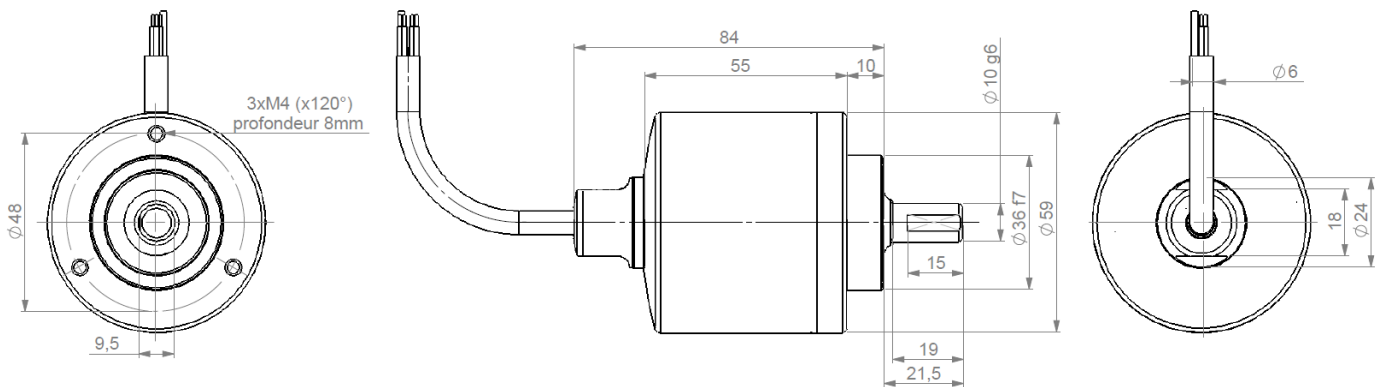


OPTICAL INCREMENTAL ENCODERS, GXM5S – STAINLESS STEEL 316 - IP69K

- Adapted to food and beverage – pharmaceutical - river – offshore applications,
- Stainless steel encoder (316) with hygienic design,
- Flanges and shaft adapted to the market needs,
- Robustness and excellent resistance to shocks / vibrations,
- Double ball bearings with safety lock system,
- Solid shaft version Ø10mm,
- High protection level IP69K & IP67,
- Industrial standard electronic RS422/TTL and HTL,
- High performances in temperature -20°C to +85°C,
- Optical technology, contactless,
- Resolutions available : up to 2 500ppr,
- Unbreakable Polyfasc disc (Mylar-Mica composite),
- Adapted axial cable gland output.



GXM5S10 DIMENSIONS

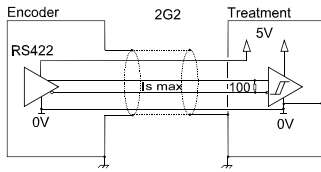


MECHANICAL CHARACTERISTICS

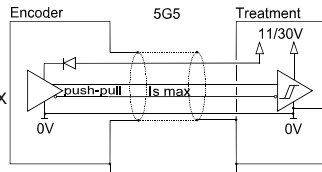
| | | | |
|---|----------------------------|--------------------------|---|
| Material | Shaft: Stainless steel 316 | Shaft inertia | $\leq 1,2 \cdot 10^{-6} \text{ kg.m}^2$ |
| | Cover: Stainless steel 316 | Torque | $\leq 90 \cdot 10^{-3} \text{ N.m}$ |
| | Body: Stainless steel 316 | Shocks (EN60068-2-27) | $\leq 500 \text{ m.s}^{-2}$ (during 6 ms) |
| Bearings | Double ball bearings | Vibrations (EN60068-2-6) | $\leq 100 \text{ m.s}^{-2}$ (55 ... 2 000 Hz) |
| Maximal loads | Axial : 250 N | Encoder weight (approx.) | 0,600 kg |
| | Radial : 500 N | Protection(EN 60529) | IP 69K & IP67 |
| Theoretical mechanical lifetime 10^9 turns (F_{axial} / F_{radial}) 50 N / 100 N : 12 250 N / 500 N : 0,5 | | EMC | EN 50081-1, EN 61000-6-2 |
| Permissible max. speed | 4 000 min ⁻¹ | Isolation | 1 000 V eff |
| Continuous max. speed | 3 000 min ⁻¹ | Operating temperature | - 20 ... + 85°C (encoder T°) |
| | | Storage temperature | - 30 ... + 85°C |

