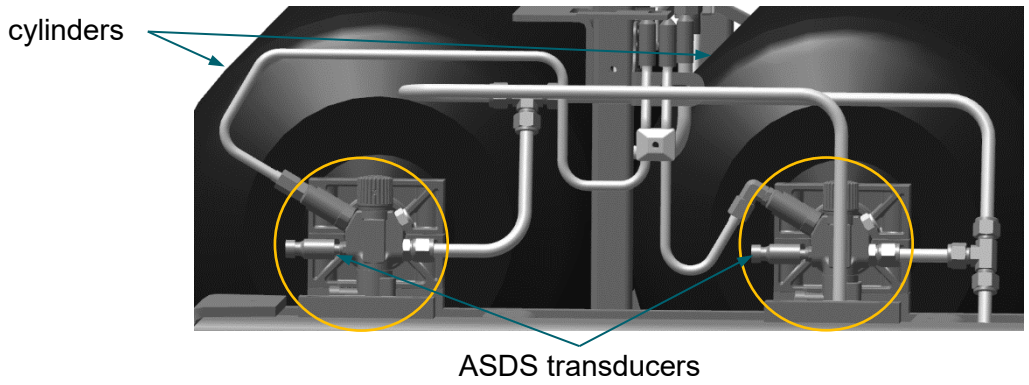
Reviewers Note: Words/phrases in blue will be links to specific diagnostic procedures when this document is published in Freshdesk.

Automatic Solenoid Detection System (ASDS) Description, Operation, and Location

PDO.0070 Ver. 1.0 January 17, 2023

Some Hexagon® Agility® fuel systems equipped with electric solenoid cylinder valves are also fitted with the optional Automatic Solenoid Detection System (ASDS) to detect a valve solenoid failure which would prevent fuel from leaving a cylinder and a resulting reduction in range.

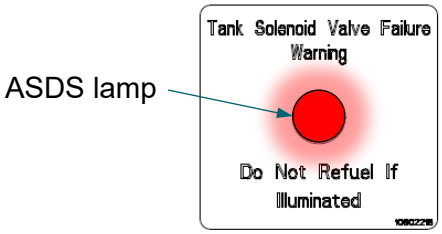
ASDS uses transducers to measure pressure within each cylinder or multiple cylinders which share a live PRD line. The transducer reading is then compared to the rest of the system as measured by the high-pressure fuel gauge. ASDS will report a solenoid failure when any tank is over 3000 psi (207 bar) when the system is below 2000 psi (138 bar).



Electric solenoid cylinder valves *(circled)* fitted with ASDS pressure transducers

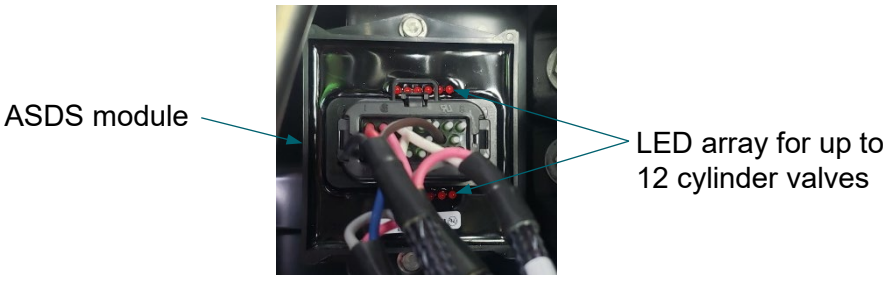
Vehicles equipped with ASDS use a dash mounted LED lamp to inform the driver of normal system function or to indicate a solenoid failure.

WARNING **Do not refuel system if ASDS lamp is on.**



ASDS warning lamp dash decal and LED

The ASDS control module is typically located inside the fuel storage system cabinet. LEDs on the ASDS control module display will illuminate for cylinder(s) on which solenoid valve(s) have possibly malfunctioned.



ASDS module showing all electric solenoid valves functioning normally