Product overview

ANS/ANM58

High-resolution absolute encoder with PROFINET interface and IRT function

SICK
Sensor Intelligence.

Advantages

One encoder – many possibilities

The ANS/ANM58 can be individually configured to cover a particularly wide range of installation situations and industrial requirements. In addition to axial and radial connections, variants for solid shafts, blind hollow shafts or through hollow shafts and different flanges are available.

For tight installation spaces
The ANS/ANM58 with radial connection has a shallow installation depth of just 39 mm. This makes it the ideal solution for tight installation situations and applications with limited space.

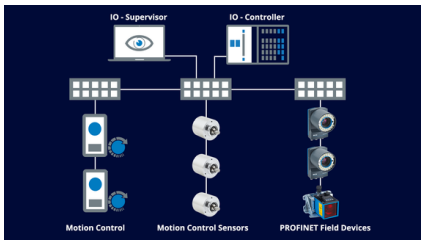
wide range of applications
The compact housing design makes the ANS/ANM58 suitable for many different applications. Thanks to the wide range of variants, it can be adapted very well to the specific application requirements.

Reduces integration costs: Thanks to the numerous configuration options, the ANS/ANM58 can be quickly and easily integrated into different applications within a system.

High-performance communication interface

The ANS/ANM58 relies on a modern and established industrial Ethernet standard: PROFINET. This facilitates encoder integration into control systems. Encoder Profile version 4.2 supports the IRT function (Isochronous Real Time). This allows processes to be synchronized even better, as the device sends measured values with exact time stamps to a controller.

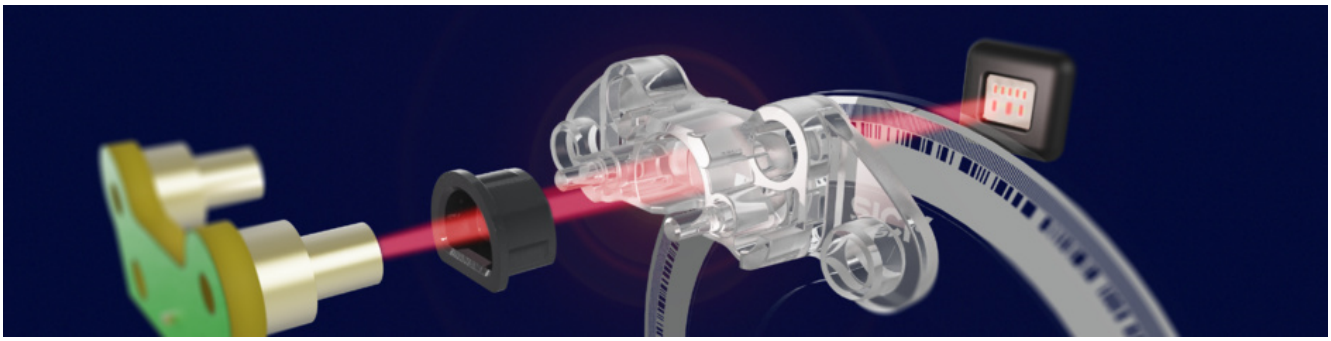
Easy integration
The encoder can be easily integrated into an existing network using engineering tools such as the popular TIA portal.



Simple to monitor
With information on cycle times, speeds or temperatures, process and network performance can be easily monitored and unplanned system downtimes prevented.

Simple to configure
The ANS/ANM58 can be configured intuitively using the web-based configuration software. In addition, diagnostic data can be easily configured and visualized via the graphical user interface.

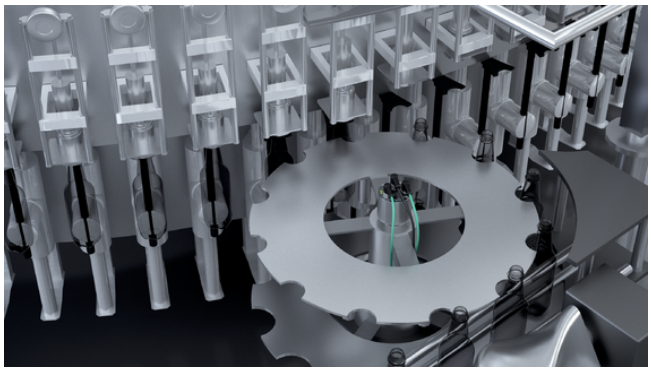
Increases productivity: High data throughput and short cycle times ensure a precise process cycle. A wide range of configuration and diagnostic options assist with simple integration and a condition-based system maintenance.



