

MEGASOL

DATA SHEET

Description

MEGASOL (MEtering of GAs by SOlenoid) is HEINZMANN's series of electrically actuated gas admission valves. It is intended for gas and dual-fuel operation on industrial turbo charged four-stroke combustion engines.

For gas injection, each cylinder is fitted with a MEGASOL valve in the intake manifold. This allows precise dosing for each cylinder individually.

Two variants with different electrical actuating voltages are available from MEGASOL. All MEGASOLs consist of an identical valve body which is preset to the required flow rate during manufacture. The solenoids for actuation only differ in their constructive height, depending on the voltage.

MEGASOL 400 (24 V) is fully assembly and functionally compatible with

SOGAV 105 and can be used as a direct replacement.

Any parts exposed to the gas are corrosion-resistant and optionally suitable for alternative fuels such as hydrogen.

The units allow any orientation for installation. Nevertheless, vertical alignment (magnet above metering plates) should be preferred. This increases the valves service life compared to horizontal installation.

The connection cable can be led out of the solenoid in three different orientations, each offset by 90°. However, this must be determined in advance before production, as must the Z-value for the flow.

MEGASOL is also available as a marine version.



Features

Precise metering of gas quantity for each cylinder individually

Fast response and excellent load behaviour of engine

Very low leakage when closed

Bolt-on compatible to market standard

Optionally available for alternative fuels such as hydrogen

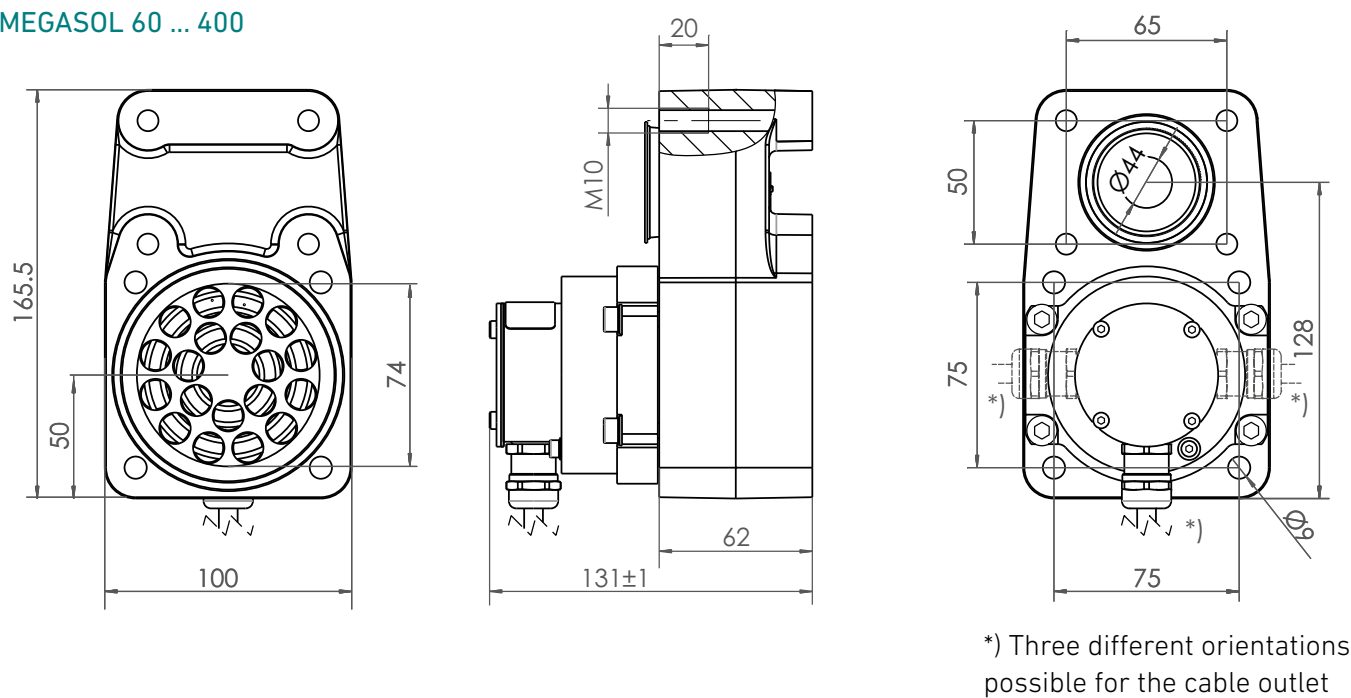
Applicable on new engines as well as for retrofit solutions

Technical data

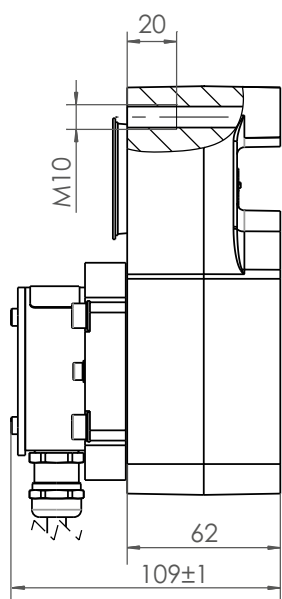
MEGASOL	60	200	250	400	425	400 (24V)
Flow rate (Z-Value)	17	55	69	105	128	105
Supply voltage	90 VDC					24 VDC
Max. differential pressure Δp	< 3.0 bar / 43 psi					< 1.5 bar / 22 psi
Max. absolute pressure air supply	6 bar / 87 psi					3 bar / 43.5 psi
Max. absolute pressure gas supply	8 bar / 116 psi					4 bar / 58 psi
Leakage when closed ($\Delta p = 1$ bar, 20 °C)	< 0,25 % of steady state flow-rate					
Permissible max. backfire pressure, peak	0.5 bar / 7.25 psi					
Operating temperature	-20 °C ... +105 °C / -4 °F ... +221 °F					
Max. temperature gas supply	80 °C / 176 °F					
Response time to fully open after signal on ($\Delta p = 1$ bar)	< 3 ms					< 5 ms
Response time to fully close after signal off ($\Delta p = 1$ bar)	< 2 ms					
required air and gas filtration	5 μ m					
Diameter gas inlet	44 mm / 1.73 inch					

Dimensions

MEGASOL 60 ... 400



MEGASOL 400 (24 V)



Certificates

ATEX pending