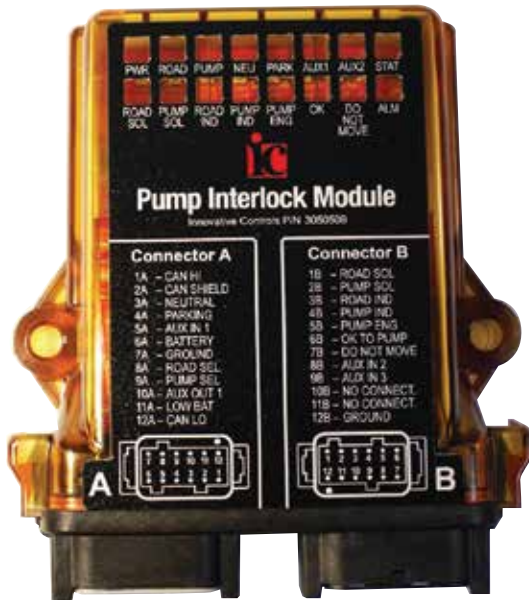




# Pump Interlock Module 3050509



The Innovative Controls Inc. model 3050509 Pump Interlock Module is used to prevent unsafe shifting of the pump transmission as required for NFPA 1901 16.10.1.4, 2016 edition. The Pump Interlock Module will only allow shifting to occur when the transmission is placed in neutral. In road mode, the module protects the pump gear box from damage by preventing shifting while the transmission is in gear. In pump mode, the module interlocks the pump gear box to prevent erroneous shifting into road mode.

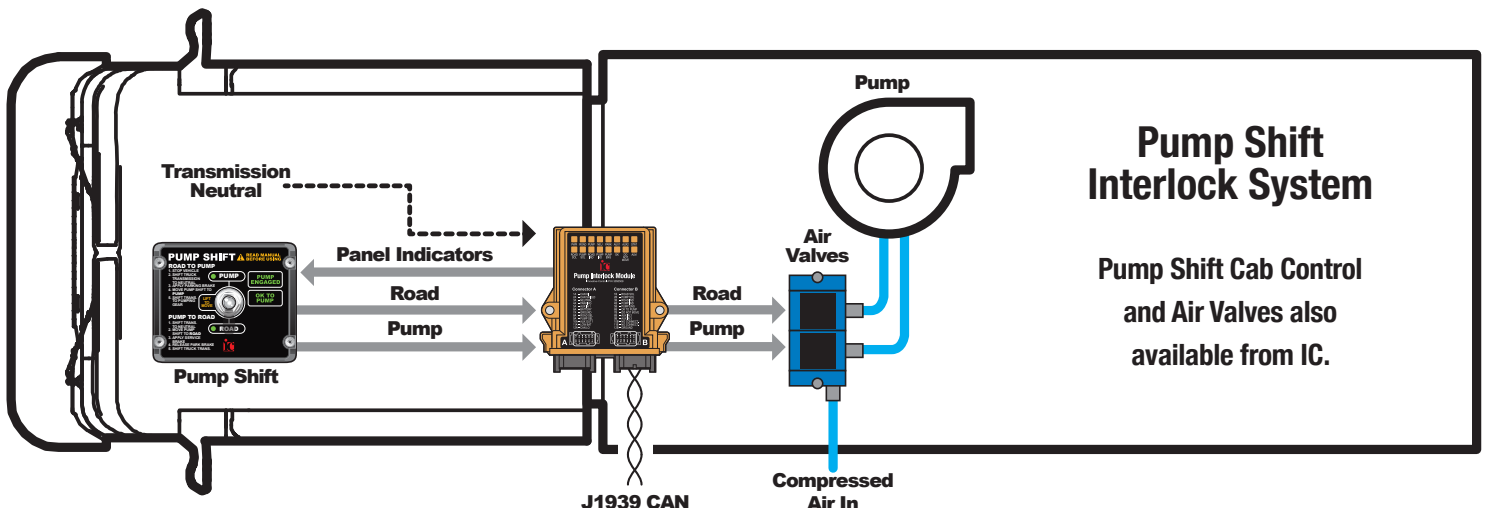
The Pump Interlock Module can be combined with the Innovative Controls electric pump shift panels and pneumatic valve assemblies to create a complete pump interlock system that ensures safe and reliable pump operation. The module controls the pump gear shift via electric driven pneumatic air valves that can be located convenient to the pump.

The Pump Interlock Module can accept hardwired transmission, engine, and chassis signals or J1939 CAN bus messages simplifying integration into any apparatus electrical system. J1939 CAN messages can be used to interlock the pump or road selection with transmission, chassis, and engine information to prevent unsafe conditions for fire fighters and their equipment. The module has discrete outputs used to drive status indicators on the cab located pump shift panel. An optional shift delay timer and transmission or wheel speed interlock can be employed to ensure reliable, repeatable operation of the pump shift gear box.

