

Manufactured by

URK FEI

Ilkovicova 3 841 01 Bratislava / Slovakia Phone. +421 910 688 301



Customer

Supplier

URK FEI

Device description

Project name

Project desctription

Project category/number

001_TSI_LI_development_DP

Diploma thesis: Tire surface inspection - lettering inspection

001

Created on 23-Oct-17

Edit date 18-Jan-21 by PATRIK HERCUT

by PATRIK HERCUT

Number of pages

41

Title page / cover sheet

Table of contents

Column X: An automatically generated page was edited

F06_001

Page	Page description	supplementary page field	Date	Edited by	Х
/1	Title page / cover sheet		12-Nov-20	MATUS KOLAROVIC	
/2	Table of contents		18-Jan-21	MATUS KOLAROVIC	
/2.a	Table of contents		18-Jan-21	MATUS KOLAROVIC	
/3	Cable overview		18-Dec-20	MATUS KOLAROVIC	
/3.a	Cable overview		18-Dec-20	MATUS KOLAROVIC	
/4	Parts list		18-Jan-21	MATUS KOLAROVIC	
/4.a	Parts list		18-Jan-21	MATUS KOLAROVIC	
/4.b	Parts list		18-Jan-21	MATUS KOLAROVIC	
/5	Summarized parts list		18-Jan-21	MATUS KOLAROVIC	
/5.a	Summarized parts list		07-Jan-21	MATUS KOLAROVIC	
/5.b	Summarized parts list		16-Dec-20	MATUS KOLAROVIC	
/5.c	Summarized parts list		16-Dec-20	MATUS KOLAROVIC	
/10	Profinet Topology		17-Jan-21	MATUS KOLAROVIC	
/11	Ethernet Topology		17-Jan-21	MATUS KOLAROVIC	
=TSI_LI+RM1/100	Panel layout RM1		17-Jan-21	MATUS KOLAROVIC	
=TSI_LI+RM1/101	Mains		18-Dec-20	MATUS KOLAROVIC	
=TSI_LI+RM1/102	Power part		18-Jan-21	MATUS KOLAROVIC	
=TSI_LI+RM1/104	Power part - 24VDC supply - aircon		18-Jan-21	MATUS KOLAROVIC	
=TSI_LI+RM1/106	S120 -power infeed		18-Jan-21	MATUS KOLAROVIC	
=TSI_LI+RM1/107	S120 -control unit		16-Sep-20	MATUS KOLAROVIC	
=TSI_LI+RM1/110	S120 -motor module		15-Sep-20	MATUS KOLAROVIC	
=TSI_LI+RM1/115	HW PLC		07-Jan-21	MATUS KOLAROVIC	
=TSI_LI+RM1/120	PLC		16-Sep-20	MATUS KOLAROVIC	
=TSI_LI+RM1/121	PLC		18-Jan-21	MATUS KOLAROVIC	
=TSI_LI+RM1/123	PLC		18-Jan-21	MATUS KOLAROVIC	
=TSI_LI+RM1/124	PLC		18-Jan-21	MATUS KOLAROVIC	
=TSI_LI+RM1/125	PLC -thermometer		18-Jan-21	MATUS KOLAROVIC	
=TSI_LI+RM1/150	PC		18-Dec-20	MATUS KOLAROVIC	
=TSI_LI+RM1/151	Networks		17-Jan-21	MATUS KOLAROVIC	
=TSI_LI+MS2/200	Panel layout		23-Oct-20	MATUS KOLAROVIC	
=TSI_LI+MS2/201	PLC		17-Jan-21	MATUS KOLAROVIC	
=TSI_LI+MS2/202	PLC		18-Jan-21	MATUS KOLAROVIC	
=TSI_LI+MS2/204	PLC		18-Jan-21	MATUS KOLAROVIC	

001_TSI_LI_development_DP

PATRIK HERCUT

Table of contents

Column X: An automatically generated page was edited

F06_001

Page	Page description	supplementary page field	Date	Edited by	X
=TSI_LI+MS2/205	PLC		18-Jan-21	MATUS KOLAROVIC	
=TSI_LI+MS2/206	PLC F-power module		18-Jan-21	MATUS KOLAROVIC	
=TSI_LI+MS2/207	PLC		18-Jan-21	MATUS KOLAROVIC	
=TSI_LI+MS2/209	SCHUNK joint		18-Jan-21	MATUS KOLAROVIC	
=TSI_LI+MS2/210	Safety scaner		18-Jan-21	MATUS KOLAROVIC	
=TSI_LI+MS2/211	Sensor actuator		23-Oct-20	MATUS KOLAROVIC	
=TSI_LI+MS2/212	LLT		18-Jan-21	MATUS KOLAROVIC	
=TSI_LI+MS2/215	Kawasaki 1TR board		18-Jan-21	MATUS KOLAROVIC	
			<u> </u>	1	

Cable overview

F10_001

Cable name	Source (from)	Target (to)	cable type	all conductors	Conductors used	Cross-section [mm]	Length [m]	function text	Graphical page of cable diagram
=TSI_LI+RM1-101W7	=TSI_LI+RM1-151HUB3-P7	=TSI_LI+MC-101U2	6XV1840-2AH10		1				
=TSI_LI+RM1-102W0	=TSI_LI+RM1-102X0	=TSI_LI+Customer-L1		5G	5	6			
		=TSI_LI+Customer-L2							
		=TSI_LI+Customer-L3							
		=TSI_LI+Customer-N1							
		=TSI_LI+Customer-PE1							
=TSI_LI+RM1-102W1	=TSI_LI+KAWASAKI Robot co	ontrə ilə:<u>1.102</u>)X2 M1-102X1		5G	5	4			
=TSI_LI+RM1-102W6	=TSI_LI+RM1-102Q6	=TSI_LI+RM1-102XS6-PWR	Olflex Classic 100	4G	3	1.5			
	PE								
=TSI_LI+RM1-102W7	=TSI_LI+RM1-151HUB5-P5	=TSI_LI+RM1-102XS6-ETH1	CAT5E		1				
=TSI_LI+RM1-102W7.1		=TSI_LI+RM1-102XS6-ETH2	6XV1840-2AH10		1				
=TSI_LI+RM1-102W8.1	=TSI_LI+RM1-102X0	=TSI_LI+RM1-102HL8	Rittal 2500.400		3				
	=TSI_LI+RM1-102F8								
=TSI_LI+RM1-107W5	=TSI_LI+RM1-106T2.1-X200	=TSI_LI+RM1-107T1-X100	6SL3060-4AK00-0AA0		1				
=TSI_LI+RM1-110W2.1			6FX5002-5DN06-1CA0		0				
=TSI_LI+RM1-110W4	=TSI_LI+RM1-110T2-X201	=TSI_LI+MEASURING_STANI			1				
=TSI_LI+RM1-110W6	=TSI_LI+RM1-106T2.1-X201	=TSI_LI+RM1-110T2-X200	6SL3060-4AK00-0AA0		1				
=TSI_LI+RM1-115W5	=TSI_LI+RM1-115PLC3	=TSI_LI+RM1-120ET3	6XV1840-2AH10		1				
=TSI_LI+RM1-115W5.1		=TSI_LI+RM1-115PLC3	6XV1840-2AH10		1				
=TSI_LI+RM1-121W0	=TSI_LI+RM1-121DI0	=TSI_LI+RM1-121S0		5G	4	0.5			
=TSI_LI+RM1-125W0	=TSI_LI+RM1-125AI0	=TSI_LI+RM1-125B0			2				
=TSI_LI+RM1-150W4	=TSI_LI+RM1-150U3	=TSI_LI+RM1-150U4-DPP			1				
=TSI_LI+RM1-150W4.1	=TSI_LI+RM1-150U4-USB	=TSI_LI+PANEL-150D0-USB	USB A-A M/M		1				
=TSI_LI+RM1-150W6	101_11111111111111111111111111111111111	=TSI_LI+RM1-150U4-X1	CAT5E		1				
=TSI_LI+RM1-150W7	=TSI_LI+RM1-151HUB3-P5	=TSI_LI+RM1-150U4-X2	6XV1840-2AH10		1				
=TSI_LI+RM1-150W8	=TSI_LI+RM1-150U4-USB	=TSI_LI+RM1-150U7-X3	USB A / USB B		1				
=TSI_LI+RM1-151W6	-131_L111(11 1300 1 03B	-131_E11K11 13007 X3	035 A 7 035 5		0				
=TSI_LI+PANEL-150W2	=TSI_LI+PANEL-150D0-USB	=TSI_LI+PANEL-150U1	USB A-A M/F		1				
=TSI_LI+PANEL-150W3	=TSI_LI+RM1-150U3	=TSI_LI+PANEL-150D0-DVI	OSDA ATTI		1				
=TSI_LI+MS2-201W3	=131_L11Kii1 13003	=151_E111 ANEE 13000 DV1	ÖLFLEX® CLASSIC 110	5G	3	0.75			
-131_L1+1432-201W3	=TSI_LI+RM1-201X3	=TSI_LI+MS2-201X3	OLI LEA & CLASSIC 110	36	3	0.73			
=TSI_LI+MS2-202W0	=TSI_LI+MS2-202DI0	=TSI_LI+MS2-202S0		5G	4	0.5			
=TSI_LI+MS2-207W0	=TSI_LI-207Y0	=TSI_LI+MS2-207D00		3G	2	0.5			
				3G	2				
=TSI_LI+MS2-207W1 =TSI_LI+MS2-207W2	=TSI_LI-207Y1 =TSI_LI-207Y2	=TSI_LI+MS2-207D00 =TSI_LI+MS2-207D00		3G	2	0.5			
=TSI_LI+MS2-207W2 =TSI_LI+MS2-209W1	-131_L1=2U/12	=TSI_LI+MS2-207D00 =TSI_LI+MS2-204DI0		21G	14	0.5			
- 131_LTT132-2U3W1				210	14	0.5			
_TCI_II_MC2_210W/4	_TCI_II_MC2_240U2	=TSI_LI+MS2-205DI0	SAUV BUOUEC		g				
=TSI_LI+MS2-210W4	=TSI_LI+MS2-210U3	=TSI_LI+MS2-210X4	SX0A-B0905G						
=TSI_LI+MS2-211W0	=TSI_LI-211X0-1	TOT 14 2449/2 2		210	4	0.5			
=TSI_LI+MS2-211W0.1	TCI 17 2441/2 2	=TSI_LI-211X0-0		21G	14	0.5			
=TSI_LI+MS2-211W1	=TSI_LI-211X0-2				4				
=TSI_LI+MS2-211W3	=TSI_LI-211X0-3				4				
=TSI_LI+MS2-211W4	=TSI_LI-211X0-4				4				
=TSI_LI+MS2-211W5	=TSI_LI-211X0-5				4				
=TSI_LI+MS2-211W6	=TSI_LI-211X0-6				4				
=TSI_LI+MS2-212W3	=TSI_LI+MS2-212X3.2	=TSI_LI+MS2-212LLT3	PC2700-4.5	6x2	12	0.14	4.5		

Cable overview

F10_001

Cable name	Source (from)	Target (to)	cable type	all conductors	Conductors used	Cross-section [mm]	Length [m]	function text	Graphical page of cable diagram
=TSI_LI+MS2-212W6			SC2700-20/ET		0		20		
=TSI_LI+MS2-215W4	=TSI_LI+MS2-215U3-X7	=TSI_LI+MS2-215X4		5G	4	0.5			
				<u> </u>					

