SHARVi ELECTRONICS
LET'S MAKE IT

DIGITAL OPTICAL ROTARY ENCODER

Technical Details:

Item		Diameter 38mm shaft 6mm type Incremental rotary encoder
Resolution (P/R)		100, 360, 400, 600, 1000 PPR
Input Phase		AB Phase
Output Phase		NPN Open Collector
Electrical	Supply Voltage	5-24 VDC
	Current Consumption	Max , 40mA
	Response Frequency	Max , 100 Khz
	Allowable Revolution	Max , 3000 rev /min
Mechanical	Starting torque	Max , 20 gf.cm (0.002N.,m)
	Rotor interia	Max , 15 g.cm2 (1,5* 10 -6 kg.m2)
	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	Ip52 (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 (the cable length can be customized)
Approval		CE ROHS
(*1)		Mechanical speed > Allowable revolution , Please take allowable speed as standard when use

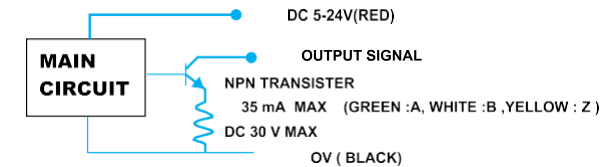| Wire Colour	OC VP OP 3-CHANNEL	TTL / HTL 6- CHANNEL	PIN 9-POLE	EXPLANATION
RED	VCC	VCC	1	Supply Voltage
BLACK	0 V	0 V	4	Common Port
GREEN	A	A	5	Signal wire
WHITE	B	B	3	Signal wire
YELLOW	Z	Z	8	Signal wire
BROWN	–	-A	6	Signal wire
GRAY	–	-B	7	Signal wire
ORANGE	–	-Z	2	Signal wire
SHIELD	SHIELD	SHIELD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

Output:

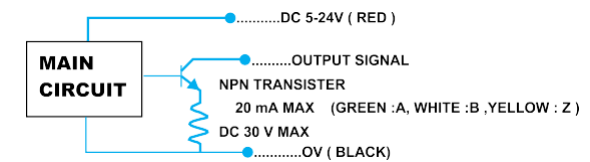AB two-phase quadrature output rectangular pulse, the circuit output is NPN open collector output type.

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

MAIN CIRCUIT
DC 5-24V(RED)
OUTPUT SIGNAL
NPN TRANSISTER
35 mA MAX   (GREEN :A, WHITE :B ,YELLOW : Z)
DC 30 V MAX
OV (BLACK)

OC   VOLTAGE OUTPUT

MAIN CIRCUIT
...........DC 5-24V (RED)
..........OUTPUT SIGNAL
NPN TRANSISTER
20 mA MAX   (GREEN :A, WHITE :B ,YELLOW : Z)
DC 30 V MAX
............OV (BLACK)

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

MAIN CIRCUIT
AM26C31
...........DC 5-24V (RED)
..........(GREEN :A, WHITE :B ,YELLOW : Z)
..........(BROWN :A, GRAY :B ,ORANGE : Z)
............OV (BLACK)