

CERTIFICATE OF CONFORMITY



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1. HAZARDOUS (CLASSIFIED) LOCATION ELECTRICAL EQUIPMENT PER US REQUIREMENTS

2. **Certificate No:** FM19CA0041X
3. **Equipment:** I/O Terminal Series type ELX****_****_****
(Type Reference and Name)
4. **Name of Listing Company:** Beckhoff Automation GmbH & Co KG
5. **Address of Listing Company:** Huelshorstweg 20, Verl 33415, Germany
6. The examination and test results are recorded in confidential report number:

PR452333 dated 11th September 2019

7. FM Approvals LLC, certifies that the equipment described has been found to comply with the following Approval standards and other documents:

CSA C22.2 No. 213:2017, CSA C22.2 No. 60079-0:2019, CSA C22.2 No. 60079-11:2014,
CSA C22.2 No. 60079-7:2018, CSA C22.2 No. 61010-1:2016

8. If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to specific conditions of use specified in the schedule to this certificate.
9. This certificate relates to the design, examination and testing of the products specified herein. The FM Approvals surveillance audit program has further determined that the manufacturing processes and quality control procedures in place are satisfactory to manufacture the product as examined, tested and Approved.
10. Equipment Ratings:

ELX Series Power Supply Terminals

Nonincendive for Class I, Division 2, Groups A, B, C, D hazardous (classified) locations
Increased safety protection for Class I, Zone 2, Group IIC

See Annex for individual models

ELX Series I/O Terminals

Associated Intrinsically Safe for Class I, II, III, Division 1, Groups A, B, C, D, E, F and G in accordance with drawing ControlDrawing_ELX_en_Ver2.2.0

Certificate issued by:

4 June 2023

J.E. Marquedant
VP, Manager - Electrical Systems

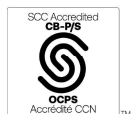
Date

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F 347 (Apr 21)



SCHEDULE

US Certificate Of Conformity No: FM19CA0041X



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Nonincendive for Class I, Division 2, Groups A, B, C, D hazardous (classified) locations
Increased safety protection for Class I, Zone 2, Group IIC with intrinsically safe connections to Class I, Zone 0, Group IIC in accordance with drawing ControlDrawing_ELX_en_Ver2.2.0
Associated Intrinsically Safe for connections to Zone 20, Group IIIC in accordance with drawing ControlDrawing_ELX_en_Ver2.2.0

See Annex for individual models

11. The marking of the equipment shall include:

ELX Series Power Supply Terminals

Class I, Division 2, Groups A, B, C, D
Ex ec IIC T4 Gc
T4 Ta = -25°C to +60°C

ELX Series I/O Terminals

AIS Class I, II, III, Division 1, Groups A thru G
Class I, Division 2, Groups A, B, C, D
Ex ec [ja Ga] IIC T4 Gc
[Ex ia Da] IIIC T4
T4 Ta = -25°C to +60°C

12. **Description of Equipment:**

General - The I/O system terminals type ELX****_****_**** is a modular I/O system with contacts rated in the type of protection "ec" (supply contact / E-bus connector / spring-blade contact). It consists of at least a power supply unit ELX9560, one of the signal terminals and a bus end cover ELX9012 to cover the power and E-bus contacts.

An integrated E-bus interface (ELX9410) connects to ELX signal terminals to the right of the ELX9560 power supply unit. The ELX9560 and ELX9410 contain components which provide galvanic isolation to the terminals which in turn provide the Intrinsically Safe outputs, type of protection [Ex ia], that can connect to areas which require EPL Ga or EPL Da. The ELX9410 power supply terminal for E-bus is used to refresh the non-intrinsically safe E-bus signal. A fin at the front of the ELX9410 ensures the separation between the connection facilities of the signal terminal (intrinsically safe circuits) and the ELX9410 (non-intrinsically safe circuits). There are 2 possible constellations to use the ELX9410:

- An additional ELX9560 power supply terminal followed by further ELX signal terminals can be connected to the right side of the ELX9410.
- Two ELX9410 terminals can be installed in direct succession for continuing the same terminal strand with standard Beckhoff EtherCAT Terminals.

There are 2 variants of power supply units ELX9560 available:

Variants with Hardware version < 05 have a maximum output voltage of 27.7 V.

Variants with Hardware version ≥ 05 have a maximum output voltage of 27 V.

The Hardware version is marked on the power supply units as "HW:xx" where xx denotes the version number.

