

**VDE Prüfbericht / VDE Test Report**

Prüfbericht Nr. <i>Report No.</i>	329860-TL7-1
VDE-Aktenzeichen <i>VDE File No.</i>	5032148-5430-0001/329860
Ausstellungsdatum <i>Date of issue</i>	2025-07-30
Labor <i>Laboratory</i>	VDE Prüf- und Zertifizierungsinstitut GmbH
Adresse <i>Address</i>	Merianstrasse 28 63069 Offenbach/Main; Germany
Prüfört / Adresse <i>Testing location/ address</i>	Merianstrasse 28 63069 Offenbach/Main; Germany
Auftraggeber <i>Applicant's name</i>	PUK Group GmbH & Co. KG
Auftraggeber Adresse <i>Applicant's address</i>	Nobelstr. 51; 12057 Berlin; Germany
Angewandte Norm(en) <i>Applied standard(s)</i>	DIN CLC /TR 50659 (VDE 0604-2-200):2020-08; CLC/TR 50659:2017
Bemerkung / <i>Remark</i> :	--
Art des Prüflings <i>Test item description</i>	Kabelträgersystem für elektrische Installation <i>Cable tray</i>
Warenzeichen <i>Trade Mark</i>	-
Typenbezeichnungen(en) <i>Type reference(s)</i>	See type list on page 2

Zustand der/des Prüfmuster(s) <i>Test sample condition</i>	☒ Unbeschädigte(s) Prüfmuster <i>Non-damaged sample(s)</i>
	Bemerkung / <i>Remark</i> :
Wareneingang Prüfmuster <i>Sample entry date</i>	2025-05-21
Datum der Durchführung der Prüfungen <i>Date (s) of performance of tests</i>	2025-05-21 - 2025-07-28



Geprüft und ausgestellt von: <i>Tested by</i>:			
Name / <i>Name</i> , Unterschrift / <i>Signature</i>	Hendrik Wissel (Autorisierung des Prüfberichtes <i>Authorization of test report</i>)		
Funktion / <i>Function</i>	Prüfingenieur / Testing engineer		
Überprüft von / <i>Verified by</i>			
Name / <i>Name</i> , Unterschrift / <i>Signature</i>	Henning Neumann		
Funktion / <i>Function</i>	Reviewer		

Fertigungsstätten <i>Factory(ies)</i>:	-
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Typenbezeichnungen(en) <i>Type reference(s)</i>:				
	Typ / Type	Materialausführung / Material version	Verbinder / connector	Deckel / Cover
	Gitterbahn / Grid track			
1	G 50-30	GV, S, E, F	GV 30 *	GD 30 *
2	G 50-40	E4	GV *	GD 40 *
	Kabelrinne / cable tray			
3	RG 60-30	S, F, E	VB 30 *, RGV 60 *	RD 30 *
4	RGS 60-30	S, F	VB 30 *, RGV 60 *	RDS 30 *
5	R 60-30	S	VB 30 *, RGV 60 *	RD 30 *
	Kabelleiter / Cable ladder			
6	LGG 60-30	S, F	LGV 60 *	LD 30 *
	Weitspannkabelrinnen / Wide-span cable trays			
7	WPR 120-30	S, F	VB 30 *, WPV 120 *	
	Weitspannkabelleitern / Wide-span cable ladders			
8	WLR 200-30	S, F	WLV 200 *	WLD 30 *
9	WPL 150-30	S	WPV 150 *	WPD 30 *

