

ITB-DC – Throttle with Integrated Stepper Motor Driver

P/N 30.51.200-D, P/N 30.51.205-D

Variations

- Standard diameters D of the throttle (*see drawing*) 100 mm (3.94"), 105 (4.13"), 110 mm (4.33"), 115 mm (4.53"), 120 mm (4.72"), 125 mm (4.92")
- Possible diameters of the throttle 98 mm (3.86") to 125 mm (4.92")

Dimensions

- Length/width of mounting flange 179 mm (7.05")
- Hole spacing on the mounting flange 126 mm (4.96")
- Height of mounting flange 110 mm (4.33")
- Length including stepper motor and controller 364 mm (14.33")
- Width including stepper motor and controller 161 mm (6.34")

Connections

- Stepper motor 24-pole military style connector

Weight

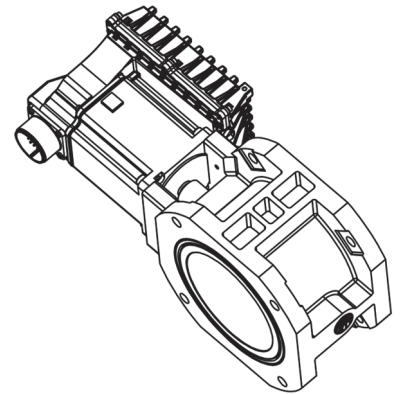
- P/N 30.51.200-100, P/N 30.51.205-100 6.4 kg (14.11 lbs)
- P/N 30.51.200-105, P/N 30.51.205-105 6.2 kg (13.67 lbs)
- P/N 30.51.200-110, P/N 30.51.205-110 6.1 kg (13.45 lbs)
- P/N 30.51.200-115, P/N 30.51.205-115 5.7 kg (12.57 lbs)
- P/N 30.51.200-120, P/N 30.51.205-120 5.6 kg (12.35 lbs)
- P/N 30.51.200-125, P/N 30.51.205-125 5.4 kg (11.91 lbs)

Mechanical Data

- Maximum rotation angle of the throttle body 80°
- Chemical resistance Water, oil, gaseous fuels
- Maximum absolute pressure 4.5 bar (65 psi)
- Maximum temperature of media flowing through +80 °C (+176 °F)
- Permissible vibrations 5 Hz to 25 Hz: constant vibration displacement of 1.6 mm
25 Hz to 100 Hz: constant acceleration of 4 g
100 Hz to 1,000 Hz: constant acceleration of 2.8 g

Climatic Environmental Conditions

- Permissible temperature range -40 °C to +85 °C (-40 °F to +185 °F)
- Maximum relative humidity Max. 95 % humidity humidity without condensation up to max. 4,000 m above sea level



**Electrical Data**

- Power consumption Max. 72 W
- Power supply Nominal voltage: 24 V DC
Operating voltage:
16.8 V DC to 32 V DC
- Required current Max. 4 A

Inputs and Outputs

- Binary input (Reset) Max. 32 V DC; min. 5 mA
- Binary output (Error) Max. 32 V DC; max. 50 mA
normally closed or normally open
contact (configurable)
- Analog current input 0 mA to 20 mA, configurable
- Analog current output 0 mA to 20 mA, configurable

Stepper motor

- Step width < 0.06°
- Speed (when opening from 10% to 90%) 35 ms
- Holding torque 5.4 Nm (3.98 lb-ft)

Communication

- Interfaces USB, CAN bus

Overview Drawings

200 series (P/N 30.51.200-D)

P/N 30.51.205-D also corresponds to the following drawing, but without the gasket (O-ring 148.82 mm x 3.53 mm [5.86" x 0.14"]) and the groove required for it.