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F 347 (Apr 21)



Page 2 of 20

SCHEDULE

US Certificate Of Conformity No: FM19CA0041X



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Ratings – All terminals operate within the ambient temperature range of $T_a = -25^{\circ}\text{C}$ to $+60^{\circ}\text{C}$. See Annex for ratings of individual terminals.

See Annex for ratings of individual terminals.

13. Specific Conditions of Use:

1. The equipment shall be installed within an enclosure that provides a minimum ingress protection of IP54 in accordance with CSA C22.2 No. 60079-0
2. The last terminal of each segment is to be covered by a bus end cover ELX9012, unless two ELX9410 terminals are installed in direct succession for continuing the same terminal segment with standard Beckhoff EtherCat terminals (e.g. EL/ES/EK)
3. The equipment shall only be used in an area of at least pollution degree 2, as defined in IEC 60664-1
4. Transient protection shall be provided that is set at a level not exceeding 140% of the peak rated voltage value at the supply terminals to the equipment
5. The circuits shall be limited to overvoltage Category II as defined in IEC 60664-1
6. The terminal system is suitable for use in temperature range of -25°C to $+60^{\circ}\text{C}$
7. Do not disconnect energized terminals

14. Test and Assessment Procedure and Conditions:

This Certificate has been issued in accordance with FM Approvals US Certification Requirements.

15. Schedule Drawings

A copy of the technical documentation has been kept by FM Approvals.

16. Certificate History

Details of the supplements to this certificate are described below:

Date	Description
11 September 2019	Original Issue.
17 December 2020	<u>Supplement 1:</u> Report Reference: – PR458554 dated 17 th December 2020. Changes listed below: 1. Five terminals added to certificate: - ELX1058 8-Channel digital input terminal NAMUR - ELX2008 8-Channel digital output terminal - ELX3158 8-Channel analog input terminal 4...20 mA - ELX3252 2-Channel analog input terminal potentiometer - ELX4154 4-Channel analog output terminal 0/4...20 mA 1. CAN/CSA C22.2 No.60079-0:2015 updated to CSA C22.2 No.60079-0:2019

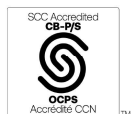
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F 347 (Apr 21)



SCHEDULE

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Date	Description
2 August 2021	<p><u>Supplement 2:</u> Report Reference: – PR460669 dated 2nd August 2021. Changes listed below:</p> <ol style="list-style-type: none">1. Hardware updates to existing terminals2. Updates to ratings (Section 12)
4 June 2023	<p><u>Supplement 3:</u> Report Reference: PR465734 dated 4 June 2023. Description of the Change(s):</p> <ol style="list-style-type: none">1. Two terminals added to certificate:<ul style="list-style-type: none">- ELX3184 4-channel analog input terminal 4...20 mA HART- ELX2792 2-channel solid state relay output terminal2. Minor modifications to existing terminals ELX3351 and ELX95603. CAN/CSA C22.2 No. 60079-7:2016 updated to CSA C22.2 No. 60079-7:20184. CAN/CSA C22.2 No. 61010-1:2012 updated to CSA C22.2 No. 61010-1:2016

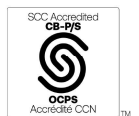
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F 347 (Apr 21)



SCHEDULE

US Certificate Of Conformity No: FM19CA0041X



ANNEX

ELX1052-b-c 2-Channel digital input terminal NAMUR

Description of Equipment

Signal terminal type ELX1052-b-c

b = Software Variant (Not Ex-relevant, for information purposes only)

c = EtherCAT revision (Not Ex-relevant, for information purposes only)

Channel 1: Clamp contacts 4 (Uv1), 1 (Input 1, I1)

Channel 2: Clamp contacts 8 (Uv2), 5 (Input 2, I2)

Each channel

Maximum output voltage U_o 10.75V

Maximum output current I_o 12mA

Linear output characteristics

Maximum output power P_o 33mW

Maximum external capacitance C_o or maximum external inductance L_o :

	I	IIA	IIB/IIIC	IIC
C_o [μ F]	58	66	15	2.14
L_o [mH]	100	100	100	100

ELX1054-b-c 4-Channel digital input terminal NAMUR

Description of Equipment

Signal terminal type ELX1054-b-c

b = Software Variant (Not Ex-relevant, for information purposes only)

c = EtherCAT revision (Not Ex-relevant, for information purposes only)

