ITB-DC Throttle Bodies

with integrated Stepper Motor and Driver

New Product

We announce the launch of our latest development for Gas Engine Controls. The new ITB-DC series 150 and 200 (“Direct Control”) incorporates the functionality of the established VariStep3 stepper motor driver as a new product line parallel to ITB throttle bodies. The ITB-DC is designed to perform in COP (continuous operation) applications.

The integration of the stepper motor card saves precious space and wiring effort in the Gensets switch cabinet.

The series ITB-DC 150 and 200 are now ready to order.

PROPERTIES:

- Throttle body series DN150/200 available with or without o-ring gasket
- New electronics of stepper motor driver
- High resolution stepper-motor
- Military style connector
- LED to provide device status
- Wire break detection
- New safe-position functionality
- Multiple variants of harnesses available (fieldbus only, analog only, “fully”)
- Detection of power or step loss, overtemperature or invalid configuration
- USB interface for programming with MICT Software
- Error messages via fieldbus AIO.GAS/ InteliSysGas ECU list 1.8

TECHNICAL DATA:

- Up to 5,4 Nm holding torque
- 24 V DC power supply (16.8 V to 32 V DC)
- Analog or fieldbus-based operation
- Ambient temperature range: –40 to 85°C/ -40 to 185 °F
- Maximum medium temperature: 80 °C/ 176 °F
- Maximum medium pressure: 4.5 bar abs.
- Step width: <0,06 °
- 35 ms throttle travel (10 – 90% opening)
- 24-pole military threaded connector
- USB 2.0 type B interface
- Configurable 0 to 20 mA analog target position and feedback position
- Binary input (Reset), galvanic isolated
- Binary output (Error), galvanic isolated, NC/NO configurable
- CAN 2.0B galvanic isolated (Extended frame format and ISO 11898)

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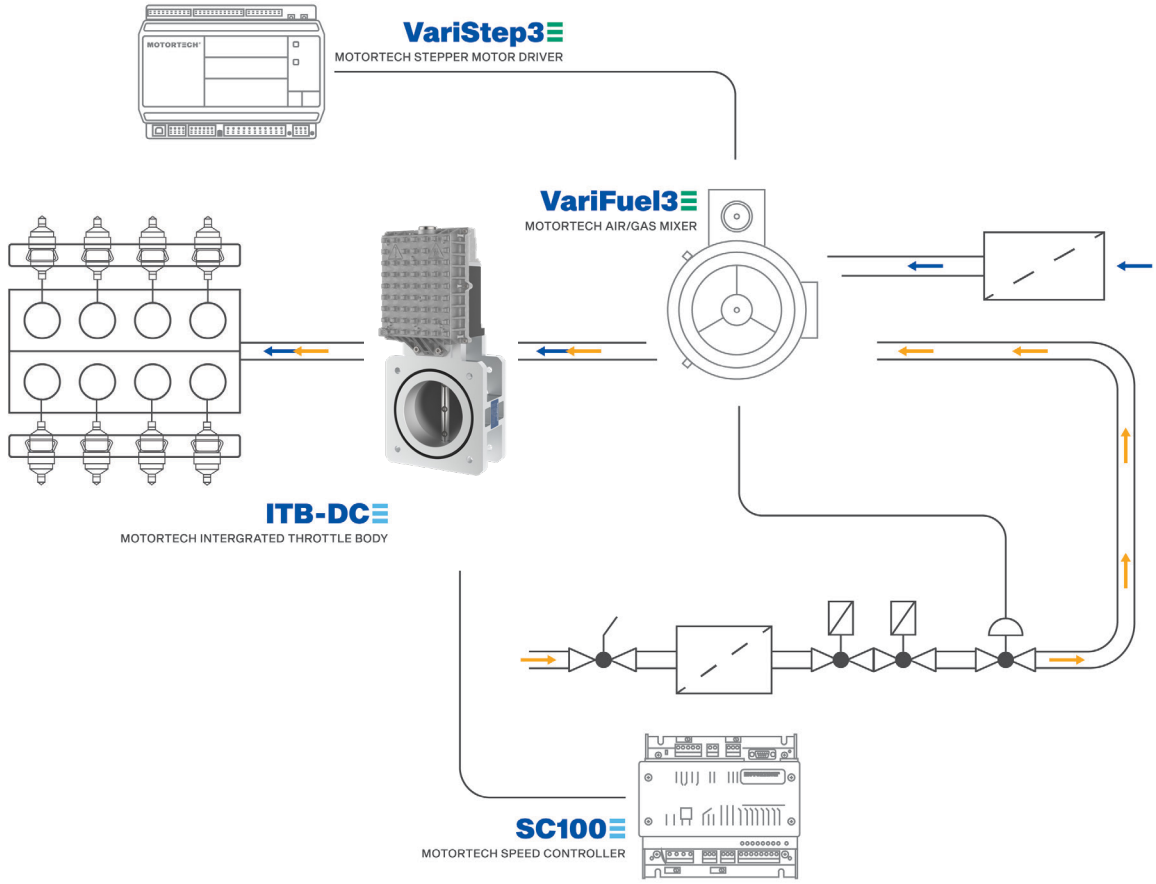
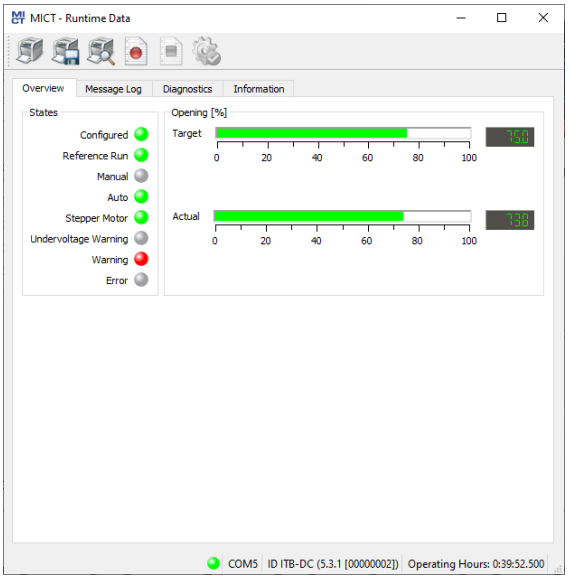
DISTRIBUTION
- ✔ Customers / others
- ✔ Representatives & distributors
- ✔ OEM partners
- ✔ MOTORTECH subsidiaries