Parts list

F01_MEI

Device tag	Quantity	Designation	Part number	Supplier	Function text	User notes
	6	Y connector 2xM8 3-pin to 1xM12 4-pin	NEDY-L2R1-V1-M8G3-N-M12G4	FESTO FESTO		
=TSI_LI-211SM0	1	Proximity Sensor NO	SME-8M-DS-24V-K-0,3-M8D	FESTO FESTO	Griper Open1	
=TSI_LI-211SM0.1	1	Proximity Sensor NO	SME-8M-DS-24V-K-0,3-M8D	FESTO FESTO	Griper Closed1	
=TSI_LI-211SM1	1	Proximity Sensor NO	SME-8M-DS-24V-K-0,3-M8D	FESTO FESTO	Griper Open2	
=TSI_LI-211SM2	1	Proximity Sensor NO	SME-8M-DS-24V-K-0,3-M8D	FESTO FESTO	Griper Closed2	
=TSI_LI-211SM2.1	1	Proximity Sensor NO	SME-8M-DS-24V-K-0,3-M8D	FESTO FESTO	Griper Open3	
=TSI_LI-211SM3	1	Proximity Sensor NO	SME-8M-DS-24V-K-0,3-M8D	FESTO FESTO	Griper Closed3	
=TSI_LI-211SM4	1	Proximity Sensor NO	SME-8M-DS-24V-K-0,3-M8D	FESTO FESTO	Griper Up1	
=TSI_LI-211SM4.1	1	Proximity Sensor NO	SME-8M-DS-24V-K-0,3-M8D	FESTO FESTO	Griper Down1	
=TSI_LI-211SM5	1	Proximity Sensor NO	SME-8M-DS-24V-K-0,3-M8D	FESTO	Griper Up2	
=TSI_LI-211SM5.1	1	Proximity Sensor NO	SME-8M-DS-24V-K-0,3-M8D	FESTO FESTO	Griper Down2	
=TSI_LI-211SM6	1	Proximity Sensor NO	SME-8M-DS-24V-K-0,3-M8D	FESTO	Griper Up3	
	1			FESTO		
TSI_LI-211SM7		Proximity Sensor NO	SME-8M-DS-24V-K-0,3-M8D		Griper Down3	
=TSI_LI-211X0	1	Sensor-actuator passive distributor, M12, Hood version	SAI-8-M 5P M12 ZF III	Weidmüller		
=TSI_LI-211X0	1	Round plug-in connector M12, Screw connection, Straight	SAIS-4/7	Weidmüller	Cinner	
=TSI_LI-207Y0	0				Gripper up	
=TSI_LI-207Y1	0				Gripper down	
=TSI_LI-207Y2	0				Gripper close	
=TSI_LI+RM1-104A1	1	Electronic Current Monitoring	9000-41034-0401000	Murr		
=TSI_LI+RM1-104A3	1	Electronic Current Monitoring	9000-41034-0401000	Murr		
=TSI_LI+RM1-125AI0	1	BASEUNIT TYPE A0, BU15-P16+A10+2B	6ES7193-6BP20-0BA0	Siemens AG		
=TSI_LI+RM1-125AI0	1	ET 200SP, AI 4XRTD/TC 2-/3-/4-WIRE HF	6ES7134-6JD00-0CA1	Siemens AG		
=TSI_LI+RM1-125AI0	1	SIMATIC ET 200SP, shield terminal and shield support	6ES7193-6SC00-1AM0	Siemens AG		
=TSI_LI+RM1-125B0	1	Temperature sensors	Pt100-3	ELKO EP	Temperature sensor	
=TSI_LI+RM1-121DI0	1	BASEUNIT TYPE AO, BU15-P16+A10+2D	6ES7193-6BP20-0DA0	Siemens AG		
=TSI_LI+RM1-121DI0	1	ET 200SP, EL-MOD., F-DI 8X24VDC HF	6ES7136-6BA00-0CA0	Siemens AG		
=TSI_LI+RM1-123DI0	1	BASEUNIT TYPE A0, BU15-P16+A10+2B	6ES7193-6BP20-0BA0	Siemens AG		
=TSI_LI+RM1-123DI0	1	ET 200SP, DI 8X24VDC ST	6ES7131-6BF00-0BA0	Siemens AG		
=TSI_LI+RM1-124DI0	1	BASEUNIT TYPE A0, BU15-P16+A10+2B	6ES7193-6BP20-0BA0	Siemens AG		
=TSI_LI+RM1-124DI0	1	ET 200SP, DI 8X24VDC ST	6ES7131-6BF00-0BA0	Siemens AG		
=TSI_LI+RM1-120ET2	1	ET 200SP, Bus Adapter 2XRJ45	6ES7193-6AR00-0AA0	Siemens AG		
=TSI_LI+RM1-120ET3	1	ET 200SP, IM155-6PN HF	6ES7155-6AU00-0CN0	Siemens AG		
=TSI_LI+RM1-120ET3	1	ET 200SP, Bus Adapter 2XRJ45	6ES7193-6AR00-0AA0	Siemens AG		
=TSI_LI+RM1-120ET3	2	Industrial Ethernet FastConnect RJ45 plug 180 2x 2	6GK1901-1BB10-2AB0	Siemens AG		
=TSI_LI+RM1-101F5	1	CIRCUIT BREAKER 400V 6KA, 3-POLE, C, 1A, D=70MM	5SY6301-7	Siemens AG		
=TSI_LI+RM1-101F5	1	AUXILIARY SWITCH MOUNT. 1NC+1NO	55T3010	Siemens AG		
=TSI_LI+RM1-101F5	1	Pin busbar, 10 mm2 connection: 2x (3-phase+AUX/FS) touch-safe	5ST3616	Siemens AG		
	1		5SY6332-6		Main circuit hypoteny	
=TSI_LI+RM1-102F0	1	CIRCUIT BREAKER 400V 6KA, 3-POLE, B,32A, D=70MM		Siemens AG	Main circuit breaker	
=TSI_LI+RM1-102F0		AUXILIARY SWITCH MOUNT, 1NC+1NO	5ST3010	Siemens AG	=	
=TSI_LI+RM1-102F0	1	Pin busbar, 10 mm2 connection: 2x (3-phase+AUX/FS) touch-safe	5ST3616	Siemens AG	=	
=TSI_LI+RM1-102F2	1	CIRCUIT BREAKER, SCREW-TYPE, 25 A	3RV2031-4UA10	Siemens AG		
=TSI_LI+RM1-102F2	1	LATERAL AUXILIARY SWITCH 1NO+1NC, SCREW CONNECTION,	3RV2901-1A	Siemens AG		
=TSI_LI+RM1-102F3	1	CIRCUIT BREAKER 230/400V 6KA, 1-POLE, C, 1A, D=70MM	5SY6101-7	Siemens AG		
=TSI_LI+RM1-102F3	1	AUXILIARY SWITCH MOUNT. 1NC+1NO	5ST3010	Siemens AG		
TSI_LI+RM1-102F3	1	Pin busbar, 10 mm2 connection: 2x (1-phase+AUX/FS) touch-safe	5ST3603	Siemens AG		
TSI_LI+RM1-102F6	1	CIRCUIT BREAKER 230/400V 6KA, 1-POLE, C, 10A, D=70MM	5SY6110-7	Siemens AG		
TSI_LI+RM1-102F6	1	AUXILIARY SWITCH MOUNT. 1NC+1NO	5ST3010	Siemens AG		
TSI_LI+RM1-102F6	1	Pin busbar, 10 mm2 connection: 2x (1-phase+AUX/FS) touch-safe	5ST3603	Siemens AG		
TSI_LI+RM1-102F8	1	CIRCUIT BREAKER 230/400V 6KA, 1-POLE, C, 4A, D=70MM	5SY6104-7	Siemens AG		
TSI_LI+RM1-102F8	1	AUXILIARY SWITCH MOUNT. 1NC+1NO	5ST3010	Siemens AG		
TSI_LI+RM1-102F8	1	Pin busbar, 10 mm2 connection: 2x (1-phase+AUX/FS) touch-safe	5ST3603	Siemens AG		
TSI_LI+RM1-104F1	1	CIRCUIT BREAKER 230/400V 6KA, 1-POLE, C, 10A, D=70MM	5SY6110-7	Siemens AG		
TSI_LI+RM1-104F1	1	AUXILIARY SWITCH MOUNT. 1NC+1NO	5ST3010	Siemens AG		
=TSI_LI+RM1-104F1	1	Pin busbar, 10 mm2 connection: 2x (1-phase+AUX/FS) touch-safe	5ST3603	Siemens AG		
=TSI_LI+RM1-104F7	1	CIRCUIT BREAKER 400V 6KA, 3-POLE, C, 10A, D=70MM	5SY6310-7	Siemens AG		
		AUXILIARY SWITCH MOUNT. 1NC+1NO		+		

Parts list

F01_MEI

Do too loo	0	Destruction	D. L. J.	Constitution	Fortheld	Here weller
Device tag	Quantity	Designation	Part number	Supplier	Function text	User notes
=TSI_LI+RM1-106F3	1	CIRCUIT BREAKER, SCREW-TYPE, 25 A	3RV2031-4UA10	Siemens AG		
=TSI_LI+RM1-106F3	1	LATERAL AUXILIARY SWITCH 1NO+1NC, SCREW CONNECTION,	3RV2901-1A	Siemens AG		
=TSI_LI+RM1-104G1	1	SITOP PSU300M 20 A STABILIZED POWER SUPPLY	6EP1436-3BA10	Siemens AG		
=TSI_LI+RM1-104G1	1	SITOP PSU200M 10 A STABILIZED POWER SUPPLY	6EP1334-3BA10	Siemens AG		
=TSI_LI+RM1-102HL3	1	INDICATOR LIGHT, WHITE	3SU1156-6AA60-1AA0	Siemens AG	Cabinet under voltage	
=TSI_LI+RM1-102HL3	1	LABEL HOLDER 27x27mm	3SU1900-0AT10-0AA0	Siemens AG	=	
=TSI_LI+RM1-102HL8	1	Universal light with integral motion detector	SZ 2500.300	Rittal	Cabinet light	
=TSI_LI+RM1-151HUB3	1	SCALANCE X208, MANAGED IE SWITCH, 8 X 10/100MBIT/S RJ45 PORTS	6GK5208-0BA10-2AA3	Siemens AG		
=TSI_LI+RM1-151HUB3-P1	0					
=TSI_LI+RM1-151HUB3-P2	0					
=TSI_LI+RM1-151HUB3-P3	0					
=TSI_LI+RM1-151HUB3-P5	0					
=TSI_LI+RM1-151HUB3-P6	0					
=TSI_LI+RM1-151HUB3-P7	0					
=TSI_LI+RM1-151HUB5	1	SCALANCE X208, MANAGED IE SWITCH, 8 X 10/100MBIT/S RJ45 PORTS	6GK5208-0BA10-2AA3	Siemens AG		
=TSI_LI+RM1-151HUB5-P1	0					
=TSI_LI+RM1-151HUB5-P5	0					
=TSI_LI+RM1-151HUB5-P8	0					
=TSI_LI+RM1-101L2	1	Current measuring transformer 75/5A; 3,75VA	ASR 21.5	Rotex		
=TSI_LI+RM1-101L3	1	Current measuring transformer 75/5A; 3,75VA	ASR 21.5	Rotex	1	
=TSI_LI+RM1-101L4	1	Current measuring transformer 75/5A; 3,75VA	ASR 21.5	Rotex		
=TSI_LI+RM1-100M1	1	Electrical cabinet / Mounting panel	8805.500	Rittal		
=TSI_LI+RM1-104M7	1	Cooling unit 2500 W, 400/460V, 50/60Hz	DTS6501	Elektris		
=TSI_LI+RM1-115PLC3	1	CPU 1517F-3 PN/DP, 3 MB PROG, 8 MB DATA	6ES7517-3FN00-0AB0	Siemens AG		
=TSI_LI+RM1-102Q0	1	EM.STOP SWITCH 63A/690V 400V/22KW	3LD2504-0TK53	Siemens AG	Main switch	
	1				Pidili SWICCI	
=TSI_LI+RM1-102Q4	1	RCCB TYPE A 16/2 30MA 2MW RCCB TYPE A 16/2 30MA 2MW	5SV3311-6	Siemens AC		
=TSI_LI+RM1-102Q5	1		5SV3311-6	Siemens AC		
=TSI_LI+RM1-102Q6	1	RCCB TYPE A 16/2 30MA 2MW	5SV3311-6	Siemens AC		
=TSI_LI+RM1-102Q7	1	RCCB TYPE A 16/2 30MA 2MW	55V3311-6	Siemens AG	Main political decreasitals	
=TSI_LI+RM1-104S8	1	Door-operated switch with 0.6m cable	SZ 4315.520	Rittal	Main cabinet door switch	
=TSI_LI+RM1-121S0	1	EM. STOP MUSHROOM PUSHBUTTON, 40MM, RED	3SU1050-1HB20-0AA0	Siemens AG	Emergency stop1 (Main cabinet)	
=TSI_LI+RM1-121S0	1	CONTACT MODULE	3SU1400-1AA10-1EA0	Siemens AG	=	
=TSI_LI+RM1-121S0	1	HOLDER	3SU1550-0AA10-0AA0	Siemens AG	=	
=TSI_LI+RM1-121S0	1	BACKING PLATE FOR EMERGENSTOP	3SU1900-0BC31-0NB0	Siemens AG	=	
=TSI_LI+RM1-121S0	1	PROTECTIVE COLLAR FOR PADLOCKS	3SU1950-0DX30-0AA0	Siemens AG	=	
=TSI_LI+RM1-106T2	1	SINAMICS S120 AIM 400V 36KW	6SL3100-0BE23-6AB0	Siemens AG		
=TSI_LI+RM1-106T2.1	1	SINAMICS \$120 ACTIVE LINE MODULE 60A, 36KW	6SL3130-7TE23-6AA3	Siemens AG		C120 Combad and
=TSI_LI+RM1-107T1	1	SINAMICS S120 CONTROL UNIT CU320-2 PN	6SL3040-1MA01-0AA0	Siemens AG		S120 Control unit
=TSI_LI+RM1-107T1	1	SINAMICS S120 COMPACTFLASH CARD V5.1	6SL3054-0FB01-1BA0	Siemens AG		S120 Control unit
=TSI_LI+RM1-107T1	1	SINAMICS \$120 BASIC OPERATOR PANEL (BOP20)	6SL3055-0AA00-4BA0	Siemens AG	Determinable	S120 Control unit
=TSI_LI+RM1-110T2	1	SINAMICS S120 SINGLE MOMO 3A D-TYPE	6SL3120-1TE13-0AD0	Siemens AG	Rotary table	
=TSI_LI+RM1-101U2	1	SENTRON PAC3200 POWER MONITORING DEVICE	7KM2111-1BA00-3AA0	Siemens AG	Power monitoring	
=TSI_LI+RM1-101U2	1	PLUG-IN COMMUNICATIONS MODULE SWITCHED ETHERNET PROFINET	7KM9300-0AE00-0AA0	Siemens AG	=	
=TSI_LI+RM1-150U3	1	DP to DVI-D Adapter	6ES7648-3AF00-0XA0	Siemens AG		
=TSI_LI+RM1-150U4	1	SIMATIC IPC427E (Microbox PC)	6AG4141-5BG44-0FA0	Siemens AG	IPC PN	
=TSI_LI+RM1-150U4	1	Gigabit dual port network adapter (PCIe)	Intel I350T2v2 Server Adapter	Intel	=	
=TSI_LI+RM1-150U4	1	Vertical mounting kit	6ES7648-1AA20-0YP0	Siemens AG	=	
=TSI_LI+RM1-150U7	1	SITOP UPS500S SERVICE-FREE UNINTERRUPTIBLE POWER SUPPLY	6EP1933-2EC51	Siemens AG		
=TSI_LI+RM1-102X0	0					
=TSI_LI+RM1-102X0	1	End clamp with label	BS/35	WIELAND		
=TSI_LI+RM1-102X1	0					
=TSI_LI+RM1-102X1	1	End clamp with label	BS/35	WIELAND		
=TSI_LI+RM1-104X1	1	End clamp with label	BS/35	WIELAND		
=TSI_LI+RM1-104X4	1	End clamp with label	BS/35	WIELAND		
=TSI_LI+RM1-102XS4	1	SCHUKO SOCKET 16A 3-POLE	5TE6803	Siemens AG	Service socket	
=TSI_LI+RM1-102XS6	1	FrontCom, Single frame, Metal cover	IE-FC-SFM-KNOB	Weidmüller	Cabinet wall-mounted sockets	

