

## CERTIFICATE

This certifies, that the company

**Actuatech S.p.A.**  
**Via San Lorenzo, 70**  
**25069 Villa Carcina (BS)**  
**Italy**

Is authorized to provide the product mentioned below

Description of product: **Pneumatic scotch-yoke spring return and double acting heavy duty actuator series GHDP**

In accordance with: **EN 61508:2010 Parts 1, 2, 3, 4, 5, 6, 7**



Registration No 20 20961 01  
Test Report No PS-24816-23-M  
File reference 24816-01

Validity  
from 2023-11-28  
until 2026-11-27



TÜV Nord Italia S.r.l (TÜV NORD Group)  
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Cerro Maggiore, 2023-11-28  
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<b>Type</b>	A
<b>HFT</b>	0
<b>Safety functions</b>	<p><u>Spring return actuators:</u></p> <ol style="list-style-type: none"> <li>Delivery of a full stroke (<math>90^\circ \pm</math> tolerance) driven by the spring, with power fluid exhausted from the cylinder through the control system</li> </ol> <p><u>Double acting actuators:</u></p> <ol style="list-style-type: none"> <li>Delivery of a full stroke (<math>90^\circ \pm</math> tolerance) driven by the piston of cylinder, powered by the specified medium working pressure</li> </ol>
<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]
Series GHDP SR - No PST	1	5,64E-08	0,00E+00	0,00E+00
Series GHDP SR - With PST	1	5,08E-09	5,14E-08	0,00E+00
Series GHDP DA - No PST	1	1,04E-07	0,00E+00	0,00E+00
Series GHDP DA - With PST	1	9,36E-09	9,47E-08	0,00E+00

<b>Systematic capability</b>	3 (Route 1 <sub>s</sub> applied)			
<b>Architectural constraints</b>	<b>Route 1<sub>H</sub>:</b>	Applied	<b>Route 2<sub>H</sub>:</b>	Applied
	<p>The product can be used in:</p> <ul style="list-style-type: none"> <li>single channel configuration: <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> <li>double channel configuration: up to SIL 3</li> </ul>			
<b>Remarks:</b>	<ul style="list-style-type: none"> <li>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 SMA201704.</li> </ul>			

