

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-Dec-20 by PATRIK HERCUT

by PATRIK HERCUT

001_TSI_LI_development_DP

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-Dec-20	MATUS KOLAROVIC	
/2.a	Table of contents		18-Dec-20	MATUS KOLAROVIC	
/3	Cable overview		18-Dec-20	MATUS KOLAROVIC	
/3.a	Cable overview		18-Dec-20	MATUS KOLAROVIC	
/4	Parts list		18-Dec-20	MATUS KOLAROVIC	
/4.a	Parts list		18-Dec-20	MATUS KOLAROVIC	
/4.b	Parts list		18-Dec-20	MATUS KOLAROVIC	
/5	Summarized parts list		18-Dec-20	MATUS KOLAROVIC	
/5.a	Summarized parts list		16-Dec-20	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		18-Dec-20	MATUS KOLAROVIC	
/11	Ethernet Topology		18-Dec-20	MATUS KOLAROVIC	
=TSI_LI+RM1/100	Panel layout RM1		23-Oct-20	MATUS KOLAROVIC	
=TSI_LI+RM1/101	Mains		18-Dec-20	MATUS KOLAROVIC	
=TSI_LI+RM1/102	Power part		18-Dec-20	MATUS KOLAROVIC	
=TSI_LI+RM1/104	Power part - 24VDC supply - aircon		16-Dec-20	MATUS KOLAROVIC	
=TSI_LI+RM1/106	S120 -power infeed		15-Sep-20	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		18-Dec-20	MATUS KOLAROVIC	
=TSI_LI+RM1/120	PLC		16-Sep-20	MATUS KOLAROVIC	
=TSI_LI+RM1/121	PLC		16-Sep-20	MATUS KOLAROVIC	
=TSI_LI+RM1/123	PLC		16-Dec-20	MATUS KOLAROVIC	
=TSI_LI+RM1/124	PLC		17-Nov-20	MATUS KOLAROVIC	
=TSI_LI+RM1/125	PLC -thermometer		15-Sep-20	MATUS KOLAROVIC	
=TSI_LI+RM1/150	PC PC		18-Dec-20	MATUS KOLAROVIC	
=TSI_LI+RM1/151	Networks		18-Dec-20	MATUS KOLAROVIC	
=TSI_LI+MS2/200	Panel layout		23-Oct-20	MATUS KOLAROVIC	
=TSI_LI+MS2/201	PLC		18-Dec-20	MATUS KOLAROVIC	
=TSI_LI+MS2/202	PLC		16-Dec-20	MATUS KOLAROVIC	
=TSI_LI+MS2/204	PLC		23-Oct-20	MATUS KOLAROVIC	

Table of contents

Column X: An automatically generated page was edited

F06_001

Page	Page description	supplementary page field	Date	Edited by	Х
=TSI_LI+MS2/205	PLC		23-Oct-20	MATUS KOLAROVIC	
=TSI_LI+MS2/206	PLC F-power module		16-Dec-20	MATUS KOLAROVIC	
=TSI_LI+MS2/207	PLC		16-Dec-20	MATUS KOLAROVIC	
=TSI_LI+MS2/209	SCHUNK joint		23-Oct-20	MATUS KOLAROVIC	
=TSI_LI+MS2/210	Safety scaner		23-Oct-20	MATUS KOLAROVIC	
=TSI_LI+MS2/211	Sensor actuator		23-Oct-20	MATUS KOLAROVIC	
=TSI_LI+MS2/212	LLT		16-Dec-20	MATUS KOLAROVIC	
=TSI_LI+MS2/215	Kawasaki 1TR board		16-Dec-20	MATUS KOLAROVIC	

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:1_1102>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		
RM1-151HUB3-P1	0					
RM1-151HUB3-P2	0					
-RM1-151HUB3-P3	0					
-RM1-151HUB3-P5	0					
-RM1-151HUB3-P6	0					
+RM1-151HUB3-P7	0					
-RM1-151HUB5-P1	0					
-RM1-151HUB5-P5	0					
+RM1-151HUB5-P8	0					
=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	Griper Open2	
=TSI_LI-211SM2	1	Proximity Sensor NO	SME-8M-DS-24V-K-0,3-M8D	FESTO	Griper Closed2	
	1					
=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 FESTO	Griper Up3	
=TSI_LI-211SM7	1	Proximity Sensor NO	SME-8M-DS-24V-K-0,3-M8D	FESTO FESTO	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		
=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 A0, 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, IM155-6PN HF	6ES7155-6AU00-0CN0	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+RM1-120ET5 =TSI_LI+RM1-101F5	1	CIRCUIT BREAKER 400V 6KA, 3-POLE, C, 1A, D=70MM	5SY6301-7	Siemens AG		
=TSI_LI+RM1-101F5 =TSI_LI+RM1-101F5	1	AUXILIARY SWITCH MOUNT. 1NC+1NO	5ST3010	Siemens AG		
	1					
TSI_LI+RM1-101F5		Pin busbar, 10 mm2 connection: 2x (3-phase+AUX/FS) touch-safe	5ST3616	Siemens AC	Main circuit breaker	
TSI_LI+RM1-102F0	1	CIRCUIT BREAKER 400V 6KA, 3-POLE, B,32A, D=70MM	5SY6332-6	Siemens AC	Main circuit breaker	
TSI_LI+RM1-102F0	1	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		

Parts list

Device tag	Quantity	Designation	Part number	Supplier	Function text	User notes
=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		
=TSI_LI+RM1-104F7	1	AUXILIARY SWITCH MOUNT. 1NC+1NO	5ST3010	Siemens AG		
=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	Cabinet light	
	1					
=TSI_LI+RM1-151HUB5	1	SCALANCE X208, MANAGED IE SWITCH, 8 X 10/100MBIT/S RJ45 PORTS	6GK5208-0BA10-2AA3	Siemens AG		
=TSI_LI+RM1-101L2	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		
=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 1516F-3 PN/DP, 1.5 MB PROG, 5 MB DATA	6ES7516-3FN02-0AB0(1)	Siemens AG		
=TSI_LI+RM1-102Q0	1	EM.STOP SWITCH 63A/690V 400V/22KW	3LD2504-0TK53	Siemens AG	Main switch	
=TSI_LI+RM1-102Q4	1	RCCB TYPE A 16/2 30MA 2MW	5SV3311-6	Siemens AG		
=TSI_LI+RM1-102Q5	1	RCCB TYPE A 16/2 30MA 2MW	5SV3311-6	Siemens AG		
=TSI_LI+RM1-102Q6	1	RCCB TYPE A 16/2 30MA 2MW	5SV3311-6	Siemens AG		
=TSI_LI+RM1-102Q7	1	RCCB TYPE A 16/2 30MA 2MW	5SV3311-6	Siemens AG		
=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 S120 ACTIVE LINE MODULE 60A, 36KW	6SL3130-7TE23-6AA3	Siemens AG		
=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 S120 BASIC OPERATOR PANEL (BOP20)	6SL3055-0AA00-4BA0	Siemens AG		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		
=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		
=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+RM1-15004 =TSI_LI+RM1-150U7	1	SITOP UPS500S SERVICE-FREE UNINTERRUPTIBLE POWER SUPPLY	6EP1933-2EC51	Siemens AG		
=TSI_LI+RM1-15007 =TSI_LI+RM1-102X0	0	21101 OLDDOOD DEWATCH LIVER OLATIALERWOLLTDEF LOAKER SOLLT	0Lr 1733-2LC31	Siciliciis AU		
		End clamp with label	DC/2E	WITELAND		
=TSI_LI+RM1-102X0	1	End clamp with label	BS/35	WIELAND		
=TSI_LI+RM1-102X1	0			NAMES AND		
=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	I and the second se