Parts list

F01_MEI

Device tag	Quantity	Designation	Part number	Supplier	Function text	User notes
TSI_LI+RM1-102XS6	1	FrontCom, Insert plate, shielded, 1x Power, 2x data	IE-FC-SP-PWB/2ST	Weidmüller	Cabinet wall-mounted sockets	
TSI_LI+RM1-102XS6	1	FrontCom, Insert Power large, Type F, Socket connector, DE	IE-FCI-PWB-DE	Weidmüller	=	
TSI_LI+RM1-102XS6	1	FrontCom, Touch-safe protection (e.g. for socket inserts)	IE-FC-PWPC	Weidmüller	=	
TSI_LI+RM1-102XS6	2	RJ45 plug-in connector, Bulkhead inserts coupler	IE-BI-RJ45-C	Weidmüller	=	
	1	Industrial Ethernet FastConnect RJ45 plug 180 2x 2	6GK1901-1BB10-2AB0	Siemens AG	=	
TSI_LI+PANEL-150D0	1	SIMATIC IFP1900 PRO HD LR Flat Panel 19"	6AV7466-6MA02-0CS0	Siemens AG		
TSI_LI+PANEL-150D0	1	EXTENSION UNIT 19"	6AV7674-0KH00-0AA0	Siemens AG		
TSI_LI+PANEL-150U1	1	Keyboard with optical trackball	PERIBOARD-514H PLUS	Elvac		
TSI_LI+MS2-202DI0	1	BASEUNIT TYPE AO, BU15-P16+A10+2D	6ES7193-6BP20-0DA0	Siemens AG		
TSI_LI+MS2-202DI0	1	ET 200SP, EL-MOD., F-DI 8X24VDC HF	6ES7136-6BA00-0CA0	Siemens AG		
TSI_LI+MS2-204DI0	1	BASEUNIT TYPE A0, BU15-P16+A10+2B	6ES7193-6BP20-0BA0	Siemens AG		
TSI_LI+MS2-204DI0	1	ET 200SP, DI 8X24VDC ST	6ES7131-6BF00-0BA0	Siemens AG		
	1					
TSI_LI+MS2-205DI0		BASEUNIT TYPE A0, BU15-P16+A10+2B	6ES7193-6BP20-0BA0	Siemens AG		
TSI_LI+MS2-205DI0	1	ET 200SP, DI 8X24VDC ST	6ES7131-6BF00-0BA0	Siemens AG		
TSI_LI+MS2-207D00	1	BASEUNIT TYPE A0, BU15-P16+A10+2B	6ES7193-6BP20-0BA0	Siemens AG		
TSI_LI+MS2-207D00	1	ET 200SP, DQ 8X24VDC/0,5A ST	6ES7132-6BF00-0BA0	Siemens AG		
TSI_LI+MS2-201ET3	1	ET 200SP, IM155-6PN HF	6ES7155-6AU00-0CN0	Siemens AG		
TSI_LI+MS2-201ET3	1	ET 200SP, Bus Adapter 2XRJ45	6ES7193-6AR00-0AA0	Siemens AG		
TSI_LI+MS2-201ET3	2	Industrial Ethernet FastConnect RJ45 plug 180 2x 2	6GK1901-1BB10-2AB0	Siemens AG		
TSI_LI+MS2-220ET2	1	ET 200SP, IM155-6PN HF	6ES7155-6AU00-0CN0	Siemens AG		
TSI_LI+MS2-206FPM2	1	BASEUNIT TYP CO, BU20-P6+A2+4D	6ES7193-6BP20-0DC0	Siemens AG		
TSI_LI+MS2-206FPM2	1	F-PM-E 24V DC/8A PPM ST	6ES7136-6PA00-0BC0	Siemens AG		
TSI_LI+MS2-206K3	1	CONTACTOR, AC-3, 3KW/400V, 1NC, DC 24V,	3RT2015-1BB42	Siemens AG	Robot ON 1	
TSI_LI+MS2-206K3	1	SURGE SUPPRESSOR, VARISTOR,	3RT2916-1BB00	Siemens AG	=	
TSI_LI+MS2-206K4	1	CONTACTOR, AC-3, 3KW/400V, 1NC, DC 24V,	3RT2015-1BB42	Siemens AG	Robot ON 2	
TSI_LI+MS2-206K4	1	SURGE SUPPRESSOR, VARISTOR,	3RT2916-1BB00	Siemens AG	=	
TSI_LI+MS2-207K3	1	CONTACTOR, AC-3, 3KW/400V, 1NC, DC 24V,	3RT2015-1BB42	Siemens AG		
TSI_LI+MS2-207K4	1	CONTACTOR, AC-3, 3KW/400V, 1NC, DC 24V,	3RT2015-1BB42	Siemens AG		
TSI_LI+MS2-212LLT3	1	Laser line sensor scanControl 2950-100	LLT 2950-100	Micro-Epsilon		
TSI_LI+MS2-202S0	1	EM. STOP MUSHROOM PUSHBUTTON, 40MM, RED	3SU1050-1HB20-0AA0	Siemens AG	Emergency stop (Measuring stand)	
TSI_LI+MS2-202S0	1	CONTACT MODULE	3SU1400-1AA10-1EA0	Siemens AG	=	
TSI_LI+MS2-202S0	1	HOLDER	3SU1550-0AA10-0AA0	Siemens AG	=	
TSI_LI+MS2-202S0	1	BACKING PLATE FOR EMERGENSTOP	3SU1900-0BC31-0NB0	Siemens AG	=	
TSI_LI+MS2-202S0	1	PROTECTIVE COLLAR FOR PADLOCKS	3SU1950-0DX30-0AA0	Siemens AG	=	
TSI_LI+MS2-200U1	1	Enclosure with hinged door W/H/D: 300/600/155 mm	1578.500	Rittal		
TSI_LI+MS2-210U3	1	Safety laser scanner	S30A-4011BA	SICK		
TSI_LI+MS2-215U3	0	outer, rader occurred	5557.151257.	0.2511		
TSI_LI+MS2-201X2	1	End clamp with label	BS/35	WIELAND		
TSI_LI+MS2-210X4	1	End clamp with label	BS/35	WIELAND		
TSI_LI+MS2-212X3	1	End clamp with label	BS/35	WIELAND		
TSI_LI+MS2-215X4	1	End clamp with label	BS/35	WIELAND		
131_L1TI132-213A4	1	Life clarify with label	03/33	WILLAND		

F02_001

Order number	Quantity	Description	Type number	Manufacturer	Unit price	Total price	Pos
Order Humber	Qualitity	Designation	Part number	Supplier	Offic price	rotal price	105
8005311	6	Y connector 2xM8 3-pin to 1xM12 4-pin	NEDY-L2R1-V1-M8G3-N-M12G4 NEDY-L2R1-V1-M8G3-N-M12G4	FESTO FESTO	0.00	0.00	
543861	12	Proximity Sensor NO	SME-8M-DS-24V-K-0,3-M8D SME-8M-DS-24V-K-0,3-M8D	FESTO FESTO	0.00	0.00	
1767880000	1	Sensor-actuator passive distributor, M12, Hood version	SAI-8-M 5P M12 ZF III SAI-8-M 5P M12 ZF III	Weidmüller Weidmüller	0.00	0.00	
9457550000	1	Round plug-in connector M12, Screw connection, Straight	SAIS-4/7 SAIS-4/7	Weidmüller Weidmüller	0.00	0.00	
	0					0.00	
9000-41034-0401000	2	Electronic Current Monitoring	Mico+ 4.10 9000-41034-0401000	Murr Murr	0.00	0.00	
6ES7193-6BP20-0BA0	6	BASEUNIT TYPE A0, BU15-P16+A10+2B	6ES7193-6BP20-0BA0 6ES7193-6BP20-0BA0	SIE SIE	0.00	0.00	
6ES7134-6JD00-0CA1	1	ET 200SP, AI 4XRTD/TC 2-/3-/4-WIRE HF	6ES7134-6JD00-0CA1 6ES7134-6JD00-0CA1	SIE SIE	0.00	0.00	
6ES7193-6SC00-1AM0	pcs 1	SIMATIC ET 200SP, shield terminal and shield support	6ES7193-6SC00-1AM0 6ES7193-6SC00-1AM0	SIE SIE	0.00	0.00	
Pt100-3	1	Temperature sensors	Pt100-3 Pt100-3	ELKO EP ELKO EP	0.00	0.00	
6ES7193-6BP20-0DA0	2	BASEUNIT TYPE A0, BU15-P16+A10+2D	6ES7193-6BP20-0DA0 6ES7193-6BP20-0DA0	SIE SIE	0.00	0.00	
6ES7136-6BA00-0CA0	2	ET 200SP, EL-MOD., F-DI 8X24VDC HF	6ES7136-6BA00-0CA0 6ES7136-6BA00-0CA0	SIE SIE	0.00	0.00	
6ES7131-6BF00-0BA0	4	ET 200SP, DI 8X24VDC ST	6ES7131-6BF00-0BA0 6ES7131-6BF00-0BA0	SIE SIE	0.00	0.00	
6ES7193-6AR00-0AA0	3	ET 200SP, Bus Adapter 2XRJ45	6ES7193-6AR00-0AA0 6ES7193-6AR00-0AA0	SIE SIE	0.00	0.00	
6ES7155-6AU00-0CN0	3	ET 200SP, IM155-6PN HF	6ES7155-6AU00-0CN0 6ES7155-6AU00-0CN0	SIE SIE	0.00	0.00	
6GK1901-1BB10-2AB0	pcs 5	Industrial Ethernet FastConnect RJ45 plug 180 2x 2	6GK1901-1BB10-2AB0 6GK1901-1BB10-2AB0	SIE SIE	9.52	95.20	
5SY6301-7	1	CIRCUIT BREAKER 400V 6KA, 3-POLE, C, 1A, D=70MM	5SY6301-7 5SY6301-7	Siemens AG Siemens AG	0.00	0.00	
5ST3010	7	AUXILIARY SWITCH MOUNT. 1NC+1NO	5ST3010 5ST3010	Siemens AG Siemens AG	0.00	0.00	
5ST3616	2	Pin busbar, 10 mm2 connection: 2x (3-phase+AUX/FS) touch-safe	5ST3616 5ST3616	Siemens AG Siemens AG	0.00	0.00	

001_TSI_LI_development_DP

URK FEI
Ilkovicova 3
841 01 Bratislava / Slovakia

Order number	Quantity	Description	Type number	Manufacturer	Unit price	Total price	Pos
Order Humber	Qualitity	Designation	Part number	Supplier	Offic price	rotal price	P05
5SY6332-6	1	CIRCUIT BREAKER 400V 6KA, 3-POLE, B,32A, D=70MM	5SY6332-6 5SY6332-6	Siemens AG Siemens AG	0.00	0.00	
3RV2031-4UA10	2	CIRCUIT BREAKER, SCREW-TYPE, 25 A	3RV2031-4UA10 3RV2031-4UA10	SIE SIE	0.00	0.00	
3RV29011A	pcs 2	LATERAL AUXILIARY SWITCH 1NO+1NC, SCREW CONNECTION,	3RV2901-1A 3RV2901-1A	Siemens AG Siemens AG	0.00	0.00	
5SY6101-7	1	CIRCUIT BREAKER 230/400V 6KA, 1-POLE, C, 1A, D=70MM	5SY6101-7 5SY6101-7	Siemens AG Siemens AG	0.00	0.00	
5ST3603	4	Pin busbar, 10 mm2 connection: 2x (1-phase+AUX/FS) touch-safe	5ST3603 5ST3603	Siemens AG Siemens AG	0.00	0.00	
5SY6110-7	2	CIRCUIT BREAKER 230/400V 6KA, 1-POLE, C, 10A, D=70MM	5SY6110-7 5SY6110-7	Siemens AG Siemens AG	0.00	0.00	
5SY6104-7	1	CIRCUIT BREAKER 230/400V 6KA, 1-POLE, C, 4A, D=70MM	5SY6104-7 5SY6104-7	Siemens AG Siemens AG	0.00	0.00	
5SY6310-7	1	CIRCUIT BREAKER 400V 6KA, 3-POLE, C, 10A, D=70MM	5SY6310-7 5SY6310-7	Siemens AG Siemens AG	0.00	0.00	
6EP14363BA10	1	SITOP PSU300M 20 A STABILIZED POWER SUPPLY	6EP1436-3BA10 6EP1436-3BA10	Siemens AG Siemens AG	0.00	0.00	
6EP13343BA10	1	SITOP PSU200M 10 A STABILIZED POWER SUPPLY	6EP1334-3BA10 6EP1334-3BA10	Siemens AG Siemens AG	0.00	0.00	
3SU1156-6AA60-1AA0	1	INDICATOR LIGHT, WHITE	3SU1156-6AA60-1AA0 3SU1156-6AA60-1AA0	Siemens AG Siemens AG	0.00	0.00	
3SU1900-0AT10-0AA0	1	LABEL HOLDER 27x27mm	3SU1900-0AT10-0AA0 3SU1900-0AT10-0AA0	Siemens AG Siemens AG	0.00	0.00	
SZ 2500.300	1	Universal light with integral motion detector	SZ 2500.300 SZ 2500.300	Rittal Rittal	0.00	0.00	
6GK52080BA102AA3	2	SCALANCE X208, MANAGED IE SWITCH, 8 X 10/100MBIT/S RJ45 PORTS	6GK5208-0BA10-2AA3 6GK5208-0BA10-2AA3	Siemens AG Siemens AG	0.00	0.00	
93057	3	Current measuring transformer 75/5A; 3,75VA	ASR 21.5 ASR 21.5	MBS Rotex	0.00	0.00	
8805.500	1	Electrical cabinet / Mounting panel	8805.500 8805.500	Rittal Rittal	0.00	0.00	
13886522055	1	Cooling unit 2500 W, 400/460V, 50/60Hz	DTS6501 DTS6501	Pfannenberg Elektris	0.00	0.00	
6ES75173FP000AB0	1	CPU 1517F-3 PN/DP, 3 MB PROG, 8 MB DATA	6ES7517-3FN00-0AB0 6ES7517-3FN00-0AB0	Siemens AG Siemens AG	0.00	0.00	
3LD2504-0TK53	1	EM.STOP SWITCH 63A/690V 400V/22KW	3LD2504-0TK53 3LD2504-0TK53	Siemens AG Siemens AG	0.00	0.00	