Channel 1: Clamp contacts 2 (Uv1), 1 (I1)

Channel 2: Clamp contacts 6 (Uv2), 5 (I2)

Channel 3: Clamp contacts 3 (Uv3), 4 (I3)

Channel 4: Clamp contacts 7 (Uv4), 8 (I4)

Each channel

Maximum output voltage U_o 10.72 V

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F 347 (Apr 21)



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Maximum output current I_o 10.4mA
Linear output characteristics
Maximum output power P_o 28mW
Maximum external capacitance C_o or maximum external inductance L_o :

	I	IIA	IIB/IIIC	IIC
C_o [μ F]	58	66	15	2.14
L_o [mH]	100	100	100	100

ELX1058-b-c 8-Channel digital input terminal NAMUR

Description of Equipment

Signal terminal type ELX1058-b-c

b = Software Variant (Not Ex-relevant, for information purposes only)

c = EtherCAT revision (Not Ex-relevant, for information purposes only)

Channel 1: Clamp contacts 9 (Uv1), 1 (Input 1)
Channel 2: Clamp contacts 10 (Uv2), 2 (Input 2)
Channel 3: Clamp contacts 11 (Uv3), 3 (Input 3)
Channel 4: Clamp contacts 12 (Uv4), 4 (Input 4)
Channel 5: Clamp contacts 13 (Uv5), 5 (Input 5)
Channel 6: Clamp contacts 14 (Uv6), 6 (Input 6)
Channel 7: Clamp contacts 15 (Uv7), 7 (Input 7)
Channel 8: Clamp contacts 16 (Uv8), 8 (Input 8)

Each channel

Maximum output voltage U_o 10.72 V

Maximum output current I_o 10.4 mA

Linear output characteristics

Maximum output power P_o 28 mW

Maximum external capacitance C_o or maximum external inductance L_o :

	I	IIA	IIB/IIIC	IIC
C_o [μ F]	58	66	15	2.14
L_o [mH]	100	100	100	100

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F 347 (Apr 21)



SCHEDULE

US Certificate Of Conformity No: FM19CA0041X



ELX2002-b-c 2-Channel digital output terminal

Description of Equipment

Signal terminal type ELX2002-b-c

b = Software Variant (Not Ex-relevant, for information purposes only)

c = EtherCAT revision (Not Ex-relevant, for information purposes only)

Channel 1: Clamp contacts 1 (+Output1, +O1), 3 (-Output1, -O1)

Channel 2: Clamp contacts 5 (+Output2, +O2), 7(-Output2, -O2)

Each channel:

The output depends on the connected power supply unit:

When connected to ELX9560-****-**** HW:xx with xx < 05

Maximum output voltage U_o 27.7V

Maximum output current I_o 111mA

Linear output characteristics

Maximum output power P_o 768mW

Maximum external capacitance C_o or maximum external inductance L_o :

	I	IIA	IIB/IIIC	IIC
C_o [μ F]	3.45	2.2	0.663	0.085
L_o [mH]	24	16	9.2	0.094

When connected to ELX9560-****-**** HW:xx with xx \geq 05

Maximum output voltage U_o 27 V

Maximum output current I_o 109mA

Linear output characteristics

Maximum output power P_o 730mW

Maximum external capacitance C_o or maximum external inductance L_o :

	I	IIA	IIB/IIIC	IIC
C_o [μ F]	3.75	2.33	0.705	0.09
L_o [mH]	25	17	9.9	0.47

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F 347 (Apr 21)



SCHEDULE

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ELX2008-b-c 8-Channel digital output terminal

Description of Equipment

Signal terminal type ELX2008-b-c

b = Software Variant (Not Ex-relevant, for information purposes only)

c = EtherCAT revision (Not Ex-relevant, for information purposes only)

Channel 1: Clamp contacts 1 (+Output1, +O1), 2 (-Output1, -O1)

Channel 2: Clamp contacts 5 (+Output2, +O2), 6 (-Output2, -O2)

Channel 3: Clamp contacts 4 (+Output3, +O3), 3 (-Output3, -O3)

Channel 4: Clamp contacts 8 (+Output4, +O4), 7 (-Output4, -O4)

Channel 5: Clamp contacts 9 (+Output5, +O5), 10 (-Output5, -O5)

Channel 6: Clamp contacts 13 (+Output6, +O6), 14 (-Output6, -O6)

