

Features and applications:

- Heavy-duty and robust encoder available for sea water and tropical climate resistance
- Solid shaft encoder, **Explosion-proof encoder EX II 2G Ex ib IIB T4 Gb**
- Resolution Max. 5000 ppr.
- Excellent shock and vibration resistance high protection class up to IP66
- Applied in various harsh environments



Model	RN78T	RN90S	RN90T
Housing diameter	Ø 78mm	Ø 90mm	
Shaft diameter	Solid shaft Ø 10 / 11 / 12 / 15 mm		
Working principle	Opto-electronic		
Power supply	5±0.25 Vdc or 10....30Vdc		
Output circuit	HTL/push-pull , TTL/RS422, Voltage output, Current output		
Output signal	A B , A B Z or A B Z + A/ B/ Z/		
Zero signal	Zsignal width1T (0.5T or 0.25T for option)		
Current consumption	80mA, (HTL/TTL 150mA max.)		
Response frequency	100KHz, 125KHz , 150KHz , 250KHz , 300KHz		

Connection type	Cable or Connector
Connection position	Radial / Axial

Max. speed	6000r/min	8000r/min	6000r/min
Shaft load	Radial 80N, Axial 40N	Radial 40N, Axial 20N	
Protection class	IP65, IP66		
Starting torque	8x10 ⁻² N.m Max.		
Operating temperature	-25°C....85°C (-40°C....100°C specia make)		
Storage temperature	-35°C....100°C		-40°C....100°C
Shock resistance	1000 m/s ² , 6 ms		
Vibration resistance	100 m/s ² , 10....200Hz		

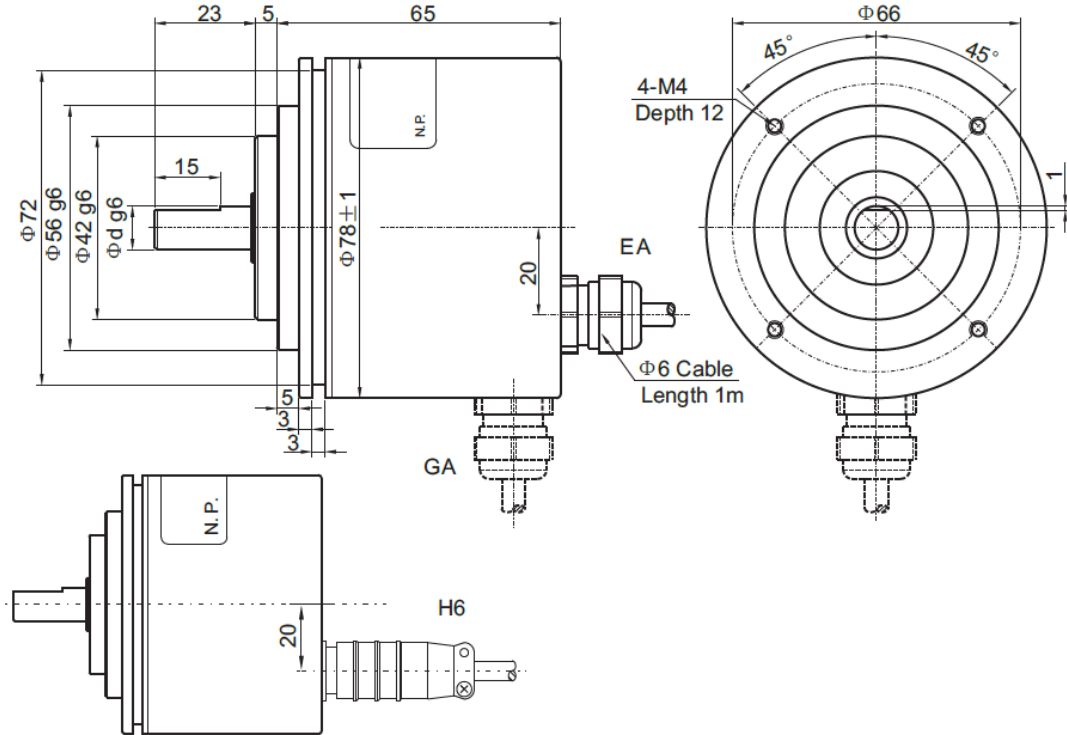
Resolution	Common pulse: 100, 120, 125, 200, 250, 256, 300, 360, 400, 500, 512, 600, 1000, 1024, 1200, 1250, 1500, 1800, 2000, 2048, 2500, 3000, 3600, 4000, 4096, 5000
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Wiring table