001_TSI_LI_development_DP

URK FEI	•	•	•	•	STU
Ilkovicova 3					
941 01 Bratislava / Clovakia					F F I

F02_001

Order number	Quantity	Description	Type number	Manufacturer	Unit price	Total price	Pos
Order Humber	Qualitity	Designation	Part number	Supplier	Offic price	Total price	F05
5SV3311-6	4	RCCB TYPE A 16/2 30MA 2MW	5SV3311-6 5SV3311-6	Siemens AG Siemens AG	0.00	0.00	
SZ 4315.520	1	Door-operated switch with 0.6m cable	SZ 4315.520 SZ 4315.520	Rittal Rittal	0.00	0.00	
3SU1050-1HB20-0AA0	2	EM. STOP MUSHROOM PUSHBUTTON, 40MM, RED	3SU1050-1HB20-0AA0 3SU1050-1HB20-0AA0	Siemens AG Siemens AG	0.00	0.00	
3SU1400-1AA10-1EA0	2	CONTACT MODULE	3SU1400-1AA10-1EA0 3SU1400-1AA10-1EA0	Siemens AG Siemens AG	0.00	0.00	
3SU1550-0AA10-0AA0	2	HOLDER	3SU1550-0AA10-0AA0 3SU1550-0AA10-0AA0	Siemens AG Siemens AG	0.00	0.00	
3SU1900-0BC31-0NB0	2	BACKING PLATE FOR EMERGENSTOP	3SU1900-0BC31-0NB0 3SU1900-0BC31-0NB0	Siemens AG Siemens AG	0.00	0.00	
3SU1950-0DX30-0AA0	2	PROTECTIVE COLLAR FOR PADLOCKS	3SU1950-0DX30-0AA0 3SU1950-0DX30-0AA0	SIE SIE	0.00	0.00	
6SL3100-0BE23-6AB0	ST 1	SINAMICS S120 AIM 400V 36KW	6SL3100-0BE23-6AB0 6SL3100-0BE23-6AB0	SIE SIE	0.00	0.00	
6SL3130-7TE23-6AA3	ST 1	SINAMICS S120 ACTIVE LINE MODULE 60A, 36KW	6SL3130-7TE23-6AA3 6SL3130-7TE23-6AA3	SIE SIE	0.00	0.00	
6SL3040-1MA01-0AA0	ST 1	SINAMICS S120 CONTROL UNIT CU320-2 PN	6SL3040-1MA01-0AA0 6SL3040-1MA01-0AA0	Siemens AG Siemens AG	0.00	0.00	
6SL3054-0FB01-1BA0	1	SINAMICS S120 COMPACTFLASH CARD V5.1	6SL3054-0FB01-1BA0 6SL3054-0FB01-1BA0	Siemens AG Siemens AG	0.00	0.00	
6SL3055-0AA00-4BA0	1	SINAMICS S120 BASIC OPERATOR PANEL (BOP20)	6SL3055-0AA00-4BA0 6SL3055-0AA00-4BA0	Siemens AG Siemens AG	0.00	0.00	
6SL3120-1TE13-0AD0	ST 1	SINAMICS S120 SINGLE MOMO 3A D-TYPE	6SL3120-1TE13-0AD0 6SL3120-1TE13-0AD0	SIE SIE	0.00	0.00	
7KM2111-1BA00-3AA0	1	SENTRON PAC3200 POWER MONITORING DEVICE	7KM2111-1BA00-3AA0 7KM2111-1BA00-3AA0	Siemens AG Siemens AG	0.00	0.00	
7KM9300-0AE00-0AA0	1	PLUG-IN COMMUNICATIONS MODULE SWITCHED ETHERNET PROFINET	7KM9300-0AE00-0AA0 7KM9300-0AE00-0AA0	Siemens AG Siemens AG	0.00	0.00	
6ES7648-3AF00-0XA0	1	DP to DVI-D Adapter	6ES7648-3AF00-0XA0 6ES7648-3AF00-0XA0	Siemens AG Siemens AG	0.00	0.00	
6AG4141-5BG44-0FA0	1	SIMATIC IPC427E (Microbox PC)	6AG4141-5BG44-0FA0 6AG4141-5BG44-0FA0	Siemens AG Siemens AG	0.00	0.00	
I350T2V2	1	Gigabit dual port network adapter (PCIe)	Intel I350T2v2 Intel I350T2v2 Server Adapter	Intel Intel	0.00	0.00	
6ES7648-1AA20-0YP0	1	Vertical mounting kit	6ES7648-1AA20-0YP0 6ES7648-1AA20-0YP0	Siemens AG Siemens AG	0.00	0.00	

001_TSI_LI_development_DP

F02_001

Order number	Quantity	Description	Type number	Manufacturer	Unit price	Total price	Pos
Order Hamber	Quantity	Designation	Part number	Supplier	offic price	rotal price	103
6EP19332EC51	1	SITOP UPS500S SERVICE-FREE UNINTERRUPTIBLE POWER SUPPLY	6EP1933-2EC51 6EP1933-2EC51	Siemens AG Siemens AG	0.00	0.00	
69.920.0553.0	pcs 8	End clamp with label	BS/35 BS/35	Wieland Wieland	0.00	0.00	
5TE6803	1	SCHUKO SOCKET 16A 3-POLE	5TE6803 5TE6803	Siemens AG Siemens AG	0.00	0.00	
1450530000	1	FrontCom, Single frame, Metal cover	IE-FC-SFM-KNOB IE-FC-SFM-KNOB	Weidmüller Weidmüller	0.00	0.00	
1450550000	1	FrontCom, Insert plate, shielded, 1x Power, 2x data	IE-FC-SP-PWB/2ST IE-FC-SP-PWB/2ST	Weidmüller Weidmüller	0.00	0.00	
1450730000	1	FrontCom, Insert Power large, Type F, Socket connector, DE	IE-FCI-PWB-DE IE-FCI-PWB-DE	Weidmüller Weidmüller	0.00	0.00	
1450820000	1	FrontCom, Touch-safe protection (e.g. for socket inserts)	IE-FC-PWPC IE-FC-PWPC	Weidmüller Weidmüller	0.00	0.00	
1962840000	2	RJ45 plug-in connector, Bulkhead inserts coupler	IE-BI-RJ45-C IE-BI-RJ45-C	Weidmüller Weidmüller	0.00	0.00	
6AV7466-6MA02-0CS0	1	SIMATIC IFP1900 PRO HD LR Flat Panel 19"	6AV7466-6MA02-0CS0 6AV7466-6MA02-0CS0	Siemens AG Siemens AG	0.00	0.00	
6AV7674-0KH00-0AA0	pcs 1	EXTENSION UNIT 19"	6AV7674-0KH00-0AA0 6AV7674-0KH00-0AA0	SIE SIE	0.00	0.00	
PERIBOARD-514H PLUS	1	Keyboard with optical trackball	PERIBOARD-514H PLUS PERIBOARD-514H PLUS	Perixx Elvac	0.00	0.00	
5ES7132-6BF00-0BA0	1	ET 200SP, DQ 8X24VDC/0,5A ST	6ES7132-6BF00-0BA0 6ES7132-6BF00-0BA0	SIE SIE	0.00	0.00	
6ES7193-6BP20-0DC0	1	BASEUNIT TYP CO, BU20-P6+A2+4D	6ES7193-6BP20-0DC0 6ES7193-6BP20-0DC0	Siemens AG Siemens AG	0.00	0.00	
5ES7136-6PA00-0BC0	1	F-PM-E 24V DC/8A PPM ST	6ES7136-6PA00-0BC0 6ES7136-6PA00-0BC0	Siemens AG Siemens AG	0.00	0.00	
3RT2015-1BB42	4	CONTACTOR, AC-3, 3KW/400V, 1NC, DC 24V,	3RT2015-1BB42 3RT2015-1BB42	SIE SIE	0.00	0.00	
3RT29161BB00	pcs 2	SURGE SUPPRESSOR, VARISTOR,	3RT2916-1BB00 3RT2916-1BB00	Siemens AG Siemens AG	0.00	0.00	
scanControl 2950-100	1	Laser line sensor scanControl 2950-100	LLT 2950-100 LLT 2950-100	Micro-Epsilon Micro-Epsilon	0.00	0.00	
1578.500	1	Enclosure with hinged door W/H/D: 300/600/155 mm	1578.500 1578.500	RITTAL RITTAL	0.00	0.00	
1028934	1	Safety laser scanner	S30A-4011BA S30A-4011BA	SICK SICK	0.00	0.00	

001_TSI_LI_development_DP

URK FEI
Ilkovicova 3
841 01 Bratislava / Slovakia

Profinet Topology

=TSI_LI+RM1-115W5.1 # =TSI_LI+RM1-115W5 # =TSI_LI+RM1-120W6 O O PLC OO PLC OO PLC =TSI_LI+RM1-151HUB3-P1 =TSI_LI+RM1-115PLC3 =TSI_LI+RM1-120ET3 =TSI_LI+RM1-107T1 # =TSI_LI+RM1-151W3 =TSI_LI+RM1-151HUB3-P2 +KAWASAKI Robot controller ₩ =TSI_LI+RM1-102W7.1 9 =TSI_LI+RM1-102XS6 Cabinet PN socket =TSI_LI+RM1-151HUB3-P3 ## =TSI_LI+RM1-150W7 9 =TSI_LI+RM1-151HUB3-P5 =TSI_LI+RM1-150U4 # =TSI_LI+MS2-MS2-201W5 OO PLC =TSI_LI+RM1-151HUB3-P6 =TSI_LI+MS2-201ET3 # =TSI_LI+RM1-101W7 =TSI_LI+RM1-151HUB3-P7 =TSI_LI+RM1-101U2

