



DIGITAL OPTICAL ROTARY ENCODER



Technical Details:

Item		Optical type Incremental rotary encoder Diameter 38mm shaft 6mm
Resolution (P/R)		1024
Input Phase		ABZ Phase
Output Phase		Line driver: A $\bar{A}$, B $\bar{B}$, Z $\bar{Z}$ phase
	Supply Voltage	5 VDC
Electrical	Current Consumption	Max , 80mA Line drive output: Max. 50mA
	Response Frequency	Max , 800 KHz
	Allowable Revolution	Max , 5000 rev /min
Mechanical	Starting torque	Max , 40 gf.cm (0.002N.,m)
	Rotor inertia	Max , 40 g.cm ² (1,5* 10 ⁻⁶ kg.m ²)
	Shaft Loading	Radial : Max 2kgf, Axial : Max .1kgf
	Mechanical Speed	Max .5000 rev / min (*1)
Environmental	Ambient Temperature	-10~ 70 (at non- freezing status) , Stronger :- 25 ~ 85
	Ambient Humidity	35 ~85% RH , Stronger : 35~ 90 % RH
	Protection	Ip54 (IEG Standard)
	Vibration	1.5 mm amplitude at frequency of 10-55 Hz in each Of X,Y,Z direction for 2 hour.
	Shock	Max. 40G
Unit Weight		Approx :180g
Cable		2.0m shield cable (Line driver output: 5mm, 8P)
Approval		CE ROHS
(*1)		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	

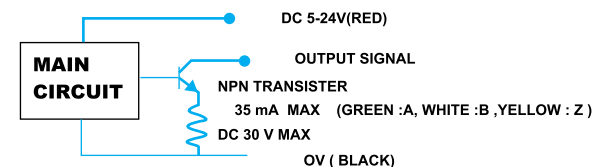
Output:

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

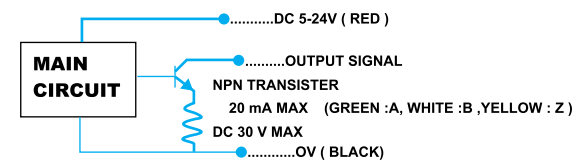
This type can be output with internal pull -up resistor available in Arduino , microcontroller s or PLC, such asAtmega, pic, 51 or microcontroller Mitsubi shi PLC.

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

