



FP2306

CAN BUS I/O MCU & Controller

The **FastPLEX CAN Bus I/O Controller** is an ultra versatile module designed for automotive applications requiring management of different type of loads.

The MCU is a state-of-the-art system, developed by Pran, allowing to control power train as well as custom hydraulic complex systems at the same time or any other devices needed in harsh environment.

Functional description

The **FP2306** is intended in many types of applications where hydraulic valves, solenoids, LED signal lights or any other inductive and resistive loads could be used. All outputs are fully protected against short circuits. It offers many great functional capabilities such as Pulse wide Modulation (PWM) for variable control.

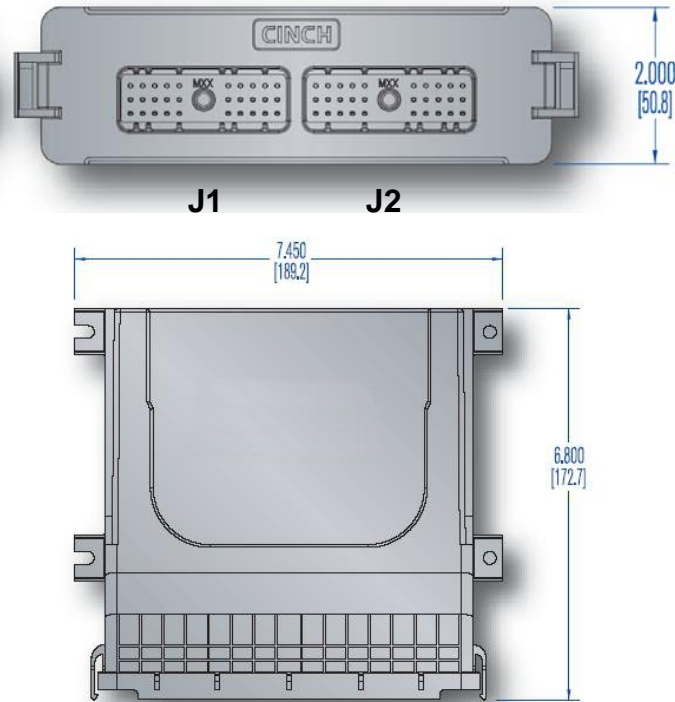
The **FP2306** has the capability to process up to 16 separate input signals of high side, low side or analog type. Our engineers have now integrated on 4 of these inputs, built-in 4-20mA sensor reading capability or 0-500 ohms impedance reading for standard fuel gauge as an example.

The **FP2306** offers the possibility to read directly the OEM J1939 network to get any useful available information. It can either be installed as a standalone unit or within a multiplexed network system.

Technical and physical description

- Design in accordance with SAE-J1455
- Operating supply voltage range: 9 to 32 V
- Reverse polarity protection and load dump protection
- Operating temperature range: -40 to +80°C
- IP67 enclosure
- <14mA (Sleep Mode), wake-up by input or network
- 1 CAN 2.0b port SAE-J1939
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- 10 Bits analog to digital converter
- Power for external sensors (1.3A)
- 1 voltage reference (5V)
- Diagnostic LEDs
- Maximum total continuous current: 40A
- **16 Inputs:**
 - (2) (*DA28F*) software configurable:
Digital: High side or low side, Analog: 0-28.5V, Frequency: 10Hz-10kHz
 - (2) (*DA28W*) software configurable:
Digital: High side or low side, Analog: 0-28.5V, Wake up
 - (8) (*DA10*) software configurable:
Digital: High side or low side, Analog: 0-10V
 - (2) (*DA5Z*) software configurable:
Digital: High side, Analog: 0-5.5V, Impedance (0-500Ω)
 - (2) (*DA5CZ*) software configurable:
Digital: High side, Analog: 0-5.5V, Current 4-20 mA, Impedance (0-500Ω)
- **28 Outputs:**
 - (4) (*H6FL2*) software configurable:
Source (6A): Digital, PWM (1%), current sensing
Sink (2A): Digital, current sensing
 - (2) (*H6F*) software configurable:
Source (6A): Digital, PWM (0.01%), current sensing
 - (2) (*H4F*) software configurable:
Source (4A): Digital, PWM (0.01%), current sensing
 - (20) (*H6*)
Source (6A): Digital, current sensing

Dimensions and Pin Assignment



J1 pin name

Pin name(Type)	#
VREF	L1
TRIG	L2
CANP-H (FastPLEX)	L3
GNDREF	M1
CANP-S (FastPLEX)	M2
CANP-L (FastPLEX)	M3
VBAT (Power +)	N1
VBAT (Power +)	N2
CAN2-H (Acc)	N3
VBAT (Power +)	P1
VBAT (Power +)	P2
CAN2-L (Acc)	P3
VOUT	R1
VBAT (Power +)	R2
CAN2-S (Acc)	R3

Pin name(Type)	#
OUT23 (H6)	S1
OUT24 (H6)	S2
IN16 (DA5CZ)	S3
OUT21 (H6)	T1
OUT22 (H6)	T2
IN15 (DA5CZ)	T3
OUT19 (H6)	W1
OUT20 (H6)	W2
IN14 (DA5Z)	W3
OUT17 (H6)	X1
OUT18 (H6)	X2
IN13 (DA5Z)	X3
OUT15 (H6)	Y1
OUT16 (H6)	Y2
IN12 (DA10)	Y3

J2 pin name

Pin name(Type)	#
OUT13 (H6)	A1
OUT14 (H6)	A2
IN11 (DA10)	A3
OUT11 (H6)	B1
OUT12 (H6)	B2
IN10 (DA10)	B3
OUT9 (H6)	C1
OUT10 (H6)	C2
IN9 (DA10)	C3
OUT7 (H6)	D1
OUT8 (H6)	D2
IN8 (DA10)	D3
OUT5 (H6)	E1
OUT6 (H6)	E2
IN7 (DA10)	E3

Pin name(Type)	#
OUT27 (H4F)	F1
OUT28 (H4F)	F2
IN6 (DA10)	F3
OUT25 (H6F)	G1
OUT26 (H6F)	G2
IN5 (DA10)	G3
OUT3 (H6FL2)	H1
OUT4 (H6FL2)	H2
IN4 (DA28W)	H3
OUT1 (H6FL2)	J1
OUT2 (H6FL2)	J2
IN3 (DA28W)	J3
GND (Power -)	K1
IN1 (DA28F)	K2
IN2 (DA28F)	K3