Power monitoring

Ethernet Topology

150U4 151HUB3 151HUB5 115PLC3 104A1 104A3 000 000 -110T2 -106T2 � � 90000

Previous page =+/11

Next page 101

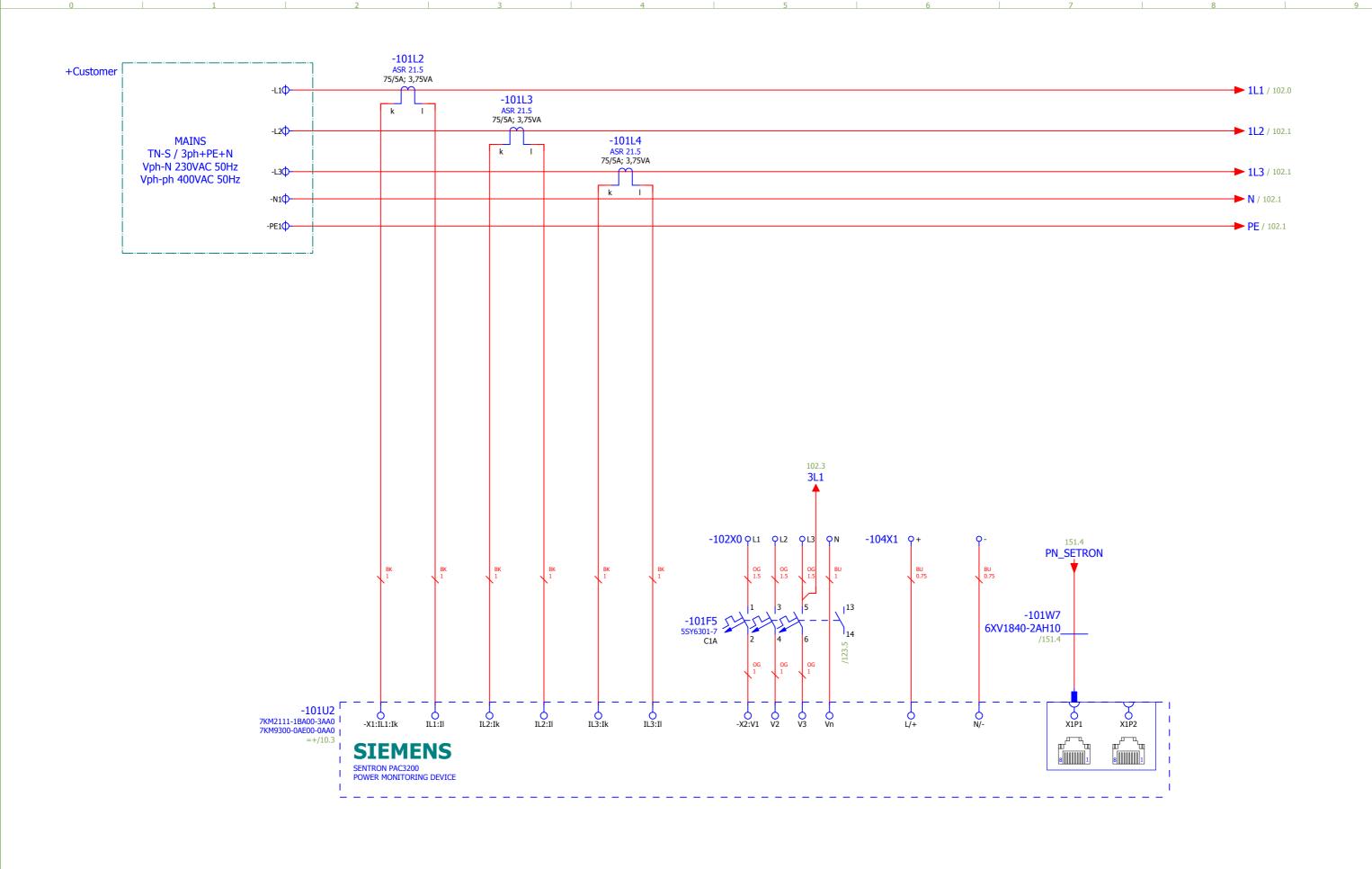
100

URK FEI Ilkovicova 3 841 01 Bratislava / Slovakia STU FEI

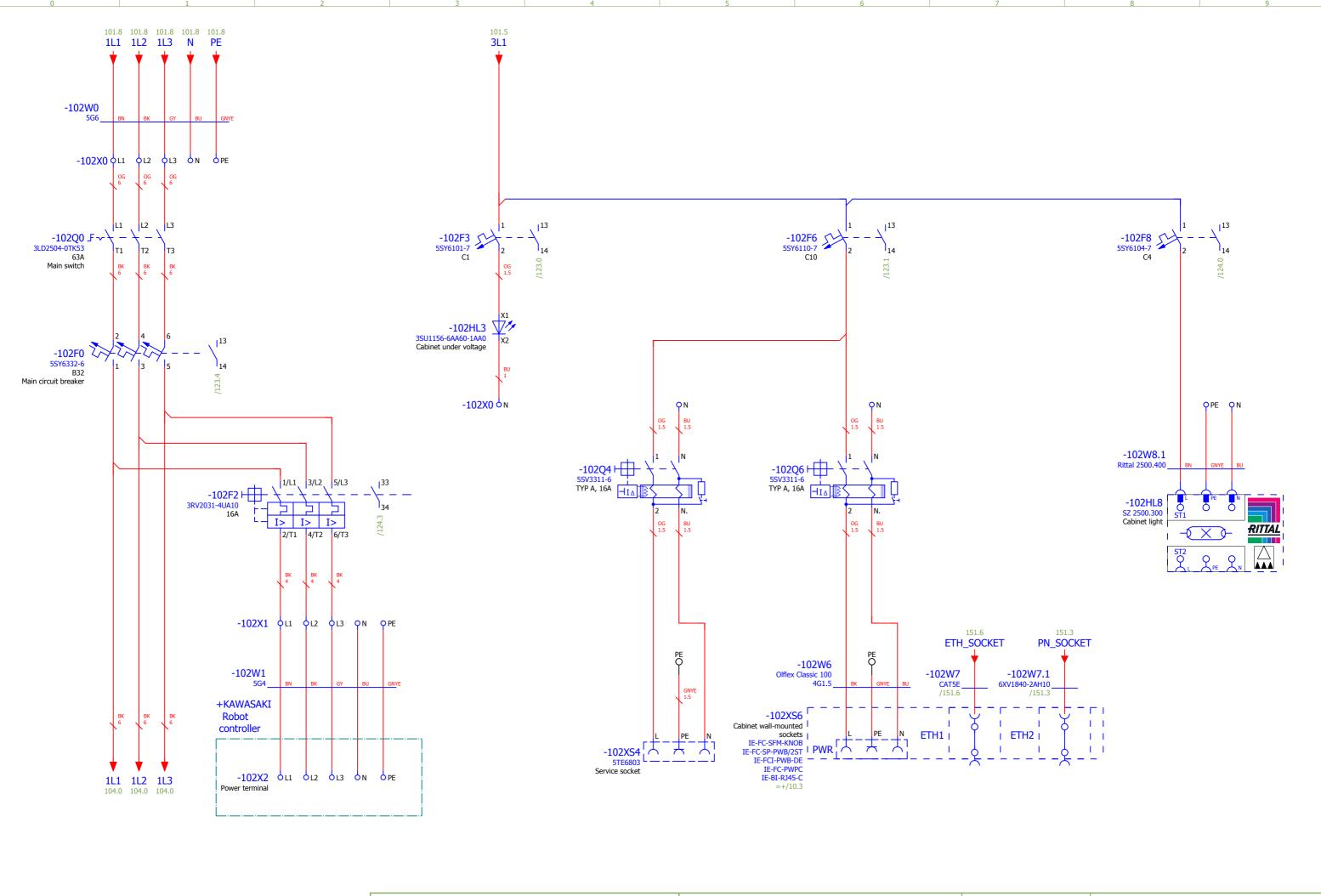
Panel layout RM1 Modification date

PATRIK HERCUT

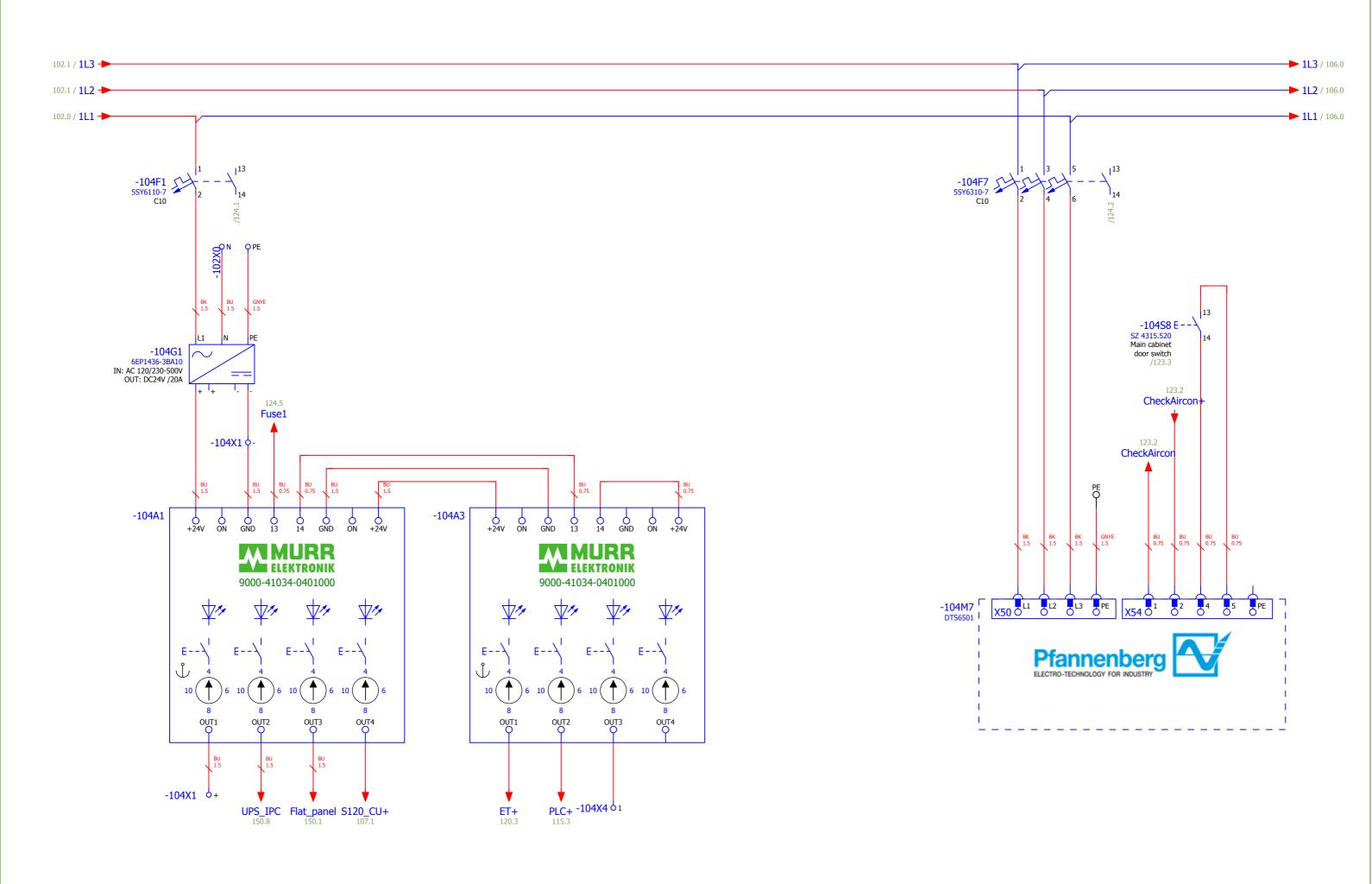
Changed by



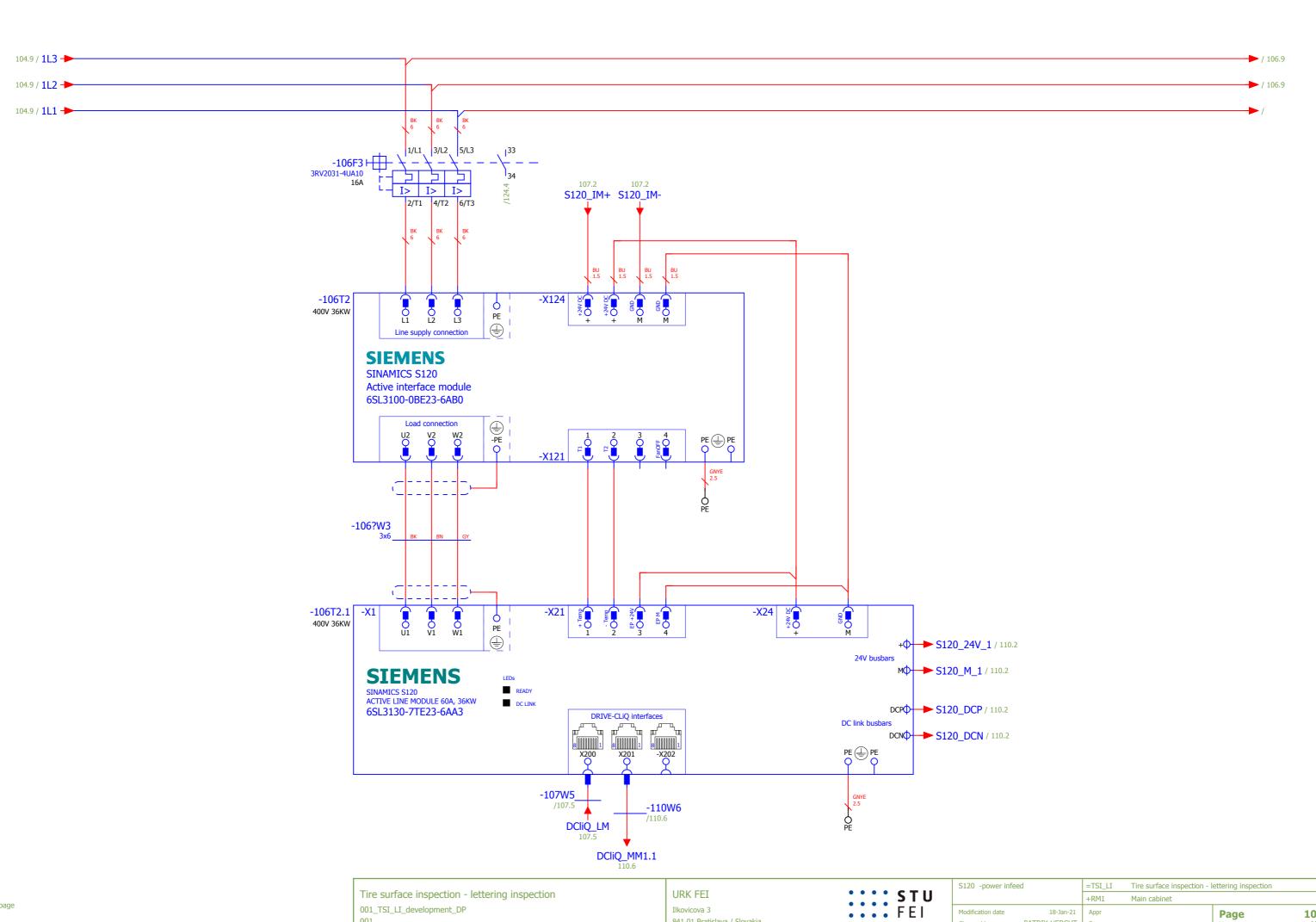
Ilkovicova 3



Ilkovicova 3



Ilkovicova 3



Ilkovicova 3