High process quality thanks to optical measuring system

Many applications rely on precise position, speed or acceleration data. The more accurate and reliable the relevant measured values are, the better processes can be coordinated. The ANS/ANM58 incorporates innovative optical singleturn scanning technology with an Opto-ASIC specially developed by SICK, with which rotary movements can be recorded very accurately with 18-bit resolution. In addition, a mechanical gear-based multiturn ensures a reliable detection of the number of revolutions.

Record positions precisely
3-axis gantry robots require precise data to be able to grip objects on a conveyor belt and transfer them to the next process step. The ANS/ANM58 precisely measures the absolute position and speed of the conveyor belt for this purpose.
Learn more



Synchronize feed systems
For continuous bottle feeding on a bottling system, the infeed must be synchronized with the rotation of the ring tank. With the help of ANS/ANM58 encoders on the rotating table and on the conveying line, the feed speed and bottle positioning can be precisely controlled, thus preventing collisions during operation.
Learn more

Facilitates the planning of complex systems: The precise measurement data of the ANS/ANM58, in combination with the IRT function, enables the different process steps within a system to be precisely coordinated.

Technical data overview

Encoder design	Multiturn / Singleturn (depends on variant)
Shaft type	Solid shaft, face mount flange Solid shaft, Servo flange Blind hollow shaft Through hollow shaft
Shaft diameter	
Solid shaft, face mount flange	10 mm Round 10 mm With flat
Solid shaft, Servo flange	6 mm With flat
Blind hollow shaft	12 mm Front clamp 6 mm Front clamp 8 mm Front clamp 10 mm Front clamp 14 mm Front clamp 15 mm Front clamp 16 mm Front clamp
Through hollow shaft	8 mm Front clamp 10 mm Front clamp 12 mm Front clamp 14 mm Front clamp 15 mm Front clamp 16 mm Front clamp 1/4″ Front clamp 3/8″ Front clamp 1/2″ Front clamp 5/8″ Front clamp 6 mm Front clamp
Connection type	Male connector, 1x, M12, 4-pin, radial Female connector, 2x, M12, 4-pin, radial Male connector, 1x, M12, 4-pin, axial Female connector, 2x, M12, 4-pin, axial
Communication interface	PROFINET
Number of steps per revolution (max. resolution)	262,144 (18 bit)
Max. resolution (number of steps per revolution x number of revolutions)	18 bit x 16 bit (262,144 x 65,536)
Programmable/configurable	Over PLC-Engineering-Tool
Operating temperature range	–40 °C ... +85 °C [1]
Enclosure rating	IP65 (IEC 60529) IP67 (IEC 60529)

[1] Relative to the measuring point on the plug connection side, see dimensional drawing.

Product description

The ANS/ANM58 is a powerful 58 mm absolute encoder. The numerous shaft and flange types as well as axial and radial connections make it suitable for integration into many different applications. Thanks to the combination of a precise optical singleturn measuring system and mechanical multiturn, the ANS/ANM58 provides reliable data for movement monitoring and process control. Thanks to the PROFINET interface with Encoder Profile version 4.2, processes can be executed synchronously via the IRT (Isochronous Real Time) function, which increases productivity. The encoder also provides a lot of diagnostic data for condition-based system maintenance. With an installation depth of just 39 mm for the radial type, the ANS/ANM58 is ideal for tight installation situations.

At a glance

- Radial and axial type with shaft and flange variants
- Low installation depth of only 39 mm
- PROFINET interface with Encoder Profile V 4.2
- Parameterization via TIA Portal or SICK Engineering Tool
- Configuration and visualization of numerous diagnostic data via SICK Engineering Tool
- Precise 18-bit optical measuring system and mechanical 16-bit multiturn stage