S ~ Stahl / steel

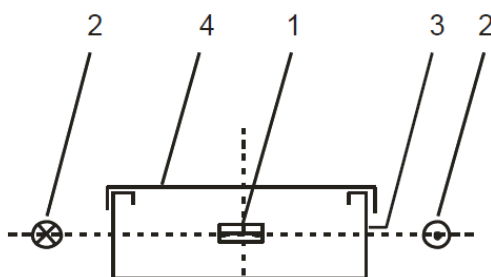
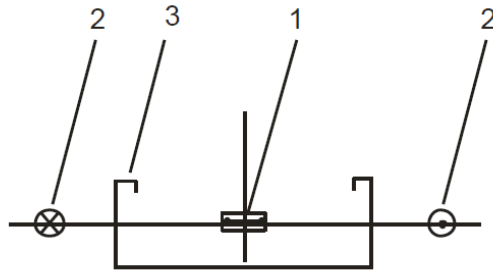
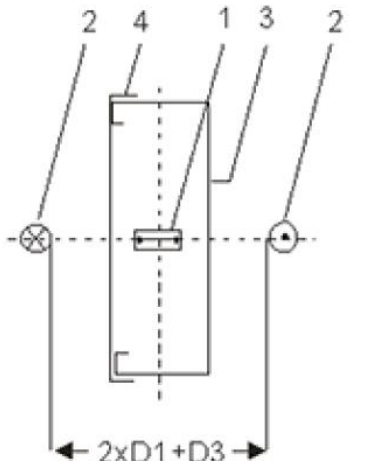
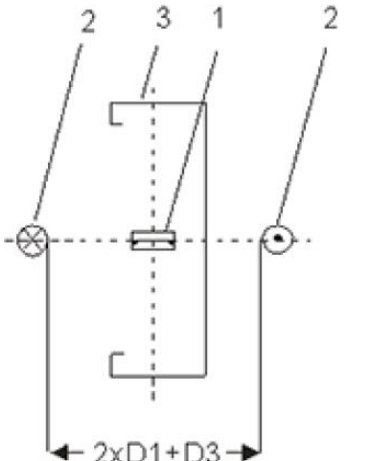
GV ~ Galvanisch verzinkt / Galvanized

F ~ Feuerverzinkt / Hot-dip galvanized

E ~ Edelstahl / Stainless steel

E4 ~ Edelstahl Werkstoff Nr. 14571/1.4404 / Stainless steel Material No. 14571/1.4404

*- Materialausführung /Material version

Durchgeführte Prüfungen / <i>Performed tests</i>			
Abschnitt <i>Clause</i>	Prüfanforderungen / <i>Requirement + Test</i>	Ergebnis – Anmerkung <i>Result – Remark</i>	Beurteilung Verdict
4.3.4	Excitation winding	8 mΩ	P
4.4.4	Measurement of the signal to noise ratio (SNR)	>30 dB	P
4.4.5	Measurement of shielding effectiveness (SE) Test setup 2a and 2b according to clause 4.3.5	Siehe Tabelle unten / <i>See table below</i>	
Ergänzende Information / <i>Supplementary information:</i>			
 1 = Sensorspule / <i>Sensorcoil</i> 2 = Erregerspule / <i>Exciting coil</i> 3 = Kabelträger / <i>Cable tray</i> 4 = Deckel / <i>cover</i> Messaufbau / <i>Test setup 2a</i>		 1 = Sensorspule / <i>Sensorcoil</i> 2 = Erregerspule / <i>Exciting coil</i> 3 = Kabelträger / <i>Cable tray</i> Messaufbau / <i>Test setup 2b</i>	
 1 = Sensorspule / <i>Sensorcoil</i> 2 = Erregerspule / <i>Exciting coil</i> 3 = Kabelträger / <i>Cable tray</i> 4 = Deckel / <i>cover</i> Messaufbau / <i>Test setup 2c</i>		 1 = Sensorspule / <i>Sensorcoil</i> 2 = Erregerspule / <i>Exciting coil</i> 3 = Kabelträger / <i>Cable tray</i> 4 = Deckel / <i>cover</i> Messaufbau / <i>Test setup 2d</i>	



4.4.4		Measurement of shielding effectiveness (SE)	
4.4.5.2		Measurement of the reference values $I_{0\max}$ and $I_{\text{ref,max}}$ without CMS	
Setup no. / Test aufbau	Typ / Type	Messaufbau / <i>Test setup</i>	I_{ref} [mA]
für Gitterbahn / for grid track			
1	G 50-30 GV	2b	2520
		2d	5960
	G 50-30 S	2b (for b)	2520
		2b (for a)	2560
		2d (for d)	5880
		2d (for c)	5800
	G 50-30 E	2b	2560
		2d	5720
	G 50-30 F	2b	2520
		2d	5800
2	G 50-40 E4	2b	2080
		2d	5800
für Kabelrinne / for cable tray			
3	RG 60-30 S	2b	2060
		2d	5480
	RG 60-30 F	2b	2000
		2d	5240
	RG 60-30 E	2b	1970
		2d	5320
4	RGS 60-30 S	2b	2060
		2d	5320
	RGS 60-30 F	2b	1980
		2d	5640
5	R 60-30 S	2b	2080
		2d	5640
Kabelleiter / Cable ladder			
6	LGG 60-30 S	2b	2520
		2d	5560
	LGG 60-30 F	2b	2520
		2d	5560



