

## ELECTRONIC THROTTLE CONTROL FOR ENGINE TEST BEDS

**Potentiometer simulator**

**Response time < 2 ms**

**Flexibility**

**Fast Installation**

EPS 3000 can simulate an accelerator pedal sensor in order to drive both the engine computer set points and a mechanical actuator.

- ✓ Acts as a substitute for throttle control by cable
- ✓ Eliminates hysteresis and fatigue phenomena
- ✓ Direct connection with the engine computer (ECU)
- ✓ Profibus and analogue I/O links
- ✓ Displays load level

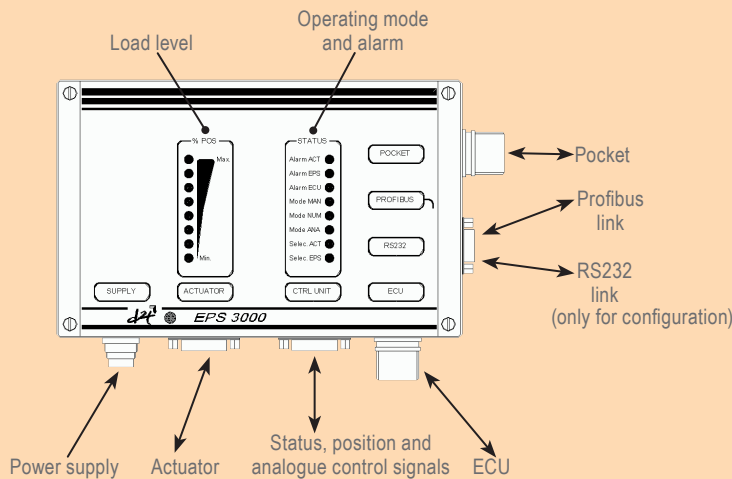


POTENTIOMETER SIMULATOR

The EPS 3000 “drive-by-wire” electronic throttle control is designed to manage engine load levels. It works either directly by sending electrical signals to the engine computer (ECU), or by driving the set point of a mechanical throttle actuator (AT-LIN type).

The EPS 3000 can be controlled either by a control unit (e.g. DCU 2000 digital control unit), or by a test bed software automation system with integrated regulation (e.g. MORPHEE), or manually.

The unit consists of a wall-mounted box.



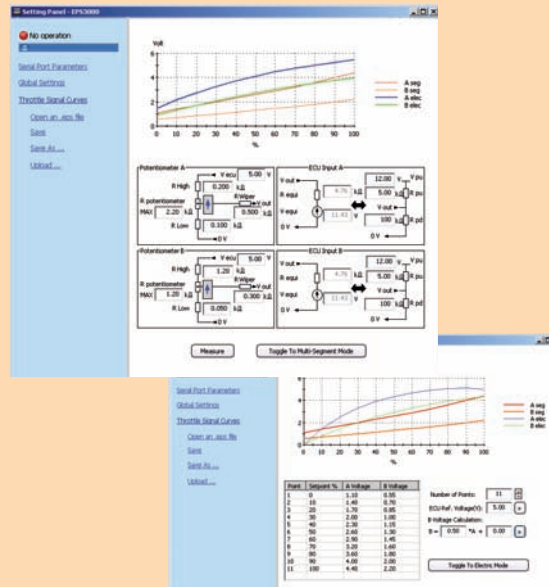
CONFIGURATION SOFTWARE

The EPS 3000 simulates the electrical behaviour of 2 potentiometers. Indeed the behaviour of the electrical pedal with the engine computer is modelled by a voltage curve. The configuration software makes it possible to program this voltage curve (between 0 and 10 V) according to the set point (0 to 100 %) represented by a table of 65,536 points.

The EPS 3000 parameters can be accessed by the configuration software via an RS232 link.

The voltage curve can be defined either in multi-segment mode, or in electrical simulation mode. In this case, the potentiometer is modelled by equivalent resistances, and the engine computer input by its equivalent electrical pattern.

In this way, an optimum fit is achieved.



TECHNICAL DATA

Operating temperature from 0 to 50°C  
 Dimensions [L x W x D] 240 x 160 x 70 mm  
 Protection IP54  
 Weight about 1.5 kg  
 Power supply from 12 to 48 V d.c.  
 Consumption ≤ 0.75 A  
 Power 9 W  
 Protection resettable fuses 1.85 A  
**Control signals** analog signal 0-10 V

**LEDs**  
 8 for load level  
 3 for operating modes  
 3 for alarms  
 2 for selection

**Manual remote control (optional)**

**Profibus-DP digital communication (optional)**

Baud rate up to 12 Mbit/s

**CE compliance** EN 55022 (radio interference),  
 EN 55024 (immunity)

All D2T products benefit from a one-year back-to-factory parts and workmanship warranty. Technical specifications may be modified without prior notice.