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भारत प्रतिभूति मुद्रणालय INDIA SECURITY PRESS

नाशिक रोड - 422101 (महाराष्ट्र) / NASHIK ROAD - 422101 (MAHARASHTRA)

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Date: 20.08.2023

CORRIGENDUM

ISP Expression of Interest No. 24/2023 dated 19.07.2023 for

(A) " Supply, Installation, Interfacing, Testing and Commissioning of Laser Head and Auxiliary Module" For Finishing Machine No.3, 2549-961-25 of Automatic Passport Manufacturing System and

(B) "Supply, Installation, Interfacing, Testing and Commissioning of Laser Head & Auxiliary Module" for Final Finishing Machine No. 4, Make: BW Papersystems, Germany, Type MK00480 of Automatic Passport Manufacturing System.

With reference to above, the following amendment to ISP Expression of Interest No. 24/2023 dated 19.07.2023 are hereby authorized to read as:

Sl No	Description	For	Read as
1	Last date of submission	1430 Hrs (IST) 25.08.2023	1430 Hrs (IST) 15.09.2023
2	Last date and time of receipt of Expression of Interest	25.08.2023 At 1430 Hrs. (IST)	15.09.2023 At 1430 Hrs. (IST)
3	Date and time of opening of Expression of Interest	At 1500 Hrs. (IST) 25.08.2023	At 1500 Hrs. (IST) 15.09.2023

Details regarding Laser Head and other Auxiliary Modules are enclosed at Annexure "A".

For further details, please visit our website www.spmcil.com

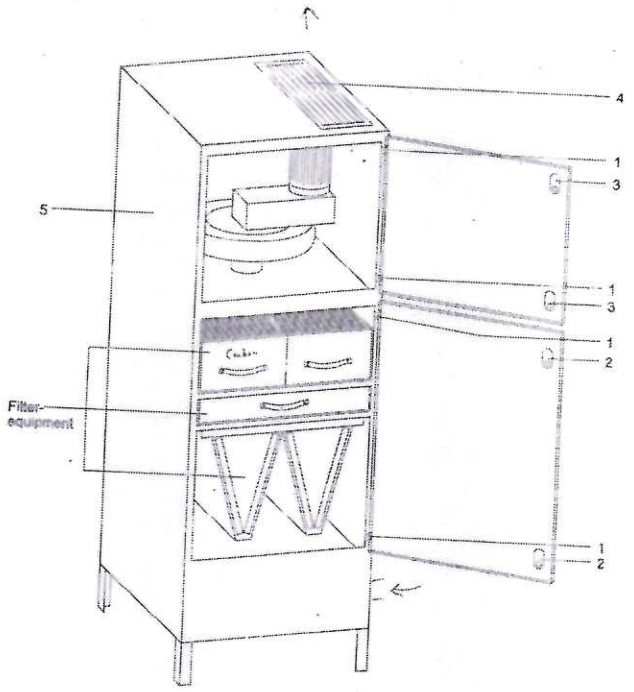
20.08.23

Jt General Manager (M)

FUME EXTRACTOR DETAILS FOR FINAL FINISHING M/C No. 3 & 4

(91)

INR 20



9

1.3 Technical Data

Device Type	INR06600
Dimensions L x W x H	670 x 650 x 2100 mm
Space Requirement for Filter Change L x W x H	
Weight	135 kg
Extraction Power max.	6.600 m³/h
Vacuum max.	4900 Pa
Filter Equipment	IF FA12
Total Filter Surface	16,8 m²
Active Carbon Filter, Weight	25 kg
Power Supply	
Voltage	400 V, 50 Hz
Power Input	0,9 kW
Rated Current	2,5 A
Fuse	16 A slow-reacting
Perm. Ambient Temperature	+5 - +35 °C
Perm. Storage Temperature	+5 - +40 °C
Housing Material	powder-coated steel plate

1.4 Special Equipment

The version supplied has the following special equipment.

Pos.	Equipment
X	Electronic speed regulator
✓	Electronic remote control with integrated On/Off Switch
✓	Automatic start-stop via welding cable sensor
✓	Automatic remote switching
✓	Connection for SPC control
✓	Ex protection
X	24 V SPC output and potential free converter
X	Prefilter monitoring
X	Motor Control
X	Direction of Rotation monitoring
	Filter prewarning

1.7 Noise Level at Filtering Device

The continuous sound pressure level emanating from the filtering device is 67dB (A), depending on type.
Acoustic power level in accordance with CE (DIN 45635-3) 1m: 83 dB (A), depending on type

1.8 Symbols Used

⚠ Notes on Safety	Information for operating personnel for protection against hazards
Attention	Information concerning safe and proper operation
☺ Tip	Note on useful information concerning operation of the device

1.9 Special Hazard Areas

Hazard areas are, in particular:

⚠ • Replacing and disposing of contaminated filters

For tasks in this area, pay particular attention to the special safety regulations in the section "Hazards When Replacing Filters".

1.10 Changes to Conditions of Use:

⚠ The manufacturer must be consulted in all cases where changes to conditions of use occur !
In the event of improper extraction, there is a risk of damage to the health of the user.

88

1.5 Interfaces, Connections

- Interfaces: data lines, external control signals.
- position and type of the various connections

1. The connectors are under the operating display elements.

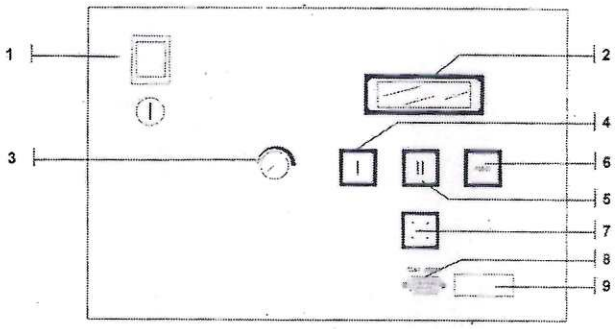
- With Automatic Remote Switching (MKFFSAUT) Harting Plug
In combination with machine controls, the filtering device can be switched on and off via the control impulse of an SPS or other control. Contact Pin 1 and Pin 2 of the harting plug.
Potentialfree contact (4,5,6) for status of turbine and filter.

- With 24 V Pegel DC potentialfree contact (MKF DI24)
Sub-D plug with 3 m cable
Remote control with 24 V DC voltage (contact 9,4) Potentialfree contact (1,8) for status of turbine and filter.

- Potential-Free Output SPC – (MKF DI)
Harting plug: potentialfree contact (1,2,3) for status of turbine and filter.

- SPC connection (MKF DISF)
15-pin Sub-D female connector.
Remote start Motor1-Motor2 by closing pins 1-9 or 2-9.
Switch over to external speed control via Pin 7 and 15.
Control voltage (0 – max 10 VDC) for speed via Pin 7 (GND) and 8 (0-10VDC IN)
Floating change-over contact via PIN 3 (IN24V),10 (OK), 11 (fault) for status messages from the turbine and filters.

1.6 Operating and Display Elements



1:	**ON/OFF switch:**	Switches the suction machine on and off
2:	**Display:**	Display operating states and fault messages, operating hours and filter saturation
3:	**Speed control knob:**	Sets the blower speed and therefore the suction power.
4:	**Key 1:**	Switches Blower 1 on/off.
5:	**Key 2:**	Switches Blower 2 on/off.
6:	**Reset key:**	Acknowledges a fault message.
7:	**Buzzer:**	Acoustic alert for key operation and fault messages.
8:	**RS232 interface:**	Helps the manufacturer to configure the unit.
9:	**Spare slot:**	For inserting an additional SPC interface via a 15-pin Sub-D connector

2 Fundamental Safety Information

2.1 Observation of Information in Operating Instructions

- These operating instructions contain all the important information required to operate the filtering device safely and without malfunctions.
- Over and above this, the local rules and regulations regarding prevention of accidents are to be observed, in particular

  – ZH 1/140, Safety regulations for clean air at workplaces on systems

2.2 Obligation of the Operator

The operator is obliged only to allow those persons to work on the system who

- are familiar with the basic regulations regarding work safety and accident prevention and
- have been trained in handling the filtering device.

2.3 Training of Personnel

- Only trained and qualified personnel may work on the machine. This applies to all phases in the machine life-cycle such as transport, installation, putting into service, operation, maintenance, troubleshooting and, in particular, disposal of filters.
- The responsibilities of the personnel are to be clearly defined.
- Personnel in training are only permitted to work at the filtering device under the supervision of an experienced person.

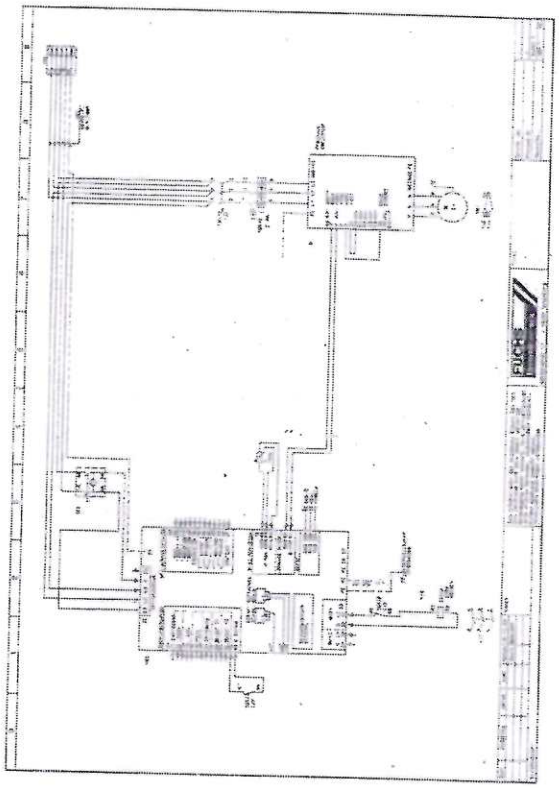
2.4 Obligation of Personnel

All persons charged with work on the machine are obliged, before working on the filtering device for the first time:

- to read the operating instructions, especially the chapter on safety and the warning notes, and to confirm this with a signature.

2.5 Personal Protection Equipment

- The operator must provide the required personal protection equipment for the disposal of filters, in particular
  - protective gloves: (disposable polythene gloves)
  - breathing mask: fine dust mask, tested at protection level 3



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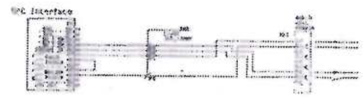


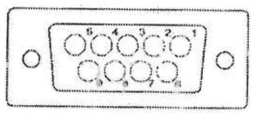
Switching performance DI24

Situation	Contact 1 and 6 open	Contact 1 and 6 closed
Equipment switched off / on standby	X	
Equipment running properly		X
Error Moto Under pressure 1 Error Moto Under pressure 2 Error Overcurrent Error Phases Error Filter 100 % Warning Filter 95% Error Prefilter Error Circulation	X	

1 motor: Motor 1 is started by applying 24 V DC to Pins 4 and 9

2 motors: See motor 1; motor 2 will have a delayed start

Pin 1/6: Voltageless contact assemblies (Imax=1A) to interrogate the equipment



FUCHS

CHILLER UNIT DETAILS FOR BOTH FINAL FINISHING M/C NO. 3 & 4 (83)

TECHNICAL DATA SHEET

Kühlwasser-Rückkühler
Typ: VWK 50/1-Sonder

1. GENERAL DATA

Refrigerant gas:		R407C			
Specifications:					
Nominal ambient air:	°C	37			
Coolant temperature:	°C	10	15	20	
Cooling Capacity:	W	5150	6150	6750	
Min ambient air:	°C	10			
Max ambient air:	°C	37			
Min coolant temperature:	°C	10			
Max coolant temperature:	°C	25			
Evaporator material:		Stainless steel 1.4301			
Temperature control:		electronic, direct			
Temperature display:		digital			
Control voltage:		24V AC			
Main Power supply:		3/PE/50Hz 400V/+-10%			
Total absorbed power:	kW	3.9	4	4	max: 4.2
Full load current:	A	6.9	7	7	max: 7.3
Safety fuse protection:	A	16.00			
Paint:		Ral 7035			
Cabinet structure:		Stainless steel			

2. AIR CONDENSER:

air cooled, axial

Nominal Air Flow:	m³/h	4500.00
Number of fan:	Unit	1
Nom Absorbed power:	kW	0.62
Starting current:	A	1.10

3.Agitator:

Number:	Unit	1
Input per agitator:	kW	0.03
Max. stream-reception:	A	0.14

4. COMPRESSOR:

full hermetic (dome)

Number:	Unit	1			
Technology:		direct			
Total absorbed power:	kW	2.30	2.40	2.40	max: 2.60
Full load current:	A	4.00	4.10	4.10	max: 4.40

5. PUMP:

First PUMP:		
Type:		horizontal centrifugal pump CH 2-50
Number:	Unit	1
Total absorbed power:	kW	0.69
Full load current:	A	1.40
Nominal flow rate:	m^3/h	1.20
Nominal pressure rate:	bar	3.50

6. LIQUID TANK:

PVC/Plastic

Volume:	l	90.00
Outlet / inlet connections:	Inch	IG 3/4
Pipe connection fresh-water:	Inch	IG 3/4

7. WEIGHT AND PHYSICAL SIZE:

Length:	mm	715
Width:	mm	715
Height:	mm	1375
Weight :	kg	180

Table 1-1. Specifications

PARAMETER	SPECIFICATION
GUARANTEED PERFORMANCE	**K-250**
Average output power(1)	250 Watts
M^2 - Transverse mode quality	< 1.3 (K > 0.77)
Power range(1)	10-250 W
Pulse frequency	0-100 kHz
System life time(2)	1 year
TYPICAL PERFORMANCE	
Peak effective power	200-750 W
Optical pulse rise and fall time	< 60 µs
Pulse energy range	10-500 mJ
Pulse period (minimum)	10 µs (100 kHz)
Modulation pulse width range	2-1000 µsec
Output power stability(3)	< ± 8%
Beam waist diameter ($1/e^2$)	6.8 ± 0.5 mm 0.27 ± 0.02 in.
Beam divergence (full angle)	2.1 ± 0.3 mrad
Beam pointing stability(4)	< 200 µrad
Beam ellipticity	< 1.2 : 1
Beam polarization (parallel to baseplate)	Linear > 100 : 1
Wavelength	10.6 ± 0.2 µm
Tube shelf life time	> 1 year
Operating altitude	< 6,600 feet (< 2,000 meters)

The above specifications subject to change without notice.

(1) Guaranteed at 600 µs pulse width at 60% duty cycle with the inlet cooling water at 25°C. Allow a 1%/°C power derating for inlet cooling water to a temperature of 35°C.

(2) See Appendix D for the full system warranty.

(3) Measured as $\pm(P_{max} - P_{min})/2\ P_{max}$ from a cold start at 25°C for the output power range for pulse width ≥2 µs.

(4) Full angle within a ±5°C inlet cooling water temperature range.

(5) See Table 3-1 for electrical input requirements with the optional DC power supply.

(6) DC input voltage to the laser system which consists of the RF amplifier and laser head. Contact you local Coherent representative for approved PC power supply vendor

Table 1-1. Specifications (Continued)

PARAMETER	SPECIFICATION
Relative humidity	< 95% non-condensing at inlet coolant temperature
Tube gas consumption	None
Optional laser head purge	6 STD cubic feet/hour (2.8 liters per minute) Nitrogen 99.95% purity or 99.995% oil free air filtered with particle air filter to < 1 micron and dew point 10°C (18°F) lower than inlet cooling water temperature.
ENVIRONMENTAL	
Cooling water flow rate (minimum)	1.5 gpm (5.7 liters/minute)
Inlet cooling water temperature range	10-35°C (50°F-95°F)
Heat load	5 kW
Inlet cooling water pressure	30-75 psi (210-520 kPa)
Cooling water hardness (equivalent to $CaCO_3$)	< 250 mg/liter
Ambient temperature (operational)	5°C-40°C (41°F-104°F)
ELECTRICAL REQUIREMENTS(5)	
DC input voltage(6)	48 VDC ±1%
Maximum RMS current	100 Amps
WEIGHT	
Laser head	62 pounds (28 kg)
RF amplifier	40 pounds (18.0 kg)

The above specifications subject to change without notice.

(1) Guaranteed at 600 µs pulse width at 60% duty cycle with the inlet cooling water at 25°C. Allow a 1%/°C power derating for inlet cooling water to a temperature of 35°C.

(2) See Appendix D for the full system warranty.

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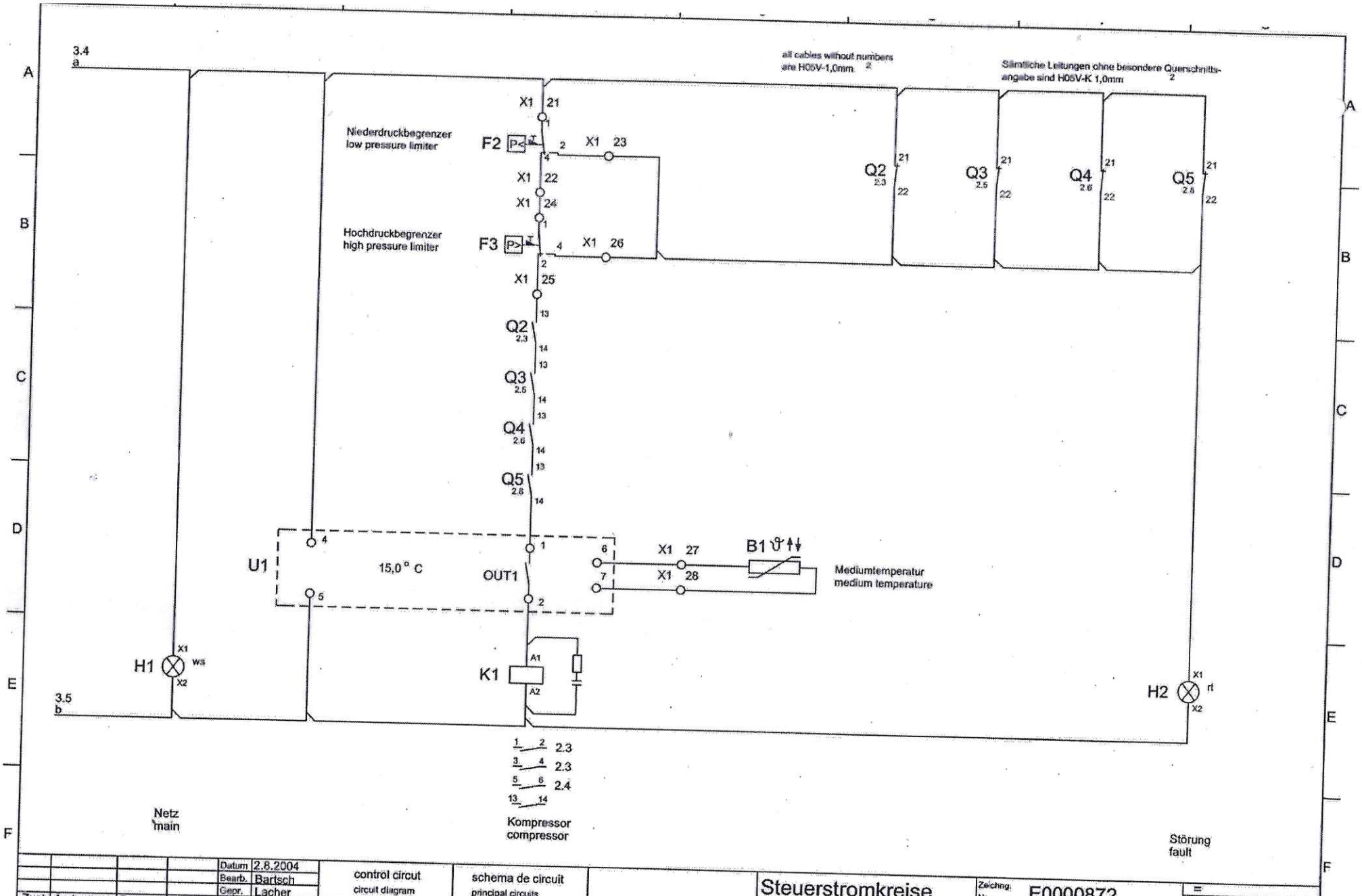
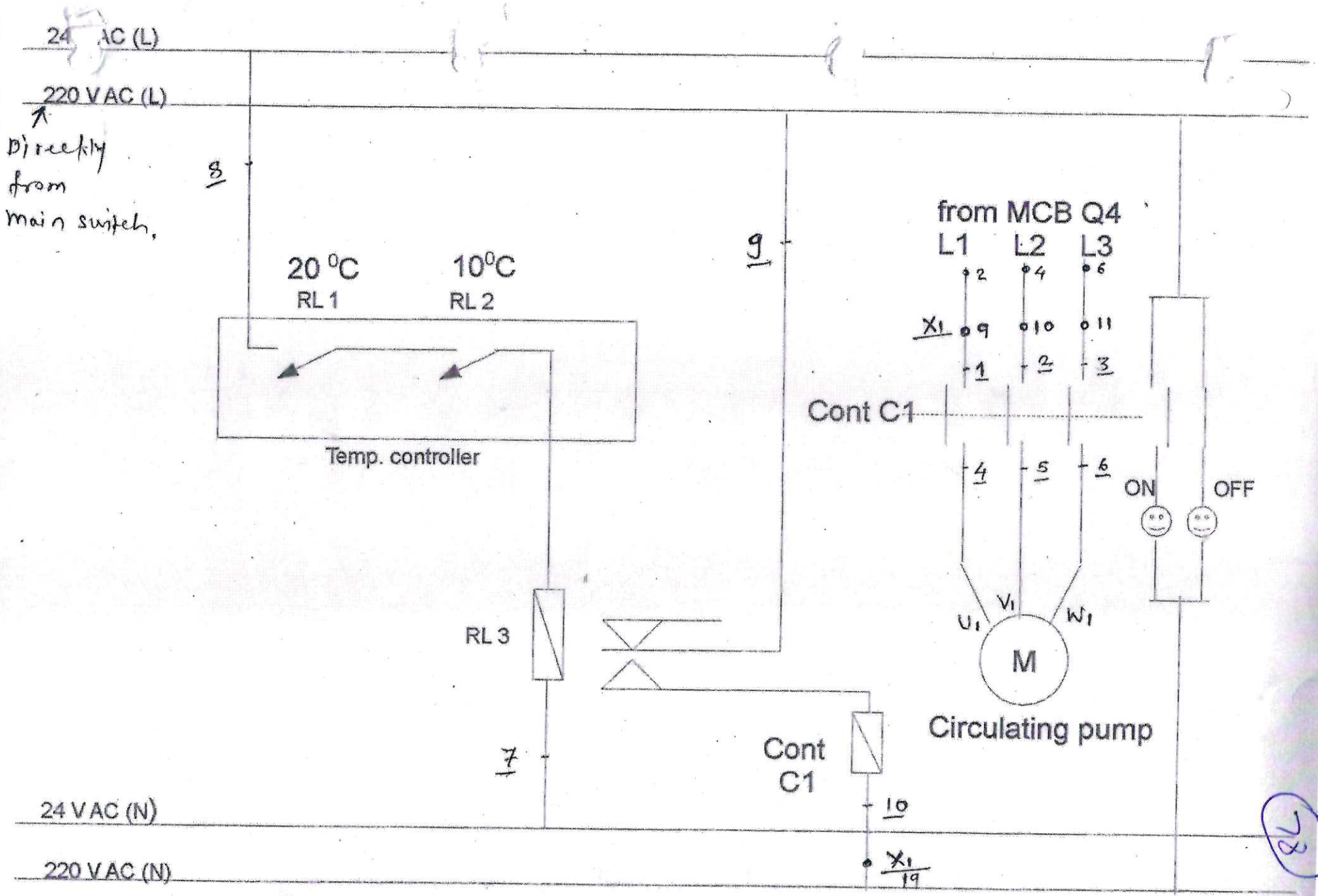
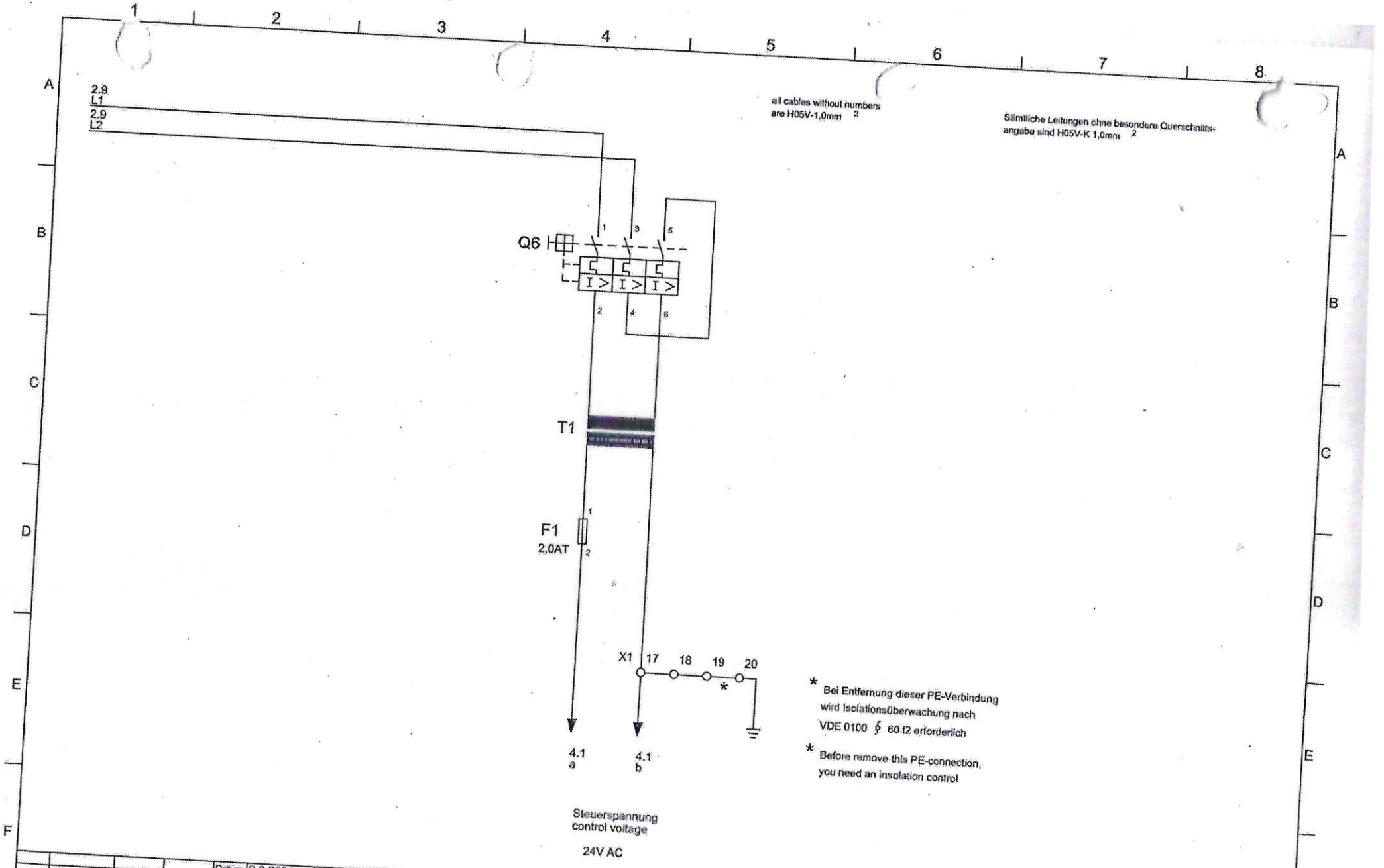

all cables without numbers are H05V-1,0mm 2
Sämtliche Leitungen ohne besondere Querschnittsangabe sind H05V-K 1,0mm 2
3.4
a
3.5
b
Niederdruckbegrenzer
low pressure limiter
F2
Hochdruckbegrenzer
high pressure limiter
F3
X1 21
X1 22
X1 23
X1 24
X1 25
X1 26
X1 27
X1 28
Q2 2.3
Q3 2.5
Q4 2.6
Q5 2.6
U1
15,0 ° C
OUT1
B1
Mediumtemperatur
medium temperature
H1
ws
H2
rt
K1
A1
A2
1 2 2.3
3 4 2.3
5 6 2.4
13 14
Netz
main
Kompressor
compressor
Störung
fault
Datum 2.8.2004
Bearb. Bartsch
Gepr. Lacher
Norm
control circuit
circuit diagram
schema de circuit
principal circuits
Ursp.
Ers.
Ers. d.
Steuerstromkreise
Stromlaufplan
Zeichng. Nr. E0000872
Typ VWK 50/1-S
Blatt 4
Zust. Änderung Datum Name

