

INCREMENTAL ENCODERS, DHM9 RANGE, 100°C

DIGISINE™ heavy-duty version :

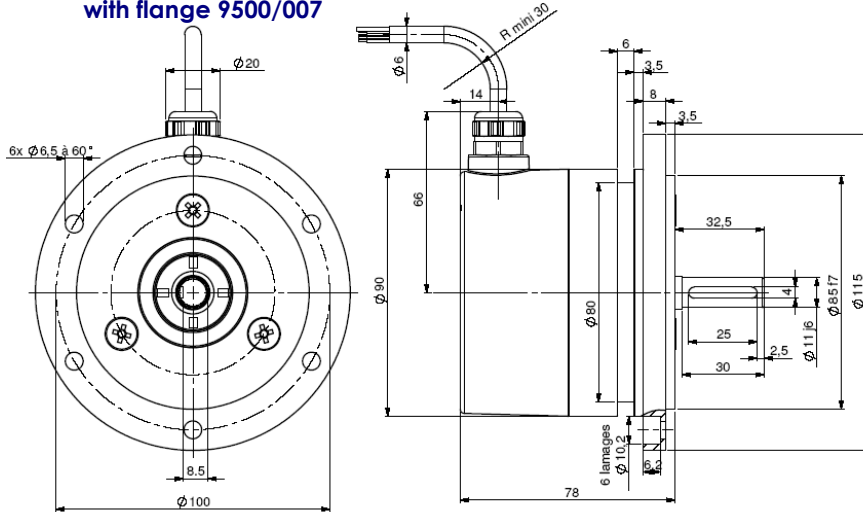
- Excellent resistance to shocks/vibrations and to extreme axial/radial loads
- High performances in temperature -30°C to 100°C (option -40°C)
- High protection level: IP65
- 11 or 12mm solid shaft
- Universal electronic circuits from 4.75 to 30 Vdc
- High resolutions: up to 80 000 cpt (Programmable resolutions option)
- Connection with terminal box, cable or connector output
- Square or sine wave available
- REO 115mm flange (Euroflange B10) for tachogenerator mounting
- Mechanical overspeed switch option

2004/108/CE

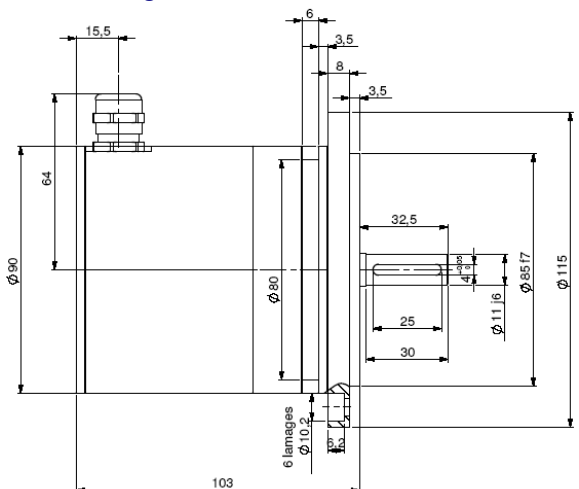
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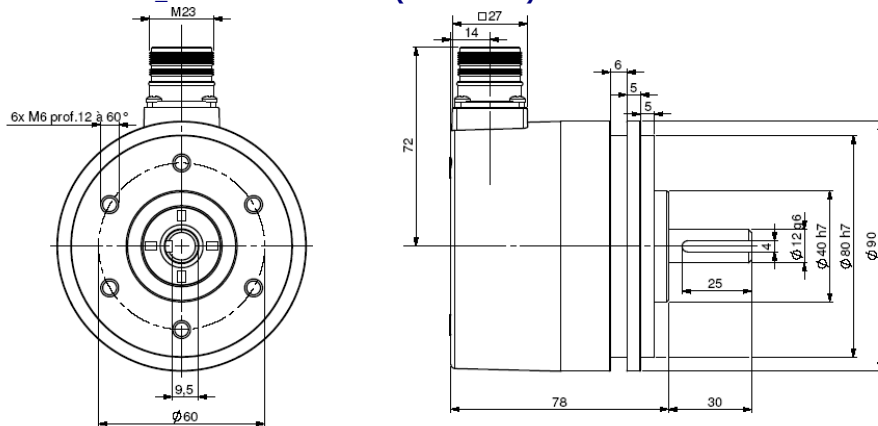
DHM9_11 connection U3R (radial cable) with flange 9500/007