Your benefits

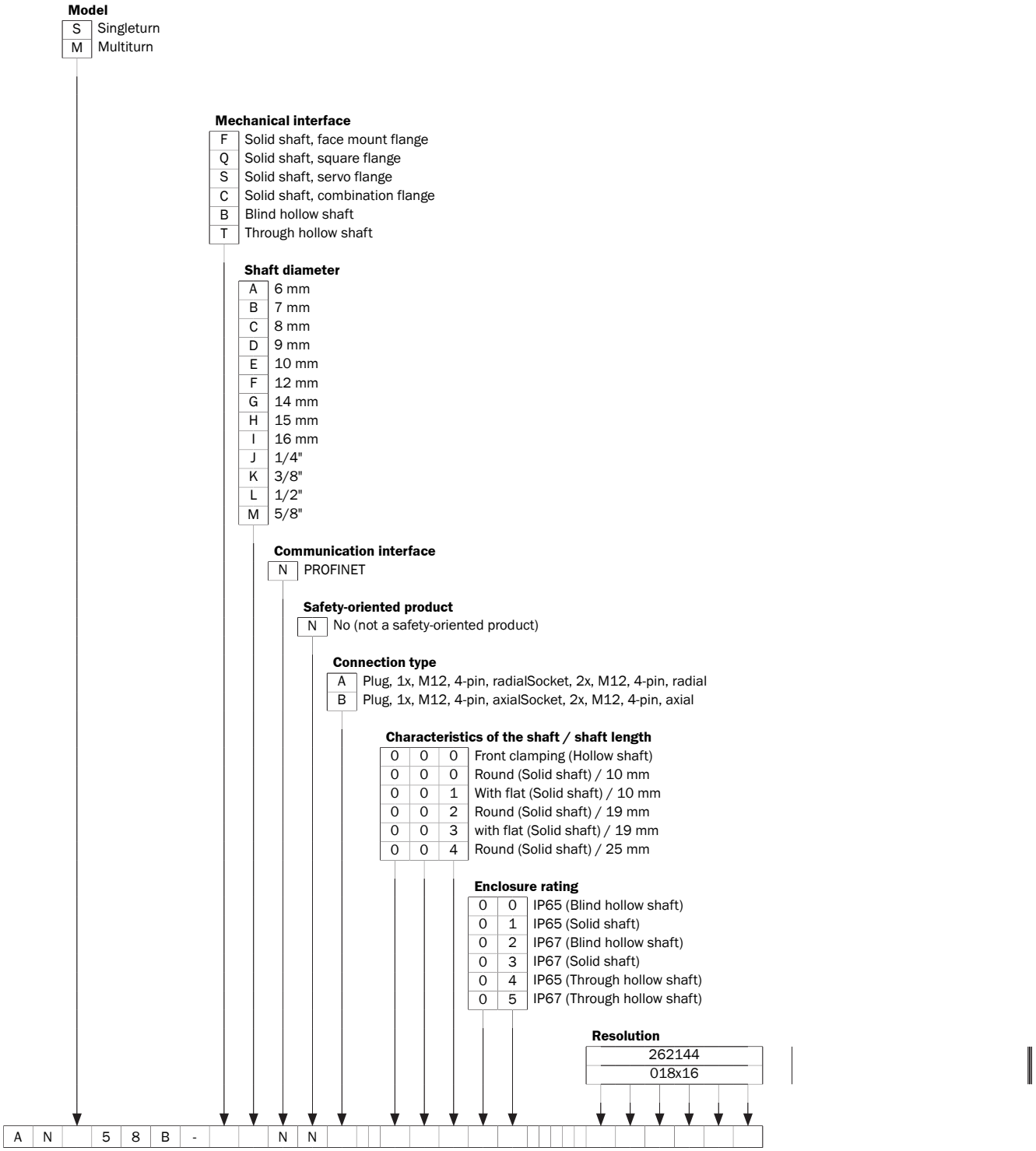
- Can be integrated into different applications thanks to numerous mechanical variants
- Ideal for installation situations with limited space
- Clock-synchronized processes and increased productivity thanks to IRT function and high data throughput
- Simple system integration thanks to PROFINET interface
- Less downtime, as a lot of process diagnostic data enables condition-based system maintenance
- High process quality thanks to especially precise singleturn and multiturn data

Fields of application

- Packaging technology: Monitoring position and speed to synchronize processes
- Mechanical engineering: Repeatable measurement of positions and movements for precise machine and system control
- Storage and conveyor technology: Measuring speed and position for efficient warehouse automation

Type code

Other models and accessories ➜ www.sick.com/ANS_ANM58



[1] Factory programmed to: 18 bit singleturn.

[2] Resolution programmable via control.

[3] Factory programmed to: 18 bit singleturn x 16 bit multiturn.

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.”

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