



| POSITION SENSORS & ENCODERS

Sensata specializes in Position Sensors & Encoders for a range of environments from standard industrial to extreme applications. Backed by decades of experience, Sensata designs sensors that offer uncompromising quality, performance and reliability.



● INCREMENTAL ENCODERS

Incremental encoders, using optical or magnetic technologies for sensing, are typically used for speed control in automated systems. Their precise and robust designs make them especially suited to industrial environments. They have a direct digital output which interfaces to standard controllers for an easy installation.

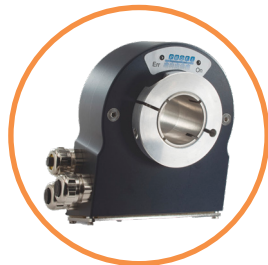
Specialized variants of these products are available with UL ATEX and IECEx ratings suitable for work in Hazardous areas as well as Functional Safety SIL3 certified versions.

Typical applications include elevator traction motors, precise automation, and industrial motor feedback. Encoders come in a range of shafted and hollow shaft mounting styles in various sizes.

● HALL EFFECT SENSORS

In a Hall effect sensor, magnetic technology allows for compact sensing of shaft position. Hall effect sensors are suitable for position control or monitoring on low speed applications, where space is at a premium

Typical outputs are analog voltage or current, and digital CAN. They excel in steering, pedal and throttle for off-road equipment, dancer controls in web processing, flow control valves and access control applications.



● ABSOLUTE ENCODERS

This type of industrial encoder provides a "whole digital word" output with a unique code pattern representing each position. Single-turn absolute encoders are ideal for measuring or controlling position in applications where a device moves at a slow rate or is inactive for long periods of time. Valve control and indexing operations are good examples of this type of use.

Multi-turn encoders can keep track of position over multiple turns and operate to longer lengths; like cable payout on a winch or a cut-to-length operation. Absolute encoders have a variety of serial output options such as SSI, CANOpen, ProfiNet, EtherNet/IP, Profibus and many others. Package sizes and mounting styles are designed to easily mount to standard mechanical interfaces.

● POTENTIOMETERS

Potentiometric sensing technology is available in one of three configurations: wirewound, conductive plastic and hybrid. Potentiometers have several benefits including small package size and weight, resistance to electromagnetic interference (EMI), temperature stability and are able to work at very high and low operating temperatures. They also come in both rotary and linear versions.

Typical applications include joystick control, brake positioning, in-cylinder hydraulic measurement, and medical diagnostic equipment.

ENCODERS

INC incremental



DHK5; DHM5; DH05

58mm through-shaft, blind-shaft and shafted optical encoder featuring high resolution and up to IP67 protection.



H20; HS20; H25; HS25

2.0" and 2.5" shafted and through-shaft optical and magnetic encoders with enhanced protections and rugged-heavy duty features.



LP series

90 mm encoders with a low profile design; built to withstand extreme temperatures, shock and vibration, and wet and dirty environments.

ABS absolute



MHK5; MHM5; MH05

58mm encoder with multiple output options including SSI, CANopen, Profinet, Profibus, EtherNet/IP, EtherCAT, PowerLink, DeviceNet, Modbus and Parallel.



CHK5; CHM5; CH05

58mm High Performance single turn absolute encoder up to 15 bits. Options for IP67 and 100° C operation + Bus Outputs.



PHU9

90mm compact through-shaft rotary encoder available with a variety of interface capabilities (CANopen, Profibus, and more), ATEX Zone 2 rating for hazardous environments, and stainless steel housing option.

SE special environment



Explosion proof: LP series

90 mm incremental and absolute encoders with a low profile hollow shaft design; designed for direct operation in hazardous areas.



NEW FEATURES

Functional safety: DSK5; DSM5; DS05

Designed for use in the highest industrial safety related applications up to SIL3/PLe, Cat. 4 with analog or digital electronic outputs



IP69K rated: AXM5

58mm shafted stainless steel (316) rotary encoder rated to IP69K for use in corrosive and washdown environments.

SENSORS

HE hall effect



ACW4; TCW4; HCW4

Encapsulated, 50mm non contacting, incremental, singleturn and multi turn position sensor; analog, SSI, CANopen, IO-Link interface, magnet holder option fits shafts up to 14mm.



9960 series

Blind shaft 51mm non-contacting sensor features 7 termination options and 24 active electrical angles. Up to IP69K rating.



9360 series

Shafted 42mm rotary non-contacting sensor with 360° rotation and dual outputs. Programmable versions available.

PM potentiometers



9850/9860 series

Low profile rotary potentiometer with simple installation, long repeatable and high linearity and repeatable accuracy. Dualoutput option.



6300 series

Linear potentiometer for hydraulic or pneumatic cylinder position sensing. Available in lengths from 50 mm to 1,000 mm.



9600 series

Spring return linear position sensor provides excellent life at 1 million full cycles. Available in three sizes.

IDW inclinometers & draw wire solutions



Inclinometer: T-Series

Sturdy and compact design with an aluminium alloy housing that uses the latest MEMS technology for precise angle measurement. Analog or CANopen output.



Draw Wire: CD Series

Available in a variety of incremental, absolute and potentiometric output options. Measuring range from 700 to 50,000 mm.

SPECIALIZED SENSOR SUPPORT

Sensata/ BEI Sensors also offers encoder accessories to complete your motion control installation including mechanical hardware, cable assemblies, mating connectors, power supplies and more.