

- Absolute kit-encoders
- Precise optical sensing
- Singleturn resolution up to 23 bit
- Electronic multiturn counter
- Incremental sine/cosine track
- Hollow shaft up to Ø24 mm

### Applications:

- Robotic joints
- Cobots
- Hollow shaft motors
- Electric actuators
- Electromedical devices



AMM5A

#### 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 +100°C (-13°F +212°F) (-25°C +115°C, -13°F +239°F on request)
Storage temperature range:	-25°C +85°C (-13°F +185°F)

#### MECHANICAL SPECIFICATIONS

Dimensions:	see drawing
Hollow shaft diameter:	Ø 24 mm (smaller on request)
Shaft rotational speed:	10000 rpm max. (mechanical)
Axial shaft run-out:	±50 µm max.
Radial shaft run-out:	20 µm max.
Electrical connections:	PCB connector (connection cable to be ordered separately)
Weight:	encoder module: < 23 g (0,81 oz) (without connection cable) disk hub: < 12 g (0,42 oz) @ Ø24mm hollow shaft

#### ELECTRICAL SPECIFICATIONS

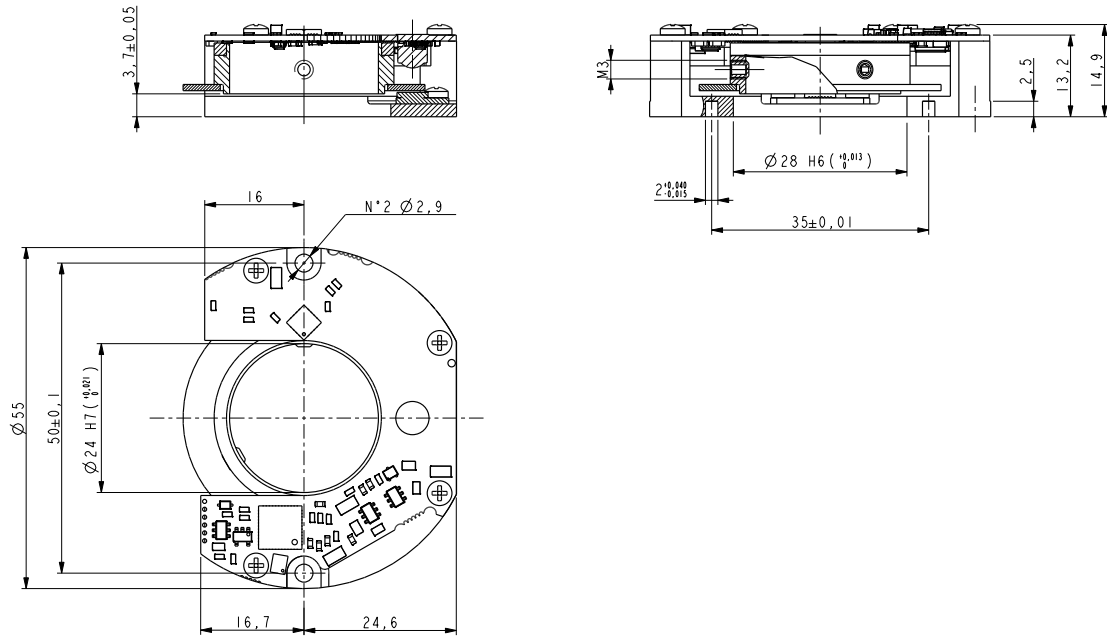
Resolution:	absolute: max. 23 bit (8388608 cpr) x 65536 rev. incremental: 512 PPR AB /AB
Accuracy:	< ±0,02° typ. (± 0,2° max.)
Output circuit:	BiSS-C (clock max. 10MHz) +1Vpp AB /AB sin/cos SSI (clock 100 kHz ÷ 4MHz, Tp = 20 µs) +1Vpp AB /AB sin/cos RS485 (4 Mbit/s max.)
Counting frequency:	200 kHz max. (on 512 PPR incr. track)
Position refresh rate:	5 µs
Power supply:	+5Vdc ± 5% (multiturn counter backup: 3-5Vdc)
Power consumption:	0,5 W (multiturn counter backup: 30 µA max.)
EMC:	electro-magnetic immunity, EN 61000-4-2 EN 61000-4-4

#### MATERIALS

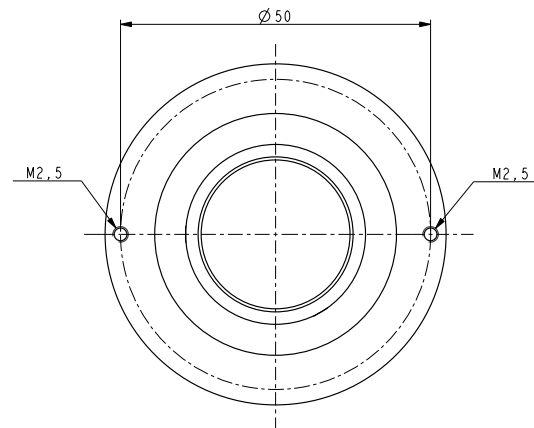
Encoder body:	anticorodal, UNI EN AW-6082
Disk hub:	UNI EN 4305 + glass

#### ACCESSORIES

EC-DF19-LK-TF12-xx:	Connection cable, xx m
PF5030:	Disk hub for AMM5xx/1 (spare part)
PF5017:	Disk hub for AMM5xx/65K (spare part)
PF5019:	Disk spacer tool



AMM5A



AMM5A - Mounting requirements

**Note:**  
Precise alignment of the encoder is provided by the flange pilot (ø28 mm) or by two precision pins which guide the encoder module to the correct position on the mechanical interface.

**Order code**

AMM5A	XX Ⓐ	/	XXX Ⓑ	XXX Ⓒ	-	XX Ⓓ	-	XX Ⓔ	/Sxxx Ⓕ
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<p><b>Ⓐ RESOLUTION</b> 17 = 17 bit (131072 cpr) 21 = 21 bit (2097152 cpr) 23 = 23 bit (8388608 cpr)</p>	<p><b>Ⓑ REVOLUTION</b> 1 = singleturn 65K = 65536 turns</p>	<p><b>Ⓒ INTERFACE</b> SC1 = BiSS-C +1Vpp (5Vdc) BG1 = SSI, binary MSB aligned + 1Vpp (5Vdc) JP1 = RS485 (5Vdc)</p>	<p><b>Ⓓ SHAFT DIAMETER</b> 24 = 24 mm</p>	<p><b>Ⓔ CONNECTIONS</b> X1 = Hirose flat connector (mating type: DF19-14-1C)</p>	<p><b>Ⓕ CUSTOM VERSION</b></p>
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