

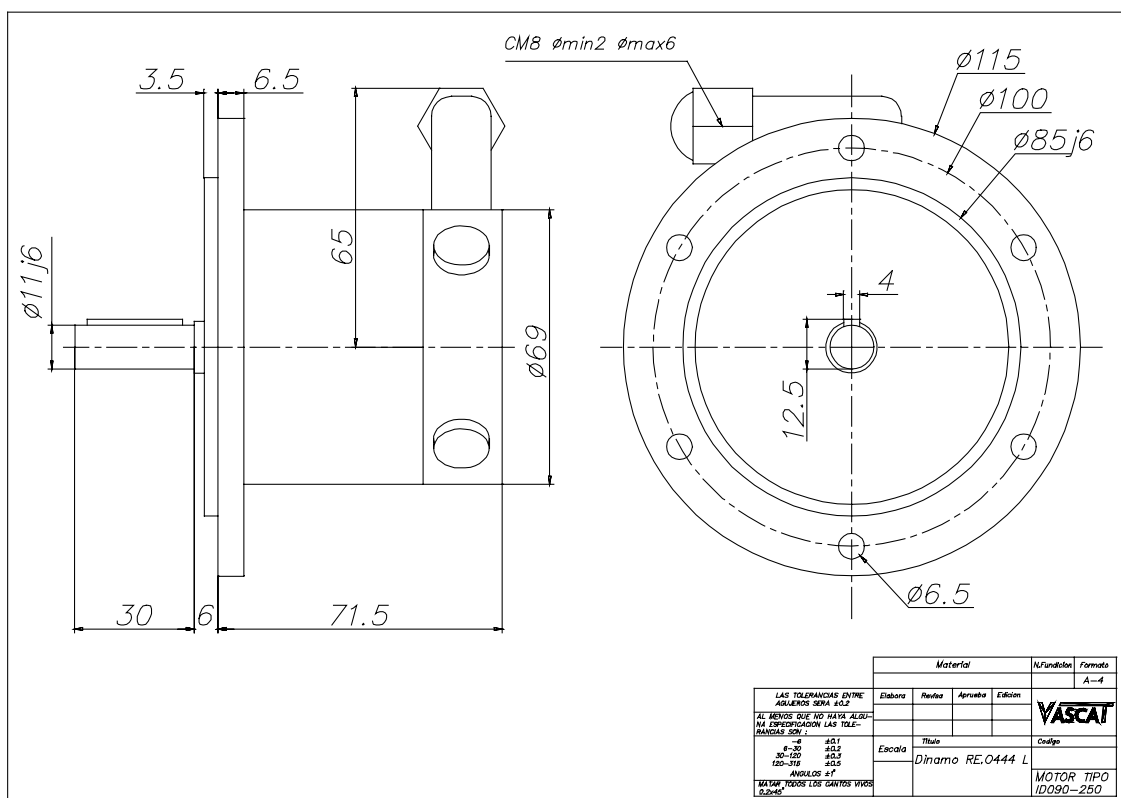
7. ACCESORIES

Under request we can supply motors fitted with tachogenerator, encoder or electromagnetic stopping or safety brake, whose main features are listed beneath. (Under request to our R&D Dept. we are able to furnish special shaft ends and flanges, as well as to supply motors for voltages/speeds other than those shown on the tables included in this catalogue).

Tachogenerator

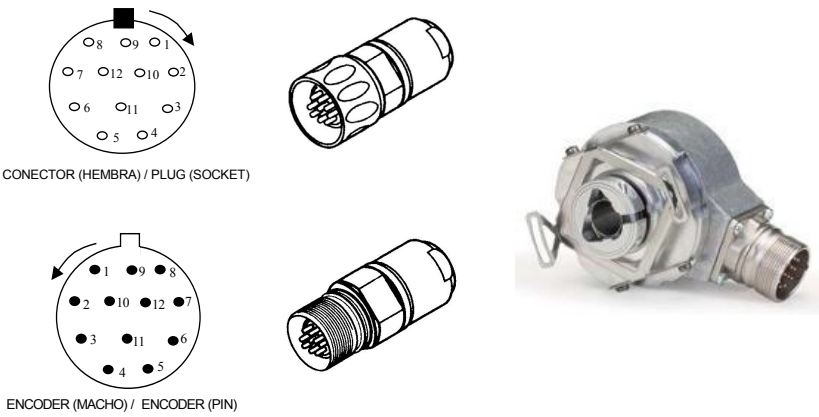
The tachogenerator supplied by VASCAT are of the protruding shaft type and fitted to the motor by means of a specific flange. The transmission is achieved through an elastic coupling that joins the shafts of the motor and the tachogenerator in order to avoid heat transmission, vibrations and both radial and axial stresses. The basic characteristics of Vascat Standard Tacho RE.0444L are given below:

Description	Unit	Value	Description	Unit	Value
E.M.F at 1000 rpm	V	60	Max radial shaft stress	N	10
Voltage gradient	V/rpm	0.06	Maximum linearity error	%V	≤ 0.15
Armature resistance	Ω	160	Overall ripple rate (peak to peak)	% V	≤ 1
Max. thermal load current	A	0.1	Calibration precision	% V	± 1.5
Max. Allowed speed	r.p.m.	5000	Operating temperature	°C	-20 +80
Max. mechanical speed	r.p.m.	8000	Protección degree		IP 44
Moment of inertia	Kg cm ²	0.620	Permanent magnets		SmCo



Encoder

In its standard version, a hollow axis incremental encoder with anti-turn system is flange-fitted to the motor shaft, the basic characteristics of Vascat standard Encoder Heidenhain type ERN 420/430, are given below:

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>CONECTOR (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

At the Customer's specific request, other types of encoder may be fitted.

Brakes

For safety reasons it is sometimes necessary to fit brakes (cycle stops to avoid motor overheating, need to stay in a cycle without voltage to immobilize loads or through faults in the converter or other mechanical devices in the installation). Brakes supplied with nominal supply voltage of 24 V direct current released by springs. Their inclusion will depend on the nominal torque of the Motor selected, application frequency and the standard values of brakes existing on the market. A specific enquiry should always be addressed to our Technical Office.