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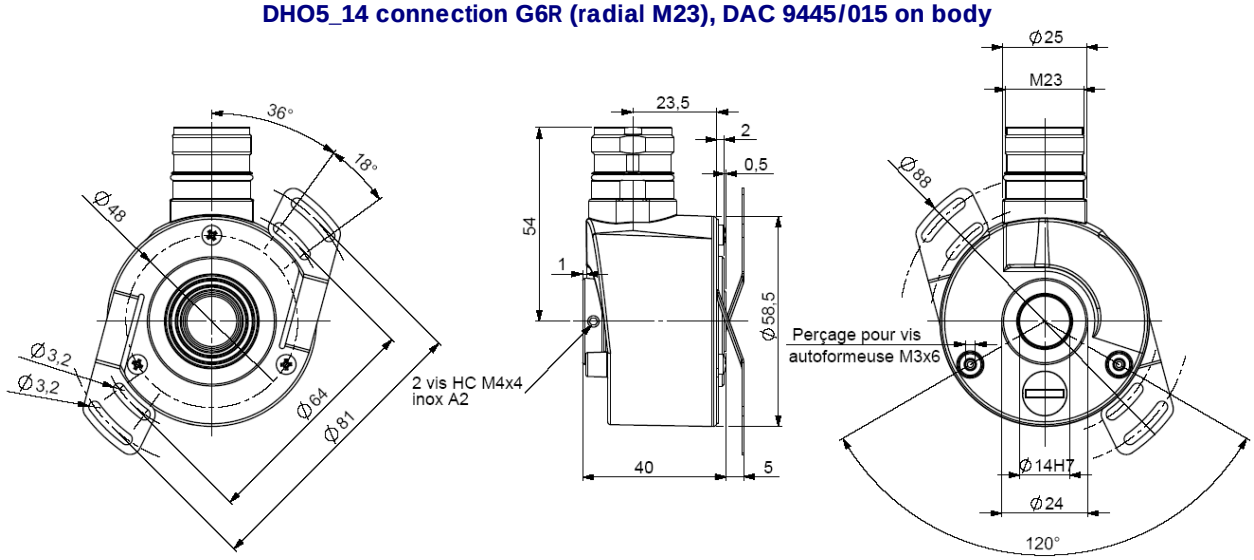
DHO5

PROGRAMMABLE INCREMENTAL ENCODERS, DHO5 RANGE, *DIGISINE*™

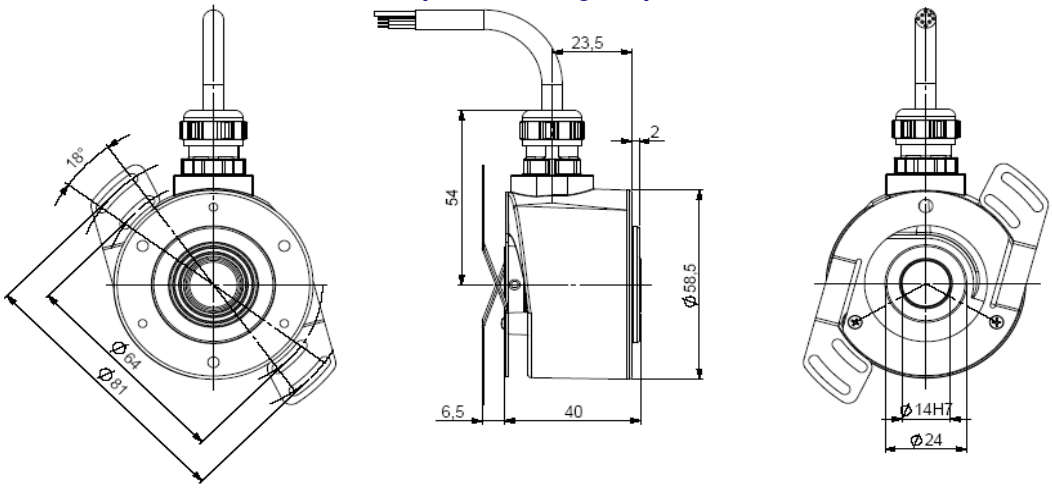
Universal encoder ***DIGISINE***, unique combination between performance and flexibility

- Easy programming resolution without specific soft- or hard-ware
- High resolutions levels, up to 80 000 points per turn
- Through hollow shaft versionØ14mm, reduction hub of 6, 8, 10 and 12 mm
- Easy shaft connection of the hollow shafts thanks to different DACs
- Robustness and excellent resistance to shocks and vibrations
- High protection level : IP65 standard
- Universal electronics circuits between 5 to 30Vdc
- High performances in temperature from –30°C to70°C (option –40°C)
- High performance in frequency of the output signals : 300 kHz