Weitspannkabelrinnen / Wide-span cable trays			
7	WPR 120-30 S	2b	1640
		2d	2920
	WPR 120-30 F	2b	1640
		2d	3060
Weitspannkabelleitern / Wide-span cable ladders			
8	WLR 200-30 S	2b	1615
		2d	2330
	WLR 200-30 F	2b	1615
		2d	2330
9	WPL 150-30 S	2b	1610
		2d	2880



4.4.5.3		Measurement of the values $I_{0,max}$ and $I_{sample,max}$ with CMS						
Gitterbahn / grid track								
N	Typ / Type	Deckel / Cover	Messaufbau / Test setup	M1 [mA]	M2 [mA]	M3 [mA]	Mittelwert / Average [mA]	Dämpfung / shielding [dB]
1	G 50-30 GV	-	2b	1480	1560	1560	1533	4,3
		-	2d	5480	5560	5560	5533	0,7
	G 50-30 S	-	2b	1280	1320	1320	1307	5,7
		GD 30 S	2a	328	312	312	317	18,1
		GD 30 S	2c	3040	2960	3040	3013	5,7
		-	2d	5240	5240	5240	5240	1,0
		-	2b	620	620	620	620	12,3
	G 50-30 E	GD 30 E	2a	200	200	200	200	22,1
		GD 30 E	2c	2360	2360	2360	2360	7,7
		-	2d	5160	5160	5080	5133	0,9
		-	2b	780	780	780	780	10,2
	G 50-30 F	GD 30 F	2a	208	208	208	208	21,7
		GD 30 F	2c	1960	1960	1960	1960	9,4
		-	2d	5000	5000	5000	5000	1,3
		-	2b	416	416	408	413	14,0
2	G 50-40 E4	GV E4	2a	144	144	144	144	23,2
		GV E4	2c	2280	2280	2280	2280	8,1
		-	2d	5720	5720	5720	5720	0,1
		-	2b	416	416	408	413	14,0



<i>Kabelrinne / cable tray</i>								
<i>N</i>	<i>Typ / Type</i>	<i>Deckel / Cover</i>	<i>Messaufbau / Test setup</i>	<i>M1 [mA]</i>	<i>M2 [mA]</i>	<i>M3 [mA]</i>	<i>Mittelwert / Average [mA]</i>	<i>Dämpfung / shielding [dB]</i>
3	RG 60-30 S	-	2b	132	132	132	132	23,9
		RD 30 S	2a	40	42	40	41	34,1
		RD 30 S	2c	770	750	770	763	17,1
		-	2d	4280	4280	4280	4280	2,2
	RG 60-30 F	-	2b	140	138	138	139	23,2
		RD 30 F	2a	25	25	25	25	38,1
		RD 30 F	2c	450	450	450	450	21,3
		-	2d	4280	4280	4280	4280	1,8
	RG 60-30 E	-	2b	162	162	162	162	21,7
		RD 30 E	2a	82	83	85	83	27,5
		RD 30 E	2c	1640	1720	1720	1693	9,9
		-	2d	4120	4120	4120	4120	2,2
4	RGS 60-30 S	-	2b	136	136	136	136	23,6
		RDS 30 S	2a	30	30	30	30	36,7
		RDS 30 S	2c	690	690	690	690	17,7
		-	2d	4120	4120	4120	4120	2,2
	RGS 60-30 F	-	2b	140	140	136	139	23,1
		RDS 30 F	2a	18	18	18	18	41,0
		RDS 30 F	2c	610	610	610	610	19,3
		-	2d	4840	4840	4840	4840	1,3
5	R 60-30 S	-	2b	140	140	140	140	23,4
		RD 30 S	2a	40	40	41	40	34,3
		RD 30 S	2c	676	676	676	676	18,4
		-	2d	4280	4280	4280	4280	2,4



