

DK 100 / StG 2010
DK 140 / StG 2040
DK 200 / StG 2080

Throttle valves with actuators

DATA SHEET

Description

HEINZMANN's throttle valves with actuators are ideal components for engine control.

As a butterfly throttle valve they control engine speed by gas dosing. Furthermore, in special applications they can be used as a gas valve to control the air fuel ratio (AFR) and the mixture quality. Alternatively they are applicable as turbo bypass valves.

A multi-polar magnetised permanent magnet is mounted on the actuator shaft. Opposite of it a likewise multipolar armature is fixed. The design allows to generate powerful torque in both directions of working equally.

A result of the direct acting gearless function are very fast response times. A contactless feedback system mounted on the actuator shaft offers a precise electrical signal of shaft position. If the actuator is blocked mechanically a current limitation is activated to prevent the actuator from overheating.

The use of special materials and long-duration lubricants assure maintenance-free operation and long service life.

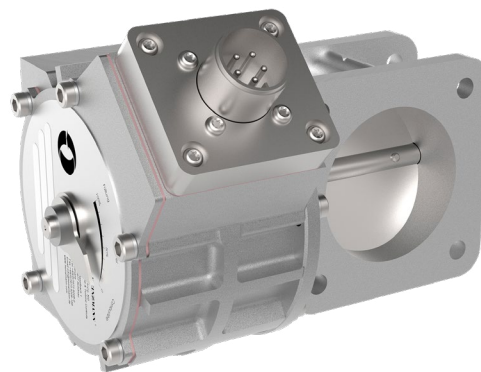
For installation any mounting position is possible.

The size range of the valves from 100 to 200 and the sealed design covers a wide range of output power and operation pressure. The valves are suitable for turbo charged engines in the same way, allow optimal engine control and exceptional lifetime.

Versions with non-standard valve diameters are available on request. 68° is the standard rotation, both directions of working are possible.

Application range

- Gas dosing
- Gas valve for control of air-fuel ratio (AFR)
- Turbo bypass valve



Features

Applicable for draw through as well as blow through configurations

Strong regulation torque working in both directions equally

Spring return optional

Quick response time

Contactless feedback

Any mounting position possible

Suitable for naturally aspirated and turbo charged engines

Placing possible before or after turbo-charger

Standard flange sizes

Applicable for a wide range of gases (e.g. natural gas, landfill gas, biogas, propane)

Anti-corrosive versions available

Maintenance-free

Technical data

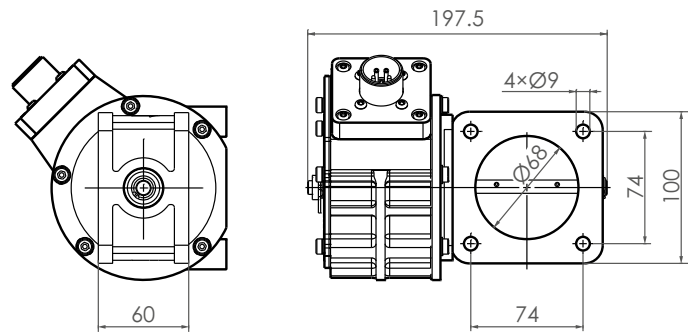
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Steady state torque	0.7 Nm	3.4 Nm	4.2 Nm
Maximum torque	1.4 Nm	5.6 Nm	8.4 Nm
Rotation		68°	
Diameter	Ø68 mm	Ø85 mm	Ø110 mm
Response time	≤ 60 ms	≤ 70 ms	≤ 85 ms
Engine power range *)	approx. 70 ... 250 kW	approx. 140 ... 500 kW	approx. 350 ... 1200 kW
Boost pressure		max. 4 bar abs.	
Operating temperature		-20 ... +90 °C	

*) Power range for aspirated engines. For turbo-charged engines 50 ... 150 % more, depending on boost pressure.

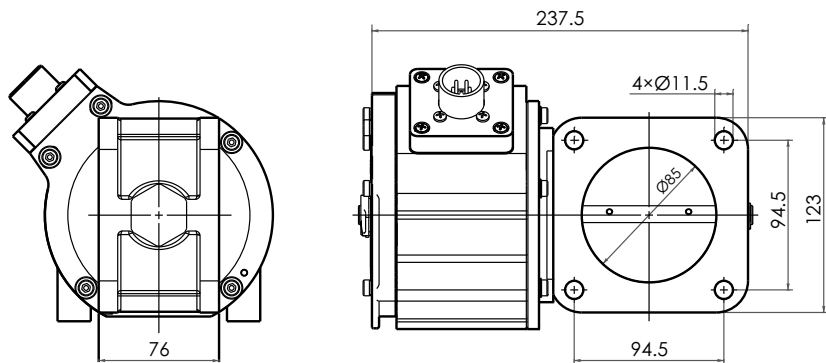
Variants on request

Dimensions

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