Catalogue No.T12-1228N50

Motortronics®

## ROTARY ENCODERS

# FA-CODER®


OIH35

SmartAbs®


Tamagawa TAMAGAWA SEIKI CO.,LTD.

# ABSOLUTE

## APPLICATION

Detection of press crank angle

## FEATURES

Vibration-proof

Shock-proof

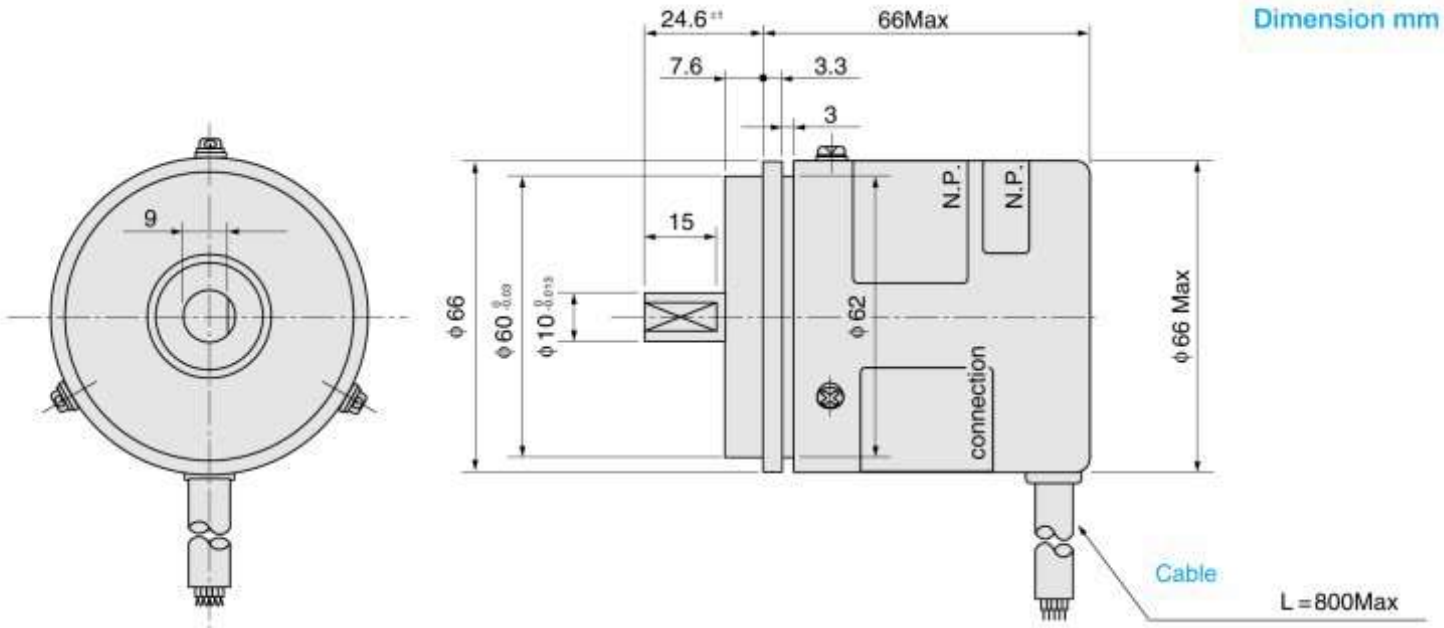
Water Drop proof

With BUSY signal


TS5607

# OAS66

Dimension mm mm




Unless otherwise specified tolerance is ±0.5mm ±0.5mm

## DESIGNATE THE NAME OF FUNCTION WHEN ORDERING

**OAS 66 – 360 C/T — C B – 12V**

| OAS | 66 | 360 | C/T | C | B | 12V |
|---|---|---|---|---|---|---|
| Optical Absolute Shaft Encoder | Size 66mm | Resolution: 360 | Model No.: TS5607N4 | Output form: C Open Collector | Output phase: B BCD | Voltage: 12 +12V |

For special cases, please consult us.