Kabelleiter / Cable ladder								
N	Typ / Type	Deckel / Cover	Messaufbau / Test setup	M1 [mA]	M2 [mA]	M3 [mA]	Mittelwert / Average [mA]	Dämpfung / shielding [dB]
6	LGG 60-30 S	-	2b	680	660	640	660	11,6
		LD 30 S	2a	144	144	144	144	24,9
		LD 30 S	2c	4120	4120	4120	4120	2,6
		-	2d	5560	5560	5560	5560	0,0
	LGG 60-30 F	-	2b	424	424	424	424	15,5
		LD 30 F	2a	108	108	108	108	27,4
		LD 30 F	2c	4280	4280	4280	4280	2,3
		-	2d	5160	5160	5160	5160	0,7
Weitspannkabelrinnen / Wide-span cable trays								
N	Typ / Type	Deckel / Cover	Messaufbau / Test setup	M1 [mA]	M2 [mA]	M3 [mA]	Mittelwert / Average [mA]	Dämpfung / shielding [dB]
7	WPR 120-30 S	-	2b	122	122	118	121	22,7
		WPD 30 S	2a	50	50	50	50	30,3
		WPD 30 S	2c	610	610	610	610	13,6
		-	2d	2050	2060	2060	2057	3,0
		-	2b	88,4	88,4	88,4	88,4	25,4
		WPD 30 F	2a	7,5	7,7	7,7	7,6	46,6

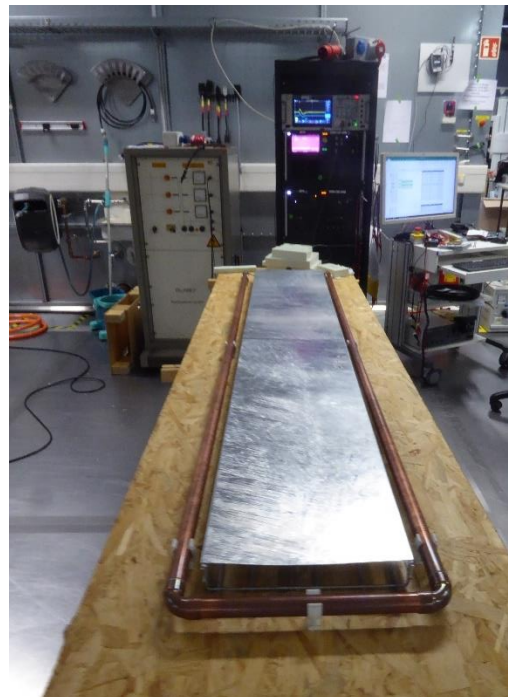


Weitspannkabelleiter / Wide-span cable ladder								
N	Typ / Type	Deckel / Cover	Messaufbau / Test setup	M1 [mA]	M2 [mA]	M3 [mA]	Mittelwert / Average [mA]	Dämpfung / shielding [dB]
8	WLR 200-30 S	-	2b	92,5	92,5	92,5	92,5	24,8
		WLD 30 S	2a	35,5	33,5	33,5	34,17	33,5
		WLD 30 S	2c	412	412	436	420	14,9
		-	2d	1390	1390	1390	1390	4,5
	WLR 200-30 F	-	2b	83,5	83,5	83,5	83,5	25,7
		WLD 30 F	2a	33,5	33,5	33,5	33,5	33,7
		WLD 30 F	2c	404	404	404	404	15,2
		-	2d	1510	1510	1510	1510	3,8
9	WPL 150-30 S	-	2b	280	288	288	285,33	15,0
		WPD 30 S	2a	136	136	136	136	21,5
		WPD 30 S	2c	1800	1800	1800	1800	4,1
		-	2d	2600	2600	2600	2600	0,9