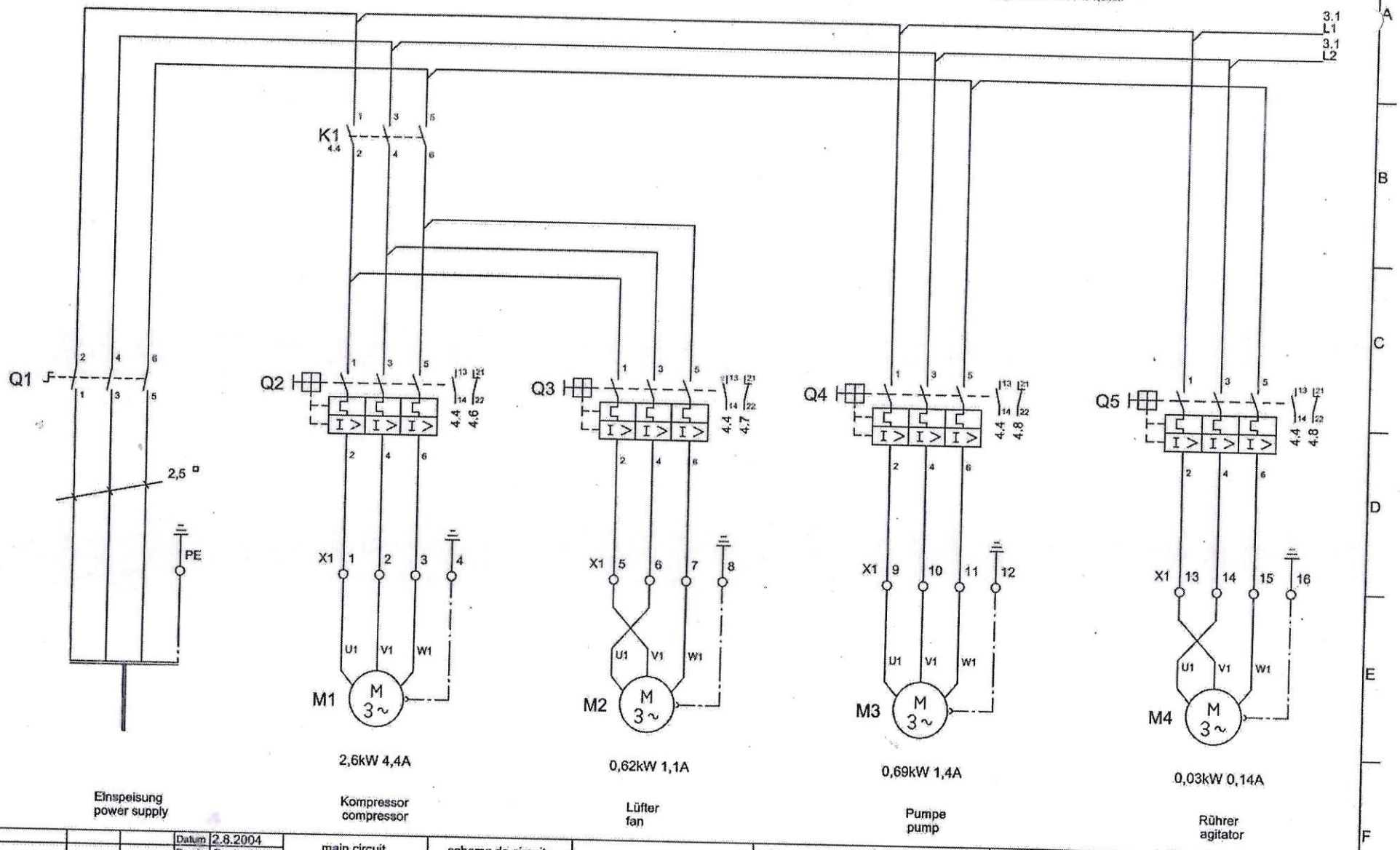


Temp. controller for circulating pu
Modified on 01/07/2009.


2.9
L1
2.9
L2
all cables without numbers
are H05V-1,0mm 2
Sämtliche Leitungen ohne besondere Querschnitts-
angabe sind H05V-K 1,0mm 2
Q6
I >
I >
I >
T1
F1
2,0AT
X1
17
18
19
20
*
4.1
a
4.1
b
* Bei Entfernung dieser PE-Verbindung
wird Isolationsüberwachung nach
VDE 0100 § 60 f2 erforderlich
* Before remove this PE-connection,
you need an insolation control
Steuerspannung
control voltage
24V AC
Datum 2.8.2004
Bearb. Bartsch
Gepr. Lacher
Norm
Zust. Änderung Datum Name
control voltage
circuit diagram
schema de circuit
principal circuits
Urspr.
Ers. f.
Ers. d.
Steuerspannung
Stromlaufplan
Zeichng Nr. E0000872
Typ VWK 50/1-S
Blatt 3
von 4 Blatt

all cables without numbers are H07V-1,5mm²

Sämtliche Leitungen ohne besondere Querschnittsangabe sind H05V-K 1,5mm²



				Datum	2.8.2004	main circuit	schema de circuits		Hauptstromkreise	Zeichng. Nr. E0000872
				Bearb.	Bartsch	circuit diagram	principal circuits		Stromlaufplan	Typ VWK 50/1-S
Zust.	Änderung	Datum	Name	Gepr.	Lacher					Blatt 2 von 4 Blatt
				Norm		Ursp.	Ers. f.	Ers. d.		

Elektrodokumentation
Electrical documentation

Anschlussdaten
Technical data

Maschinentyp / Type : VWK 50/1-S

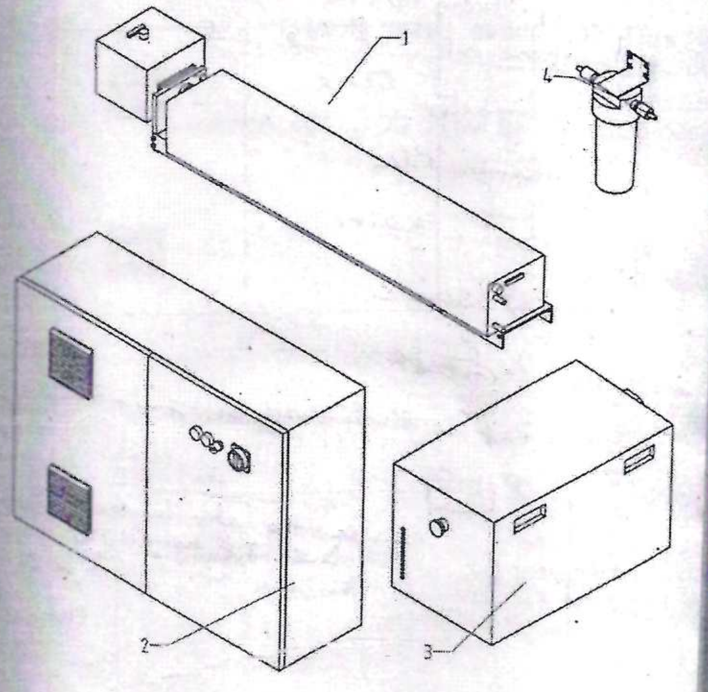
Anschlussspannung Voltage	:	400 V +-10%
Frequenz frequency	:	50 Hz
Steuerspannung 1 control voltage 1	:	24 V AC
Steuerspannung 2 control voltage 2	:	---
Anschlussleistung Nominal Capacity	:	4,2 KW
Max. Betriebsstrom Operating Current	:	7,3 A
Max. Vorsicherung Backup Fuse	:	16 A

Zust.	Änderung	Datum	Name							
				Datum	2.8.2004				Anschlußdaten	Zeichng. Nr. E0000872
				Bearb.	Bartsch				Stromlaufplan	Typ VWK 50/1-S
				Gepr.	Lacher					Blatt 1 von 4 Blatt
				Norm		Ursp.	Ers. f.	Ers. d.		

LASER HEAD INTERCONNECTION FOR
FINAL FINISHING M/C No. 3

(74)

2

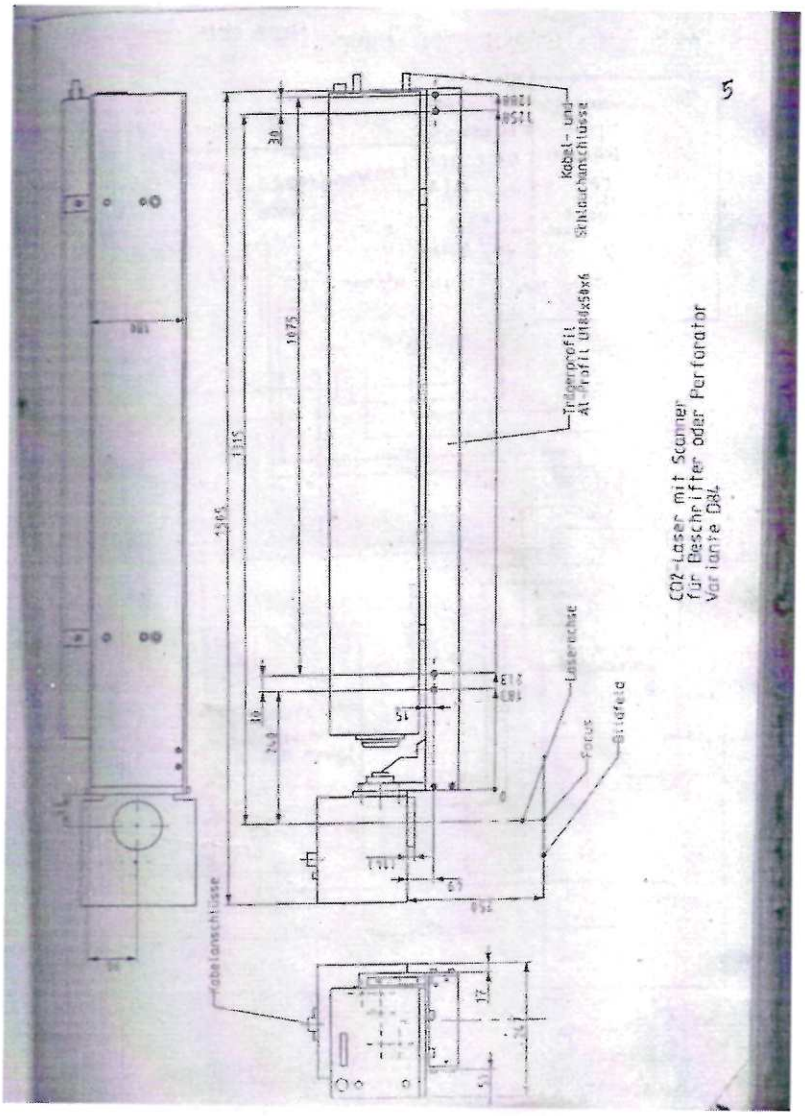


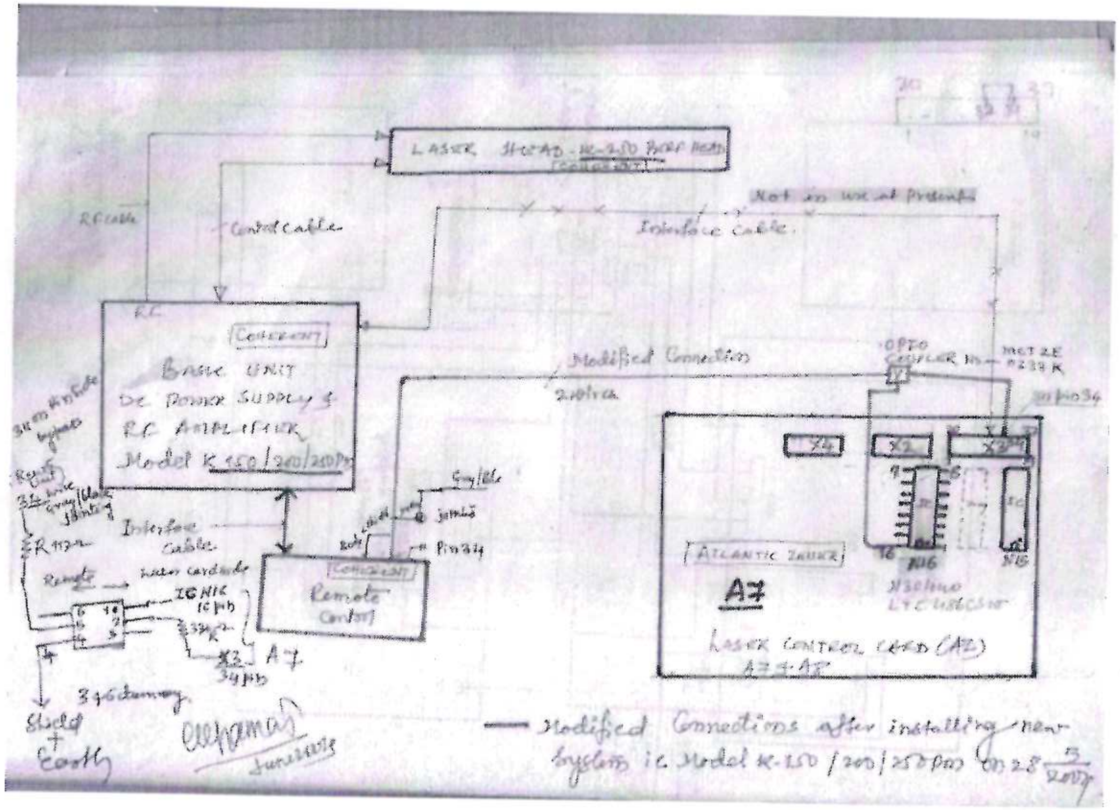
Komponenten Paßperforator

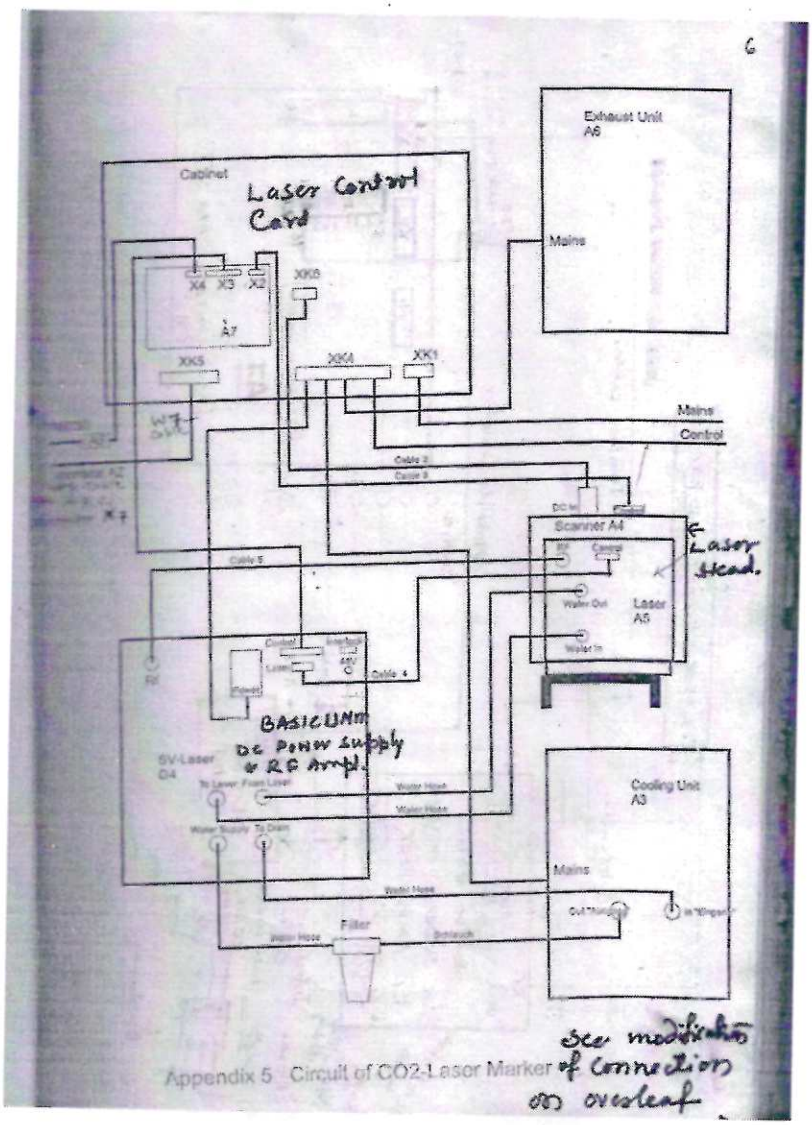
1 - Laserarm mit Scanner
2 - Schaltschrank
3 - Stromversorgung D84
4 - Filter für Kühlwasser

hierzu Zubehör:

- Kühlgerät LWH5 (Schwämmle)
- Absauganlage INR21 (Fuchs)
- Service-Kit
- Kabelsatz
- PVC-Schlauch mit Zubehör.


Kabel- und
Schlauchanschlüsse
Trägerprofil
Al-Profil U160x58x6
Laserachse
Fokus
Bildfeld
Kabelanschlüsse
CO2-Laser mit Scanner
für Beschrifter oder Perforator
Variante BAL


LASER HEAD K-250
COHERENT
RF cable
Control cable
Interface cable
Not in use at present
RF
COHERENT
Base UNIT
DC Power Supply &
RF AMPLIFIER
Model K-150/200/250
Modified Connection
OPTO COUPLER
Interface Cable
COHERENT
Remote Control
Pin 34
A7
X3
X4
X2
ATLANTIC LASER
A7
LASER CONTROL CARD (A7)
— Modified Connections after installing new systems i.e. Model K-150/200/250

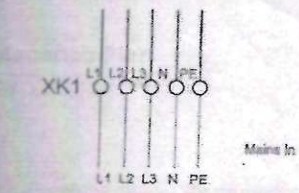


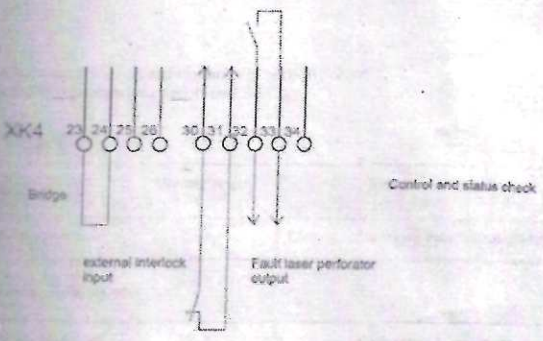
Appendix 5 Circuit of CO2-Laser Marker

A6 – Laser Exhaust Motor (original) Name plate details :-

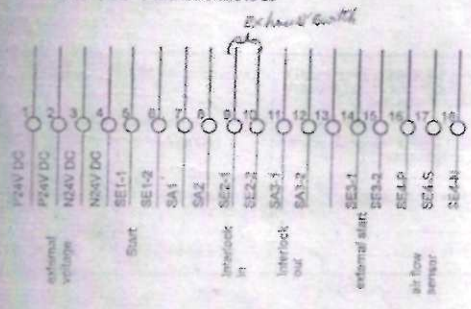
Make – Elektror
Typ – HDN 175 T
Nr – 17/ 22244
1.4 kW , 2720 rpm
IP – 54 , Δ/λ — 230/400V
cosϕ — 0.83
I — 5.70/ 3.30A
5.40 kPa 11.5 m^3/min.

Interface "Kugler"





Interface "Atlantic Zeiser"

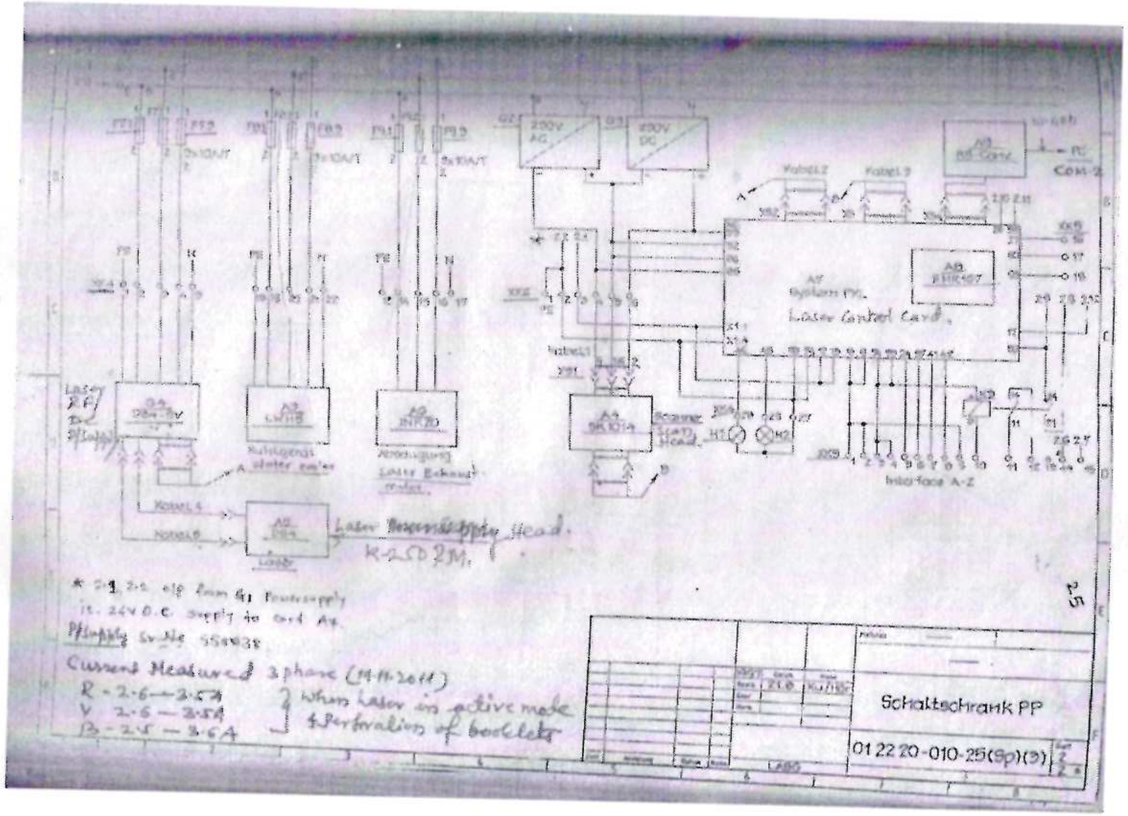


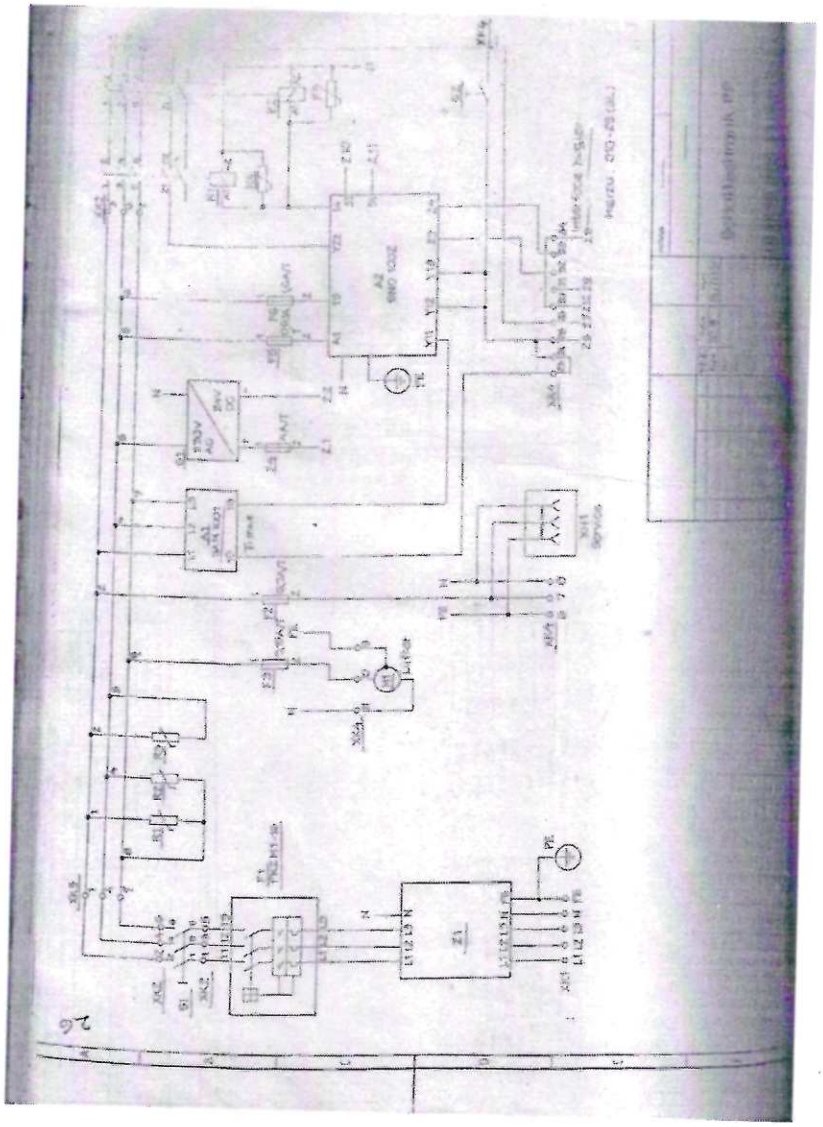
A6 — Laser Exhaust motor. (original) Name plate details

