

Series

AMM8A



- Absolute frameless encoder
- Optical single & multiturn sensing
- Resolution up to 21 x 12 bit
- BiSS-C/SSI interface + incremental track 1Vpp
- Through hollow shaft $\varnothing 25\text{mm}$

Applications:

- Hollow shaft motors
- Robotic joints
- Slip rings



AMM8A

ENVIRONMENTAL SPECIFICATIONS

Shock:	250 g, 6 ms acc. to CEI EN 60068-2-27
Vibrations:	10 g, 5-2000 Hz acc. to CEI EN 60068-2-6
Protection:	IP00
Operating temperature range:	-25°C +105°C (-13°F +221°F)
Storage temperature range:	-25°C +85°C (-13°F +185°F)

MECHANICAL SPECIFICATIONS

Dimensions:	see drawing
Hollow shaft diameter:	$\varnothing 25\text{ mm}$
Shaft rotational speed:	6000 rpm max.
Acceleration:	0,2E6 rad/s ² max.
Axial shaft run-out:	80 μm
Radial shaft run-out:	30 μm
Electrical connections:	PCB connector (connection cable to be ordered separately)
Starting torque (at 20°C):	0,01 Nm
Weight:	encoder module: 124 g (4,37 oz) (without connection cable) disk hub: 24 g (0,84 oz)

ELECTRICAL SPECIFICATIONS

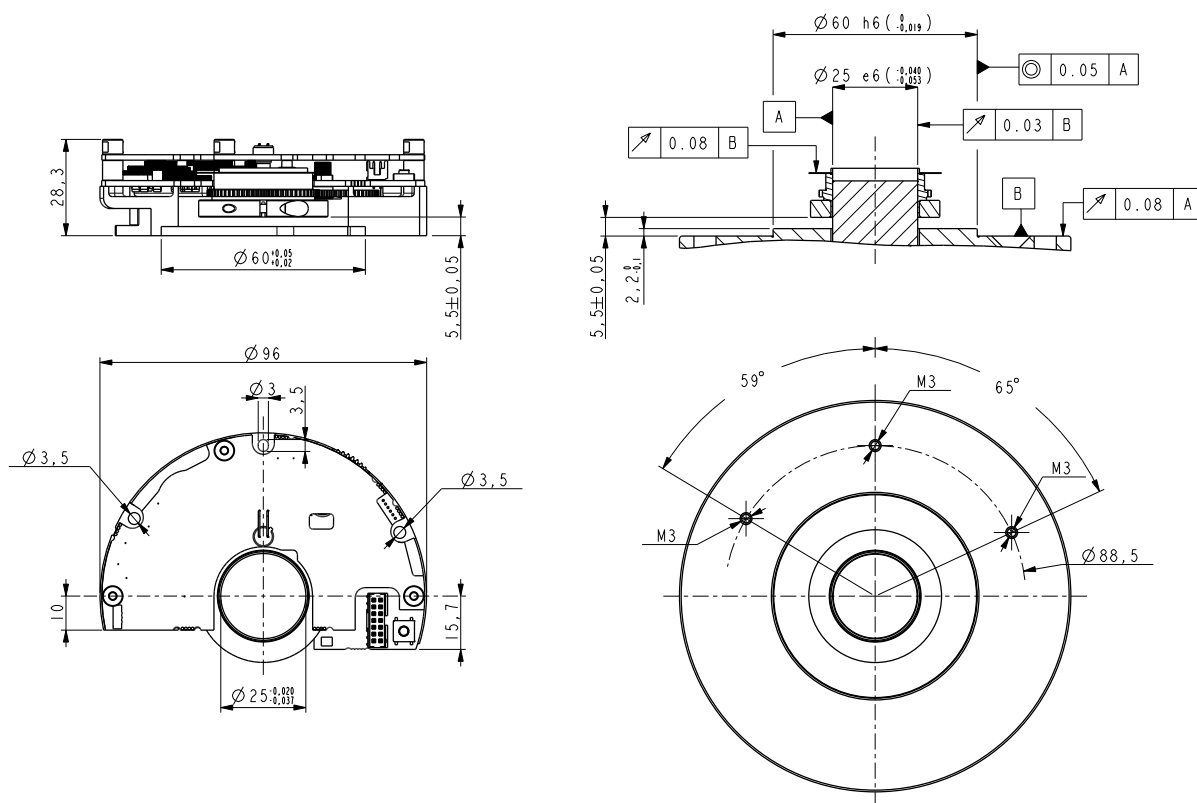
Resolution:	absolute: 21 bit (2097152 cpr) x 12 bit (4096 cpr) max. incremental: 1024 PPR AB /AB
Accuracy:	< $\pm 0,05^\circ$ (± 3 arcmin)
Output circuits:	BiSS-C (clock rate max. 10MHz) +1Vpp AB /AB SSI (clock 125 kHz \div 2MHz, $T_p = 20\ \mu\text{s}$) +1Vpp AB /AB
Clock rate (BiSS):	10 MHz max.
Counting frequency:	200 kHz
Position refresh rate:	10 μs
Power supply:	+5Vdc $\pm 5\%$, +7,5Vdc +30Vdc
Power consumption:	1 W max.
Protection:	against short circuit
EMC:	electro-magnetic immunity, EN 61000-4-2 EN 61000-4-4
Functions/Diagnostics:	see description

MATERIALS

Flange:	anticorodal, UNI EN AW-6082
Shaft:	stainless steel, non magnetic UNI EN 4305

ACCESSORIES

IF90-SC:	Calibration/setup interface
EXC-D15M-S71-A16-1,0-FCI-S71:	Calibration cable
EC-FCI-LK-TF12-xx:	Connection cable, xx m
PF5013:	Disk spacer (for correct mounting)
PF5015:	Disk manipulating tool
PF5016:	Shaft/disk assembly (spare part)



AMM8A

Order code

AMM8A	XX Ⓐ	-	XX Ⓑ	-	XXX Ⓒ	-	XX Ⓓ	-	XX Ⓔ	/Sxxx Ⓕ
-------	---------	---	---------	---	----------	---	---------	---	---------	------------

<p>Ⓐ BIT SINGLETURN 17 = 17 bit (131072 cpr) 21 = 21 bit (2097152 cpr)</p>	<p>Ⓑ BIT MULTITURN 12 = 4096 turns</p>	<p>Ⓒ INTERFACE SC1 = BiSS-C (5Vdc) SC2 = BiSS-C (+10 +30Vdc) GG2 = SSI (+10 + 30Vdc)</p>	<p>Ⓓ SHAFT DIAMETER 25 = 25 mm</p>	<p>Ⓔ CONNECTIONS X1 = PCB connector</p>	<p>Ⓕ CUSTOM VERSION</p>
--	--	--	--	---	-------------------------

Document release	Date	Description
1.0	07.08.2025	New order code