

DHK5

FIXED RESOLUTION INCREMENTAL ENCODERS, DHK5 RANGE, 100°C, DIGISINE™

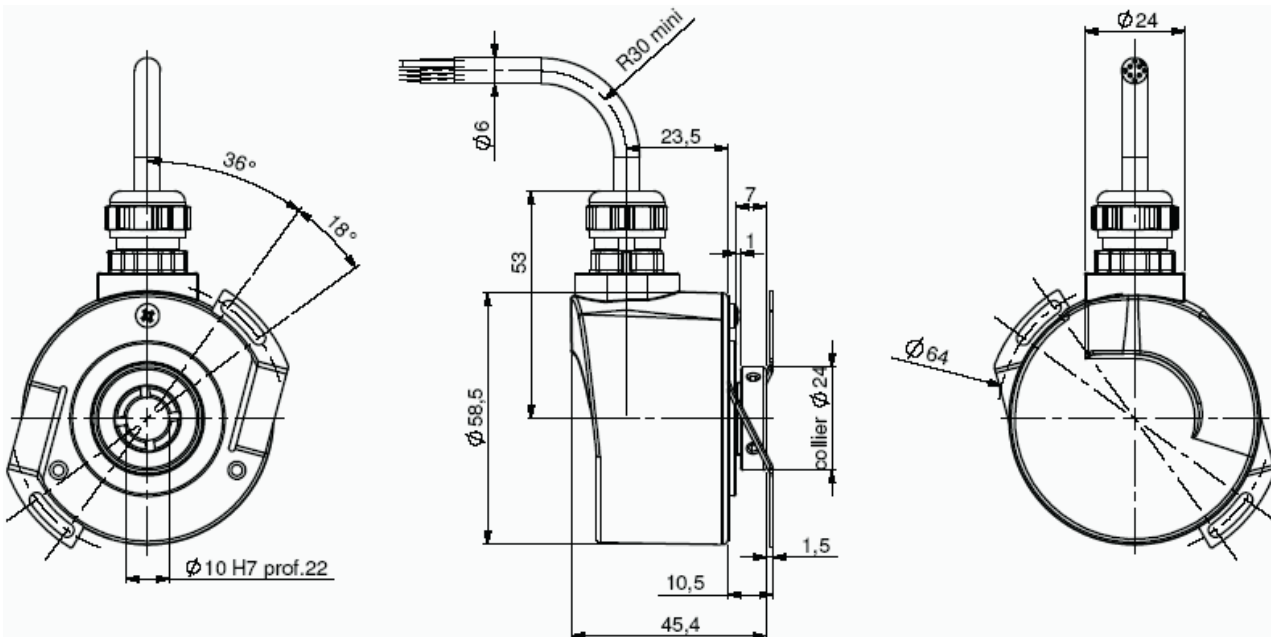


DIGISINE, universal encoders :

- Blind shaft version Ø14mm (6, 8, 10 and 12 mm also available)
- Easy mounting for the hollow shafts thanks to DAC (Anti-Coupling Device)
- Robustness and excellent resistance to shocks / vibrations
- High protection level IP65
- High resolutions available : up to 80 000 cpt
- Universal electronic circuits from 5 to 30 Vdc
- High performances in temperature -30°C to 100°C (option -40°C)
- High performances in frequency of output signals : 300 kHz



DHK5_10 connection G3R (radial cable), DAC 9445/016* mounted on the body



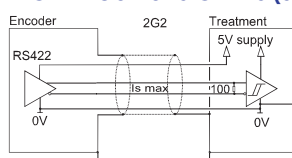
Minimum shaft depth : 12mm for optimal centring

* Accessory to be ordered separately

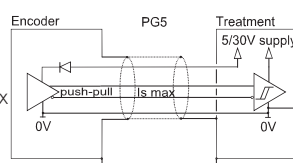
Material	Cover : zinc alloy	Vibrations (EN60068-2-6)	≤ 100 m.s ⁻² (55 ... 2 000 Hz)
	Body : aluminium	EMC	EN 50081-1, EN 61000-6-2
	Shaft : stainless steel	Isolation	1 000 V eff
Bearings	6 803 serie	Encoder weight (approx.)	0,300 kg
Maximum loads	Axial : 20 N	Operating temperature	- 30 ... + 100°C (encoder T°)
	Radial : 50 N	Storage temperature	- 40 ... + 100°C
Shaft inertia	≤ 2,2.10 ⁻⁶ kg.m ²	Protection (EN 60529)	IP 65
Torque	≤ 6.10 ⁻³ N.m	Torque (ring pressure screw)	nominal: 1.5 N.m, break: 2.0 N.m
Permissible max. speed	9 000 min ⁻¹	Theoretical mechanical lifetime 10 ⁹ turns (F _{axial} / F _{radial})	
Continuous max. speed	6 000 min ⁻¹	10N / 25N	230
Shocks (EN60068-2-27)	≤ 500 m.s ⁻² (during 6 ms)	20N / 50N	29

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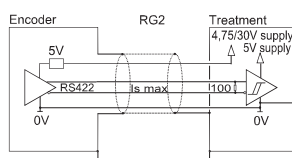
DIGITAL OUTPUT SIGNALS (SQUARE WAVE SIGNALS)



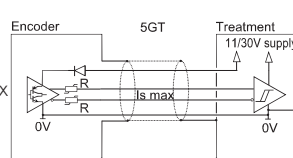
Electronic 2G2 (100°C, 300kHz)
 Supply : 5Vdc ± 10%
 Cons. without load : 75mA max
 Current per channel : 40mA max
 0 max (I_s=20mA) : V_{oi} = 0,5Vdc
 1 min (I_s=20mA) : V_{oh} = 4Vdc



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_{oi} = 0,5Vdc
 1 min (I_s=20mA) : V_{oh} = V_{cc}-2,5Vdc

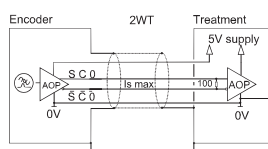


Electronic RG2 (100°C, 300kHz)
 Supply : 4,75 to 30Vdc
 Cons. without load : 75mA max
 Current per channel : 40mA max
 0 max (I_s=20mA) : V_{oi} = 0,5Vdc
 1 min (I_s=20mA) : V_{oh} = 4Vdc



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_{oi} = 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, 100mA per channel...

STANDARD CONNECTIONS

		-	+	A	B	0	A/	B/	0/	Ground
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, special flanges, connections...)

	Shaft Ø	Digital signals			Connection	Connection orientation	
DHK5	14 : 14mm reduction hubs available up to 6mm	Electronics : 2G2, PG5, RG2, 5GT		Output signals	G6 : M23 12 pins CW G5 : M23 12 pins CW G8 : M23 12 pins CCW G2 : DIN 5 pins GD : DIN 8 pins GP : PUR cable 12 wires G3 : PVC cable 8 wires	R : radial Example : R020 : radial cable 2m	
		Supply	Output stage	resolution			
		2 : 5Vdc 5 : 11 to 30Vdc P : 5 to 30Vdc R : 4.75 to 30Vdc	G2 : driver 5Vdc RS422 G5 : push-pull 5-30Vdc GT : transistorized push-pull 11-30Vdc	9 : A,A/,B,B/,0,0/ (0 gated A & B)			80 000 max
		Sine-wave signals					
		2 : 5Vdc	WT: sinus 1Vpp	9 : S,S/,C,C/,L,L/	2 500 max		
Ex: DHK5 _	14 //	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)

Made in France