

### PRESENTATION

This module regulates the current drawn by the valve's coil according to the position of a wired potentiometer on it or the « STOP / MAX SPEED » switch.

2 potentiometers on the rear panel allow you to set 2 speeds.

A "SPEED SELECTION" digital input allows you to select one of the 2 speeds.

The valve's coil is not supplied when the potentiometer on the front panel is turned in zero position or the « STOP / MAX SPEED » switch is OFF.

The gradient is adjusted by a third potentiometer at the rear side.

A flashing red LED indicates the correct module state.

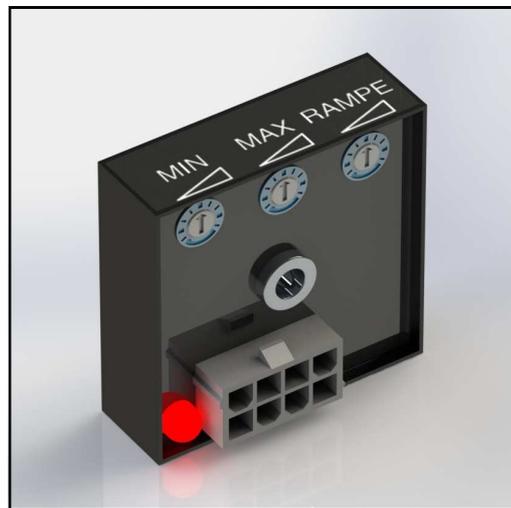


### APPLICATION

- To control an hydraulic proportional valve 12VDC and 24VDC.
- To control an hydraulic motor speed through a proportional valve.

### PERFORMANCES

- Power supply : 9VDC to 32VDC.
- Regulation of circulating current in the coil, therefore the valve's aperture is independent of the supply voltage and the oil temperature.
- Accept proportional valves 12VDC and 24VDC (from 0 to 3A).
- Selection of 2 flow rates or 2 speeds.
- 3 potentiometers on the rear side (MIN, MAX and GRADIENT).
- Protection against overvoltage, short circuit and reverse polarity.
- Plug-type connector: minifit 4 points
- Fixing by a M4 screw.



### FULFILS THE STANDARDS

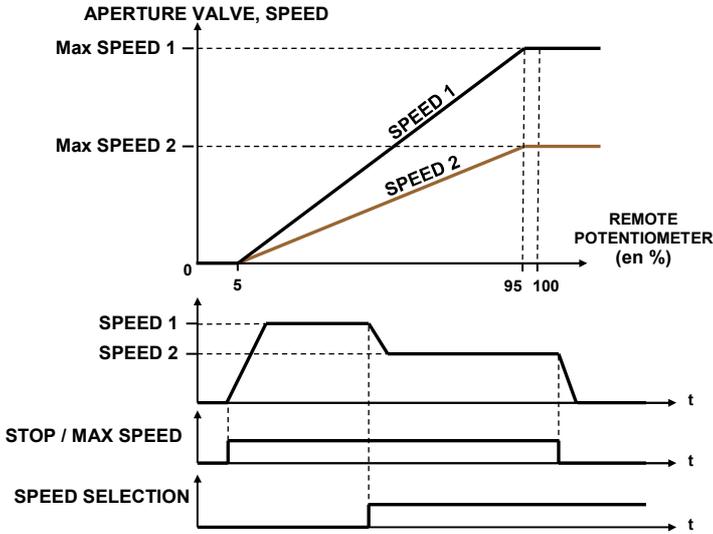
- CE mark compliant with 2014/30/UE
- E mark (ECE R10.05) N° 10R-05 13766 compliant with 2009/19/EC
- EMC ISO11452-4
- ESD ISO61000-4-2
- Immunity: ISO7637-2
- Protection: IP66/67
- Vibration-shock: EN60068-2-32;-27;-64;-29
- Supply voltage: 9V à 32V ASAE EP 455-§5.10.1
- Operating temperature: -40, +85°C ASAE EP 455-§5.1.1 et EN60068-2-1;-2;-14;-30;-78
- REACH (1907/2006) and RoHS (2011/65/EU)

### SUPPLIED ACCESSORIES



1 strand ( wires 1mm<sup>2</sup>, 1m, type automotive) with 1 minifit connector.

