



Manufacturer / Hersteller

Test body / Prüfstelle

DR. JOHANNES HEIDENHAIN GmbH

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**Safety related Encoder Kxl – Inductive Kit Encoder
Geberfamilie Kxl – Induktive Kit Encoder**

EC-Type Examination Certificate No.: M6A 020196 0271 Rev. 01

1. Standards:

No. Lfd. Nr.	Standards met by all devices Von allen Geräten erfüllte Standards
1	EN ISO 13849-1:2015 (Cat. 3, PL d)
2	EN 61508-1:2010 (SIL2)
3	EN 61508-2:2010 (SIL2)
4	EN 61800-5-2:2017
5	IEC 61800-5-3:2021
6	Applicable only with additional measures: EN 61508-1:2010 (SIL3), EN 61508-2:2010 (SIL3) EN ISO 13849-1:2015 (Cat. 4, PL e)

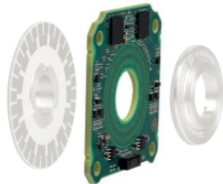
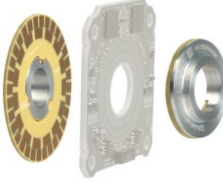
No. Lfd. Nr.	Standards not met by all devices (where applicable marked in List of devices) Standards nicht von allen Geräten erfüllt (wo zutreffend in Liste gekennzeichnet)	Labelling Kennzeichnung
-	-	-





**2. Safety functions, encoder with serial EnDat 2.2 interface:
Sicherheitsfunktionen, Geber mit serieller EnDat 2.2 Schnittstelle:**

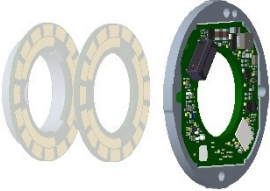

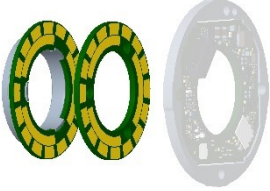
No. Lfd. Nr.	Safety function Sicherheitsfunktion
101	Provision of an absolute position value Pos1 by the encoder. The safety relevant resolution of Pos1 depends on the encoder type.
102	Provision of position value Pos2 by the encoder for the verification of Pos1.
103	For every position value the safe encoder shall provide current error bits F1, F2 at the CU-Interface.
104	As soon as the Safe CU requests Pos1, Pos2 or error bits via the CU interface, the safe encoder shall transmit these data safely to the Safe CU via the CU interface.

3. List of certified Kxl inductive Kit encoders with serial EnDat 2.2 interface:
Liste der zertifizierten induktiven Kit-Drehgeber mit serieller EnDat 2.2 Schnittstelle:


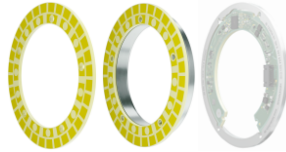
Ident No. Ident Nr.	Product name Produktbezeichnung	Further Standards Weitere Standards
<p>AE Kxl 1xx Dplus AE01</p> 		
1285758-02	AE KCI 118 2E 32 16 AE01 5ZS15 6z 00 C3 .. D EnDat22 37 01 FS	-
1285758-03	AE KCI 120 2E 32 16 AE01 5ZS15 6z 00 01 .. D EnDat22 37 01 FS	-
1285758-54	AE KCI 120 2E 32 16 AE01 5ZS15 6z 00 01 .. D EnDat22 37 05 FS	-
1285758-55	AE KCI 118 2E 32 16 AE01 5ZS15 6z 00 C3 .. D EnDat22 37 05 FS	-
<p>TKN Kxl 1xx Dplus 01B / 03B / 10B</p> 		
1289199-03	TKN Kxl 1xx 16 03B 23 C3 .. 01 MF	-
1289199-05	TKN Kxl 1xx 16 03B 23 01 .. 01 MF	-
1289199-56	TKN Kxl 1xx 16 03B 23 01 .. 05 MF	-
1289199-57	TKN Kxl 1xx 16 03B 23 C3 .. 05 MF	-
1289200-03	TKN Kxl 1xx 32 01B 23 C3 .. 01 MF	-
1289200-04	TKN Kxl 1xx 32 01B 23 01 .. 01 MF	-
1289200-55	TKN Kxl 1xx 32 01B 23 01 .. 05 MF	-
1289200-56	TKN Kxl 1xx 32 01B 23 C3 .. 05 MF	-
1369822-01	TKN Kxl 1xx 16 10B 28 C3 .. 01 MF	-
1369822-02	TKN Kxl 1xx 16 10B 28 01 .. 01 MF	-
1369822-52	TKN Kxl 1xx 16 10B 28 01 .. 05 MF	-
1369822-53	TKN Kxl 1xx 16 10B 28 C3 .. 05 MF	-