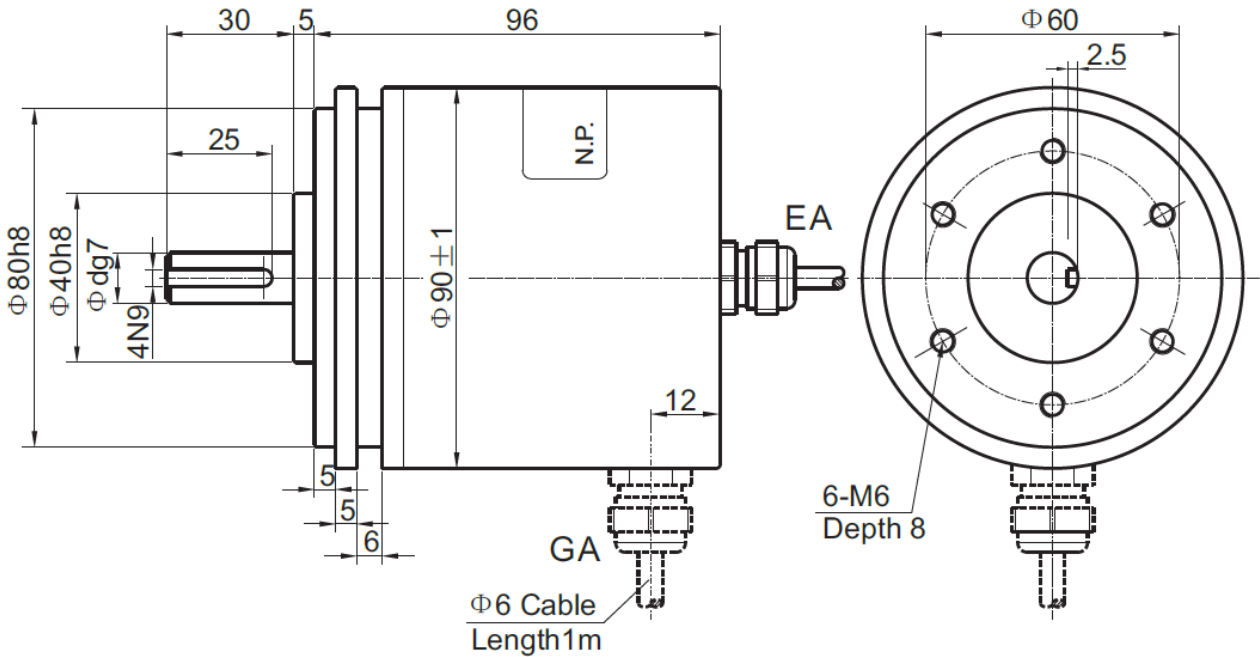
Color	White	Black	Red	Green	Yellow	Pink	Blue	Orange	Shield
Signal	Vcc	0V	A	B	Z	-	-	-	-1)
Signal	Vcc	0V	A	B	Z	A/	B/	Z/	-1)