**WORKING**



**Setting the speed 1 (Pot MIN) :** Do not shunt the "SPEED SELECTION" input with +POWER, set the setpoint potentiometer to the maximum stop (stop when turning the potentiometer clockwise) and "STOP / MAX SPEED" switch to ON. Set speed 1 with the MIN potentiometer on the rear panel.

**Setting the speed 2 (Pot MAX) :** Shunt the "SPEED SELECTION" input with +POWER, set the setpoint potentiometer to the maximum stop (stop when turning the potentiometer clockwise) and "STOP / MAX SPEED" switch to ON. Set speed 2 with the MAX potentiometer on the rear panel.

**Note :** Speed 1 may be greater than speed 2 and vice versa.

**GRADIENT setting :** Time between the minimum and maximum aperture opening, setting the GRADIENT potentiometer on the rear panel.



**Running red light indicator :**

- If the valve is opened, the light indicator blinks :
- If 2 flashes: PWM duty cycle < 5%.
- If 4 flashes : PWM duty cycle > 95%.
- If 6 flashes: Valve shorted.
- If 7 flashes: Valve not connected.

**Information :** If the switch « STOP / MAX SPEED » is OFF, the LED is off (1 flash every 5 seconds) and the proportional valve is no longer supplied.

**BUILDING IN SAFETY**

All brands and all types of electronic modules can fail. Thus the necessary protection against the serious consequences of module failure should always be built into the system. For each application, an assessment should be made for the consequences of electronic module failure and uncontrolled or blocked movements.

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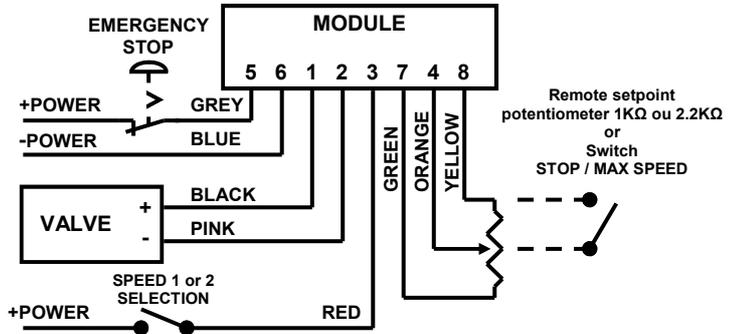
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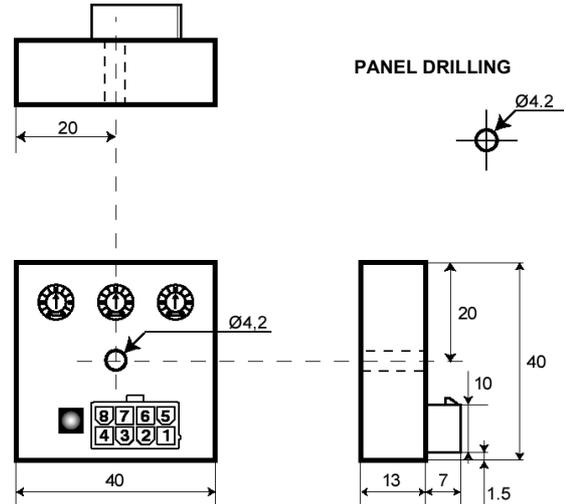
**FEATURES**

|                                       | Value |        | Unit |
|---------------------------------------|-------|--------|------|
|                                       | MIN   | MAX    |      |
| Supply voltage                        | 9     | 32     | VDC  |
| Consumption without valve             | 1     | 2      | mA   |
| Operating temperature                 | -40   | +85    | °C   |
| Storage temperature                   | -40   | +90    | °C   |
| Valve current supply                  | 0     | 3      | A    |
| Drift current between -25°C and +70°C | 0     | +/-0.5 | %FS  |
| Drift current between 9V and 32V      | 0     | +/-0.5 | %FS  |
| Gradient setting                      | 0     | 10     | s    |
| PWM frequency                         | 125   |        | Hz   |
| Weight                                | 30    |        | g    |

**WIRING**



**MECHANICAL DESIGN (in mm)**



**Tracability label description : (example)**  
**V02bf** → 02: Software Version, bf: Hardware Version  
**Ref: NGDF7536** → Product reference  
**Ser: 1611-0003CW** → tracability  
 16: Year, 11: Month, 0003: serial N°, CW: operator