841 01 Bratislava / Slovakia

Modification date

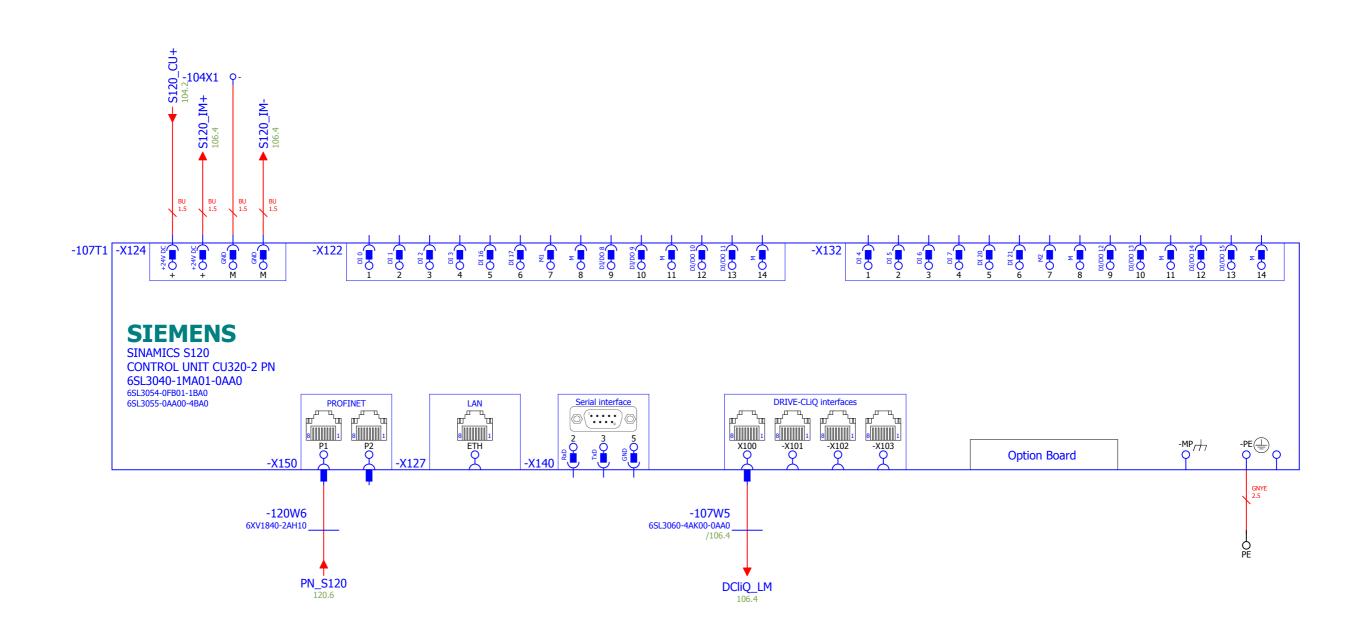
18-Jan-21

PATRIK HERCUT

Page

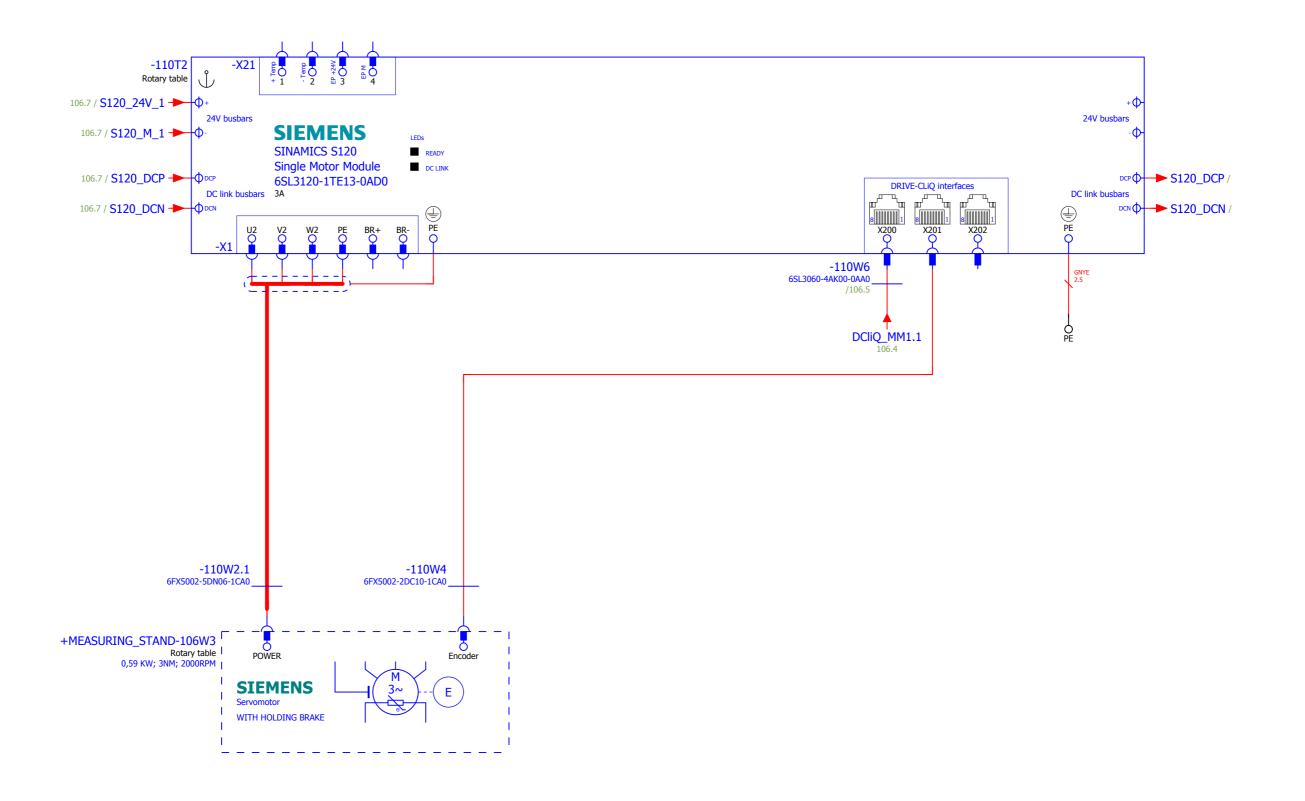
106

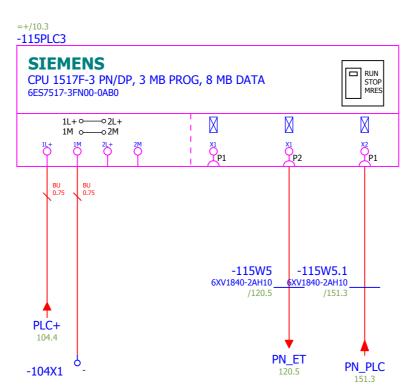
 $001_TSI_LI_development_DP$

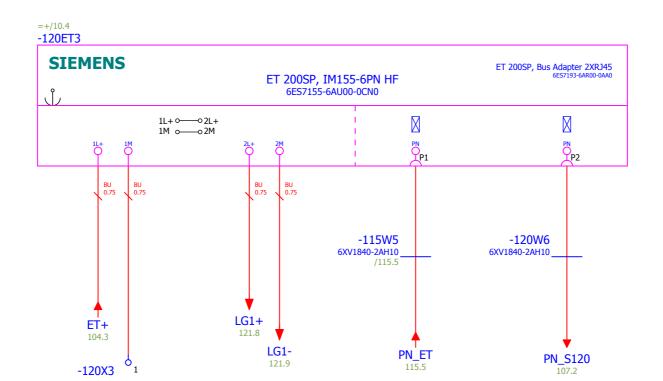


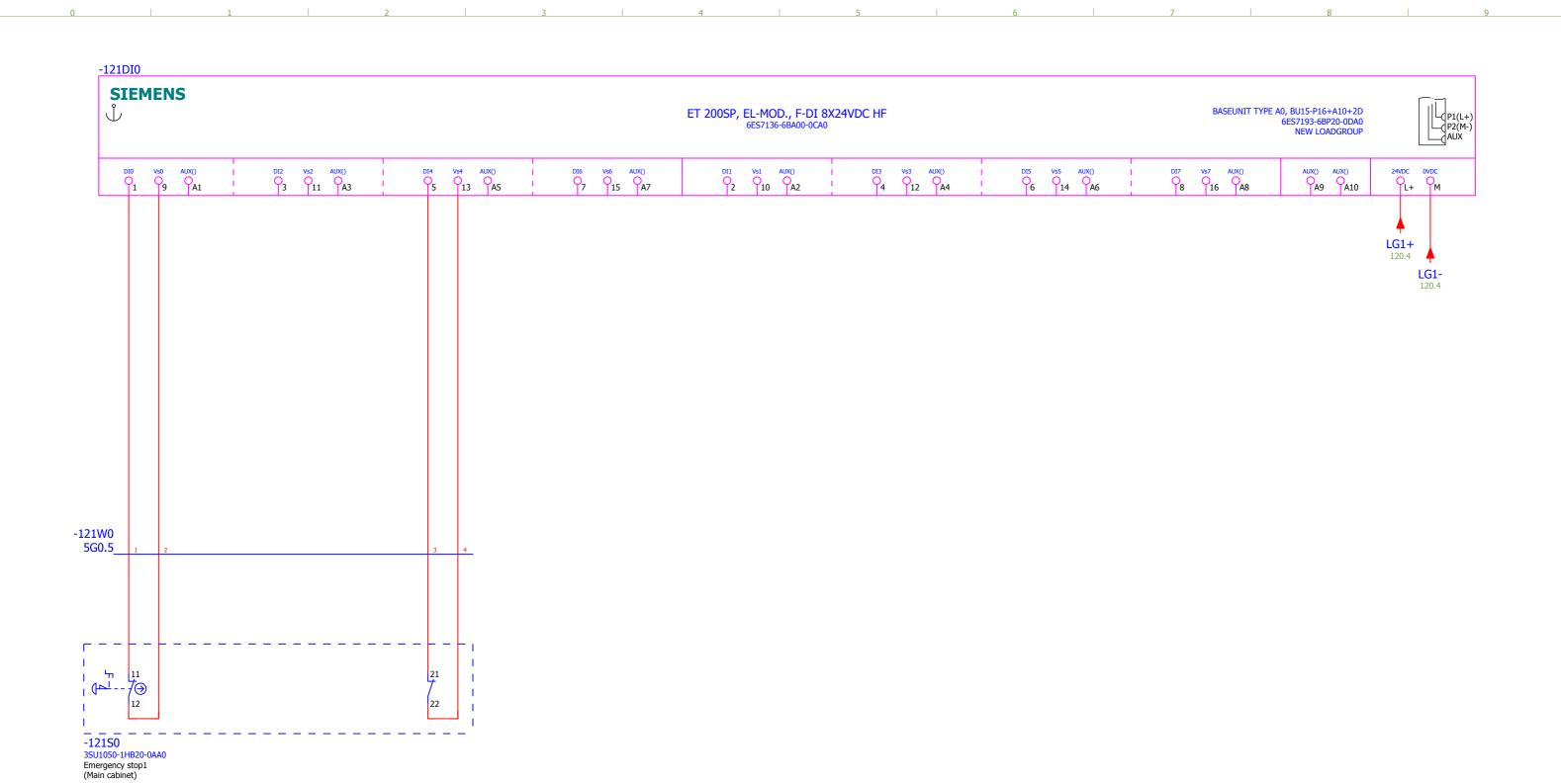
Page Next page

107





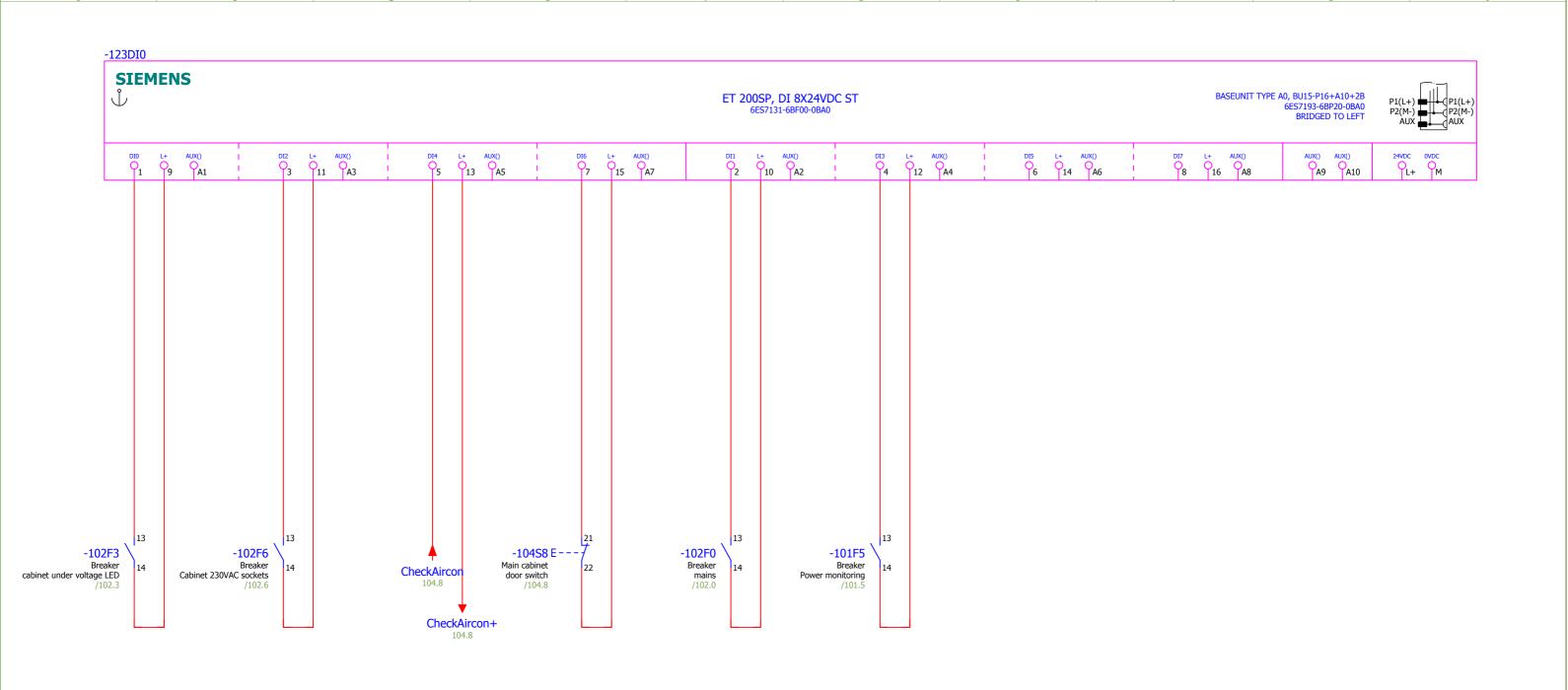




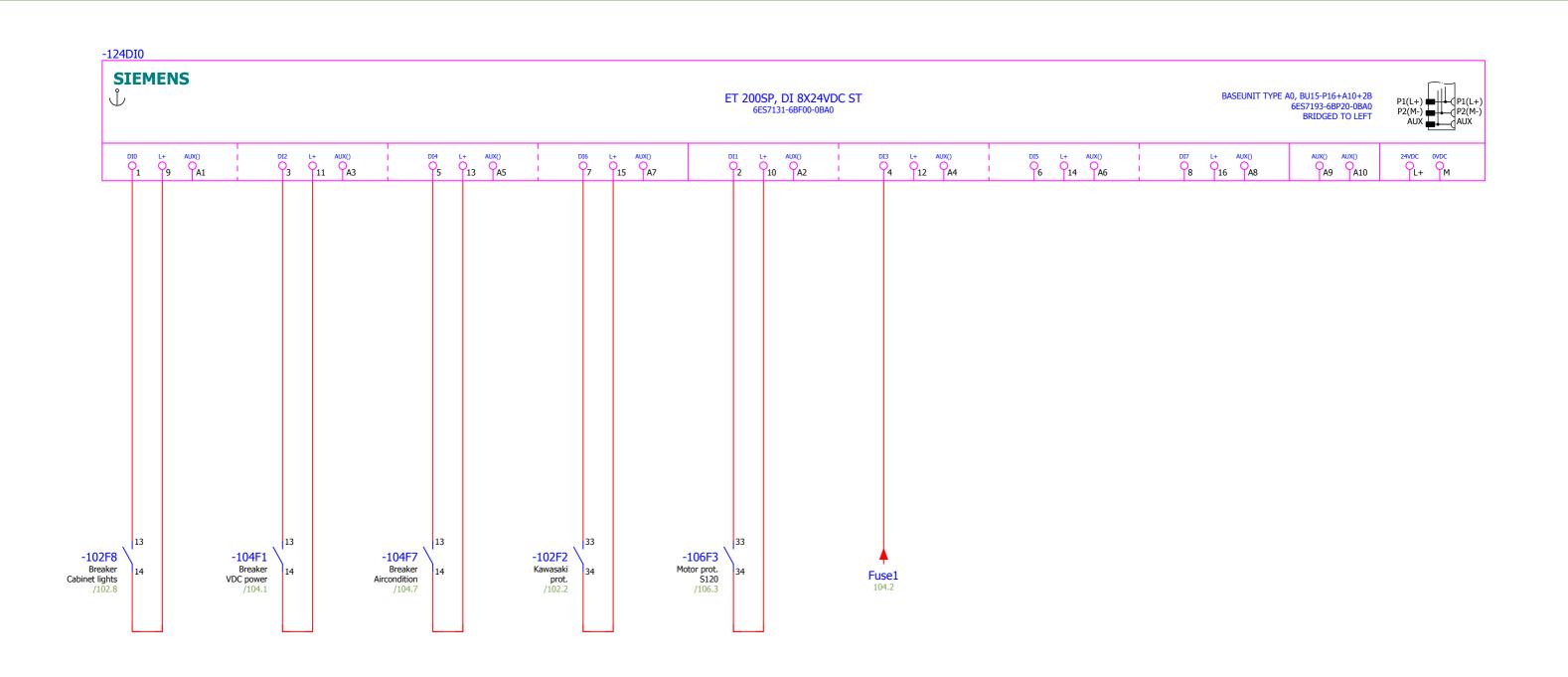
Tire surface inspection - lettering inspection 001_TSI_LI_development_DP 001

