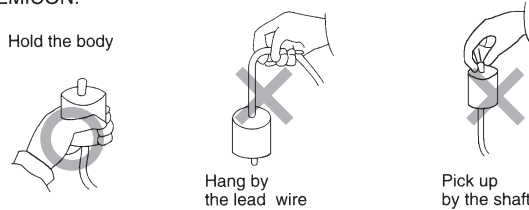


# INSTRUCTION FOR USERS OF NEMICON ROTARY ENCODER

**CAUTIONS** Users of NEMICON rotary encoder should observe following instructions before they touch the encoder.

## PRECAUTIONS FOR HANDLING

- 1) Hold the body of the encoder. Never hang it by the lead wire(s) nor pick up it by the shaft.
- 2) Isolate the encoder from shock and vibration.
- 3) Keep the encoder away from dust, oil, water, high or low temperature and corrosive materials. These situations may cause the damage of the encoder and a personal injury.
- 4) Any modification of the encoder is prohibited. A modified encoder is not a subject to the warranty.
- 5) Do not contact a shaft, a disc, a coupling or other rotating part of the encoder in operation to avoid a personal injury.
- 6) If any flaw is found before the encoder is used, please contact the NEMICON.

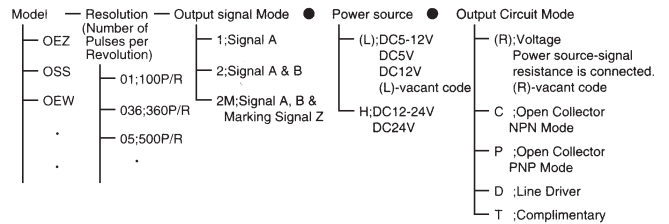


## NEMICON CORPORATION

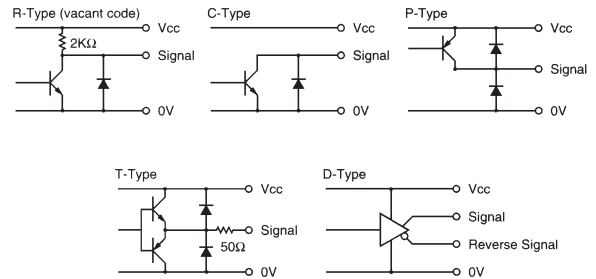
Address : Urban Toranomon BLDG 8F 1-16-4 Toranomon,  
Minato-Ku, TOKYO 105-0001, JAPAN  
Tel : +81-3-5860-9410  
Telefax : +81-3-5860-9418

Please identify the encoder with the specification

### 1. Definition of Models and Types.



### 2. Circuit of Output Signals.



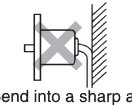
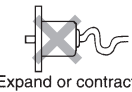
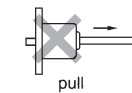
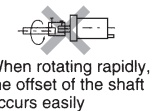
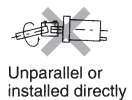
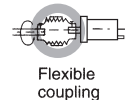
### 3. Electrical Connections

(Only Models of OEZ, OSS, OEZ, FES, OEL, OPP are described here. Please refer to NEMICON Catalogue of Other Types.)

R(vacant code) • C • P • T-Type		D-Type			
Color	Descriptions	Color	Descriptions	Color	Descriptions
Red	Power Source	Red	Power Source	Blue	Signal $\bar{A}$
Black	0V common	Black	0V common	Gray	Signal $\bar{B}$
Blue or Green	Signal A	Green	Signal A	Orange	Signal $\bar{Z}$
White	Signal B	White	Signal B		
Yellow	Signal Z	Yellow	Signal Z		
Shielding	No Connection	Shielding	No Connection		

## CAUTIONS Precautions for installation (Please read the general catalogue for details)

- 1) The encoder should be kept away from shock and vibration, for preventing the damage of a glass disc inside.
- 2) The encoder should be solidly mounted on a rigid support with screws and the shaft of the encoder should be aligned coaxially with a driving shaft.
- 3) The encoder shaft should be connected with the driving shaft with a flexible coupling. Both shafts should be aligned in parallel and the maximum center offset of them shall be within the specification of the coupling.
- 4) The supply voltage should be kept within the required range. An electric power source should use an insulating transformer as IEC 742 to connect with an encoder circuit. Otherwise, it may cause the damage of the encoder.
- 5) A shielded cable should be used for encoder output connection. The cable should be isolated from AC power lines to avoid electromagnetic interference. The maximum length of the cable is 10m and 50m for R-Type and C-Type especially. D-Type is recommended in a location where the electromagnetic interference is concerned.
- 6) The wirings of the rotary encoder should be connected according to color codes of wires and electrical connections.
- 7) The encoder should be located free of dust, oil, water, high or low temperature, high humidity and corrosive or flammable materials.
- 8) The lead wires of the encoder should not be pulled out or bent into a sharp angle.



- Users of NEMICON rotary encoder are requested to read the instructions described in this catalogue for handling and installation.
- Designers of product in which NEMICON rotary encoder is comprised should refer to the general catalogue of NEMICON rotary encoder.
- Without complying with these instructions a designer may cause a defective design of the product and poor performance of NEMICON encoder.
- Please contact the local NEMICON agents for more information.
- The specification of the NEMICON rotary encoder may be changed without notice.
- Copying of this instruction is prohibited in any form.
- Any question or a report of erratum on this instruction is welcome by the NEMICON.

This is a group 1, class A product according to EN 55011 (CISPR 11). This means that this product does not generate and/or use intentionally radiofrequency energy, in the form of electromagnetic radiation, inductive and/or capacitive coupling, for the treatment of material or inspection / analysis purpose and that it is suitable for use in all establishments other than domestic and those directly connected to a low voltage power supply network which supplies buildings used for domestic purposes.

This equipment is not intended for use in residential environments and may not provide adequate protection to radio reception in such environments.

CE Mark

Electromagnetic Compatibility Directive: 2014/30/EU  
(EN55011:2016+A1:2017+A11:2020, EN61000-6-4:2007+A1:2011, EN61000-6-2:2005)

