

ActuCOM 8

Engine Throttle Actuator

Electrical actuator for rotational movements

General Description

ActuCOM 8 is an electrical actuator for rotational movements. The actuator consists of a brushless 3-phase motor and on-board electronics. The rotation is bidirectional, the rotary output range can be configured and is not limited in stroke. The engine throttle can be driven directly or via a linkage. One or two mechanical stops with automatic detection are supplied. The signal for a desired rotary position can be passed via CAN-Bus, 0-20mA or 4-20mA analog signal. The actual rotor position is provided by a 4-20mA analog output signal or by CAN communication, which is also used for providing diagnostics. All parameters can be adjusted via GUI over RS232 service interface. ActuCOM 8 can also be used for speed governing.

Mounting of ActuCOM 8 can be done in several positions by using sliding T-blocks, see next page.

Key Parameters

General Actuator Data

Supply Voltage	24VDC ±25%
Stroke	0°-360° arbitrary number of revolutions
Steady state torque.....	8Nm
Peak torque	15Nm
Steady state power consumption ...	95W
Peak power consumption	295W

I/O Data

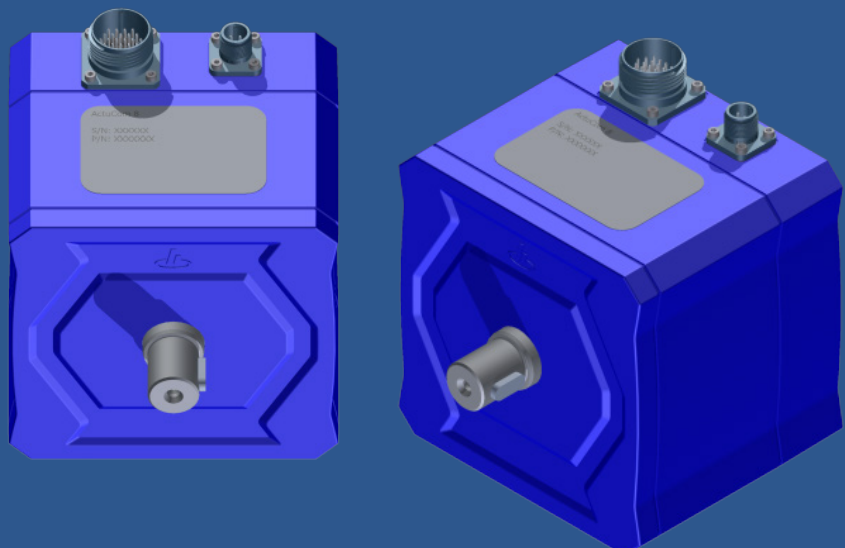
Analog input	0-20mA or 4-20mA, Burden 330R
Analog output	0-20mA or 4-20mA max., Burden 500R
Digital input.....	24V, 5k internal pull-up
Digital output.....	24V, 5k internal pull up
CAN	1Mbaud, 120R terminated
Service interface	RS232

