C E R T I F I C A T E

This certifies, that the company

Italvalv S.r.l.
Galleria Buenos Aires, 13
20124 Milano (MI)
Italy

Is authorized to provide the product mentioned below

Description of product: **2-ways bolted side entry trunnion mounted ball valve series TF, TR**

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

Inspection & Certification Services TÜV NORD Italia S.r.l.

Registration No 21 22410 01
Test Report No PS-26723-25-M
File reference 26723-01

Validity
from 2025-01-25
until 2028-01-24

TÜV Nord Italia S.r.l (TÜV NORD Group)
Via Turati, 70 – 20023 Cerro Maggiore (MI) – Italy

www.tuev-nord.it

Cerro Maggiore, 2025-01-25
prodotto@tuev-nord.it

ANNEX

To Certificate-Nr. 21 22410 01

Type	A
HFT	0
Safety functions	1. Close / Open upon the demand of the actuation system 2. Close upon the demand of the actuation system, with inline tightness when in closed position
Mode of operation	Low Demand Mode

Random failure rates				
Configuration	**Safety function**	**λ_{DU} [1/h]**	**λ_{DD} [1/h]**	**λ_{S} [1/h]**
Self-relieving / Double piston effect - No PST	1	2,76E-08	0,00E+00	0,00E+00
Self-relieving / Double piston effect - With PST	1	2,48E-09	2,51E-08	0,00E+00
Self-relieving - No PST	2	3,14E-08	0,00E+00	0,00E+00
Self-relieving - With PST	2	6,31E-09	2,51E-08	0,00E+00
Double piston effect - No PST	2	2,94E-08	0,00E+00	0,00E+00
Double piston effect - With PST	2	4,29E-09	2,51E-08	0,00E+00

Systematic capability	**3** (Route 1_S applied)			
Architectural constraints	**Route 1_H:**	Applied	**Route 2_H:**	Applied

	The product can be used in:
	• single channel configuration:
	  ○ up to SIL 2 without external diagnostic tests
	  ○ up to SIL 3 considering external diagnostic tests (only for Safety Function 1)
	• double channel configuration: up to SIL 3			

Remarks:	• Self-relieving configuration: both upstream and downstream seats shall be of self-relieving type (i.e. single barrier in the flow direction) • Double piston effect configuration: at least downstream seat shall be of double piston effect type (i.e. double barrier in the flow direction) • 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 SAF_MAN_TF-TR			

Inspection & Certification Services
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TÜV NORD Italia S.r.l.

C E R T I F I C A T E

This certifies, that the company

Italvalv S.r.l.
Galleria Buenos Aires 13
20124 Milano (MI)
Italy

Is authorized to provide the product mentioned below

Description of product: **Eccentric metal seated butterfly valve series FK/FY/FQ, WK/WY/WQ, WLK/WLY/WLQ, BWK/BWY/BWQ**

In accordance with: **EN 61508:2010 Parts 1, 2, 4, 5, 6, 7**
The product meets also the requirements of standard EN 17955:2024

Inspection & Certification Services TÜV TÜV NORD Italia S.r.l.

Registration No 22 22867 01
Test Report No PS-27658-25-M
File reference 27658-01

Validity
from 2025-09-17
until 2028-09-17

TÜV Nord Italia S.r.l (TÜV NORD Group)
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www.tuev-nord.it

Cerro Maggiore, 2025-09-17
prodotto@tuev-nord.it

Please also pay attention to the information stated overleaf

ANNEX

To Certificate-Nr. 22 22867 01

Type	A
HFT	0
Safety functions	1. Close / Open upon the demand of the actuation system 2. Close upon the demand of the actuation system, with inline tightness when in closed position
Mode of operation	Low Demand Mode