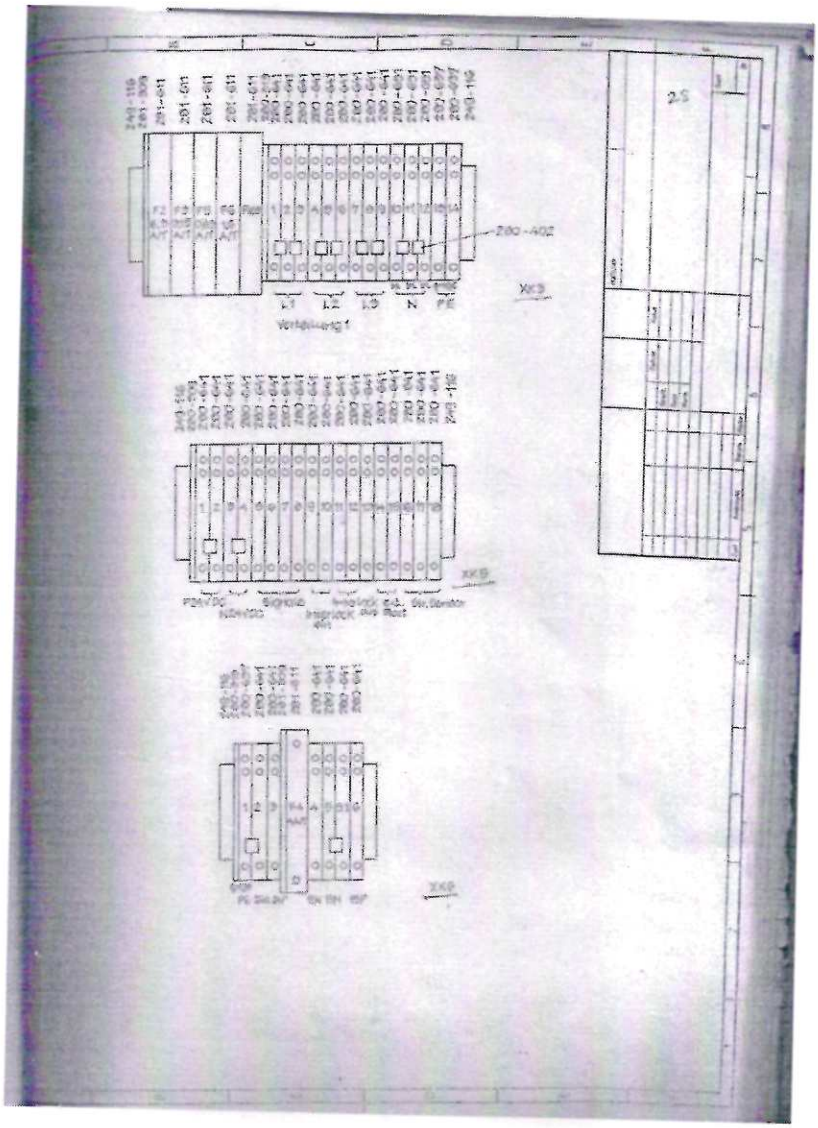
Make - Elecktrol
Typ - HDN 175T
Nr. — 97/22244
1.40 kW , 2720 rpm
IP — 54 , Δ/λ — 230/400V
cosφ — 0.83 ,
I — 5.70/ 3.30A
5.00 kPa 11.5 m³/min.

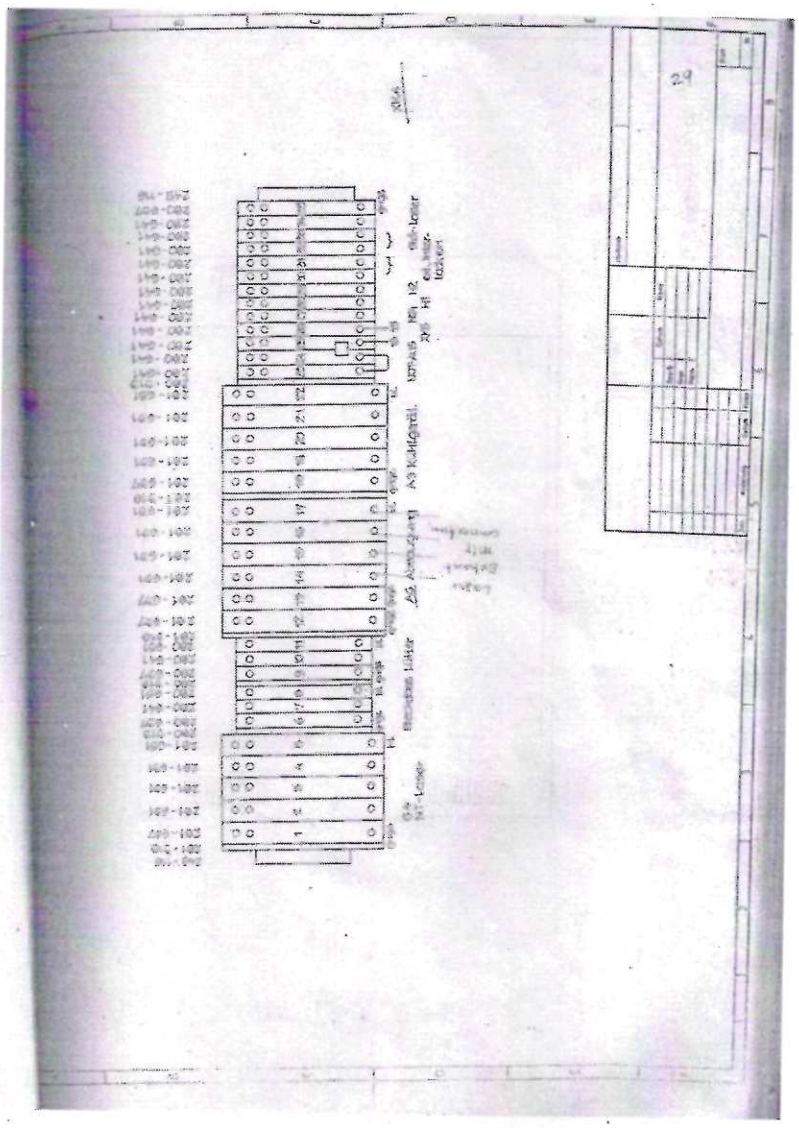
New Laser Exhaust motor adopted from local market

kW — 1.5/2.0 Frame NO 90S0
A — 3.2 λ IP — 55
Rpm — 2830 Make — Crompton Greaves.

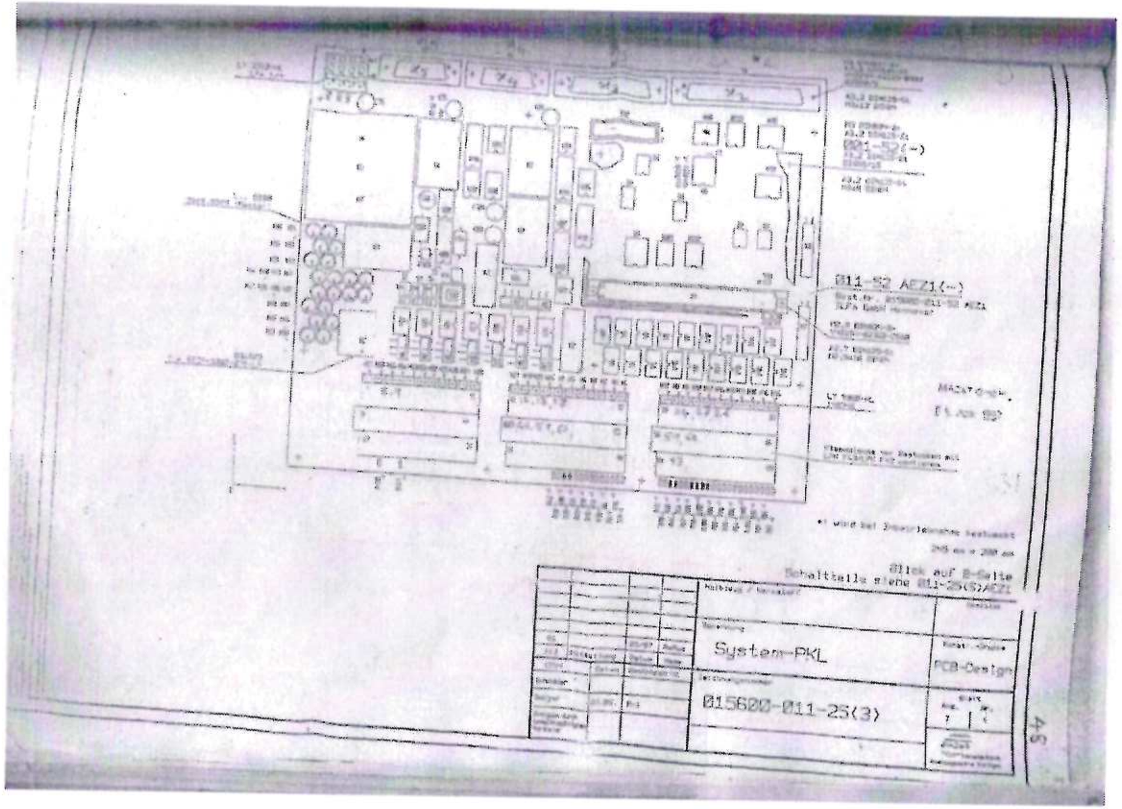

200V AC
200V DC
Laser Control Card.
Scanner Scan Head
Laser Exhaust motor
Interface A-Z
K-250 2M
Current Measured 3 phase (19-11-2011)
R - 2.6 — 3.5A
Y 2.5 — 3.5A
B - 2.5 — 3.6A
When Laser in active mode & Perforation of booklets
25
Schaltschrank PP
01 22 20-010-25(Sp)(3)



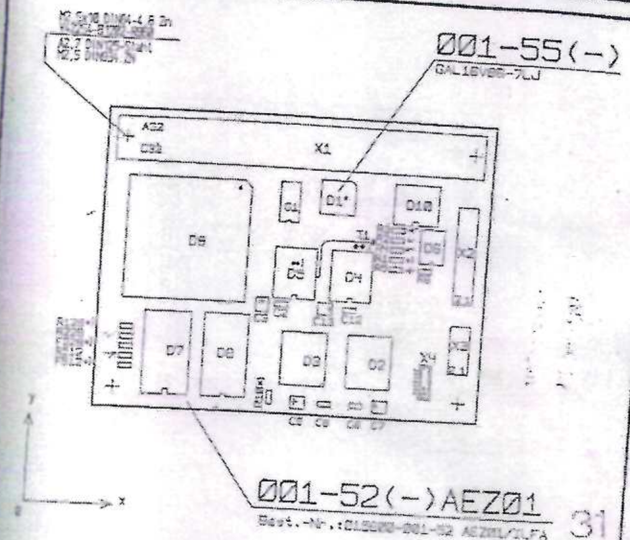




63



011-S2 AEZ1(-)
001-S2(-)
Blick auf B-Seite
Schaltteile siehe 011-25(S)AEZ1
System-PKL
PCB-Design
015600-011-25(3)
45



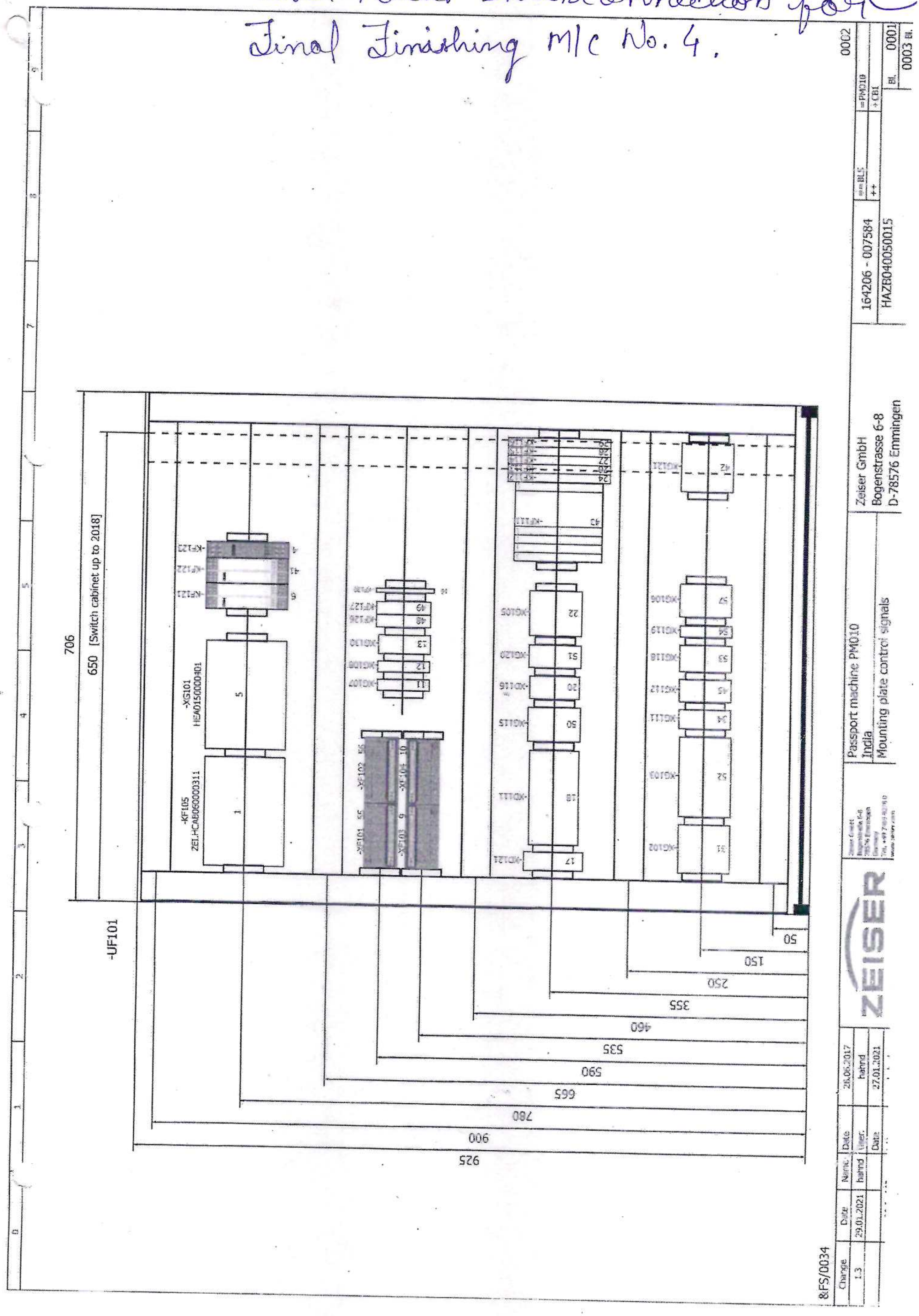
31

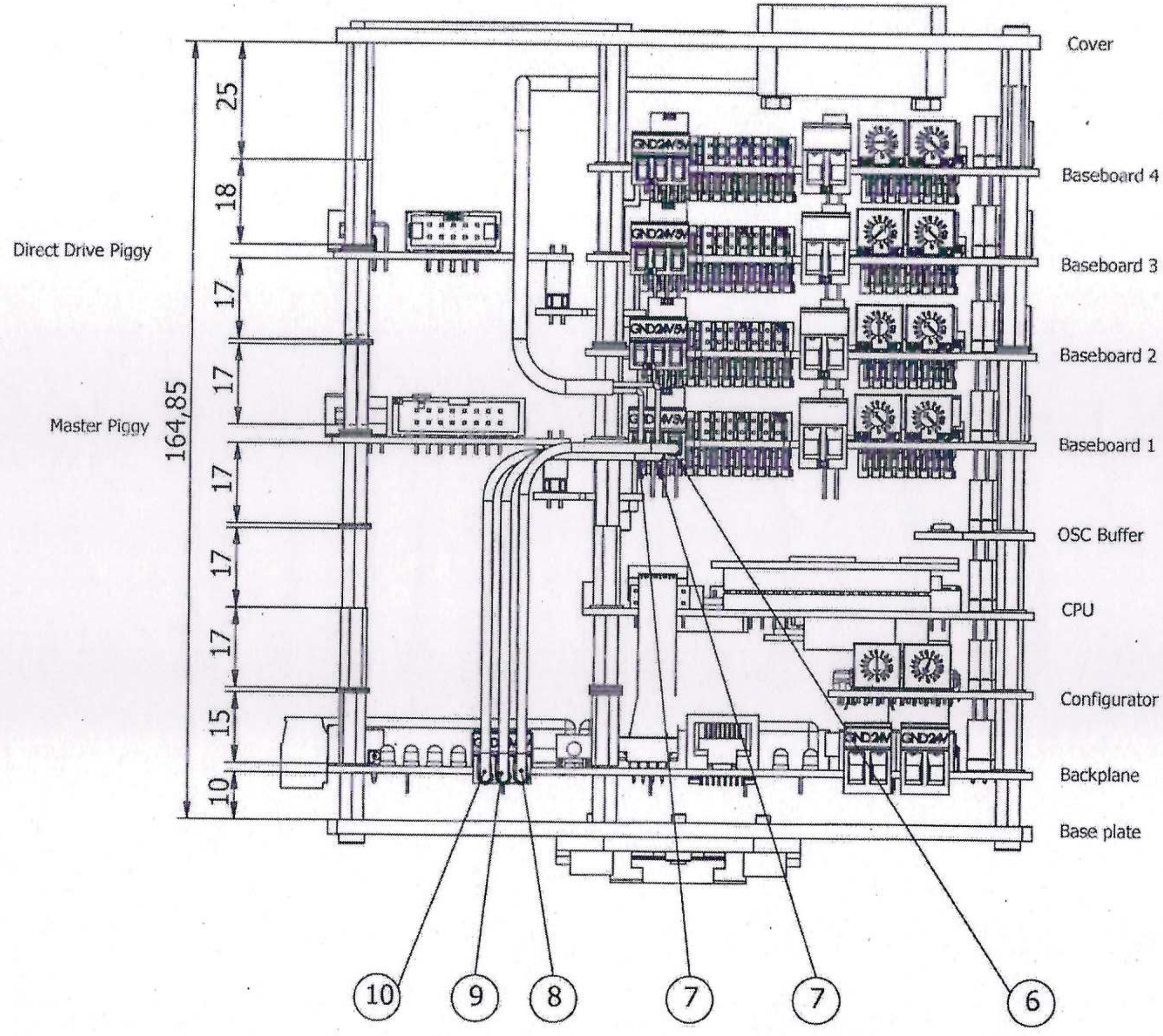
SKZ	Bausteintyp	Sachnummer	Filename	PS	Bemerkung
D1	GAL 16V8B-7LJ	015600-001-55(-)	a00155.jed		programmiert bestücken

*) R1,R128,F228,FS12 nicht bestückt
**) D5(5) und I1 mit Draht verbinden
Blick auf B Seite
Schaltteile siehe 001-25 (S)

	6/97	Pue	Halbzeug / Werkstoff		Maßstab
08/LP	8/96	ThoM			1 : 1
07/08	1/96	ThoM	Benennung		
Serie 4M	11/95	Bo			
Serie		Prl	EMR 167		Konstr.-Gruppe
Mitteilung	Datum	Name			
Datum	Name		Zeichnungsnummer		Blatt
28.08.	ThoM		015600-001-25(4)		Anz. 2 Nr. 1
28.08.	ThoM				

Laser Head Interconnection for (6)
Final Finishing M/C No. 4.

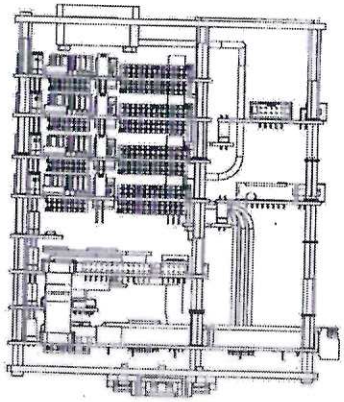


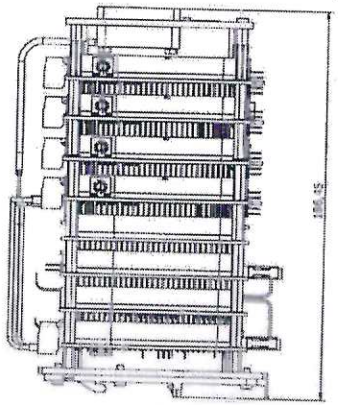


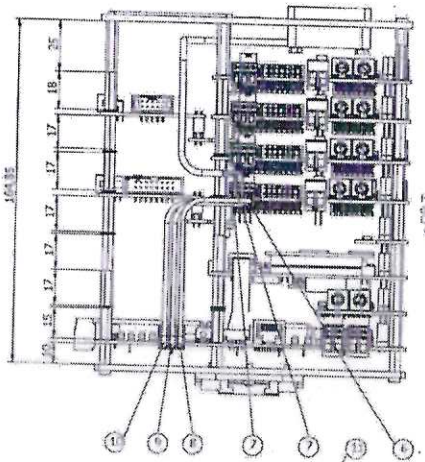
0001

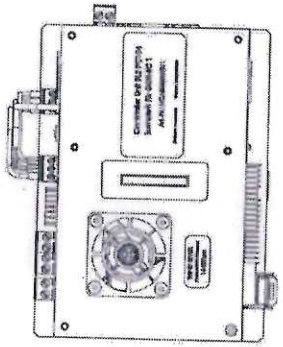
Change	Date	Name	Date	26.06.2017	ZEISER CREATING IDENTITY	Passport machine PM010 India Assembly BLS master cube	Zeiser GmbH Bogenstrasse 6-8 D-7 Emmingen	164206 - 007584 HAZB040050015	==BLS ++	=PM010 +CB1
1.3	29.01.2021	hahnd	User.	hahnd						Bl. 0002
			Date	10.11.2020						0003 Bl.
Hardcopy	29.	21	L.User.	hahnd						

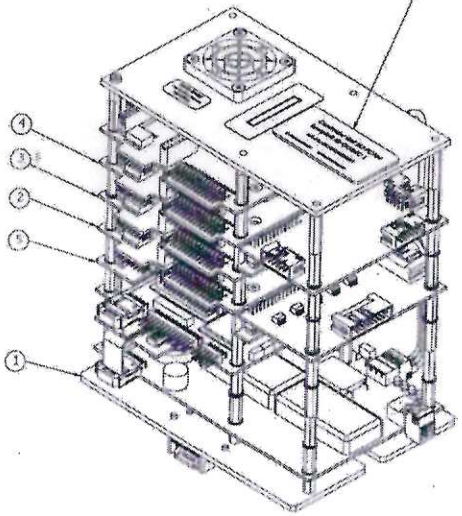
0003











Hinweis:
Tabelle dient zur Information - aktuelle Stückliste siehe ERP-System

POS-NR	BENENNUNG	MENGE
1	[illegible]	1
2	[illegible]	1
3	[illegible]	1
4	[illegible]	1
5	[illegible]	1
6	[illegible]	4
7	[illegible]	2
8	[illegible]	3
9	[illegible]	1
10	[illegible]	1
11	[illegible]	1

BLS PC104 - WUERFEL KOMPLETT FUER GOTHIC 1

0002

Change	Date	Name	Date	26.06.2017
1.3	29.01.2021	hahnd	User.	hahnd
			Date	10.11.2020
Hardcopy	29.01.2021		L.User.	hahnd

ZEISER
CREATING IDENTITY

Zeiser GmbH
Bogenstraße 6-8
78576 Emmingen
Germany
TEL +49 7465 9286-0
www.zeiser.com

Passport machine PM010
India
Assembly BLS master cube

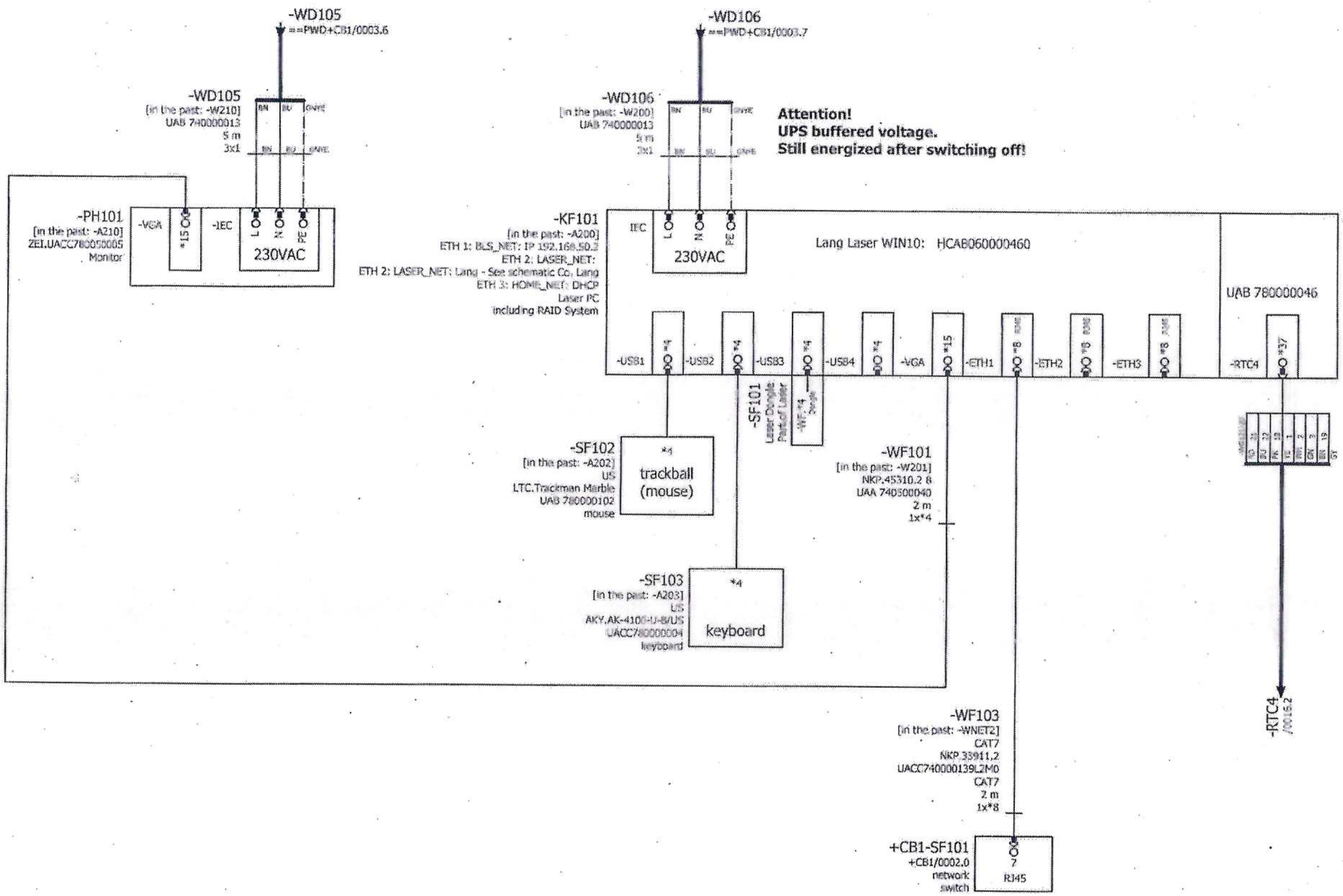
Zeiser GmbH
Bogenstrasse 6-8
D-78576 Emmingen

164206 - 007584
HAZB040050015

+CB2&FS/0001

=BLS	=PM010
++	+CB1

Bl. 0003
0003 Bl.