Dimension drawing

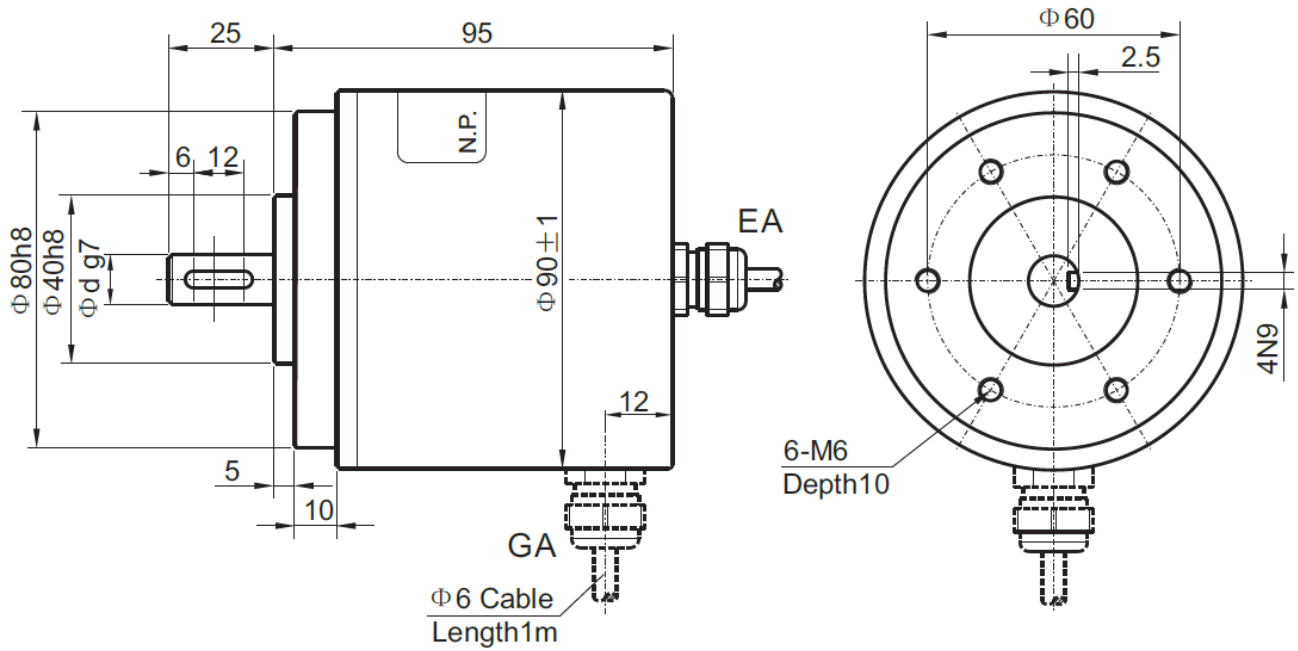
Series RN78T:



Series RN90S:



Series RN90T:



Order Reference:

	1	2	3	4	5	6	7	8
1. Spec.and series	RN78X - RN78T - RN90S - RN90T -	XXX	XX	X	X	X	XXXXXX	XX
2. Shaft diameter								
010 Ø10mm		010						
011 Ø11mm		011						
012 Ø12mm		012						
015 Ø15mm		015						
3.Connection type								
A1 Cable Ø7mm, 8x2x0.14mm ² 1m			A1					
AC Connector 8 pins			AC					
AB Connector M23			AB					
4. Connection position								
A Axial				A				
R Radial				R				
5. Signal output								
6 A+ B+ Z+ and A- B- Z-					6			
3 A B Z					3			
6. Output circuit								
T 10-30V, HTLpush-pull						T		
E 5V, TTLdriver						E		
F 5-30V, HTLpush-pull						F		
7. Number of pulses:								
10, 15, 50, 100, 120, 125, 200, 250, 256, 300, 360, 400, 500, 512, 600, 1000, 1024, 1200, 1250, 1500, 1800, 2000, 2048, 2500, 3000, 3600, 4000, 4096, 5000, 8192, 10000, 16000 pulses							01024	
8. EX explosion-proof								
EX explosion-proof type encoder EX II 2G Ex ib IIB T4 Gb								EX