Parts list

F01_MEI

Device tag	Quantity	Designation	Part number	Supplier	Function text	User notes
=TSI_LI+RM1-102XS6	1	FrontCom, Single frame, Metal cover	IE-FC-SFM-KNOB	Weidmüller	Cabinet wall-mounted sockets	
=TSI_LI+RM1-102XS6	1	FrontCom, Insert plate, shielded, 1x Power, 2x data	IE-FC-SP-PWB/2ST	Weidmüller	=	
=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	=	
=TSI_LI+RM1-102XS6	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 A0, 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		
=TSI_LI+MS2-205DI0	1	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+MS2-206K4	1	CONTACTOR, AC-3, 3KW/400V, 1NC, DC 24V,	3RT2015-1BB42	Siemens AG	Robot ON 1	
=TSI_LI+MS2-206K4	1	SURGE SUPPRESSOR, VARISTOR,	3RT2916-1BB00	Siemens AG	=	
=TSI_LI+MS2-206K4.1	1	CONTACTOR, AC-3, 3KW/400V, 1NC, DC 24V,	3RT2015-1BB42	Siemens AG	Robot ON 2	
=TSI_LI+MS2-206K4.1	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					
=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		
			,			
			I	1		

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	POS
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	
	0					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	
9000-41034-0401000	2	Electronic Current Monitoring	Mico+ 4.10 9000-41034-0401000	Murr Murr	0.00	0.00	
5ES7193-6BP20-0BA0	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	
5ES7193-6SC00-1AM0	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	
5ES7193-6BP20-0DA0	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	
5ES7155-6AU00-0CN0	4	ET 200SP, IM155-6PN HF	6ES7155-6AU00-0CN0 6ES7155-6AU00-0CN0	SIE SIE	0.00	0.00	
5ES7193-6AR00-0AA0	3	ET 200SP, Bus Adapter 2XRJ45	6ES7193-6AR00-0AA0 6ES7193-6AR00-0AA0	SIE SIE	0.00	0.00	
5GK1901-1BB10-2AB0	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

F02_001

Order number	Quantity	Description	Type number	Manufacturer	Unit price	Total price	Pos
- Craci Hamber	Quartitey	Designation	Part number	Supplier	one price		
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	
6ES7518-4FP00-4AB0	1	CPU 1516F-3 PN/DP, 1.5 MB PROG, 5 MB DATA	6ES7516-3FN02-0AB0 6ES7516-3FN02-0AB0(1)	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	

			•	•	•	STU
ı	001_TSI_LI_development_DP	Ilkovicova 3				
ı	001	841 01 Bratislava / Slovakia				• FEI

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

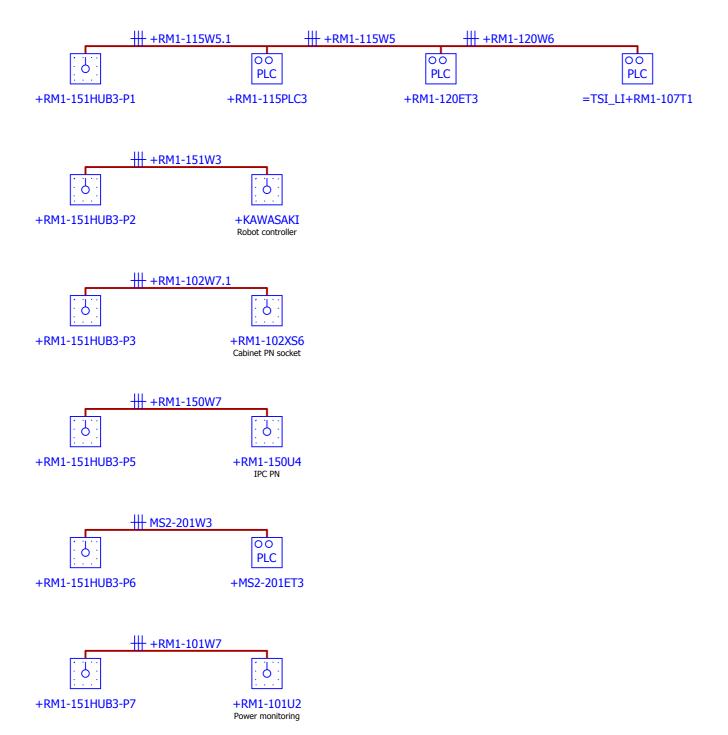
F02_001

Order number	Quantity	Description	Type number	Manufacturer	Unit price	Total price	Pos
		Designation	Part number	Supplier	Offic price		
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	
BRT29161BB00	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