Channel 7: Clamp contacts 12 (+Output7, +O7), 11 (-Output7, -O7)

Channel 8: Clamp contacts 16 (+Output8, +O8), 15 (-Output8, -O8)

Each channel:

The output values depend on the connected power supply unit

When connected to ELX9560-****-**** HW:xx with xx < 05

Maximum output voltage U_o 27.7 V

Maximum output current I_o 111 mA

Linear output characteristics

Maximum output power P_o 773 mW

Maximum external capacitance C_o or maximum external inductance L_o :

	I	IIA	IIB/IIIC	IIC
C_o [μ F]	3.45	2.2	0.663	0.085
L_o [mH]	24	16	9.2	0.094

When connected to ELX9560-****-**** HW:xx with xx \geq 05

Maximum output voltage U_o 27 V

Maximum output current I_o 109 mA

Linear output characteristics

Maximum output power P_o 735 mW

Maximum external capacitance C_o or maximum external inductance L_o :

	I	IIA	IIB/IIIC	IIC
C_o [μ F]	3.75	2.33	0.705	0.09
L_o [mH]	25	17	9.9	0.47

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F 347 (Apr 21)



SCHEDULE

US Certificate Of Conformity No: FM19CA0041X



ELX2792-b-c 2-channel solid state relay output terminal

Description of Equipment

Signal terminal type ELX2792-b-c

b = Software Variant (Not Ex-relevant, for information purposes only)

c = EtherCAT revision (Not Ex-relevant, for information purposes only)

Channel 1: Clamp contacts 14 (NO_1), 11 (COM_1), 12 (NC_1)

Channel 2: Clamp contacts 24 (NO_2), 21 (COM_2), 22 (NC_2)

Each channel:

Nominal switching voltage AC/DC $\leq 30V$

Nominal switching current AC $\leq 0.5A$

DC $\leq 1A$

Maximum input voltage U_i AC/DC 30V

Maximum input current I_i internally limited

Maximum input power P_i internally limited

Effective internal capacitance 0.9 nF

Effective internal inductance negligible

ELX3152-b-c 2-Channel analog input terminal, 0/4...20mA

Description of Equipment

Signal terminal type ELX3152-b-c

b = Software Variant (Not Ex-relevant, for information purposes only)

c = EtherCAT revision (Not Ex-relevant, for information purposes only)

Channel 1: Clamp contacts 1 (Uv1), 2 (GND, -I1), 3 (Input1, +I1)

Channel 2: Clamp contacts 5 (Uv2), 6 (GND, -I2), 7 (Input2, +I2)

Each channel:

The output values depend on the connected power supply unit

When connected to ELX9560-****-**** HW:xx with xx < 05

Maximum output voltage U_o 27.7V

Maximum output current I_o 85mA

Linear output characteristics

Maximum output power P_o 565mW

Maximum external capacitance C_o or maximum external inductance L_o :

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F 347 (Apr 21)



SCHEDULE

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	I	IIA	IIB/IIIC	IIC
C_o [μ F]	3.45	2.2	0.663	0.085
L_o [mH]	43	30	18	2

When connected to ELX9560-****-**** HW:xx with $xx \geq 05$
Maximum output voltage U_o 27 V
Maximum output current I_o 80 mA
Linear output characteristics
Maximum output power P_o 540 mW
Maximum external capacitance C_o or maximum external inductance L_o :

	I	IIA	IIB/IIIC	IIC
C_o [μ F]	3.75	2.33	0.705	0.09
L_o [mH]	49	35	21	2.8

ELX3158-b-c 8-Channel analog input terminal 4...20 mA

Description of Equipment

Signal terminal type ELX3158-b-c

b = Software Variant (Not Ex-relevant, for information purposes only)

c = EtherCAT revision (Not Ex-relevant, for information purposes only)

Channel 1: Clamp contacts 1 (Input1, I1), 9 (Uv1)

Channel 2: Clamp contacts 5 (Input2, I2), 13 (Uv2)

Channel 3: Clamp contacts 2 (Input3, I3), 10 (Uv3)

Channel 4: Clamp contacts 6 (Input4, I4), 14 (Uv4)

Channel 5: Clamp contacts 3 (Input5, I5), 11 (Uv5)

Channel 6: Clamp contacts 7 (Input6, I6), 15 (Uv6)

Channel 7: Clamp contacts 4 (Input7, I7), 12 (Uv7)

Channel 8: Clamp contacts 8 (Input8, I8), 16 (Uv8)

