

Type Approval Certificate

This is to certify that the undernoted product(s) has/have been tested with satisfactory results in accordance with the relevant requirements of the Lloyd's Register Type Approval System.

Manufacturer	ComatReleco AG
Address	Bernstraße 4, Worb, 3076, Switzerland
Place of Production	Wenzhou Jinhong Electrical Appliance Co., Ltd. Yongxing Second Road 10, Xintang Industrial Zone, Yueqing City, 325600, China
Type	Relays
Description	Relays: CRINT-R11 CRINT-R12 Sockets: CRINT-S11 CRINT-S12 CRINT Combo (Relay & Socket) CRINT-C111, -C121 CRINT-C112, -C122 For detailed product description, pls. refer to appendix.
Trade Name	CRINT-R11, -R12, -S11, -S12, -C111, -C112, -C121, -C122
Application	Marine, offshore and industrial applications for use in environmental categories ENV1 ENV2 and ENV3 as defined in Lloyd's Register's Type Approval

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System, Test Specification Number 1 - June 2015.

Specified Standard	Manufacturer's specification IACS E10 Rev. 8 / 2021
Ratings	Operating voltage relays: 12...60 VDC Operating voltage sockets: 12...240 VDC or VAC For detailed ratings, pls. refer to appendix.
Other Conditions	Lowest ambient temperature of -40 °C has not been verified by documentary evidence. Battery supply was not been tested. Type Approval does not eliminate the need for normal inspection and survey procedures required by the Rules and Regulations. If the specified standards are amended during the validity of this certificate, the product is to be re- approved prior to it being supplied to vessels to which the amended standards apply.

This certificate is not valid for equipment, the design, ratings or operating parameters of which have been varied from the specimen tested. The manufacturer should notify Lloyd's Register EMEA of any modification or changes to the equipment in order to obtain a valid Certificate.

The Design Appraisal Document HTS/ETS 41013-21/MK/TW and its supplementary Type Approval Terms and Conditions form part of this Certificate.

71 Fenchurch Street, London, EC3M 4BS, United Kingdom

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Appendix

DESCRIPTION

Interface modules CRINT / CRINT-Combo (Relays & Sockets)

RATINGS

Type	No. of poles	Operating voltage (V)	Max. switching current (A)	Max. switching voltage (V)
Interface relay				
CRINT-R11/DC...V	1	12, 24, 48, 60 VDC	6	250
CRINT-R12/DC...V				
Interface relay socket				
CRINT-S11/UC...V		12, 24, 48, 60, 110-125, 220-240 VDC or AC	6	250
CRINT-S12/UC...V				
CRINT Combo (Interface relay & socket)				
CRINT-C111/UC...V	1	12, 24, 48, 60, 110-125, 220-240 VDC or VAC	6	250
CRINT-C121/UC...V				
CRINT-C112/UC...V				
CRINT-C122/UC...V				