001_TSI_LI_development_DP

Ethernet Topology

+RM1-151HUB5-P1 +RM1-150U4
IPC ETH

+RM1-151HUB5-P5 +RM1-102XS6-ETH1
Cabinet ETH socket

+RM1-151HUB5-P8 +Customer

150U4 -115PLC3 151HUB3 151HUB5 121DI0 123DI0 124DI0 125AI0 104A1 104A3 **■** -110T2 -106T2 � �

Previous page =+/11

Next page 101

100

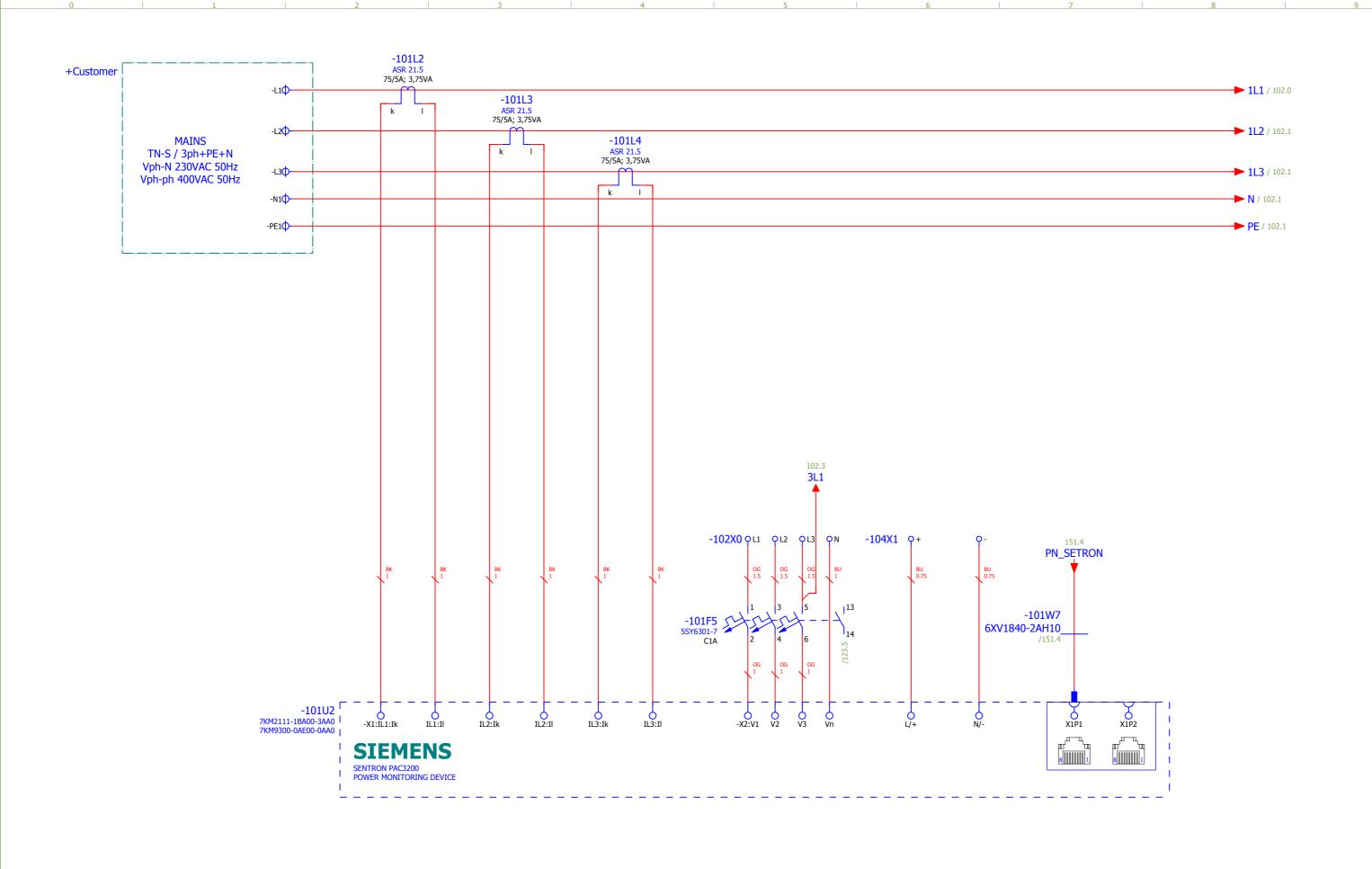
Page

URK FEI Ilkovicova 3 841 01 Bratislava / Slovakia