OPTICAL INCREMENTAL ENCODERS, GXM5S – STAINLESS STEEL 316 - IP69K

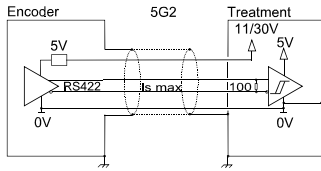
DIGITAL OUTPUT SIGNALS



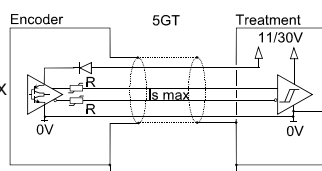
2G2 electronic
Supply : 5Vdc \pm 10%
Cons. without load : 75mA max
Current per channel : 40mA max
0 max ($I_s=20mA$) : $V_{ol} = 0,5Vdc$
1 min ($I_s=20mA$) : $V_{oh} = 2,5Vdc$



5G5 electronic
Supply : 11 to 30Vdc
Cons. without load : 75mA max
Current per channel : 40mA max
0 max ($I_s=20mA$) : $V_{ol} = 0,5Vdc$
1 min ($I_s=20mA$) : $V_{oh} = V_{cc}-3Vdc$



5G2 electronic
Supply : 11 to 30Vdc
Cons. without load : 75mA max
Current per channel : 40mA max
0 max ($I_s=20mA$) : $V_{ol} = 0,5Vdc$
1 min ($I_s=20mA$) : $V_{oh} = 2,5Vdc$



5GT electronic
Supply : 11 to 30Vdc
Cons. without load : 75mA max
Current per channel : 40mA max
0 max ($I_s=20mA$) : $V_{ol} = 1,5Vdc$
1 min ($I_s=20mA$) : $V_{oh} = V_{cc}-2,5Vdc$

The 5GT electronic can drive long length of cables (consult us).
Protection against short circuits of the electronics: 5G5, 5GT.
Protection against reverse polarity for all the electronics except 2G2.

STANDARD CONNECTION

| Type | cable | 0Vdc | +Vcc | A | B | 0 | A/ | B/ | 0/ | Ground |
|------|----------------------------------|-------------|-------------|-------------|--------------|------------|------------|------------|-----------|----------------------|
| G3 | PVC cable 8 wires 8230/020 | WH white | BN brown | GN green | YE yellow | GY grey | PK pink | BU blue | RD red | General shielding |

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

| Range | Shaft \varnothing | Mechanics | Available electronics | | Signals | Resolution | Cable | Orientation |
|-----------|---------------------|---|--------------------------------|---|---|--------------|-----------------|--------------------------------------|
| GXM5S | 10 | AA 316 stainless steel IP69K Hygienic design | 2G2, 5G2, 5G5, 5GT | | 9 A,A/, B,B/, 0,0/ (0, A&B gated) | 2 500 max | G3 PVC cable | Example: A020 : axial cable 2m |
| | | | Supply | Output | | | | |
| | | | 2: 5Vdc 5: 11 - 30Vdc | G2: driver 5Vdc RS422/TTL G5 : push-pull GT : transistorized push-pull | | | | |
| Ex: GXM5S | 10 | / AA | / 5 | G2 | 9 | // 01 024 | // G3 | A050 |

AVAILABLE RESOLUTIONS

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 18 19 20 21 23 24 25 26 27 28 29 30 32 33 34 35 36 37 38 40 41 42 43 44 45 48 49 **50**
52 53 54 55 56 57 58 **60** 61 62 63 64 66 67 68 69 70 71 72 73 75 78 80 81 84 85 86 87 90 91 92 94 95 96 97 99 **100** 104 108
109 110 113 114 119 **120** 122 **125 127** 128 129 130 131 132 140 147 **150** 152 155 157 160 167 168 170 176 179 **180** 182 183 185
188 190 191 192 194 196 **200** 205 208 209 215 **216** 217 220 223 226 230 236 **240** 243 245 246 248 **250** 251 **254** 255 **256** 260 264
273 280 284 285 290 292 **300** 305 310 **314** 318 320 325 330 331 333 334 335 340 343 350 355 **360** 364 367 370 **375** 380 381 385
392 393 397 **400** 408 410 420 427 430 450 452 455 470 471 475 480 489 **500 512** 515 516 520 521 530 534 545 560 565 572 580
600 620 **625** 628 635 660 672 675 700 712 **720** 722 730 745 **750** 754 **762 768** 785 792 **800** 819 840 850 864 880 889 895 **900** 914
927 942 960 **1000** 1016 **1024** 1100 1125 1131 1143 1147 1152 **1200** 1225 **1250 1270 1280** 1300 **1440 1500** 1524 1600 1680 1700 1750
1800 1872 1885 1895 1920 **2000 2048** 2064 2100 2160 2250 2256 **2400 2480 2500**

Resolution in bold character also available in Digsine™ range 100°C – option 120°C encoder - resolution up to 80 000 ppr.