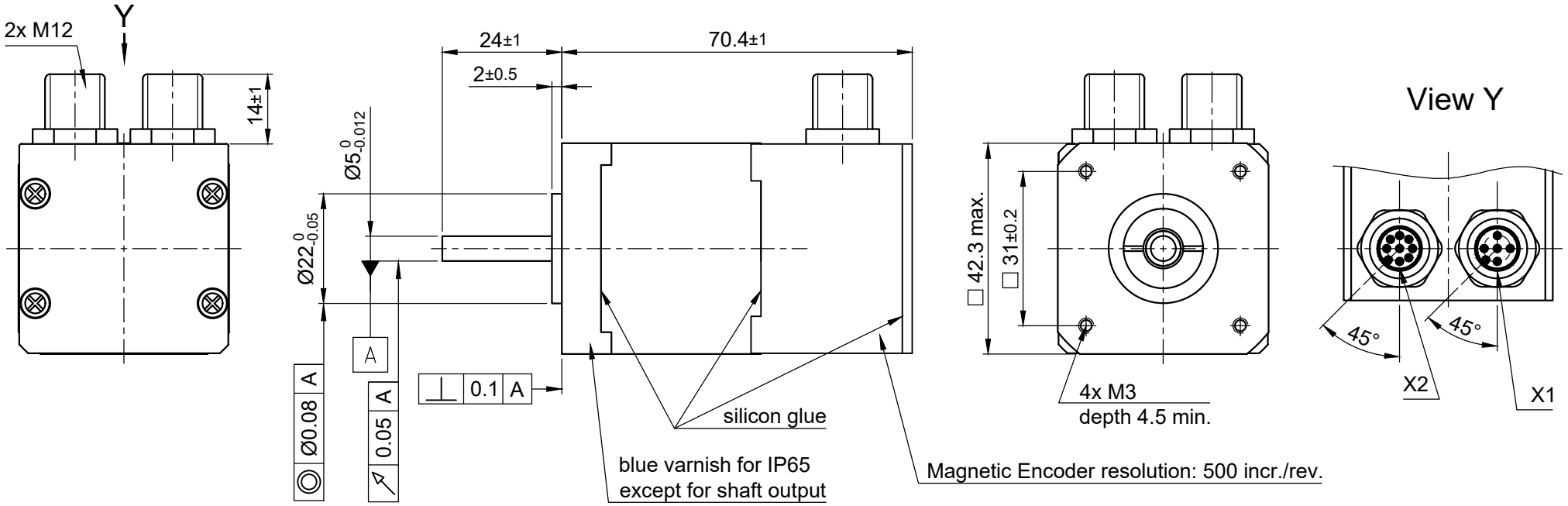


MOTOR SPECIFICATION		
Voltage	V DC	3.15
Current per Winding	A	1.8
Resistance per Phase (25°C) ±15%	Ω	1.75
Inductance per Phase (1 kHz) ±20%	mH	3.3
Holding Torque	Nm	0.5
Step Angle ±5%	°	1.8
Rotor Inertia	kg m²	8.2 x10^{-6}

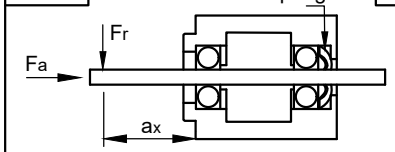
GENERAL MOTOR SPECIFICATION		
Ambient Temperature	°C	-10 ...50
Storage Temperature	°C	-10 ...85
Max. Temperature Rise (at standstill - 2 phases energized)	°C	80
Max. Ambient Humidity (non condensing)	%	85
Insulation Class		B
Insulation Resistance (@500 VDC)	MΩ	100
Dielectric Strength (for 1 min - coil to case)	V AC	500

ENCODER SPECIFICATION		
Operating Voltage	V DC	5
Resolution	cpr	500
Resolution (cpr with quadrature)	ppr	2000
No. of Channels		3
Signal Type	incremental	
Index / Line Driver	yes / yes	
see Datasheet Encoder for more Details		

X1	Motor
M12 / 5-Pole / A-Coding / male	
PIN. NO.	ASSIGNMENT
1	A\
2	A
3	B
4	B\
5	HOUSING

X2	Encoder
M12 / 8-Pole / A-Coding / male	
PIN NO.	ASSIGNMENT
1	A
2	A\
3	B
4	B\
5	GND
6	I\
7	I
8	+UB
HOUSING	GND/SHIELDING

A-Shaft | Preload Spring | B-Shaft



Max. Axial Force	Fa	N	10
Max. Radial Force	Fr (a2 = 20 mm)	N	28
Axial Play	Fa = 4.0 N	mm	0.08
Radial Play	Fr = 4.0 N	mm	0.02

ISO 8015	ISO 1302	ISO 2768 c	ISO 13715	Weight ±10% 0.44 kg

	Date	Name
Drawn	06.11.2025	Schneid_A
Reviewed	06.11.2025	Reith_S
Released	06.11.2025	Reith_S

REV	Rev. Text	Name	Date

Nanotec® PLUG & DRIVE

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