Each channel:

The output values depend on the connected power supply unit

When connected to ELX9560-****-**** HW:xx with $xx < 05$

Maximum output voltage U_o 27.7 V

Maximum output current I_o 85 mA

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SCHEDULE

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Linear output characteristics
Maximum output power P_o 565 mW
Maximum external capacitance C_o or maximum external inductance L_o :

	I	IIA	IIB/IIIC	IIC
C_o [μ F]	3.45	2.2	0.663	0.085
L_o [mH]	43	30	18	2

When connected to ELX9560-****-**** HW:xx with $xx \geq 05$
Maximum output voltage U_o 27 V
Maximum output current I_o 80 mA
Linear output characteristics
Maximum output power P_o 535 mW
Maximum external capacitance C_o or maximum external inductance L_o :

	I	IIA	IIB/IIIC	IIC
C_o [μ F]	3.75	2.33	0.705	0.09
L_o [mH]	49	35	21	2.8

ELX3181-b-c 1-Channel analog input terminal, 4...20mA, HART

Description of Equipment

Signal terminal type ELX3181-b-c

b = Software Variant (Not Ex-relevant, for information purposes only)
c = EtherCAT revision (Not Ex-relevant, for information purposes only)

Channel 1: Clamp contacts 8 (Uv1), 7(Input1, I1)
The output values depend on the connected power supply unit:
When connected to ELX9560-****-**** HW:xx with $xx < 05$
Maximum output voltage U_o 27.7V
Maximum output current I_o 85mA
Linear output characteristics
Maximum output power P_o 565mW
Maximum external capacitance C_o or maximum external inductance L_o :

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	I	IIA	IIB/IIIC	IIC
C _o [μF]	3.45	2.2	0.663	0.085
L _o [mH]	43	30	18	2

When connected to ELX9560-****-**** HW:xx with xx ≥ 05

Maximum output voltage U_o 27 V

Maximum output current I_o 80 mA

Linear output characteristics

Maximum output power P_o 535 mW

Maximum external capacitance C_o or maximum external inductance L_o:

	I	IIA	IIB/IIIC	IIC
C _o [μF]	3.75	2.33	0.705	0.09
L _o [mH]	49	35	21	2.8

ELX3184-b-c 4-channel analog input terminal 4...20 mA HART

Description of Equipment

Signal terminal type ELX3184-b-c

b = Software Variant (Not Ex-relevant, for information purposes only)

c = EtherCAT revision (Not Ex-relevant, for information purposes only)

Channel 1: Clamp contacts 4 (Uv1), 2 (I1)

Channel 2: Clamp contacts 8 (Uv2), 6 (I2)

Channel 3: Clamp contacts 12 (Uv3), 10 (I3)

Channel 4: Clamp contacts 16 (Uv4), 14 (I4)

When connected to ELX9560-****-**** HW:xx with xx ≥ 05

Maximum output voltage U_o 27.7 V

Maximum output current I_o 81 mA

Linear output characteristics

Maximum output power P_o 561 mW

Maximum external capacitance C_o or maximum external inductance L_o:

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SCHEDULE

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	I	IIA	IIB/IIIC	IIC
C _o [μF]	3.45	2.2	0.663	0.085
L _o [mH]	43	34	20	2.4

ELX3202-b-c 2-Channel analog input terminal RTD

Description of Equipment

Signal terminal type ELX3202-b-c

b = Software Variant (Not Ex-relevant, for information purposes only)

c = EtherCAT revision (Not Ex-relevant, for information purposes only)

Channel 1: Clamp contacts 1 (+RL1), 2 (+R1), 5 (-RL1), 6 (-R1)

Channel 2: Clamp contacts 3 (+RL2), 4 (+R2), 7 (-RL2), 8 (-R2)

Each channel

Maximum output voltage U_o 4.94V

Maximum output current I_o 12mA

Linear output characteristics

Maximum output power P_o 15mW

Maximum external capacitance C_o or maximum external inductance L_o:

	I, IIA, IIB, IIIC	IIC
C _o [μF]	1000	100
L _o [mH]	100	100

ELX3204-b-c 4-Channel analog input terminal RTD

Description of Equipment

Signal terminal type ELX3204-b-c

b = Software Variant (Not Ex-relevant, for information purposes only)

c = EtherCAT revision (Not Ex-relevant, for information purposes only)

