

SAFETY FOR AUTOMATION

FSI 608 PROFIsafe



The FSI 608 is a certified encoder that provides reliable protection for people and machines. The FSI 608 fulfills the newest safety requirements and is certified up to SIL3/PLe.

At Leine Linde, safety comes first. We want to help you create a safe work environment and reduce risk for your machines and systems. Together with our knowledge and functional safety solutions, we can ensure that you get a precise and safe system.

Ready for the toughest challenges

For several decades, Leine Linde has been a reliable partner that provide robust encoders for the toughest environments. With the FSI 608 we continue our tradition to supply quality and maximum value with our products. It not only fulfills the safety levels demanded, but also has a very robust design with high mechanical specification.

The FSI 608 is available with a variety of selectable mechanical and electrical features. The wide range of shafts and flanges makes the FSI 608 suitable to most types of mechanical mounting variants on the market. The FSI 608

is available in freely scalable multiturn variants, offering resolution options up to 31 bits. The standard encoder has an anodized aluminum enclosure with stainless steel shaft, but even enclosure in stainless steel will be available.

As part of our functional safety solutions, the FSI 608 offers safe position, speed and acceleration values that gives you full control of the machine.

Fulfilling the safety requirements

In the FSI 608 series we give you a PROFINET with the PROFIsafe protocol that supplies the safe real-time performance in motion control. We fulfil the encoder and PROFINET profiles giving you a wide possibility of usage in multitude of applications and automation environments.

To ensure a reliable safety solution, the FSI 608 built-in safety functions seamlessly connects with your safety system. The user can fulfill the safety requirements and prevent process errors and downtime giving you a solid investment for your machine.

Safety functions

The FSI 608 encoder is configured over the fieldbus interface using safe fieldbus communication between control system and encoder.

It can be configured or used for the following safety functions:

- Standstill
- Position
- Overspeed
- Acceleration

STO – Safe torque off
SS1 – Safe stop 1
SS2 – Safe stop 2
SOS – Safe operating stop
SLA – Safely-limited acceleration
SAR – Safe acceleration range
SLS – Safely-limited speed
SSR – Safely speed range

SLP – Safely-limited position
SLI – Safely-limited increment
SDI – Safe direction
SBC – Safe brake control
SCA – Safe cam
SSM – Safe speed monitoring

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Technical data FSI 608

Output interface	PROFINET IO with PROFIsafe protocol
Absolute resolution	31 bit (19 bit singleturn + 12 bit multiturn)
Supported profile	Encoder profile V 4.2
Safety integrity level	SIL 3 (IEC 61800-5-3, EN 61800-5-2, EN 62061, IEC 61508)
Performance level	PLe/cat.4 (ISO 13849)
Ingress protection class [IEC 60529]	IP66 and IP67
Vibration [IEC 60068-2-64]	≤ 200 m/s²
Shock [IEC 60068-2-27]	≤ 1000 m/s²
Shaft load axial / radial	100 / 125 N
Rotational speed max	10000 rpm
Max acceleration	1000 rad/s²
Power supply	10-30 Vdc (PELV)
Connection type	3xM12 connectors
Working temperature	-40°C...+67°C

Code keys

