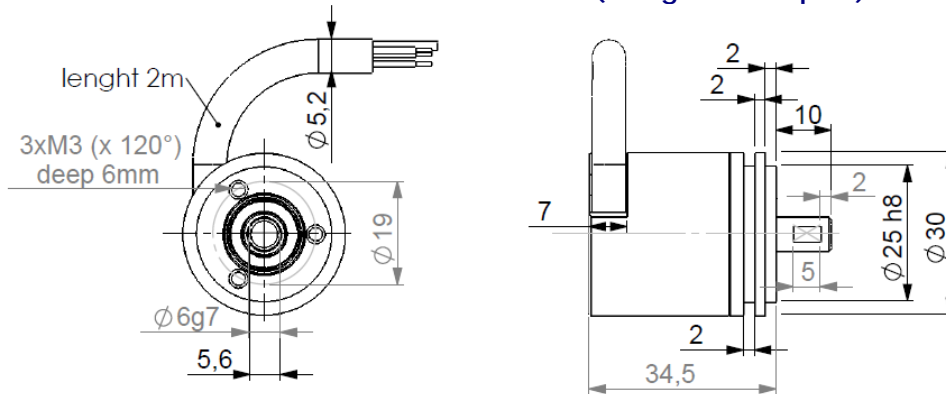


OPTICAL INCREMENTAL ENCODERS, GHM3 RANGE

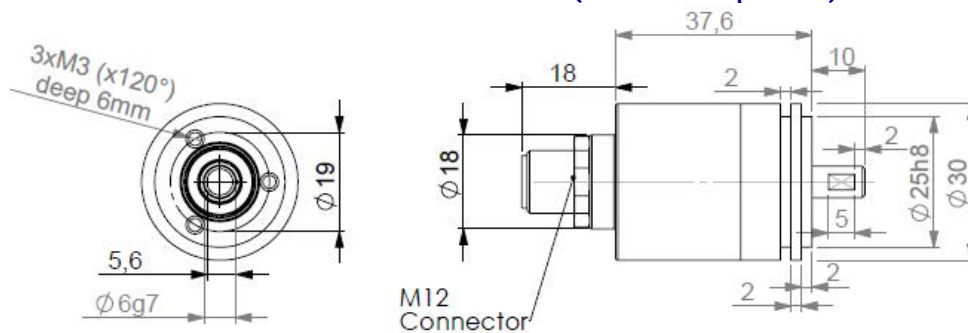
- With its 30mm size and a 6mm solid shaft, this encoder characterizes itself by its strong robustness of the mechanical and optical parts, it's the most compact really industrial encoder with a solid shaft
- High accuracy optical technology
- Available resolution up to 1024 pulses per revolution
- Universal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



GHM3 connection G3D ("diagonal" output')



GHM3 connection GMA (axial M12 8 pinouts)

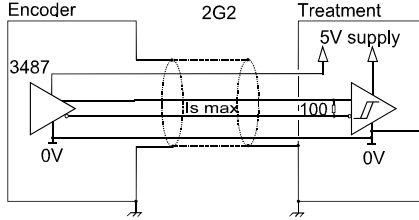


MECHANICAL CHARACTERISTICS

| | |
|--------------------------|--|
| 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 |

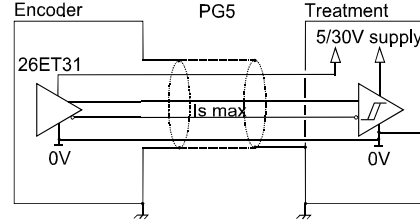
| | |
|---|--|
| Isolation | 1 000 Veff |
| EMC | EN 50082-2 (1995) |
| | EN 50081-1 (1992) |
| Operating temperature | - 20... + 80 °C (encoder T°) |
| Storage temperature | - 40... + 80 °C |
| Protection CEI60529 (1989) | IP 65 |
| Shocks (EN60068-2-27) | $\leq 300 \text{ m} \cdot \text{s}^{-2}$ (during 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 |

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) : $V_{oh} = 2,5Vdc$



PG5 electronic(100kHz)

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

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