

HWI 103



Robust incremental hollow shaft encoder for direct mounting on existing shafts of 12-25,4 mm in diameter.

This encoder simultaneously features the advantage of requiring little space while meeting the highest of mechanical demands.

Electrical Specifications:

Max. pulse frequency : 50 kHz
 Permissible temp. range: -20° . . . +60° C

Supply voltage: 11V . . . 24V DC +20 %
 Max. current consumption: - 80 mA (without load)
 Max. fan-out: 30 mA (per channel)
 Residual ripple: max. ± 5% U_B

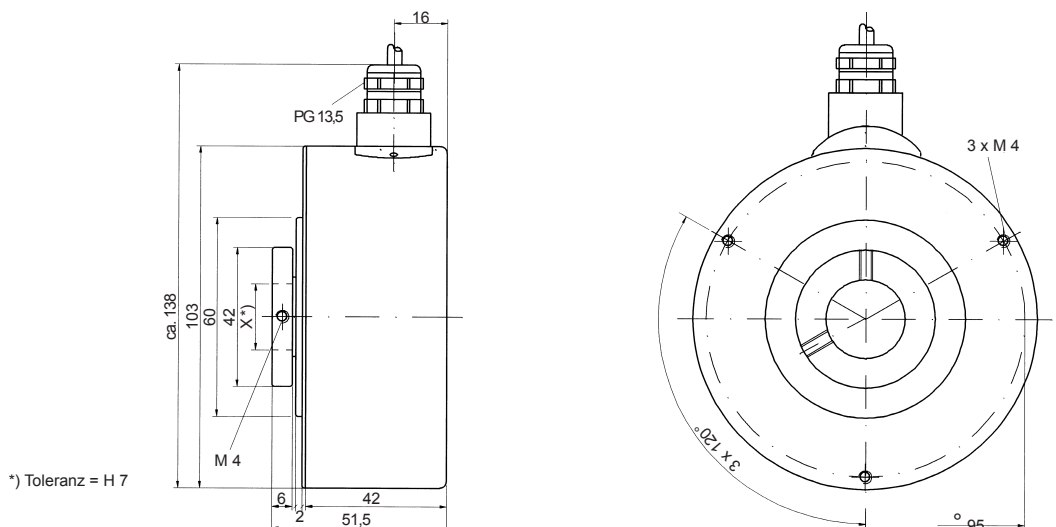
Supply voltage: 5V DC ± 5%
 Max. current consumption: - 80 mA

Mechanical Specifications:

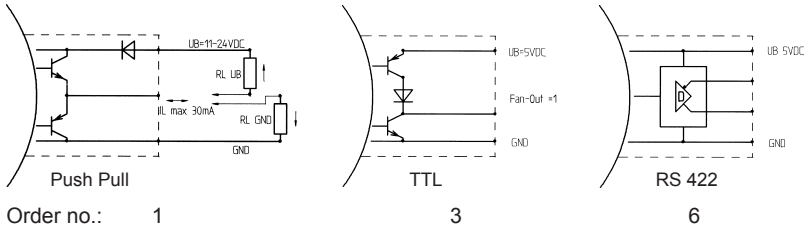
Flange /Enclosure: Aluminium
 Hollow Shaft: Stainless steel
 Shaft seal: Oil/Saltwater-resistant
 Bearing: Deep groove ball bearing
 Weight: ca. 0,8 kg
 System of protection: IP 65
 Max. speed: 6000 U/min
 Torque: ca. 15 Ncm at 25° C
 ca. 50 Ncm at 20° C

Mechanical Dimensions:

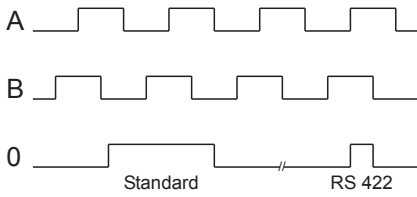
Mounting clip see page 64



Output Circuits:



Signal Outputs:



Two square pulse trains offset by 90° el, with channel A lagging in clockwise rotation..

Reference pulse 0 once per revolution. Random in position and length. Linked with RS 422.

All channels can also be inverted.

Pin configuration:

Typ of connection	Color code acc. DIN 47100)	GND	+ UB	A	B	\bar{A}	\bar{B}	0	$\bar{0}$
00	(Color code acc. DIN 47100)	white	brown	green	yellow			grey	
00	(Color code acc. DIN 47100)	white	brown	green	yellow	grey	pink	blue	rot
01		black	blue	brown	beige			yellow	
01		black	blue	brown	beige	yellow	green	pink	violett
07		1	2	3	4	(5)	(6)	5	6
12, 54		1	2	3	4	5	6	7	8

Order No:

HWI 103 **S** - **1** **R** - Pulse no. 1...3600

Enclosure Shaft Signal Output Catsch Position of connection /Type of connection (see page 63) Output Circuit

S = Standard 12 = 12 mm 1 = A 1 = Stud screws Standard: 1 = Push Pull 30mA
 14 = 14 mm 2 = A,B R = radial: 3 = TTL
 15 = 15 mm 3 = A,B,0 00, 01, 07, 6 = RS 422
 16 = 16 mm 4 = A, \bar{A} 12, 54 7 = Ub 24V DC-Output. 5V TTL
 18 = 18 mm 5 = A,B / \bar{A} , \bar{B} matching plug with redy made cable upon request 8 = Push Pull 100mA
 19 = 19 mm 6 = A,B,0 / \bar{A} , \bar{B} , $\bar{0}$ 9 = Ub 24V DC-Output. RS 422
 20 = 20 mm 7 = A,0
 22 = 22 mm 8 = A,0 / \bar{A} , $\bar{0}$
 24 = 24 mm 9 = A,B,0, $\bar{0}$
 25 = 25 mm
 75 = 25,4 mm

see page 56 for mechanical accessories