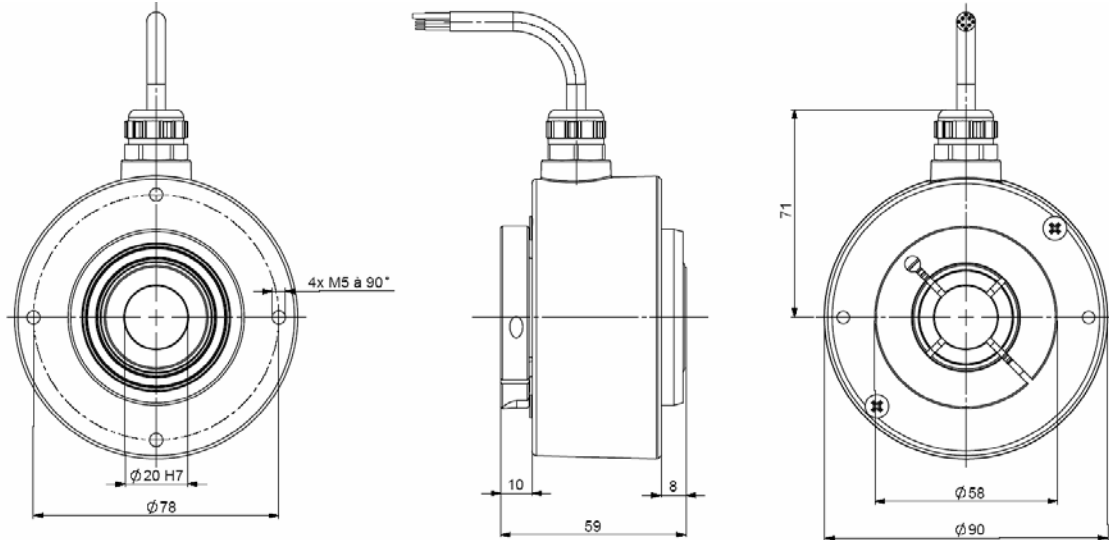


TACHO-ENCODER, NHU9 RANGE

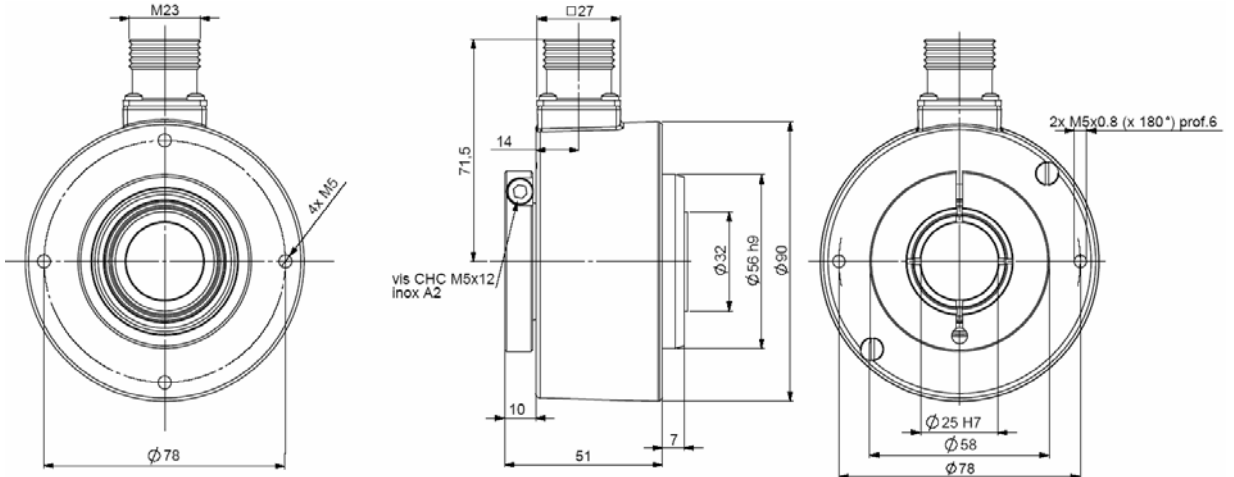
- Especially designed for heavy-duty (steel, paper, wood – mills, cranes...), compact and robust conception, its connection can be done with industrial connector or shield cable
- Hollow shaft of up to 30mm, adaptation of the bore size with composite hub for thermal and electric insulation (aluminium hubs in option)
- Digital incremental signals and analogue output signals (proportional to the speed)
- Mechanical overspeed switch option
- Double/triple mounting in combinations of incremental, absolute, analogue signals



NHU9_20 connection N3R (radial cable), with reduction hub 9418/I20 mounted in the 30mm shaft



GHU9_25 connection G6R (radial M23), with reduction hub 9418/I25 mounted in the 30mm shaft



