HWA 103

Robust absolute hollw shaft encoder for direct mounting on existing shafts of 12- 25,4 mm in diameter.
This encoder simultaneously features the advantage of requirung little space while meeting the highest of mechanical demands.

Elektrical Specifications:

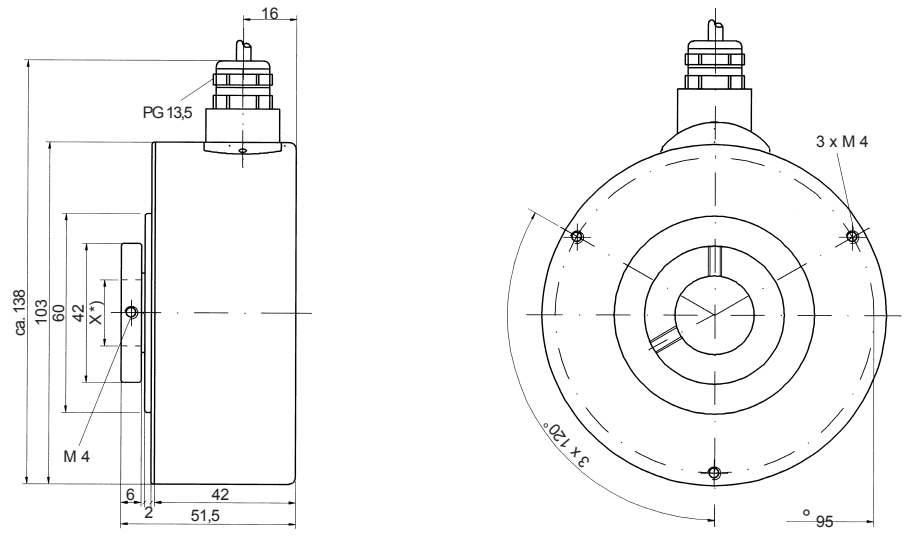
Max. signal element frequency:	10 kHz
Permissible temp. range:	-20°. . . .+60° C
Power supply:	12V. . . .24V DC +20 %
Max. current consumption:	max. 160 mA (without load)
Max. fan-out:	40 mA (per channel)
Residual ripple:	max. ± 5% U_B

Mechanical Specifications:

Flange/Enclosure:	Aluminium
Hollow shaft:	Stainless steel
Shaft seal:	Oil/Saltwater-resistant
Bearing:	Deep groove ball bearing
Weight:	ca. 0,8 kg
System of protection:	IP 65
Max. speed:	6000 U/min
Torque:	ca. 15 Ncm

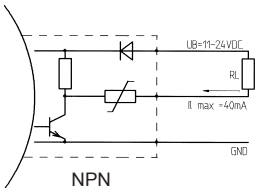
Mechanical Dimensions:

Mounting clip see page 54



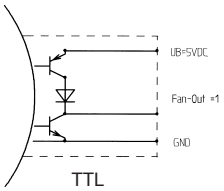
*) Toleranz = H 7

Output Circuits:



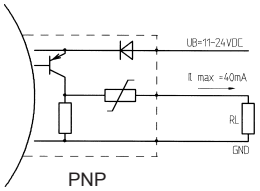
NPN

Order no..: 0



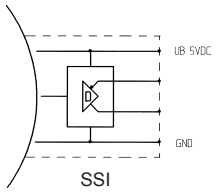
TTL

3



PNP

5



SSI

6

Output Code:

Binary, BCD,

Gray
(beginning ati 0)

Gray-Excess
(beginning ≠ 0)

Resolution:

2, 4, 8, 16, 32, 64, 128, 256, 512, 1024, 2048

2, 4, 8, 16, 32, 64, 128, 256, 512, 1024, 2048, 4096

45, 90, 180, 360, 720, 1440, 2880, 3600

Inputs:
(Optocoupler)

Count direction reversal with + UB

Optional Extras:

Latch
(Optocoupler input, driver with + UB)

Pin Configuration:

		*BCD		10_0				10_1				10_2				10_3				
				1	2	4	8	1	2	4	8	1	2	4	8	1	2	4	Option ◄►	
		GND	+UB	2_0	2_1	2_2	2_3	2_4	2_5	2_6	2_7	2_8	2_9	2_{10}	2_{11}	Option ◄►		–	–	–
Typ of connenction	12	1	2	3	4	5	6	7	8	9	10	11	12	–	–	–	–	–	–	–
,,	16	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	–	–	–
,,	00		brown	green	yellow	grey	pink	blue	red	black	violet	gr/pin	bl/re	wh/gre	br/gre	wh/ye	ye/br	wh/gr	gr/br	wh/pin

* Upwards of resolution 2048 BCD only cable output!

Order No.:

HWA 103 S – [ ][1][ ][R][ ][ ][ ] – [ ]

Max. resolution 4096

Enclosure	Shaft	Catch	Count Direction	Pos. of Connenc. / Typ of Connec. (see page 63)	Output Circuit	Output Code	Optional Extras
S = Standard	12 = 12 mm 14 = 14 mm 15 = 15 mm 16 = 16 mm 18 = 18 mm 19 = 19 mm 20 = 20 mm 22 = 22 mm 24 = 24 mm 25 = 25 mm 75 = 25,4 mm	1 = Stiftschraube	1 = clockwise 2 = counter clockwise 3 = reversible	Standard: R = radial : 00, 12, 16 matching plug with ready made cable upon request)	0 = NPN 3 = TTL on request) 5 = PNP 6 = SSI	B = Binary C = BCD E = Gray Excess G = Gray	0 =None L = Latch

See page 56 for mechanical accessories

hohner Elektrotechnik Werne
Gewerbehof 1 · D-59368 Werne
Tel.: (0 23 89) 98 78-0 · Fax: (0 23 89) 98 78-27