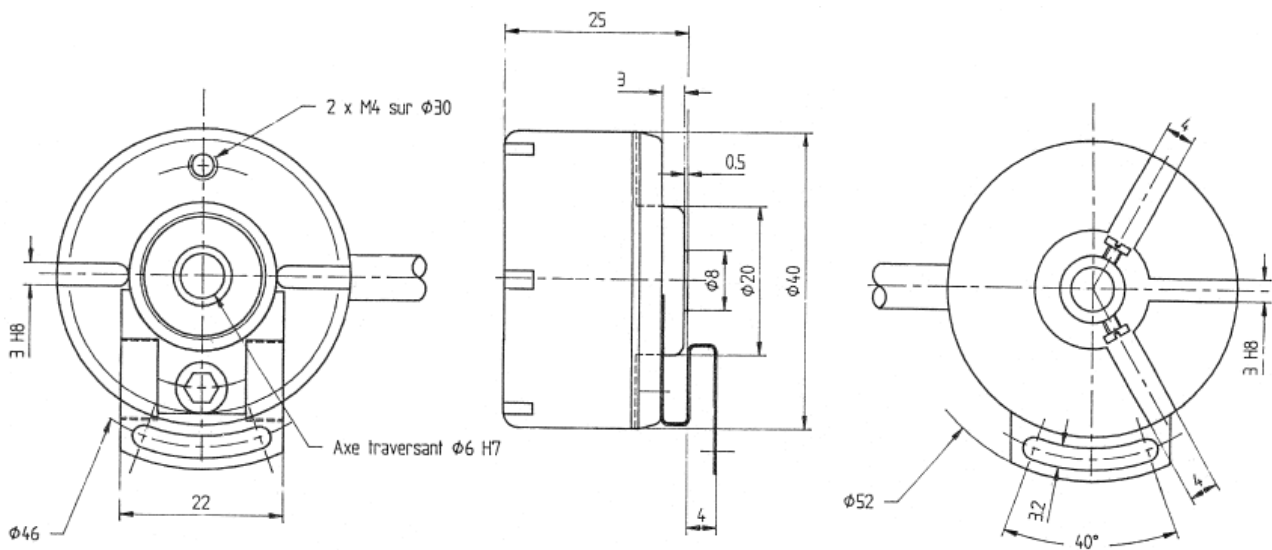


## INCREMENTAL ENCODERS, GHT4 RANGE

- With its 40mm size and a 6mm through shaft, this encoder characterizes itself by its strength and robustness of the mechanical and opto-electronic parts. It's the most compact industrial encoder with a through shaft.
- Stable and unbreakable Polyfass™, Mylar-Myca composite coded discs (Except 2500 points: glass disc is used).
- Available resolution up to 2 500 counts per turn.
- Universal electronics 5 to 30Vdc available.
- Ideal applications : micro-robotics, printing machines, low power DC motors, shears.



### GHT4 connection G3R (radial cable) and 9445/006\* anti-rotation system



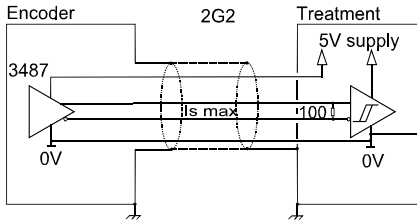
\* to be ordered separately

### MECHANICAL CHARACTERISTICS

Material	Shaft : aluminum	EMC	EN 50082-2 (1995)
	Cover : aluminum		EN 50081-1 (1992)
	Body : aluminum		
Bearings	688 serie	Isolation	1 000 Veff
Maximum loads	Axial : 10 N	Operating temperature	- 20 ... + 80 °C (encoder T°)
	Radial : 20 N	Storage temperature	- 40 ... + 80 °C
Shaft inertia	$\leq 0,1 \cdot 10^{-6} \text{ kg.m}^2$	Protection CEI60529 (1989)	IP 52
Torque	$\leq 2 \cdot 10^{-3} \text{ N.m}$	Shocks (EN60068-2-27)	$\leq 300 \text{ m.s}^{-2}$ (during 11 ms)
Permissible max. speed	12 000 min <sup>-1</sup>	Vibrations (EN60068-2-6)	$\leq 100 \text{ m.s}^{-2}$ (10 ... 500 Hz)
Continuous max. speed	9 000 min <sup>-1</sup>	Torque (shaft pressure screw)	Nominal : 0,3N.m ; break : 0,5N.m
Encoder weight (approx.)	0,240 kg	Theoretical mechanical lifetime 10 <sup>9</sup> turns (F <sub>axial</sub> / F <sub>radial</sub> )	
		5 N / 10 N : 260	10 N / 20 N : 33

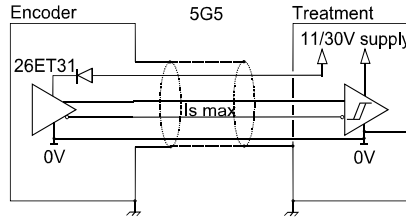
## INCREMENTAL ENCODERS, GHT4 RANGE

### OUTPUT ELECTRONIC / POWER SUPPLY



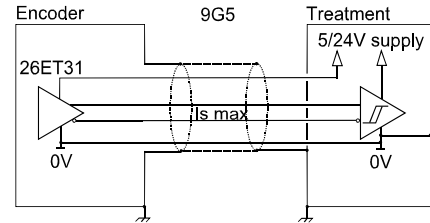
#### 2G2 electronic (100kHz)

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



#### 5G5 electronic (100kHz)

Supply : 11 to 30Vdc  
Cons. without load: 75mA max  
Current per channel : 40mA max  
0 max (Is=20mA) :  $V_{ol} = 0,5Vdc$   
1min (Is=20mA) :  $V_{oh} = Vcc-3Vdc$



#### 9G5 electronic(100kHz)

Supply : 5 to 24Vdc  
Cons. without load : 75mA max  
Current per channel : 40mA max  
0 max (Is=20mA) :  $V_{ol} = 0,5Vdc$   
1min (Is=20mA) :  $V_{oh} = Vcc-3Vdc$

Protection against short circuits of the electronics : 5G5 and 9G5.  
Protection against inversion of polarity for the electronics : 5G5.

### STANDARD CONNECTION

		-	+	A	B	0	A/	B/	0/	Ground
G3	PVC cable, 8 wires 8230/024	WH white	BN brown	GN green	YE yellow	VT violet	OG orange	BU blue	RD red	General shield

**ORDERING REFERENCE** (Contact the factory for special versions, ex: special flanges, electronics, connections.)

	Shaft $\varnothing$	Available electronics		Output signals	Resolution	Connection	Connection orientation
GHT4	06 : 6mm	2G2, 5G5, 9G5		9: AA/ BB/ 00/  (0 gated A & B)	2 500 max	G3 :PVC cable 8 wires	Example :  R020: radial cable 2m
	04: 4mm (option)	Supply	Output stage				
	14 : 6.35 mm (option)	2 : 5Vdc	G2 : 5Vdc RS422				
		5 : 11 to 30Vdc	G5 : push-pull				
		9 : 5 to 24Vdc					
Ex:GHT4	06 //	5	G5	9 //	1 024 //	G3	R020

**Available resolutions** : 1 2 4 5 8 10 16 20 24 25 27 30 36 40 50 60 64 90 100 120 125 128 144 150  
170 180 200 250 300 360 400 500 512 600 720 800 1000 1024 2500

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