Fotodokumentation / Photo documentation: 1. G 50-30



Messaufbau / Test setup 2b



Messaufbau / Test setup 2a



Messaufbau / Reference measurement



Messaufbau / Test setup 2c

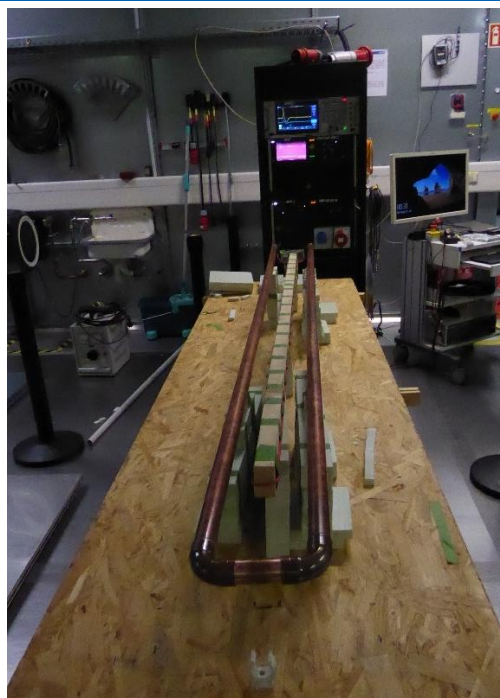
Fotodokumentation / Photo documentation: 2.G 50-40



Messaufbau / Test setup 2b



Messaufbau / Test setup 2a



Messaufbau / Reference measurement

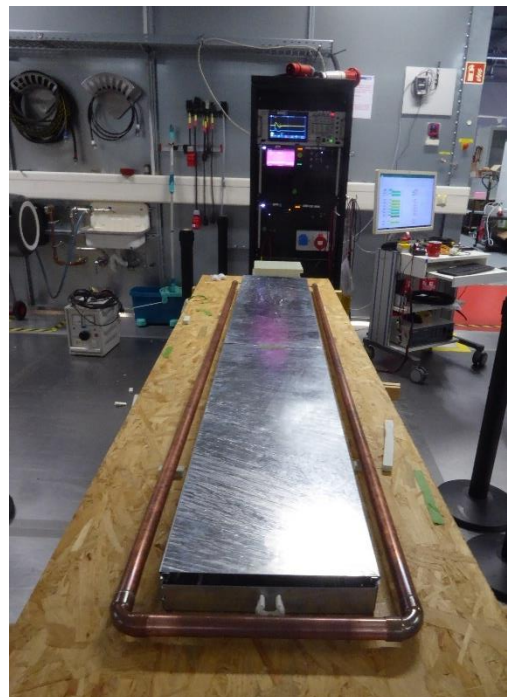


Messaufbau / Test setup 2d

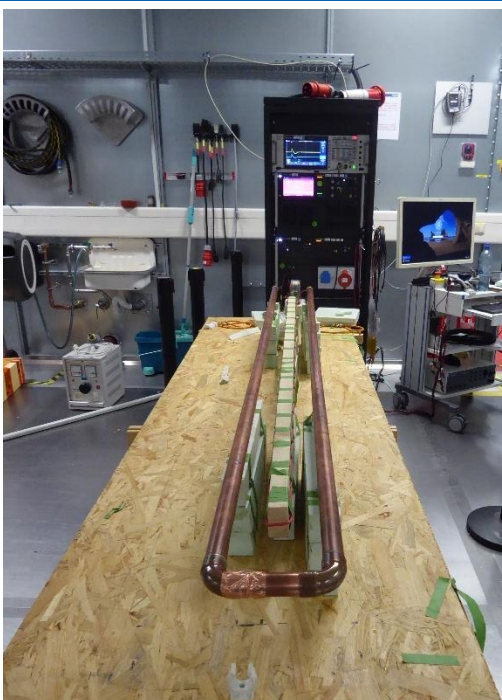
Fotodokumentation / Photo documentation: 3. RG 60-30