Channel 1: Clamp contacts 1 (+R1), 5 (-R1)

Channel 2: Clamp contacts 2 (+R2), 6 (-R2)

Channel 3: Clamp contacts 3 (+R3), 7 (-R3)

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F 347 (Apr 21)



SCHEDULE

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Channel 4: Clamp contacts 4 (+R4), 8 (-R4)

Each channel

Maximum output voltage U_o 4.94V

Maximum output current I_o 12mA

Linear output characteristics

Maximum output power P_o 15mW

Maximum external capacitance C_o or maximum external inductance L_o :

	I, IIA, IIB, IIIC	IIC
C_o [μ F]	1000	100
L_o [mH]	100	100

ELX3252-b-c 2-Channel analog input terminal potentiometer

Description of Equipment

Signal terminal type ELX3252-b-c

b = Software Variant (Not Ex-relevant, for information purposes only)

c = EtherCAT revision (Not Ex-relevant, for information purposes only)

Channel 1: Clamp contacts 1 (-R1), 5 (+R1), 2 (RL1)

Channel 2: Clamp contacts 4 (-R2), 8 (+R2), 3 (RL2)

Each channel

Maximum output voltage U_o 4.94 V

Maximum output current I_o 12 mA

Linear output characteristics

Maximum output power P_o 16 mW

Maximum external capacitance C_o or maximum external inductance L_o :

	I, IIA, IIB, IIIC	IIC
C_o [μ F]	1000	100
L_o [mH]	100	100

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F 347 (Apr 21)



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ELX3312-b-c 2-Channel analog input terminal thermocouple

Description of Equipment

Signal terminal type ELX3312-b-c

b = Software Variant (Not Ex-relevant, for information purposes only)

c = EtherCAT revision (Not Ex-relevant, for information purposes only)

Channel 1: Clamp contacts 1 (+TC1), 5 (-TC1)

Channel 2: Clamp contacts 2 (+TC2), 6 (-TC2)

Each channel

Maximum output voltage U_o 4.94V

Maximum output current I_o 0.5mA

Linear output characteristics

Maximum output power P_o 0.5mW

Maximum external capacitance C_o or maximum external inductance L_o :

	I, IIA, IIB, IIIC	IIC
C_o [μ F]	1000	100
L_o [mH]	100	100

ELX3314-b-c 4-Channel analog input terminal thermocouple

Description of Equipment

Signal terminal type ELX3314-b-c

b = Software Variant (Not Ex-relevant, for information purposes only)

c = EtherCAT revision (Not Ex-relevant, for information purposes only)

Channel 1: Clamp contacts 1 (+TC1), 5 (-TC1)

Channel 2: Clamp contacts 2 (+TC2), 6 (-TC2)

Channel 3: Clamp contacts 3 (+TC3), 7 (-TC3)

Channel 4: Clamp contacts 4 (+TC4), 8 (-TC4)

Each channel

Maximum output voltage U_o 4.94V

Maximum output current I_o 0.5mA

Linear output characteristics

Maximum output power P_o 0.5mW

Maximum external capacitance C_o or maximum external inductance L_o :

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	I, IIA, IIB, IIIC	IIC
C _o [μF]	1000	100
L _o [mH]	100	100

ELX3351-b-c 1-Channel analog input terminal strain gauge

Description of Equipment

Signal terminal type ELX3351-b-c

b = Software Variant (Not Ex-relevant, for information purposes only)

c = EtherCAT revision (Not Ex-relevant, for information purposes only)

Channel 1: Clamp contacts 2 (+UD), 6 (-UD), 3 (+UR), 7 (-UR), 4 (+UV), 8 (-UV)

Maximum output voltage U_o 11.76V

voltage difference between 2 clamps

Maximum output current I_o 146mA

Linear output characteristics

Maximum output power P_o 214mW

Maximum external capacitance C_o or maximum external inductance L_o:

	I	IIA	IIB/IIIC	IIC
C _o [μF]	40	39	9.9	1.5
L _o [mH]	20	13	6.6	1.7

ELX4154-b-c 4-Channel analog output terminal 0/4...20 mA

Description of Equipment

Signal terminal type ELX4154-b-c

b = Software Variant (Not Ex-relevant, for information purposes only)

c = EtherCAT revision (Not Ex-relevant, for information purposes only)

Channel 1: Clamp contacts 9 (Output 1, 01), 5 (GND)

Channel 2: Clamp contacts 10 (Output 2, 02), 6 (GND)

