Diagnostic Procedure

Blue iQ® Fault Code 7298

FC	SPN	FMI	Title
7298	8290	3	Engine Gaseous Fuel Temperature Regulator Intake Temperature - Voltage Above Normal or Shorted to High Source

Part(s) Affected	pressure/temperature transducer temperature circuit

Diagnostic Overview

Fault Code 7298 is triggered when the Blue iQ® Fuel System Control Module (FSCM) detects the pressure/temperature transducer temperature circuit shorted to high source for more than 0.5 seconds.

Warning Statements Used in this Procedure

NOTICE ***NOTICE* is used to address practices not related to physical injury, such as best practices or tips to help an operation or procedure go smoothly and prevent equipment damage**.

Tools Required

Item	Purpose
digital multimeter (DMM)	resistance and voltage measurements
J1939 OBD-II diagnostic interface	connect vehicle to Cummins® INSITE™ on PC
Cummins® INSITE™	diagnostic software
test probe kit	properly test and back probe circuit terminals and connectors

NOTICE **Never probe an electrical connection with anything other than a properly sized and shaped test lead; doing so may result in damage to components**.

NOTICE **Perform Initial Vehicle Check procedure** *(refer to **DSM.0009**)* **prior to performing diagnostic instructions listed below**.

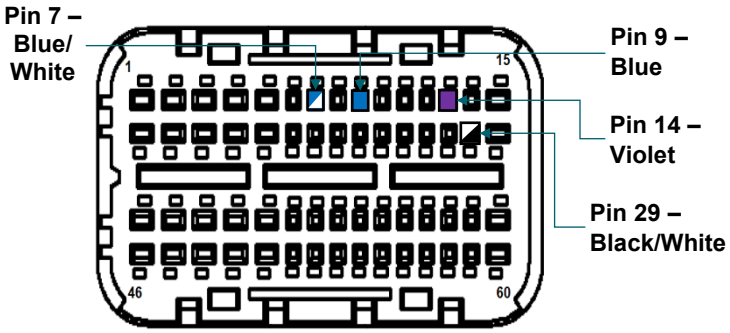
Circuit / System Verification

1. Connect J1939 diagnostic interface to vehicle and navigate to the "Agility® Fuel Delivery System, CM1881 AFS(18)" in Cummins® INSITE™.
2. Record all active and stored fault codes and parameters prior to clearing fault codes using INSITE™.
3. Observe and record **Engine Gaseous Fuel Temperature Regulator Intake Pressure Sensor** data from INSITE—is data within reasonable operating range?
   a. **If not within range** proceed to **Circuit/System Testing**.
   b. **If within range** proceed to Step 4.
4. Operate the vehicle in the same conditions for enabling the fault code or within the same conditions that triggered the fault code based on recorded data.
5. Verify that the fault code does not set. **If any fault code sets** proceed to **Circuit/System Testing**.
6. While observing **Engine Gaseous Fuel Temperature Regulator Intake Pressure Sensor** parameters in INSITE™ perform a wiggle test on the harness and connectors to test for poor or intermittent connections.
   a. **If any fault code sets,** proceed to **Circuit/System Testing**.
   b. **If no fault code sets**, system is functioning to design intent.
7. Review **Circuit Schematic** and **Connector End Views** *(below)* to locate test points.