Performance Specification

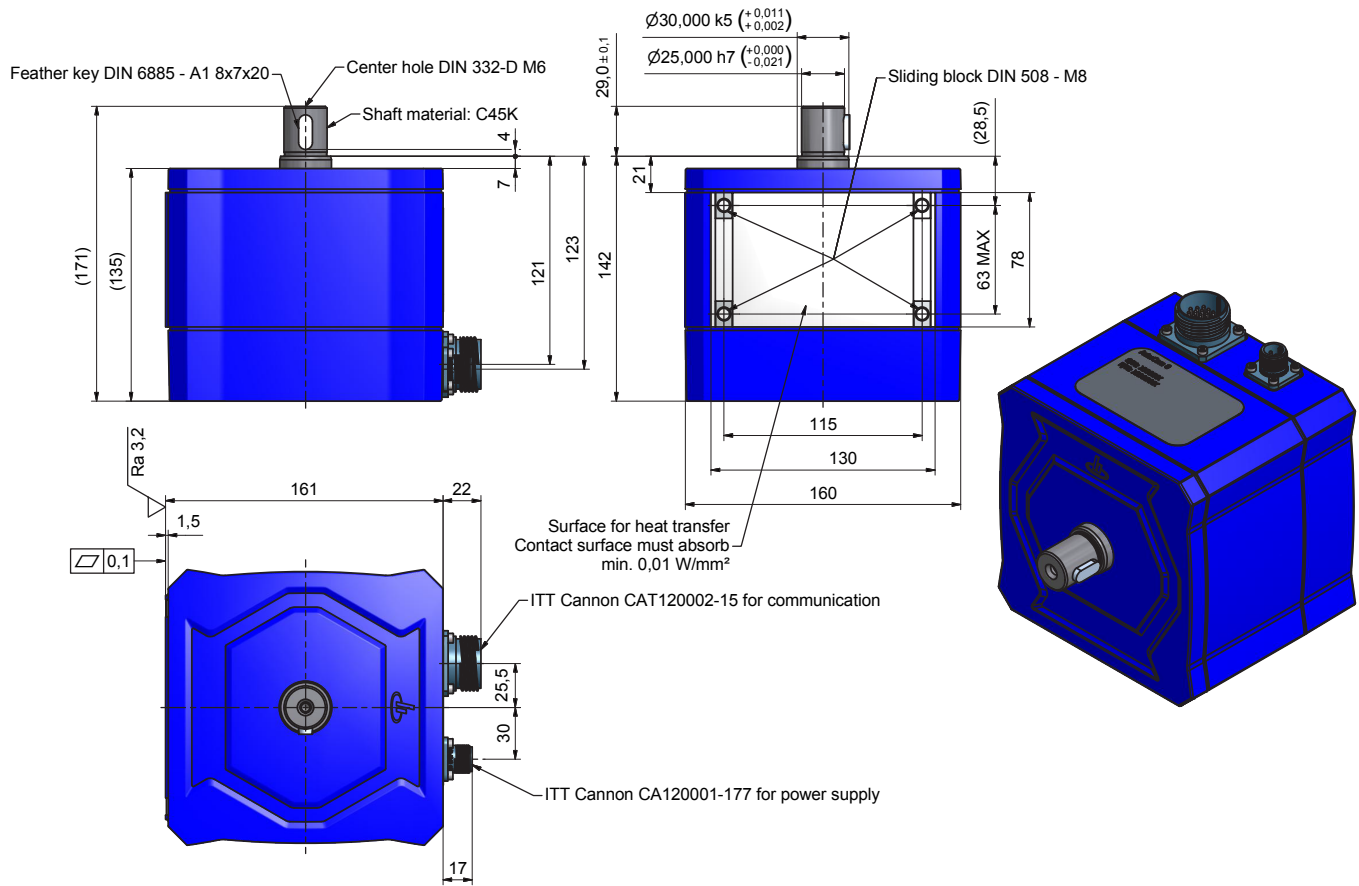
Closing time 10-90°	80ms
Accuracy position feedback	resolution 12bit, transducer resolution with el. balance ~ 0.4°

Environmental Specification

Protection class.....	equals IP 54
Ambient temperature.....	-10°C to 90°C



Outer housing dimensions



Diagnostics

Diagnostic features will be implemented such as:

- Self-Calibration via reference run after start up to determine automatically the end positions of the throttle and therefore the available stroke, also automatic differentiation into fully open or closed position
- Warning in case of not reaching the desired position
- Error message in case of failure of position sensor
- Power up diagnosis
- Temperature diagnosis of on board electronics
- CAN address claim error
- CAN demand missing
- CAN demand out of range

Certifications & Environmental Protection

- Enclosure according to IP54 per IEC 60529
- EC Declaration of Conformity according to EC Directive 2004/108/EG
 - EN 61000-6-2: Immunity for Industrial Environment
 - EN 61000-6-4: Emissions for Industrial Environment
- Ambient Temperature Range: -10°C to +90°C
- Shock: 40g, 11mS saw-tooth 3/axis
- Vibration:
 - Sine: (10Hz-97.5Hz) 0.4mm; (97.5Hz-2000Hz) 15g, Sweep rate: 1oct/min; Number of sweeps: 100; Total time: 12.45hrs
 - Random: Frequency: 10Hz-2000Hz; Acceleration: 13.0grms; Total time: 8.0hrs
- AEx of Basis NEC 505: AEx nA IIC T4/T3 pending
- IECEx Ex nA IIC T4/T3 Gc pending

altronic

HOERBIGER Engine Solutions

HOERBIGER Ventilwerke GmbH & Co KG
 Braunhubergasse 23, 1110 Wien, Austria
 Tel. +43 1 74 004 388 / Fax. +43 1 743 42 22 400
 E-mail: info-hvt@hoerbiger.com
 http://www.hoerbiger.com

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Software

Optional the configuration software can be customized with respect to specific requirements, integration into customer's engine management system for configuration and parameterization therefore possible.