

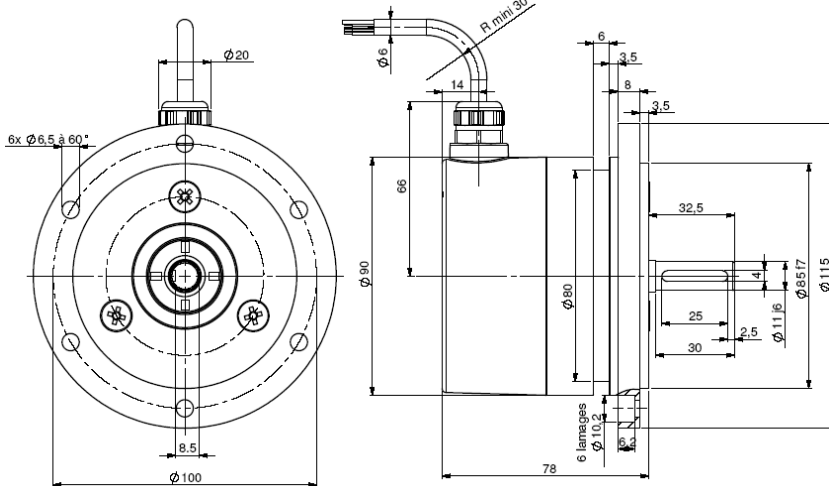
INCREMENTAL ENCODERS, DHM9 RANGE 100°C

DHM9

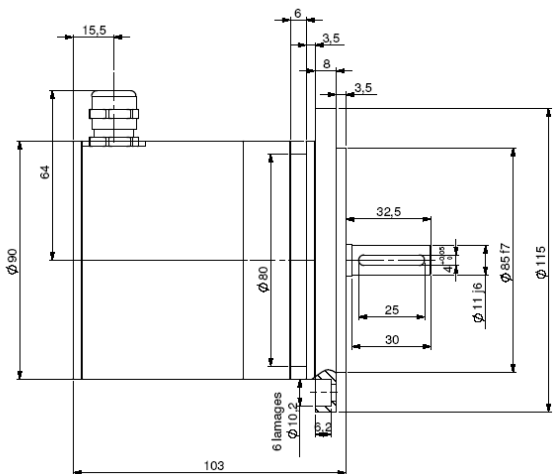
- Especially designed for heavy-duty (steel, paper, wood – mills, cranes ...) Compact and robust conception. Excellent resistance to shocks/vibrations and to extreme axial/radial loads
- High performances in temperature -30°C to 100°C (option -40°C)
- High protection level: IP 65
- Universal electronic circuits from 5 to 30 Vdc (option 5 to 36Vdc)
- High resolutions: up to 80 000 cpt (Programmable resolutions option)
- Connection with terminal box, cable or connector output
- Square or sine wave available
- Mechanical overspeed switch option
- 12mm solid shaft or 11mm with REO 115mm flange (Euroflange B10) for tachogenerator mounting



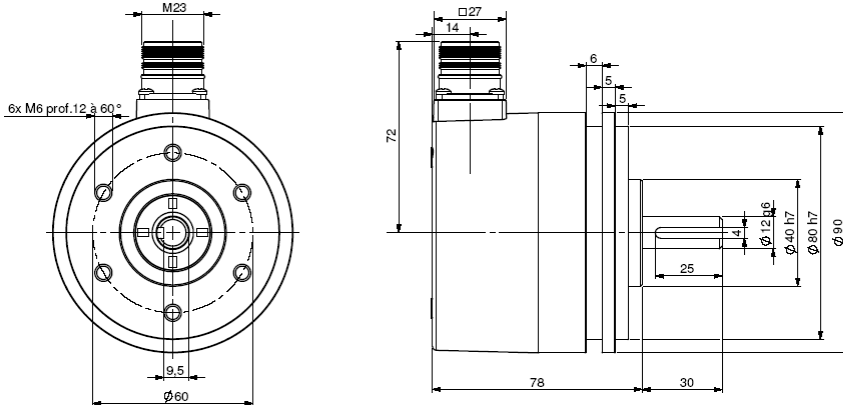
DHM9_11 connection G3R (radial cable)