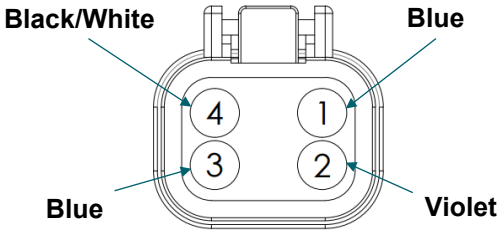
Circuit / Component Diagnosis

Step 1

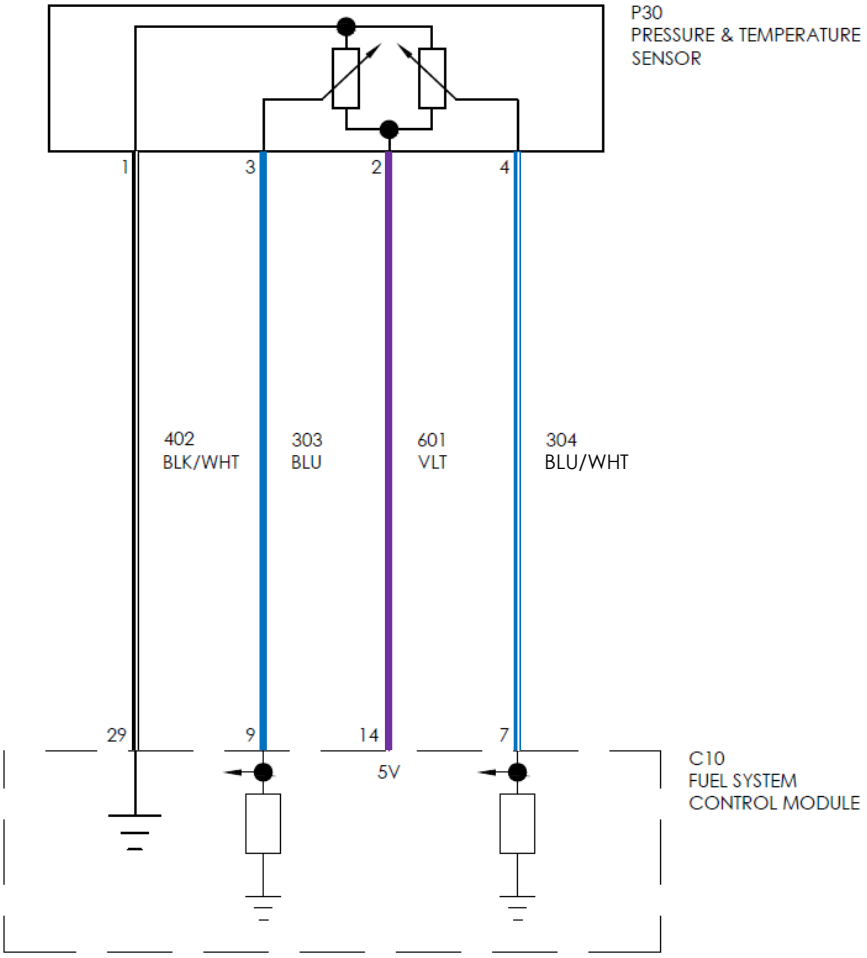
- **Ignition Off**.
- **Disconnect FSCM and pressure/temperature transducer harness connectors**.
- Use a DMM and appropriate test leads to perform wire-to-wire continuity tests on the pinouts below to measure resistance of each circuit.



FSCM connector end view



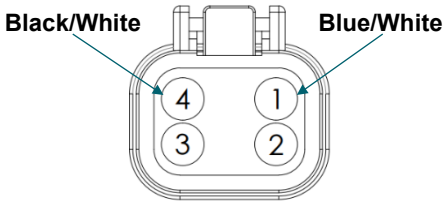
Pressure/temperature transducer connector end view



Pressure/temperature transducer circuit diagram

Resistance between zero and 1 ohm?

Yes	No
↳ **Proceed to Step 2**.	↳ **Repair/replace affected component(s)**. ↳ **Proceed to Reassembly and Validation**.

Step 2	➢ **Reconnect FSCM harness connector.** ➢ **Disconnect pressure/temperature transducer harness connector.** ➢ **Ignition On.** ➢ Use DMM and appropriate test leads to measure voltage between **Pin 1** and **Pin 4** of the pressure/temperature transducer harness connector.  **Pressure/temperature transducer connector end view** **Voltage equal to zero volts?**	
	Yes ↳ **Proceed to Step 3**.	**No** ↳ **Repair the short to voltage in pressure/temperature transducer 5V Signal pressure circuit**. ↳ **Proceed to Reassembly and Validation**.
Step 3	➢ **Connect pressure/temperature transducer harness connector.** ➢ **Ignition On.** ➢ Use DMM and appropriate test leads to back probe for voltage between pressure/temperature transducer harness connector **Pin 1** and **Pin 4**. **Voltage reading between 0.5V and 4.5 V?**	
	Yes ↳ **Replace pressure/temperature transducer**. **⚠WARNING** **Always follow OEM fuel system depressurization and repair instructions.** ↳ **Proceed to Reassembly and Validation**.	**No** ↳ **Repair pressure/temperature transducer pressure circuit**. ↳ **Proceed to Reassembly and Validation**.

Reassembly and Validation

After completing all repairs, always perform the following steps to confirm the issue is fixed:

1. Reconnect all connectors and verify connections are secure.
2. Reattach any enclosure covers and close any fuel system doors.
3. Clear fault codes using Cummins® INSITE™ tool.
4. Run vehicle until it reaches normal operating temperature. *Refer to OEM instructions.*
5. If fault is cleared, return vehicle to duty.

If fault is not cleared, contact Hexagon Agility® Technical Support.

Hexagon Agility® Customer Care and Technical Services

Fuel system warranty or non-warranty product support may be obtained by calling or emailing Hexagon Agility® Customer Care and Technical Services (CCTS).

Please provide **your name, phone number, email address, and complete vehicle information: VIN, year, make, model, mileage, unit number vehicle owner,** and **current vehicle location.** A service advisor will contact you to arrange vehicle repair or ship a part.

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