

Certificate No.: GLIS/UK/SAFE/2022/06/CC-4748

GL Ref. No.: 101-044-2202-06-0621

CERTIFICATE

The Product(s)

SAFEAir Series Pneumatic Actuators

Manufactured by,

Sanyata Actuation and Fluid Engineering Pvt. Ltd.

No-262/1-A, Mettukuppam Road, Via Alapakkam Road, Janaki Nagar, Maduravoyal, Chennai-600095, INDIA.

has been reviewed / assessed with respect to Functional Safety Standards

IEC 61508 Parts 1-7: 2010

Systematic capability: SIL 3 Capable (with HTF=1, SIL 2 Capable with HTF=0)

Date of Issue : June 20, 2022 Valid up to : June 19, 2025

Applications/Limitations: See page 2.

Mote :

This Certificate is valid for metioned product and with yearly Surveillance as mentioned in page 2.

The certificate is subject to terms and conditions overleaf. Any significant changes in design or construction may render this certificate invalid All product labelillose rest to manufacturer in case of damage or noncompliance productly).

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For gennunity check please visit www.guiffloyds.info

Issued at: Local HO London, UK

www.gulfiloyds.org

GUS04299 20.06.2022

Simon Bennet

Place

Date

Head - Tech. Certification

H.O.(INDIA): Gulf Lloyds (UK) Ltd. (Industrial Services) 71 Shelton Street, Covent Garden, London, England

contact@guilloyds.org .certification@guilloyds.org H.Q.(UAE): Guif Lloyds (Middle-East) LLC P.O. Box-30765, Electra Street Abu Dhabi, UAE ; use@guilloyds.org ; الخليج لويدز (الشرق الأوسط)

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PRODUCTS COVERED BY THIS CERTIFICATE

| Product Name | Model No. | | | | |
|-------------------------------|--|--|--|--|--|
| Rack & Pinion (RP series) | RP005, RP010, RP020, RP030, RP040, RP050, RP060, RP070, RP080, R0090, RP100, RP110, RP120, | | | | |
| Pneumatic Actuator | RP130, RP140, RP150, RP160, RP170, RP180, RP190 | | | | |
| Scotch-Yoke (SY & SYC series) | SY015, SY020, SY040, SY070, SY100, SY130, SY160, SY190, SY250, SY260, SY270, SY280, SY290, | | | | |
| Pneumatic Actuator | SY300, SY310, SY320, SY330, SY340, SY350, SY360, SY370, SY380, SY390, | | | | |
| | SYC015, SYC020, SYC040, SYC070, SYC100, SYC130, SYC160, SYC190, SYC250, SYC260, SYC270, | | | | |
| | SYC280, SYC290, SYC300, SYC310, SYC320, SYC330, SYC340, SYC350, SYC360, SYC370, SYC380, | | | | |
| | SY390 | | | | |

Note: The above mentioned models and any sub models of these actuators are all covered by this Certificate

| Туре | A |
|-------------------|---|
| HFT | 0 |
| Safety Function | Delivery of a full stroke (90° +/- tolerence) driven by air both ways or by spring with the power fluid exhausted from the cylinder through the control system. |
| Mode of Operation | Low Demand Mode |

RANDOM FAILURE RATE

| Configuration | Safety function | λ _{ου} (1/h) | λ _{DD} (1/h) | λ _s (1/h) |
|---------------|-----------------|-----------------------|-----------------------|----------------------|
| RP-DA | 1 | 8.70E-9 | 0.00E+00 | 0.00E+00 |
| RP-SR | 1 | 8.21E-9 | 0.00E+00 | 0.00E+00 |
| SY-DA | 1 | 1.67E-8 | 0.00E+00 | 0.00E+00 |
| SY-SR | 1 | 1.24E-8 | 0.00E+00 | 0.00E+00 |

SYSTEMACTIC REQUIRMENTS

Systematic Capability: 3 with applied Route 1s

Applied Routes(s): Route1_H & Route 2_H

The products can be used in:

Single Channel Configuration:- Upto SIL-2 without external diagnostic tests

- Upto SIL-3 with external diagnostic tests

Double Channel Configuration:- Upto SIL-3

APPLICATION / LIMITATIONS

- This Material Manufacturer Certificate does not exempt any purchaser from his responsibility to ensure that this qualification is valid for his products within the essential variables of IEC 61508 Parts 1-7 and 4-7: 2010 and IEC 61511 Parts 1-3: 2004 with Functional Safety requirements.
- The qualification held with respect to sample prototype of above-mentioned products.
- The re-qualification process shall be repeated if any essential changes are made to the production route or the manufacturing procedure. E.g. change in the manufacturing process, a major change of manufacturing equipment, Material selection.
- If production is carried out at different plants / locations, a separate qualification is required for each plant. This applies also for change of in-house to subcontractors or change of subcontractor for essential operations.
- Any type of changes in products' design, construction, process, and amendments must be notified at Local H.O.

TERMS AND CONDITIONS

The certificate is subject to the following terms and conditions:

- Product Liability rests with Manufacturer, in case of damages caused by defective products.
- The Certificate is only valid for the sample product(s) listed above.
- This certificate issued upon the request of the manufacturer as voluntary certification and self-declaration of the products to be compliance of the standard.

The following may render this certificate invalid:

- Any deviation to application/limitation listed above.
- Changes in the design or construction of the product(s).
- Changes or amendments to the referenced standards.

Issued at: Local HO London, UK



20.06.2022

Place

Date

Head - Tech. Certification

H.O.(INDIA): Gulf Lloyds (UK) Ltd. (Industrial Services)

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DOC. NO.:GL/TTC/009



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