

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Instrument for Switchboard**with type designation(s)
KLY Series

Issued to

Shanghai Complee Instrument Co. Ltd
SHANGHAI, China

is found to comply with

DNV GL rules for classification – Ships, offshore units, and high speed and light craft**Application :****Location classes:****Temperature: A****Humidity: B****Vibration: A****Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.**Issued at **Hamburg** on **2017-12-06**This Certificate is valid until **2022-12-05**.for **DNV GL**DNV GL local station: **Shanghai**Approval Engineer: **Harald Amberger**

Arne Schaarmann
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.



Product description

Moving Iron Measuring Instrument with Built-in 6 position selector switch.

Type designation	Front dimensions (mm)	IP	DC Voltmeter (V)
KLY-C48V	48 x 48	IP 54	1 - 600
KLY-C48GV	48 x 48	IP 54	1 - 600
KLY-C96V	96 x 96	IP 54	1 - 600
KLY-C96GV	96 x 96	IP 54	1 - 600
KLY-C72V	72 x 72	IP 54	1 - 600
KLY-C72GV	72 x 72	IP 54	1 - 600
KLY-C144V	144 x 144	IP 54	1 - 600
KLY-C144GV	144 x 144	IP 54	1 - 600
KLY-C801V	80 x 80	IP 54	1 - 600
KLY-C1101V	110 X 110	IP 54	1 - 600

Type designation	Front dimensions (mm)	IP	AC Voltmeter (V)
KLY-T48V	48 x 48	IP 54	10 - 600
KLY-L48GV	48 x 48	IP 54	5 - 600
KLY-T96V	96 x 96	IP 54	10 - 600
KLY-L96GV	96 x 96	IP 54	5 - 600
KLY-T72V	72 x 72	IP 54	10 - 600
KLY-L72GV	72 x 72	IP 54	5 - 600
KLY-T144V	144 x 144	IP 54	10 - 600
KLY-L144GV	144 x 144	IP 54	5 - 600
KLY-L801V	80 x 80	IP 54	5 - 600
KLY-L1101V	110 X 110	IP 54	5 - 600

Type designation	Front dimensions (mm)	IP	DC Ammeter (A)
KLY-C48A	48 x 48	IP 54	100 mA - 3000 A
KLY-C48GA	48 x 48	IP 54	1 A - 3000 A
KLY-C72A	72 x 72	IP 54	100 mA - 3000 A
KLY-C72GA	72 x 72	IP 54	1 A - 3000 A
KLY-C96A	96 x 96	IP 54	100 mA - 3000 A
KLY-C96GA	96 x 96	IP 54	1 A - 3000 A
KLY-C144A	144 x 144	IP 54	100 mA - 3000 A
KLY-C144GA	144 x 144	IP 54	1 A - 3000 A
KLY-C801A	80 x 80	IP 54	100 mA - 3000 A
KLY-C1101A	110 X 110	IP 54	100 mA - 3000 A

Type designation	Front dimensions (mm)	IP	AC Ammeter (A)
KLY-T48A	48 x 48	IP 54	100 mA - 60 A
KLY-L48GA	48 x 48	IP 54	100 mA - 2000/5
KLY-T72A	72 x 72	IP 54	100 mA - 60 A
KLY-L72GA	72 x 72	IP 54	100 mA - 2000/5
KLY-T96A	96 x 96	IP 54	100 mA - 60 A
KLY-L96GA	96 x 96	IP 54	100 mA - 2000/5
KLY-T144A	144 x 144	IP 54	100 mA - 60 A
KLY-L144GA	144 x 144	IP 54	100 mA - 2000/5
KLY-L801A	80 x 80	IP 54	100 mA - 2000/5
KLY-L1101A	110 X 110	IP 54	100 mA - 2000/5

Type Approval documentation

Tests carried out

Type tests in accordance with IEC 60051. Vibration, Shock, damp heat.

Marking of product

Shanghai Complee Instrument, type designation

Periodical assessment

The scope of the periodical assessment is to verify that the conditions stipulated for the Type approval are complied with and that no alterations are made to the product design or choice of materials.

The main elements of the assessment are:

- Inspection on factory samples, selected at random from the production line (where practicable)
- Results from Routine Tests (RT) checked (if not available tests according to RT to be carried out)
- Review of type approval documentation
- Review of possible change in design, materials and performance
- Ensuring traceability between manufacturer's product type marking and Type Approval Certificate.

Periodical assessment is to be performed after 2 years and after 3.5 years. A renewal assessment will be performed at renewal of the certificate.

END OF CERTIFICATE