Random failure rates				
Configuration	**Safety function**	**λ_{DU} [1/h]**	**λ_{DD} [1/h]**	**λ_{S} [1/h]**
Butterfly valve - No PST	1	1,30E-07	0,00E+00	0,00E+00
Butterfly valve - With PST	1	1,17E-08	1,18E-07	0,00E+00
Butterfly valve - No PST	2	1,34E-07	0,00E+00	0,00E+00
Butterfly valve - With PST	2	1,60E-08	1,18E-07	0,00E+00

Systematic capability	**3** (Route 1_S applied)			
Architectural constraints	**Route 1_H:**	Applied	**Route 2_H:**	Applied

	The product can be used in:
	• single channel configuration:
	  ○ up to SIL 2 without external diagnostic tests
	  ○ up to SIL 3 considering external diagnostic tests (only for Safety Function 1)
	• double channel configuration: up to SIL 3			

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 SAF_MAN_FK-FY-FQ_WK-WY-WQ_WLK-WLY-WLQ_BWK-BWY-BWQ			

Inspection & Certification Services TÜV NORD Italia S.r.l.

C E R T I F I C A T E

This certifies, that the company

Italvalv S.r.l.
Galleria Buenos Aires, 13
20124 Milano (MI)
Italy

Is authorized to provide the product mentioned below

Description of product: **Fail safe electromechanical spring return actuator series ASP, ASPL, ASPR, ASPLR**

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

Registration No 24 23897 01
Test Report No PS-23897-24-M
File reference 23897-01

Validity
from 2024-04-15
until 2027-04-14

TÜV Nord Italia S.r.l (TÜV NORD Group)
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www.tuev-nord.it

Cerro Maggiore, 2024-04-15
prodotto@tuev-nord.it

ANNEX

To Certificate-Nr. 24 23897 01

Type	A
HFT	0
Safety functions	1. In case of removal of the ESD signal (clutch supply), the clutch releases the electromechanical unit, and the mechanical part of the actuator brings the valve in the safe position with a complete movement of the actuator (de-energize to trip function). The safe state is maintained until the ESD signal remains LOW
Mode of operation	Low Demand Mode

Random failure rates				
Configuration	**Safety function**	**λ_{DU} [1/h]**	**λ_{DD} [1/h]**	**λ_S [1/h]**
Series ASP, ASPR (standard) - No PST	1	4,46E-08	0,00E+00	3,78E-08
Series ASP, ASPR (standard) - With PST	1	8,19E-09	3,64E-08	3,78E-08
Series ASPL, ASPLR (standard) - No PST	1	3,94E-08	0,00E+00	5,04E-08
Series ASPL, ASPLR (standard) - With PST	1	6,07E-09	3,33E-08	5,04E-08
Series ASP, ASPR (multispring) - No PST	1	4,82E-08	0,00E+00	3,54E-08
Series ASP, ASPR (multispring) - With PST	1	8,25E-09	3,99E-08	3,54E-08
Series ASPL, ASPLR (multispring) - No PST	1	4,36E-08	0,00E+00	4,70E-08
Series ASPL, ASPLR (multispring) - With PST	1	6,28E-09	3,73E-08	4,70E-08

Systematic capability	**3** (Route 1_S applied)			
Architectural constraints	**Route 1_H:**	Applied	**Route 2_H:**	Applied

	The product can be used in:
	• single channel configuration:
	  ○ up to SIL 2 without external diagnostic tests
	  ○ up to SIL 3 considering external diagnostic tests
	• double channel configuration: up to SIL 3			

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 SAF_MAN_ASP			

Inspection & Certification Services TÜV NORD Italia S.r.l.

C E R T I F I C A T E

This certifies, that the company

Italvalv S.r.l.
Galleria Buenos Aires 13
20124 Milano (MI)
Italy

Is authorized to provide the product mentioned below

Description of product: **Pneumatic scotch yoke spring return and double acting actuator series RG**

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

Inspection & Certification Services
TÜV
TÜV NORD Italia S.r.l.

