

ABSOLUTE OPTICAL ENCODER KIT AR25M



Absolute Encoder



High Resolutions



BiSS protocol



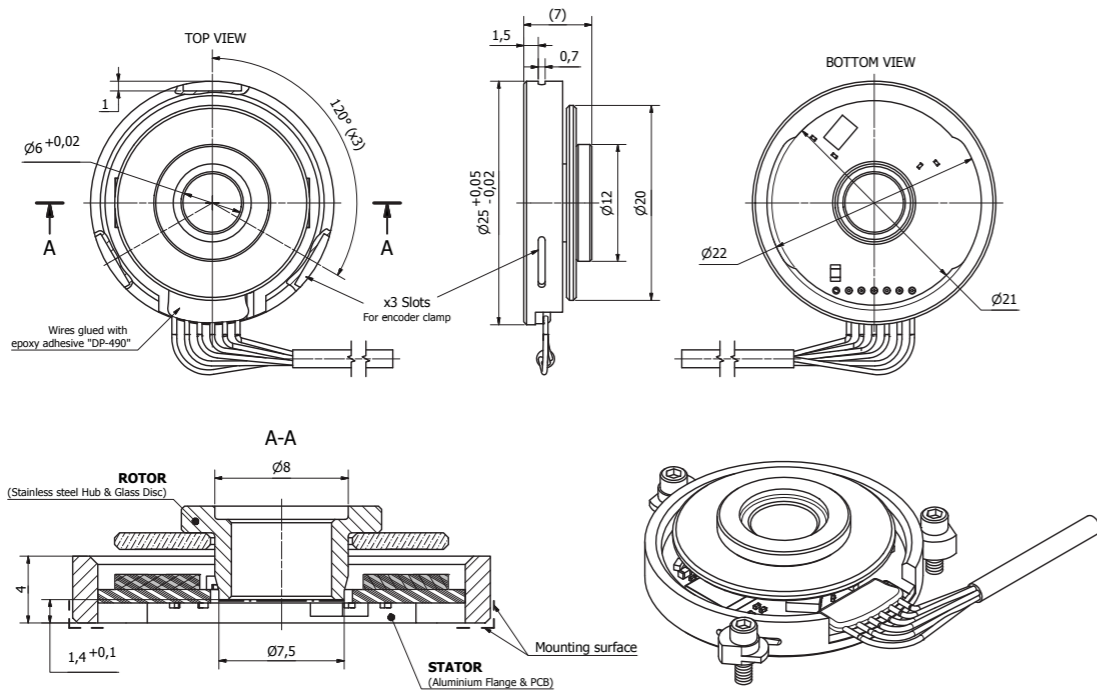
SSI protocol



Modular



This is a high-resolution, singleturn absolute encoder with a 20 Bit BiSS-C interface.



SYSTEM SPECIFICATIONS

Measuring standard	Glass scale with absolute and incremental tracks
System accuracy*	$\pm 20''$
PCB assembly based on IPC 610 Class 3	
PCB based on IPC 600 Class 3	
Conformal coating to both sides of the PCB: UVCL UV Cure Conformal Coating	

*Expected at optimum installation, additional deviations due to mounting and inaccuracy of the measured shaft are not taken into account.

MECHANICAL DATA

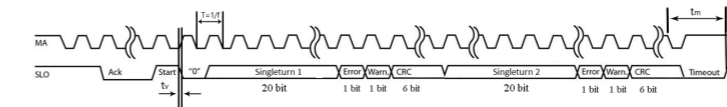
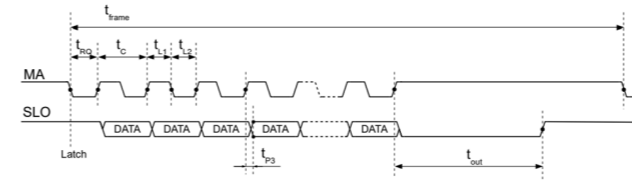
Maximum shaft speed	20 000 rpm
Permissible vibration (55 to 2000 Hz)	$\leq 100 \text{ m}^2$
Permissible shock (11 ms)	$\leq 400 \text{ m}^2$
Protection (IEC 529)	IP00
Max. weight without cable	0.01 kg
Maximum humidity (non-condensing)	98 %
Operating temperature	$-40^\circ\text{C} - 70^\circ\text{C}$
Storage temperature	$-40^\circ\text{C} - 100^\circ\text{C}$

ELECTRICAL DATA

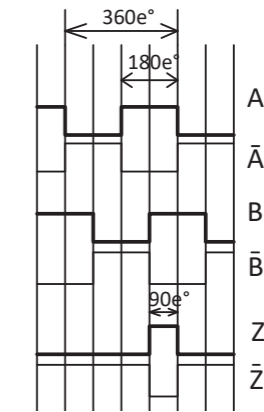
Interface ¹⁾	SSI	BISS-C	TTL
Measuring type	Absolute		Incremental
Output code ¹⁾	Gray/Binary	Binary	RS422
Resolution (positions per turn)	up to 20 bits (1 048 576 positions)		any from 1 to 2 ²⁰ (1 048 576)PPR
Maximum electrical speed	14 000 RPM		80 RPM (at 2 ²⁰)
Clock frequency	10 MHz	20 MHz	-
Calculation time	$< 2 \mu\text{s}$		-
Maximum frequency	-		6 MHz
Supply voltage	5V \pm 5%		
Supply current	80 - 220 mA		

1) Select when ordering.

