



**Certificate no. TAI-FS-C-21-0019**

WE HEREBY CERTIFY THAT

**Product description** 2/2 HYDRAULIC VALVE

**Models** SERIES APDH...0...; APDH...S...

**Manufacturer** DVG AUTOMATION S.p.A.  
Via Giacomo Rossetti 2  
I-29016 Cortemaggiore (PC)

IS IN COMPLIANCE WITH THE REQUIREMENTS OF THE STANDARDS

**IEC 61508 Parts 1–7:2010**

AS RESULT OF THE ASSESSMENT ACCORDING TO THE PROVISION  
SET OUT IN THE ABOVE-MENTIONED STANDARDS

**Summary Report no. TAI-FS-R-21-0037**

**Expiry date** 07.02.2024

**Issue date** 08.02.2021

08.02.2021, Monte Roberto (AN)

Ing. Crescenzo Di Fratta

## Annex to certificate no. TAI-FS-C-21-0019

<b>Type</b>	A
<b>HFT</b>	0
<b>Safety functions</b>	1. De-energize-to-trip operation: application to single acting actuators or to vent a chamber of a double acting actuator 2. Energize-to-trip operation: to feed a chamber of a double acting actuator
<b>Mode of operation</b>	Low Demand Mode

Random failure rates				
Configuration	Safety function	$\lambda_{DU}$ [1/h]	$\lambda_{DD}$ [1/h]	$\lambda_S$ [1/h]
APDH...0... - No PST	1	2,85E-08	0,00E+00	4,27E-07
APDH...0... - With PST	1	2,85E-10	2,82E-08	4,27E-07
APDH...S... - No PST	1	2,95E-08	0,00E+00	7,48E-08
APDH...S... - With PST	1	2,95E-10	2,92E-08	7,48E-08
APDH...S... - No PST	2	4,82E-08	0,00E+00	0,00E+00
APDH...S... - With PST	2	4,82E-10	4,77E-08	0,00E+00

<b>Systematic capability</b>	3 (Route 1s applied)			
<b>Architectural constraints</b>	<b>Route 1<sub>H</sub>:</b>	Applied	<b>Route 2<sub>H</sub>:</b>	Applied
	The product can be used in: <ul style="list-style-type: none"> <li>• single channel configuration:               <ul style="list-style-type: none"> <li>○ APDH...0...: up to SIL 3</li> <li>○ APDH...S...:                   <ul style="list-style-type: none"> <li>▪ up to SIL 2 without external diagnostic tests</li> <li>▪ up to SIL 3 considering external diagnostic tests</li> </ul> </li> </ul> </li> <li>• double channel configuration: up to SIL 3</li> </ul>			

**Remarks:**

- For further details, including environmental conditions, limitations of use, lifetime, failure rates traceability, mean repair times, common cause factors and systematic capability constraints, make reference to Safety Manual SM 17\_002.

END OF CERTIFICATE