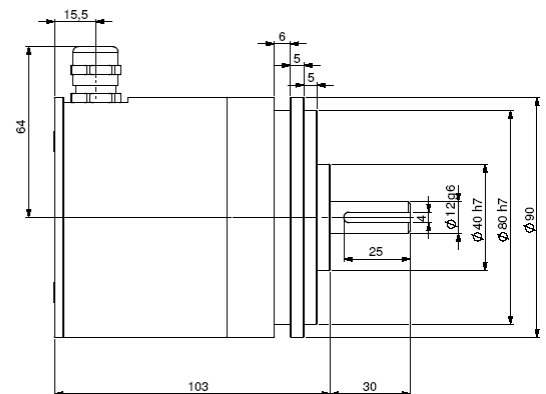
DHM9_11 connection GBR (terminal box)



DHM9_12 connection G6R (radial M23)



DHM9_12 connection GBR (terminal box)

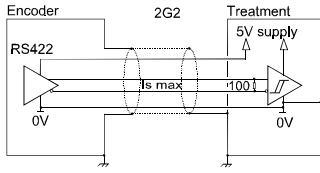


Material (cable or connector version), Stainless steel option	Cover : zinc alloy	Shocks (EN60068-2-27)	≤ 500 m.s ⁻² (during 6ms)
	Body : aluminium	Vibrations (EN60068-2-6)	≤ 200 m.s ⁻² (10 ... 1 000 Hz)
Material (terminal box version), Stainless steel option	Cover: treated alu.	EMC	EN 61000-6-4, EN 61000-6-2
	Body: aluminium	Isolation	1 000 V eff
Shaft material	Stainless steel	Encoder weight (approx.)	1,100kg zinc alloy cover, alu. body
Bearings	6001 serie	Cable or connector version	2,600kg stainless steel cover & body
Maximum loads	Axial : 100 N	Encoder weight (approx.)	1,300kg aluminium cover & body
	Radial : 200 N	Terminal box version	2,800kg stainless steel cover & body
Shaft inertia	≤ 15.10 ⁻⁶ kg.m ²	Operating temperature	- 30 ... + 100 °C (encoder T°)
Torque	≤ 10.10 ⁻³ N.m	Storage temperature	- 40 ... + 100 °C
Permissible max. speed	9 000 min ⁻¹	Protection(EN 60529)	IP 65
Continuous max. speed	6 000 min ⁻¹	Theoretical mechanical lifetime 10 ⁹ turns (F _{axial} / F _{radial})	
Shaft seal	Viton double lips	20 N / 30 N : 360	50 N / 100 N : 18
			100 N / 200 N : 2,2

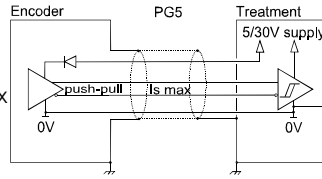


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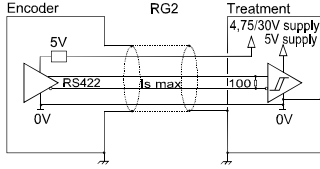
DIGITAL OUTPUT SIGNALS (SQUARE WAVE SIGNALS)



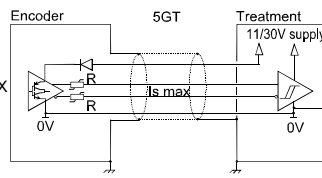
Electronic 2G2 (100°C, 300kHz)
 Supply : 5Vdc ± 10%
 Cons. without load : 75mA max
 Current per channel : 40mA max
 0 max (I_s=20mA) : V_{ol} = 0,5Vdc
 1 min (I_s=20mA) : V_{oh} = 4Vdc