+CB1&TB/0003

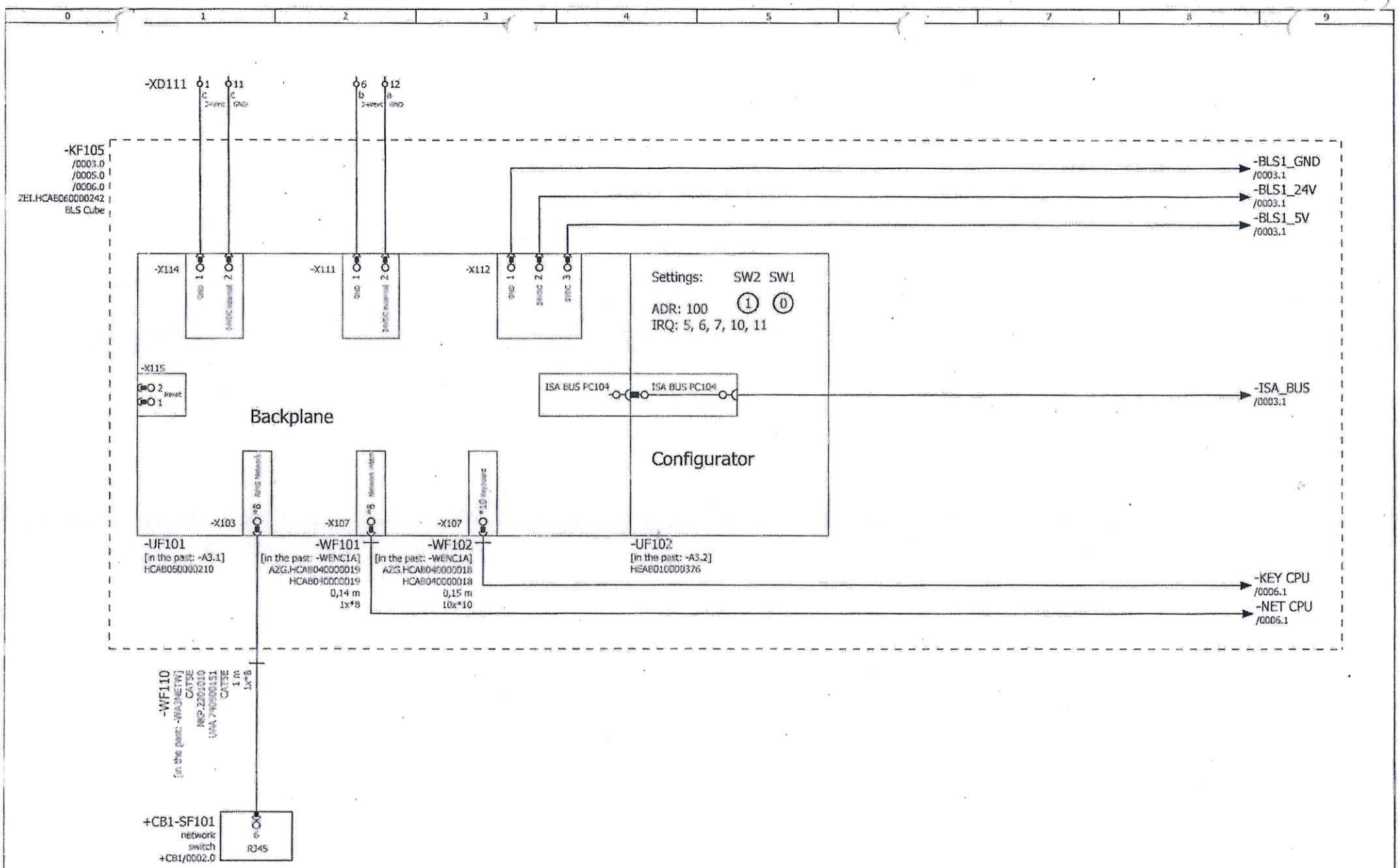
0002

Change	Date	Name	Date	26.06.2017			
1.3	29.01.2021	hahnd	User.	konstruktion01	Passport machine PM010	Zeiser GmbH	164206 - 007584
			Date	26.01.2021	India	Bogenstrasse 6-8	==BLS ++
Hardcopy	29.__21		L.User.	hahnd	Laser PC	D-7_ Emmingen	HAZB040050015

ZEISER CREATING IDENTITY

=PM010
+CB2
Bl. 0001
0025 Bl.

(58)



Change	Date	Name	Date	26.06.2017
1.3	29.01.2021	hahnd	User.	konstruktion01
			Date	11.01.2021

ZEISER

Zeiser GmbH
Bogenstraße 6-8
78576 Emmingen
Germany
Tel. +49 7465 9278-0

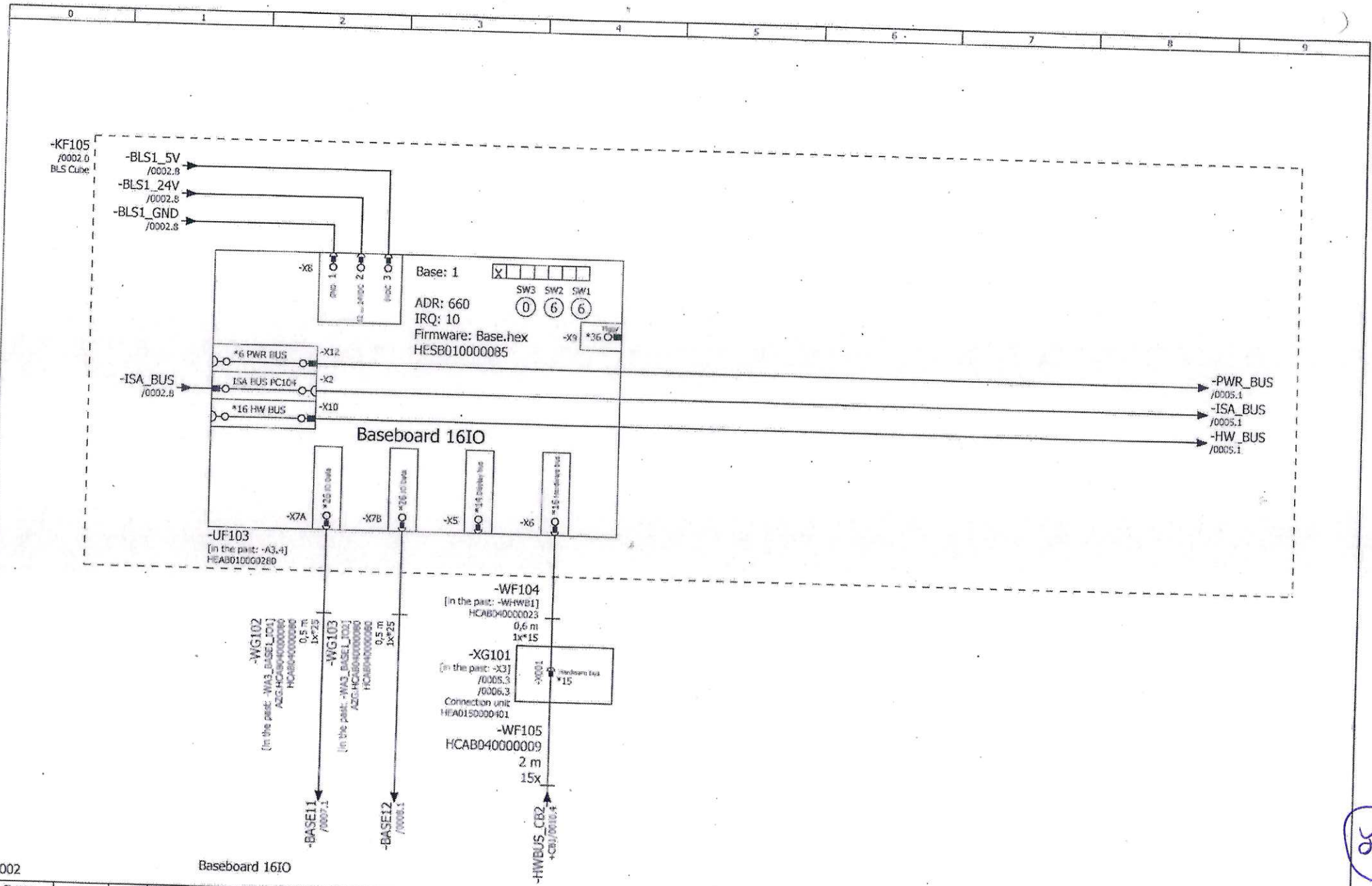
Passport machine PM010
India
BLS Cube

Zeiser GmbH
Bogenstrasse 6-8
D-78576 Emmingen

164206 - 007584
HAZB040050015

= BLS	= PM010
++	+CB2

Bl. 0002
0025 Bl.



0002 Baseboard 16IO

Change	Date	Name	Date	26.06.2017
1.3	29.01.2021	hahnd	User.	konstruktion01
			Date	16.11.2020
Hardcopy	29.[illegible].21		L.User.	hahnd

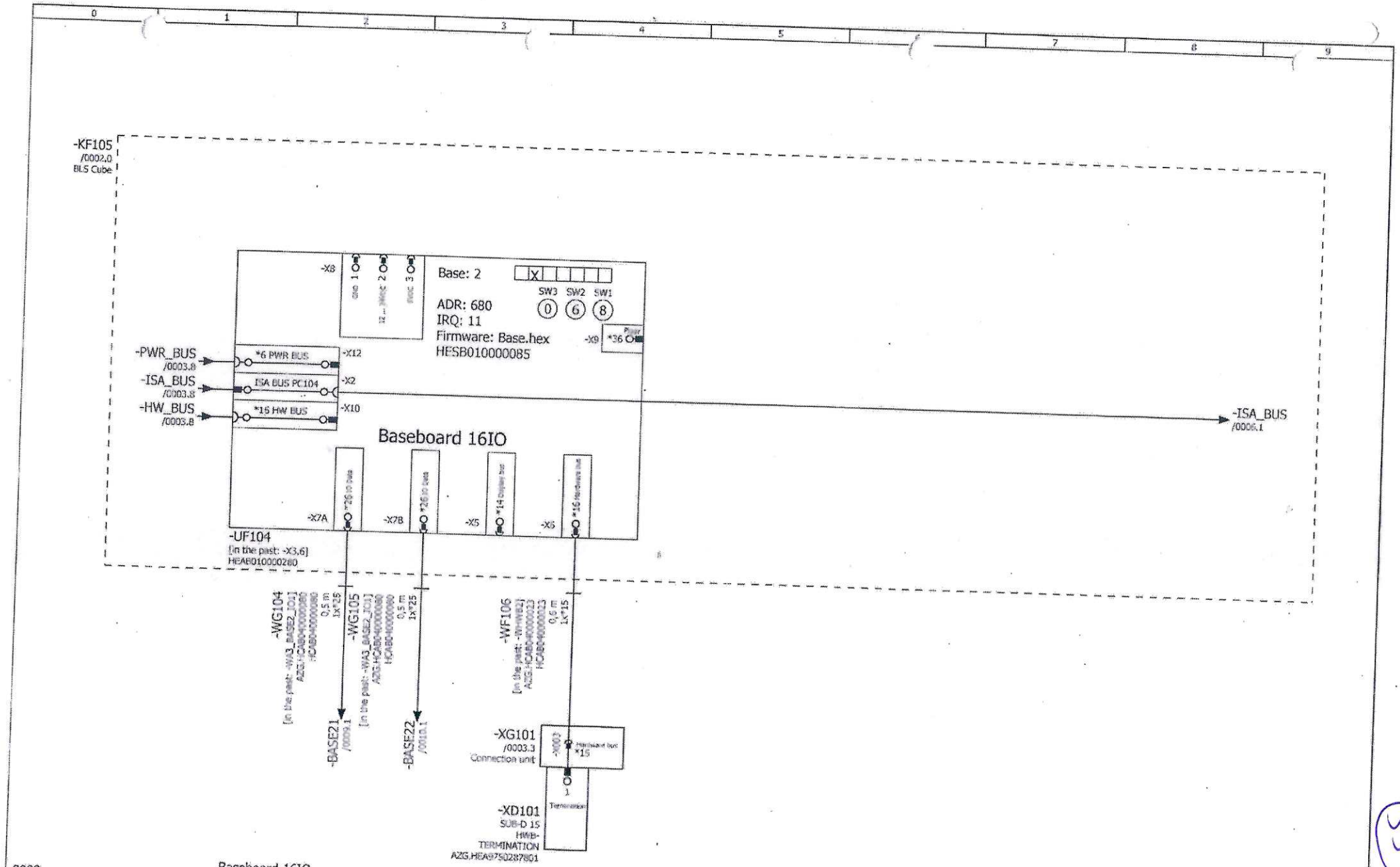
ZEISER CREATING IDENTITY

Zeiser GmbH
Bogenstrasse 6-8
D-7[illegible] Emmingen

Passport machine PM010
India
BLS Cube

164206 - 007584
HAZB040050015

0005
= BLS
= PM010
++
+CB2
Bl. 0003



0003 Baseboard 16IO

Change	Date	Name	Date	26.06.2017
1.3	29.01.2021	hahnd	User.	zimmermann
			Date	11.01.2021
Hardcopy	29.01.2021		LUser.	hahnd

ZEISER
CREATING IDENTITY

Zeiser GmbH
Bogenstrasse 6-8
D-78576 Emmingen
Tel. +49 7465 9278 0

Passport machine PM010
India
BLS Cube

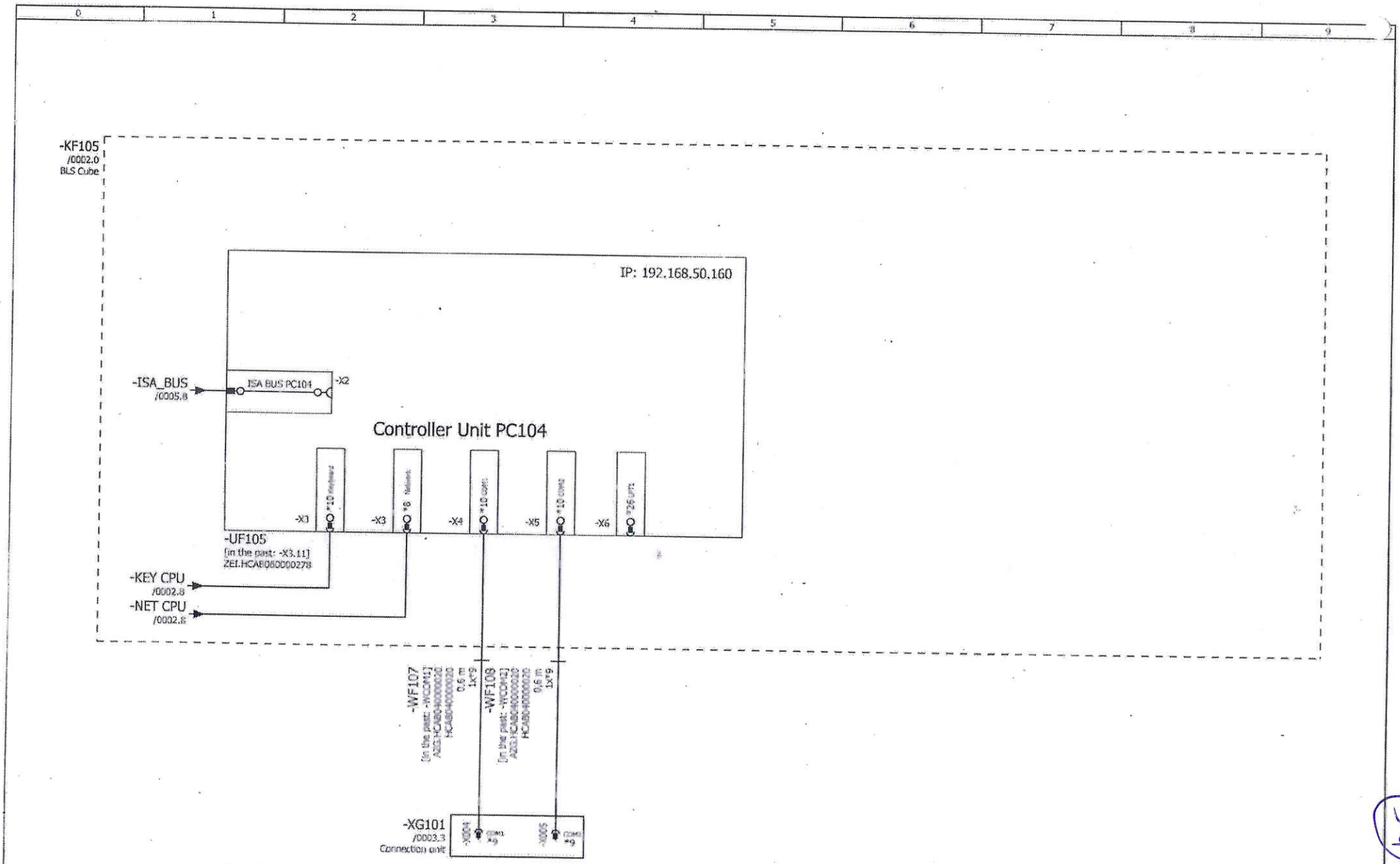
Zeiser GmbH
Bogenstrasse 6-8
D-78576 Emmingen

164206 - 007584
HAZB040050015

0006

BLS	PM010
++	CB2

Bl. 0005
0025 Bl



0005

Controller Unit PC104

0007

Change	Date	Name	Date	26.06.2017
1.3	29.01.2021	hahnd	User.	konstruktion01
			Date	11.01.2021
Hardcopy	29.[illegible]21		L.User.	hahnd

ZEISER
CREATING IDENTITY

Zeiser GmbH
Bogenstrasse 6-8
D-78[illegible] Emmingen

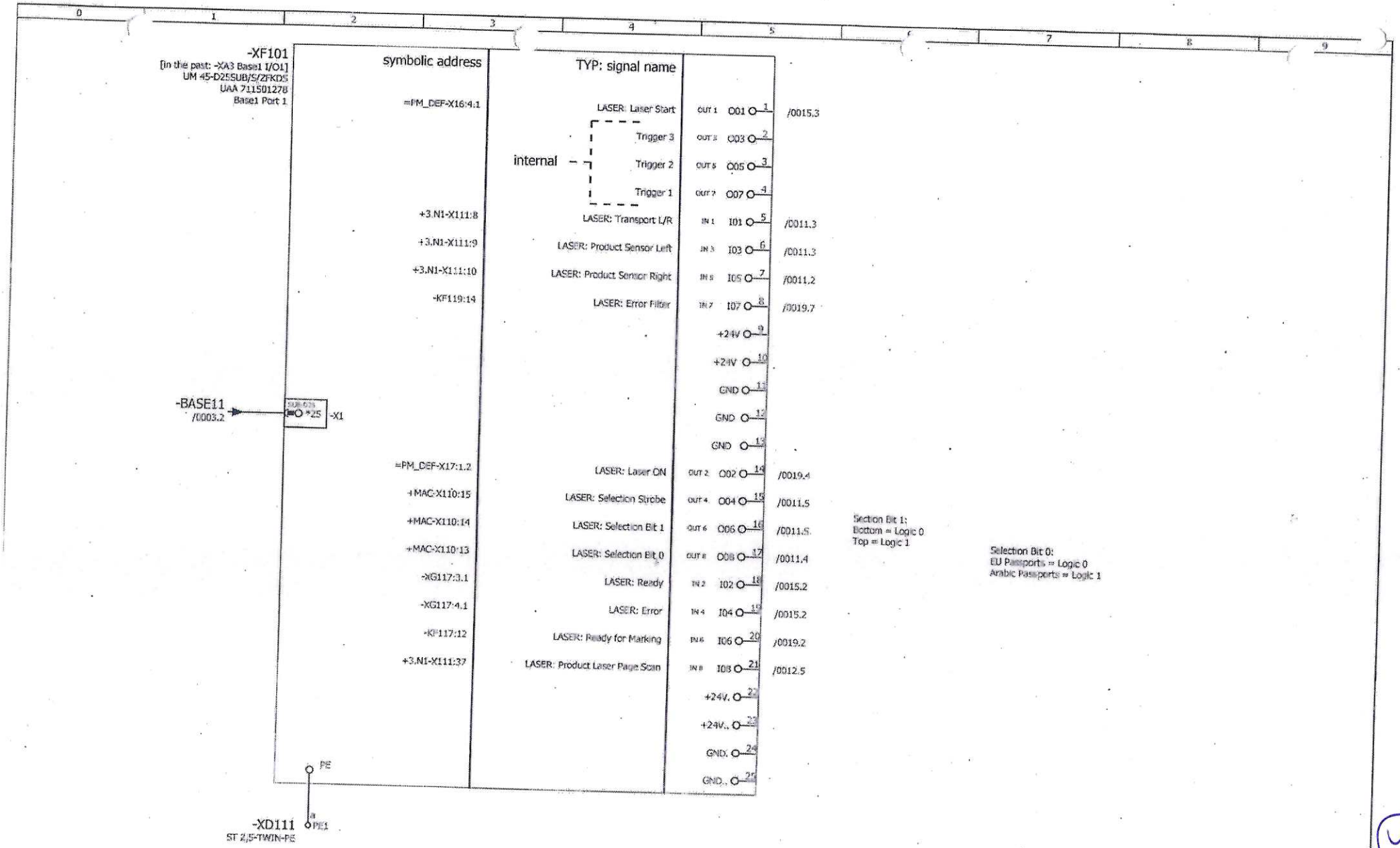
Passport machine PM010
India
BLS Cube

164206 - 007584

HAZB040050015

== BLS
++
= PM010
+ CR2

Bl. 0006
0025 Bl.