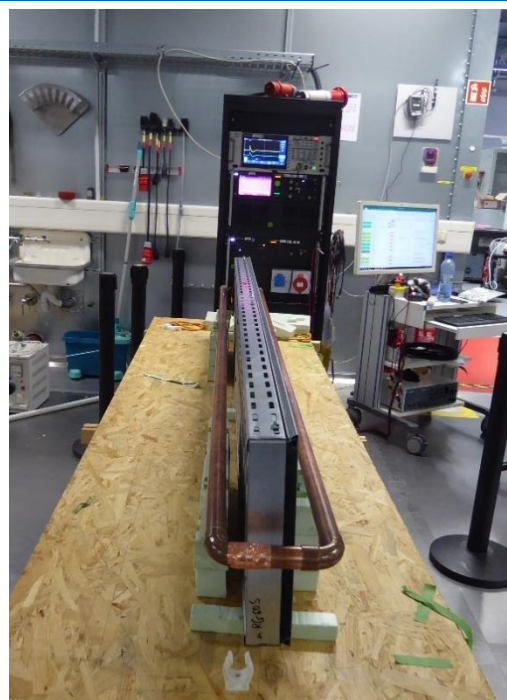
Messaufbau / Test setup 2b



Messaufbau / Test setup 2a



Messaufbau / Reference measurement



Messaufbau / Test setup 2c

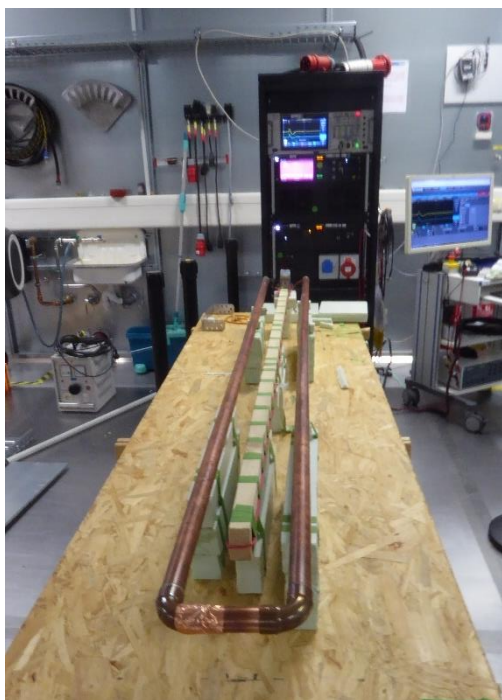
Fotodokumentation / Photo documentation: 4. RGS 60-30



Messaufbau / Test setup 2b



Messaufbau / Test setup 2a

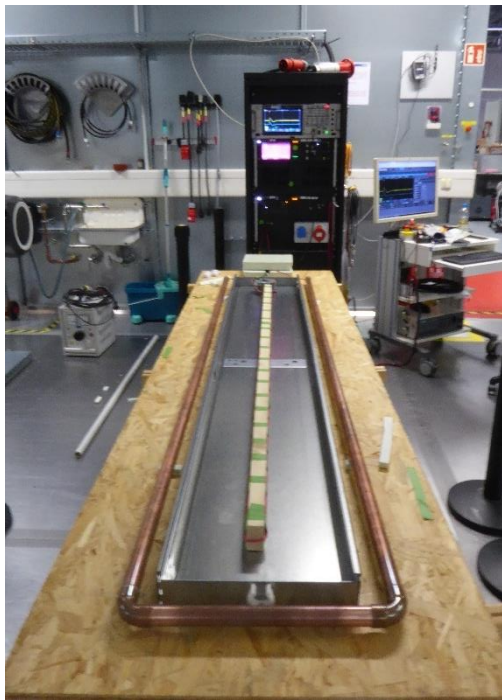


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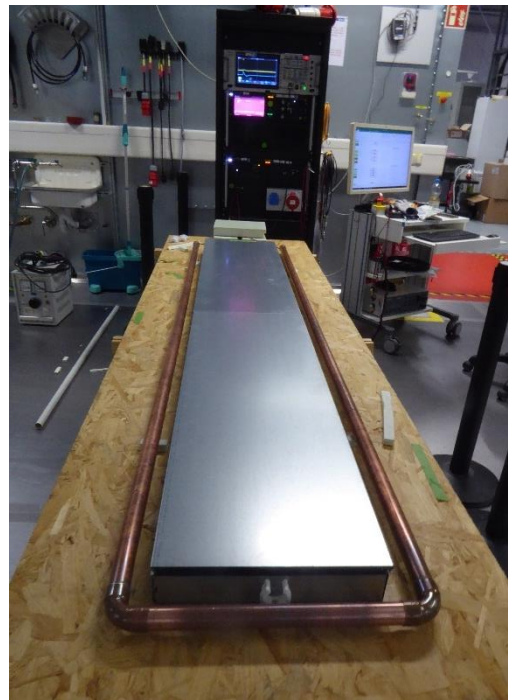


