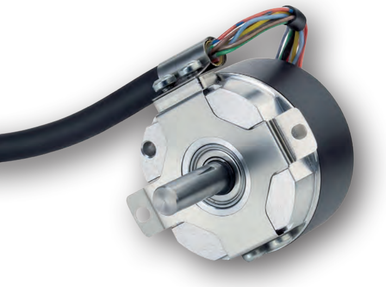
AD 34
Saves installation cost.



The AD34 is the most compact absolute encoder in class. It is available with a resolution up to 17 Bit Singleturn. The mechanical design consists of two ball bearings and a flexible torque support. The AD34 complements the ACURO-DRIVE series and is appropriate for use within BLDC servo motors with small frame sizes. The AD34 is available with a notched shaft, which saves installation time.

- For brushless servo motors
- Light duty encoder
- Notched shaft 6 mm
- Mounting Depth: 25 mm
- Up to 17 Bit Resolution
- +120°C operating temperature
- 10,000 rpm continous operation
- BiSS or SSI interface
- Sinewave 1 Vpp
- Bandwidth 500 kHz

Integrated diagnostic system

The AD34 has an integrated diagnostic system that controls and regulates the internal signals. Maximum motor uptime is achieved through the pre warning in case of any system error or aging effects well before they affect the function of the encoder. A code plausibility check guarantees that the output data represents always the true position. Also the operating temperature can be measured and read out with 8 Bit resolution. If programmable limits are exceeded or under run this is indicated over warn and alarm bits.

Fully digital control loop

The new and completely digital OptoAsic technology enables the transition to a truly digitaldrive system. The conventional absolute encoders still have analog sine wave signals for the feedback of speed and position data. The AD34, however, provides fully digital position dataup to 17 Bit over the BiSS interface with a variable clock rate up to 10 MHz. BiSS is the only open high speed bidirectional sensor interface available on the market. Backward compatibility to most of the existing drives is realized through the variant with SSI interface together with 2048 sine–cosine periods per revolution.

Notched shaft saves installation cost

Because of its innovative shaft mounting the AD34 saves work on the motor shaft. A common 6 mm bore on the motor B–side is enough. AD34's notched shaft is inserted in the B-side of the motor shaft in one process step.

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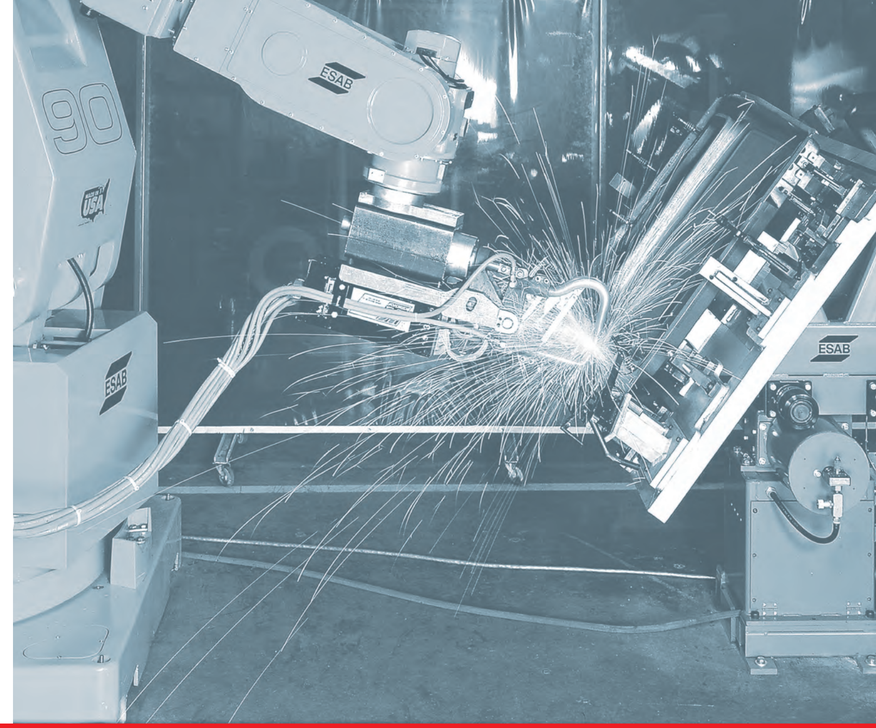

MOTORFEEDBACK

Your application defines the type.

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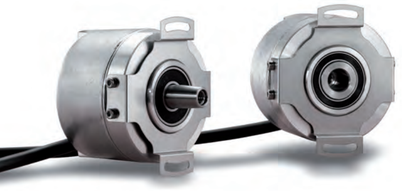
Hengstler Motorfeedback



Hengstler offers Motor Feedback systems in all performance classes and with the most commonly used interfaces

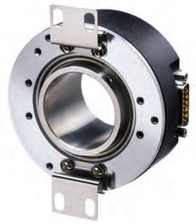
From modular miniature incremental encoders for **DC and Stepper Motors** in 22 mm diameter up to the absolute AC110 with 50mm hollow shaft Hengstler provides a complete range of MotorFeedback systems.