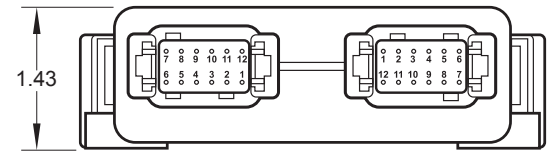
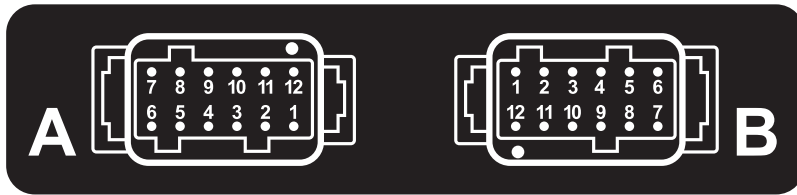
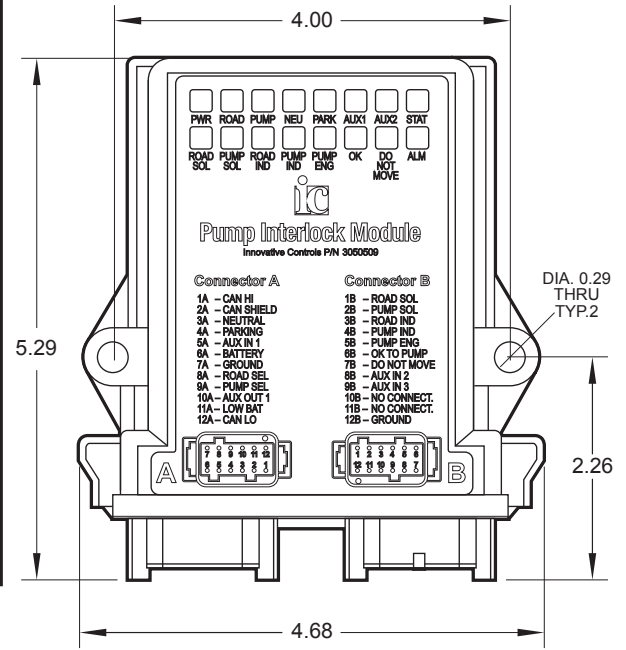
The Pump Interlock Module is packaged in an automotive industry standard IP67 rated enclosure that can be mounted in any convenient place on the fire apparatus. Three optional Auxiliary Inputs and one Auxiliary Output can be factory programmed to provide additional interlock points or status signals.

## FEATURES

- Interlocks the shifting operation of the Road and Pump pneumatic air control valves to prevent erroneous shifts between road and pump modes
- Pump and Road mode interlocks that prevents the pump gear box from being shifted into the opposite mode when the transmission is in a drive or reverse gear
- Transmission neutral interlock that only allows the gear box to change modes when the transmission is in neutral
- LED Indicators for input, output, and system status indications
- Optional J1939 interlock conditions
- Optional time delay between shift states
- -40C to +105C (-40F to +220F) AEC-Q100 Level 2 Operating Temperature
- IP67 rated dust and water ingress protection



<b>Operating Voltage</b>	7 to 32VDC
<b>Current Consumption at 13.8 VDC with no loads</b>	55mA
<b>Solenoid and Indicator Output</b>	700mA
<b>Operating Temperature Range</b>	-40°C to +105°C (-40°F to +220°F)
<b>Storage Temperature Range</b>	-40°C to +105°C (-40°F to +220°F)
<b>Ingress Protection</b>	IP67
<b>Electrical Protection</b>	Reverse voltage polarity protection on all connections ESD protected to J1113-13 specifications Transient voltage protected to J1113-11 and J1113-42 Indicator and solenoid output are protected from reverse polarity, over-current, over-voltage, and voltage transients Power input is protected from reverse polarity, over-current, over-voltage, and voltage transients
<b>Dimensions</b>	4.62" wide x 1.42" high x 5.21" deep
<b>Weight</b>	0.55 pounds (249 grams)



Deutsch DTM13-12PA-12PB Connectors		
Terminal	Name	Description
1A	CAN HI	J1939 CAN Bus high signal
2A	CAN SHIELD	J1939 CAN Bus shield
3A	NEUTRAL	Transmission neutral input signal
4A	PARKING	Parking brake input signal
5A	AUX IN 1	Auxiliary input signal 1 option
6A	BATTERY	Battery power input
7A	GROUND	System ground input
8A	ROAD SEL	Road selection input from pump shift panel
9A	PUMP SEL	Pump selection input from pump shift panel
10A	AUX OUT 1	Auxiliary output signal 1 option, active high
11A	LOW BAT	Low battery status indicator output, active high
12A	CAN LO	J1939 CAN Bus low signal
1B	ROAD SOL	Road pneumatic solenoid control output signal
2B	PUMP SOL	Pump pneumatic solenoid control output signal
3B	ROAD IND	Road indicator output signal to pump shift panel
4B	PUMP IND	Pump indicator output signal to pump shift panel
5B	PUMP ENG	Pump engaged indicator output signal to pump shift panel
6B	OK TO PUMP	Ok to pump indicator output signal to pump shift panel
7B	DO NOT MOVE	Do not move indicator output signal to pump shift panel
8B	AUX IN 2	Auxiliary input signal 2 option
9B	AUX IN 3	Auxiliary input signal 3 option
10B	NO CONNECT	No connection
11B	NO CONNECT	No connection
12B	GROUND	System ground input, can be used to pump shift panel ground

Mating connector is Deutsch DTM06-12SA and DTM06-12SB with WM-12S wedgelock and 0462-201-20141 sockets