URK FEI

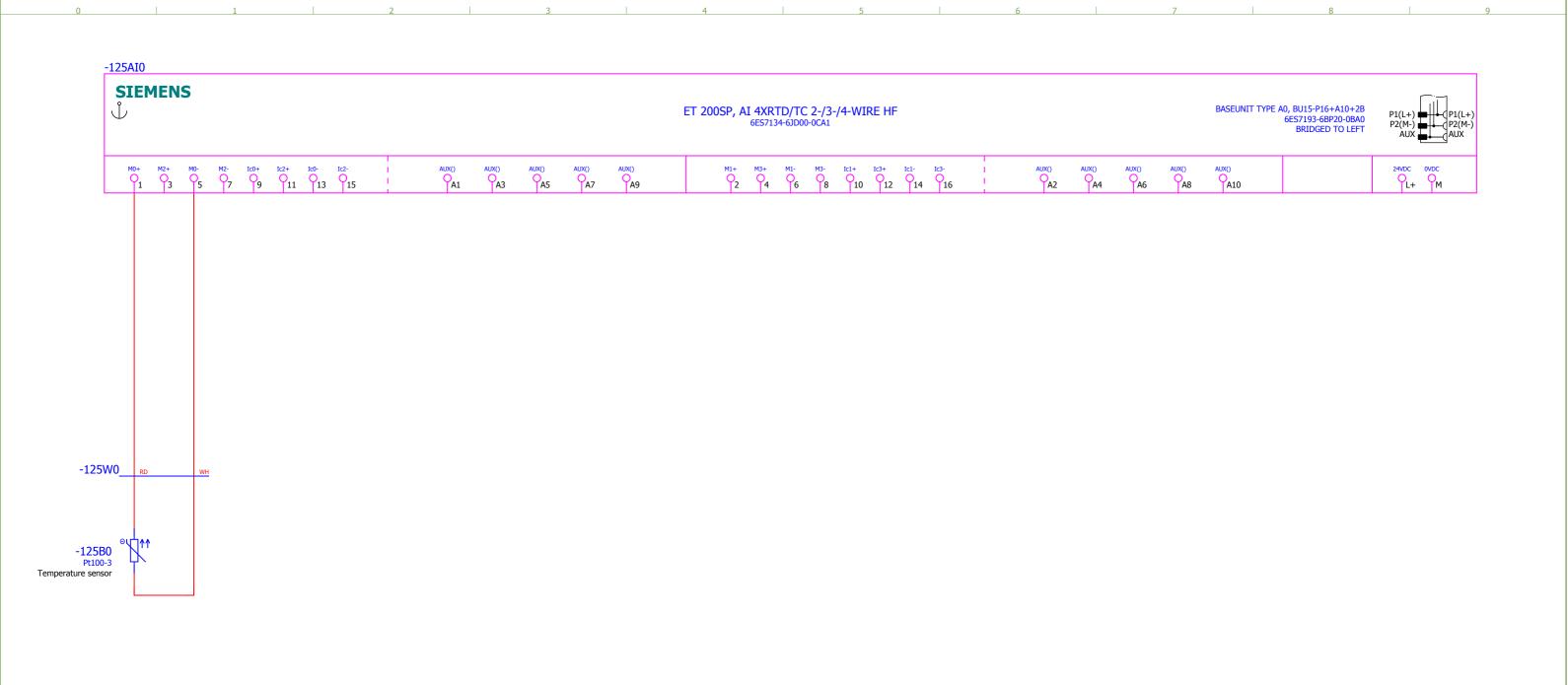
Ilkovicova 3
841 01 Bratislava / Slovakia

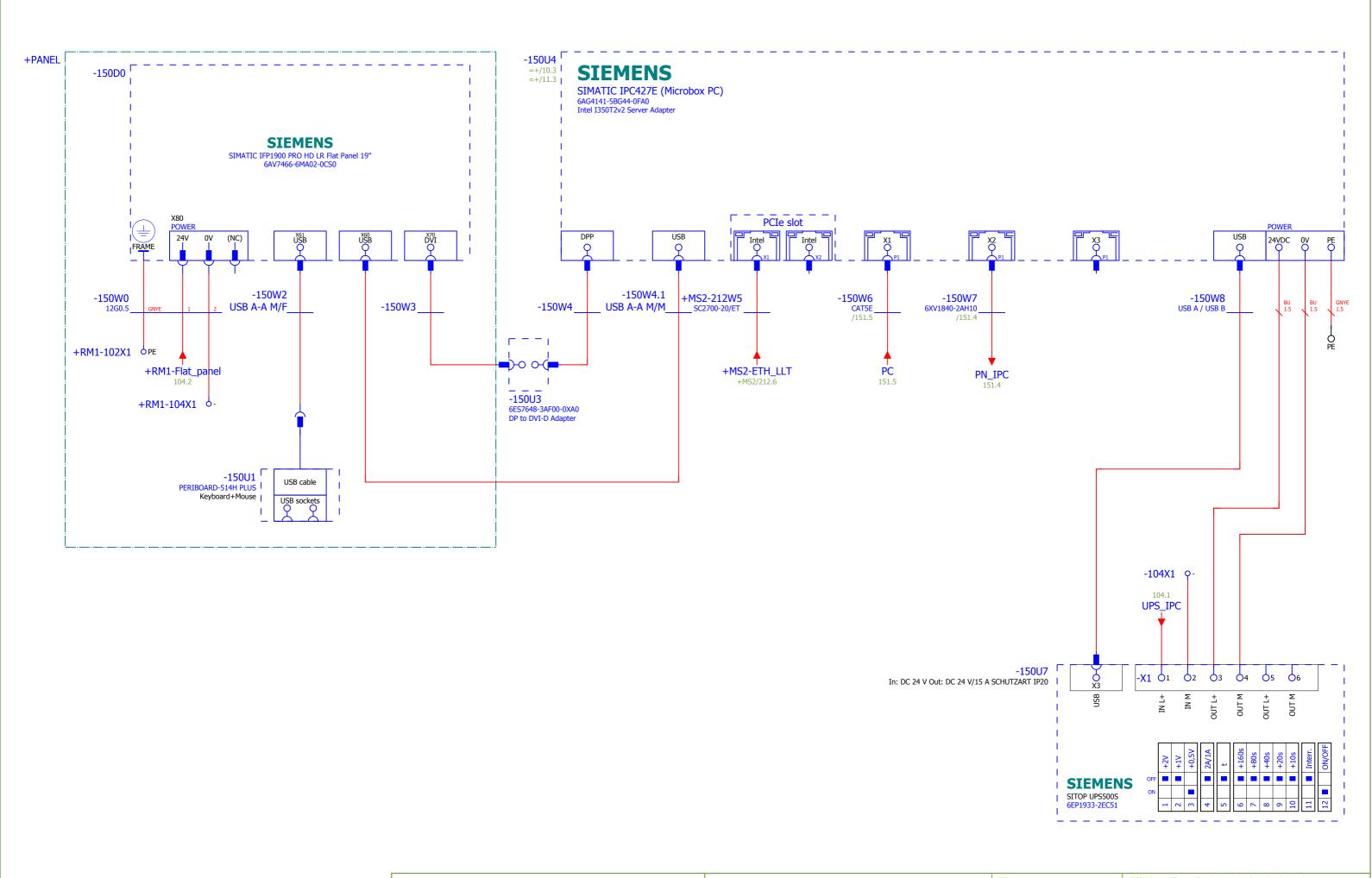


Ilkovicova 3

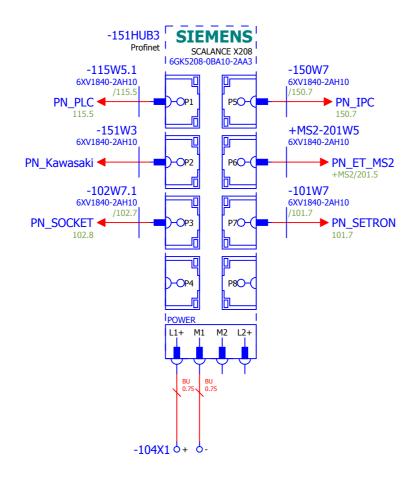


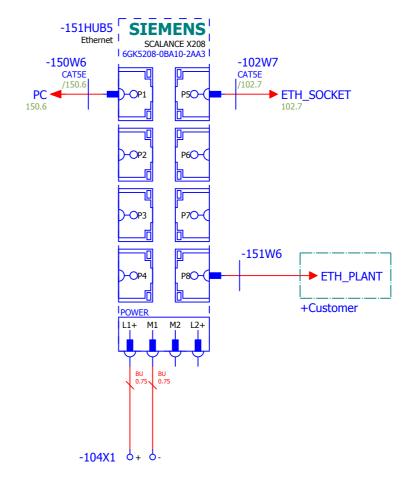
001



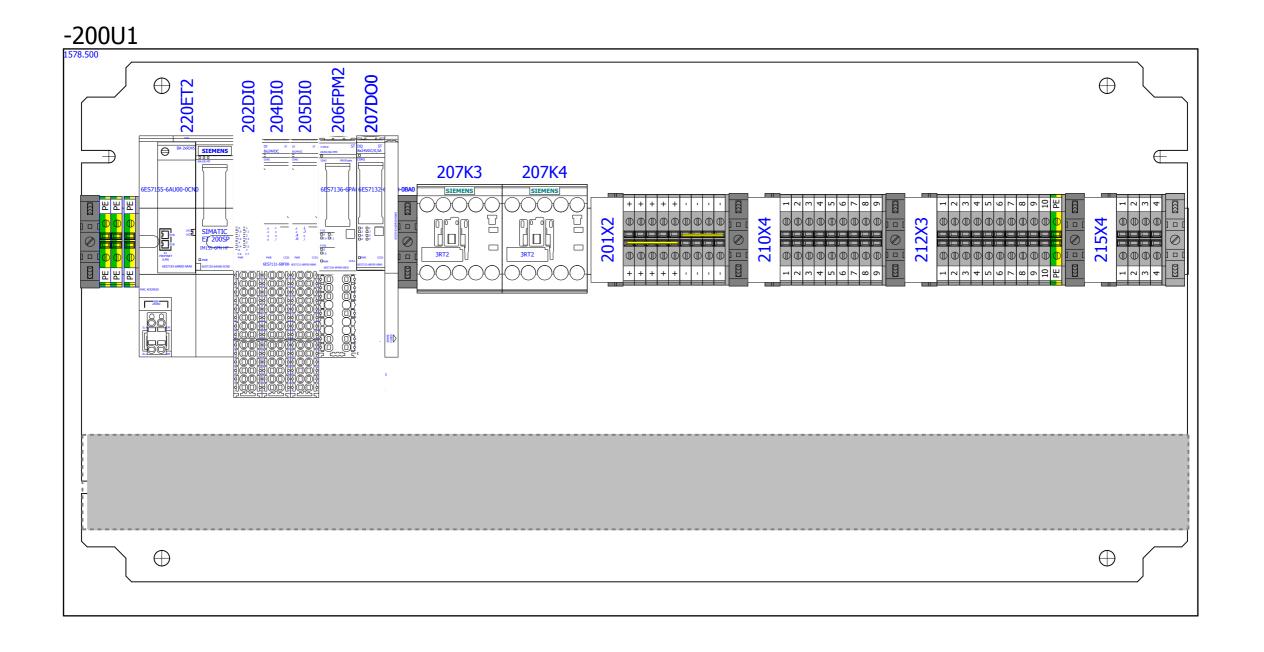


Ilkovicova 3





MS2 Electrobox on TSI stand



URK FEI

=+/10.3 -201ET3 **SIEMENS** ET 200SP, Bus Adapter 2XRJ45 6ES7193-6AR00-0AA0 ET 200SP, IM155-6PN HF 6ES7155-6AU00-0CN0 X X PN P2 PN P1 -201W5 6XV1840-2AH10_ -201X3 01 02 O PE LG1+ 202.8 -201W3 ÖLFLEX® CLASSIC 110 5G0.75 **LG1**- 202.9 +RM1-PN_ET_MS2 +RM1/151.4 O PE +RM1-201X3 01 02 +RM1-201X4 01

Tire surface inspection - lettering inspection 001_TSI_LI_development_DP 001

URK FEI

Ilkovicova 3
841 01 Bratislava / Slovakia

	PLC		=TSI_LI	Tire surface inspection - lettering inspection		
			+MS2	Electrobox on TSI stand		
	Modification date	17-Jan-21	Appr		Page	201
	Changed by	PATRIK HERCUT	Form		Next page	202

-202DI0 **SIEMENS** P1(L+) (P2(M-) (AUX BASEUNIT TYPE A0, BU15-P16+A10+2D 6ES7193-6BP20-0DA0 NEW LOADGROUP ET 200SP, EL-MOD., F-DI 8X24VDC HF 6ES7136-6BA00-0CA0 AUX() AUX() OI1 O2 DI2 03 Vs2 AUX() 11 A3 Vs4 AUX() 13 A5 Vs6 AUX() 0 A7 Vs1 AUX()
10 A2 Vs3 AUX()
12 A4 Vs5 AUX() 14 A6 Vs7 0 16 AUX() AUX()
AUX ()
AUX ()
AUX () 24VDC OVDC ONDC OM Vs0 Q_{M} **LG1+** 201.4 **LG1-** 201.5 -206K3 /206.3 Robot ON 1 -206K4 /206.4 0 Robot ON 2 SICK2 210.4 SICK1 210.4 -202W0 5G0.5 21 / -202S0 3SU1050-1HB20-0AA0 Emergency stop (Measuring stand)