For **asynchronous motors** and **elevators** the offering comprises incremental and absolute hollow shaft encoders in singleturn and multiturn versions. Trendsetting is the Incremental OptoAsic with diagnosis system and integrated interpolation electronic which is for the first time used in RI80-E.

For **AC Servo Motors** there is an extensive range of feedback products available: Brushless resolvers size 10, 15 and 21 uniquely robust and low priced, incremental comcoders for direct block commutation of BLDC motors in low cost modular version or with integrated bearings and resolutions up to 10000 pulses per revolution.

Your application requires highest precision and dynamics? Than you are on the right track with the Sine-wave encoder S21 and the absolute Acuro-Drive encoder. Latest OptoAsic technology and a true geared multiturn provides obvious advantages regarding performance and reliability. Hengstler offers the Acuro-Drives series with the open, highspeed, digital interface **BiSS**. With the opensource BiSS interface the proprietary lock-in situation with absolute motor feedback systems is broken up with the benefit of an increasing range of suppliers.

One Size fits all: No matter whether your servo application requires resolvers, incremental comcoders or absolute Multiturn encoders - the complete range in size 15 with resolver compatible mounting is available from Hengstler. The benefit of this is, that the B-side of the motor can be resolver style and doesn't need to be customized, depending on the feedback. The Feedback type can be selected according to customer demands or required resolution and technology. This helps reducing variation of parts and stock and enables improved delivery times.

Resolver	AD36	AC58-I	RI64	F-Series	RI76	RI80-E
						
Absolute Singleturn	**Absolute Single + Multiturn**	**Absolute Multiturn with Incremental Signals**	**Incremental**	**Incremental + Comtracks**	**Incremental**	**Incremental**
■ Absolute position feedback ■ Rugged: high shock and vibration ■ Pollution resistant ■ Ambient temperature up to 220°C ■ Ageing resistant ■ No electronic components ■ Maintenance free ■ Size 10 ... 55	■ Optical encoder with a true geared multiturn ■ Resolver size 15 compatible ■ Through hollow shaft 8 mm ■ 19 Bit Singleturn + 12 Bit Multiturn ■ +120°C operating temperature ■ 10,000 rpm continous operation ■ BiSS or SSI interface ■ Sinewave 1 Vpp	■ Positioning and Speed feedback in one Encoder ■ MT Absolute encoder + Incremental output TTL or HTL ■ Broad temperature range: -40 to + 100°C ■ Control input: Preset and Direction ■ Resolution 25 Bit ■ Compact design: 50 mm length ■ High EMC - Resistance ■ Ideal for standard frequency converter and asynchron motors	■ Through Hollow shaft 10-16mm ■ Up to 5000 ppr ■ Unbreakable code disc ■ Protection class up to IP67 ■ Broad power supply range DC 5-26V ■ Isolated shaft ■ High shock and vibration resistance	■ Resolver compatible mounting Size 10, 15, 21 ■ ideal for BLDC, DC-Servo and Stepper motor ■ Through hollow shaft up to Ø 9.52 mm ■ Incremental signals A, B, N ■ Resolution up to 2048 ppr ■ 6, 8 or 10 pole commutation signals ■ Frequency response up to 300 kHz ■ Operating temperature up to 120 °C ■ Mounting depth: 22.4 mm	■ Through hollow shaft Ø 15 bis 42 mm ■ Outside diameter only 76 mm ■ Easy installation by means of clamping ring front or rear ■ Operating temperature up to 100 °C ■ Applications: motors, printing machines, lifts	■ 30 - 45 mm hollow shaft ■ Rugged mechanical design ■ Unbreakable disc ■ Integrated diagnostic system ■ Wide voltage range DC 5 - 30 V ■ Isolated shaft
	Variants: ■ AD34 notched shaft ■ AD35 Singleturn Hub Shaft					
Fields of Applications: ■ Brushless Servomotors ■ Medical technology (sterilizable) ■ Robots ■ Gearless drives ■ Military devices	**Fields of application:** ■ Brushless servo motors ■ Medical technology	**Fields of applications:** ■ Asynchronous Motors Geared and gearless with inverter for speed and position ■ Pitch Control systems	**Fields of applications:** ■ Asynchronous Motors Speed control loop	**Fields of applications:** ■ Brushless Servomotors	**Fields of applications:** ■ Asynchronous Motors Speed control loop	**Fields of applications:** ■ Geared Elevators Speed control loop