DHO5_14 connection G6R (radial M23), DAC 9445/015 on body



DHO5_14 connection G3R (radial cable gland), DAC 9445/015 on cover



Material	Cover : zinc alloy	Shock (EN60068-2-27)	≤ 500 m.s^{-2} (durant 6 ms)
	Body: aluminium	Vibration (EN60068-2-6)	≤ 100 m.s^{-2} (55 ... 2 000 Hz)
	Shaft : stainless steel	EMC	EN 50081-1, EN 61000-6-2
Bearings	6 803 serie	Isolation	1 000 V eff
Maximal load	Axial : 20 N	Weight (connector)	0,3 kg
	Radial : 50 N	Operating temperature	- 30... + 70°C (encoder T°)
Shaft inertia moment	≤ 2,2.10^{-6} kg.m^2	Storage temperature	- 40... + 70°C
Torque	≤ 6.10^{-3} N.m	Protection(EN 60529)	IP 65
Permissible max. speed	12 000 min^{-1}	Torque (ring pressure screw)	nominal: 1.5N.m, break: 2.0N.m
Continuous max. speed	9 000 min^{-1}	Theoretical mechanical lifetime 10^9 turns (F_{axial} / F_{radial})	
Shaft seal	Viton	10N / 25N : 230	20N / 50N : 29

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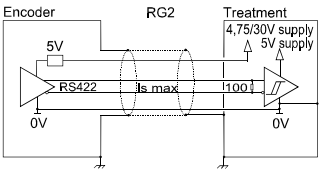
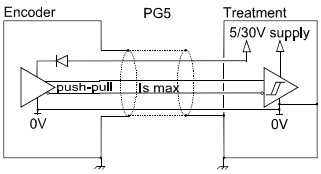
DIGITAL OUTPUT SIGNALS (SQUARE WAVE)



RP2 electronic (300kHz)
Supply : 4,75 to 30Vdc
Cons. without load : 75mA max
Current per channel: 40mA max
0 max (Is=20mA) : V_{ol} = 0,5Vdc
1 min (Is=20mA) : V_{oh} = 4Vdc



PP5 electronic (300kHz)
Supply: 5 to 30Vdc
Cons. without load : 75mA max
Current per channel: 40mA max
0 max (Is=20mA) : V_{ol} = 0,5Vdc
1 min (Is=20mA) : V_{oh} = Vcc-2,5Vdc

Protections against short circuits and inversion of polarity for all the electronics

STANDARD CONNECTION

		-	+	A	B	0	A/	B/	0/	Ground
G6	12 pins CW	1	2	3	4	5	6	7	8	Connector body
G8	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: special flanges, connections…)

	Shaft Ø	Digital signals				Connection	Orientation
		Electronic : PP5, RP2		Output signals	Resolution		
		Supply	Output stage				
DHO5	**14** : 14mm Nota: reduction hubs available	**R** : 4.75 to 30Vdc **P** : 5 to 30Vdc	**P2** : driver 5Vdc RS422 **P5** : push-pull 5-30Vdc	**9** : A,A/,B,B/,0,0/ (0 gated A & B)	**5 000** max basic resolution	**G6**: M23 12 pins CW **G5**:M23 12pins CW **G8** : M23 12 pins CCW **G1** : solenoid valve 4 pins	**R** : radial
						G3 : PVC cable 8 wires **GP** : PUR cable 12 wires	Example: **R020** : radial cable 2m
Ex: DHO5 _	**14 //**	**P**	**P5**	**9 //**	**5 000 //**	**GP**	**R050**

AVAILABLE INTERPOLATED RESOLUTIONS

Easy multiplication of the basis resolution of the disk : 1, 2, 3, 4, 5, 8, 10, 12 and 16 times per dip-switch without specific software or hardware (for speed regulation: x 1 to x 4 only ; counting x 1 to x 16)

Interpolation factor	*Basis resolutions*										
	250	***256***	***360***	***500***	***1 024***	***2 500***	***3 000***	***3 600***	***4 000***	***4 096***	***5 000***
X 1	*250*	*256*	*360*	*500*	*1 024*	*2 500*	*3 000*	*3 600*	*4 000*	*4 096*	*5 000*
X 2	*500*	*512*	*720*	*1 000*	*2 048*	*5 000*	*6 000*	*7 200*	*8 000*	*8 192*	*10 000*
X 3	*750*	*768*	*1 080*	*1 500*	*3 072*	*7 500*	*9 000*	*10 800*	*12 000*	*12 288*	*15 000*
X 4	*1 000*	*1 024*	*1 440*	*2 000*	*4 096*	*10 000*	*12 000*	*14 400*	*16 000*	*16 384*	*20 000*
X 5	*1 250*	*1 280*	*1 800*	*2 500*	*5 120*	*12 500*	*15 000*	*18 000*	*20 000*	*20 480*	*25 000*
X 8	*2 000*	*2 048*	*2 880*	*4 000*	*8 192*	*20 000*	*24 000*	*28 800*	*32 000*	*32 768*	*40 000*
X 10	*2 500*	*2 560*	*3 600*	*5 000*	*10 240*	*25 000*	*30 000*	*36 000*	*40 000*	*40 960*	*50 000*
X 12	*3 000*	*3 072*	*4 320*	*6 000*	*12 288*	*30 000*	*36 000*	*43 200*	*48 000*	*49 152*	*60 000*
X 16	*4 000*	*4 096*	*5 760*	*8 000*	*16 384*	*40 000*	*48 000*	*57 600*	*64 000*	*65 536*	*80 000*

switchs position	
factor	CODE SWITCH 1 2 3 4
x 1	
x 2	
x 3	
x 4	
x 5	
x 8	
x 10	
x 12	
x 16