

## SFS/SFM60

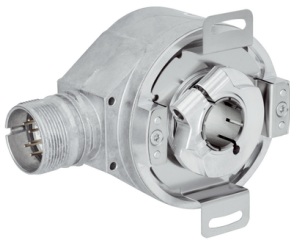
High-resolution motor feedback system in hollow shaft design

**SICK**  
Sensor Intelligence.

## Advantages



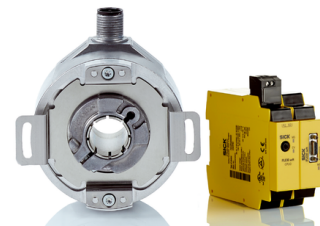
Fewer components, less cabling for drives with a HIPERFACE interface, motor control and safe speed monitoring can be carried out via the SFS/SFM60 motor feedback system. Thanks to a high protection class of IP65 and compatibility with various hollow shaft diameters, the SFS/SFM60 is ideal for self-ventilated and externally-ventilated synchronous motors. The SFS/SFM60-S variants support safety functions such as SDI and SLS, which makes machine certification much easier. The rugged design ensures a long service life in demanding application environments and the standardized HIPERFACE interface enables efficient integration. The electronic type label also supports automated commissioning.



Reliable fault exclusion thanks to safety clamping ring with positive and non-positive connections



SFS/SFM60-S safe motor feedback systems with HIPERFACE interface meet the requirements of SIL2 / 61800-5-2 / EN 61508 and Cat.3 / PL d according to EN ISO 13849-1



Perfectly coordinated: SFS/SFM60-S in combination with the Flexi Soft Drive Monitor.



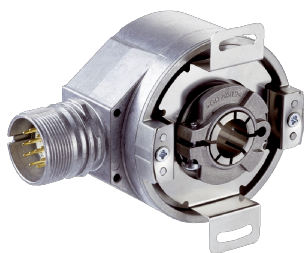
**Simplify the certification process for your system: The SFS/SFM60 has already been certified by an external testing body and can be integrated quickly into your system.**



## Safe Motion: intelligent safety solutions for machine movements

Protect your employees and increase the efficiency of mobile and stationary applications. Safe Motion from SICK offers you suitable solutions for safely monitoring and controlling machine movements in accordance with EN ISO 13849 and individual safety considerations.

[Find out more](https://www.sick.com/safe-motion)



### Technical data overview

<b>Type</b>	Stand-alone
<b>Model</b>	Absolute Singleturn / Absolute Multiturn (depending on type)
<b>Communication interface</b>	HIPERFACE®
<b>Sine/cosine periods per revolution</b>	1,024
<b>Safety system</b>	- / ✓ (depending on type)
<b>Mechanical interface</b>	Blind hollow shaft, 8 mm Blind hollow shaft, 3/8" Blind hollow shaft, 10 mm Blind hollow shaft, 12 mm Blind hollow shaft, 1/2" Blind hollow shaft, 14 mm Blind hollow shaft, 15 mm Through hollow shaft, 8 mm Through hollow shaft, 3/8" Through hollow shaft, 10 mm Through hollow shaft, 12 mm Through hollow shaft, 1/2" Through hollow shaft, 14 mm Through hollow shaft, 15 mm
<b>Connection type</b>	Male connector, M23, 12-pin, radial Male connector, M12, 8-pin, radial Cable, 8-wire (4 x 2 x 0.15 mm <sup>2</sup> ), radial, 1.5 m Cable, 8-wire, universal, 1.5 m
<b>Available memory area</b>	1,792 Byte E <sup>2</sup> PROM 2048
<b>Measurement principle</b>	Optical

### Product description

SICK is rounding out its portfolio with the optical high-resolution SFS/SFM60 motor feedback systems in hollow shaft design. Especially with self- and force-ventilated synchronous motors, this mechanical component meets customer requirements, as do various hollow shafts and high protection classes (IP65). A wide variety of product variants fulfills nearly every requirement. The SFS/SFM60 motor feedback systems use a globally standardized interface. It provides maximum flexibility and reduces installation times - plug & play at its best. The rugged shaft bearing increases the service life and at the same time reduces the servicing and maintenance requirements. It also achieves optimum concentricity and a previously unattainable low level of vibration even at maximum operating speeds.

### At a glance

- HIPERFACE® motor feedback system in singleturn and multiturn design, compatible with the world's leading drive systems
- 1,024 sine/cosine periods per revolution
- Absolute position with a resolution of 32,768 increments per revolution and 4,096 revolutions with the multiturn system
- Mechanical flexibility through different blind hollow shaft and through hollow shaft diameters (8 to 15 mm diameter), available with various stator couplings
- IP65 protection class
- Certified according to SIL2/PL d (only valid for SFS60S/SFM60S...)

### Your benefits

- Convenient traceability and simple maintenance thanks to storage of motor-specific data in the electronic type label
- Large ball bearing distances reduce uneven wear and minimize vibration on the encoder housing, which increases the encoder's service life
- The nickel code disk offers a high degree of vibration resistance and an extended temperature range
- Shorter development times through standardized mechanical interface
- Platform for the future, since all electrical interfaces (TTL/HTL, 1Vpp, SSI, PROFIBUS, HIPERFACE DSL®) are or will be available in this mechanical component.



## SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

**For us, that is “Sensor Intelligence.”**

## WORLDWIDE PRESENCE:

Contacts and other locations –[www.sick.com](http://www.sick.com)