Tire surface inspection - lettering inspection

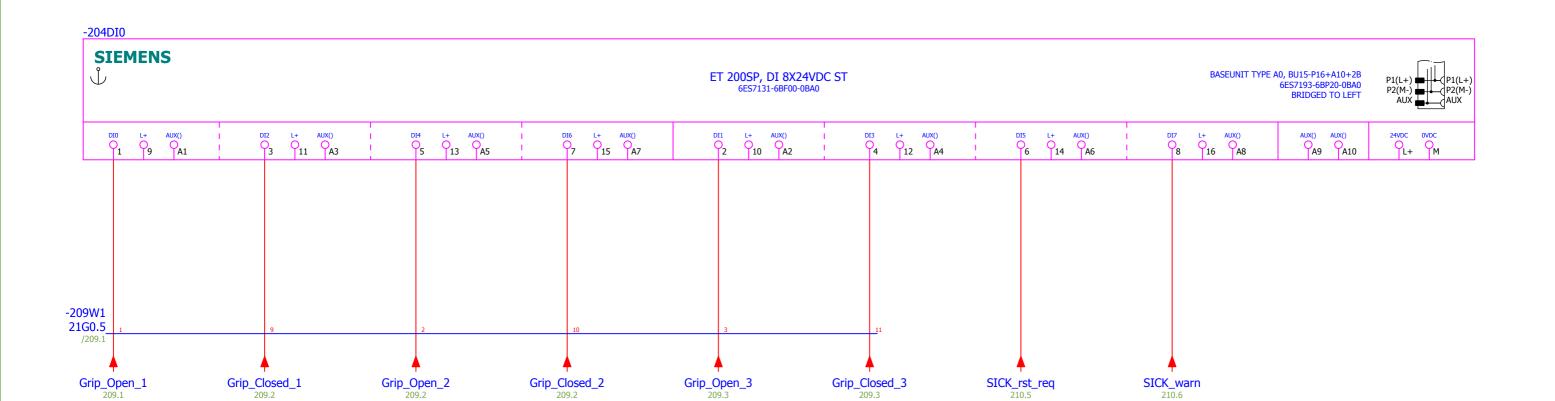
URK FEI

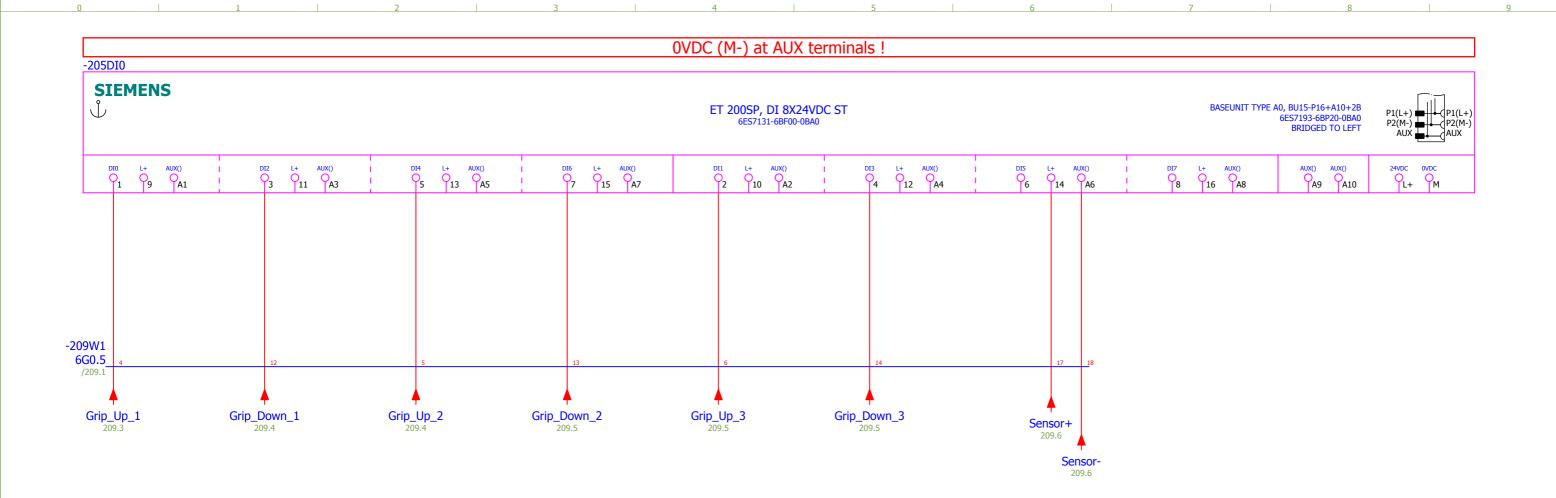
001_TSI_LI_development_DP

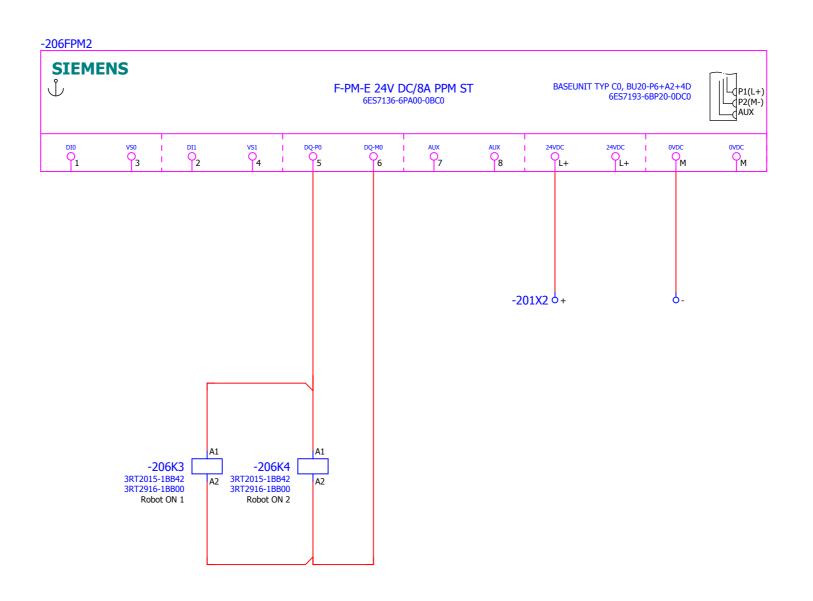
Ilkovicova 3

841 01 Bratislava / Slovakia

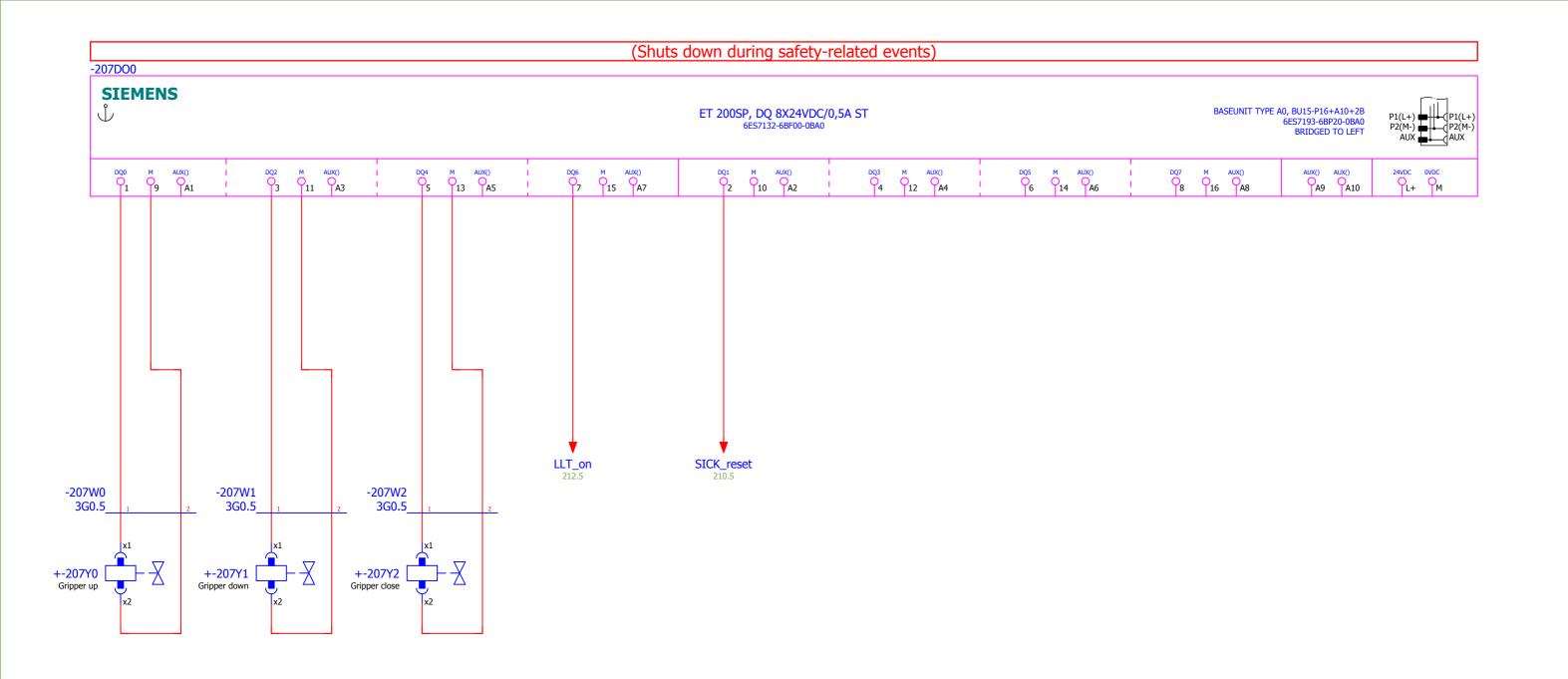












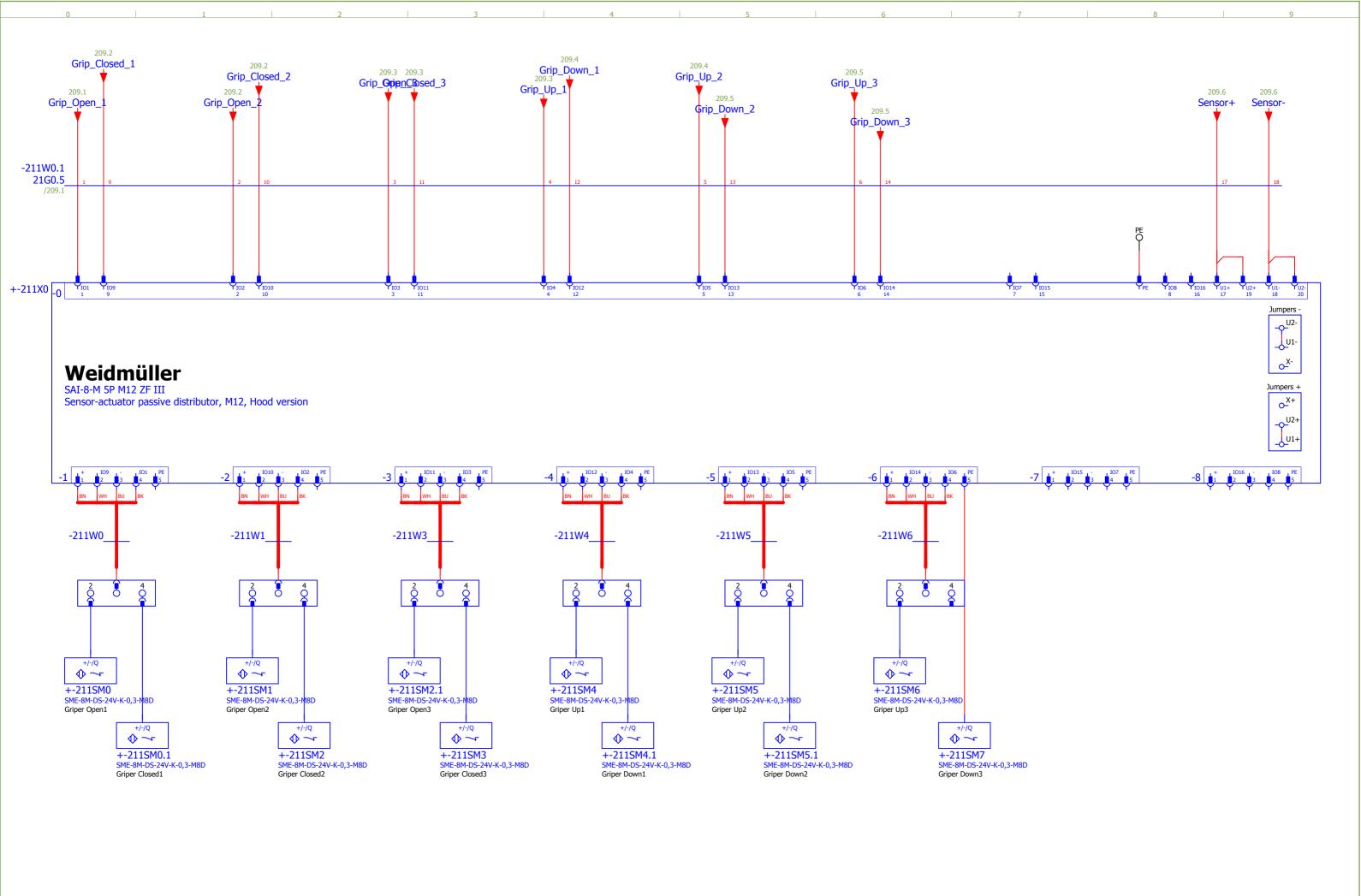
Ilkovicova 3

205.3 Grip_Down_2 204.1 204.3 204.5 Grip_Closed_1 Grip_Closed_2 Grip_Closed_3 205.0 Grip_Down_1 Grip_Down_3 _{205.6} Sensor+ Sensor-Grip_Open_2 Grip_Up_3 Grip_Open_1 Grip_Open_3 Grip_Up_1 Grip_Up_2 -209W1 21G0.5_ /204.0 /205.0 -209X0 SCHUNK A -211W0.1 21G0.5_ /211.0

URK FEI

Ilkovicova 3

204.7 202.4 202.6 SICK_warn SICK1 SICK2 204.6
SICK_rst_req 207.4 SICK_reset -210X4 🗘 1 **\dagger**2 **\dagger**3 -210W4 SX0A-B0905G -210U3 | S30A-4011BA | S30A-4011BA Sick S3000 Standard Safety laser scanner



-212X3.2 1 2 3 4 5 6 7 8 9 10 PE

-212W3
-212W3
-212W3
-212W3
-212W3
-212LLT3
-212LL

-206K3
-206K4
2/T1
-215X4 01
02
03
04
-215W4
5G0.5
1
2
3
4

Kawasaki 1TR Board