0006

IO interface module BLS Baseboard

Change	Date	Name	Date	26.06.2017
L.3	29.01.2021	hahnd	User.	konstruktion01
			Date	13.11.2020
Hardcopy	29.01.2021		L.User.	hahnd

ZEISER
CREATING IDENTITY

Zeiser GmbH
Bogenstraße 6-8
78576 Emmingen
Germany
Tel. +49 7465 9278 0
www.zeiser.com

Passport machine PM010
India
Connection module Base1 Port 1

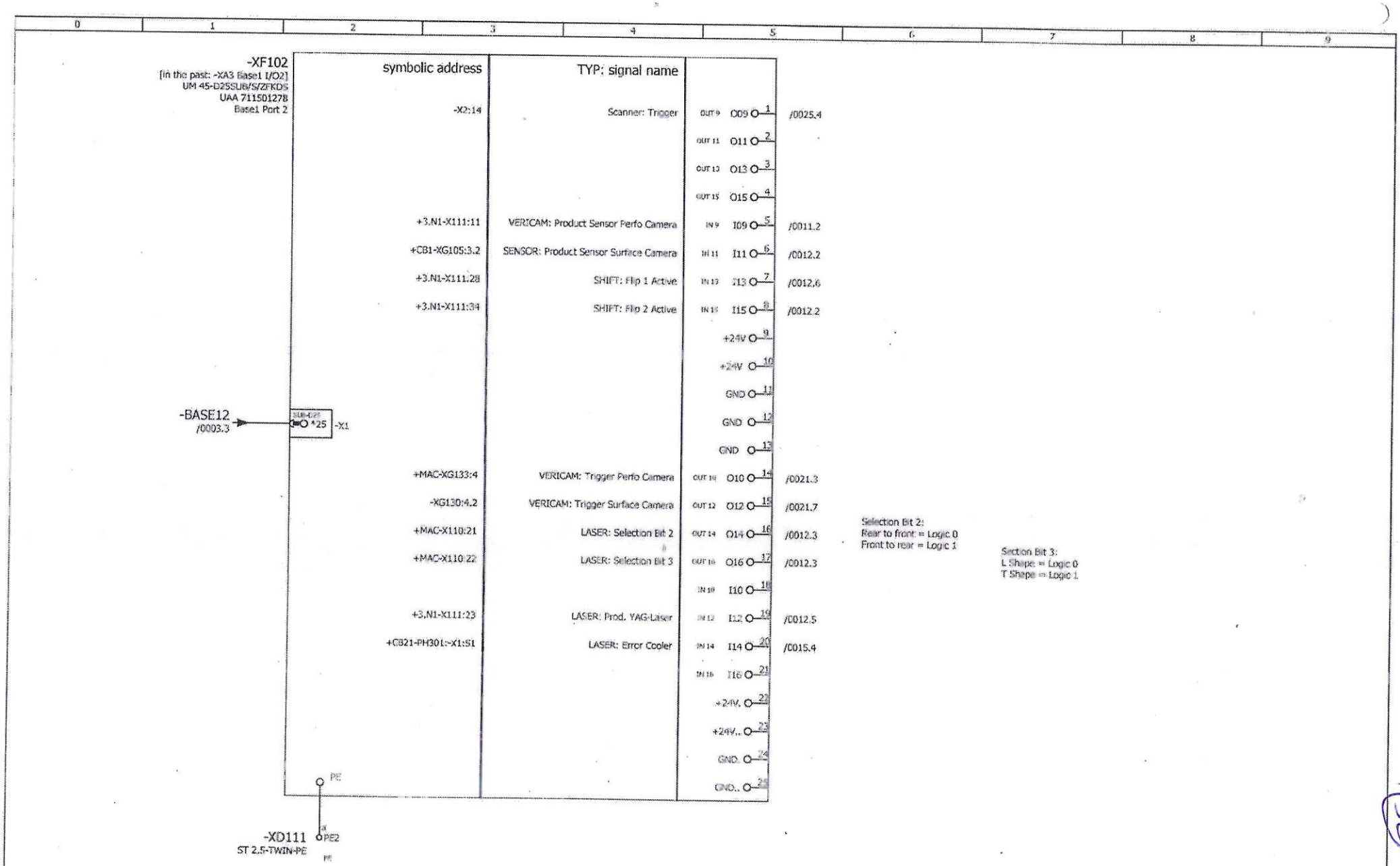
Zeiser GmbH
Bogenstrasse 6-8
D-78576 Emmingen

164206 - 007584
HAZB040050015

0008

=BLS	=PM010
+++	+CB2

Bl. 0007
0025 Bl.



0007

IO interface module BLS Baseboard

0009

Change	Date	Name	Date	26.06.2017
1.3	29.01.2021	hahnd	User.	konstruktion01
			Date	27.01.2021
Hardcopy	29.01.2021		User	hahnd

ZEISER

Zeiser GmbH
Bogenstraße 6-8
D-78[illegible] Emmingen

Passport machine PM010
India

Connection module Base1 Port 2

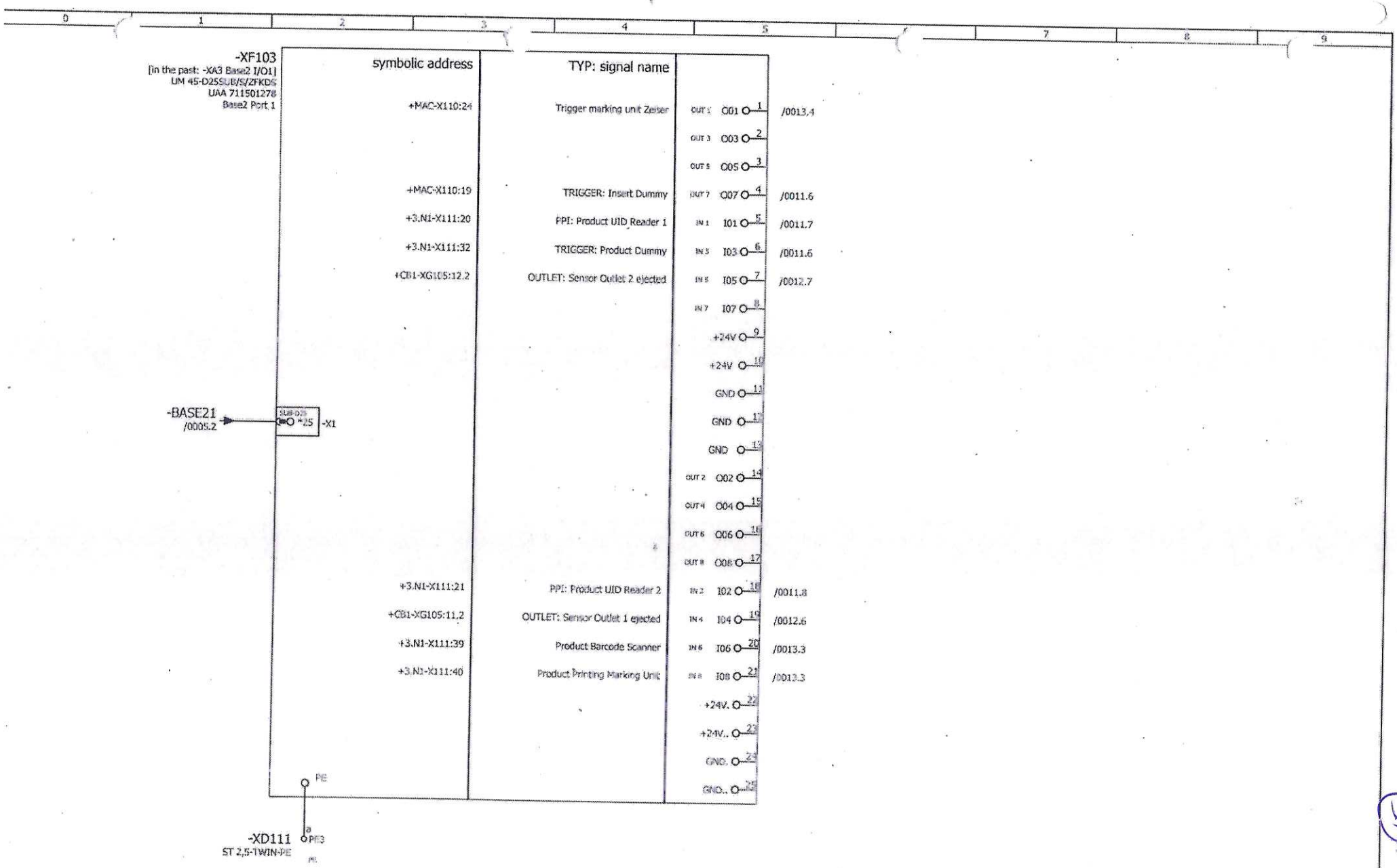
164206 - 007584

HAZB040050015

== BLS
++

= PM010
+CB2

Bl. 0008



0008

IO interface module BLS Baseboard

Change	Date	Name	Date	26.06.2017
1.3	29.01.2021	hahnd	User.	konstruktion01
			Date	11.01.2021

ZEISER

Zeiser GmbH
Bogenstraße 6-8
78576 Emmingen
Germany
Tel. +49 7461 9228 0

Passport machine PM010
India
Connection module Base2 Port 1

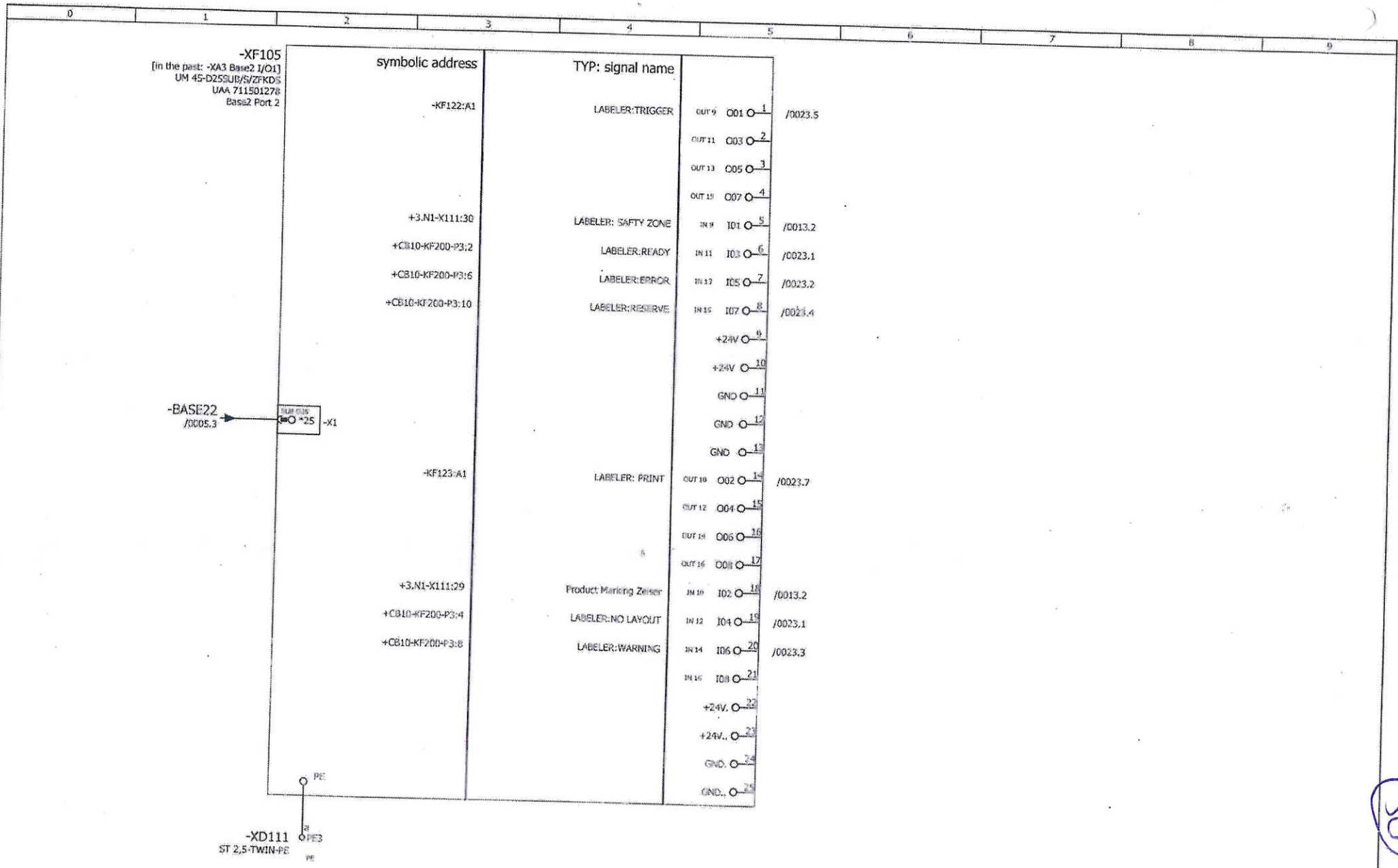
Zeiser GmbH
Bogenstrasse 6-8
D-78576 Emmingen

164206 - 007584
HAZB040050015

BLS ++
PM010
CB2

BL 0009

0010



0009

IO interface module BLS Baseboard

Change	Date	Name	Date	26.06.2017
1.3	29.01.2021	hahnd	User.	zimmermann
			Date	14.01.2021
Hardcopy	29.[illegible]21		L.User.	hahnd

ZEISER
CREATING IDENTITY

Zeiser GmbH
Bogenstraße 6-8
78[illegible] Emmingen
Ger[illegible]
Tel[illegible]
www.[illegible].com

Passport machine PM010
India
Connection module Base2 Port 2

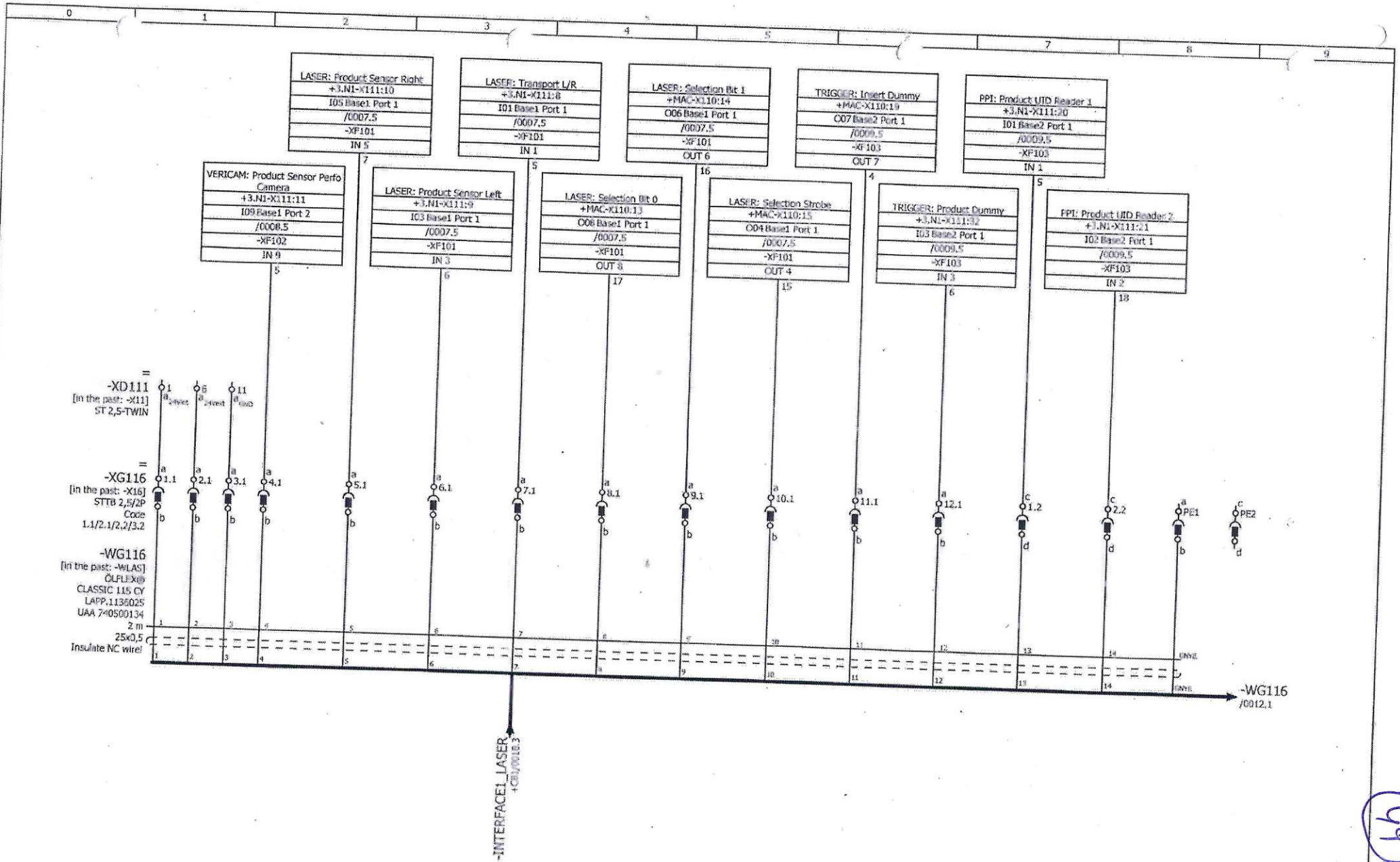
Zeiser GmbH
Bogenstrasse 6-8
D-78[illegible] Emmingen

164206 - 007584
HAZB040050015

++ BLS
++ PM010
++ CB2

0011

Bl. 0010



0010 Interface Laser

Change	Date	Name	Date	26.06.2017
1.3	29.01.2021	hahnd	User.	konstruktion01
			Date	28.01.2021
Hardcopy	29.01.2021		L.User.	hahnd

ZEISER CREATING IDENTITY

Zeiser GmbH Bogenstraße 6-8 78576 Emmingen Germany Tel. +49 7465 9278 0 www.zeiser.com

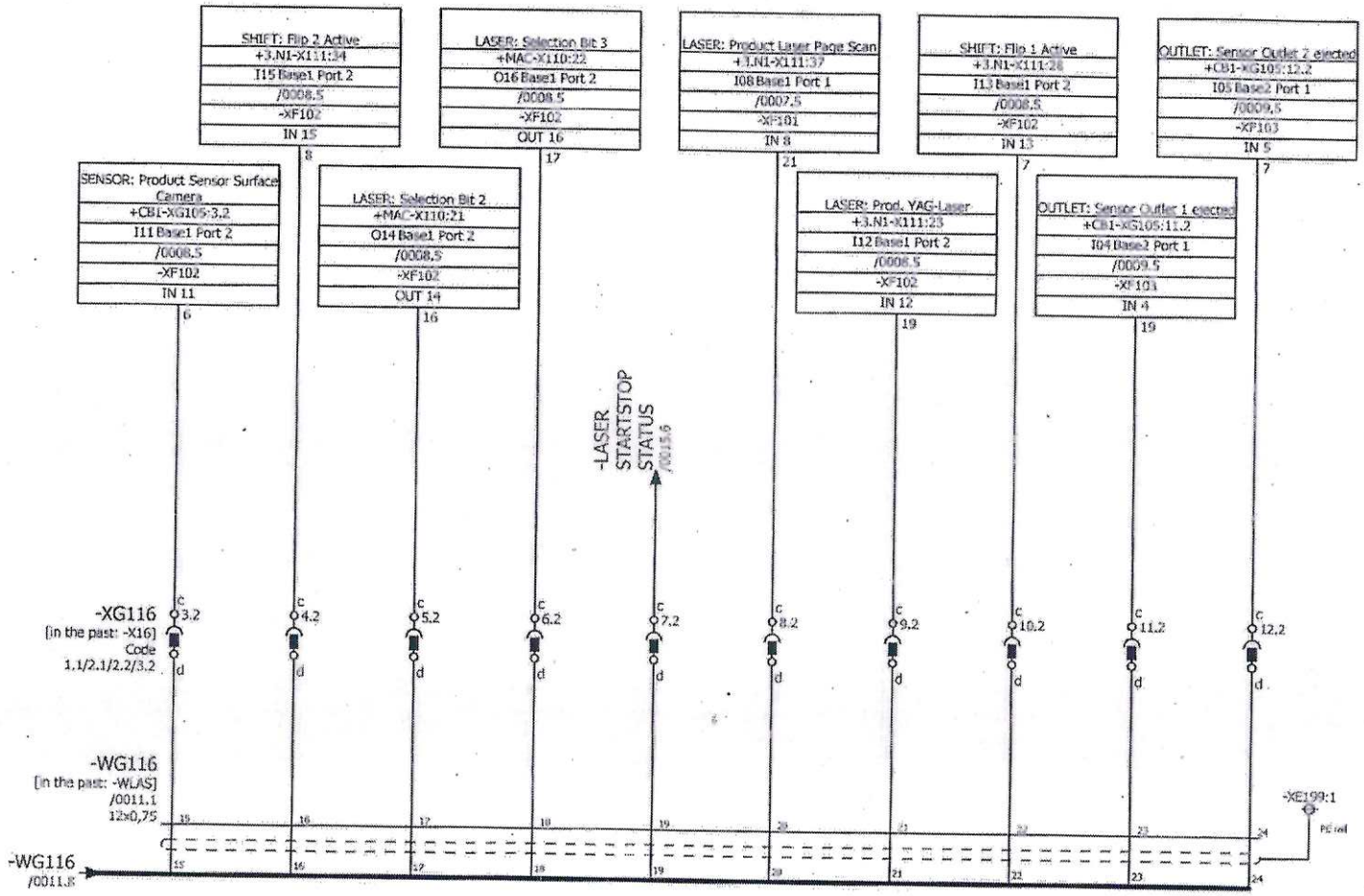
Passport machine PM010
India
Interface Laser

Zeiser GmbH
Bogenstrasse 6-8
D-78576 Emmingen

164206 - 007584
HAZB040050015

==BLS
++
=PM010
+CB2

0012
Bl. 0011
0025 Bl.



0011 Interface Laser

0013

Change	Date	Name	Date	26.06.2017
1.3	29.01.2021	hahnd	User.	konstruktion01
			Date	28.01.2021
Hardcopy	29.[illegible]21		L.User.	hahnd

ZEISER CREATING IDENTITY

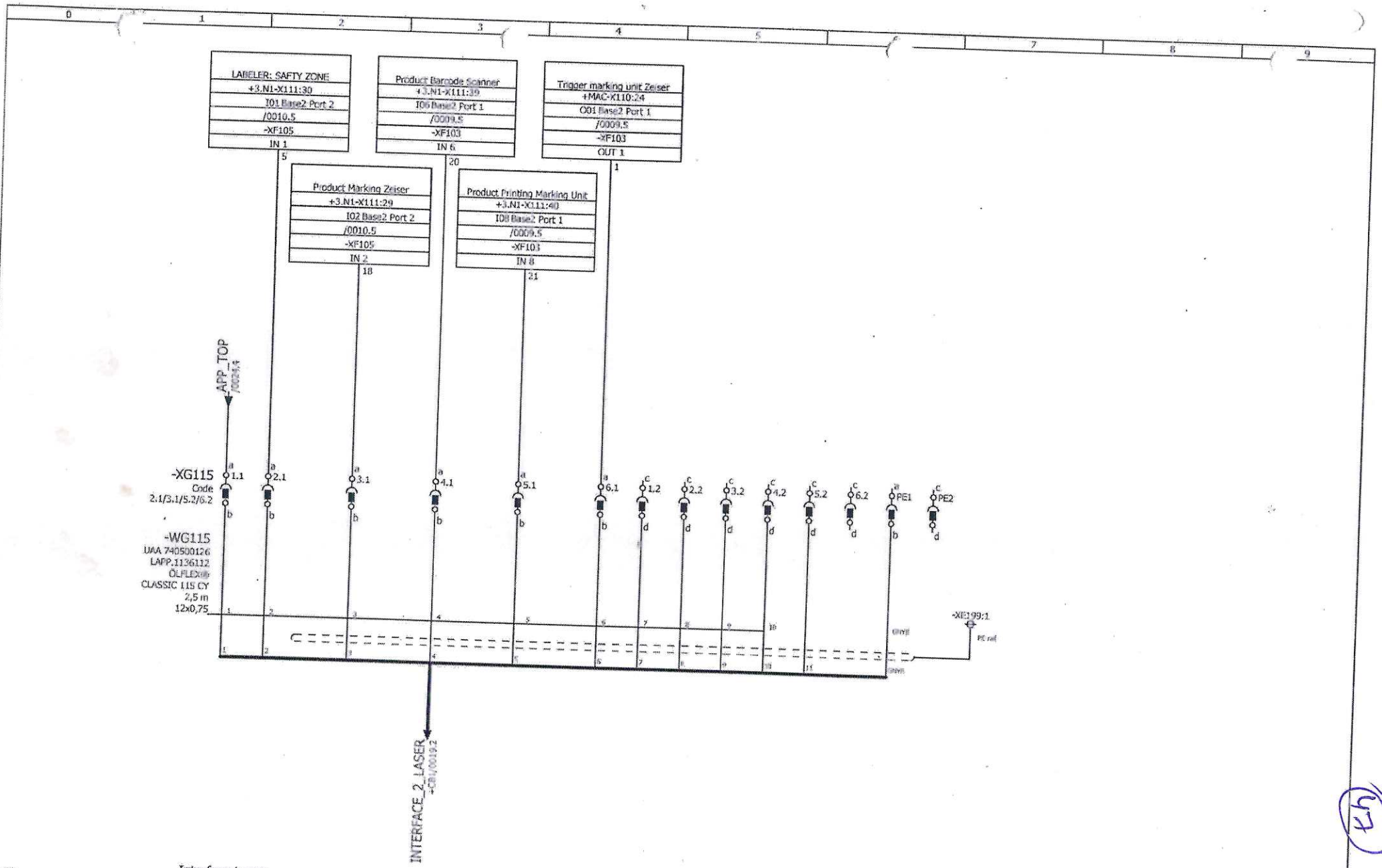
Zeiser GmbH
Bogenstrasse 6-8
D-78[illegible] Emmingen

Passport machine PM010
India
Interface Laser

164206 - 007584
HAZB040050015

== BLS
++
== PM010
+ CB2

Bl. 0012
0025 Bl.



