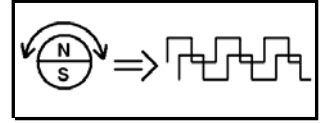
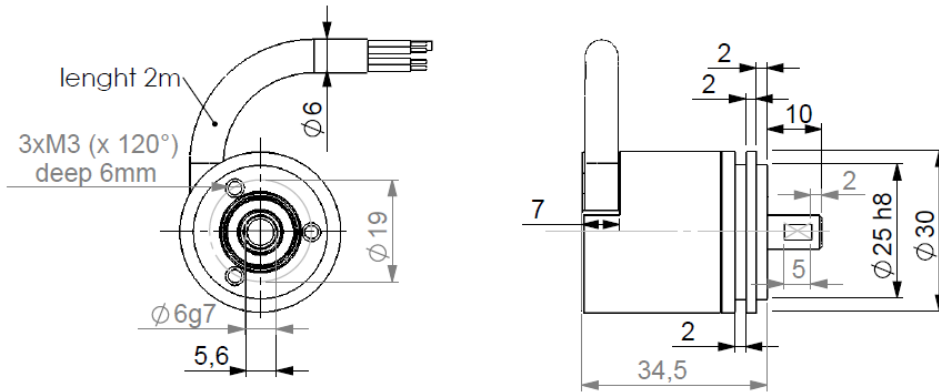


## MAGNETIC INCREMENTAL ENCODERS, HMM3 RANGE

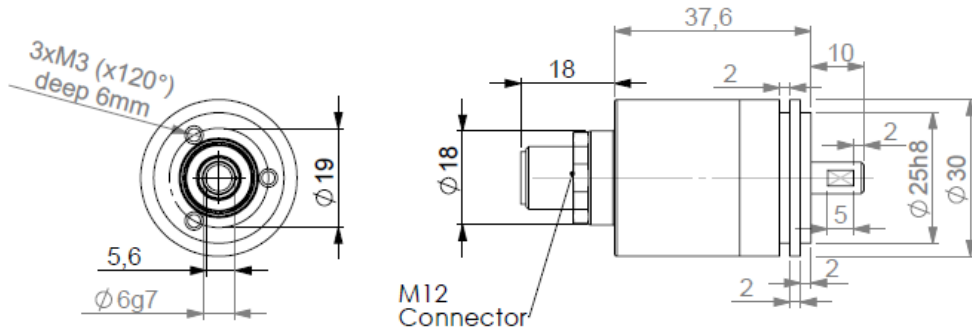
- With its 30mm size and a 6mm solid shaft, HMM3 encoder characterizes itself by its strong robustness of the mechanical and electro-magnetic parts, it's the most compact really industrial encoder with a solid shaft.
- Application fields : agriculture, construction, forestry vehicles, medical applications, solar panels...
- Magnetic technology, contactless.
- Available resolution up to 1024 pulses per revolution.
- Universal supply 5 to 30Vdc available.
- Available in option : Extended temperature range (up to -40..+125°C), IP67/IP69K...



### HMM3 connection G3D ("diagonal" output")



### HMM3 connection GMA (axial M12 8 pinouts)



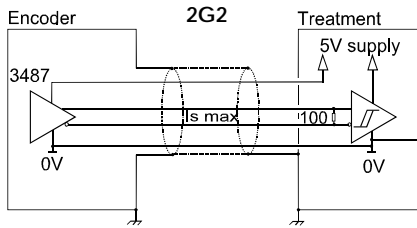
## MECHANICAL CHARACTERISTICS

Material	Shaft: stainless steel	Isolation	500Veff
	Cover: aluminium	EMC	EN 61000-6-4
	Body: aluminium		EN 61000-6-2
Bearings	696 series	Operating temperature	- 40... + 100 °C (at 5Vdc)
Maximal loads	Axial : 20 N	Storage temperature	- 40... + 100 °C
	Radial : 50 N	Protection	IP 65
Shaft inertia	$\leq 0,1 \cdot 10^{-6} \text{ kg} \cdot \text{m}^2$	Shocks (EN60068-2-27)	$\leq 2000 \text{ m} \cdot \text{s}^{-2}$ (during 6 ms)
Torque	$\leq 1 \cdot 10^{-3} \text{ N} \cdot \text{m}$	Vibrations (EN60068-2-6)	$\leq 200 \text{ m} \cdot \text{s}^{-2}$ (55 ... 2 000 Hz)
Nominal max. speed	6 000 $\text{min}^{-1}$	Theoretical mechanical lifetime $10^9$ turns ( $F_{\text{axial}} / F_{\text{radial}}$ )	
Encoder weight (approx.)	0,150 kg	20 N / 50 N	15

## MAGNETIC INCREMENTAL ENCODERS, HHM3 RANGE

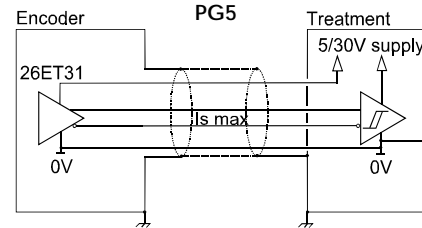


### OUTPUT ELECTRONIC / POWER SUPPLY



#### 2G2 electronic (100kHz)

Supply : 5Vdc  $\pm$  10%  
Cons. without load : 40mA max  
Current per channel : 40mA max  
0 max (Is=20mA) :  $V_{ol} = 0,5Vdc$   
1 min (Is=20mA) :  $V_{oh} = 2,5Vdc$



#### PG5 electronic(100kHz)

Supply : 5 to 30Vdc  
Cons. without load : 40mA max  
Current per channel : 40mA max  
0 max (Is=20mA) :  $V_{ol} = 0,5Vdc$   
1min (Is=20mA) :  $V_{oh} = V_{cc}-3Vdc$

Protection against short circuits and inversion of polarity for the electronic PG5

### STANDARD CONNECTION

		-	+	A	B	0	A/	B/	0/	Ground
G3	PVC cable, 8 wires	WH white	BN brown	GN green	YE yellow	GY grey	PK pink	BU blue	RD red	Main shield
GM	M12 connector 8 pinouts	1	2	3	4	5	6	7	8	Connector body

**ORDERING REFERENCE** (Contact the factory for special versions , ex : stainless steel version, connections...)

	Shaft $\varnothing$	Supply Output stage	Signals	Resolution	Connection	Connection orientation
HHM3	06 : 6mm	2G2 : 5Vdc TTL / RS422 output	9 : A, A/, B, B/, 0, 0/	1024 max	GM : M12 8 pinouts	A : axial
		PG5 : 5 to 30Vdc Push-pull output (TTL / RS422 available if encoder supply is 5Vdc)			G3 : PVC cable 8 wires	D020 : diagonal cable 2m
Ex: HHM3_	06 //	PG5	9 //	01024 //	G3	A020

Available resolutions : 32 64 128 256 1024

Made in FRANCE