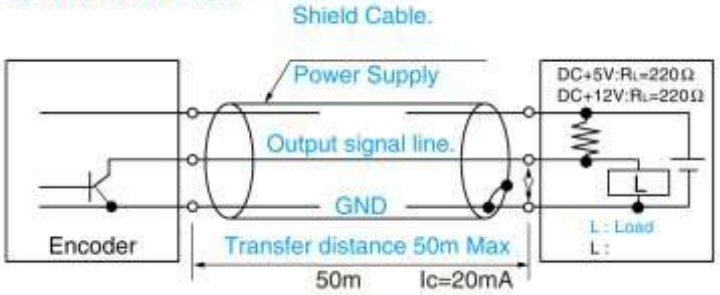
# SPECIFICATIONS

| Electrical Spec. | | |
|---|---|---|
| Resolution | | 359C/T |
| Output Phase | | BCD Code BCD |
| Supply Voltage | | DC + 12V ± 10% |
| Consumption Current | | 300mA Max |
| Output Form | Open Collector | Maximum Allowable Output Voltage 28V<br>Maximum Allowable Sink Current 50mA |
| Maximum Response Frequency | | 2.5kHz |
| Rise time, Fall time | | 1.5 μ sec Max |

| Mechanical Spec. | | |
|---|---|---|
| Starting Torque | | $9.8 \times 10^{-2}$ N · m<br>1kgf · cm Max |
| Moment of Inertia | | $3.0 \times 10^{-6}$ kg · m²<br>30g · cm² Max |
| Maximum Rotating Speed | | $5{,}000 min^{-1}$<br>5,000rpm |
| Allowable Shaft Load | Radial | 98N<br>10kgf Max |
| | Axial | 49N<br>5kgf Max |
| Operating Temp. Range | | 0 +50°C |
| Storage Temp. Range | | −10 +70°C |
| Protective Construction | | IP = 54 |
| Vibration | | 49m/s² 5G 98m/s² 10G 5 500Hz<br>3 1H |
| Shock | | 490m/s² 50G 11m sec. 3 6 3 |
| Mass | | 0.6kg Max |

# CIRCUIT AT OUTPUT STAGE (EXAMPLE)

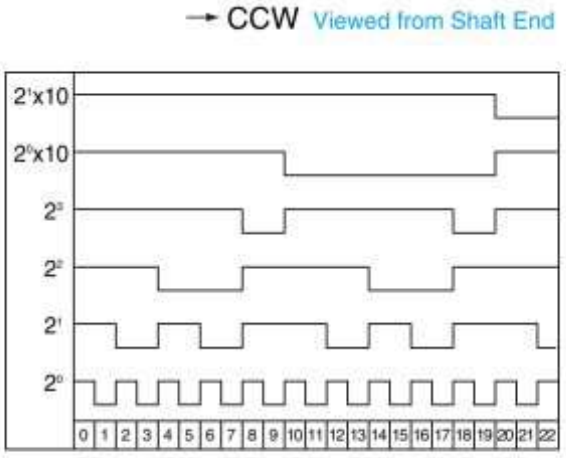
**Open Collector Output**




Note that transfer distance depends much on ambient condition.

Use transmission cable after verifying effects of impedance characteristics, etc.