0012 Interface Laser

Change	Date	Name	Date	26.06.2017
1.3	29.01.2021	hahnd	User.	hahnd
			Date	29.01.2021

ZEISER

Zeiser GmbH
Bogenstrasse 6-8
D-78576 Emmingen

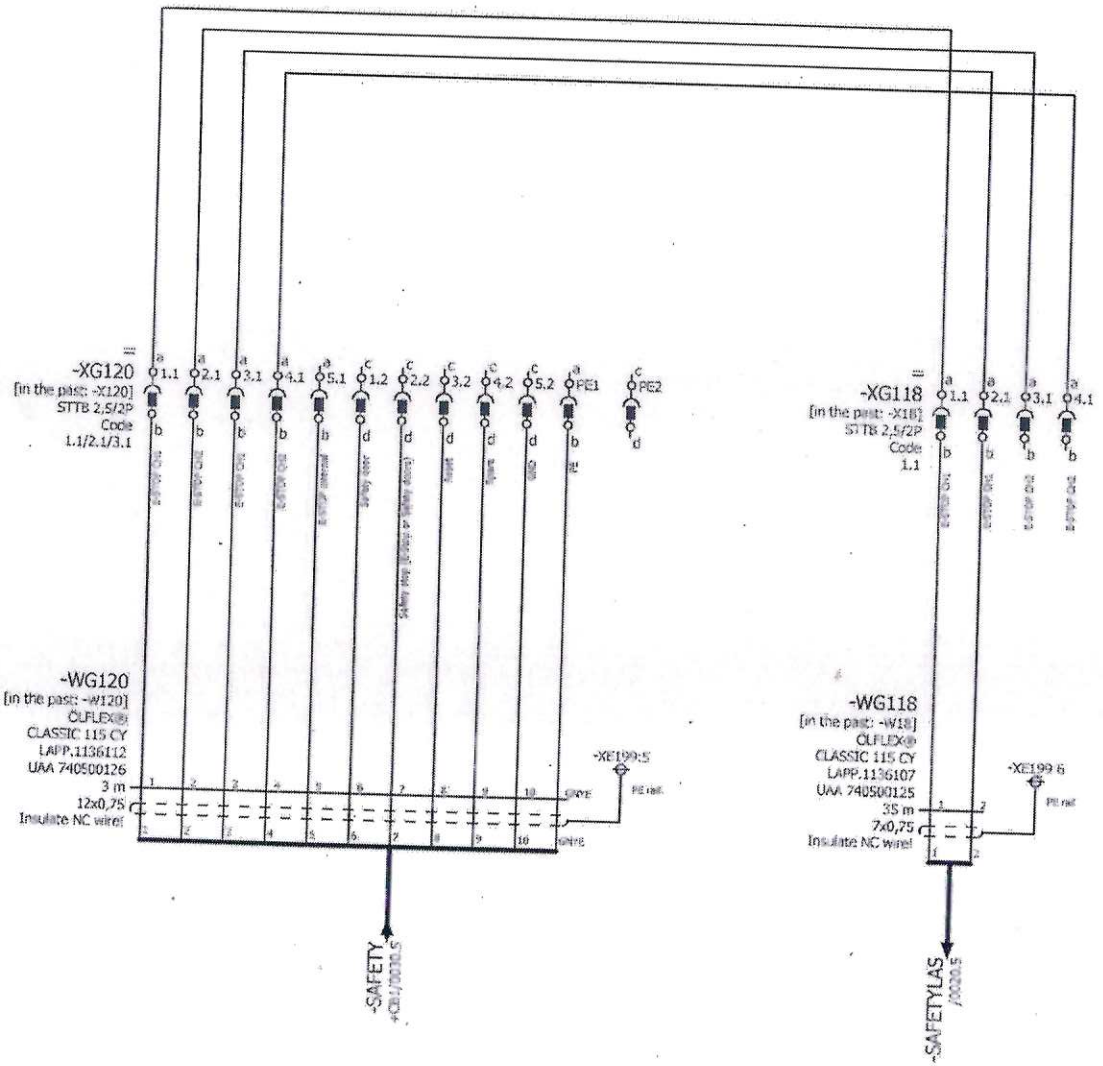
Passport machine PM010
India
Interface Laser

164206 - 007584
HAZB040050015

==+PLS
++
=PM010
+CB2

0014

Bl. 0013



0013

Safety Signals

Safety Signals Laser

Change	Date	Name	Date	26.06.2017
1.3	29.01.2021	hehnd	User.	konstruktion01
			Date	27.01.2021
Hardcopy	29		User	hehnd

ZEISER

Zeiser GmbH
Bogenstrasse 6-8
D-78[illegible] Emmingen
Tel. [illegible]

Passport machine PM010
India
Interface Emergency Stop

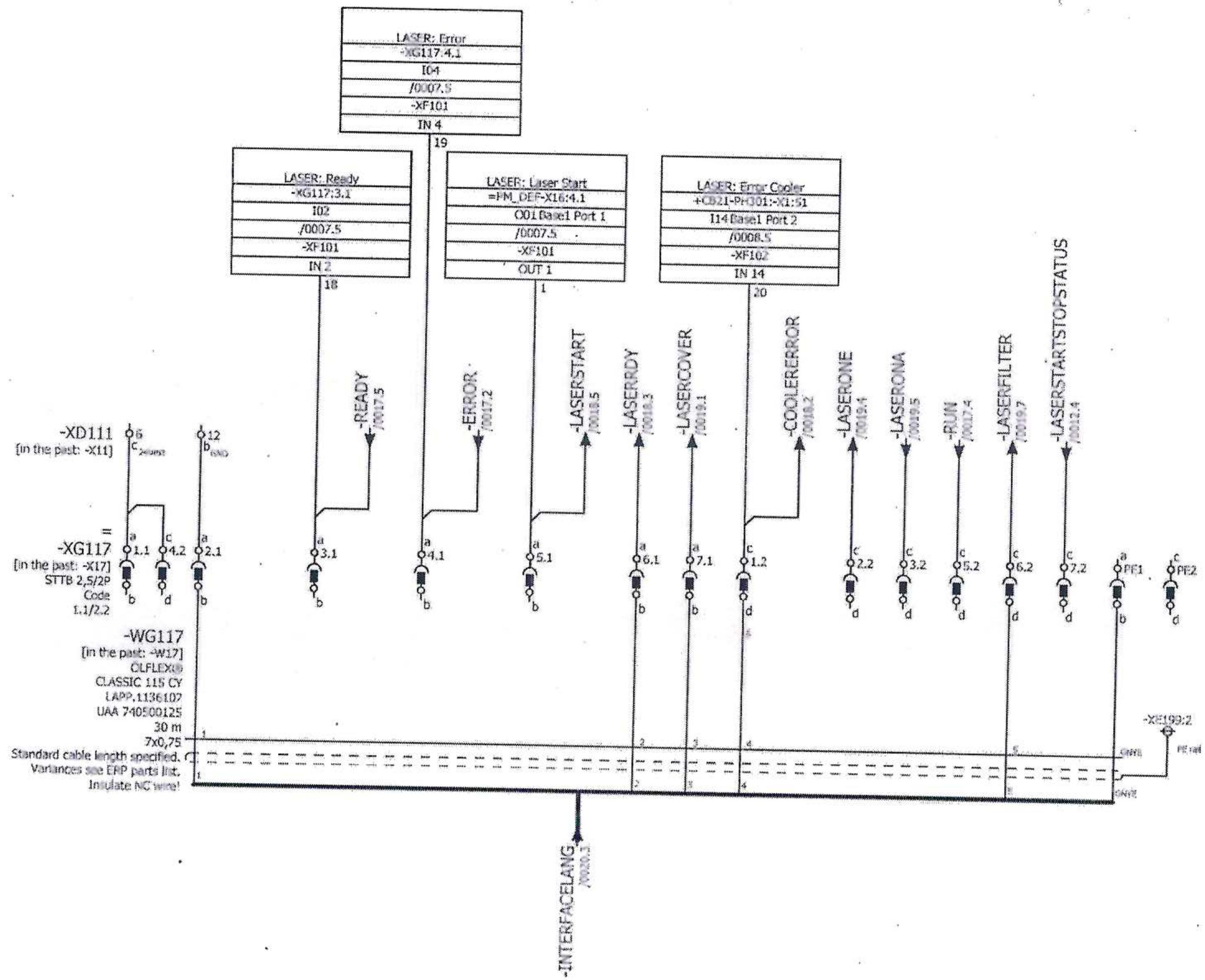
0015

164206 - 007584

HAZB040050015

==BLS	=PM10
++	+CB2

Bl. 0014
0025 Bl



0014 Interface Laser

Change	Date	Name	Date	26.06.2017
1.3	29.01.2021	hahnd	User.	konstruktion01
			Date	27.01.2021

ZEISER

Passport machine PM010
India
Interface Lang Laser

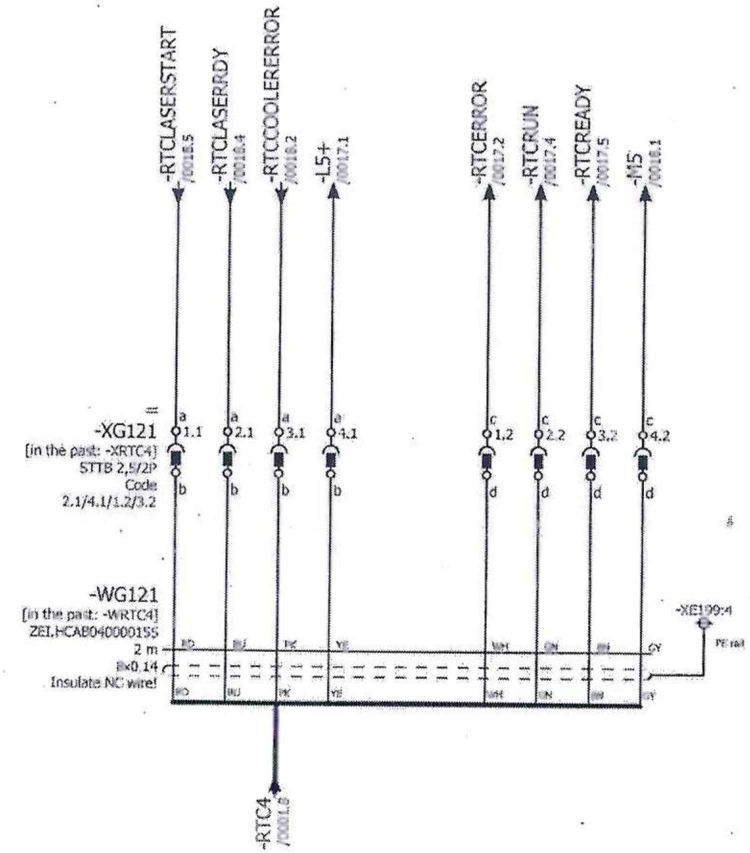
Zeiser GmbH
Bogenstrasse 6-8
D-78576 Emmingen

164206 - 007584
HAZB040050015

=PM010
+CB2

0016
Bl. 0015

0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9

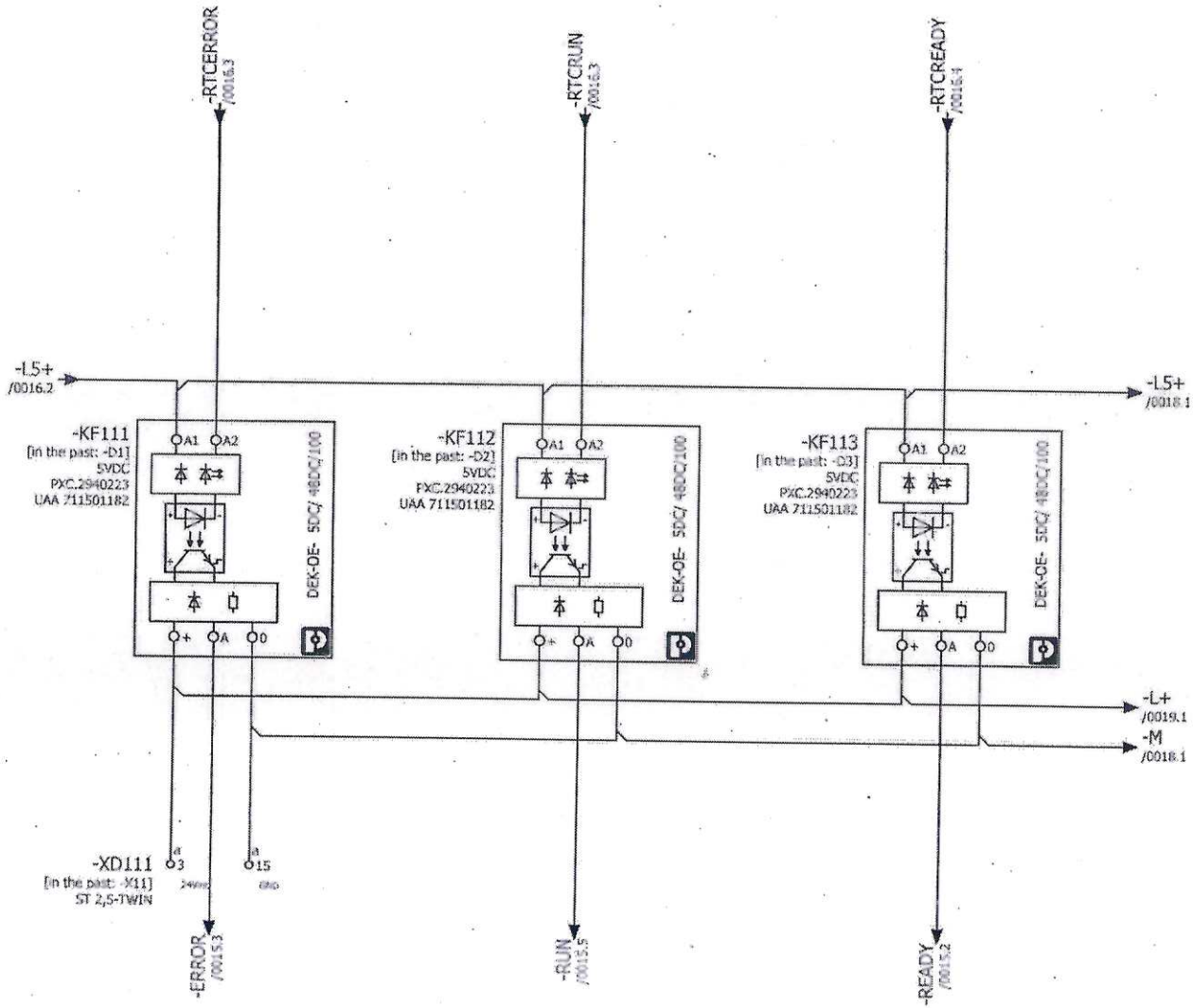


0015 Interface Laser RTC4

Change	Date	Name	Date	26.06.2017	ZEISER	Passport machine PM010	Zeiser GmbH	164206 - 007584	== BLS	= PM010
1.3	29.01.2021	hahnd	User.	konstruktion01		India	Boge trasse 6-8		++	+ CB2
			Date	27.01.2021		Interface Lang Laser (RTC)	D-7 Emmingen	HAZB040050015		Bl. 0016
										0025 Bl.

0017

44



0016

Interface Laser RTC4

0018

Change	Date	Name	Date	26.06.2017
1.3	29.01.2021	hahnd	User.	konstruktion01
			Date	27.01.2021

ZEISER

Zeiser GmbH
Bogenstrasse 6-8
78576 Emmingen
Germany
Tel. +49 7465 9288-0

Passport machine PM010
India
Interface Lang Laser (RTC)

Zeiser GmbH
Bogenstrasse 6-8
D-78576 Emmingen

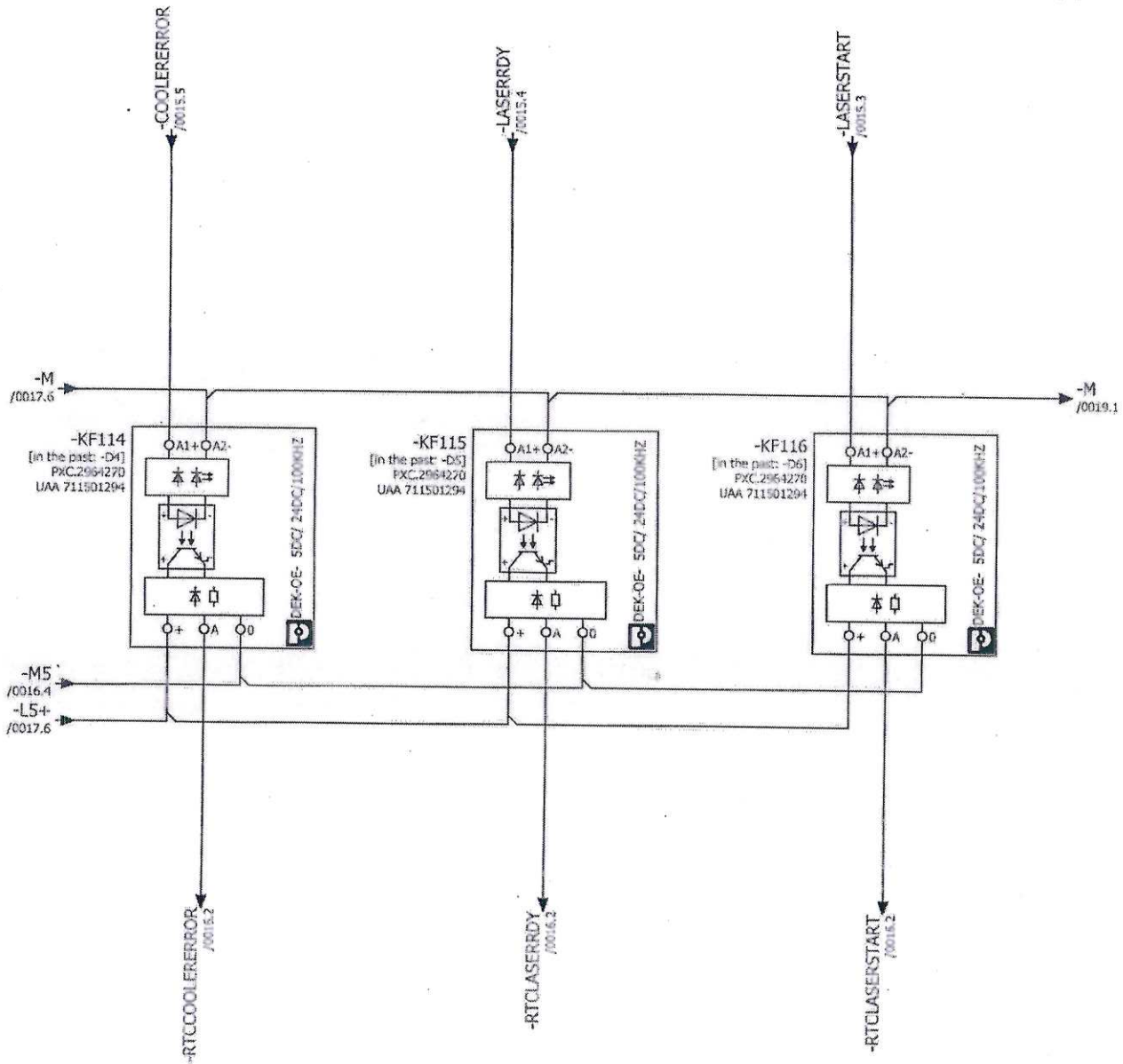
164206 - 007584

HAZB040050015

== BLS	= PM010
++	+ CB2

Bl. 0017
0025 pl

43



0017

Interface Laser RTC4

0019

Change	Date	Name	Date	26.06.2017
1.3	29.01.2021	hahnd	User.	konstruktion01
			Date	27.01.2021
Hardcopy	29.[illegible]1		L.User.	hahnd

ZEISER
BREATHING IDENTITY

Zeiser GmbH
Bogenstraße 6-8
78576 Emmingen
Tel. [illegible]278 0
www.[illegible]

Passport machine PM010
India
Interface Lang Laser (RTC)

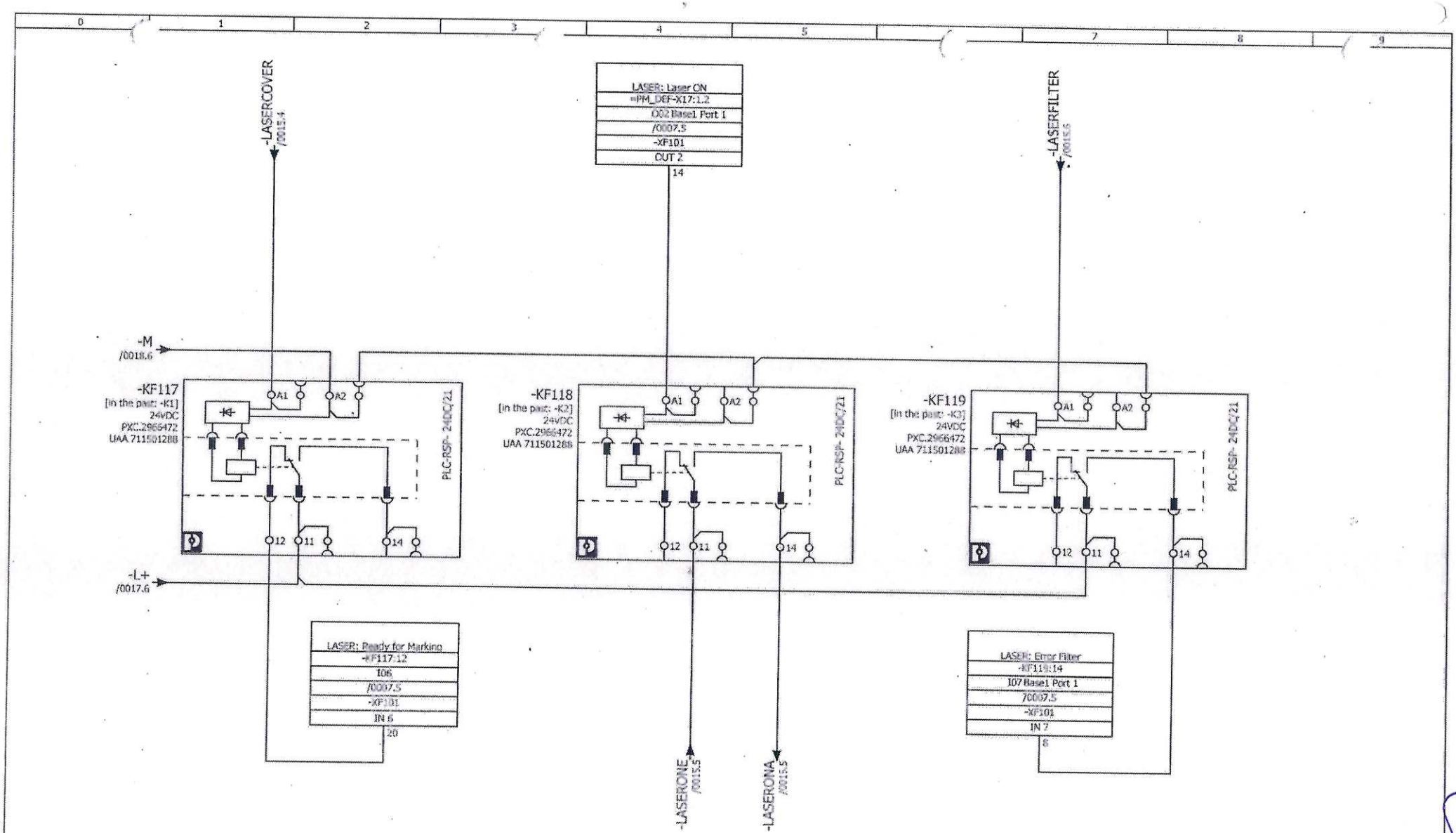
Zeiser GmbH
Bogenstrasse 6-8
D-78[illegible] Emmingen

164206 - 007584
HAZB040050015

==BLS	=PM010
++	+CB2

Bl. 0018
0025 Bl.