Registration No 25 27187 01
Test Report No PS-27187-25-M-01
File reference 27187-01

Validity
from 2025-09-18
until 2028-09-18

TÜV Nord Italia S.r.l (TÜV NORD Group)
Via Turati, 70 – 20023 Cerro Maggiore (MI) – Italy

www.tuev-nord.it

Cerro Maggiore, 2025-09-18
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Please also pay attention to the information stated overleaf

ANNEX

To Certificate-Nr. 25 27187 01

Type	A
HFT	0
Safety functions	Spring return actuators: 1. Delivery of a full stroke (90° ± tolerance) driven by the spring, with power fluid exhausted from the cylinder through the control system Double acting actuators: 1. Delivery of a full stroke (90° ± tolerance) driven by the piston of cylinder, powered by the specified medium working pressure
Mode of operation	Low Demand Mode

Random failure rates				
Configuration	**Safety function**	**λ_{DU} [1/h]**	**λ_{DD} [1/h]**	**λ_{S} [1/h]**
Series RG spring return - No PST	1	2,27E-07	0,00E+00	0,00E+00
Series RG spring return - With PST	1	2,04E-08	2,07E-07	0,00E+00
Series RG double acting (single cylinder) - No PST	1	2,09E-07	0,00E+00	0,00E+00
Series RG double acting (single cylinder) - With PST	1	1,88E-08	1,90E-07	0,00E+00
Series RG double acting (double cylinder) - No PST	1	2,62E-07	0,00E+00	0,00E+00
Series RG double acting (double cylinder) - With PST	1	2,36E-08	2,38E-07	0,00E+00

Systematic capability	**3** (Route 1_S applied)			
Architectural constraints	**Route 1_H:**	Applied	**Route 2_H:**	Applied

	The product can be used in:
	• single channel configuration:
	  ○ up to SIL 2 without external diagnostic tests
	  ○ up to SIL 3 considering external diagnostic tests
	• double channel configuration: up to SIL 3			

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 SAF_MAN_RG_RP			

Inspection & Certification Services
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C E R T I F I C A T E

This certifies, that the company

Italvalv S.r.l.
Galleria Buenos Aires 13
20124 Milano (MI)
Italy

Is authorized to provide the product mentioned below

Description of product: **Pneumatic rack and pinion spring return and double acting actuator series RP**

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

Inspection & Certification Services
TÜV NORD Italia S.r.l.

Registration No 25 27187 02
Test Report No PS-27187-25-M-02
File reference 27187-02

Validity
from 2025-09-18
until 2028-09-18

TÜV Nord Italia S.r.l (TÜV NORD Group)
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Cerro Maggiore, 2025-09-18
prodotto@tuev-nord.it

ANNEX

To Certificate-Nr. 25 27187 02

Type	A
HFT	0
Safety functions	Spring return actuators: 1. Delivery of a full stroke (90° ± tolerance) driven by the spring, with power fluid exhausted from the cylinder through the control system Double acting actuators: 1. Delivery of a full stroke (90° ± tolerance) driven by the piston of cylinder, powered by the specified medium working pressure
Mode of operation	Low Demand Mode

Random failure rates				
Configuration	**Safety function**	**λ_{DU} [1/h]**	**λ_{DD} [1/h]**	**λ_{S} [1/h]**
Series RP spring return - No PST	1	2,61E-07	0,00E+00	0,00E+00
Series RP spring return - With PST	1	2,35E-08	2,38E-07	0,00E+00
Series RP double acting - No PST	1	4,42E-07	0,00E+00	0,00E+00
Series RP double acting - With PST	1	3,98E-08	4,02E-07	0,00E+00

Systematic capability	**3** (Route 1_S applied)			
Architectural constraints	**Route 1_H:**	Applied	**Route 2_H:**	Applied

	The product can be used in:
	• single channel configuration:
	  ○ up to SIL 2 without external diagnostic tests
	  ○ up to SIL 3 considering external diagnostic tests
	• double channel configuration: up to SIL 3			

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 SAF_MAN_RG_RP			

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