



## DIGITAL OPTICAL ROTARY ENCODER



### Technical Details:

<b>Item</b>		Magnetic type Incremental rotary encoder Diameter 38mm shaft 6mm
<b>Resolution (P/R)</b>		600
<b>Input Phase</b>		ABZ Phase
<b>Output Phase</b>		Open Collector
	<b>Supply Voltage</b>	5-24 VDC
<b>Electrical</b>	<b>Current Consumption</b>	Max , 80mA
	<b>Response Frequency</b>	Max , 600 KHz
	<b>Allowable Revolution</b>	Max , 5000 rev /min
<b>Mechanical</b>	<b>Starting torque</b>	Max , 40 gf.cm ( 0.002N.,m )
	<b>Rotor inertia</b>	Max , 40 g.cm2 ( 1,5* 10 -6 kg.m2 )
	<b>Shaft Loading</b>	Radial : Max 2kgf, Axial : Max .1kgf
	<b>Mechanical Speed</b>	Max .5000 rev / min (*1 )
<b>Environmental</b>	<b>Ambient Temperature</b>	-10~ 70 ( at non- freezing status ) , Stronger :- 25 ~ 85
	<b>Ambient Humidity</b>	35 ~85% RH , Stronger : 35~ 90 % RH
	<b>Protection</b>	Ip54 (IEG Standard )
	<b>Vibration</b>	1.5 mm amplitude at frequency of 10-55 Hz in each Of X,Y,Z direction for 2 hour.
	<b>Shock</b>	Max. 40G
<b>Unit Weight</b>		Approx :180g
<b>Cable</b>		2.0m shield cable
<b>Approval</b>		CE ROHS
<b>(*1 )</b>		Mechanical speed > Allowable revolution , Please take allowable speed as standard when use

Wire Colour	OC VP OP 3-CHANNEL	TTL / HTL 6- CHANNEL	PIN 9-POLE	EXPLANATION
RED	VCC	VCC	1	Supply Voltage
BLACK	0 V	0 V	4	Common Port
GREEN	A	A	5	Signal wire
WHITE	B	B	3	Signal wire
YELLOW	Z	Z	8	Signal wire
BROWN	-	-A	6	Signal wire
GRAY	-	-B	7	Signal wire
ORANGE	-	-Z	2	Signal wire
SHIELD	SHIELD	SHIELD	9	

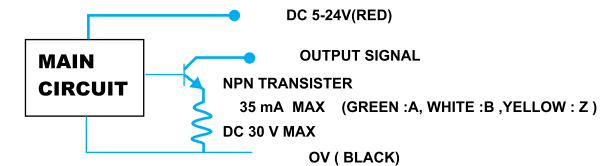
### Output:

AB two-phase quadrature output rectangular pulse, the circuit output is NPN open collector output type.

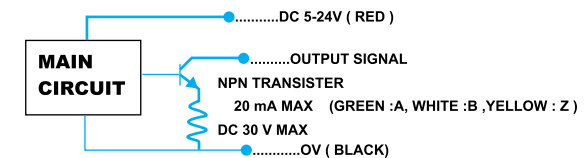
This type can be output with internal pull -up resistor available in Arduino, microcontroller s or PLC, such asAtmega, pic, 51 or microcontroller Mitsubi shi PLC.

If Internal Pullup is not available, then you need to Pull-up Output Channel A & B with resistors supplied with product. i.e. resister between Green and RED, White and RED wire.

OC NPN OPEN COLLECTOR



OC VOLTAGE OUTPUT



LD : LONG DRIVER OUTPUTS 5V  
LDH : LONG DRIVER OUTPUTS 5-24V