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F 347 (Apr 21)



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Channel 3: Clamp contacts 11 (Output 3, 03), 7 (GND)

Channel 4: Clamp contacts 12 (Output 4, 04), 8 (GND)

Each channel:

The output values depend on the connected power supply unit:

When connected to ELX9560-****-**** HW:xx with xx < 05

Maximum output voltage U_o 27.7 V

Maximum output current I_o 85 mA

Linear output characteristics

Maximum output power P_o 565 mW

Maximum external capacitance C_o or maximum external inductance L_o :

	I	IIA	IIB/IIIC	IIC
C_o [μ F]	3.45	2.2	0.663	0.085
L_o [mH]	43	30	18	2

When connected to ELX9560-****-**** HW:xx with xx \geq 05

Maximum output voltage U_o 27 V

Maximum output current I_o 80 mA

Linear output characteristics

Maximum output power P_o 535 mW

Maximum external capacitance C_o or maximum external inductance L_o :

	I	IIA	IIB/IIIC	IIC
C_o [μ F]	3.75	2.33	0.705	0.09
L_o [mH]	49	35	21	2.8

ELX4181-b-c 1-Channel analog output terminal, 0/4...20mA, HART

Description of Equipment

Signal terminal type ELX4181-b-c

b = Software Variant (Not Ex-relevant, for information purposes only)

c = EtherCAT revision (Not Ex-relevant, for information purposes only)

Channel 1: Clamp contacts 8 (Output 1, O1), 6 (GND)

The output values depend on the connected power supply unit:

When connected to ELX9560-****-**** HW:xx with xx < 05

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F 347 (Apr 21)



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Maximum output voltage U_o 27.7 V
Maximum output current I_o 85 mA
Linear output characteristics
Maximum output power P_o 565 mW
Maximum external capacitance C_o or maximum external inductance L_o :

	I	IIA	IIB/IIIC	IIC
C_o [μ F]	3.45	2.2	0.663	0.085
L_o [mH]	43	30	18	2

When connected to ELX9560-****-**** HW:xx with $xx \geq 05$
Maximum output voltage U_o 27 V
Maximum output current I_o 80 mA
Linear output characteristics
Maximum output power P_o 535 mW
Maximum external capacitance C_o or maximum external inductance L_o :

	I	IIA	IIB/IIIC	IIC
C_o [μ F]	3.75	2.33	0.705	0.09
L_o [mH]	49	35	21	2.8

ELX5151-b-c 1-Channel incremental encoder interface NAMUR

Description of Equipment

Signal terminal type ELX5151-b-c

b = Software Variant (Not Ex-relevant, for information purposes only)

c = EtherCAT revision (Not Ex-relevant, for information purposes only)

Channel 1: Clamp contacts 4 (Uv1), 1 (A)

Channel 2: Clamp contacts 8 (Uv2), 5 (B)

Each channel

Maximum output voltage U_o 10.72 V

Maximum output current I_o 12.4mA

Linear output characteristics

Maximum output power P_o 33mW

Maximum external capacitance C_o or maximum external inductance L_o :

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	I	IIA	IIB/IIIC	IIC
C _o [μF]	58	66	15	2.14
L _o [mH]	100	100	100	100

ELX9410-b-c Power supply terminal for E-bus

Description of Equipment

Power supply terminal for E-bus type ELX9410-b-c

b = Software Variant (Not Ex-relevant, for information purposes only)

c = EtherCAT revision (Not Ex-relevant, for information purposes only)

Supply circuit

Clamp contacts 5 (Input 24V), 6 (Input 0V)

Rated nominal input voltage (-15 %, +20 %) DC 24 V

Maximum voltage U_m AC 253 V

E-bus circuit

E-bus connector

Rated nominal voltage DC 5 V

Rated current 40 mA

Maximum voltage U_m AC 253 V

ELX9560-b-c Power supply terminal

Description of Equipment

Power supply terminal type ELX9560-b-c

b = Software Variant (Not Ex-relevant, for information purposes only)

c = EtherCAT revision (Not Ex-relevant, for information purposes only)

Power supply circuit

Clamp connectors

red (24V), blue (0V)

Rated nominal input voltage (-15 %, +20 %) DC 24 V

Maximum voltage U_m AC 253 V

E-bus circuit

E-bus connector

Rated nominal voltage DC 5 V

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Rated current 40 mA
Maximum voltage Um AC 253 V

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