

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.



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

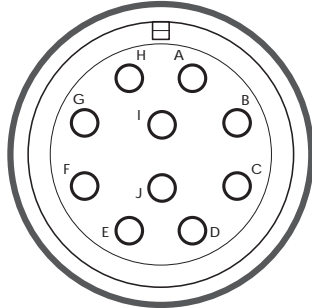
Application range

- ➔ Turbocharger bypass valve

Technical data

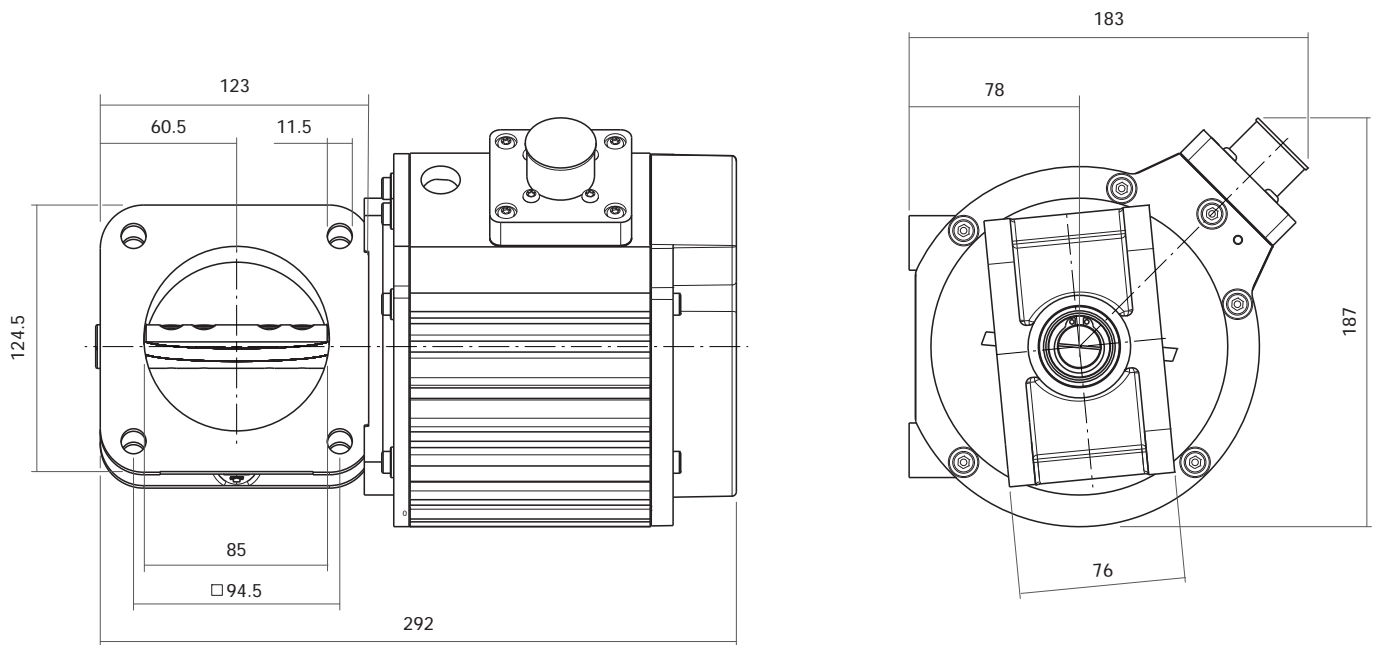
Steady state torque	4.5 Nm
Maximum torque	8 Nm
Rotation	62°
Response time	< 90 ms
Valve diameter	85 mm
Throttle valve angle (closed position)	75°
Boost pressure	max. 8 bar (abs.)
Supply voltage	18 ... 33 VDC
Protection grade	IP65
Operating temperature	-25 ... +90 °C
Vibration resistance	5g; 10 ... 2000 Hz
Permissible humidity	98 % at 60 °C
Housing material	Aluminium
Weight	approx. 10 kg

Pin assignment

Connector pin assignment		Pin	Signal
		A	Power supply 24 VDC
		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 command, high side
		H	Power supply GND
		I	Position 4 ... 20 mA, PWM
		J	Position GND

Dimensions

DK 140 / StG 2080-PD



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