Messaufbau / Test setup 2c

Fotodokumentation / Photo documentation: 5. R 60-30



Messaufbau / Test setup 2b



Messaufbau / Test setup 2a

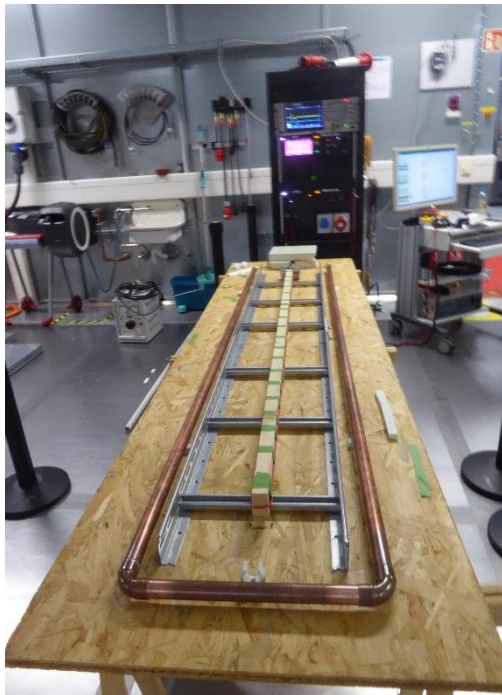


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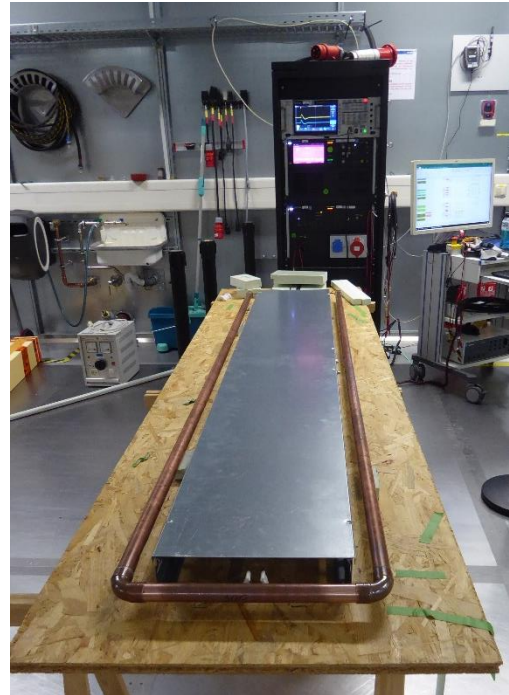


Messaufbau / Test setup 2c

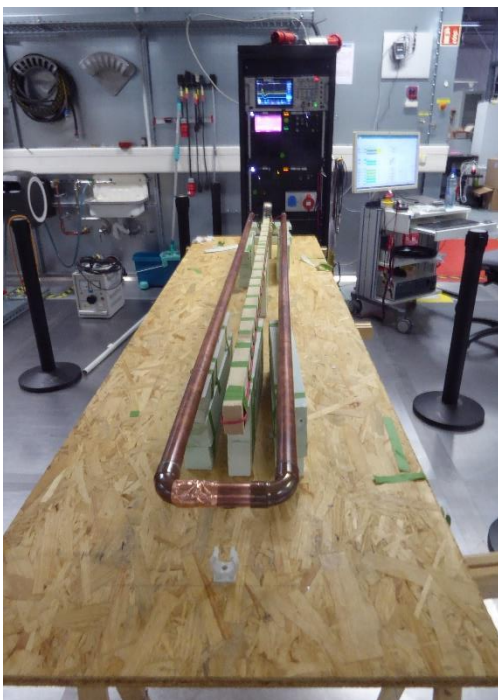
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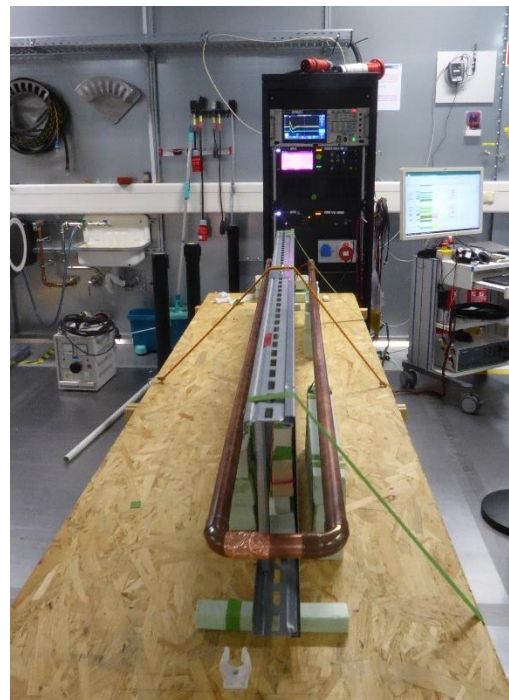
Messaufbau / Test setup 2b



