

Certificate



No.: 968/V 1155.02/25

Product tested	Electro pneumatic positioner (called smart positioner) for the control of pneumatic valve actuators	Certificate holder	Rotork YTC Limited 81, Hwanggeum-ro 89 Beon-gil, Yangchon-eup Gimpo-si, Gyeonggi-do, 10048 South Korea
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Type designation	YT-3300 L/R, YT-3301 L/R, YT-3302 L/R, YT-3303 L/R, YT-3350 L/R, YT-3400 L/R, YT-3410 L/R, YT-3450 L/R, YT-3700 L/R, YT-3701 L/R, YT-3702 L/R, YT-3750 L/R
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Codes and standards	IEC 61508 parts 1-2:2010	EN 17955:2024 (non accred.)
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Intended application	Safety Function: Single acting: Depressurize the related actuator through Out1 port according to return spring in pilot valve and the return spring moves the valve to a safe end position. Double acting: Depressurize the related actuator through Out1 port and pressurizes the related actuator through Out2 port according to return spring in pilot valve and the return spring moves the valve to a safe end position in pre-selected direction. The positioners are suitable for use in a safety instrumented system up to SIL 2 (low demand mode). Under consideration of the minimum required hardware fault tolerance HFT = 1 the positioners may be used in a redundant architecture up to SIL 3 according IEC 61508 and IEC 61511.
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Specific requirements	The instructions of the associated Installation, Operating and Safety Manual shall be considered.
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Summary of test results see back side of this certificate.

Valid until 2030-08-26

The issue of this certificate is based upon an evaluation in accordance with the Certification Program CERT FSP1 V3.0:2020 in its actual version, whose results are documented in Report No. 968/V 1155.02/25 dated 2025-08-11. This certificate is valid only for products, which are identical with the product tested. Issued by the certification body accredited by DAkkS according to DIN EN ISO/IEC 17065. The accreditation is only valid for the scope listed in the annex to the accreditation certificate D-ZE-11052-02-00.

TÜV Rheinland Industrie Service GmbH
Bereich Automation
Funktionale Sicherheit
Am Grauen Stein, 51105 Köln

Köln, 2025-08-26

Certification Body Safety & Security for Automation & Grid

Dipl.-Ing. (FH) Wolf Rückwart

Holder: Rotork YTC Limited

**81, Hwanggeum-ro, 89 Beon-gil, Yangchon-eup,
Gimpo-si, Gyeonggi-do, 10048,
South Korea**

**Product tested: Smart Positioner - Pneumatic valve positioner as
single or double acting version**

**YT-3300 L/R, YT-3301 L/R, YT-3302 L/R,
YT-3303 L/R, YT-3350 L/R, YT-3400 L/R,
YT-3410 L/R, YT-3450 L/R, YT-3700 L/R,
YT-3701 L/R, YT-3702 L/R, YT-3750 L/R**

Results of Assessment

Route of Assessment		$2_H / 1_S$
Type of Sub-system		Type A
Mode of Operation		Low Demand Mode
Hardware Fault Tolerance	HFT	0

		Single Acting		Double Acting	
Lambda Dangerous Undetected <i>assumed Diagnostic Coverage DC = 0 %</i>	λ_{DU}	1.21 E-07 / h	121 FIT	1.46 E-07 / h	146 FIT
Average Probability of Failure on Demand 1001 <i>assumed Proof Test Interval $T_1 = 1$ year</i>	$PFD_{avg}(T_1)$	5.39 E-04		6.50 E-04	
Average Probability of Failure on Demand 1002 assumed Proof Test Interval $T_1 = 1$ year assumed $\beta_{1002} = 10 \%$	$PFD_{avg}(T_1)$	5.42 E-05		6.55 E-05	

Origin of failure rates

The stated failure rates for low demand are the result of an FMEDA with tailored failure rates for the design and manufacturing process.

Furthermore the results have been verified by qualification tests and field-feedback data of the last five years. Failure rates include failures that occur at a random point in time and are due to degradation mechanisms such as ageing.

The stated failure rates do not release the end-user from collecting and evaluating application-specific reliability data.

Periodic Tests and Maintenance

The given values require periodic tests and maintenance as described in the Safety Manual.

The operator is responsible for the consideration of specific external conditions (e.g. ensuring of required quality of media, max. temperature, time of impact), and adequate test cycles.