

# EC DECLARATION OF CONFORMITY

According to EMC Directive 89/336/EEC

Koyo Electronics Industries Co., Ltd.

(Name of Company)

1-171 Tenjin-cho Kodaira-shi, Tokyo, 187-0004 JAPAN

(Address)

Incremental Rotary Encoder

(Kind of Product)

TRD-N/NH(~2500)-RZ Series

TRDA-20N/25N(~2500)RZ Series

(Type Designation)

JAPAN

(Country of Origin)

This declaration conforms to the following standard.

Generic standard EMC

EMS EN50082-2 (1995)

/ENV50140, ENV50141, ENV50204

EN61000-4-4, EN61000-4-8

Date to begin affixing CE Marking: August 20, 1999

We, Koyo Electronics Industries Co., Ltd. declare under our sole responsibility that the product to which this declaration relates is in conformity with the standard listed.

Note: This declaration will become invalid if any modification or repair is performed to the encoders without Koyo's permission.



Tokyo/ February 23, 2012

(Place and date issued)

Katsuhiko Kon, Manager of Sensor Engineering Division.

(Name and signature as well as position of declarant)

Koyo Ref. No.EA-0046-2

1). TRD-N/NH(~2500)-RZ Series  
TRDA-20N/25N(~2500)RZ Series

- The difference of TRD-N□-RZ series and TRD-NH□-RZ series is the shaft.  
(TRD-NH□-RZ : Directly connected to the driving shaft without coupling)
- The difference of TRDA-20N□RZ series and TRDA-25N□RZ series is the flange size.

■ Sample model: TRD-N500-RZWD

The same circuit is used for all types of the TRD-N/NH99-RZ series and TRDA-20N/25N99RZ series with resolution 512 ppr(pulse per revolution) or less, although disk varies with encoder resolution.

TRD-N/NH99-RZ series model

TRD-N/NH(~512)-RZ, RZL, RZW, RZWL, RZWD or RZWA

TRDA-20N99RZ series model

TRDA-20SN(~512)RZ, RZW-MS or RZW-ME

TRDA-20R1N(~512)RZ, RZD, RZW-MS or RZW-ME

TRDA-20R2N(~512)RZ, RZW-MS or RZW-ME

TRDA-25N99RZ series model

TRDA-25SN(~512)RZW, RZW-MS or RZW-ME

TRDA-25RN(~512)RZW, RZW-MS, RZWD-MS or RZW-ME

■ Sample model: TRD-N2500-RZWD

The same circuit is used for all types of the TRD-N/NH999-RZ series and TRDA-20N/25N999RZ series with resolution from 600 up to 2500 ppr(pulse per revolution), although disk varies with encoder resolution.

TRD-N/NH999-RZ series model

TRD-N/NH(600~2500)-RZ, RZL, RZW, RZWL, RZWD or RZWA

TRDA-20N999RZ series model

TRDA-20SN(600~2500)RZ, RZW-MS or RZW-ME

TRDA-20R1N(600~2500)RZ, RZD, RZW-MS or RZW-ME

TRDA-20R2N(600~2500)RZ, RZW-MS or RZW-ME

TRDA-25N999RZ series model

TRDA-25SN(600~2500)RZW, RZW-MS or RZW-ME

TRDA-25RN(600~2500)RZW, RZW-MS, RZWD-MS or RZW-ME

2). Applicability

The following tests were not carried out and the reason is described as bellow.

EN50081-1

Electromagnetic compatibility-Generic emission standard

Part 1 : Residential ,commercial and light industry

/Table 1 : Emission Enclosure

Table A.1 : Emission Signal ,control ,DC power input ,DC power output

This test is not carried out, because no noise sources such as oscillating and switch circuit exist in TRD-N/NH and TRDA-20N/25N encoders.

