

# ONE MOTOR FEEDBACK SYSTEM FOR ALL SERVO MOTORS AND PERFORMANCE LEVELS



Automation Award 2017 for Sendix S36 Encoder



# MOTOR FEEDBACK SYSTEMS FOR SERVO MOTORS

## Sendix S36 Motor-Line



### ROBUST DESIGN

Its robust construction makes the Sendix S36 Motor-Line particularly shock and vibration-resistant.

#### Mechanical robustness

- Latest mechanical gear technology
- Robust bearing structure in Safety-Lock™ Design
- Reliable connector technology
- Torque-proof stator coupling
- Wide temperature range

#### Electronic robustness

- Blue LED technology for accurate scanning and long service life
- Phased Array Sensor technology

⊕ Premium quality perceptible in everyday operation. The robust design ensures reliable and perfect operation of your motors – even in harshest environments.

### COMPACT

Consistent size of only 36 mm for:

- All singleturn and multiturn variants
- All medium and high power ranges with a resolution  $\leq 2048$  ppr SinCos or  $\leq 24$  bits fully digital

⊕ High-resolution and compact. Possibility to standardize the attachment between the encoder and the motor, and thus to reduce the number of motor variants. This saves space and costs.

### ALL INTERFACES

An encoder platform with all classical and all open source interfaces for the Single Cable Solution.

⊕ From now on, you and your customers will have maximum flexibility when selecting your preferred electrical interfaces.

RS485 + SinCos

BISS  
INTERFACE

BISS  
SAFETY

BISS  
LINE

SCS  
open link

SIL2  
Functional Safety  
PLd

SIL3  
Functional Safety  
PLe

### HIGH SIGNAL QUALITY

The use of the Phased Array Sensor technology allows achieving a resolution  $\leq 2048$  ppr SinCos or  $\leq 24$  bits fully digital, ensuring in addition high signal quality also in the event of shocks and vibrations.

⊕ Performance increase thanks to the high resolution. The controlled servo motor shows a more stable operating behavior and produces less heat.

### FUNCTIONAL SAFETY

Certified Motor Feedback System, from the sensors, through the mechanics, up to the electrical interface.

⊕ Safe speed monitoring and fast acceptance for the certification of the complete system.

# SHAPING THE FUTURE WITH KÜBLER

New Single Cable Solutions for the drive technology. So far, the interface was the limiting factor. This will change in the future thanks to the open source and fully digital

BiSS Line and SCS open link interfaces for Motor Feedback Systems. They will allow enormous cost advantages and offer the possibility of developing smart motor concepts.



## Single Cable Solution

The Sendix S36 Motor-Line will in the future offer both the open source BiSS Line and SCS open link interfaces.



## ANALYTICS FOR SMART MOTOR

Functions such as the electronic data sheet (EDS), saving customer-specific user data and the connection of additional sensors such as for example temperature sensors are available for the analytics.

⊕ A permanent condition monitoring of the motor allows detecting and correcting faults at an early stage. This leads to higher plant availability and performance improvement.

Analytics <sup>Intelligent Sensor</sup>

IIoT

Condition Monitoring  
Smart Motor

Predictive Maintenance

# ! CONFIGURE AND REQUEST A SAMPLE NOW

Order  
code

8.S36.X4.XXX1.XXX.XXX  
Type a b c d e f g h i<sup>2)</sup>

**a** Version  
**7** = singleturn  
**8** = multiturn

**b** Flange  
**1** = with stator coupling, ø 38 mm  
**2** = with stator coupling, ø 40.5 mm  
**3** = with stator coupling, ø 42 mm  
**4** = with stator coupling, ø 60 mm

**c** Shaft  
**1** = hollow shaft, ø 8 mm  
**2** = tapered shaft, ø 8 mm

**d** Power supply  
**1** = 7 ... 30 V DC  
**2** = 5 V DC

**e** Type of connection  
**1** = PCB connector radial

**f** Digital interface  
**1** = BiSS  
**2** = RS485 (Hiperface® <sup>1)</sup> kompatibel)

**g** Incremental interface  
**1** = 1024 ppr SinCos  
**2** = 2048 ppr SinCos

**h** Resolution singleturn  
**12** = 12 bit  
**15** = 15 bit  
**16** = 16 bit  
**17** = 17 bit  
**19** = 19 bit

**i** Safety technology<sup>2)</sup>  
**FS2** = SIL2 / PLd  
**FS3** = SIL3 / PLe



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