

# 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>B&amp;R Industrial Automation GmbH</b>
<b>Address</b>	B+R Straße 1, Eggelsberg, 5142, Austria
<b>Type</b>	Computer Systems
<b>Description</b>	Power panel series and I/O modules refer to the Appendix for details
<b>Trade Name</b>	T30/T50 series and X20 series
<b>Application</b>	Marine and offshore applications for use in environmental categories ENV1, ENV2 and ENV3 (except safety modules marked with "(1)") as defined in Lloyd's Register Type Approval System, Test Specification Number 1, March 2019.
<b>Specified Standard</b>	Manufacturer's specification

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 No. HTS/ETS 39748-20 /TW and its supplementary Type Approval Terms and Conditions form part of this Certificate.

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## Appendix

<b>TYPES</b>	T30/T50 series	
	Power Panel T30 series	
	Type	Screen dimension
	6PPT30.043x-xxxxxx	4,3 inch
	6PPT30.057x-xxxxxx	5,7 inch
	6PPT30.070x-xxxxxx	7,0 inch
	6PPT30.101x-xxxxxx	10,1 inch
		Resolution
	6PPT30.xxxx-xxxxxx	2 WVGA (800 x 480) landscape
		3 VGA (640 x 480) landscape
		F WQVGA (480 x 272) landscape
		G WSVGA (1024 x 600) landscape
		K WQVGA (272 x 480) portrait
		L VGA (480 x 640) portrait
		M WVGA (480 x 800) portrait
		N WSVGA (600 x 1024) portrait
		Display- / Touch
	6PPT30.xxxx-xxxxxx	2 TFT color + analog resistive touch screen
		Optional interfaces and features
	6PPT30.xxxx-xxxxxx	0 No optional interfaces/features
		Front design
	6PPT30.xxxx-xxxxxx	B Anthracite gray pinstripe
		W Aluminium white pinstripe
		I cont. number I[0...Z][0...Z][0...Z] costumized variant
		F cont. number F[0...Z][0...Z][0...Z] costumized variant
		C cont. number C[0...Z][0...Z][0...Z] costumized variant
	Power Panel T50 series	
	Type	Screen dimension
	6PPT50.050x-xxxxxx	5,0 inch
	6PPT50.070x-xxxxxx	7,0 inch
	6PPT50.101x-xxxxxx	10,1 inch
	6PPT50.121x-xxxxxx	12,1 inch
	6PPT50.156x-xxxxxx	15,6 inch

	Resolution
6PPT50.0x02-xxxxxx	2 WVGA (800 x 480) landscape
6PPT50.xxxB-xxxxxx	B HD (1366 x 768) landscape
6PPT50.xxxE-xxxxxx	E WXGA (1280 x 800) landscape
	Display- / Touch
6PPT50.xxxx-xxxxxx	1 TFT color + multi-touch PCT (glass)
	Optional interfaces and features
6PPT50.xxxx-xxxxxx	0 1 Ethernet interface
	6 Integrated switch with second Ethernet Interface
	Front design
6PPT50.xxxx-xxxxxx	A Black, anti-glare glass design
	B Black, glare glass design
	C Glass design customized variant
	Software*
6PPT50.xxxx-xxxxxx	0 B&R standard
	S Customized linux image customized variant
6PPT50.xxxx-xxxxxx	000-S00 Sequential number customized variant

#### X20 series

##### Analog Input Modules

X20AI2222, X20AI2322, X20AI2437, X20AI2438, X20AI2622, X20AI2632, X20AI2632-1, X20AI2636, X20AI4222, X20AI4322, X20AI4622, X20AI4632, X20AI4632-1, X20AI4636, X20AI8221, X20AI8321

##### Coated Analog Input Modules

X20cAI2222, X20cAI2322, X20cAI2437, X20cAI2438, X20cAI2622, X20cAI2632, X20cAI2632-1, X20cAI2636, X20cAI4222, X20cAI4322, X20cAI4622, X20cAI4632, X20cAI4632-1, X20cAI4636, X20cAI8221, X20cAI8321

##### Analog Output Modules

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X20AO2437, X20AO2438, X20AO2622, X20AO2632, X20AO2632-1, X20AO4622,  
X20AO4632, X20AO4632-1, X20AO4635

Coated Analog Output Modules

X20cAO2437, X20cAO2438, X20cAO2622, X20cAO2632, X20cAO2632-1,  
X20cAO4622, X20cAO4632, X20cAO4632-1, X20cAO4635

Temperature Modules

X20AT2222, X20AT2311, X20AT2402, X20AT4222, X20AT6402

Coated Temperature Modules

X20cAT2222, X20cAT2311, X20cAT2402, X20cAT4222, X20cAT6402

Bus Base Modules

X20BB22, X20BB27, X20BB42, X20BB47, X20BB52, X20BB57, X20BB80, X20BB81,  
X20BB82

Coated Bus Base Modules

X20cBB22, X20cBB27, X20cBB42, X20cBB47, X20cBB52, X20cBB57, X20cBB80,  
X20cBB81, X20cBB82

