

# ITB-DC – Throttle with Integrated Stepper Motor Driver

P/N 30.51.150-D, P/N 30.51.155-D

## Variations

- Standard diameters D of the throttle (*see drawing*) 90 mm (3.54"), 100 mm (3.94")
- Possible diameters of the throttle 82 mm (3.23") to 104 mm (4.09")

## Dimensions

- Length/width of mounting flange 148.7 mm (5.85")
- Hole spacing on the mounting flange 110 mm (4.33")
- Height of mounting flange 80 mm (3.15")
- Length including stepper motor and controller 335.5 mm (13.21")
- Width including stepper motor and controller 161 mm (6.34")

## Connections

- Stepper motor 24-pole military style connector

## Weight

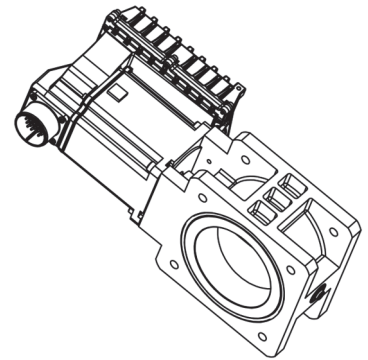
- P/N 30.51.150-090, P/N 30.51.155-090 4.8 kg (10.58 lbs)
- P/N 30.51.150-100, P/N 30.51.155-100 4.5 kg (9.92 lbs)

## 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

### 150 series (P/N 30.51.150-D)

P/N 30.51.155-D also corresponds to the following drawing, but without the gasket (O-ring 116 mm x 3 mm [4.57" x 0.12"]) and the groove required for it.

