

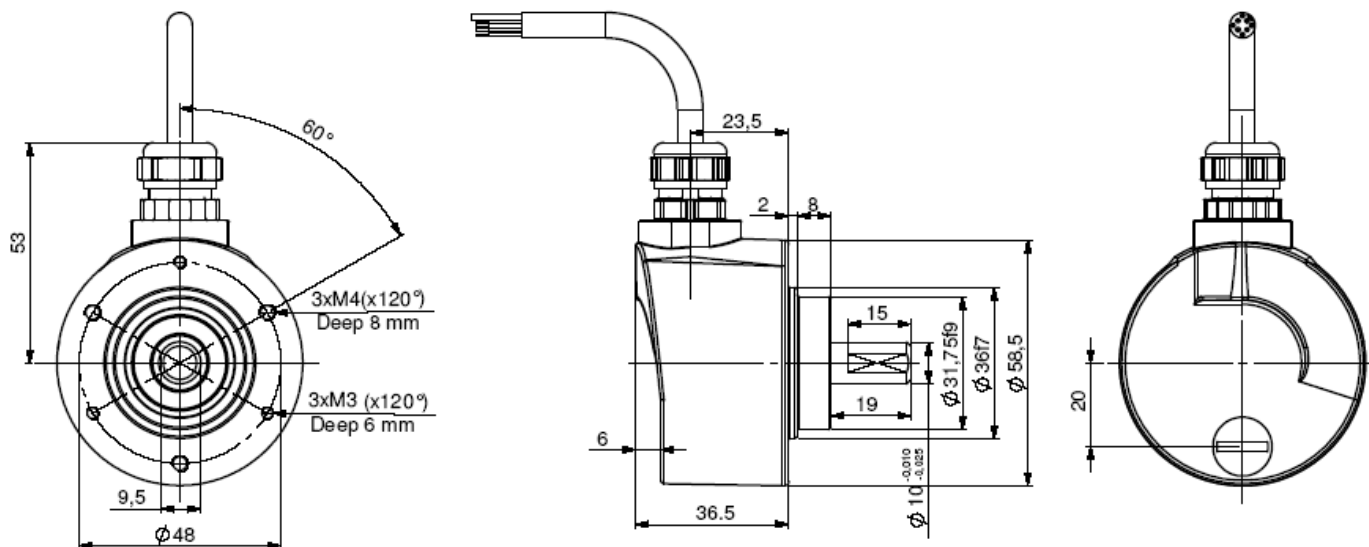
PROGRAMMABLE INCREMENTAL ENCODERS, DHM5 RANGE, DIGISINE™

DIGISINE programmable encoders : unique combination of performance and flexibility

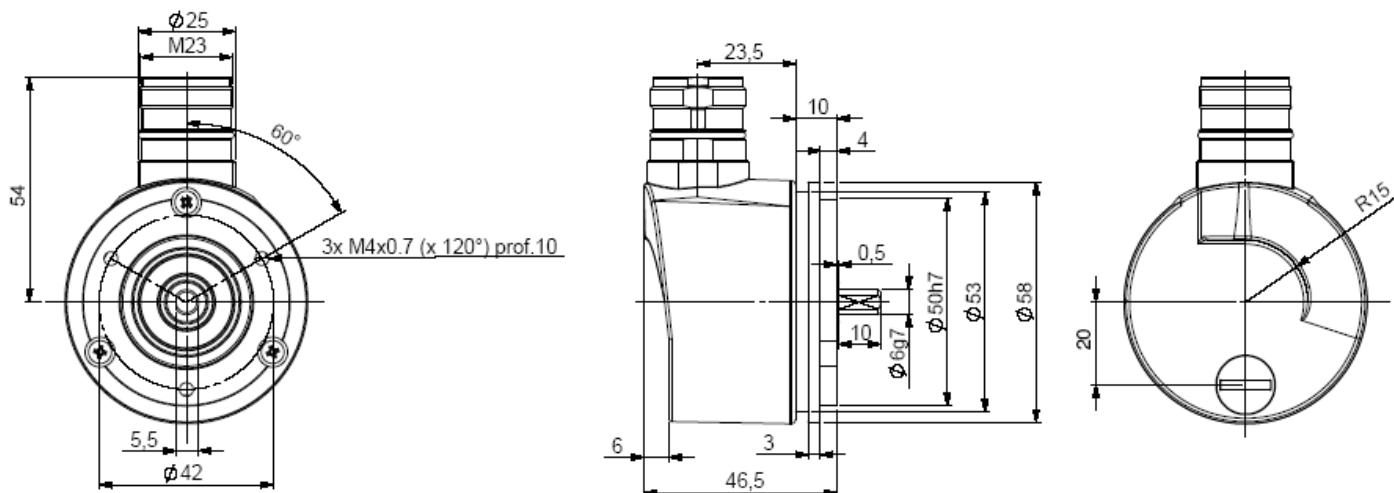
- Easy programming of the resolution without specific soft- or hard-ware
- Robustness and excellent resistance to shocks and vibrations
- High protection level IP65, IP67 feasible with a special sealing flange
- High resolutions available until 80 000 points per resolution
- Universal electronic circuits from 5 to 30Vdc
- High performances in frequency response: 300 kHz