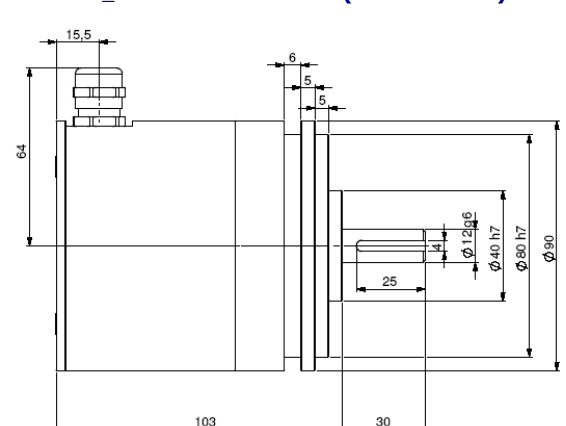
DHM9_11 connection GBR (terminal box) with flange 9500/007



DHM9_12 connection G6R (radial M23)



DHM9_12 connection GBR (terminal box)



Mechanical Characteristics:

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

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Electrical Characteristics:

Version	Output signals	Resolution	Operating Voltage Vcl	Supply current (no loads)	Current per channel pair	Output Levels (Is=20mA)	Frequency capability	Short circuits proof	Reverse polarity tolerant	Temperature range
5GT	HTL	Up to 5000	11-30V --- 250mA	75mA	40mA	High min: Vcl - 2.5V Low max: 1.5V	Up to 120kHz	Yes	Yes	-30°C +70°C (1)
RG5		See available resolutions below	4.75-30V --- 250mA			High min: Vcl - 0.5V Low max: 0.5V				Up to 300kHz
RG2	TTL RS422					5V +/- -5% --- 250mA	High min : 4.5V Low max: 0.5V	Yes		
2G2					1Vpp		Up to 2500			
2WT										

(1) UL listed: -20°C +70°C. Device must be supplied by a Class 2, LPS or SELV limited energy source.

(2) UL listed: -20°C +80°C. Device must be supplied by a Class 2, LPS or SELV limited energy source.

Connections:

		-	+	A or S	B or C	Z	A/or/S/	B/or/C/	Z/	Ground
GM	M12 - 8 pins	1	2	3	4	5	6	7	8	Connector Body
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
U3	PVC cable 8 wires	WH white	BN brown	GN green	YE yellow	GY grey	PK pink	BU blue	RD red	General shielding
GC	PUR cable 8 wires	BK black	RD red	GN green	BN brown	VT violet	YE yellow	OG orange	BU blue	General shielding
GP	PUR cable 12 wires (not UL)	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
TE	Silicone cable (3) 8 wires (not UL)	WH white	BN brown	GN green	YE yellow	GY grey	PK pink	BU blue	RD red	General shielding

(3) Advised cable for mobile application, in extreme temperature from -40°C to +100°C

Available resolutions:

Available resolutions digital signals: 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

Interpolated available resolutions digital signals (limited to 70°C): 1080 1536 2560 2880 3072 4320 4500 5120 5400 5760 6000 6144 7200 7500 8000 8192 9000 10000 10240 10800 12000 12500 12288 14400 15000 16000 16384 18000 20000 20480 21600 24000 24576 25000 28800 30000 32000 32768 36000 40000 40960 43200 48000 49152 50000 57600 60000 64000 65536 80000

Available resolutions sine wave signals (2WT electronic) : 250 256 360 500 512 1000 1024 1500 1800 2000 2048 2500

Ordering Options:

Use this diagram, working from left to right to construct your model number (Example : **DHM9_11//RG59//01024//G6R//**07****)

DHM9	--	//	---	-	//	----	//	---	---	//	**_**
TYPE:	SHAFT BORE:		VOLTAGE/ OUTPUT:	CHANNELS:		CYCLES/ TURN:		OUTPUT TERMINATION:	CABLE LENGTH:		FLANGE:
DHM9 = Solid shaft encoder	11 = 11mm		5GT = 11-30V voltage and push-pull output RG5 = 4.75-30V voltage and push-pull output 2G2 = 5V voltage and RS422 output RG2 = 4.75-30V voltage and RS422 output 2WT = 5V voltage and 1Vpp output	9 = AA/ BB/ ZZ/ B before A Z gated A&B For 2WT electronic, N= SS/ CC/ ZZ/ C before S Z ungated		(Enter Cycles) See available resolutions above		GCR = PUR cable GPR = PUR cable (not UL) TER = Silicone cable (not UL) GBR = terminal box (not UL) GMR = M12 G6R = M23 12 pins CW G8R = M23 12 pins CCW	xxx = cable length ex. 020 = 2meters Blank (no cable)		**07** = 9500/007 flange

Made in France