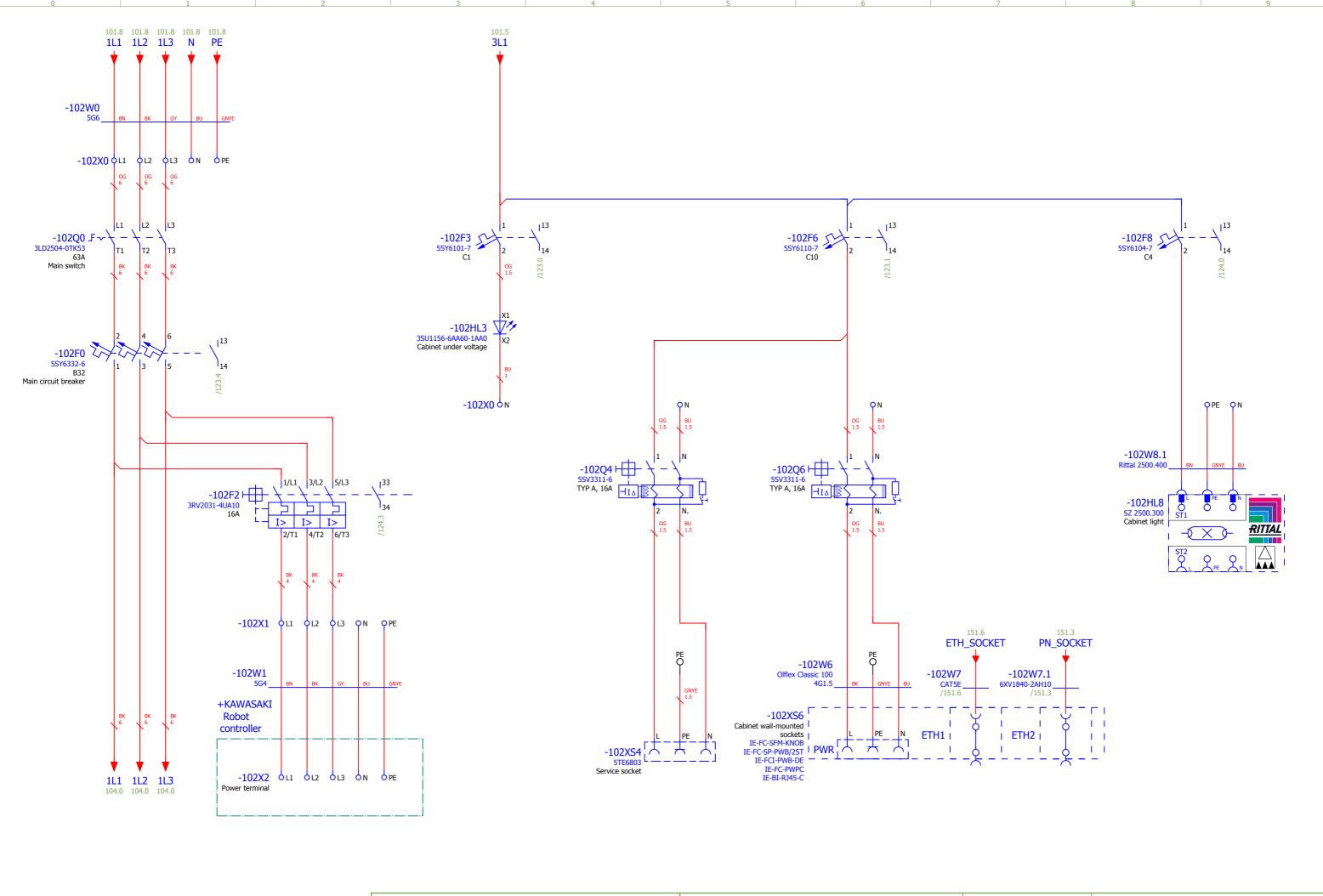


PATRIK HERCUT

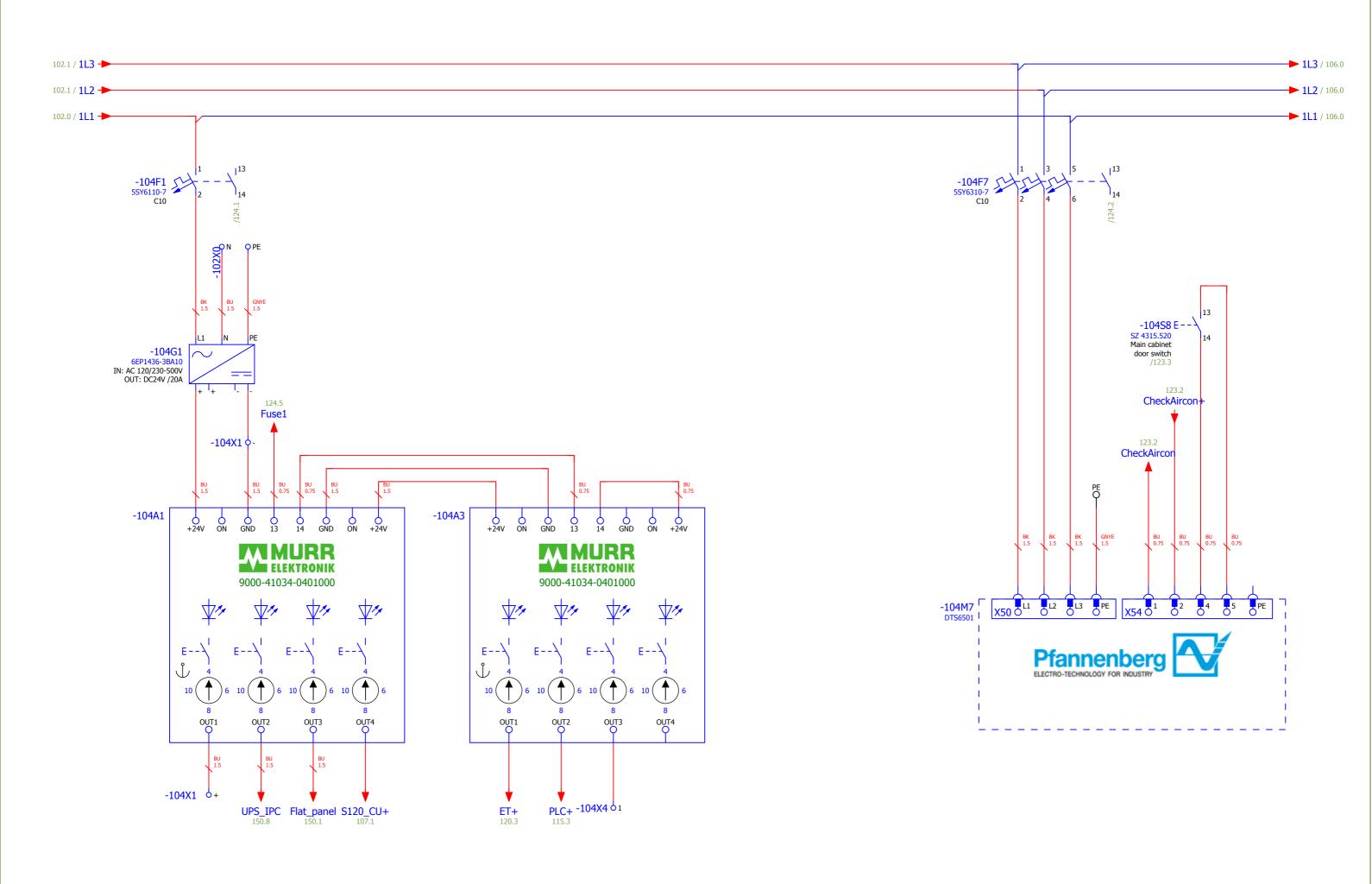
Changed by



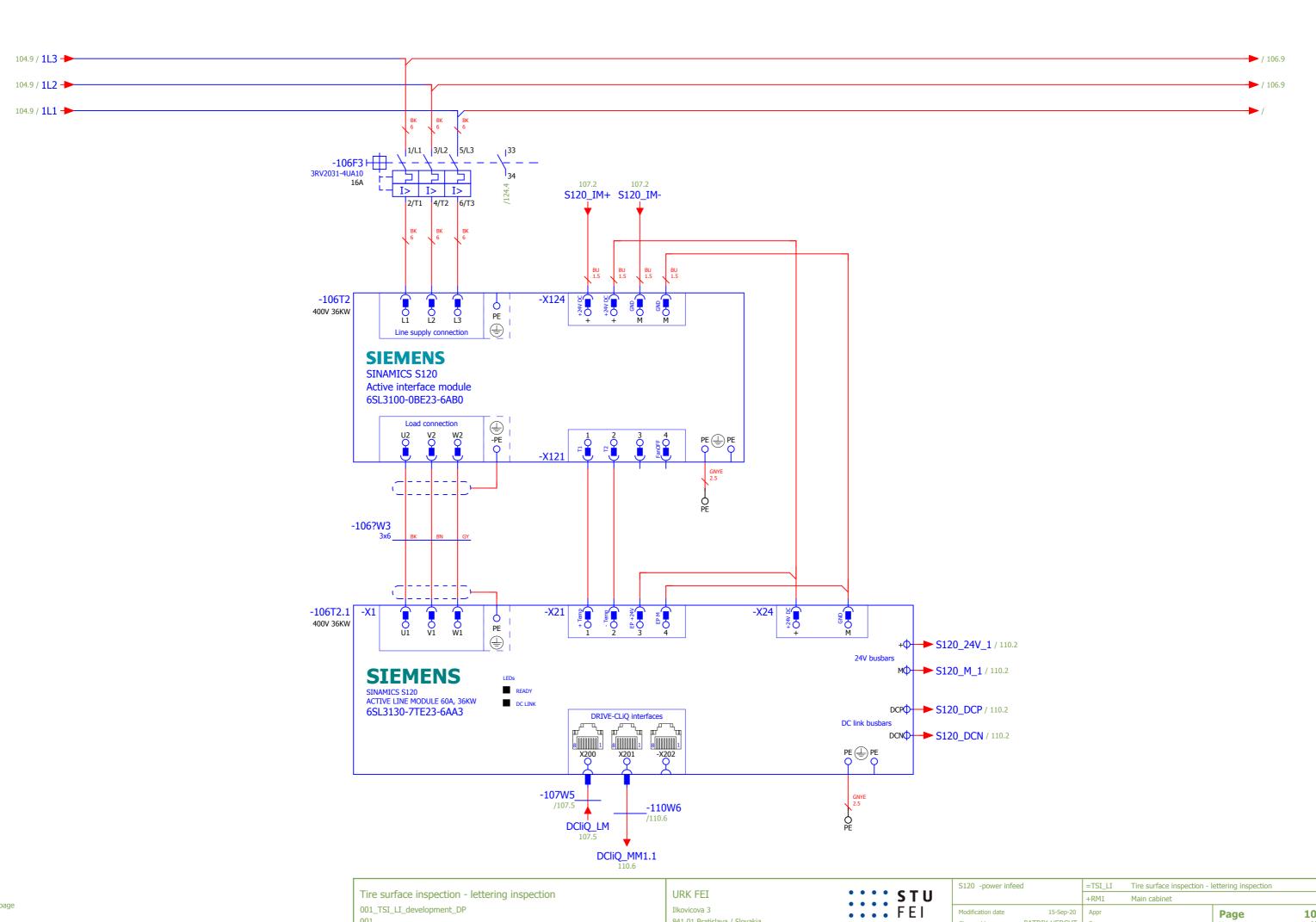
Ilkovicova 3



Ilkovicova 3



Ilkovicova 3



Ilkovicova 3

841 01 Bratislava / Slovakia

Modification date

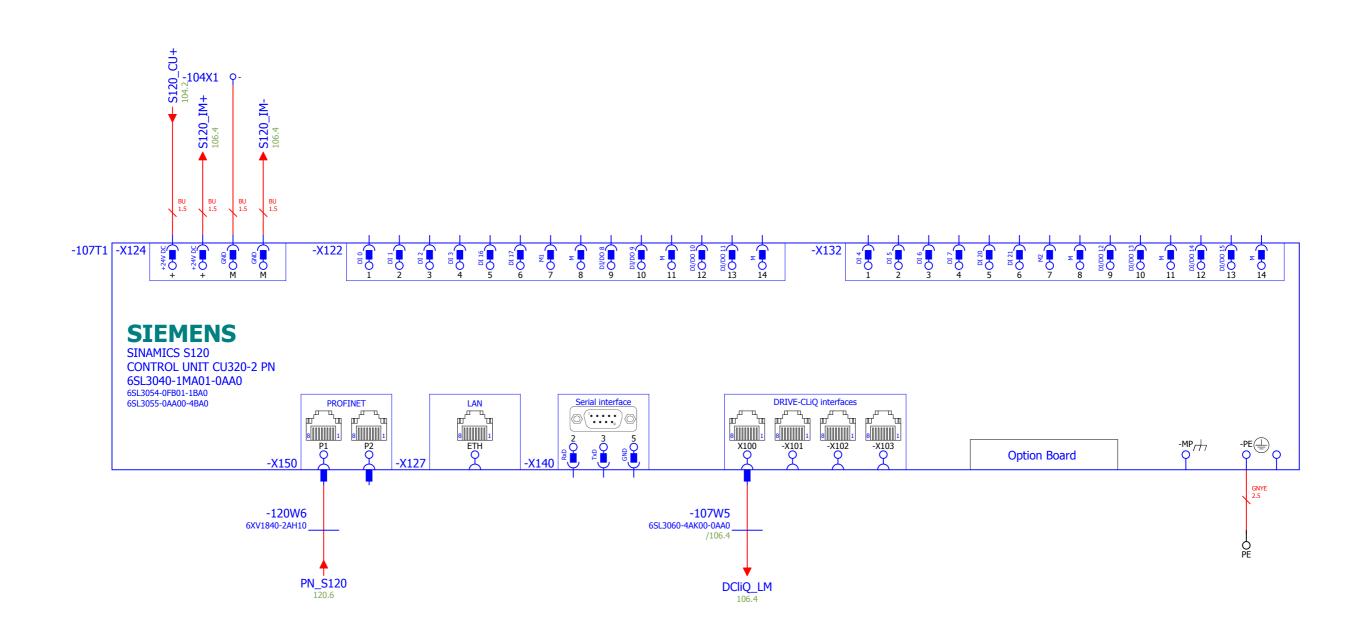
15-Sep-20

PATRIK HERCUT

Page

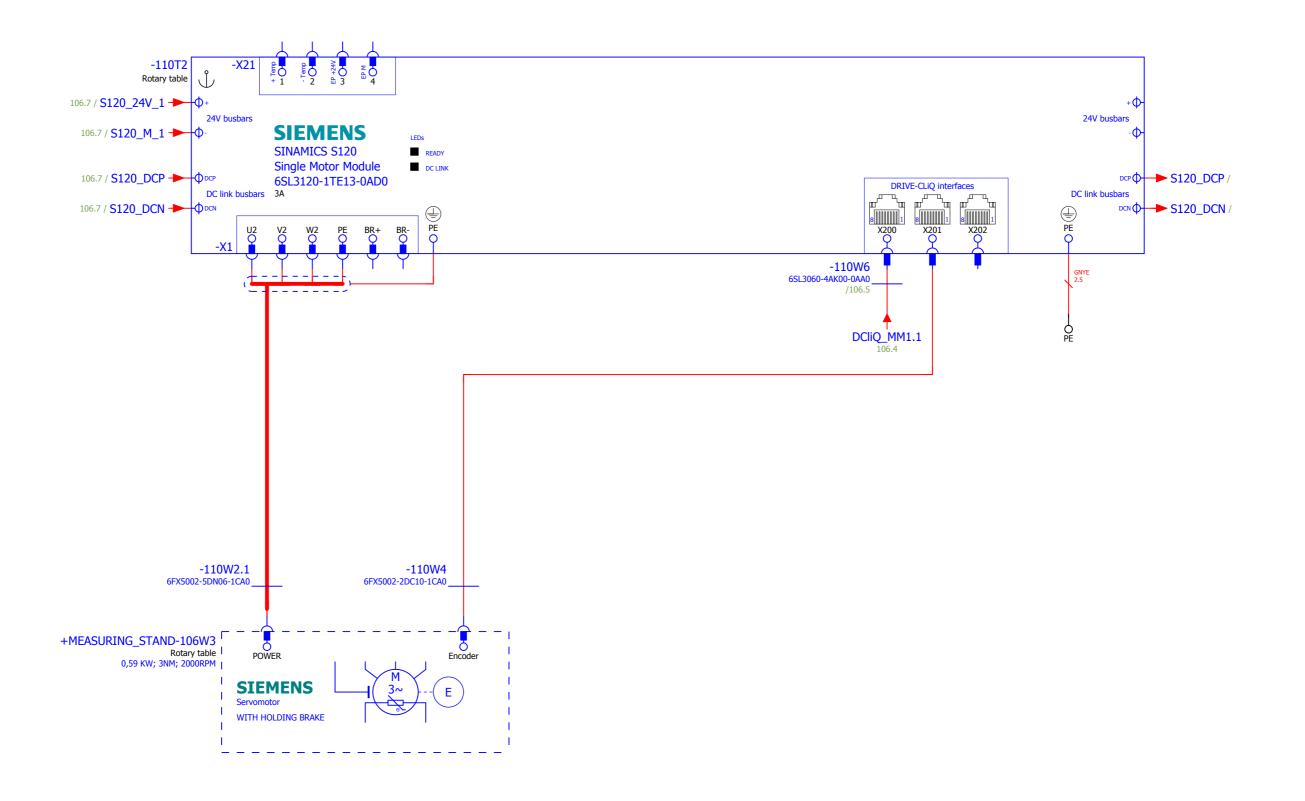
106

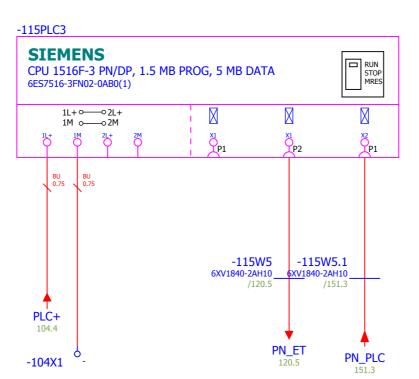
