

SIAKIAYO

Your Expert for Automation

SIAKIAYO SEIKI CO.,LTD.

ROTARY ENCODER (Incremental)

NOB Series



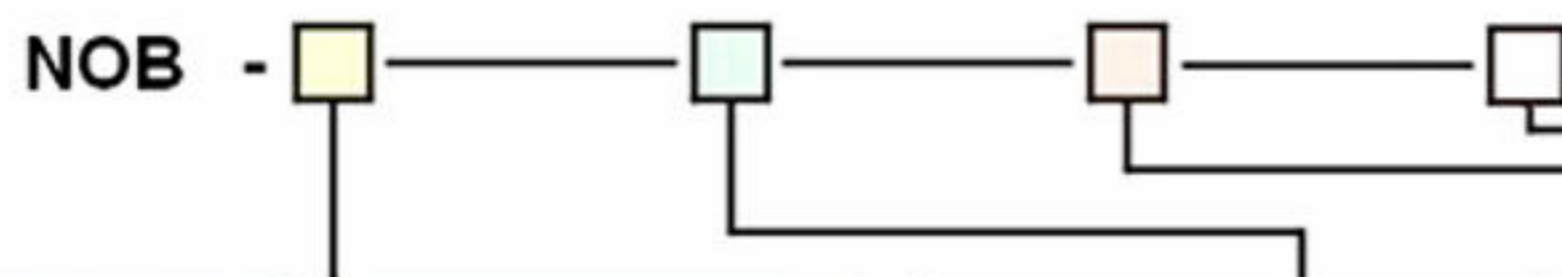
NOB - Outer dia. 38mm



NOB-H - Outer dia. 38mm

- Optical incremental encoder with zero index function
- Built-in Constant-Voltage circuit assures a wide range of operating voltage from 5 to 30VDC
- Offers resolution as high as 6000 pulses/revolution
- Voltage, Open Collector, Complementary and Line Driver output available
- Extra high performance and reliability

Ordering Codes



Resolution:				
10	30	50	60	75
100	120	125	200	250
256	300	360	400	500
512	600	720	800	900
960	1000	1024	1200	1500
1800	2000	2048	2500	3600

Output Phase:
B : A, B
Z : A, B, Z
U : A, \bar{A} , B, \bar{B}
V : A, \bar{A} , B, \bar{B} , Z, \bar{Z}

Output Form:
V : Voltage
C : Open Collector
F : Complementary
L : Line Driver

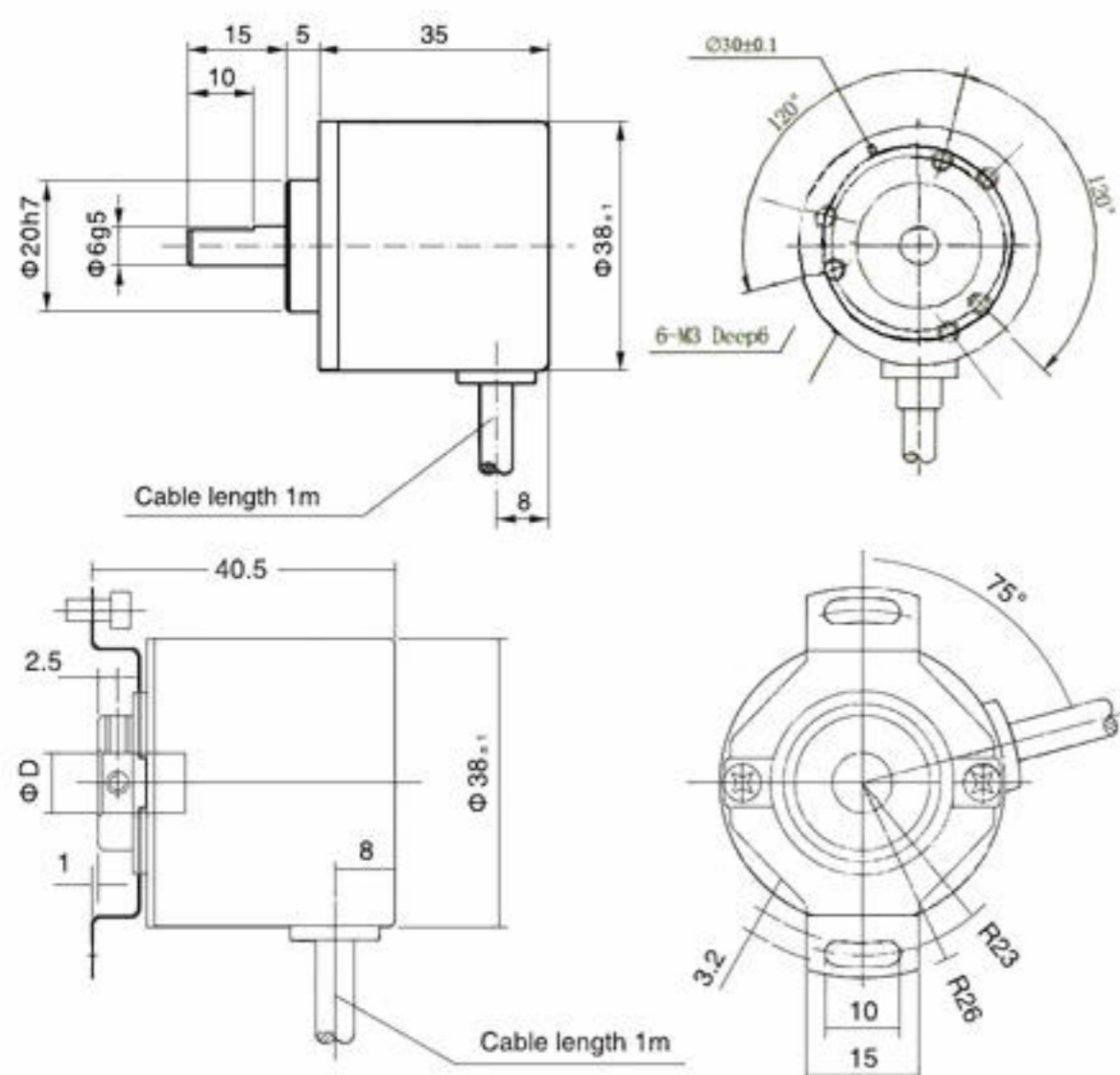
Shaft Type:
No Indication: Solid Shaft
H: Half a Hollow
T: Hollow

