ROTAMAG
Absolute KIT-encoder

Series AMM80

- Absolute kit-encoders
- Precise optical sensing
- Singleturn resolution up to 23 bit
- Electronic multiturn counter
- Incremental sine/cosine track
- Hollow shaft up to Ø45 mm

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

AMM80

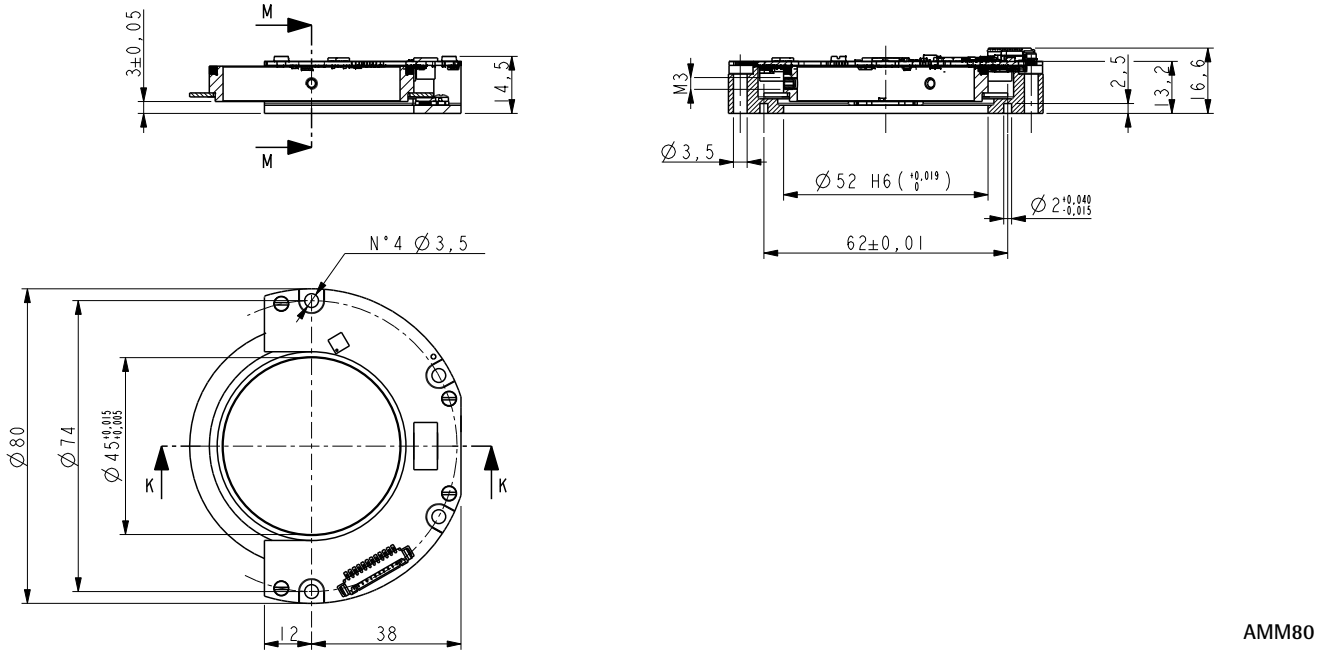
ENVIRONMENTAL SPECIFICATIONS	
Shock:	250 g, 6 ms acc. to CEI EN 60068-2-27
Vibrations:	10 g, 5-2000 Hz acc. to CEI EN 60068-2-6
Protection:	IP00
Operating temperature range:	-25°C +100°C (-13°F +212°F) (-25°C +115°C, -13°F +239°F on request)
Storage temperature range:	-25°C +85°C (-13°F +185°F)

MECHANICAL SPECIFICATIONS	
Dimensions:	see drawing
Hollow shaft diameter:	Ø45 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: < 35 g (1,2 oz) (without connection cable) disk hub: <20 g (0,70 oz) @ Ø45mm hollow shaft

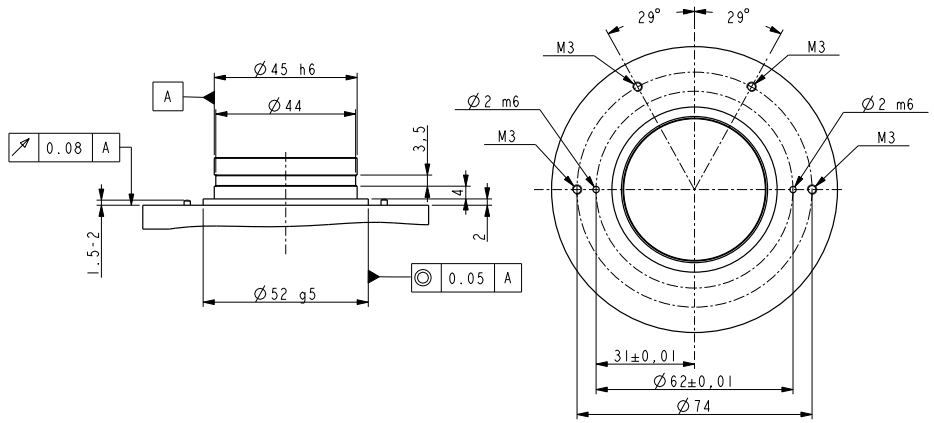
ELECTRICAL SPECIFICATIONS	
Resolution:	absolute: max. 23 bit (8388608 cpr) x 65536 rev. incremental: 1024 PPR AB /AB
Accuracy:	< ±0,03° typ.
Output circuits:	BiSS-C (clock max. 10MHz) +1Vpp AB /AB sin/cos SSI (clock 100 kHz ÷ 4 MHz, Tp = 20 µs) +1Vpp AB /AB sin/cos RS485 (4 Mbit/s max.)
Counting frequency:	200 kHz (on 1024 PPR incr. track)
Position refresh rate:	5µs
Power supply:	+5Vdc ± 5% (multiturn counter backup: 3-5Vdc)
Power consumption:	0,5 W
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:	X1 type connection cable, xx m
EC-X14-LK-TF12-xx:	X2 type connection cable, xx m
PF5021:	Disk hub for AMM80xx/1 (spare part)
PF5024:	Disk hub for AMM80xx/65K (spare part)
PF5025:	Disk spacer tool



AMM80



AMM80 - Mounting requirements

Note:

Precise alignment of the encoder is provided by the flange pilot (ø52 mm) or by two precision pins which guide the encoder module to the correct position on the mechanical interface.

Order code

AMM80	XX ⓐ	/	XXX ⓑ	-	XXX ⓒ	-	XX ⓓ	-	XX ⓔ	/Sxxx ⓕ

ⓐ **RESOLUTION**
17 = 17 bit (131072 cpr)
20 = 20 bit (1048576 cpr)
23 = 23 bit (8388608 cpr)

ⓑ **REVOLUTION**
1 = singleturn
65K = 65536 turns

ⓒ **INTERFACE**
SC1 = BiSS-C +1Vpp (5Vdc)
BG1 = SSI, binary MSB alligned + 1Vpp (5Vdc)
JP1 = RS485 (5Vdc)

ⓓ **SHAFT DIAMETER**
45 = 45 mm

ⓔ **CONNECTIONS**
X1 = Hirose flat connector (mating type: DF19-14-1C)
X2 = Molex connector (*) (mating type: 51021-1200)
(*) only single turn version

ⓕ **CUSTOM VERSION**