ABSOLUTE DIGITAL INTERFACE

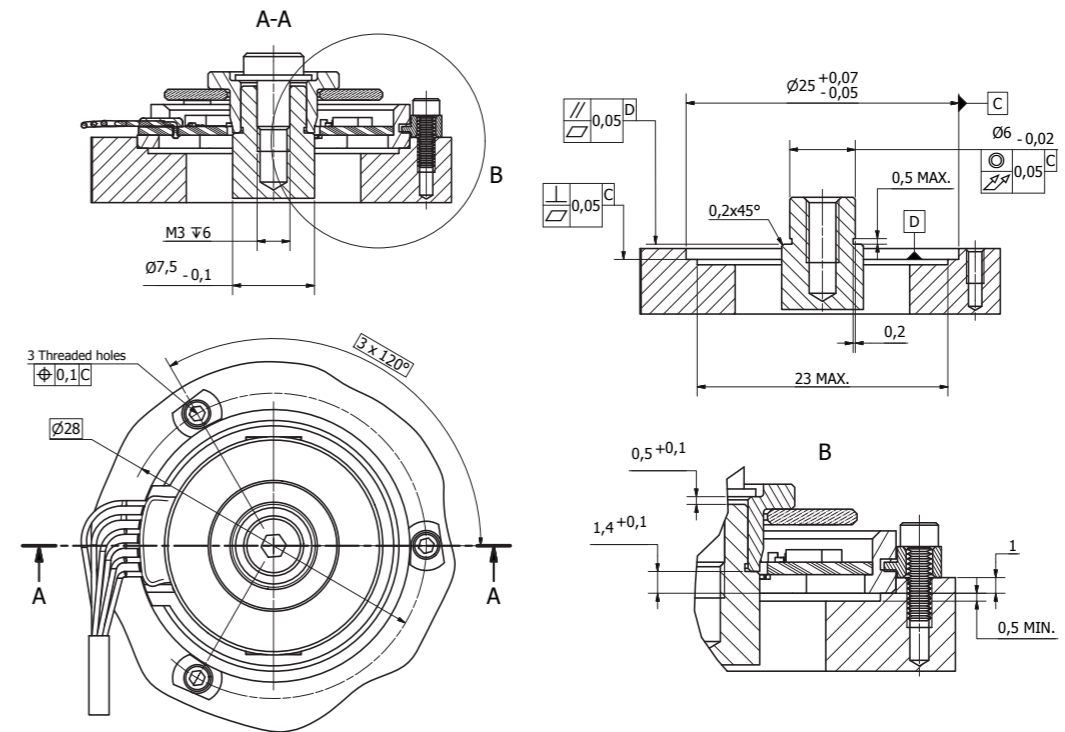


INCREMENTAL INTERFACE



B lags A for clockwise direction (viewing from the top)

MOUNTING DIMENSIONS



MOUNTING ACCESSORIES

STATOR MOUNTING CLAMP



Mounting accessories are included in the standard delivery set.

ELECTRICAL CONNECTION

Standard version of the encoder includes 1 meter long cable with 9-pins D-type connector.

9-PINS FLAT CONNECTOR D9, MALE



At the time of ordering, the customer can choose a cable of the required length with any of the other connectors listed below.

15-PINS FLAT CONNECTOR D15, MALE



9-PINS ROUND CONNECTOR C9, MALE



10-PINS ROUND CONNECTOR RS10, MALE



10-PINS ROUND CONNECTOR ONC, MALE



12-PINS ROUND CONNECTOR B12, MALE



12-PINS ROUND CONNECTOR C12, MALE



MORE INFORMATION



You can find more information about Precizika Metrology encoder products on the official website: precizika.com/products

For more information about optical glass grating products refer to: precisionportal.eu



ORDER FORM

AR25M - X1 - X2 - X3 - X4/X5

Output signals Interface (serial) (X1):	Output code (X2):	Bit number* (X3):	Cable length (X4):	Connector type (X5):	
S - SSI B - BiSS C F - TTL	B - Binary G - Gray (only for SSI interface) O - For TTL output signal interface	B1 - 1 ... B20 - 20 <small>*For absolute version</small>	1 ... 1 048 576 <small>*For incremental version</small>	T100 - 0.1 m ... T1000 - 1 m (standard) ... T4500 - 4.5 m (maximum)	D9 - flat, 9 pins (standard) W - without connector B12 - round, 12 pins C9 - round, 9 pins C12 - round, 12 pins RS10 - round, 10 pins ONC - round, 10 pins

ORDER EXAMPLE: 1) AR25M-S-G-B24-T1000-D9
 2) AR25M-F-0-5000-T500-RS10