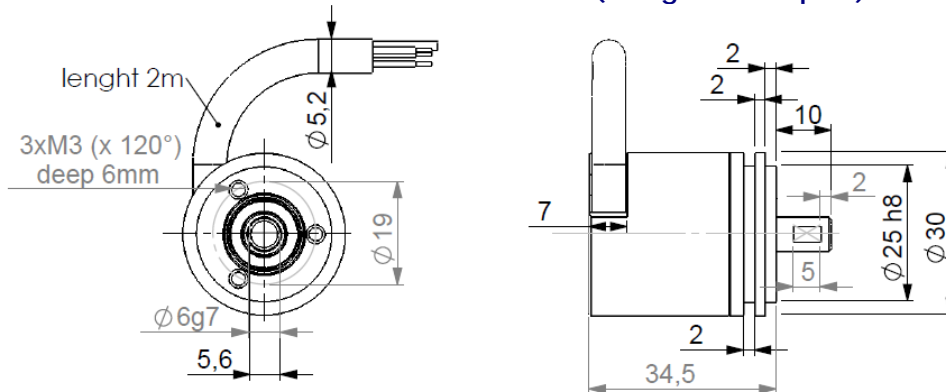


## OPTICAL INCREMENTAL ENCODERS, GHM3 RANGE

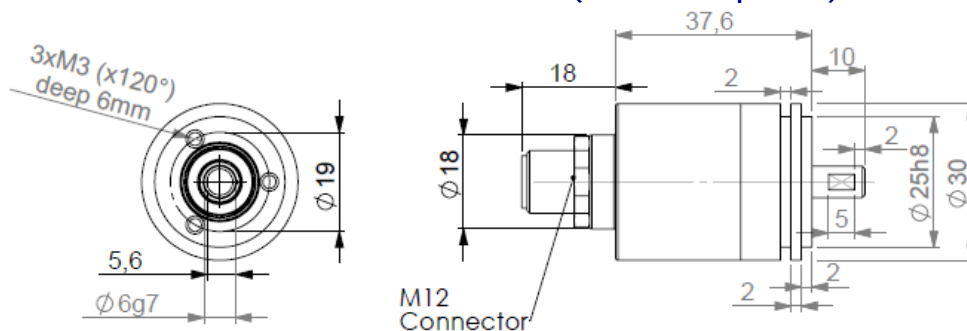
- With its 30mm size and a 6mm solid shaft, this encoder characterizes itself by its strong robustness of the mechanical and optical parts, it's the most compact really industrial encoder with a solid shaft
- High accuracy optical technology
- Available resolution up to 1024 pulses per revolution
- Universal electronics 5 to 30Vdc available
- Application fields : agriculture, construction, forestry vehicles...



GHM3 connection G3D ("diagonal" output')



GHM3 connection GMA (axial M12 8 pinouts)



### MECHANICAL CHARACTERISTICS

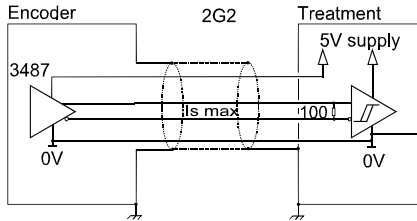
Material	Shaft: stainless steel
	Cover: aluminium
	Body: aluminium
Maximal loads	Axial : 10 N
	Radial : 20 N
Shaft inertia	$\leq 0,2 \cdot 10^{-6} \text{ kg} \cdot \text{m}^2$
Torque	$\leq 4 \cdot 10^{-3} \text{ N} \cdot \text{m}$
Permissible max. speed	$6\,000 \text{ min}^{-1}$
Continuous max. speed	$4\,500 \text{ min}^{-1}$
Encoder weight (approx.)	0,150 kg

Isolation	1 000 Veff
EMC	EN 50082-2 (1995)
	EN 50081-1 (1992)
Operating temperature	- 20... + 80 °C (encoder T°)
Storage temperature	- 40... + 80 °C
Protection CEI60529 (1989)	IP 65
Shocks (EN60068-2-27)	$\leq 300 \text{ m} \cdot \text{s}^{-2}$ (during 11 ms)
Vibrations (EN60068-2-6)	$\leq 100 \text{ m} \cdot \text{s}^{-2}$ (10 ... 500 Hz)
Theoretical mechanical lifetime $10^9$ turns ( $F_{\text{axial}} / F_{\text{radial}}$ )	
5 N / 10 N : 263	10 N / 20 N : 33

## OPTICAL INCREMENTAL ENCODERS, GHM3 RANGE

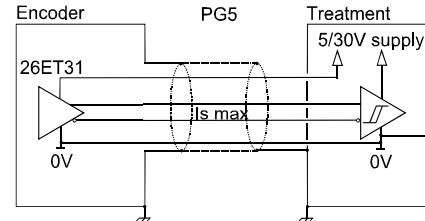


### OUTPUT ELECTRONIC / POWER SUPPLY



#### 2G2 electronic (100kHz)

Supply : 5Vdc  $\pm$  10%  
Cons. without load : 100mA max  
Current per channel : 40mA max  
0 max ( $I_s=20mA$ ) :  $V_{ol} = 0,5Vdc$   
1 min ( $I_s=20mA$ ) :  $V_{oh} = 2,5Vdc$



#### PG5 electronic(100kHz)

Supply : 5 to 30Vdc  
Cons. without load : 75mA max  
Current per channel : 40mA max  
0 max ( $I_s=20mA$ ) :  $V_{ol} = 0,5Vdc$   
1min ( $I_s=20mA$ ) :  $V_{oh} = V_{cc}-3Vdc$

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: special flanges, electronics, connections...)

	Shaft $\varnothing$	Available electronics		Signals	Resolution	Connection	Connection orientation
GHM3	06 : 6mm	2G2, PG5		9 : A, A/, B, B/, 0, 0/	1024 max	GM : M12 8 pinouts	A : axial
		Supply	Output stage			G3 : PVC cable 8 wires	Example : D020 : diagonal 2m
		2 : 5Vdc P : 5 to 30Vdc	G2 : 5Vdc TTL / RS422 G5 : push- Pull				
Ex: GHM3_	06 //	P	G5	9 //	00250//	G3	D020

**Available resolutions** : 1000, 500, 360, 300, 256, 200, 125, 100, 60 (other available on request)

Made in FRANCE