 $001_TSI_LI_development_DP$



Page Next page

107





-120ET3 **SIEMENS** ET 200SP, Bus Adapter 2XRJ45 6ES7193-6AR00-0AA0 ET 200SP, IM155-6PN HF 6ES7155-6AU00-0CN0 X PN P2 BU 0.75 BU BU 0.75 -115W5 6XV1840-2AH10_ /115.5 -120W6 6XV1840-2AH10_ LG1+ 121.8 ET+ 104.3 **LG1**-PN_ET 115.5 PN_S120 107.2 -120X3

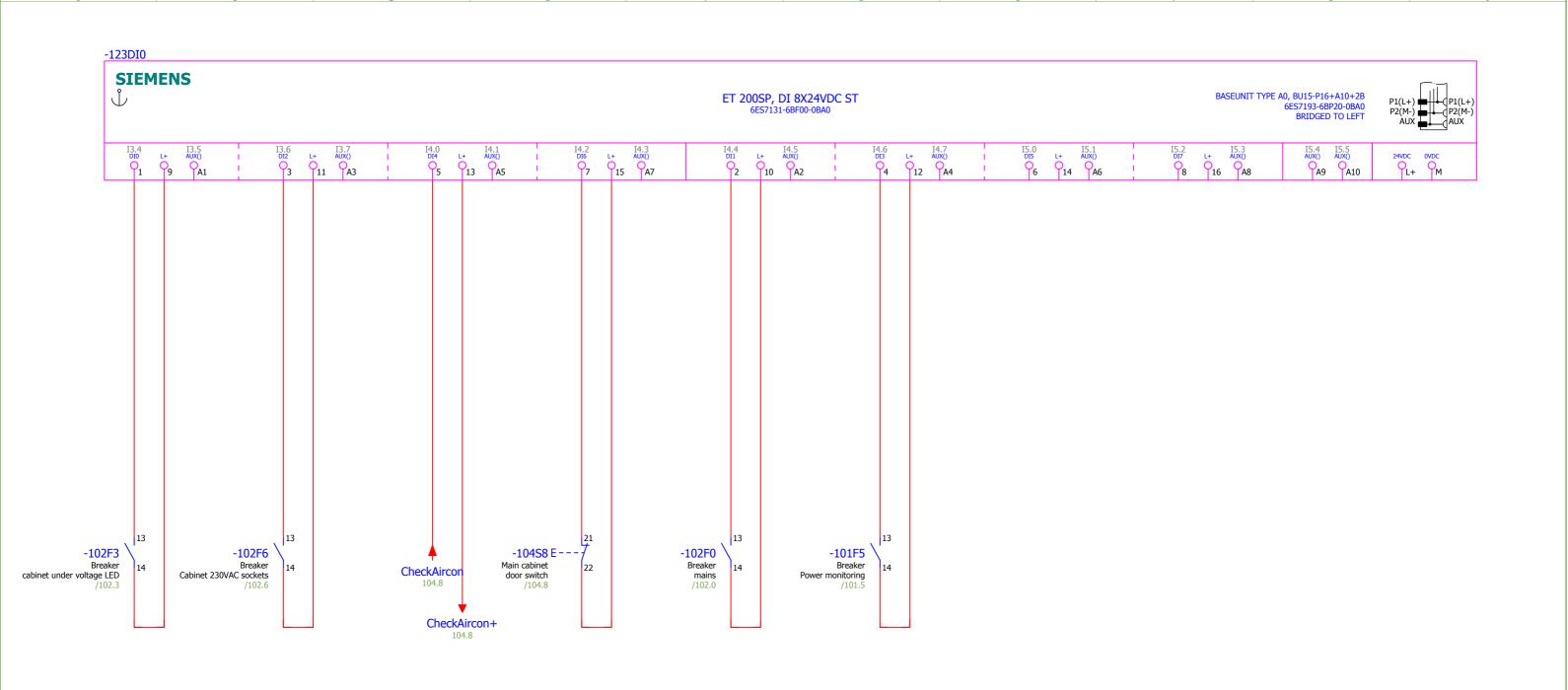


-121S0 3SU1050-1HB20-0AA0 Emergency stop1 (Main cabinet)