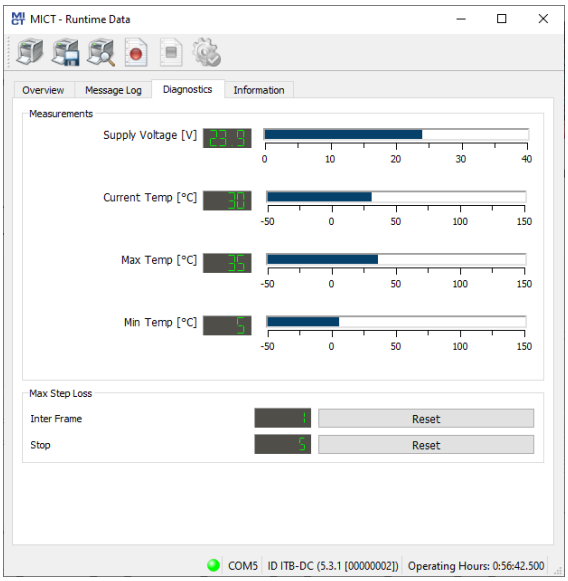
System overview



MICT – Software Screenshots

(Software version 2.50)





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Ordering Information

P/N	Description ITB-DC Throttle Bodies
30.51.150-ID[1] 30.51.155-ID[2]	ITB-DC series 150 (Inner diameter 82 to 104 mm)
30.51.200-ID[1] 30.51.200-ID[2]	ITB-DC series 200 (Inner diameter 98 to 125 mm)
P/N	**ITB-DC Harness Variants**
31.02.600-L	ITB-DC harness “Analog & binary communication”
31.02.621-L	ITB-DC harness “CANbus communication”, (incl. termination)
31.02.611-L	ITB-DC harness “CAN & analog & binary”
06.05.091	USB Interface cable USB 2.0 A/B, 3,0m, 180°

[1] ITB-DC Throttle body with embedded O-ring for flange sealing
[2] ITB-DC Throttle body without embedded O-ring for flange sealing

Important note for usage with SC100 and ECON-4 Speed Controller:

The ITB-DC throttle bodies provides a 4-20 mA throttle feedback signal to ensure a stable signal via the harness. The throttle feedback input at ECON-4/ SC100 Speed Controller (P/N: 63.50.114) is voltage (0 to 5 V, to be set as 0,6 to 4,5 V DC). A 270 Ohm resistor will be supplied with every ITB-DC analog harness (P/N: 31.02.600-L). This resistor can be applied to convert the 4 to 20 mA feedback signal from ITB-DC into a voltage signal.

The analog output settings for the ITB-DC in MICT software must be set to approx. 2,6 – 16,6 mA (close – open) in this case.

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