DHM5_10 connection G3R (radial cable gland)



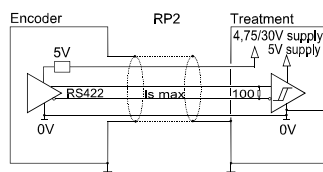
DHM5_06 connection G6R (radial M23), flange 9500/003 mounted on body



Material	Cover : zinc alloy	Shock (EN60068-2-27)	≤ 500m.s ⁻² (during 6 ms)
	Body : aluminium	Vibration (EN60068-2-6)	≤ 100m.s ⁻² (55 ... 2 000 Hz)
	Shaft : stainless steel	EMC	EN 50081-1, EN 61000-6-2
Bearings	6 000 serie	Isolation	1 000 Veff
Maximal load	Axial : 50 N	Weight (connector)	0,3 kg
	Radial : 100 N	Operating temperature	- 30 ... + 70 °C (encoder T°)
Shaft inertia moment	≤ 1.10 ⁻⁶ kg.m ²	Storage temperature	- 40 ... + 70 °C
Torque	≤ 4.10 ⁻³ N.m	Protection(EN 60529)	IP 65 (IP67 with flange option)
Permissible max. speed	12 000 min ⁻¹	Theoretical mechanical lifetime 10 ⁹ turns (F _{axial} / F _{radial})	
Continuous max. speed	9 000 min ⁻¹	25 N / 50 N: 99	50 N / 100 N: 12

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DIGITAL OUTPUT SIGNALS (SQUARE WAVE)



RP2 electronic (300kHz)

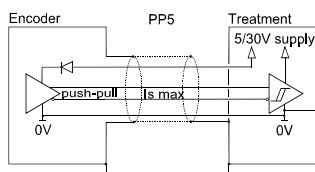
Supply : 4,75 to 30Vdc

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) : $V_{oh} = V_{cc} - 2,5Vdc$

Protection against short circuits and against reverse 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 electronics, flanges, connections...)

	Shaft Ø	Digital signals				Connection	Orientation
DHM5	10 : 10mm 06 : 6mm	Electronic : PP5, RP2		Output signals	Resolution	G6: M23 12 pins CW G5 : M23 12 pins CW G8 : M23 12 pins CCW G1:solenoid valve 4 pins	R : radial
		Supply	Output stage				
		R : 4.75 to 30Vdc	P2 : driver 5Vdc RS422				
		P : 5 to 30Vdc	P5 : push-pull				
						9 : A,A/,B,B/,0,0/ (0 gated A & B)	5 000 max basic resolution
Ex: DHM5	10 //	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 nor hardware

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	ON	ON	ON	ON
x 2	ON	ON	ON	ON
x 3	ON	ON	ON	ON
x 4	ON	ON	ON	ON
x 5	ON	ON	ON	ON
x 8	ON	ON	ON	ON
x 10	ON	ON	ON	ON
x 12	ON	ON	ON	ON
x 16	ON	ON	ON	ON