Bus Controller Modules

X20BC0043, X20BC0043-10, X20BC0053, X20BC0083, X20BC0087, X20BC0143-10,  
X20BC1083, X20BC8083, X20BC8084

Coated Bus Controller Modules

X20cBC0043, X20cBC0043-10, X20cBC0053, X20cBC0083, X20cBC0087,  
X20cBC0143-10, X20cBC1083, X20cBC8083, X20cBC8084

#### Bus Modules

X20BM01, X20BM05, X20BM11, X20BM12, X20BM15, X20BM21, X20BM23,  
X20BM31, X20BM32, X20BM33

#### Coated Bus Modules

X20cBM01, X20cBM05, X20cBM11, X20cBM12, X20cBM15, X20cBM21, X20cBM23,  
X20cBM31, X20cBM32, X20cBM33

#### Universal Mixed Modules

X20CM0985-1, X20CM2821, X20CM8281

#### Coated Universal Mixed Modules

X20cCM0985-1, X20cCM2821, X20cCM8281

#### Compact CPU Modules

X20CP0201, X20CP0291, X20CP0292, X20XC0201, X20XC0202, X20XC0292,  
X20CP0482, X20CP0483, X20CP0484

#### Coated Compact CPU Modules

X20cCP0201, X20cCP0291, X20cCP0292, X20cXC0201, X20cXC0202, X20cXC0292,  
X20cCP0482, X20cCP0483, X20cCP0484

#### CPU Modules

X20CP1301, X20CP1381, X20CP1381-RT, X20CP1382, X20CP1382-RT, X20CP1483,  
X20CP1483-1, X20CP1484, X20CP1484-1, X20CP1485, X20CP1485-1, X20CP1486,  
X20CP1583, X20CP1584, X20CP1585, X20CP1586, X20CP3484, X20CP3484-1,

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X20CP3485, X20CP3485-1, X20CP3486, X20CP3583, X20CP3584, X20CP3585,  
X20CP3586

#### Coated CPU Modules

X20cCP1301, X20cCP1381, X20cCP1381-RT, X20cCP1382, X20cCP1382-RT,  
X20cCP1483, X20cCP1483-1, X20cCP1484, X20cCP1484-1, X20cCP1485,  
X20cCP1485-1, X20cCP1486, X20cCP1583, X20cCP1584, X20cCP1585,  
X20cCP1586, X20cCP3484, X20cCP3484-1, X20cCP3485, X20cCP3485-1,  
X20cCP3486, X20cCP3583, X20cCP3584, X20cCP3585, X20cCP3586

#### Communication Modules

X20CS1020, X20CS1030, X20CS1070

#### Coated Communication Modules

X20cCS1020, X20cCS1030, X20cCS1070

#### Counter Modules

X20DC1176, X20DC1178, X20DC1196, X20DC1198, X20DC11A6, X20DC1376,  
X20DC137A, X20DC1396, X20DC1398, X20DC1976, X20DC2395, X20DC2396,  
X20DC2398, X20DC4395

#### Coated Counter Modules

X20cDC1176, X20cDC1178, X20cDC1196, X20cDC1198, X20cDC11A6,  
X20cDC1376, X20cDC137A, X20cDC1396, X20cDC1398, X20cDC1976,  
X20cDC2395, X20cDC2396, X20cDC2398, X20cDC4395

#### Digital Input Modules

X20DI2371, X20DI2372, X20DI2377, X20DI4371, X20DI4372, X20DI4375,  
X20DI4760, X20DI6371, X20DI6372, X20DI6373, X20DI8371, X20DI9371,  
X20DI9372, X20DID371, X20DIF371

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#### Coated Digital Input Modules

X20cDI2371, X20cDI2372, X20cDI2377, X20cDI4371, X20cDI4372, X20cDI4375,  
X20cDI4760, X20cDI6371, X20cDI6372, X20cDI6373, X20cDI8371, X20cDI9371,  
X20cDI9372, X20cDID371, X20cDIF371

#### Digital Output Modules

X20DO2322, X20DO2649, X20DO4322, X20DO4529, X20DO4649, X20DO6322,  
X20DO6325, X20DO6529, X20DO6639, X20DO8232, X20DO8322, X20DO8332,  
X20DO9322, X20DOD322, X20DOF322

#### Coated Digital Output Modules

X20cDO2322, X20cDO2649, X20cDO4322, X20cDO4529, X20cDO4649,  
X20cDO6322, X20cDO6325, X20cDO6529, X20cDO6639, X20cDO8232,  
X20cDO8322, X20cDO8332, X20cDO9322, X20cDOD322, X20cDOF322