12

11

21 /



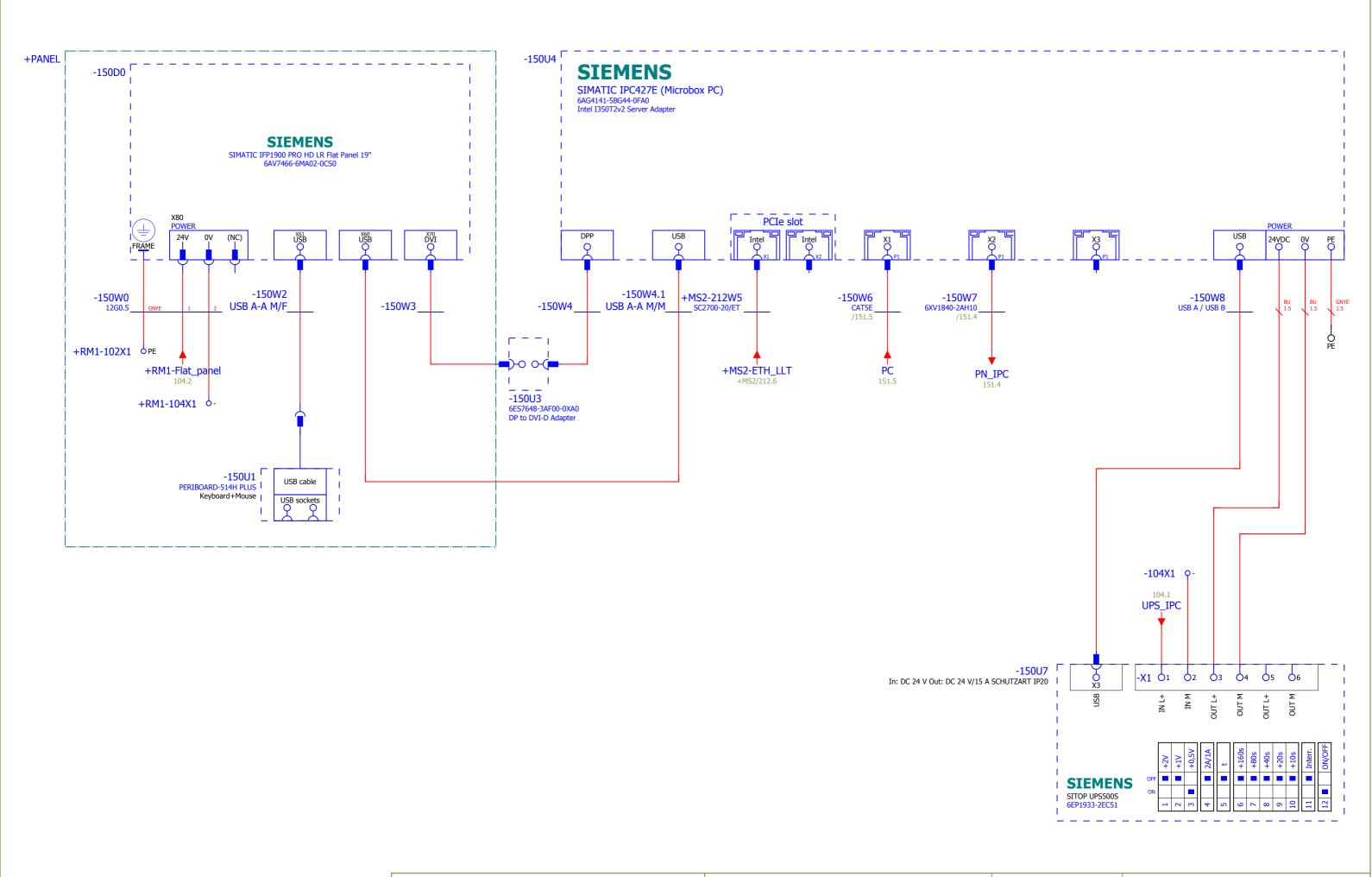
Ilkovicova 3

-124DI0 **SIEMENS** P1(L+) P2(M-) AUX BASEUNIT TYPE A0, BU15-P16+A10+2B 6ES7193-6BP20-0BA0 BRIDGED TO LEFT ET 200SP, DI 8X24VDC ST 6ES7131-6BF00-0BA0 17.6 AUX() A9 17.7 AUX() A10 I6.2 DI4 O 5 I6.3 AUX() A5 I6.7 AUX() A2 17.3 AUX() AG I7.4 DI7 O8 I6.5 AUX() A7 13 10 16 L+ O 14 L+ O 11 L+ O 15 L+ O 12 24VDC 0VDC O_{A3} 13 13 33 33 -104F1 -106F3 -102F8 -104F7 -102F2 Breaker Cabinet lights /102.8 Breaker Aircondition /104.7 Motor prot. \$120 /106.3 Breaker Kawasaki Fuse1 104.2 VDC power /104.1 prot. /102.2

