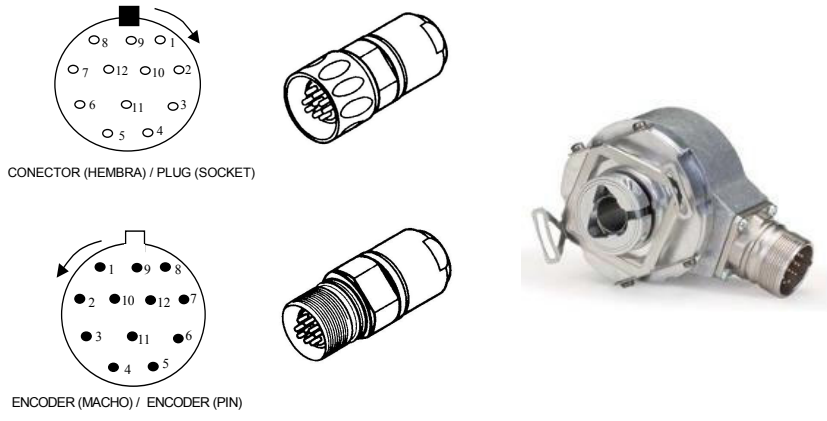


OPTIONAL ACCESSORIES

Motors including an encoder or electromagnetic stop or safety brake can be supplied upon request. The features of these items are specified below. Special orders including shaft ends, flanges and motors with features that differ from the standard provided in the catalogue can be furnished by prior request to our Technical Office.

Encoder

In the standard version, a hollow shaft incremental encoder with anti-turn system is flange-fitted to the motor shaft. Basic features include:

No. of pulses		1024/2048	1024/2048	1024/2048
Vdc supply voltage		5 Vdc	10-30 Vdc	5 Vdc
Output		RS422 Line driver	Push Pull compl.	~ 1 Vpp
Output voltage	High	> 2.5 V	> 21 V	-
	Low	< 0.5 V	< 2.8 V	-
Max. output frequency		300 kHz	300 kHz	-
Load capacity		120 mA	150 mA	120mA
Max. cable length		100 m	100 m	150 m
Short circuit protection		No	Yes	Yes
Operating temperature		-10 / 100°C		
Degree of protection		IP 64		
Hollow shaft diameter		12 mm		
Connector		CONIN 12 Poles counter-clockwise		
PINOUT				
Pin No.	Signal	 <p>CONNECTOR (HEMBRA) / PLUG (SOCKET)</p> <p>ENCODER (MACHO) / ENCODER (PIN)</p>		
1	B'			
2	Sensor Vdc			
3	N			
4	N'			
5	A			
6	A'			
7	N.C.			
8	B			
9	N.C. (*)			
10	GND			
11	Sensor GND			
12	Vcc			

(*) Cable screen in cable+plug versions

Upon request by the Customer, other types of encoders may be installed. In this case, Vascat requires technical documentation regarding the encoders for purposes of adaptation.

Brakes

Installation of brakes may be required for safety reasons (cycle stops to prevent motor overheating, requirement to remain in a cycle without voltage to lock loads or due to faults in the inverter or other mechanical devices in the system or equipment). MAC-R series brakes are supplied at 230V AC, single-phase *, MAC-QI and MAC-QE series brakes are supplied at 24 V (DC), and are spring activated. Incorporation of brakes will depend on the rated torque of the chosen motor, the application frequency and the standard values of brakes on the market. Specific requests should be made to our Technical Office.