



Durable

Caldaro's P09 pedal revolutionised industrial controls with a clean, modern design and protected electronics. The new suspended P11 pedal is the natural progression of the floor-mounted P09.

Smart tech for modern machines

- Incredibly durable! A minimal number of components means it's difficult to break. Above the rotating shaft, a hall effect sensor translates fluctuation in the magnetic field from a permanent magnet fixed to the shaft to an electrical output signal. No separate moving parts needed!
- Slim, compact design makes it easy for design engineers to implement it into their designs. No extra mechanism, gear or cam to transfer the movement to the sensor is needed. Nor any externally mounted sensor body exposed to harm.
- Made of aluminium to withstand the harshest conditions. The pedal is both anodised and powder coated to guarantee extreme protection over time.
- Excels in harsh environments. The fully encapsulated electronics make it safe and impervious to dirt, salts and water. It's easy to flush the cabin with a wall-mounted pedal.



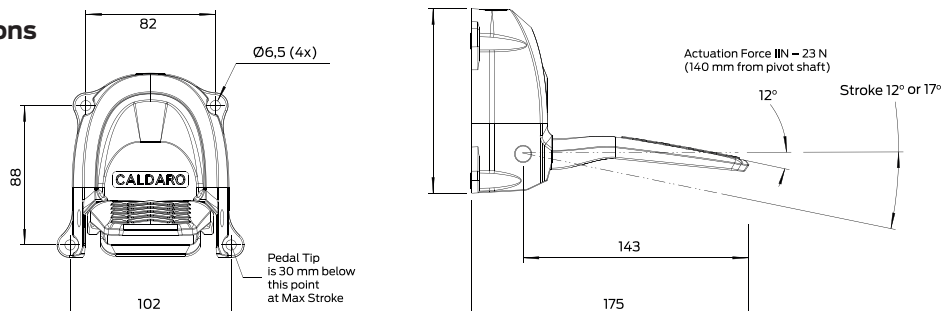
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Unique, protected design

The pedal P11 is a modern, suspended version of the floor-mounted pedal P09 with a disruptive design, well thought out to make sure design and functionality are one. The European Union Intellectual Property Office has approved a patent for the pedal P11.

Available with analog output or CAN interface.

Standard dimensions



Specifications

Mechanical and electrical specifications

Start angle	Standard 12°, stroke 12° or 17° Other angle possible on request
Max. Static load	1500 N to treadle at 120 mm from pivot point
Life expectancy	Min. 5,000,000 operations
Sensor type	Hall effect
Total current consumption	17 mA- 22 mA
Independent linearity tolerance	±1,5% FS (FS=24°)
Applied voltage	5 VDC ±10%
Load resistance	4,7 kΩ - 100 kΩ pull down
Effective output	Standard 10% – 90% Vin, other ratios on request
Resolution	Essentially infinite

Environmental specifications

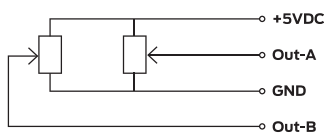
Thermal shock	100 cycles -40° C ~ +85° C
Exposure at low temp.	24 hours at -40° C
Exposure at high temp.	1000 hours at +85° C
Operating temp. range	-40° C ~ +85° C
EMC	100 V/m
ESD	According to ISO 11452 ±8 kV contact discharge ±15 kV air discharge According to ISO 10605

Cable/ harnessing:

Standard 0,5m PUR insulated cable, flying leads. 6 cores size awg 20. With connector Deutsch DTM or DT 4/6-way (male) as option, other types available on request.

» Output options

Standard configuration A (dual analog outputs)

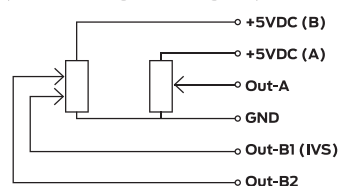


Pinning order

1. +5VDC regulated supply
2. Out A (10–90%)
3. Out B (90–10%)
4. GND

Parallel or non-intersecting outputs and other output ratios available on request.

Standard configuration B (dual analog + IVS signal)



Pinning order

1. +5VDC regulated supply (A)
2. +5VDC regulated supply (B)
3. Analog out-A (10–90%)
4. Out B1* (Idle validation signal. 0V at idle switching to 5V at approx. 16% output on A)
5. Analog Out B2 (90–10%)
6. GND

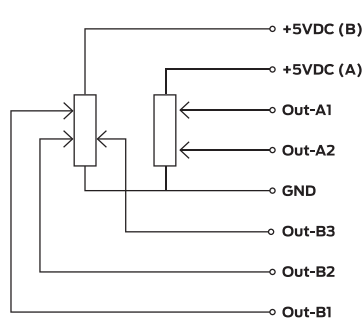
*Digital output from hall-effect sensor.

Other analog output ratio and IVS activation point available on request.

Controller Area Network:

Available with CANopen & J1939. Please consult us.

Standard configuration C (dual analog + changeover type IVS +kick down signal) +5VDC (B)



Pinning order

- 1.1. +5VDC regulated supply (A)
- 1.2. Analog Out-A1 (10–90%)
- 1.3. Out-A2* (Kick-down signal. 0V at idle switching to 5V at abt. 80% output on A)
- 1.4. GND

- 2.1. +5VDC regulated supply (B)
- 2.2. Out-B1 (IVS-NC signal open collector output, max 20mA@24VDC. Switching at approx. 16% output on A1)
- 2.3. Out-B2 (IVS-NO signal open collector output, max 20mA@24VDC. Switching at approx. 16% output on A1)
- 2.4. Analog Out-B3 (90–10%)

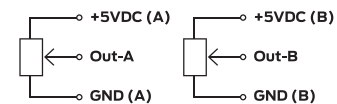
*Digital outputs from hall-effect sensor.

Other analog output ratios and IVS/kick-down switch activation points available on request.

Dual analog output signals

are available as following:
• Crossed • Parallel • Non intersecting

Standard configuration D (dual independent analog outputs)

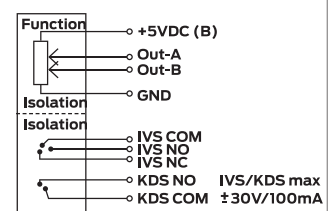


Pinning order

1. +5VDC regulated supply (A)
2. +5VDC regulated supply (B)
3. Analog Out-A (10–90%)
4. Analog Out-B (10–90%)
5. GND (A)
6. GND (B)

Crossed or non-intersecting outputs and other output ratios available on request.

Standard configuration F (dual analog + potential free switch)



Pinning order

- 1.1. +5VDC regulated supply (A)
- 1.2. Analog Out-A (10–90%)
- 1.3. Analog Out-A (90–10%)
- 1.4. GND
- 2.1. IVS COM
- 2.2. IVS NC (Switching at approx.16% output on A)
- 2.3. IVS NO (Switching at approx.16% output on A)
- 2.4. KDS COM
- 2.5. KDS NO
- 2.6. (Empty)

Other analog output ratios and IVS/ kickdown switch activation points available on request.