

Electronic throttle actuator

Brand: Jenvey
Product Code: ETA2
Availability: In Stock
Weight: 0.25kg
Dimensions: 20.00cm x 10.00cm x
10.00cm

Price: \$1,340.00

Short Description

The Jenvey ETA2 Motorsport electronic throttle actuator has been created specifically for use with motorsport and high-performance engines. It will operate Jenvey individual throttle systems as well as other applications requiring fast and accurate response within its operating range.

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applications it is necessary to seek advice from the ECU supplier regarding the essential tuning of the actuator control system (normally a PID or PI control) and the associated safety systems. Ultimately electronic throttle applications are safer than mechanical cable application due to evaluation of the pedal position against throttle position and the ability to power the throttles closed. We recommend that set-up and tuning is only undertaken in conjunction with ECU suppliers and/or their recommended agents.

Mechanical variations:

- The unit is provided with parts for standard configurations for single body (SF) 4 body kits and twin TB/TH/TF/TA kits.
- Mounting are also available for Ford Cyclone V6 TiVCT variants.
- Operating lever type and location (LH or RH) – default is multi-position lever (ORU1+extender).
- Return spring – none, LH or RH, soft, medium or strong – default is with no return spring.
- Actuator position feedback sensor – left or right (using Jenvey throttle position sensors, TP1, TP11 or TP8) – NOT INCLUDED.

Specifications

Actuator specifications:

- Temp range of operation: -20 to 140 degC
- Voltage range: 10V to 16V
- Gear ratio: 20:1
- Max torque: 3600Nmm
- Max current: 8 amps
- Electrical connector: 2 pin AMP Superseal connector male pin
- Loom connector required: 2 pin AMP Superseal connector female pin
- Throttle position sensor: TP1, TP8 or any to fit an 8mm shaft with a 6mm flat
- Electrical connector (throttle position): TP1 and TP8 supplied with AMP Econoseal connector
- WIRING – Power on PIN 1 rotates the actuator anti-clockwise when looking at the side of the actuators with Jenvey logo and serial number.
- Mount orientation: Any
- Rotation: Maximum 100 degrees, clockwise or anti-clockwise.
- Limp home: adjustable to suit application in clockwise or anti-clockwise actuation

- Expected time: 0 to 100% (stable) < 0.08s as tested on 4 single SF bodies (soft springs)
- Unit weight: 500 grams ? Base unit cost: £495.00
- Max continuous (holding) current: < 2A
- Power off return time: Dependant on spring and throttle body specification – max 1 second