# OUTPUT PHASE SHIFT




The logic shall be negative and above figure shall show a voltage wave-form

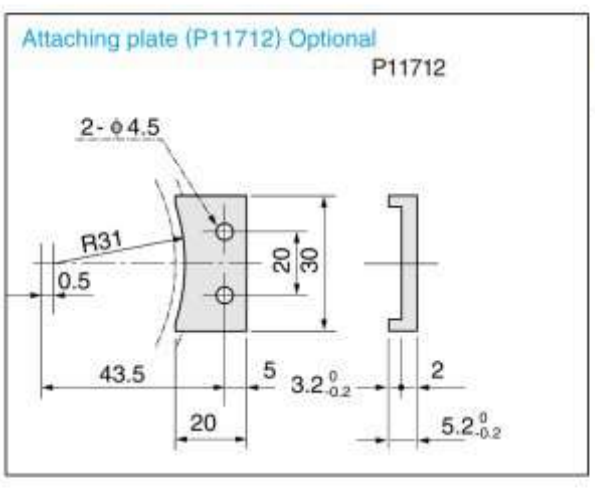
# CONNECTION TABLE

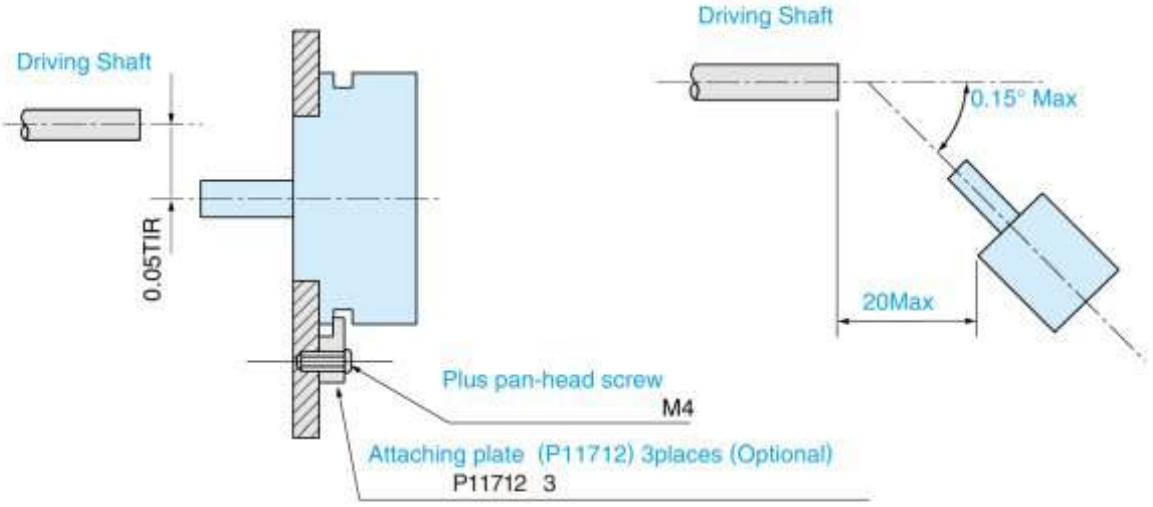
| Lead color | Function | Lead color | Function | Lead color | Function |
|---|---|---|---|---|---|
| BROWN | B2 x200 MSB | BLUE | A1 x10 | WHITE/VIOLET / | DC+12V |
| RED | A2 x100 | VIOLET | D0 x8 | WHITE/GRAY / | GND |
| ORANGE | D1 x80 | GRAY | C0 x4 | WHITE/GRAY / | GND |
| YELLOW | C1 x40 | WHITE | B0 x2 | BLACK | Reverse Count |
| GREEN | B1 x20 | WHITE/BLACK / | A0 x1 LSB | WHITE/BROWN / | Busy Signal |

# ATTACHING WAY (EXAMPLE)

Note that attaching alignment can be changed by the couplings when coupled to the driving shaft.

Dimension mm mm



ROTARY ENCODERS

# FA-CODER®

FA-CODER®

Digital techniques in business industry have been greatly advanced. Among these, necessity for converting analog like rotating value, shaft angle position, etc. to digital has been increased as measurement for physical value and automation for control system are advanced. Encoders, at present, have been widely used for factory automations, measurements, office automation devices, medical equipment, aviations and universal fields.

Various kinds of encoders (FA-CODER® as trade mark) from small to high resolution are available to meet all of the requirements. High performance encoders supported by these high disk producing techniques are available.