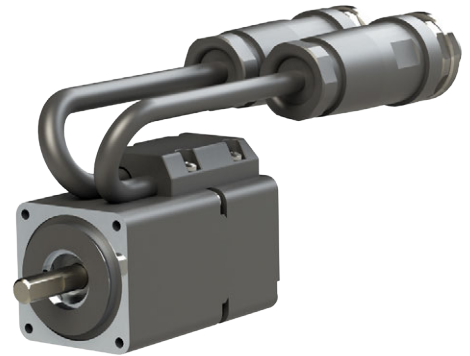


HIGH TORQUE Bipolar Stepping motor - 1,8°



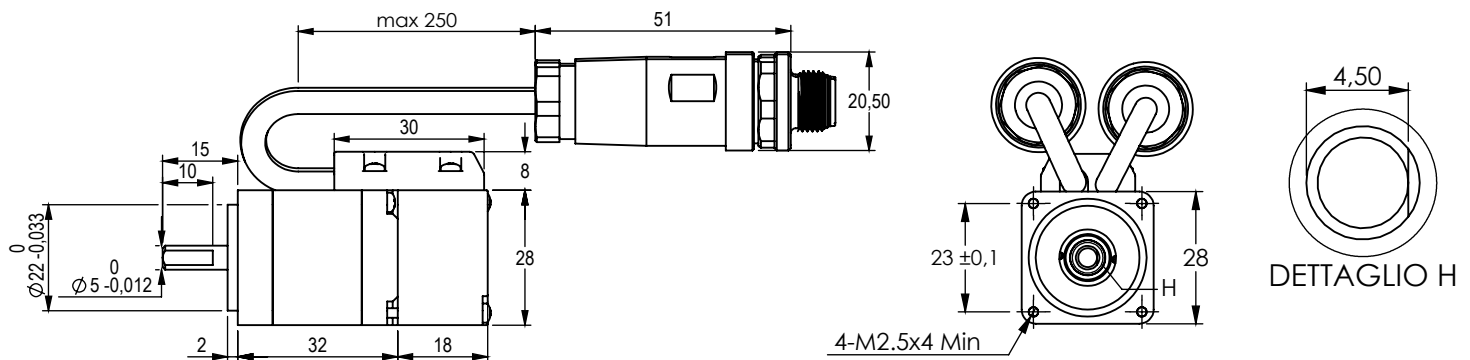
The connection of the motor and the ecoder is made through M12 circular connectors.



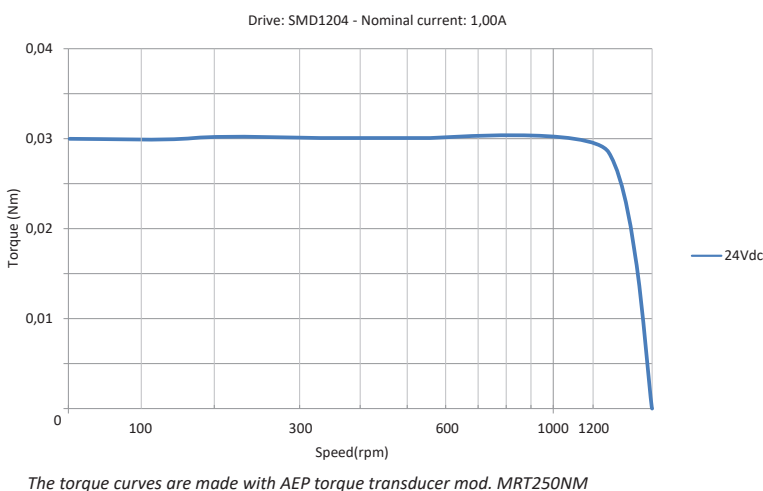
Specifications

Model	Current/ phase	Resistance/ phase	Inductance/ phase	Detent torque	Holding torque	Rotor inertia	Encoder	Weight
M28SH32-TO1000L05C	1,00A	2,00Ω	1,7 mH	2 mNm	0,07 Nm	8 gcm ²	Line-driver	220g

Mechanical dimensions



Speed vs Torque curve



Motor characteristics

Step Angle	1,8° ± 5%
Insulation Class	B
Ambient Temperature	-10 °C .. +35 °C
Temperature Rise	80°C max (2 phase ON)
Insulation Resistance	100 MΩ min 500Vdc
Dielectric Strength	500 V _{AC} FOR ONE MINUTE
Shaft Radial Play	0,02mm (with 400g load)
Shaft Axial Play	0,08mm (with 400g load)
Max Radial Force	28N (20mm FROM FRONT FLANGE)
Max Axial Force	10 N

Caution

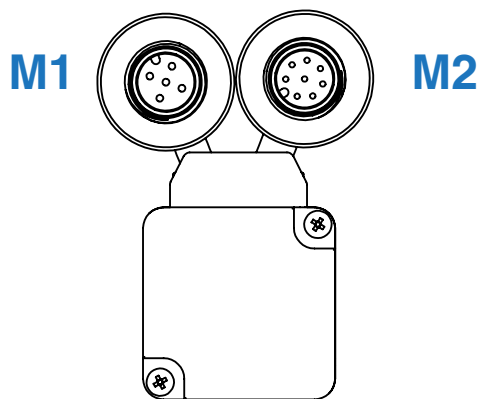
- Unexpected dangers may be encountered
- An incorrect use may destroy this product and the connected equipments.

M28SH32-Txx

HIGH TORQUE Bipolar Stepping motor - 1,8°



Connectors layout



Encoder characteristics

	LINE DRIVER
V _{SUPPLY}	+5 V _{DC}
I _{MAX} (NO LOAD)	80 mA
I _{MAX}	60 mA each channel
F _{OUT MAX}	300 KHz
COUNT/REV	1000
PROTECTION DEGREE	IP54
WORKING TEMPERATURE	-20 .. +80 °C

Motor connector

M1	M12 5 Pin male		PIN	Description	Cable color matching	
			1	Phase A -	BROWN	
			2	Phase A	WHITE	
			3	Phase B -	BLUE	
			4	Phase B	BLACK	
			5	Shield	GREY	

Line-Driver encoder connector

M2	M12 8 Pin male		PIN	Description	Cable color matching	
			1	Channel Z +	WHITE	
			2	V _{IN} (+5V _{DC})	BROWN	
			3	Channel A +	GREEN	
			4	Channel A -	YELLOW	
			5	Channel B +	GREY	
			6	Channel B -	PINK	
			7	Common	BLUE	
			8	Channel Z -	RED	