

**Elevate Your Engine Performance** with the GDI-2 Engine Management System. Built for Demanding Ultra-High Reliability Applications, such as Military, it Optimizes Engine Control for Enhanced Performance. Its Ruggedized Architecture Endures Even the Most Challenging Environments. Designed for 1-2 Cylinder Direct Injection Engines, both Spark Ignited and Compression Ignited.

the **Engine Specialists**



### System Features and Options

- 2 Cylinder Control Compression or Spark Ignition
- Boost / Peak / Hold up to 72V
- Dual Solenoid Direct Injectors (CRD/GDI)
- Dual Ignition Drivers
- Electronic Throttle Control
- Start-Stop Control
- Closed Loop Control of High and Low Fuel Pressure Control
- CAN Bus

### Technical Specs

Operating Temp:	-40° to 105° C (higher temp with engineering review)
Storage Temp:	-40° to 150° C
Operating Voltage:	10-30V DC
Ingress Protection Rating:	IP-67
Vibration Resistance:	+/- 5g in all directions (10-1,000 Hz)
RF/EMI Resistance:	Up to 80V/m from 1 MHz to 10 GHz

### Applications

Designed for direct injection systems up to 2 cylinder. Ideal for both compression ignition and spark ignition with solenoid-type injectors.

*At CSI, our engineers understand the demands of commercial vehicles and develop custom controls to suit.*

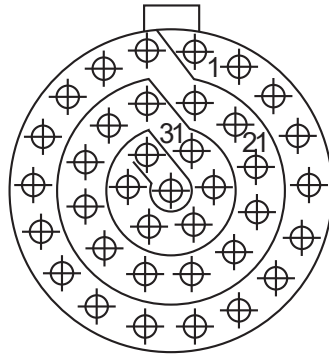
# GDI-2 Pinout

Application: General Purpose

## Connector,

37 POS, 22 Contact Size

Pin	Destination
1	LP Fuel Pressure
2	Oil Pressure
3	ANA-
4	HP Fuel Pressure
5	Engine Coolant Temp.
6	Oil Temp
7	Fuel Level
8	ANA-
9	Digital Input 5
10	Digital Input 6
11	High Side Output 1
12	High Side Output 2
13	MIL Output
14	Digital Input 7
15	Servo Signal
16	Throttle Position Sensor
17	Manifold Absolute Pressure
18	Intake Air Temp.
19	Fuel Temp
20	ANA-
21	ANA-
22	ANA-
23	ANA-
24	Digital Input 1
25	Digital Input 2
26	Digital Input 3
27	Digital Input 4
28	12V Sensor Supply
29	GND
30	ANA+
31	ANA+
32	ANA+
33	CAN-Low
34	CAN High
35	Speed Sensor Trigger #1
36	Speed Sensor Trigger #2
37	GND



**14-35 (M)**  
**Size 14**  
**37#22**

Pin Capacity

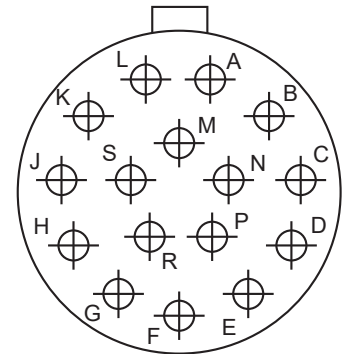
### General Specifications

Contact Size	Shell Size	Max Current (Amps)
22	08 to 24	5
20	see below	75
16		20

## Connector,

16 POS, 16 Contact Size

Pin	Destination
A	B+
B	B+
C	Ignition Coil 2-
D	Ignition Coil 1-
E	Glow Plug NEG
F	Fuel Pres Valve-
G	Inj Driver 2-
H	Fuel Pres Valve+
J	Inj Driver 2+
K	Inj Driver 1-
L	Inj Driver 1+
M	System Ground
N	Fuel Pump LP NEG
P	Starter NEG
R	PWM Output
S	System Ground



**20-16 (I)**  
**Size 20**  
**16#16**

**Control Systems Inc. (CSI)** offers a full range of Engine Control Modules (ECMs) for various industries including industrial, marine, off-road, defense, and heavy-duty. Our engineers deliver quick product customization to meet customer needs. CSI provides full-service support including calibration, durability and emissions testing to assist from concept to Manufacturer of Record (MOR).

**the Engine Specialists**

**CSI**

**GDI-2: Military Grade Engine Management System**