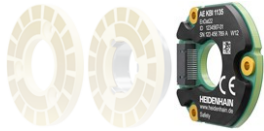

Ident No. Ident Nr.	Product name Produktbezeichnung	Further Standards Weitere Standards
AE Kxl 1xx Dplus AE04 		
1354407-01	AE KCI 120 2E 32 16 AE04 5ZS15 6z 00 01 .. D EnDat22 37 01 FS	-
1354407-51	AE KCI 120 2E 32 16 AE04 5ZS15 6z 00 01 .. D EnDat22 37 05 FS	-
1421551-01	AE KBI 136 2E 32 16 AE04 5ZS15 Ka 00 01 .. D EnDat22 65 01 FS	-
1421551-51	AE KBI 136 2E 32 16 AE04 5ZS15 Ka 00 01 .. D EnDat22 65 05 FS	-
TKN Kxl 1xx Dplus 08A / 08B 		
1348267-03	TKN Kxl 1xx 32 08A 28 01 .. 01 MF	-
1348267-56	TKN Kxl 1xx 32 08A 28 01 .. 05 MF	-
1348268-03	TKN Kxl 1xx 16 08B 28 01 .. 01 MF	-
1348268-56	TKN Kxl 1xx 16 08B 28 01 .. 05 MF	-
TK Kxl 1xx Dplus 02H / 02I 		
1445825-01	TK Kxl 1xx 32 02H 26 01 .. 01 MF	-
1445825-51	TK Kxl 1xx 32 02H 26 01 .. 05 MF	-
1445827-01	TK Kxl 1xx 16 02I 26 01 .. 01 MF	-
1445827-51	TK Kxl 1xx 16 02I 26 01 .. 05 MF	-

Ident No. Ident Nr.	Product name Produktbezeichnung	Further Standards Weitere Standards
AE Kxl 1xx <i>Dplus AE07</i> 		
1362005-02	AE KCI 120 2E 32 16 AE07 5ZS15 6z 00 01 .. D EnDat22 37 01 FS	-
1362005-52	AE KCI 120 2E 32 16 AE07 5ZS15 6z 00 01 .. D EnDat22 37 05 FS	-
TKN Kxl 1xx <i>Dplus 09A / 09B</i> 		
1362006-01	TKN Kxl 1xx 32 09A 28 01 .. 01 MF	-
1362006-51	TKN Kxl 1xx 32 09A 28 01 .. 05 MF	-
1362007-01	TKN Kxl 1xx 16 09B 28 01 .. 01 MF	-
1362007-51	TKN Kxl 1xx 16 09B 28 01 .. 05 MF	-

Ident No. Ident Nr.	Product name Produktbezeichnung	Further Standards Weitere Standards
 <p>AE Kxl 13xx HW25</p>		
1314405-01	AE KCI 1319 16 5ZS15 T9 R 0,00 .. AE03 28 00 01 .. D EnDat22 37 01 FS	-
1314405-51	AE KCI 1319 16 5ZS15 T9 R 0,00 .. AE03 28 00 01 .. D EnDat22 37 05 FS	-
1314406-01	AE KBI 1335 16 5ZS15 EZ R 0,00 .. AE03 28 00 01 .. D EnDat22 65 01 FS	-
1314406-51	AE KBI 1335 16 5ZS15 EZ R 0,00 .. AE03 28 00 01 .. D EnDat22 65 05 FS	-
 <p>AE Kxl 13xx HW 25 Gen. 1.1</p>		
1416009-01	AE KCI 1319 16 5ZS15 T9 R 0,00 .. AE09 28 00 01 .. D EnDat22 37 01 FS	-
1416009-51	AE KCI 1319 16 5ZS15 T9 R 0,00 .. AE09 28 00 01 .. D EnDat22 37 05 FS	-
1416010-01	AE KBI 1335 16 5ZS15 EZ R 0,00 .. AE09 28 00 01 .. D EnDat22 65 01 FS	-
1416010-51	AE KBI 1335 16 5ZS15 EZ R 0,00 .. AE09 28 00 01 .. D EnDat22 65 05 FS	-
 <p>TK/TKN Kxl 13xx HW25</p>		
1314410-01	TK Kxl 13xx 16 02A 26 01 .. 01 MF	-
1314410-51	TK Kxl 13xx 16 02A 26 01 .. 05 MF	-
1314409-01	TKN Kxl 13xx 16 01A 28 01 .. 01 MF	-
1314409-51	TKN Kxl 13xx 16 01A 28 01 .. 05 MF	-

Ident No. Ident Nr.	Product name Produktbezeichnung	Further Standards Weitere Standards
AE Kxl 1xx HW40/30		
		
