

Operating Instructions

Project: MBARI OVERHEAD CRANE

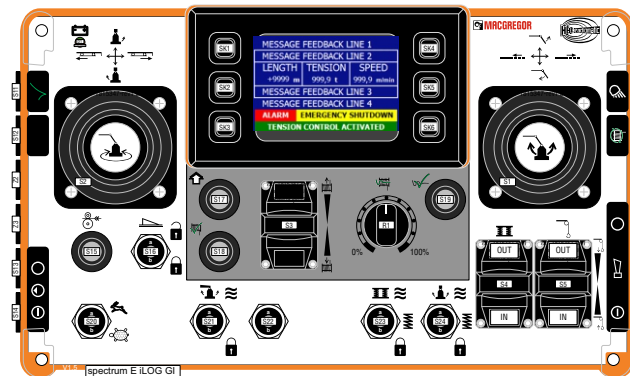
Triplex item nr. RC-OHC-HBC-07 / 400198450
order nr.: 4504420729

Serial nr.: 727-1815347

Model: spectrum E iLOG GI

Frequency: 2.4GHz / TC241 / Focus-T

Delivery date: 07.12.2022



spectrum E

Vedlegg 1: sikkerhetsinformasjon

Tilleggsinformasjon om sikkerhet

Vennligst les gjennom følgende viktig sikkerhetsinformasjon

- Reservesender:** Det er ikke tillatt å bruke to sendere med samme kode (iLOG/iON) samtidig.
Reserve iLOG
Reserve iON **Reservesender eller originalsender må være innelåst !**
- Reservemottaker:** Det er ikke tillatt å bruke to mottakere med samme kode samtidig.
Reservemottakere eller originalmottaker må være innelåst !
- Reservefunksjon:** Forhandleren har ansvar for eventuelt merking av tilleggsfunksjoner hvis reserveknapper eller reservejoysticker blir tatt i bruk. Skiltene skal være slitasjesterke og værbestandige.
- Gjenvinning av batterier:** **Batterier skal ikke kastes sammen med annet avfall.** I stedet, returnere batterier til godkjent gjenvinningsstasjon eller batteri forhandler som HBC-radiomatic Norge AS
- Aktiv Stopp:** **HVIS** systemet levers med en 'aktiv stopp' krets. (Kun bit / rele utgang fra stopp bryter), **SÅ** oppfyller dette ikke kategorien EN954 + EN ISO 13849-1 krav til nødstop
Kundens PLS må kontinuerlig vurdere aktiv stoppkommandoen og kommunikasjon OK krets
Kunden har bedt om en 'aktiv stopp' funksjon, og er dermed ansvarlig for å tolke dette i sin PLS.

Attachment 1: safety information

Additional information on safety

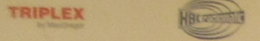
Please read through the following safety information

- Spare transmitter:** It is not allowed to use two transmitters with the same code (iLOG/iON) at the same time.
Spare iLOG
Spare iON **Either the spare transmitter or original transmitter must be secured!**
- Spare receiver:** It is not allowed to use two receivers with the same code at the same time.
Either the spare receiver or original receiver must be secured!
- Spare function:** This system be delivered with spare buttons or joysticks. **The dealer is responsible for marking any additional functions** which may be connected in the future. The label should be weather and abrasion resistant.
- Battery disposal:** **Batteries must not be disposed of with regular waste.** Instead, return batteries to an approved recycling station or battery dealer. HBC-radiomatic Norge AS will take batteries in return.
- Active Stop:** **IF** This system is delivered with an 'active stop' circuit. (Only bit /relay output from stop switch), **THEN** it does not meet the category EN954 + EN ISO 13849-1 requirements for emergency stop.
The clients PLC must continuously evaluate the Active Stop command and communication OK circuit!
The client has requested the 'active stop' function, and is thereby responsible to integrate it with their PLC system.

HBC-radiomatic

HBC-radiomatic

HBC-radiomatic

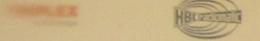


Operating Instructions

Project: MBARI OVERHEAD CRANE
Triplex Item nr. RC-OHC-HBC-07 / 400198450
Order nr.: 4504420729
Serial nr.: 727-1815247
Model: Spectrum E 1.0/2.0
Frequency: 2.4026/72021 / Ptase 1
Version: 08/12/2022



spectrum E



Operating Instructions

Project: MBARI OVERHEAD CRANE
Triplex Item nr. RC-OHC-HBC-07 / 400198450
Order nr.: 4504420729
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Frequency: 2.4026/72021 / Ptase 1
Version: 08/12/2022



