000-4-2/-3/-4/-6
Degree of protection	IP65
Weight	approx. 8.5 kg

Certificates

CE, others on request

I/O specification	
Signal inputs	
3× speed input, Hall type	max. 8 kHz
1× frequency input	25 ... 8000 Hz
4× analogue input	available 0 ... 5 V or 0 ... 25 mA
11× binary input	1 Hz ... 1 kHz
5× temperature input	Pt 1000 Standard, PTC or NTC possible
Signal outputs	
20× control magnet driver	24, 48 or 90 VDC max. 13 A hold, max. 18 A boost
2× analogue output	0 ... 5 V, 0 ... 37 mA
Version 48 & 90 VDC magnet driver	
6× binary output	max. 3 A, high-side switching
2× binary output	PWM outputs / low-side-switching
2× current output	max. 5 A, suction throttles
Version 24 VDC magnet driver	
6× binary output	max. 3 A, high-side switching
2× binary output	PWM outputs / low-side-switching
Communication	2× CAN 2.0B 1× serial ISO9141
Configuration tool	HEINZMANN standard serial interface for HEINZMANN DcDesk
Wiring	CANNON plug

Dimensions

Subject to alterations. ©Heinzmann GmbH & Co. KG, 2017

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