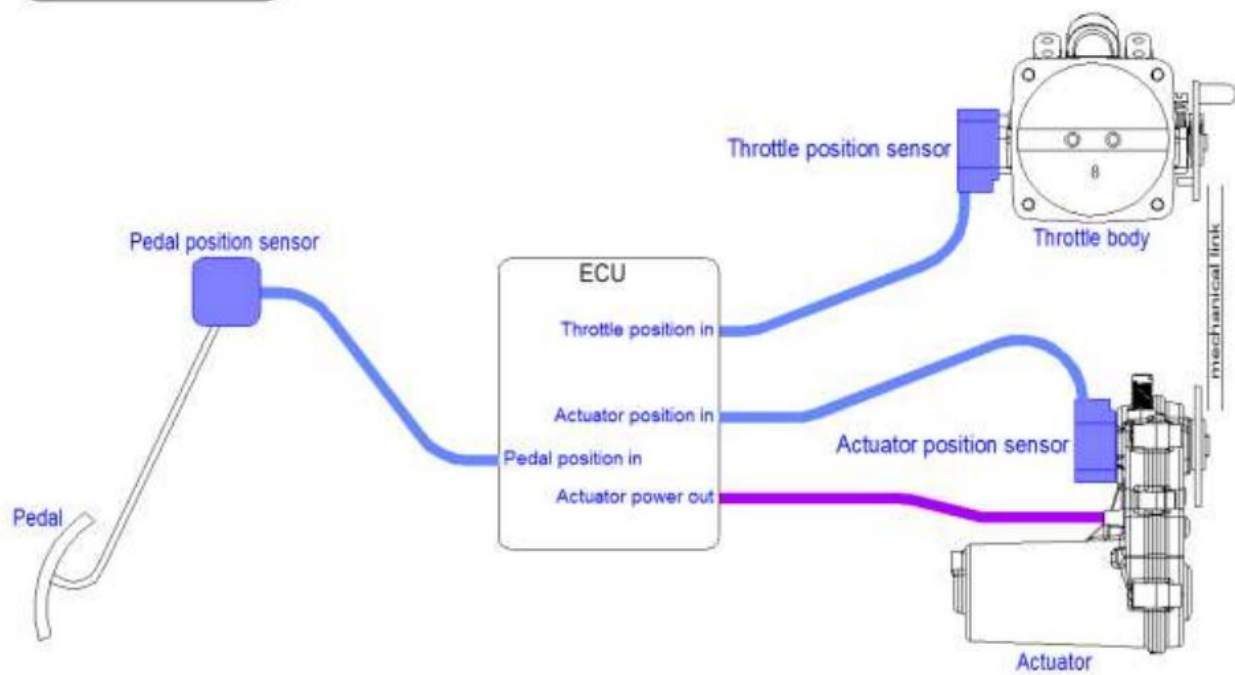
• **Motor specifications:**

- Max torque (motor): 180Nmm
- Motor No load speed (rpm): 5200
- Motor inertia: 42 gcm²

Set up and calibration info

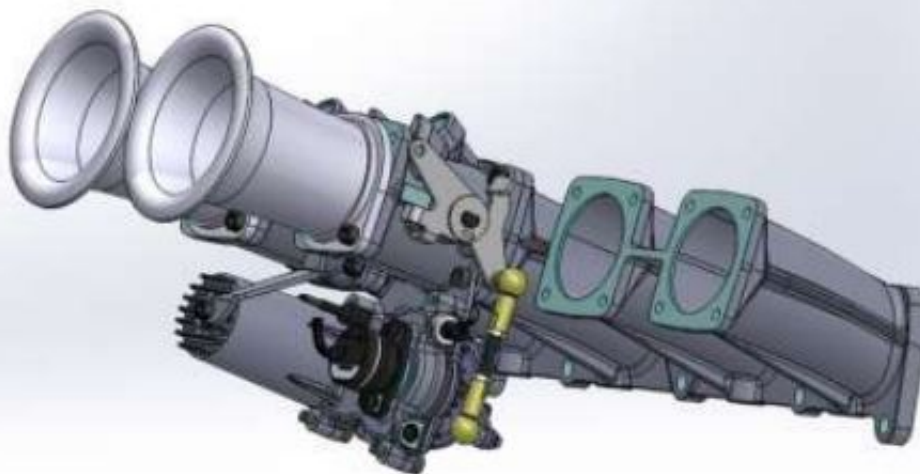
IMPORTANT: Damage will occur if the unit is driven dynamically into the mechanical stops or is used before the correct tuning is undertaken. Please remember that the throttle is working as soon as the ignition is switched on. If the system has not been calibrated before the ignition is switch on this is likely to lead to immediate failure. The ETA2 unit should not be stopped with internal end stops unless using the limp home module for the closed throttle stop. The full throttle stop should be on the throttle bodies and the closed throttle stop either on the butterflies or preferably on the idle adjuster, adjusted so the butterflies are just off closed throttle. The ECU should then be calibrated to ensure the systems does not drive dynamically into these stops. It should be noted that the Jenvey ETA2 is an actuator only and contains no electronics to link pedal position to throttle position. This information must be provided to the actuator by the ECU or motor controller using a minimum of 2 throttle position signals to feedback position. It is also necessary to ensure a minimum of 2 independent position sensors (dual redundant) are run on the pedal. It is preferable to use the return springs on the throttle bodies rather than in the actuator. This helps to eliminate mechanical backlash, improve control and ensure the throttles close on power down or linkage failure.

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Installation

Single body set-up: ETA2-SF



A 3D CAD model of a mechanical assembly, possibly a turbine or compressor section. The central component is a blue, cylindrical housing with two large, circular, flanged openings on the left side. To the right, there are two smaller, circular openings, also flanged, which appear to be part of a duct or pipe system. The assembly is supported by a complex structure of pipes, flanges, and bolts. A large, grey, gear-like component is visible at the bottom left, connected to the main assembly. The entire model is rendered in a clean, technical style with a light blue background.

A detailed view of a four-cylinder engine assembly, likely a small internal combustion engine, showing the cylinder block, pistons, and connecting rods. The engine is mounted on a metal frame and features a yellow fuel line and a black air filter.