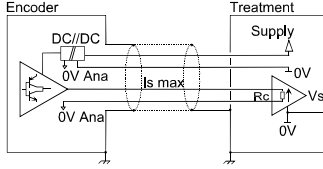
Material	Cover : zinc alloy	Vibration (EN60068-2-6)	≤ 200 m.s ⁻² (10 ... 1 000 Hz)
Stainless steel option	Body : aluminium	EMC	EN 50081-1, EN 61000-6-2
Shaft	Stainless steel	Isolation	1 000 Veff
Bearings	6807 serie	Encoder weight (approx.)	0,700kg zinc alloy cover, alu body
Maximal loads	Axial : 50 N		1,000kg zinc alloy cover, stainless steel body
	Radial : 80 N		1,200kg stainless steel cover and body
Shaft inertia moment	≤ 55.10 ⁻⁶ kg.m ²	Operating temperature	- 20 ... + 80 °C (Encoder T°)
Torque	≤ 25.10 ⁻³ N.m	Storage temperature	- 40 ... + 80 °C
Permissible max. speed	6 000 min ⁻¹	Protection(EN 60529)	IP 65
Continuous max. speed	3 600 min ⁻¹	Torque (ring screw)	nominal: N.m, break: N.m
Shaft seal	Viton	Theoretical mechanical lifetime 10 ⁹ turns (F _{axial} / F _{radial})	
Shocks (EN60068-2-27)	≤ 500 m.s ⁻² (during 6 ms)	25 N / 40 N : 140	50 N / 80 N : 17

TACHO-ENCODER, NHU9 RANGE

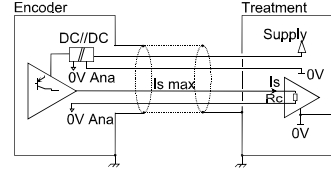
ANALOGUE OUTPUT CIRCUITS / POWER SUPPLY

- 2Na : power supply 5 Vdc – driver 0...10 Vdc
- 3Nc : power supply 15-30 Vdc – driver 0...10 Vdc
- 2Nj : power supply 5 Vdc – driver -10 Vdc ... +10 Vdc
- 3Ni : power supply 15-30 Vdc – driver -10 Vdc ... +10 Vdc

- 2Nd : power supply 5 Vdc – driver 0...20 mA
- 2Ng : power supply 5 Vdc – driver 4...20 mA
- 2Nm : power supply 5 Vdc – driver -20 mA ... +20 mA
- 3Nf : power supply 15-30 Vdc – driver 0...20 mA
- 3Ni : power supply 15-30 Vdc – driver 4...20 mA
- 3No : power supply 15-30 Vdc – driver -20 mA ... +20 mA



Rc min	1 kOhms
Rc advised	1,5 kOhms
Rc max	/



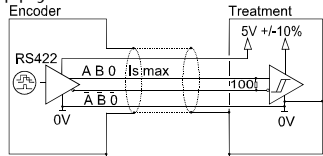
Rc min	25 Ohms
Rc advised	150 Ohms
Rc max	500 Ohms

Nota : Current loop output also available

Both versions, voltage and current output are protected against inversion of polarity and excess voltage up to 33Vdc

DIGITAL OUTPUT CIRCUIT / SUPPLY

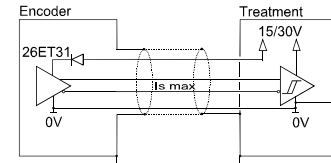
Electronic type 2Na, 2Nd, 2Ng, 2Nj and 2Nm :
Power supply 5 Vdc – Driver 5 Vdc RS422 (100kHz)



Supply : 5Vdc ± 10%
Current per channel : 40mA max
0 max (Is=20mA) : V_{oi} = 0,5Vdc
1 min (Is=20mA) : V_{oh} = 2,5Vdc

Nota : regulated 12Vdc output also available

Electronic type 3Nc, 3Nf, 3Ni, NI and No :
Power supply 15 to 30 Vdc – Driver Push Pull 15 to 30 Vdc (100kHz)



Supply 15 to 30 Vdc
Current per channel : 40mA max
0 max (Is=20mA) : V_{oi} = 0,5Vdc
1 min (Is=20mA) : V_{oh} = V_{cc}-3Vdc

The products are equipped with a total galvanic isolation (1kV) between the analogue output circuits and the rest of the electronic
Consumption without load: 250mA, protection against short circuits for the electronic type 3Nc, 3Nf, 3Ni, NI and No

STANDARD CONNECTIONS

		-	+	A	B	0	A/	B/	0/	0V ana	OUT ana	Ground
NB	Terminal box	1	2	3	4	5	6	7	8	9	10	Cable gland
N6	M23 – 12pins CW	1	2	3	4	5	6	7	8	9	10	Connector body
N3	PUR cable	WH white	BN brown	GN green	YE yellow	GY grey	PK pink	BU blue	RD red	WH-GN white-green	BN-GN brown-green	General shield

ORDERING REFERENCE (Contact the factory for special versions ex: overspeed switch, electronics, special flanges, connections ...)

	Shaft Ø	Available electronic		Channel	Resolution	Speed	Connection	Orientation								
NHU9 Cover : zinc Body alu NBU9 Cover : zinc Body: stainless steel NXU9 Cover and body: stainless steel	30 : 30mm reduction hub available from 10 to 28mm	2Na, 2Nd, 2Ng, 3Nc, 3Nf and 3Ni		9 : A,A/,B,B/,0,0/ (0, A&B gated) A : A,A/,B,B/,0,0/ (0, A gated) N : A,A/,B,B/,0,0/ (0 ungated)	10 000 max	example : D10 : 10rpm C20 : 200rpm M30 : 3000rpm	N6 : M23 12 pinouts CW	R : radial								
		Supply	Output stage													
		2 : 5Vdc	Na:0..10Vdc+RS422 Nc:0..10Vdc+push-pull Nd:0..20mA+RS422				3 : 15 to 30Vdc	Nf:0..20mA+push-pull Ng:4..20mA+RS422 Ni:4..20mA+push-pull	N3 : PUR cable 12 wires	example: R020:radial cable 2m						
Ex: NHU9	_	30	//	3		Nc		9	//	5000		M30//		N6		R050

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