Electronic PG5 (100°C, 300kHz)
 Supply : 5 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}-2,5Vdc

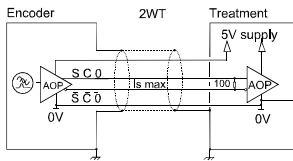


Electronic RG2 (100°C, 300kHz)
 Supply : 4,75 to 30Vdc
 Cons. without load : 75mA max
 Current per channel : 40mA max
 0 max (I_s=20mA) : V_{ol} = 0,5Vdc
 1 min (I_s=20mA) : V_{oh} = 4Vdc



Electronic 5GT (70°C, 120kHz)
 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

SINE WAVE OUTPUT SIGNALS



Electronic 2WT (100°C)
 Supply : 5Vdc ± 10%
 Cons. without load : 75mA max
 Output signals :
 1Vpp (peak to peak)

ELECTRONIC PROTECTIONS

Protection against short circuits of the electronics: 2G2, RG2, PG5, 5GT and 2WT
 Protection against reverse polarity for all the electronics except 2G2 and 2WT

Consult us for special electronics : programmable resolution, 5 to 36Vdc, 100mA per channel...

STANDARD CONNECTIONS

		-	+	A or S	B or C	0 or Z	A/ or S/	B/ or C/	0/ or Z/	Ground
GB	Terminal box	1	2	3	4	5	6	7	8	On cable gland
G6	M23 - 12 pins CW	1	2	3	4	5	6	7	8	Connector Body
G8	M23 - 12 pins CCW	10 + 11	2 + 12	8	5	3	1	6	4	Connector Body
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
GP	PUR cable 12 wires 8230/050	WH white + WH/GN white / green	BU blue + BN/GN brown / green	GY grey	BN brown	RD red	PK pink	GN green	BK black	General shielding

ORDERING REFERENCE (Contact the factory for special versions, ex: electronics 5-36V, special flanges, connections...)

		Shaft Ø	Digital signals (Square wave)			Connection	Connection orientation	
DHM9	Stainless steel body	11:11mm	Electronics : 2G2, PG5, RG2, 5GT		Output signals	G6: M23 12 pins CW G5: M23 12 pins CW G8 : M23 12 pins CCW GB : terminal box	R : radial A : axial	
			Supply	Output stage	9 : A,A/,B,B/,0,0/ (0 gated A & B)			
			2 : 5Vdc 5 : 11 to 30Vdc P : 5 to 30Vdc R : 4.75 to 30Vdc	G2 : driver 5Vdc RS422 G5 : push-pull 5-30Vdc				80 000 max
			Sine-wave signals					
2 : 5Vdc	WT: sine 1Vpp	9: S,S/,C,C/,Z,Z/	GP : PUR cable 12 wires G3 : PVC cable 8 wires	Example : R020 : radial cable 2m A020: axial cable 2m				
Ex: DHM9 _		12 //	P	G5	9 //	80 000//	GP	R020

Available resolutions (100°C electronic) : 50 60 100 120 125 127 150 180 200 240 250 256 300 314 360 375 400 500 512 600 720 750 768 800 927 1000 1024 1200 1250 1280 1440 1500 1800 2000 2048 2400 2500 3000 3600 4000 4096 5000 6000 7200 8000 8192 10000

Interpolated available resolutions (70°C electronic) : 1080 2560 2880 3072 4320 5120 7500 5760 9000 10240 10800 12000 12500 12288 14400 15000 16000 16384 18000 20000 20480 24000 25000 28800 30000 32000 32768 36000 40000 40960 43200 48000 49152 50000 57600 60000 64000 65536 80000

Available resolutions sine-wave signals (100°C electronic) : 250 256 360 500 1024 2500

Nota : The maximal resolution with the 5GT electronic is 5 000 pulses per turn (non available electronic with interpolation)