42



0018 Interface Laser RTC4

0020

Change	Date	Name	Date	26.06.2017
1.3	29.01.2021	hahnd	User.	konstruktion01
			Date	27.01.2021
Hardcopy	29.01.2021		User	hahnd

ZEISER

Zeiser GmbH
Bogenstrasse 6-8
78576 Emmingen
Germany
Tel. +49 7463 9218 0
www.zeiser.com

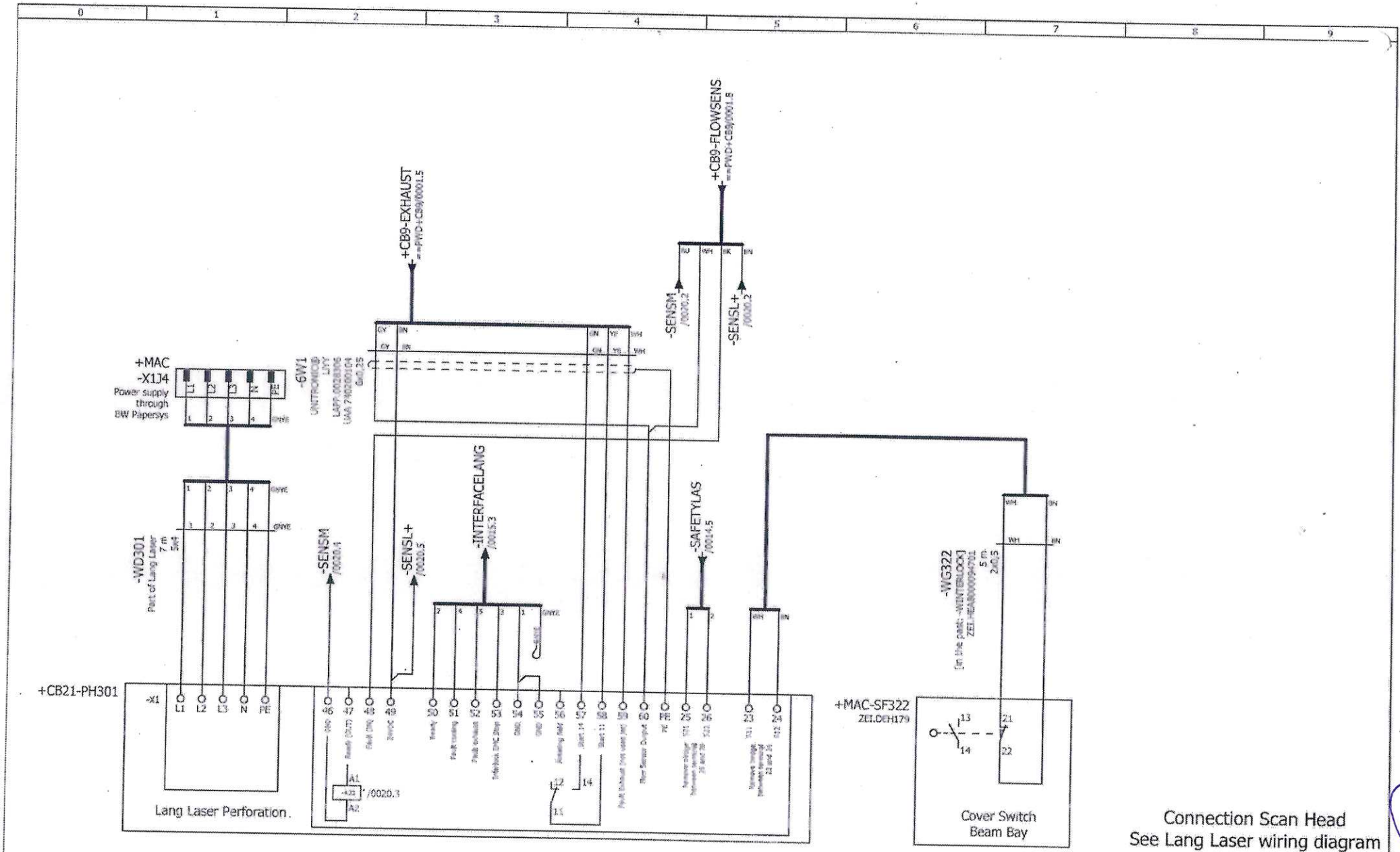
Passport machine PM010
India
Interface Lang Laser (RTC)

Zeiser GmbH
Bogenstrasse 6-8
D-78576 Emmingen

164206 - 007584
HAZB040050015

==BLS	=PM010
++	+CB2

BL 0019
0025 BL



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1.3	29.01.2021	hahnd	User.	konstruktion01
			Date	27.01.2021
Hardcopy	29.	21	L.User.	hahnd

ZEISER
CREATING IDENTITY

Zeiser GmbH
Bogenstraße 6-8
78576 Emmingen
Tel. [illegible] 927[illegible]
www.[illegible].com

Passport machine PM010
India
Lang Laser J3 E250 Perforation

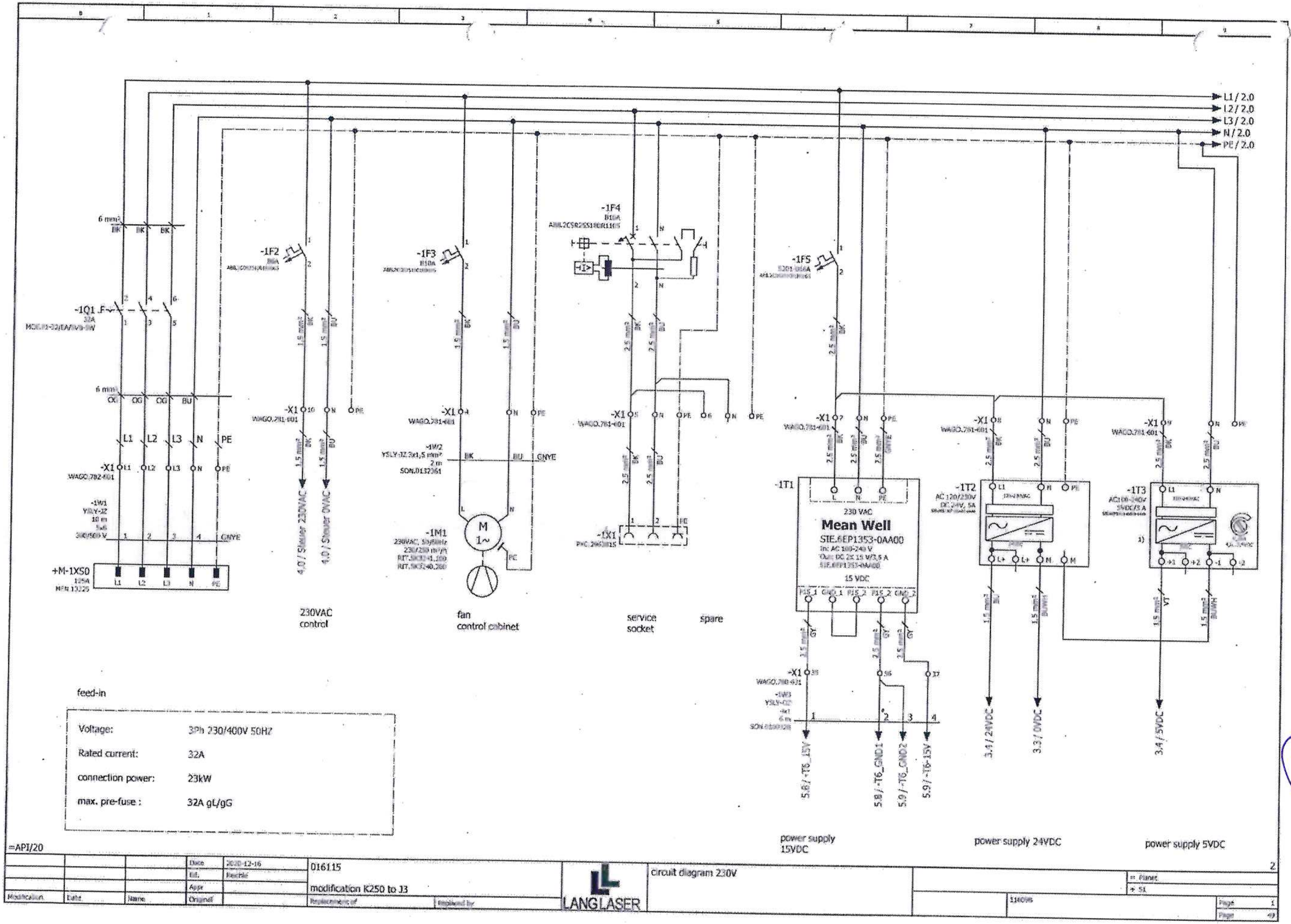
Zeiser GmbH
Bogenstrasse 6-8
D-78[illegible] Emmingen

164206 - 007584
HAZB040050015

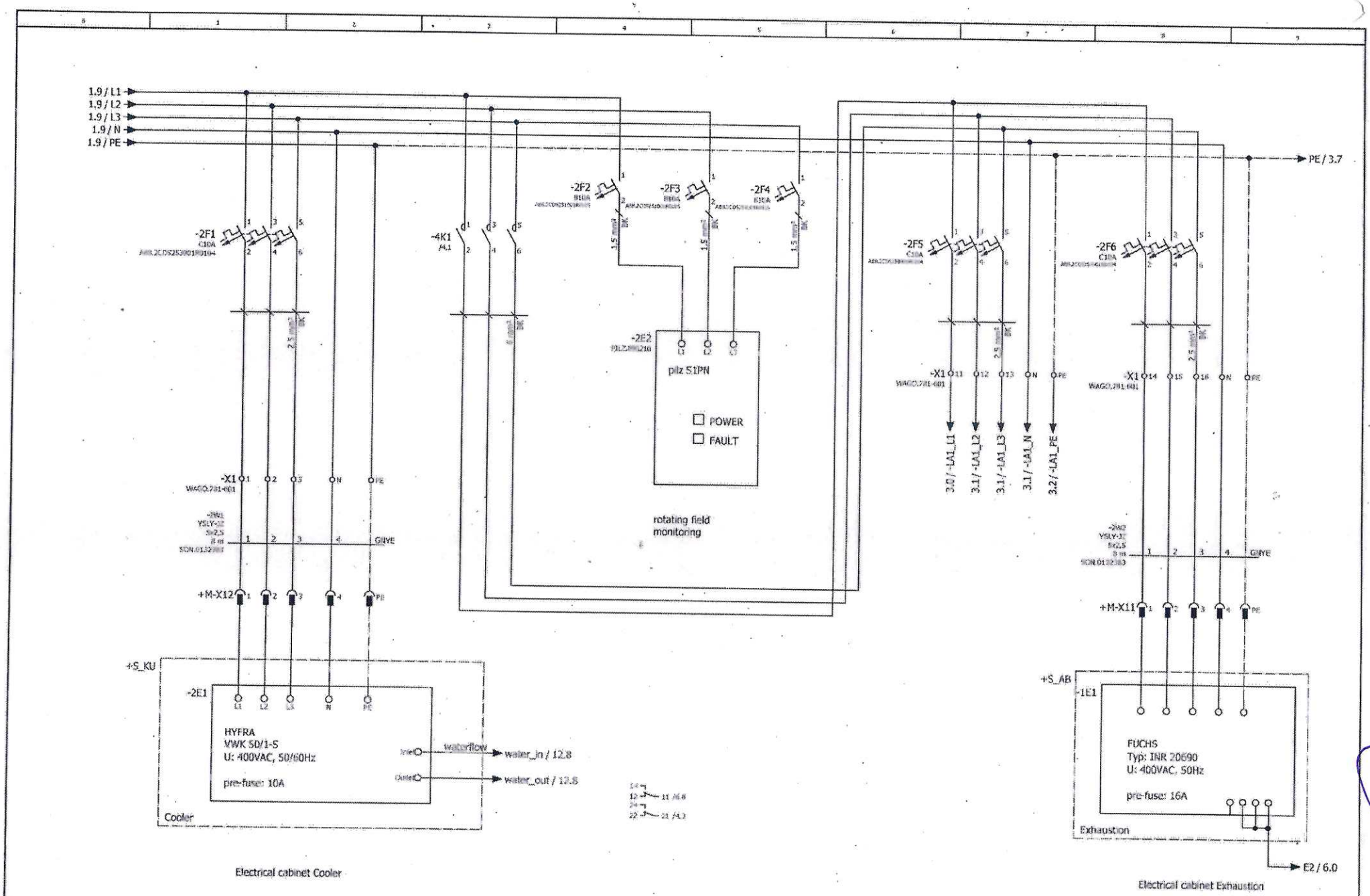
== BLS
++
=PM010
+CB2

BL 0020
0025 BL

4a



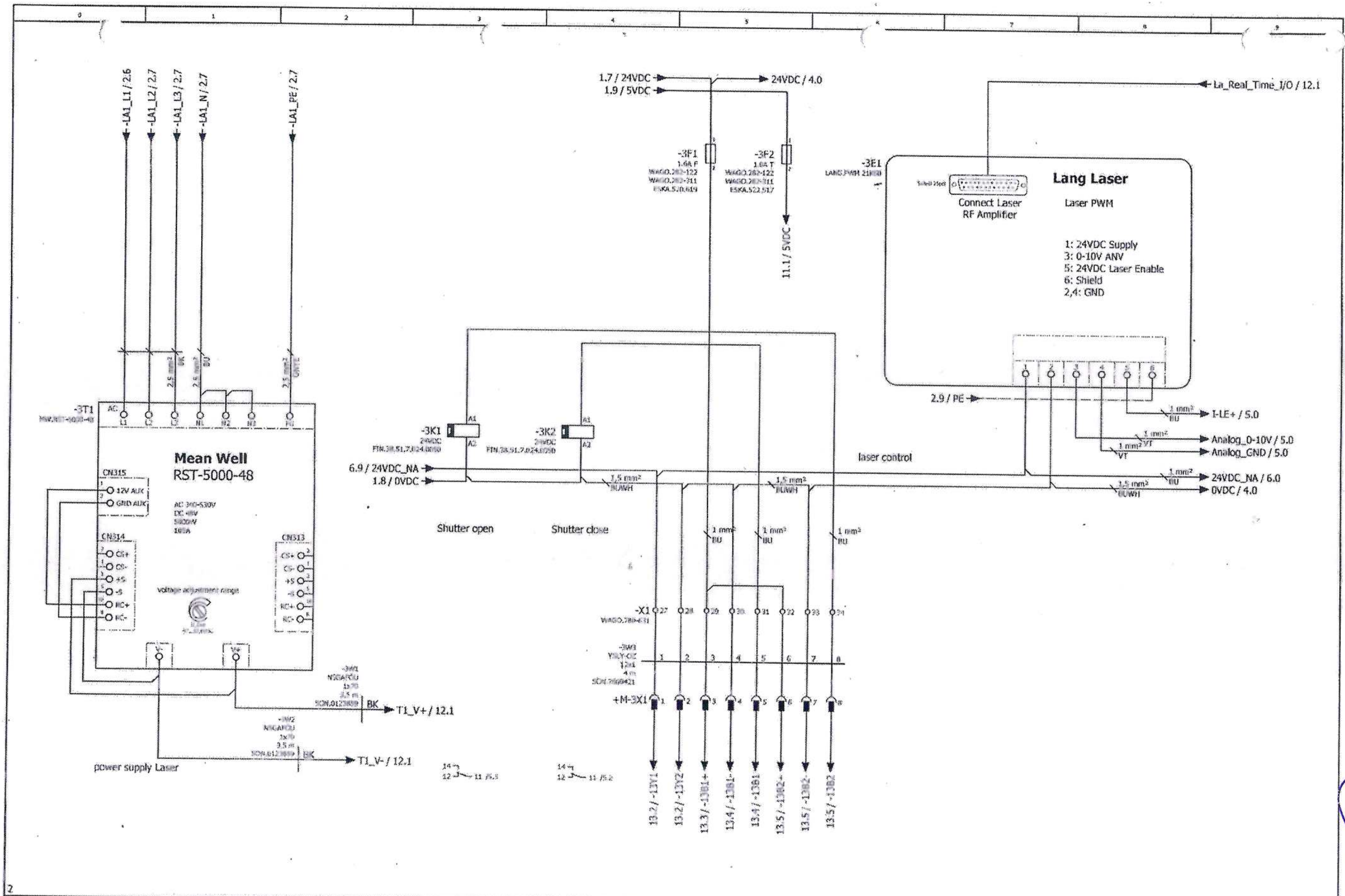
L1 / 2.0
L2 / 2.0
L3 / 2.0
N / 2.0
PE / 2.0
-1Q1
32A
-1F2
B6A
-1F3
B10A
-1F4
B10A
-1F5
-X1
WAGO.781-601
WAGO.782-601
-1W1
-1W2
YSLY-JZ 3x1,5 mm²
2 m
SON.0132361
-1M1
M
1~
-1X1
+M-1XS0
125A
-1T1
230 VAC
Mean Well
SIE.6EP1353-0AA00
15 VDC
-1T2
AC 120/230V
DC 24V, 5A
-1T3
4.0 / Steuer 230VAC
4.0 / Steuer 0VAC
5.8 / -T6_15V
5.8 / -T6_GND1
5.9 / -T6_GND2
5.9 / -T6-15V
3.4 / 24VDC
3.3 / 0VDC
3.4 / 5VDC
230VAC
control
fan
control cabinet
service
socket
spare
power supply
15VDC
power supply 24VDC
power supply 5VDC
feed-in
Voltage: 3Ph 230/400V 50HZ
Rated current: 32A
connection power: 23kW
max. pre-fuse : 32A gL/gG
=API/20
Modification
Date
Name
Date 2020-12-16
Original
016115
modification K250 to J3
LANGLASER
circuit diagram 230V
2
= Planet
+ S1
116096
Page 1



	Date	2020-12-16	016115	circuit diagram 230V	
	Ed.	Reefle	modification K250 to J3		
	Appr.				

Page 2

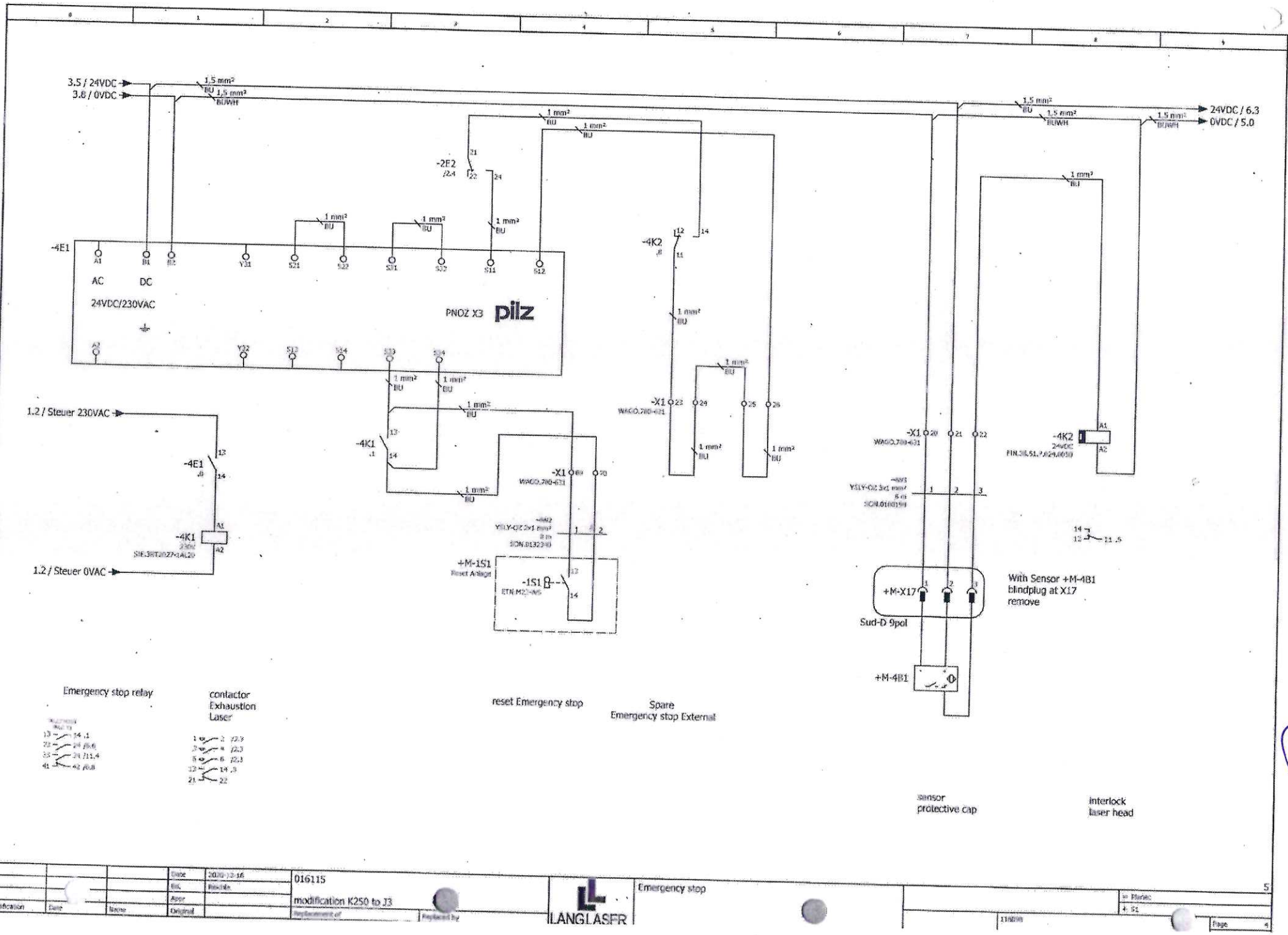
32



Modification	Date	Name	Date	2021-02-07	016115		LANGLASER	laser control
			Bd.		modification K250 to J3			
			Appr					
			Original		Replacement of	Replaced by		

= Mareis
+ S1

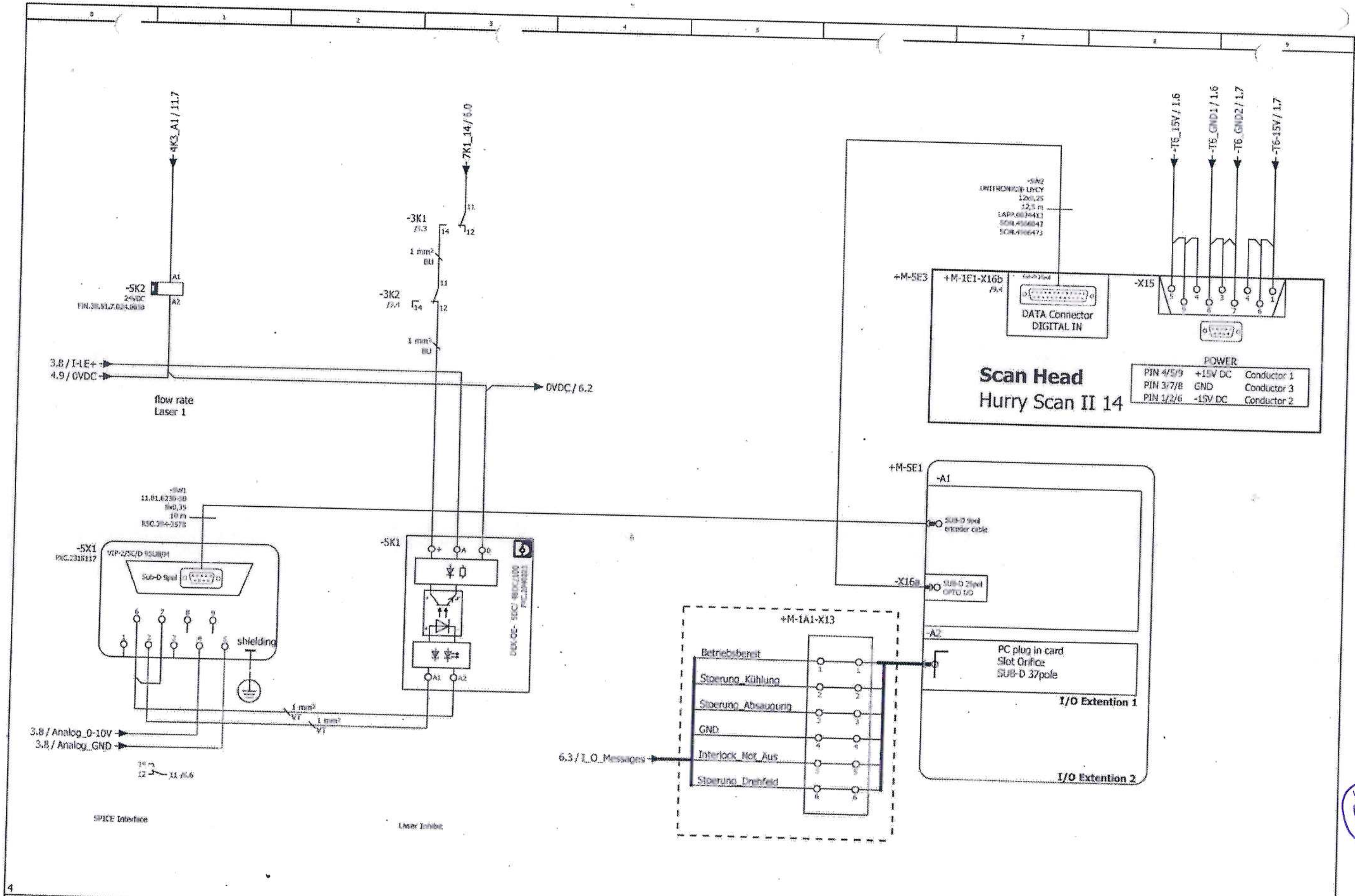
Page
Page 40



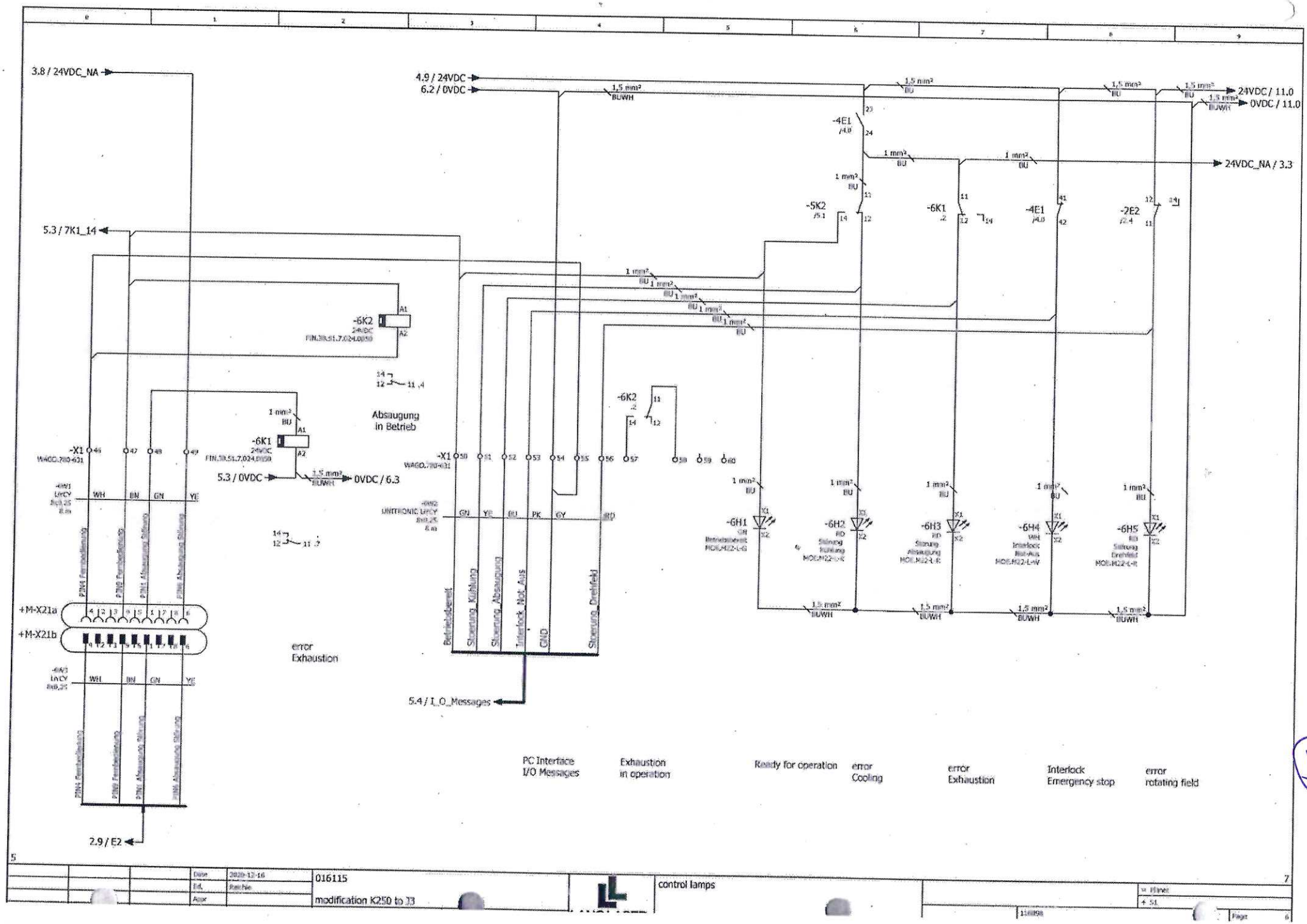
			Date	2020-12-16	016115		Emergency stop
			Bli.	Revide	modification K250 to J3		
			Appr				
Modification	Date	Name	Original		Replacement of	Replaced by	