Specifications

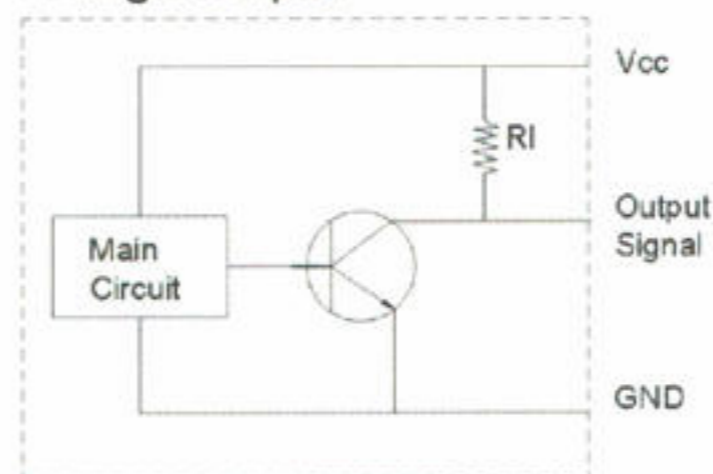
	Model	NOB	
ELECTRICAL	Resolution	10 ~ 3600 P/R	
	Power Supply	5~30VDC ±5% (Line Driver: 5V ±5%)	
	Current Consumption	60mA max. (Line Driver: 150mA max.)	
	Output Phase	A, B, Z (Line Driver: A, \bar{A} , B, \bar{B} , Z, \bar{Z})	
	Output Capacity	Open Collector	0.5VDC max., 30mA max.
		Voltage	V _H : 70% of V _{CC} min. V _L : 1VDC max. 30mA max.
		Line Driver	V _H : 2.5V _{CC} min. V _L : 0.5VDC max. 20mA max.
		Complementary	V _H : 70% of V _{CC} min. V _L : 1VDC max. 30mA max.
	Max. Response Frequency	100 kHz	
	Rise and fall times of output	Open Collector	1 μs max. (load resistor: 1kΩ max., cable length 1m max.)
Voltage		1 μs max. (load resistor: 1kΩ max., cable length 1m max.)	
Line Driver		0.1 μs max. (load resistor: 1kΩ max., cable length 1m max.)	
Complementary		1 μs max. (load resistor: 1kΩ max., cable length 1m max.)	
Insulation Resistance	20MΩ min. (at DC100V) between carry parts and case		
Dielection Strength	500VAC, 50/60Hz for 1 minute between carry parts and case		
MECHANICAL	Starting Torque	15.0 x 10 ⁻⁴ N • m	
	Max. Rotating Speed	6000 RPM	
	Max. Shaft Load	Radial	20N max.
		Axial	10N max.
	Weight	Approx. 180g (cable length: 1m)	
Cable	1m, 4P(AWG26) shield cable		
ENVIRONMENTAL	Ambient Temperature	Operating: -10°C ~ +70°C (with no icing) Storage: -20°C ~ +80°C (with no icing)	
	Ambient Humidity	Operating: 30% ~ 85% RH (with no condensation) Storage: 35% ~ 85% RH (with no condensation)	
	Vibration Resistance	100 m/s ² , 10 ... 200Hz	
	Shock Resistance	1000 m/s ² , 6ms	
	Protection	IP 50	

