

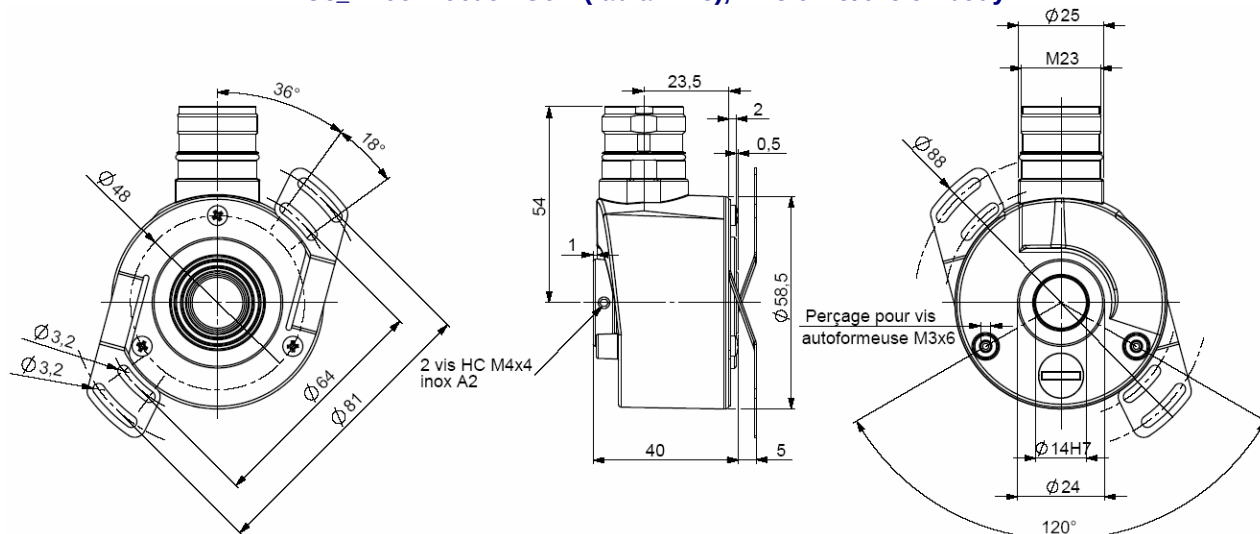
PROGRAMMABLE INCREMENTAL ENCODERS, DHO5 RANGE, DIGISINE™

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

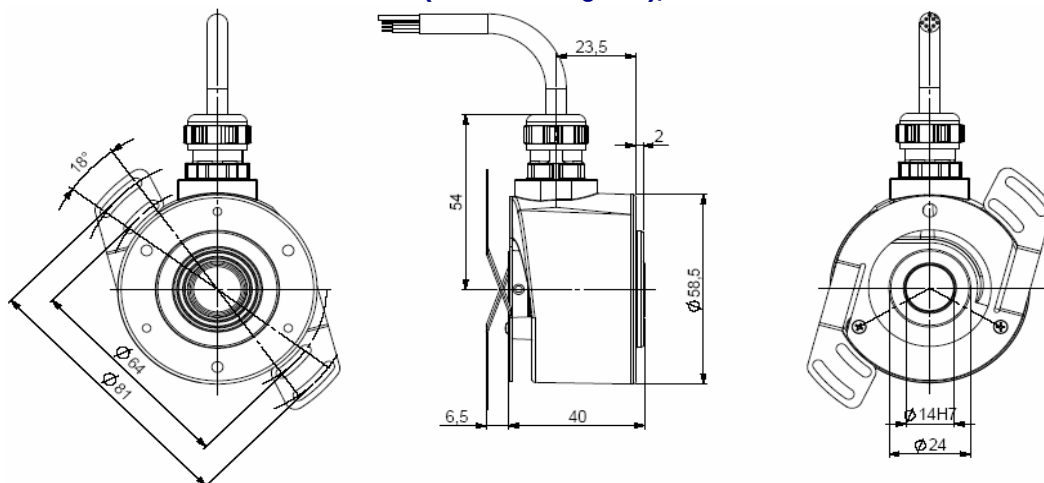
- Easy programming resolution without specific soft- or hard-ware
- High resolutions levels, up to 96 000 points per turn
- Through hollow shaft version Ø14mm, reduction hub of 6, 8, 10 and 12 mm
- Easy shaft connection of the hollow shafts thanks to different DACs
- Robustness and excellent resistance to shocks and vibrations
- High protection level : IP65 standard
- Universal electronics circuits between 5 to 30Vdc
- High performances in temperature from -30°C to 70°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