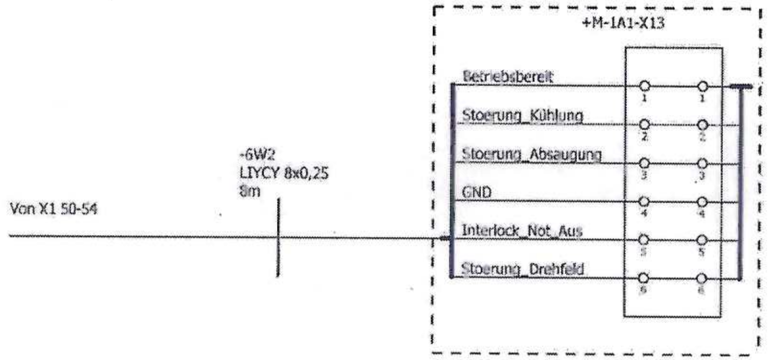
LANGLASER

Page 4



Date	2020-12-16	016115	Scanner/RTC card
Ed.	Reichle	modification K250 to J3	
Appr			


3.8 / 24VDC_NA
4.9 / 24VDC
6.2 / 0VDC
24VDC / 11.0
0VDC / 11.0
24VDC_NA / 3.3
5.3 / 7K1_14
5.3 / 0VDC
0VDC / 6.3
-4E1
-5K2
-6K1
-2E2
-6K2
Absaugung in Betrieb
-X1
-6H1
-6H2
-6H3
-6H4
-6H5
+M-X21a
+M-X21b
error Exhaustion
5.4 / I_O_Messages
2.9 / E2
PC Interface I/O Messages
Exhaustion in operation
Ready for operation
error Cooling
error Exhaustion
Interlock Emergency stop
error rotating field
016115
modification K250 to 73
control lamps



uster terminals

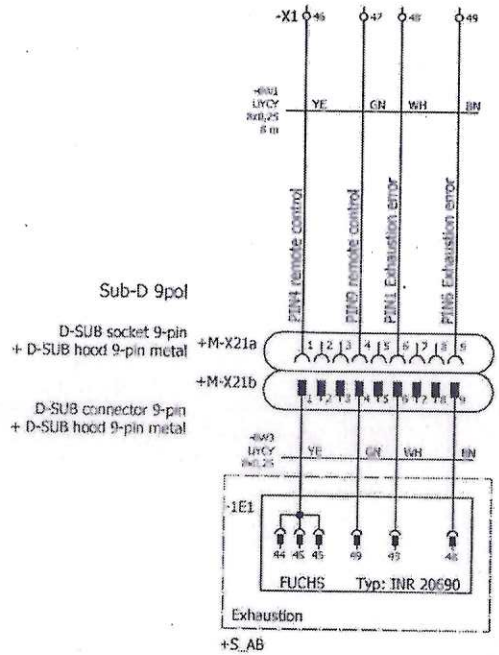
The outputs on X13 are from Atlantic Zeisser decoupled and opened the 37-pin slot cover of the RTC4 card activated

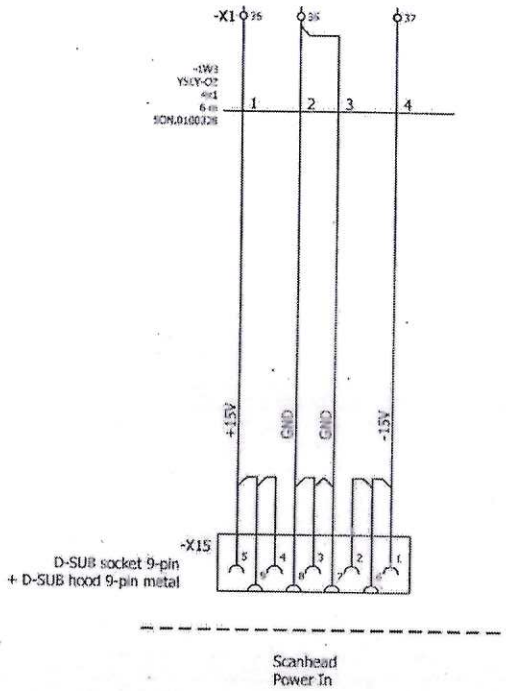
Switching states (high = 24V; low = 0V)

Ready for operation -> high
Fault cooling -> high
Fault suction -> high

Date	2020-12-16	016115	Terminals X13 and X14
Ed.	Rechle	modification K250 to J3	
Appr			

= Planer
+ 31
Page 7

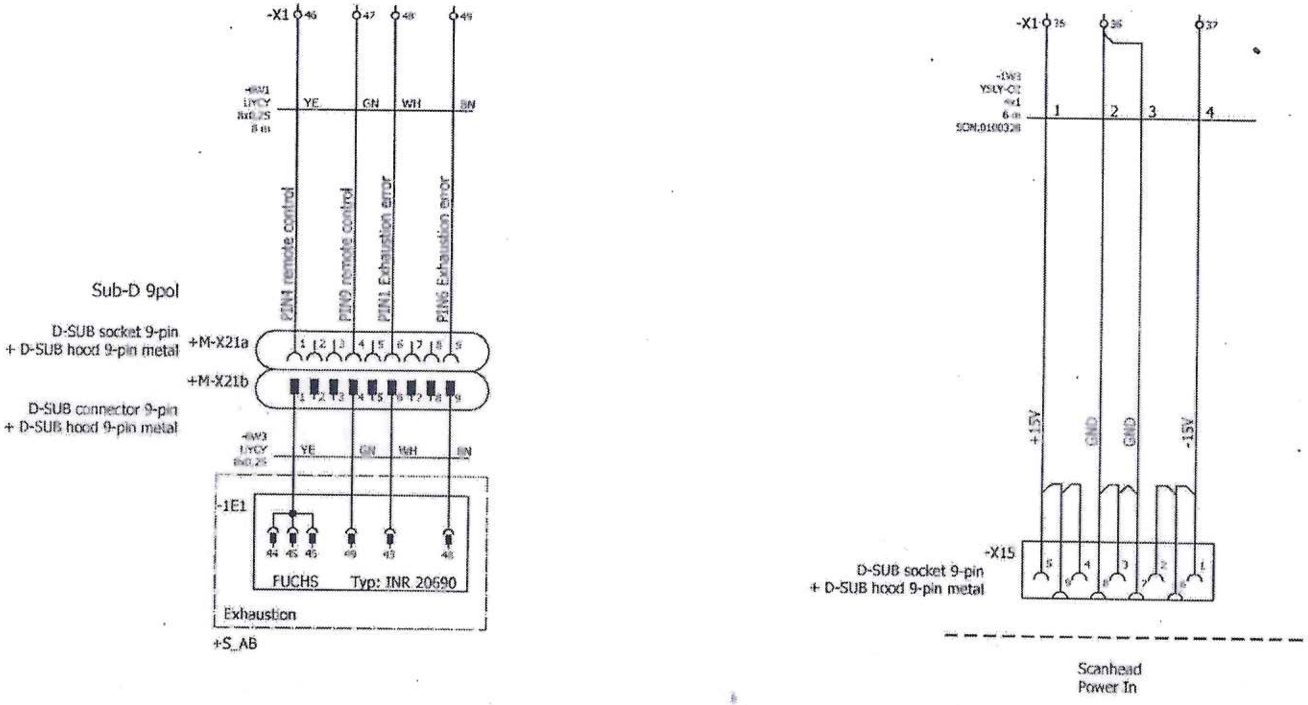




			Date	2020-12-16	016115	LANGLASER	Terminals X21 and X15	n Planet	9
			Ed.	Reichle				+ SL	
			Appr.		modification K250 to 33				
Modification	Date	Name	Original		Replacement of	Replaced by		116098	Page 8
									Page 49

32

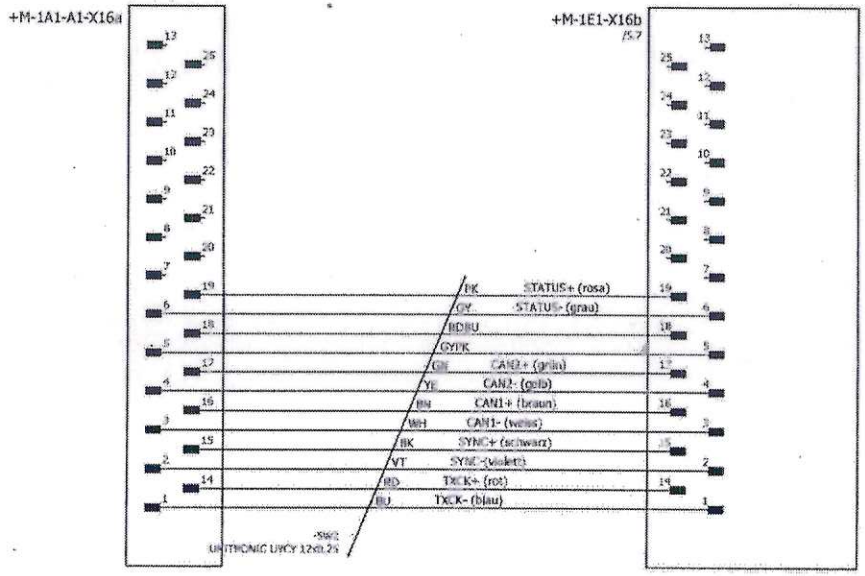
(31)



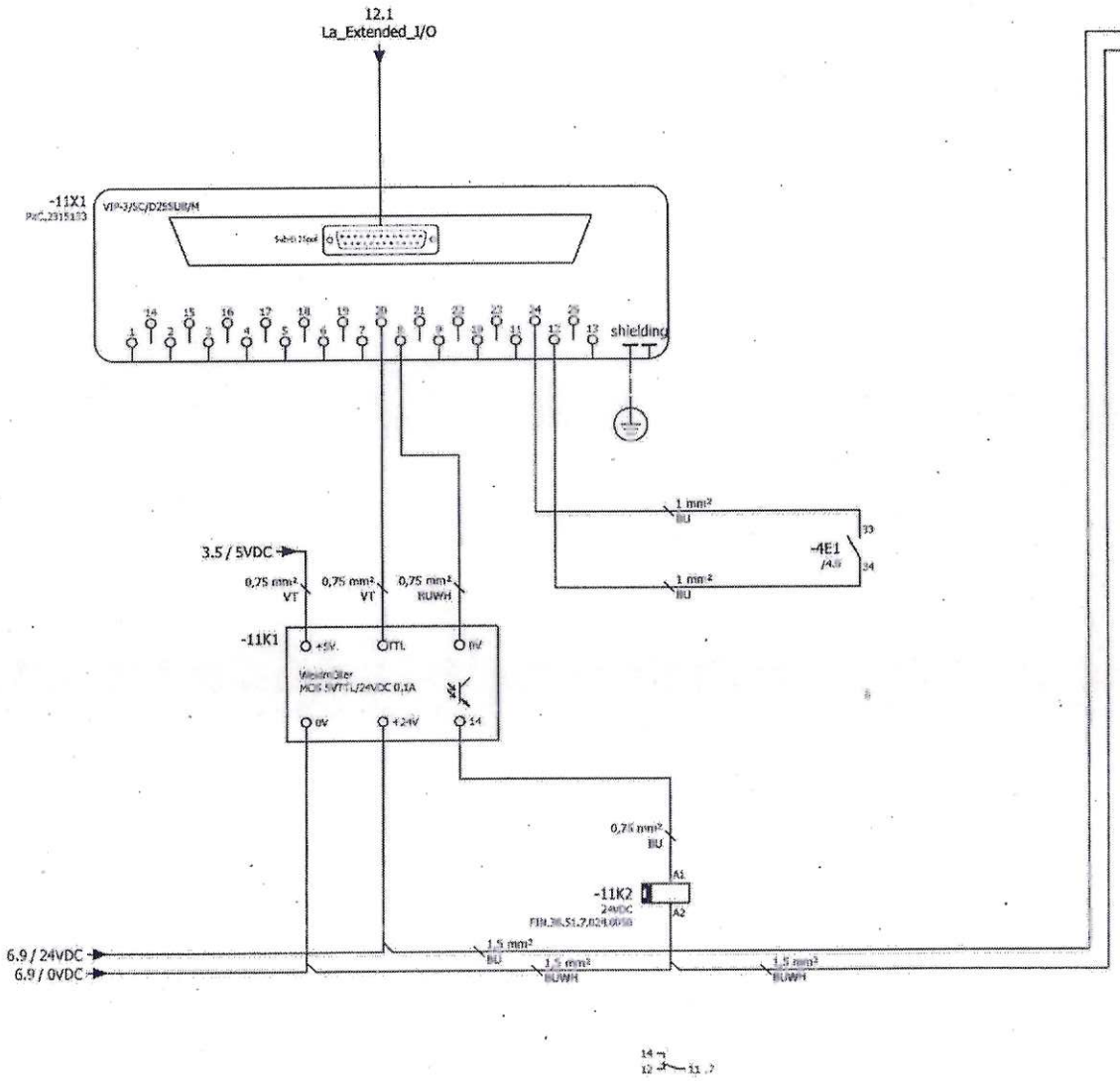
Modification	Date	Name	Date	2020-12-16	016115	LANGLASER	Terminals X21 and X15		= Planet	Page 8
			Ed.	Reichle	modification K250 to J3			1:6098	+ S1	Page 49
			Appr		Replacement of	Replaced by				
			Original							

RTC 4
PCIExpress Card

Scanhead
(DIGITAL IN)



			Date	2020-12-16	016115		Terminals X16 and X18		= Planet
			Ld.	Rechle					+ SS
			Appr		modification K250 to J3			116098	Page 9



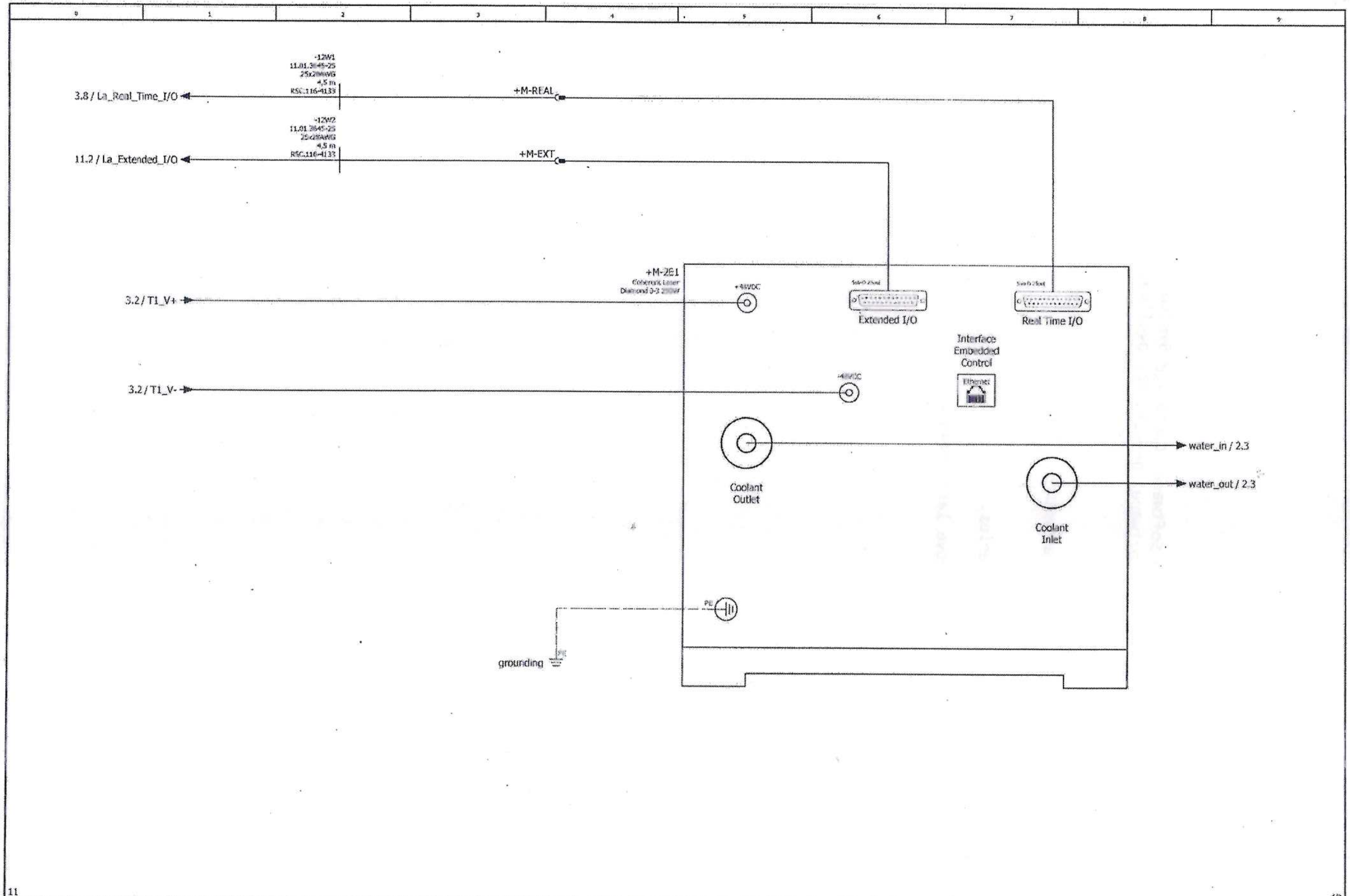
Extended Interface

flow rate
Laser 1

29

			date	2020-12-16	016115	Extended Laser	
			Ed.	Reinke			
			Appr		modification K250 to J3		

Page 11

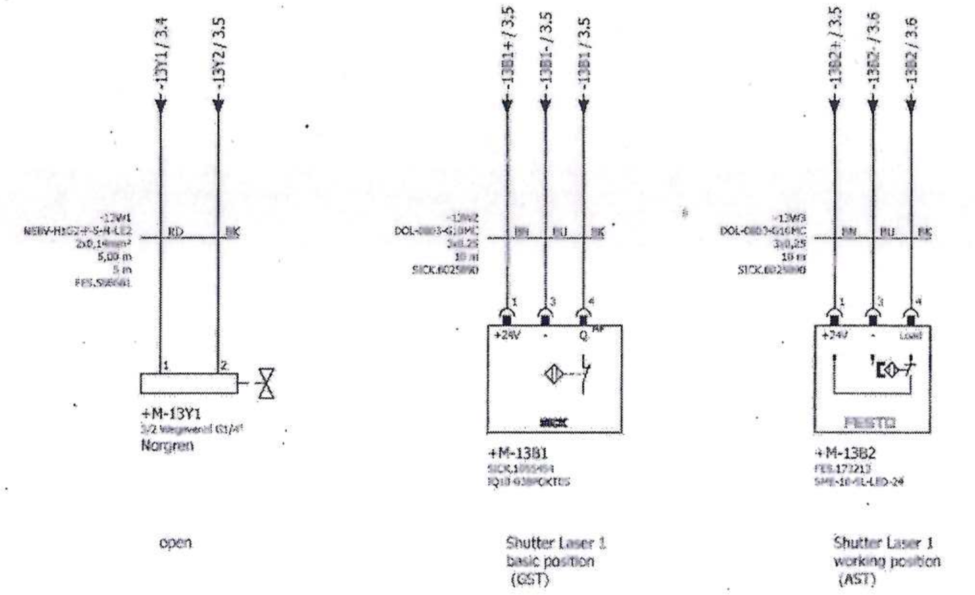


Date	2020-12-16	016115
Ed.	Rechtes	
Appr		modification K250 to J3

Connection point Laser

= Planet
+ S1

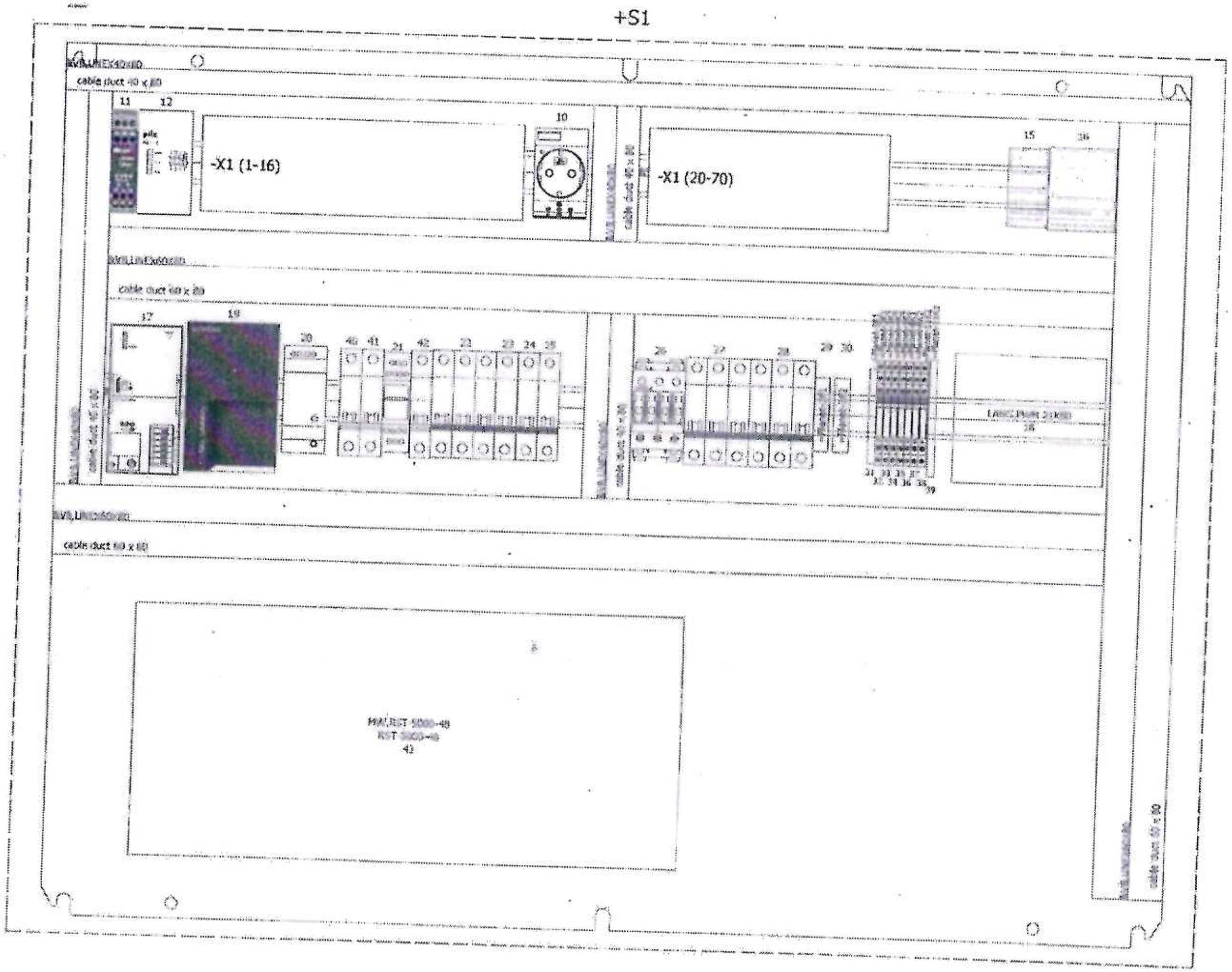
Page 12



12

=GAP/1

Date	2020-12-09	016115	Connection point Shutter	= Planet
Ed.	Reichle	modification K250 to J3	116098	+ S1
Appr				Page 13



Modification	Date	Name	Date	2020-12-09	
			Ed.	Reichle	
			Appr		
			Original		

016115

modification K250 to J3

Replacement of | Replaced by

LANG LASER

Overview Electrical cabinet

116098

= GAK
+ S1

Page 3
Page 49

Galvo Scan Head and F theta lense details (25)
& for M/c No.3 & M/c No. 4,

ANNEXURE 'A'

Sr. No.	Item Description	
1	A)Scan Head, Type - hurrySCAN II , 14 (a) Aperture - 14mm,Wavelength range:10.6 µm for CO2 Laser. (b) Step Response: * 1% of full scale - 0.40 ms * 10% of full scale – 1.60 ms (c) Optical performance Gain error < 5 mrad Zero offset < 5 mrad Skew < 1,5 mrad (d) Dynamic Performance Tracking error 0.24 ms Repeatability < 2 µ rad Long-term drift over 8hours <0.6mrad (e) Electrical Connections(Digital Version) Input & Output signals : - XY2-100 Standard Power requirements: - ± (15 +1.5) V DC, max. 3 A) (Separate connector for Data & power) (f) Mirror: suitable for power output 440W@10.6 µm. Coating – Dielectrically enhanced metal coating or using advance technology. (g) Dimension: LXWXH: (175X114X147) mm with suitable mounting Bracket to suit our machine requirement. B) F-theta Objective lens With AR coating & suitable adaptor: Dia.: 48mm Thickness at edge: 3mm. Coating: Zn se (Zinc selenide) Wave Length 10.6 µm Focal Length 250 mm Working Distance 275 mm Typical image field (170 x 170)mm² Make: ScanLab, Germany, Type: hurrySCAN II, 14. The Scan Head should be suitable for 250W CO2 Laser(Laser Source) 1. Make :Laser Head CO2 Laser Unit (J3-250),Lang Laser System GmBH, 2. Type: Upgrade –K-250-300, 3. Serial No.: 16115, 4. Voltage U(V): 3P/N/PE 400 V +-10%,Frequency F(Hz): 50 5. Control Circuit:5/24V DC/48 VDC, 6. Output Power: 250 W, Peak Effective Power ≥750 W. Application: For RF excited CO_2 Laser system of Lang Laser Germany make to reflect an optical ray bundle in X-Y direction & to focus the ray bundle on the plain working area through the optical lens.	