

Digital Valve Positioner (DVP with IP56 Enclosure) Enclosure Door Latch Sealing Issue

Issue

Woodward released environmentally protected IP56 versions of the DVP (Digital Valve Positioner) in 2008. Testing recently conducted for an unrelated change has determined that the door latches used on these DVP enclosures do not meet the minimum required Ingress Protection rating for use in Zone 2 ATEX or IECEx applications (IP54).

This issue only applies to IP56 DVP versions that are installed in ATEX or IECEx classified hazardous locations, and where the DVP enclosure provides the minimum IP54 level environmental protection required by the standards.

This issue does not affect units installed in ordinary (non-hazardous) locations, or units installed within larger cabinets or enclosures which meet the minimum IP54 requirement. This issue also does not apply to units installed in North American locations.

Description

IEC 60079-0 requires 28 days of thermal conditioning at 80C and 90% RH prior to Ingress Protection testing. The minimum rating for equipment at the end of thermal conditioning is IP54. It has been determined that the door latches on the enclosure may allow water and dust to pass the internal O-ring seals after thermal conditioning, which is a failure to meet the IP54 minimum. When tested as new without thermal conditioning, the existing door latches do meet IP56 and IP54.

Units installed in North American locations are not affected because the original latch design meets the requirements for North American Class I, Div 2 hazardous locations as well as IP56 without thermal conditioning.

There are several hundred IP56 DVP units operating in the field worldwide and there have been no customer complaints or field returns related to water or dust ingress. Woodward also views the thermal conditioning requirements as unrealistic to operating conditions in a typical installation, and believes the risk of seal damage under normal conditions is low. For these reasons, this is considered to be a regulatory compliance issue and not an operational reliability issue.

Units sold as IP54 are not affected.

Affected Units

The affected IP56 DVP part numbers and revisions are listed below.

DVP Part number	Affected Revisions	DESCRIPTION
8200-184	M & Prior	POSITIONER - DVP, 125 VDC, IP56, ETHERNET
8200-185	M & Prior	POSITIONER - DVP, 125 VDC, IP56, ETHERNET
8200-187	M & Prior	POSITIONER - DVP, 125 VDC, IP56
8200-504	M & Prior	POSITIONER - DVP, 125 VDC, IP56
8200-506	H & Prior	POSITIONER - DVP, 24VDC, IP56, ETHERNET
8200-508	H & Prior	POSITIONER - DVP, 24VDC, IP56
8200-513	F & Prior	POSITIONER - DVP, 24VDC, IP56
8200-508PT	B & Prior	POSITIONER - DVP, 24VDC, IP56, PORTUGUESE

Affected Serial Number range: S/N 15552431 to S/N 21819518

Corrective Action

Permanent Corrective Action:

An engineering change has been released to implement a new latch assembly that fully meets/exceeds the Ingress Protection requirements for ATEX and IECEx. This change corrects the issue in the original enclosure. There are no other fit, form or function changes associated with this engineering change. The DVP revision letter will be advanced to correspond with the permanent corrective action update.

Customer Action

Woodward recommends that units in hazardous locations subject to ATEX or IECEx Zone 2 requirements, and not installed in secondary environmental protection, be updated to ensure compliance with these standards.

Since introduction in 2008, there have been no reported issues with water or dust ingress in any actual DVP installations. For this reason, Woodward is not recommending update except for ATEX/IECEx Zone 2 installations. Woodward will offer concerned customers with units installed in environmentally exposed locations the option even if the locations are not subject to ATEX or IECEx. Door replacement kits will be provided at no cost for Affected Units within the standard warranty period as noted below.

Option 1 (Customer Field Update):

- Door Replacement Kit, part number 4250-1547 has been validated and includes a new door assembly with pre-installed latches, sealing gasket, and required safety labeling and installation instructions. The update kit may be installed on-site by a qualified technician.
- Product warranty coverage:
 - Affected Units applied in hazardous locations subject to ATEX or IECEx Zone 2 requirements and not installed with secondary environmental protection: Door replacement kit will be provided at no cost through 31-December-2021.
 - Affected Units installed in environmentally exposed locations but not subject to ATEX or IECEx Zone 2 requirements: Door replacement kit will be provided at no cost within the standard warranty period.
- Contact your Woodward customer service representative to request the door replacement kit. Please provide the DVP serial number, statement of hazardous location and/or environmental requirements and reference this Service Bulletin number.

Option 2 (Return to Woodward):

- If a field update by the customer is not feasible, the affected DVP can be returned to Woodward to have the new door assembly factory installed.
- Product returns to Woodward are subject to the same application conditions, time and warranty coverage as Option 1 above.
- Contact your Woodward customer service representative for a Return Authorization Number (RAN). Please provide the DVP serial number, statement of hazardous location and/or environmental requirements and reference this Service Bulletin number.

Ref WPJ 04_145777 & PSPI Notes



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