1353137-01	AE KCI 120 32 5ZS15 T9 R 0,00 .. AE06 28 00 01 .. D EnDat22 37 01 FS	-
1353137-51	AE KCI 120 32 5ZS15 T9 R 0,00 .. AE06 28 00 01 .. D EnDat22 37 05 FS	-
1353139-01	AE KBI 136 32 5ZS15 EZ R 0,00 .. AE06 28 00 01 .. D EnDat22 65 01 FS	-
1353139-51	AE KBI 136 32 5ZS15 EZ R 0,00 .. AE06 28 00 01 .. D EnDat22 65 05 FS	-
TK/TKN Kxl 1xx HW40/30		
		
1353141-01	TKN Kxl 1xx 32 01D 28 01 .. 01 MF	-
1353141-51	TKN Kxl 1xx 32 01D 28 01 .. 05 MF	-
1353142-01	TK Kxl 1xx 32 02C 26 01 .. 01 MF	-
1353142-51	TK Kxl 1xx 32 02C 26 01 .. 05 MF	-
1353143-01	TKN Kxl 1xx 32 01C 28 01 .. 01 MF	-
1353143-51	TKN Kxl 1xx 32 01C 28 01 .. 05 MF	-
1353144-01	TK Kxl 1xx 32 02B 26 01 .. 01 MF	-
1353144-51	TK Kxl 1xx 32 02B 26 01 .. 05 MF	-

Ident No. Ident Nr.	Product name Produktbezeichnung	Further Standards Weitere Standards
AE Kxl 1xx HW55		
		
1402900-01	AE KCI 120 32 5ZS15 T9 R 0,00 .. AE08 28 00 01 .. D EnDat22 37 01 FS	-
1402900-51	AE KCI 120 32 5ZS15 T9 R 0,00 .. AE08 28 00 01 .. D EnDat22 37 02 FS	-
1402901-01	AE KBI 136 32 5ZS15 EZ R 0,00 .. AE08 28 00 01 .. D EnDat22 65 01 FS	-
1402901-51	AE KBI 136 32 5ZS15 EZ R 0,00 .. AE08 28 00 01 .. D EnDat22 65 02 FS	-
TK/TKN Kxl 1xx HW55		
		
1402902-01	TKN Kxl 1xx 32 01F 28 01 .. 01 MF	-
1402902-51	TKN Kxl 1xx 32 01F 28 01 .. 02 MF	-
1402903-01	TK Kxl 1xx 32 02D 26 01 .. 01 MF	-
1402903-51	TK Kxl 1xx 32 02D 26 01 .. 02 MF	-

Ident No. Ident Nr.	Product name Produktbezeichnung	Further Standards Weitere Standards
AE Kxl 11xx HW 12 		
1418388-01	AE KCI 1119 16 5ZS15 T9 R 0,00 .. AE10 28 00 01 .. D EnDat22 37 01 FS	
1418388-51	AE KCI 1119 16 5ZS15 T9 R 0,00 .. AE10 28 00 01 .. D EnDat22 37 05 FS	
1418390-01	AE KBI 1135 16 5ZS15 EZ R 0,00 .. AE10 28 00 01 .. D EnDat22 65 01 FS	
1418390-51	AE KBI 1135 16 5ZS15 EZ R 0,00 .. AE10 28 00 01 .. D EnDat22 65 05 FS	
TK/TKN Kxl 11xx HW 12 		
1418391-01	TKN Kxl 11xx 16 01G 28 01 .. 01 MF	
1418391-51	TKN Kxl 11xx 16 01G 28 01 .. 05 MF	
1418392-01	TK Kxl 11xx 16 02E 26 01 .. 01 MF	
1418392-51	TK Kxl 11xx 16 02E 26 01 .. 05 MF	



**4. Version History:
 Versionshistorie:**

Revision:	Name:	Date: Datum:	Changes / History: Änderungen / Historie
1.0	M. Braun	10.09.2020	Initial Version
1.1	M. Braun	12.05.2021	KCI 120 added (HT95584T, Rev. 1.1)
1.2	M. Braun	28.09.2021	KxI 13xx HW 25 added (DT97259T and HT97572T)
1.3	M. Braun	02.11.2022	KCI 1xx Dplus - AE04 added (HT99612T)
1.4	M. Braun	22.03.2023	KCI 1xx Dplus - AE07 and KxI 1xx HW40/30 added (HT100424T)
1.5	M. Braun	02.09.2024	KxI 1xx HW55 added (HT103370T)
1.6	M. Braun	17.07.2025	KBI 1xx Dplus – AE04 with TK and KxI 13xx HW 25 Gen. 1.1 added (HT105086T)
1.7	M. Braun	08.10.2025	KxI 11xx HW12 added (HT105640T)

	Release by Test Body: Freigabe Prüfstelle:	Release by Certification Body: Freigabe Zertifizierstelle:	Release by Manufacturer: Freigabe Hersteller:
Date: Datum:			
Signature: Unterschrift:			