EN50082-2

a. Electrostatic discharge Test EN61000-4-2

This test is not carried out, because no operation switches and buttons will be touched by hands.

b. Surge Test EN61000-4-5:1995

This test is not carried out, due to following reasons.

- Cable length is less than 30m.
- TRD-N/NH and TRDA-20N/25N encoders are used solely in an electrical environment where an over voltage (primary and secondary) protection is provided.

c. Voltage Dips and Interruptions Test EN61000-4-11:1994

This test is not carried out, because TRD-N/NH and TRDA-20N/25N encoders were DC power operated equipment.

Low Voltage Directive 73/23/EEC EN61010-1 (1993)

Because TRD-N/NH and TRDA-20N/25N encoders are designed with supply voltage under 35V DC, the requirement of 75V DC or more is beyond application.

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Koyo Electronics Industries Co., Ltd.

(Name of Company)

1-171 Tenjin-cho Kodaira-shi, Tokyo, 187-0004 JAPAN

(Address)

Incremental Rotary Encoder

(Kind of Product)

TRD-2E (~2500) Series

TRDA-2E (~2500) Series

(Type Designation)

JAPAN

(Country of Origin)

This declaration conforms to the following standard.

Generic standard EMC

EN61000-6-2:2001

/EN61000-4-3:2002,A1:2002

EN61000-4-4:1995,A1:2001

EN61000-4-6:1996,A1:2001

EN61000-4-8:1993,A1:2001

Date to begin affixing CE Marking: December 7, 2001

We, Koyo Electronics Industries Co., Ltd. declare under our sole responsibility that the product to which this declaration relates is in conformity with the standard listed.

Note: This declaration will become invalid if any modification or repair is performed to the encoders without Koyo's permission.



Tokyo/ February 23, 2012

(Place and date issued)

Katsuhiko Kon, Manager of Sensor Engineering Division.

(Name and signature as well as position of declaring)

Koyo Ref. No.EA-0062-2

1). TRD-2E(~2500) Series

TRDA-2E(~2500) Series

• Difference of the model are as follows.

( model : supply voltage , output form)

TRD(A)-2E□A : 4.5V DC ~ 13.2V DC, Open collector output

TRD(A)-2E□B : 10.8V DC ~ 26.4V DC, Open collector output

TRD(A)-2E□V : 4.75V DC ~ 5.25V DC, Line driver output

■ Sample model: TRD-2E100A、TRD-2E60B、TRD-2E100B、TRD-2E100V

TRD-2E series model

TRD-2E(~2500)A

TRD-2E(~2500)B

TRD-2E(~2500)V

TRDA-2E series model

TRDA-2E(~2500)A or AD

TRDA-2E(~2500)B or BD

TRDA-2E(~2500)V or VD

2). Applicability

The following tests were not carried out and the reason is described as bellow.

EN50081-2

Electromagnetic compatibility-Generic emission standard

Part 1 : Residential, commercial and light industry

This test is not carried out, because no noise sources such as oscillating and switch circuit exist in TRD-2E and TRDA-2E encoders.

EN61000-6-2:2001

a. Electrostatic Discharge Test EN61000-4-2

This test is not carried out, because no operation switches and buttons will be touched by hands.

b. Surge Test EN61000-4-5:1995

This test is not carried out due to following reasons.

- Cable length is less than 30m.
- TRD-2E and TRDA-2E encoders are used solely in an electrical environment where an over voltage (primary and secondary) protection is provided.

c. Voltage Dips and Interruptions Test EN61000-4-11:1994

This test is not carried out, because TRD-2E and TRDA-2E encoders were DC power operated equipment.

Low Voltage Directive 73/23/EEC EN61010-1 (1993)

Because TRD-2E and TRDA-2E encoders are designed with supply voltage under

TRD(A)-2E\_A(D): 13.2V DC,

TRD(A)-2E\_B(D): 26.4V DC,

TRD(A)-2E\_V(D): 5.25V DC,

the requirement of 75V DC or more is beyond application.