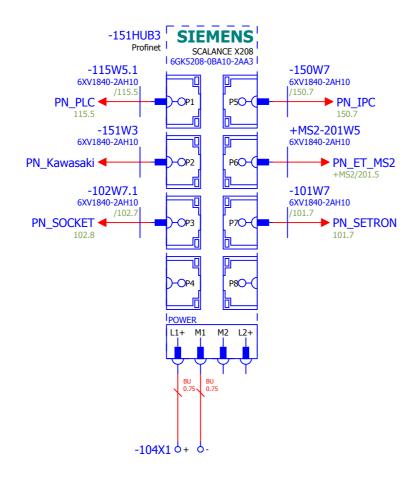
URK FEI

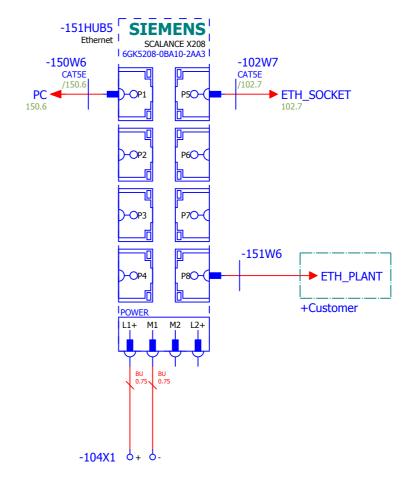
Ilkovicova 3





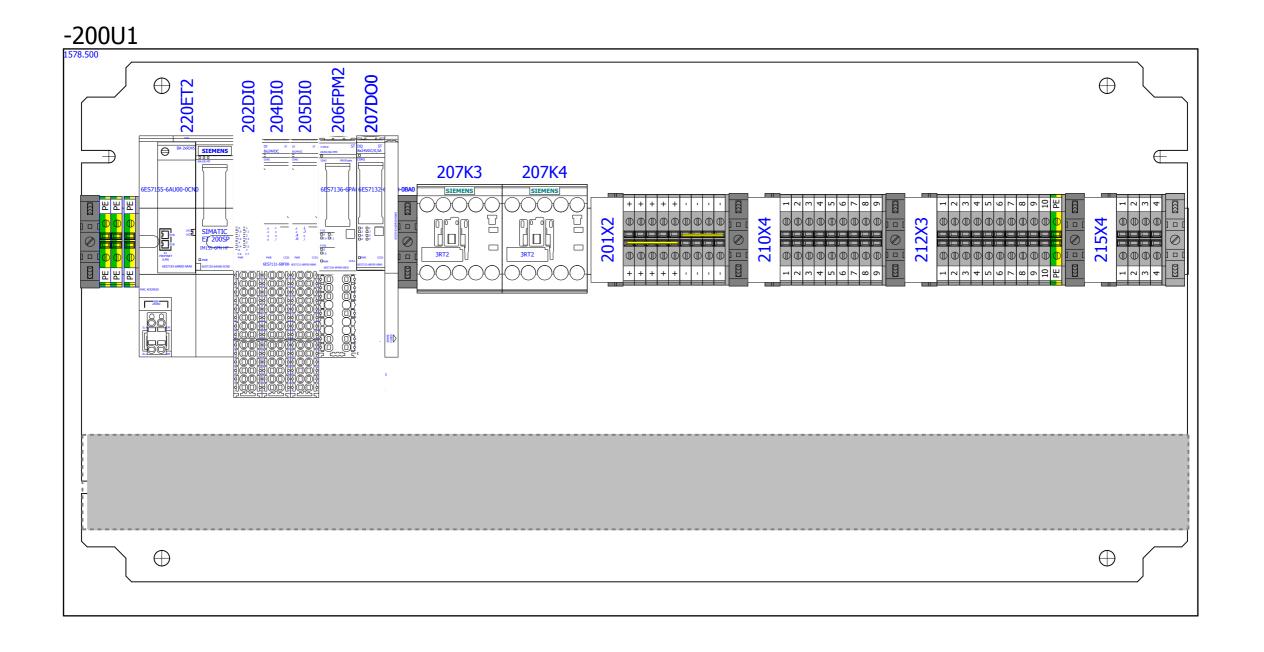
Ilkovicova 3





Ilkovicova 3

MS2 Electrobox on TSI stand



URK FEI

-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

-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 I8.4 DI4 I9.0 DI1 O2 I9.2 DI3 I8.2 DI2 O3 I10.0 I10.1 AUX() AUX() A9 A1 Vs2 Vs1 I8.7 AUX() Vs5 Vs0 Og Vs4 AUX() 13 A5 Vs6 AUX() 15 A7 Vs3 AUX() 12 A4 Vs7 O 16 O_{A3} O_{A10} O_{A1} O_{A2} Q_{A6} O_{A8} P_{L+} Q_{M} **LG1+** 201.4 **LG1-** 201.5 -206K4 /206.4 Robot ON 1 -206K4.1 /206.4 ON 2 21 SICK2 210.4 SICK1 210.4 -202W0 5G0.5 21 / -202S0 3SU1050-1HB20-0AA0 Emergency stop (Measuring stand)

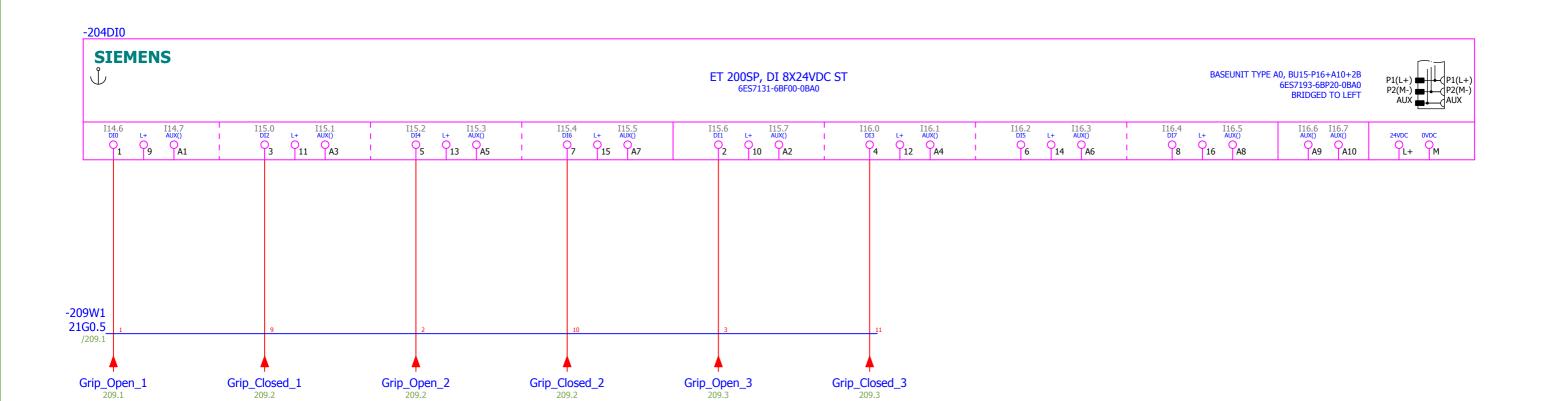
Tire surface inspection - lettering inspection