Messaufbau / Test setup 2a



Messaufbau / Reference measurement



Messaufbau / Test setup 2c

Fotodokumentation / Photo documentation: 7. WPR 120-30



Messaufbau / Test setup 2b



Messaufbau / Test setup 2a



Messaufbau / Reference measurement



Messaufbau / Reference measurement

Fotodokumentation / Photo documentation: 8. WLR 200-30



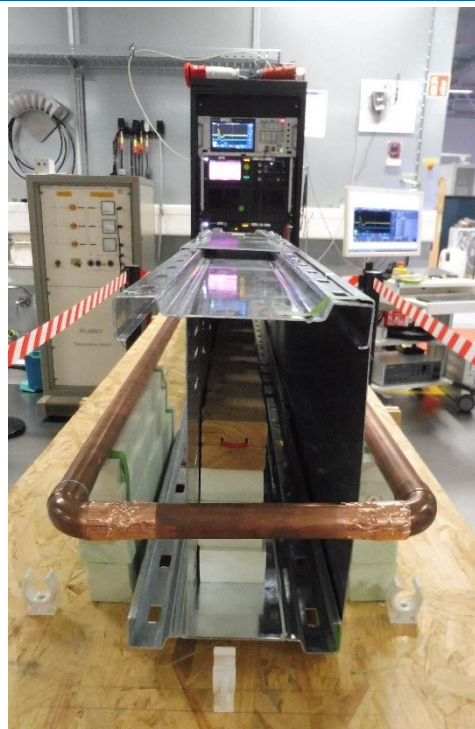
Messaufbau / Test setup 2b



Messaufbau / Test setup 2a



Messaufbau / Reference measurement



Messaufbau / Test setup 2c

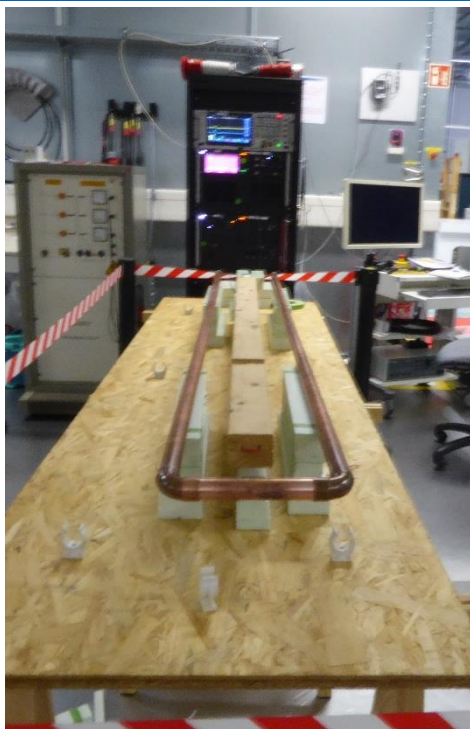
Fotodokumentation / Photo documentation: 9. WPL 150-30



Messaufbau / Test setup 2b



Messaufbau / Test setup 2a



Messaufbau / Reference measurement



Messaufbau / Test setup 2d



List of the applied measurement instruments and testing means					
Clause	Measurement /testing	Testing / measuring equipment / material used, (Equipment ID)	Range used	Last Calibration date	Calibration due date
		Stromwandler/Current probe FISCHER F-51 1090409		2024-03-06	2026-06-05
		Burst Generator/Burst Generator em test ETF500N8 1800144		2025-03-20	2026-06-19
		3-phase Coupling Network/3-phase Coupling Network AMETEK NX5 bs-3-690-125.3 1850286		2025-03-14	2026-06-12
		Compact-Generator/Compact- Generator AMETEK NX5 bsp-1-400-16 5200628		2025-03-13	2026-06-12
		Digital-Oszilloskop/Digital Oscilloscope Tektronix TBS2102B 1100120		2025-05-01	2026-05-01