Connection Table

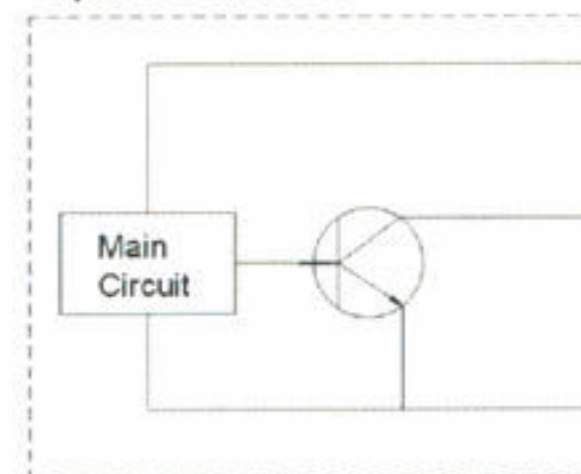
Lead Wire	Voltage, Open Collector, Complementary	Line Driver
Vcc	Red	Red
0V	Black	Black
A	Green	Green
\bar{A}	—	Blue
B	White	White
\bar{B}	—	Gray
Z	Yellow	Yellow
\bar{Z}	—	Orange
Shield	—	—



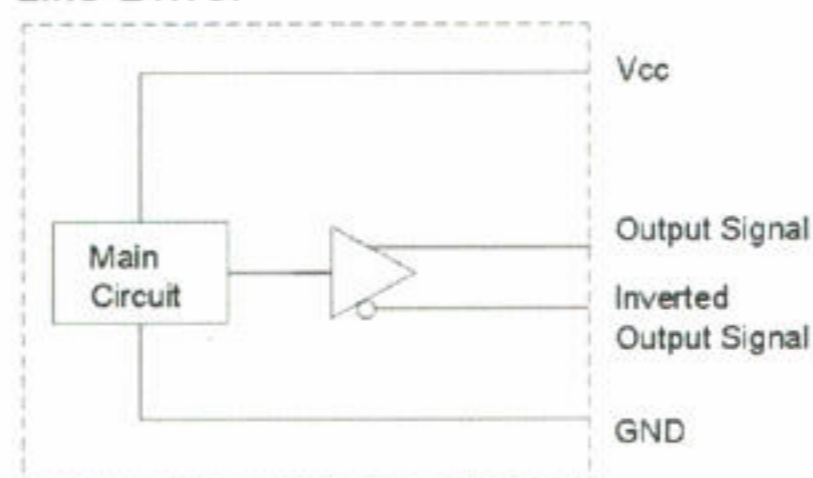
Voltage Output



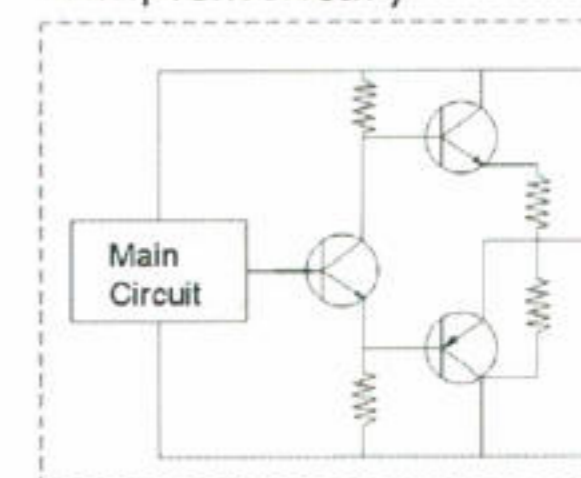
Open Collector



Line Driver



Complementary



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