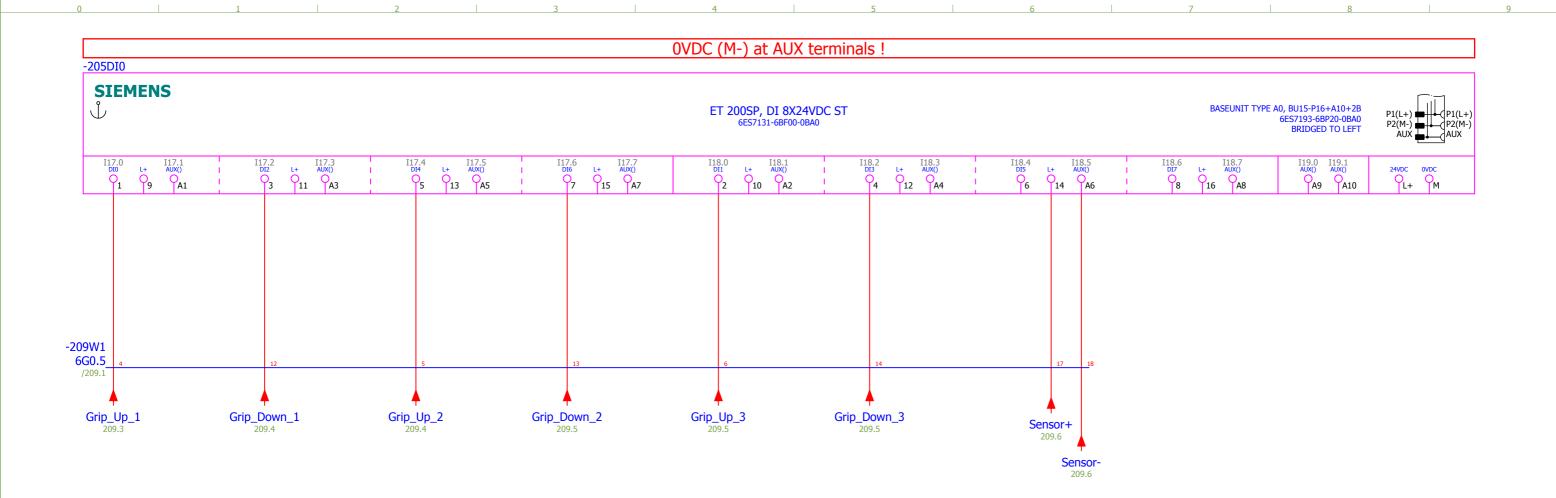
URK FEI

001_TSI_LI_development_DP

Ilkovicova 3

841 01 Bratislava / Slovakia





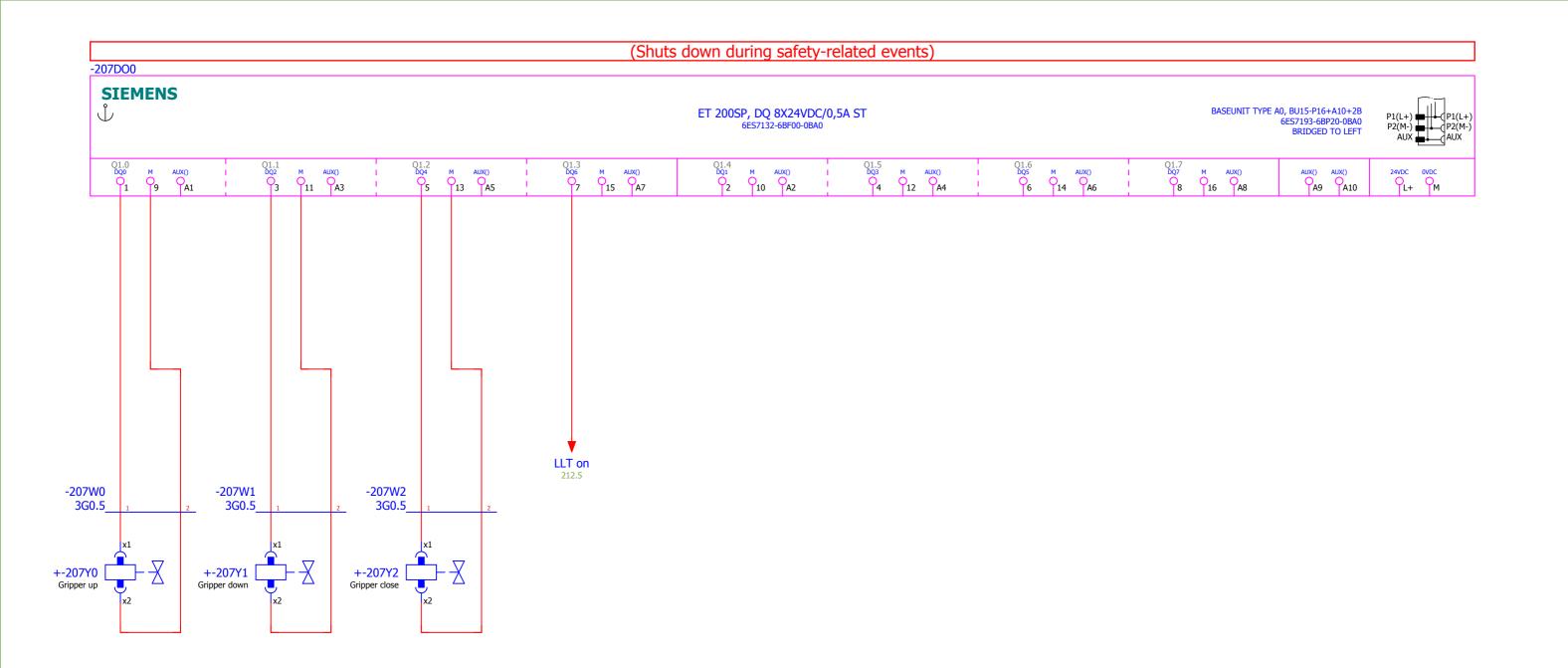
Ilkovicova 3

-206FPM2 **SIEMENS** (P1(L+) (P2(M-) AUX F-PM-E 24V DC/8A PPM ST 6ES7136-6PA00-0BC0 BASEUNIT TYP C0, BU20-P6+A2+4D 6ES7193-6BP20-0DC0 24VDC OVDC OM -206K4 3RT2015-1BB42 3RT2916-1BB00 -201X2 0+ Robot ON 1 -206K4.1 3RT2015-1BB42 3RT2916-1BB00 Robot ON 2 A1 - A2 1/L1 = 2/T1 /215.4 3/L2 = 4/T2 5/L3 = 6/T3 21 = 22 /202.5 A1 — A2 1/L1 = 2/T1 /215.5 3/L2 = 4/T2 5/L3 = 6/T3 21 = 22 /202.7

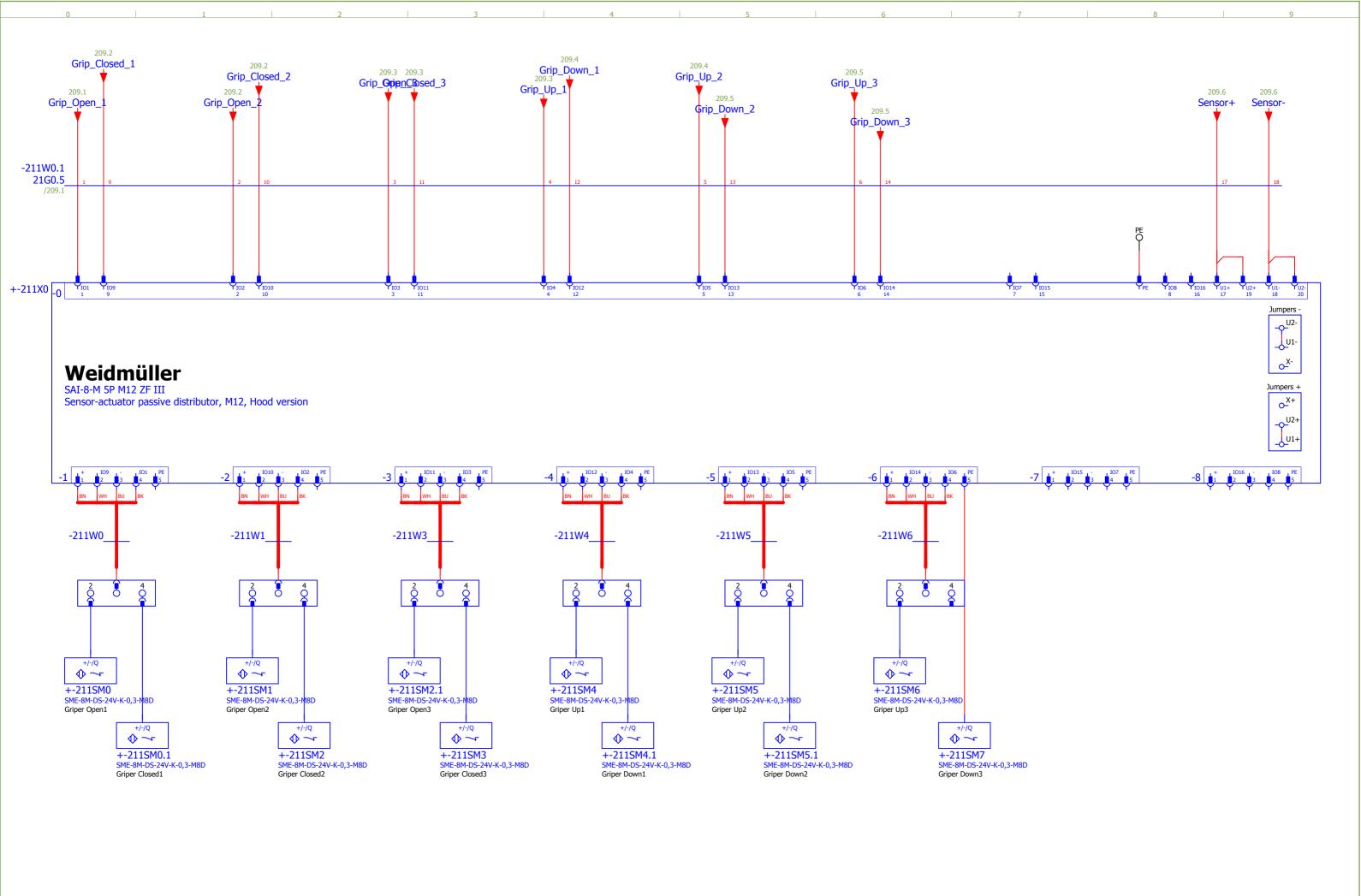
Tire surface inspection - lettering inspection
001_TSI_LI_development_DP
001

URK FEI Ilkovicova 3 841 01 Bratislava / Slovakia





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



207.3
LLT on

+RM1/150.5
ETH_LLT

-201X2 0 + 0
-212W6
SC2700-20/ET
20 m

-212W3,
PC2700-4.5
4.5 m
6x2x0.14
RD
BU
GN
GY
BK
BN
WH
YE
PK
VT
RDBU
GYPK

-212LLT3

9:+Ub
2:GND 4:GNDIn1 8:GNDIn2 7:GNDIn3 1:LasOn- 3:LasOn+ 6:In1(N) 5:In2(A) 10:In3(B) 12:RS422+11:RS422
ETH

LLT 2950-100

STU FEI