

INDUCTIVE ABSOLUTE



**Zettlex**  
*Inductive Encoders*

# Ultra IncOder™ Series Encoders

High Accuracy, Inductive  
Angle Encoders for Harsh  
Environments

Ultra IncOders are non-contact, inductive devices for precision angle measurement. Each unit is pre-calibrated offering up to  $\leq 19$  arc-seconds accuracy and 22-bits resolution.

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# Ultra IncOder™ Series Encoders

High Accuracy, Inductive Angle Encoders for Harsh Environments



## High Accuracy, Robust and Easy to Install.

High accuracy, low profile, Ultra IncOder™ Series are designed for easy integration into OEM assemblies, delivering a wide range of diameters to meet your specification needs. Flat form factor with a large through hole conveniently accommodates through-shafts, slip rings, and pipes or cables.

The stator typically\* contains all the electronics to receive power and deliver an output signal. The output signal shows the position of the rotor relative to the stator.

Absolute feedback is a standard option, therefore no instrument motion is required at power up to determine position. Proven in demanding applications including satcom on-the-move, camera and surveillance gimbals, ROVs, medical devices, industrial robotics as well as CNC machines.

The Ultra IncOder™ Series integrates easily with the Omni™ and Agility™ direct drive motors, and can be mounted without the need for special couplings or high tolerance mounting features. All models are compatible with a wide range of controllers and drives.

### Features

- Pre-calibrated to reduce non-linearity
- Low-profile form factor and large bore
- Rugged and insensitive to foreign matter
- Multiple sizing and mounting formats
- Duplex mechanical format

### Benefits

- Higher system pointing accuracies
- More compact and lightweight systems
- Systems can operate in extreme environments
- Optimized system design
- Enables systems to meet higher safety levels

Specifications	Mini Ultra IncOder	Midi Ultra IncOder
Size (OD):	37, 58 mm	75, 90, 100, 125, 150, 175, 200, 225, 250, 300 mm
Size (ID):	5 - 12.7 mm	25 - 260 mm
Accuracy:	≤75 arc-seconds (depending on size)	≤19 arc-seconds (depending on size)
Resolution Options:	up to 20 bits	up to 22 bits
Operating Temperature:	-60° C to 105° C	-60° C to 105° C
Communication Protocols:	ASI, SSI, SPI, BiSS-C, A/B/Z pulses	ASI, SSI, SPI, BiSS-C, A/B/Z pulses
Voltage Options:	5, 12, 24 VDC	5, 12, 24 VDC
IP Rating:	IP 67 possible	IP 67 possible

\*This is the case for all sizes except 37mm where the electronics are distributed across the stator and a compact remote board.

Actual product attributes are model and configuration specific. Standard and custom models are available within the ranges provided above. Specifications subject to change.



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