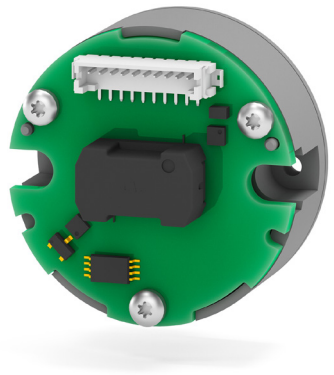
Series **AMM33**

- Energy harvesting technology (no battery)
- Singleturn resolution up to 18 bit
- Absolute multiturn up to 24 bit
- Robust magnetic sensing
- BiSS-C or SSI interface
- Operating temperature up to 115°C

Applications:

- Servomotor feedback
- Robotics
- Drones/UAV
- Electromedical devices



AMM33

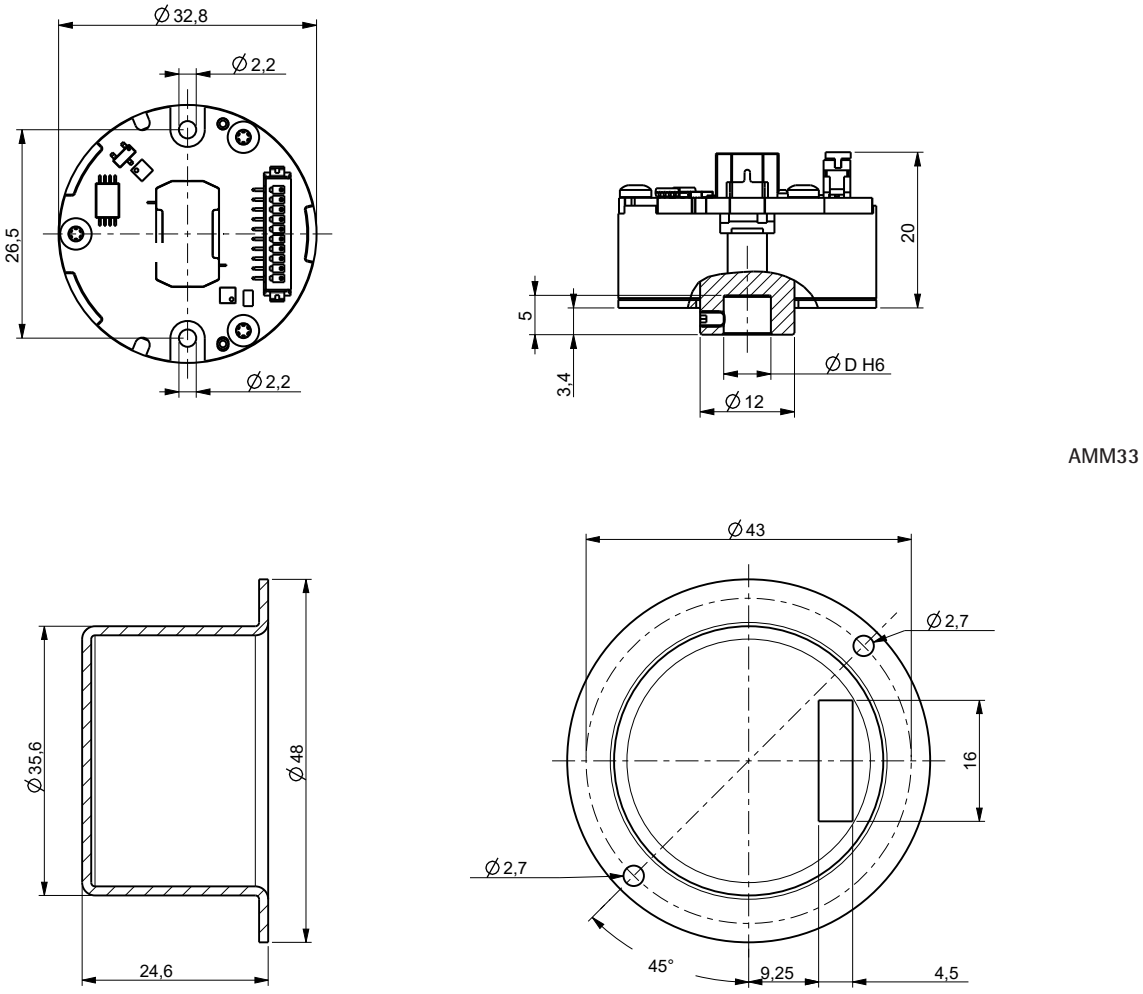
ENVIRONMENTAL SPECIFICATIONS	
Shock:	200 g, 6 ms acc. to CEI EN 60068-2-27
Vibrations:	10 g, 10-2000 Hz acc. to CEI EN 60068-2-6
Protection:	IP00
Operating temperature range:	-40°C +115°C (-40°F +239°F)
Storage temperature range:	-25°C +85°C (-13°F +185°F)

MECHANICAL SPECIFICATIONS	
Dimensions:	see drawing
Hollow shaft diameter:	Ø6 mm
Shaft rotational speed:	12000 rpm max. (mechanical)
Axial shaft run-out:	±0,2 mm max.
Radial shaft run-out:	±0,2 mm max.
Electrical connections:	PCB connector (connection cable to be ordered separately)
Weight:	~ 22 g (0,77 oz) (without connection cable)

ELECTRICAL SPECIFICATIONS	
Resolution:	18 bit (262144 cpr) x 24 bit (16777216 rev.) max.
Accuracy:	< ±0,1° typ. factory calibration
Output circuit:	BiSS-C (clock max. 10MHz) SSI (clock 100 kHz ÷ 2MHz, Tp = 20µs)
Power supply:	+5Vdc ± 10%
Power consumption:	typ. 55 mA
EMC:	electro-magnetic immunity, EN 61000-4-2
Functions:	• Electronic zero setting (input)

MATERIALS	
Encoder body:	fibre glass epoxy resin + PCB
Shaft hub:	stainless steel, non-magnetic, UNI EN 4305

ACCESSORIES	
EC-DF13-S87-TF12-1:	Connection cable, 1 m



AMM33

Magnetic shielding information

External magnetic interference might be present, depending on the application and the operating environment.
To minimize or eliminate the influence on the operation of the encoder a proper shielding is recommended and shown in the figure.

Order code

AMM33	XX ⓐ	-	XX ⓑ	-	XXX ⓒ	-	XX ⓓ	-	XX ⓔ	/Sxxx ⓕ

ⓐ **BIT SINGLETURN**
17 = 17 bit (131072 cpr)
18 = 18 bit (262144 cpr)

ⓑ **BIT MULTITURN**
12 = 4096 turns
14 = 16384 cpr
16 = 65536 turns
24 = 16777216 turns

ⓒ **INTERFACE**
SC1 = BiSS-C
BG1 = SSI, binary MSB aligned

ⓓ **SHAFT TYPE**
06 = Ø6 mm hollow

ⓔ **CONNECTIONS**
X2 = Hirose flat vertical connector (mating type: DF13-10S-1.25C)

ⓕ **CUSTOM VERSION**

Document release	Date	Description
1.5	21.11.2024	Order code update (deleted 16 bit singleturn and 00 multiturn)
1.4	November 2023	New order code
1.3	12.12.2022	Resolution update (17 bit singleturn; 14 multiturn)
1.2	07.10.2022	Connections and resolution update
1.1	26.08.2022	Electrical specifications update
1	20.01.2022	First release