#### Counter and Positioning Modules

X20DS1119, X20DS1319, X20DS4389

#### Coated Counter and Positioning Modules

X20cDS1119, X20cDS1319, X20cDS4389

#### Hub System Modules

OAC808.9-1, X20HB1881, X20HB1882, X20HB2880, X20HB2881, X20HB8815,  
X20HB8880, X20HB8884

#### Coated Hub System Modules

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X20cHB1881, X20cHB1882, X20cHB2880, X20cHB2881, X20cHB8815, X20cHB8880,  
X20cHB8884

Dummy Modules

X20IF0000, X20ZF0000

Interface Modules

X20IF1020, X20IF1030, X20IF1041-1, X20IF1043-1, X20IF1051-1, X20IF1053-1,  
X20IF1061-1, X20IF1063-1, X20IF1072, X20IF1074, X20IF1082, X20IF1082-2,  
X20IF10A1-1, X20IF10D1-1, X20IF10D3-1, X20IF10E1-1, X20IF10E3-1, X20IF10G3-1,  
X20IF10H3-1, X20IF2181-2, X20IF2772, X20IF10X0

Coated Interface Modules

X20cIF0000, X20cIF1020, X20cIF1030, X20cIF1041-1, X20cIF1043-1, X20cIF1051-1,  
X20cIF1053-1, X20cIF1061-1, X20cIF1063-1, X20cIF1072, X20cIF1074, X20cIF1082,  
X20cIF1082-2, X20cIF10A1-1, X20cIF10D1-1, X20cIF10D3-1, X20cIF10E1-1,  
X20cIF10E3-1, X20cIF10G3-1, X20cIF10H3-1, X20cIF2181-2, X20cIF2772,  
X20cIF10X0

Motor Bridge Module

X20MM2436

Coated Motor Bridge Module

X20cMM2436

Modules for measure active, reactive and apparent power

X20AP3111, X20AP3121, X20AP3131, X20AP3161



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Coated Modules for measure active, reactive and apparent power

X20cAP3111, X20cAP3121, X20cAP3131, X20cAP3161

Memory Keys

X20MK0201, X20MK0203, X20MK0211, X20MK0213, X20MK0223

Coated Memory Keys

X20cMK0201, X20cMK0203, X20cMK0211, X20cMK0213, X20cMK0223

Power Distribution Modules

X20PD0011, X20PD0012, X20PD0016, X20PD2113

Coated Power Distribution Modules

X20cPD0011, X20cPD0012, X20cPD0016, X20cPD2113

Power Supply Modules

OAC524.9, X20PS2100, X20PS3300, X20PS4951, X20PS8002, X20PS9400,  
X20PS9402, X20PS9500, X20PS9502, X20PS9600, X20PS9602

Coated Power Supply Modules

X20cPS2100, X20cPS3300, X20cPS4951, X20cPS8002, X20cPS9400, X20cPS9402,  
X20cPS9500, X20cPS9502, X20cPS9600, X20cPS9602

Safety Digital Input Modules <sup>(1)</sup>

X20SI2100, X20SI4100, X20SI9100

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Coated Safety Digital Input Modules <sup>(1)</sup>

X20cSI2100, X20cSI4100, X20cSI9100

Safety CPU Modules <sup>(1)</sup>

X20SL8000, X20SL8001, X20SL8010, X20SL8011, X20SL8100, X20SL8101

Coated Safety CPU Modules <sup>(1)</sup>

X20cSL8000, X20cSL8001, X20cSL8010, X20cSL8011, X20cSL8100, X20cSL8101

Safety Intelligently Programmable Modules <sup>(1)</sup>

X20SLX210, X20SLX410, X20SLX910

Coated Safety Intelligently Programmable Modules <sup>(1)</sup>

X20cSLX210, X20cSLX410, X20cSLX910

Safety Digital Output Modules <sup>(1)</sup>

X20SO2110, X20SO2120, X20SO4110, X20SO4120

Coated Safety Digital Output Modules <sup>(1)</sup>

X20cSO2110, X20cSO2120, X20cSO4110, X20cSO4120

Safety Analog Input Modules <sup>(1)</sup>

X20SA4430, X20ST4492

Coated Safety Analog Input Modules <sup>(1)</sup>

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X20cSA4430, X20cST4492

Safety Digital Mixed Modules <sup>(1)</sup>

X20SC2212, X20SC2432

Coated Safety Digital Mixed Modules <sup>(1)</sup>

X20cSC2212, X20cSC2432

Terminal Blocks

X20TBxx, 0TBxx

CPU Accessory

0CFCRD.0xxxE.01, 5CFCRD.xxxx-0x