

## TECHNICAL DATASHEET

### Low profile modular encoder AM34C



- Mechanical MT absolute encoder for general performance motion control
- Outer diameter 46mm, mounting depth 21mm
- ST solution up to 23 bits and MT up to 12 bits
- Operating temperature from -40° C to +110° C
- Maximum continuous speed up to 10,000 rpm
- Automatic accuracy compensation to crease absolute accuracy
- RS485 communication compatible to Asia market mainstream protocol.
- Ideal economic solution for Robot, AGV where tight space is necessary.



#### TECHNICAL DATA Mechanical

Outside diameter	46 mm
Shaft	6mm/8mm hub shaft
Mounting depth	21 mm
Installation	3x M3x8
Protection class	IP20
Axial endplay of mounting shaft	±0.2 mm
Radial runout of mating shaft	TIR 0.05 mm
Max. speed	10,000 rpm
Vibration resistance (DIN EN 60068-2-6)	400 m/s <sup>2</sup> (60 ... 2000 Hz)
Shock resistance (DIN EN 60068-2-27)	2,000 m/s <sup>2</sup> (6 ms)
Shaft/housing material	Stainless steel/engineering plastics
Connection	8PIN
Storage temperature	-30° C ... +80° C (due to packaging )
Operating temperature	-40° C ... +110° C (85° C for option)



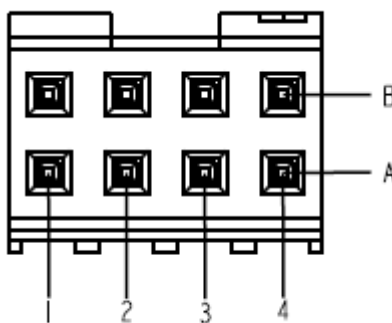
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**TECHNICAL DATA**  
Electrical

General design	as per EN IEC 61010-1, protection class III, contamination level 2, overvoltage class II
Supply voltage	5VDC ± 10%
Power consumption	Max 120mA
ST resolution	23 bit (Number of pulses 512 )
MT resolution	12 bits mechanical gearbox (lifetime maintenance free)
EMC	As per IEC 61326-1 industrial application environment
electrostatic (ESD)	Refer to IEC61000-4-2 for test levels and methods
Fast Transient Pulse (Burst)	Refer to IEC61000-4-4 for test levels and methods
Surge (Surge)	Refer to IEC61000-4-5 for test levels and methods
Output interface	RS485 compatible RS422 compatible-BiSS-C
Communication protocol	RS485 Compatible/BiSS-C
OEM Storage area	8K bytes
Absolute accuracy typ.	AM34H ± 80" / AM34L ± 120"
Repositioning Accuracy	Max ± 10"

**ELECTRICAL CONNECTIONS**  
RS485 Compatible

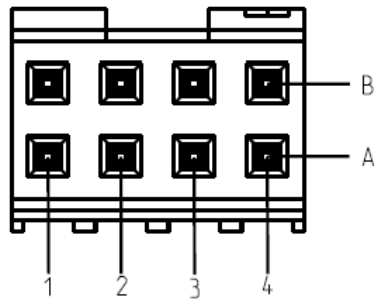
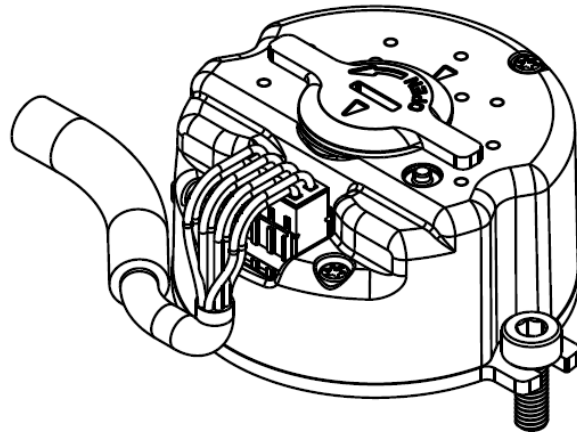


PIN	Color	Signal	PIN	Color	Signal
1A	/	Shield	1B	Violet	Calibration
2A	/	/	2B	/	/
3A	Blue	SD+	3B	Blue/Black	SD-
4A	Red	+5V	4B	Black	GND

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ELECTRICAL CONNECTIONS  
BiSS-C



