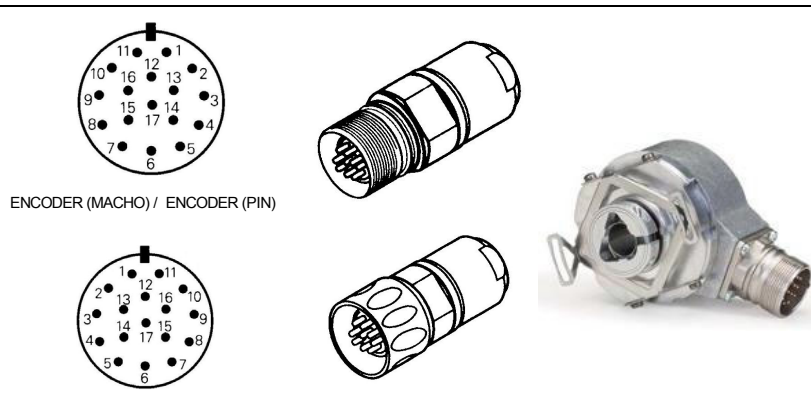


OPTIONAL ACCESSORIES

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 absolute encoder with anti-turn system is flange-fitted to the motor shaft. Basic features include:

No. of positions per revolution	8192 (13 bits)	
Vdc supply voltage	3.6-14 Vdc	
Output	RS485 Line driver	
Clock frequency	< 2 MHz	
Code	Binary	
Incremental signals / No. of pulses	~ 1 Vpp / 512/2048	
Load capacity	160 mA	
Max. cable length	150 m	
Short circuit protection	Yes	
Operating temperature	-10 / 100°C	
Degree of protection	IP 64	
Hollow shaft diameter	12 mm	
Connector	CONIN 17-pole counter-clockwise	
PINOUT		
Pin No.	Signal	 <p>ENCODER (MACHO) / ENCODER (PIN)</p> <p>CONECTOR (HEMBRA) / PLUG (SOCKET)</p>
1	Sensor Vdc	
2	N.C	
3	N.C	
4	Sensor GND	
5	N.C	
6	N.C	
7	Vdc	
8	CLOCK	
9	CLOCK'	
10	GND	
11	N.C (*)	
12	B	
13	B'	
14	DATA	
15	A	
16	A'	
17	DATA'	

(*) 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). Brakes are supplied with 24 V (DC) and are spring activated. Incorporation of brakes will depend on the rated torque of the motor chosen, the application frequency and the standard values of brakes on the market. Specific requests should be made to our Technical Office.