

## 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.

<b>Manufacturer</b>	<b>Hans Turck GmbH &amp; Co. KG</b>
<b>Address</b>	Witzlebenstr. 7, Mülheim an der Ruhr, 45472, Germany
<b>Place of Production</b>	Turck Mechatec GmbH Witzlebenstr. 11, Mülheim/Ruhr, 45472, Germany
<b>Place of Production</b>	Werner Turck GmbH & Co. KG Goethestr. 7, Halver, 58553, Germany
<b>Type</b>	Control Units
<b>Description</b>	Remote I/O system refer to the Appendix for details
<b>Trade Name</b>	excom®
<b>Application</b>	Marine, offshore and industrial applications for use in environmental categories ENV1, ENV2 and ENV3 on the "Power Distribution Zone" as defined in Lloyd's Register's Type Approval System, Test Specification Number 1: July 2015.



**Thorsten Wolff**

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A member of the Lloyd's Register group

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**Specified Standard** Manufacturer's specification  
IACS requirements E10 (1991/ Rev.8: Feb 2021)

<b>Ratings</b>	Type	Nominal Voltage	Output Power	Output Voltage
	PPSA230EX	230 Vac	66.5 W	24 Vdc
	PPSA115EX	115 Vac	66.5 W	24 Vdc

**Other Conditions** Ratings for application in hazardous areas are to be obtained from the applicable Ex Certificates.

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.

**Previous Version:** 14/20032  
17/20036  
This certificate supersedes certificate number LR21307755TA issued on 01.11.2021 which is hereby cancelled.

The Design Appraisal Document HTS/ETS 42105-22/HN/TW and its supplementary Type Approval Terms and Conditions form part of this Certificate.

## Appendix

### Types

excom®

Comprising the following modules

MT16-2G/MSA	24 VDC zone-1 module rack for 16 modules
PSD24EX	24 VDC power supply module
PPSA230Ex	230 VAC power converter AC/DC
PPSA115Ex	115 VAC power converter AC/DC
MT-PPS	Module rack for PPSA***Ex
GDP-IS/FW2.2	Gateway for Profibus-DP communication (intrinsically safe)
GDP-IS/FW2.3	Gateway for Profibus-DP communication (intrinsically safe)
DM80EX	8-channel digital input/ output module
DI40EX	4-channel digital input module
DO401EX	4-channel digital output module
DF20EX	2-channel frequency module
AI401EX	4-channel analogue input module, active/ passive
AO401EX	4-channel analogue output module
AI43Ex	Potentiometer Module
TI41EX	4-channel temperature input module (only RTD)
AIH40EX	4-channel analogue input module, active, HART®
AIH41EX	4-channel analogue input module, passive, HART®
AOH40EX	4-channel analogue output module, HART®
TI40EX	4-channel temperature input module (RTD / TC)
SC12EX	Profibus-DP segment coupler (RS485-IS)
OC11Ex/2G.2	Profibus-DP fibre-optic coupler (RS485-IS), zone-1 device
OC11Ex/3G.2	Profibus-DP fibre-optic coupler (RS485), zone-2 device
BM1	Dummy module for unused slots
BM-PS	Cover for unused power supply port

**LLOYD'S REGISTER TYPE APPROVAL – DESIGN APPRAISAL DOCUMENT**  
**ISSUED BY: HAMBURG TECHNICAL SUPPORT OFFICE (HPC 1862098)**  
**ISSUED TO: HANS TURCK GMBH & CO. KG**  
**FOR: REMOTE I/O SYSTEM**  
**TYPES: EXCOM®**

The undernoted documents have been reviewed for compliance with the requirements of the Lloyd's Register Type Approval System Procedure TA14 Version 04 (September 2020) and this Design Appraisal Document forms part of the Certificate.

**APPROVAL DOCUMENTATION**

Unnumbered	Type Approval Application Checklist	21.08.2018
SQ 188043	Request for Marine Services – Type Approval	08.10.2020
14/20032	Type Approval Certificate	12.06.2014
LR21307755TA	Type Approval Certificate	01.06.2021
17/20036	Type Approval Certificate	07.04.2017
HTS/ETS 33908-16	Design Appraisal Document for Certificate No. 14/20032	12.06.2014
HTS/ETS 33908-16	Design Appraisal Document for Certificate No. 17/20036	07.04.2017
HPC 1862098 / Halver	Production Quality Assessment	27.05.2021
HPC 1862098 / Mülheim	Production Quality Assessment	27.05.2021
FM 7.3-8	EMV Prüfaubau der 2- 6 GHz Messungen am excom System	06.08.2021
6884275	Bausatzdefinition GDP-IS/FW2.3	24.08.2015
Unnumbered	Product Information FW2.3	undated

**TEST REPORTS**

21-1-0132801T01 a/b	Test Report EMC – Emission and Immunity	13.10.2021
E06035	Test Report Excom GDP 1,5 PB 2700-2500-9800_V9.0	07.04.2015




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LR031.1.2016.06

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**Supplementary Type Approval Terms and Conditions**

*Type Approval certifies that a representative sample of the product(s) referred to herein has/have been found to meet the applicable design criteria for the use specified herein. It does not mean or imply approval for any other use, nor approval of any product(s) designed or manufactured otherwise than in strict conformity with the said representative sample.*

*Type Approval is based on the understanding that the manufacturer's recommendations and instructions and any relevant requirements of the Rules and Regulations are complied with.*

*Type Approval does not eliminate the need for normal inspection and survey procedures required by the Rules and Regulations. Lloyd's Register EMEA reserves the right to cancel or withdraw this Type Approval Certificate in accordance with the Lloyd's Register Type Approval System Procedure.*