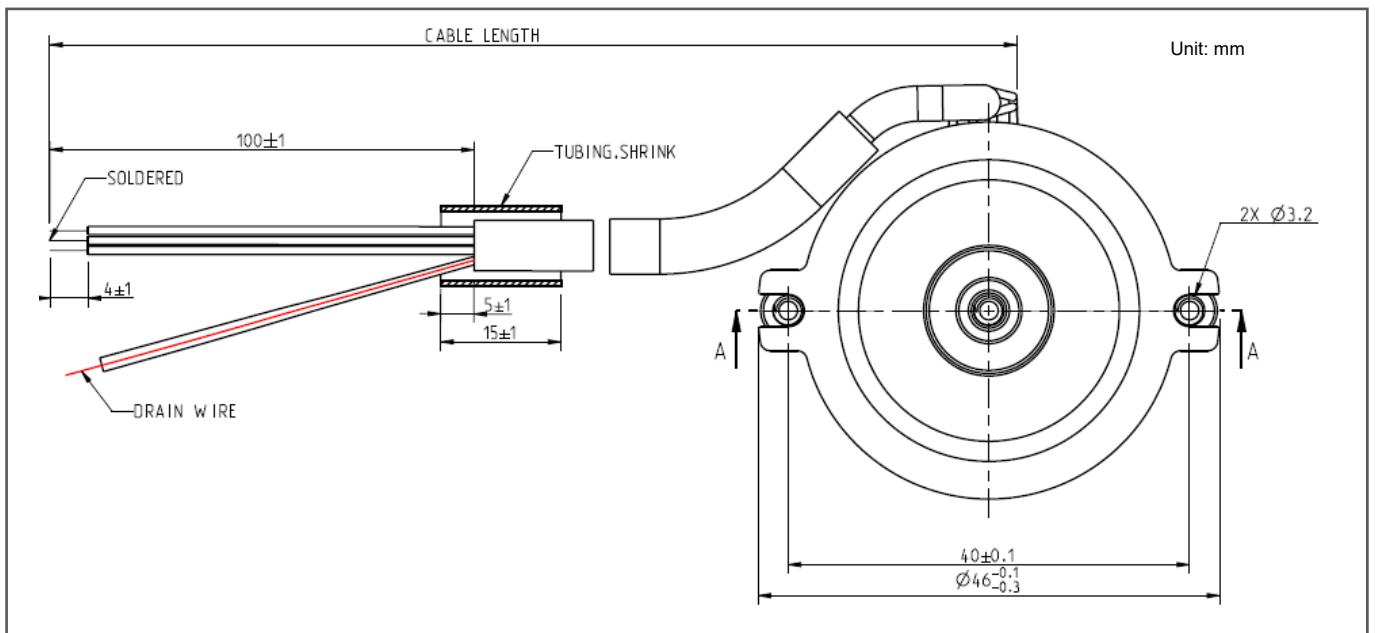
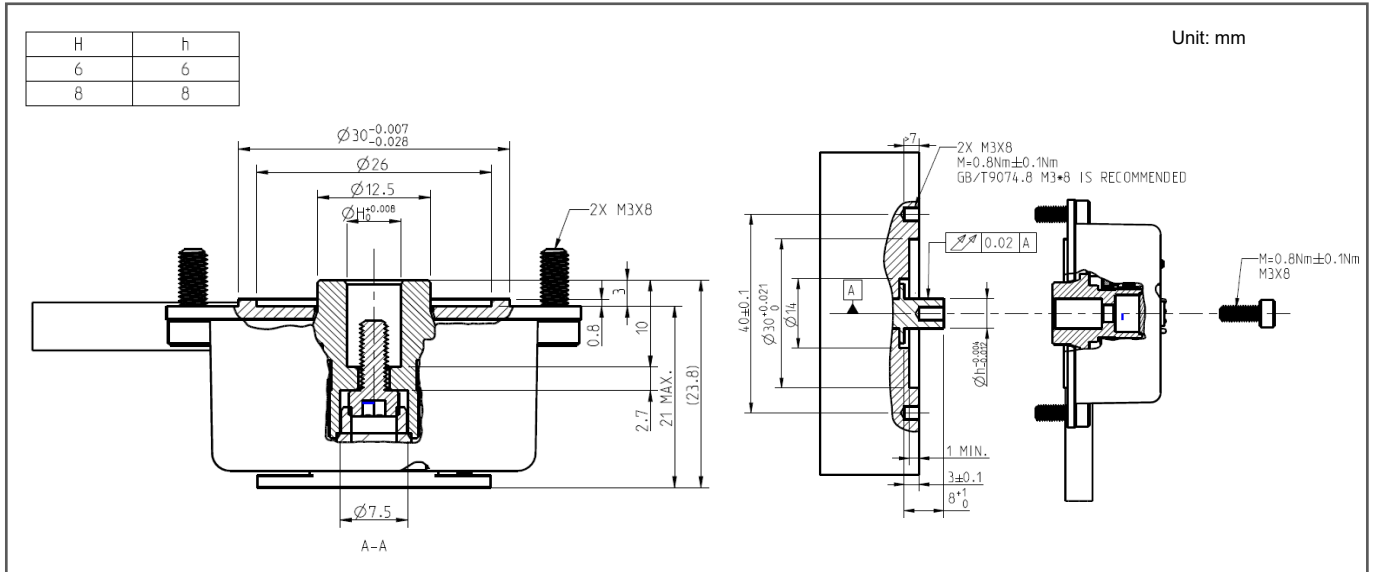
PIN	Color	Signal
1A	Drain	SHIELD
2A	Green	DATA+
3A	Blue	CLOCK+
4A	Red	+5V
1B	Pink	KEY
2B	Green/Black	DATA-
3B	Blue/Black	CLOCK-
4B	Black	GND



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#### DIMENSIONED DRAWINGS



#### ORDERING INFORMATION

Type	Resolution	Supply voltage	Shaft	Interface	Temperature	Connection
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AM34H High	1223 12bit MT+23bit ST	A 5VDC	Z.0F 6mm Hub Shaft	BE BISS-C AS RS485 Compati- ble	A -40° C ... +85° C B -40° C ... +110° C	A5 0.5m cable
AM34L Normal	0823 8bit MT+23bit ST		Z.0T 8mm Hub Shaft			