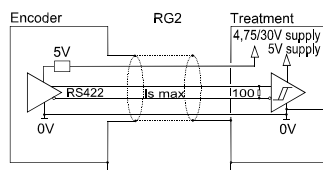
DHO5_14 connection G3R (radial cable gland), DAC 9445/015 on cover



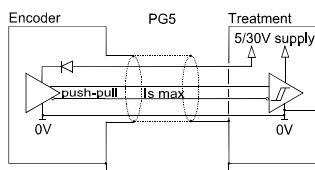
Material	Cover : zinc alloy	Vibration (EN60068-2-6)		< 100m.s ⁻² (55Hz ... 2 000Hz)
	Body: aluminium	EMC		EN 61000-6-4, EN 61000-6-2
	Shaft : stainless steel	Isolation voltage		2 000 V eff
Ball bearings	6 803 ZZ	Electrical lifetime		> 10 ⁵ h
Maximal load	Axial : 20 N	Weight		300 g
	Radial : 50 N	Operating temperature		- 30... + 70°C, -40°C upon request
Shaft inertia	≤ 22 g.cm ²	Storing temperature		- 40... + 70°C
Torque	≤ 0.6 N.cm	Humidity		98 % (without condensation)
Maximal speed	9 000 rpm	Protection(EN 60529)		IP 65
Maximal speed (continuous)	6 000 rpm	Torque (ring pressure screw)		nominal: 1.5N.m, break: 2.0N.m
Maximal acceleration	1.10 ⁵ rad.s ⁻²	Theoretical mechanical lifetime 10 ⁹ turns (F _{axial} / F _{radial})		
Shaft seal	Viton	5N / 10N	10N / 25N	20N / 50N
Shock (EN60068-2-27)	< 500m.s ⁻² (during 6ms)	2 400	230	29

PROGRAMMABLE INCREMENTAL ENCODERS, DHO5 RANGE, DIGISINE™

DIGITAL OUTPUT SIGNALS (SQUARE WAVE)



RP2 electronic (300kHz)
Supply : 4,75 to 30Vdc
Consumption : 75mA
Intensity per channel: 40mA
Level 0 max : $V_{ol} = 0,5Vdc$
Level 1min : $V_{oh} = 2,5Vdc$



PP5 electronic (300kHz)
Supply: 5 to 30Vdc
Consumption : 75mA
Intensity per channel: 50mA
Level 0 max : $V_{ol} = 1,5Vdc$
Level 1min : $V_{oh} = V_{cc} - 2,5Vdc$

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			
DHO5	14 : 14mm Nota: reduction hubs available	Electronic : PP5, RP2		Output signals	Resolution	G6: M23 12 pins CW	R : radial			
		Supply	Output stage	9 : A,A/,B,B/,0,0/ (0 gated A & B)	6 000 max basic resolution	G5:M23 12pins CW				
		R : 4.75 to 30Vdc	P2 : driver5Vdc RS422			G8 : M23 12 pins CCW				
		P : 5 to 30Vdc	P5 : push-pull 5-30Vdc			G1 : solenoid valve 4 pins				
						G3 : PVC cable 8 wires	Example:			
						GP : PUR cable 12 wires	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	6 000
X 1	250	256	360	500	1 024	2 500	3 000	3 600	4 000	4 096	5 000	6 000
X 2	500	512	720	1 000	2 048	5 000	6 000	7 200	8 000	8 192	10 000	12 000
X 3	750	768	1 080	1 500	3 072	7 500	9 000	10 800	12 000	12 288	15 000	18 000
X 4	1 000	1 024	1 440	2 000	4 096	10 000	12 000	14 400	16 000	16 384	20 000	24 000
X 5	1 250	1 280	1 800	2 500	5 120	12 500	15 000	18 000	20 000	20 480	25 000	30 000
X 8	2 000	2 048	2 880	4 000	8 192	20 000	24 000	28 800	32 000	32 768	40 000	48 000
X 10	2 500	2 560	3 600	5 000	10 240	25 000	30 000	36 000	40 000	40 960	50 000	60 000
X 12	3 000	3 072	4 320	6 000	12 288	30 000	36 000	43 200	48 000	49 152	60 000	72 000
X 16	4 000	4 096	5 760	8 000	16 384	40 000	48 000	57 600	64 000	65 536	80 000	96 000

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