

# Turbocharger bypass valve with digital positioner

## DATA SHEET

### Description

HEINZMANN's throttle valves with actuators and positioners are ideal components for boost pressure control or speed / load control in engine control systems.

A special version of those is applicable as turbocharger bypass valve which allows both flow directions unrestrictedly.

The actuator driving the valve is equipped with a multi-polar magnetised permanent magnet system mounted directly on the actuator shaft. This design allows generating powerful torque in both directions of working equally. Result of the direct acting gearless function are very fast response times.

A contactless feedback offers a precise electrical signal of shaft position to the positioner electronic.

For configuration and adjustment of the turbocharger bypass valve HEINZMANN's well proven communication system DcDesk is used. Additionally the positioner system offers error memory and indication of elapsed time.

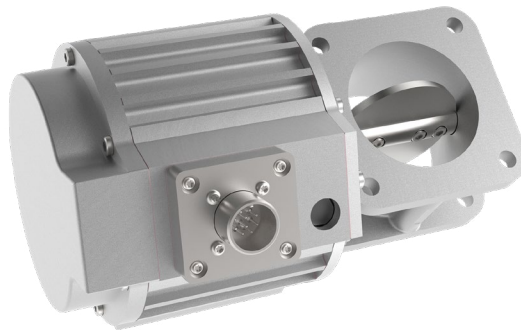
If the actuator is blocked mechanically a current limitation is activated to prevent the actuator from overheating.

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

The design makes possible any mounting position and orientation.

### Application range

- Turbocharger bypass valve



### Features

Designed for particularly high boost pressure

Strong regulation torque working in both directions equally

Spring return for normally open, other versions optional

Quick response time

Contactless feedback

Any flow direction and mounting position possible

Analogue standard signal for position setpoint, CAN optional

Flap directly mounted on actuator shaft, no linkage or coupling

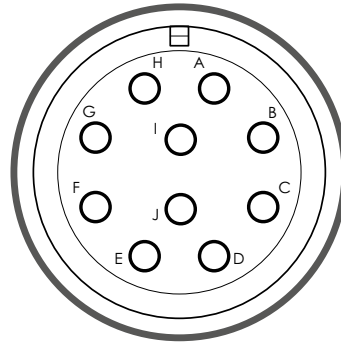
Maintenance-free

## Technical data

Steady state torque	4.5 Nm
Maximum torque	8 Nm
Rotation	62°
Response time	< 90 ms
Valve diameter	85 mm
Throttle valve angle (closed position)	75°
Boost pressure	max. 8 bar (abs.)
Supply voltage	nom. 24 VDC, 18 ... 33 VDC operation range
Current consumption	max. 8 A (at 24 VDC)
Degree of protection	IP65
Operating temperature	-25 ... +90 °C
Vibration resistance	5g; 10 ... 2000 Hz
Permissible humidity	98 % at 60 °C
Weight	approx. 10 kg

## Pin assignment

### Connector pin assignment



Pin	Signal
A	Power supply
B	Command GND
C	Command 4 ... 20 mA, 0 ... 5 V, 0 ... 10 V, PWM
D	Alarm out, low side switch
E	—
F	—
G	Shutdown com- mand, high side
H	Power supply GND
I	Position 4 ... 20 mA, PWM
J	Position GND

## Dimensions

DK 140 / StG 2080-PD