spectrum E



Inkludert
"Tilleggsinformasjon om
sikkerhet" i bruksanvisning

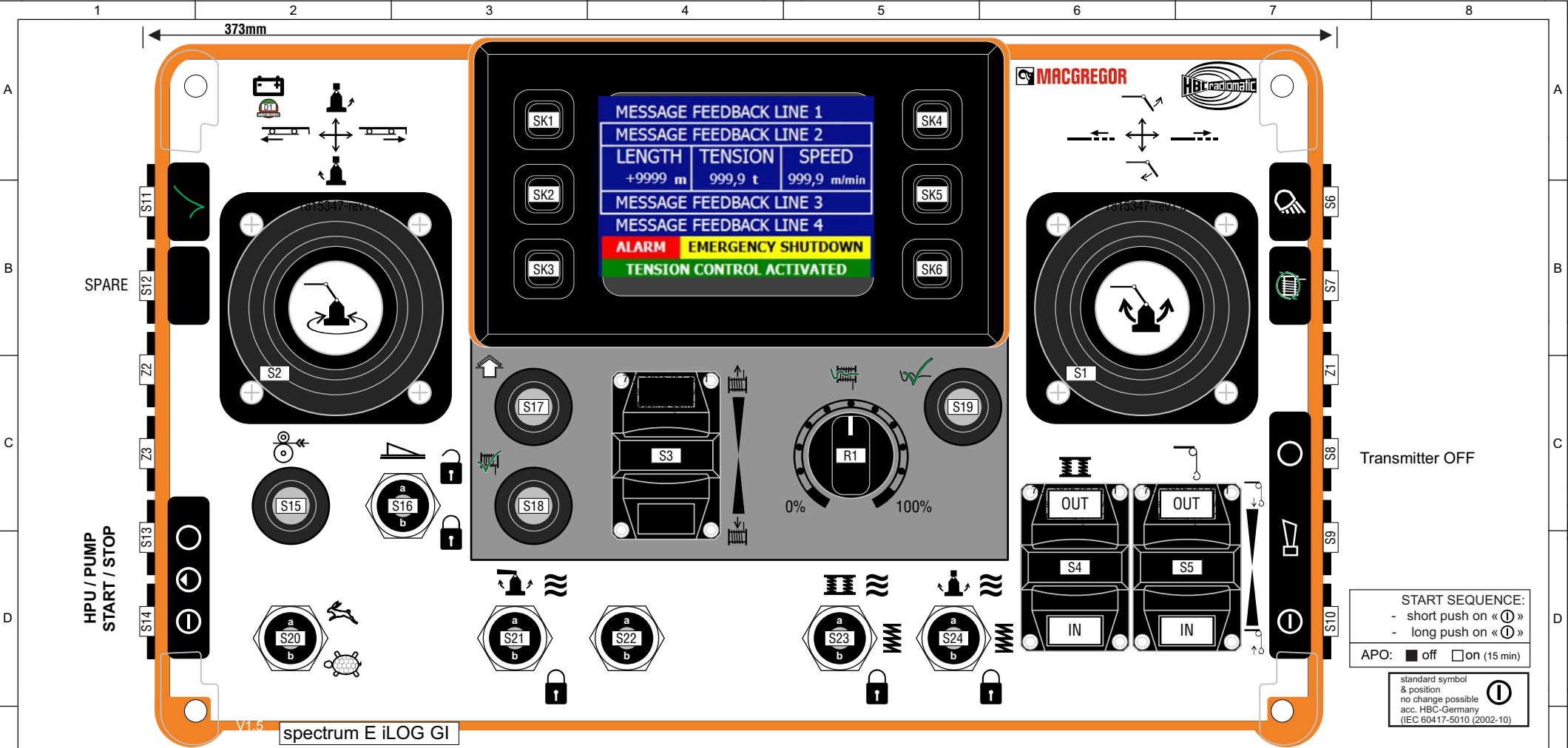


US



EU





Rollover bar: stainless steel

Frontplatte / Faceplate

Art / Type: Drucker

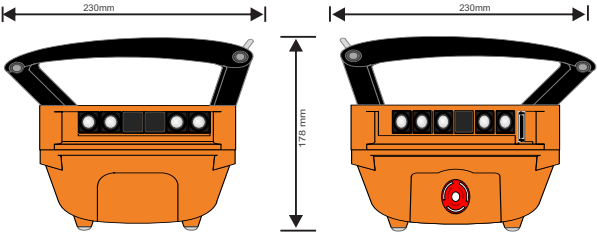
Hintergrundfarbe: weiß

Background color: white

Beschriftungsfarbe: schwarz / farbig

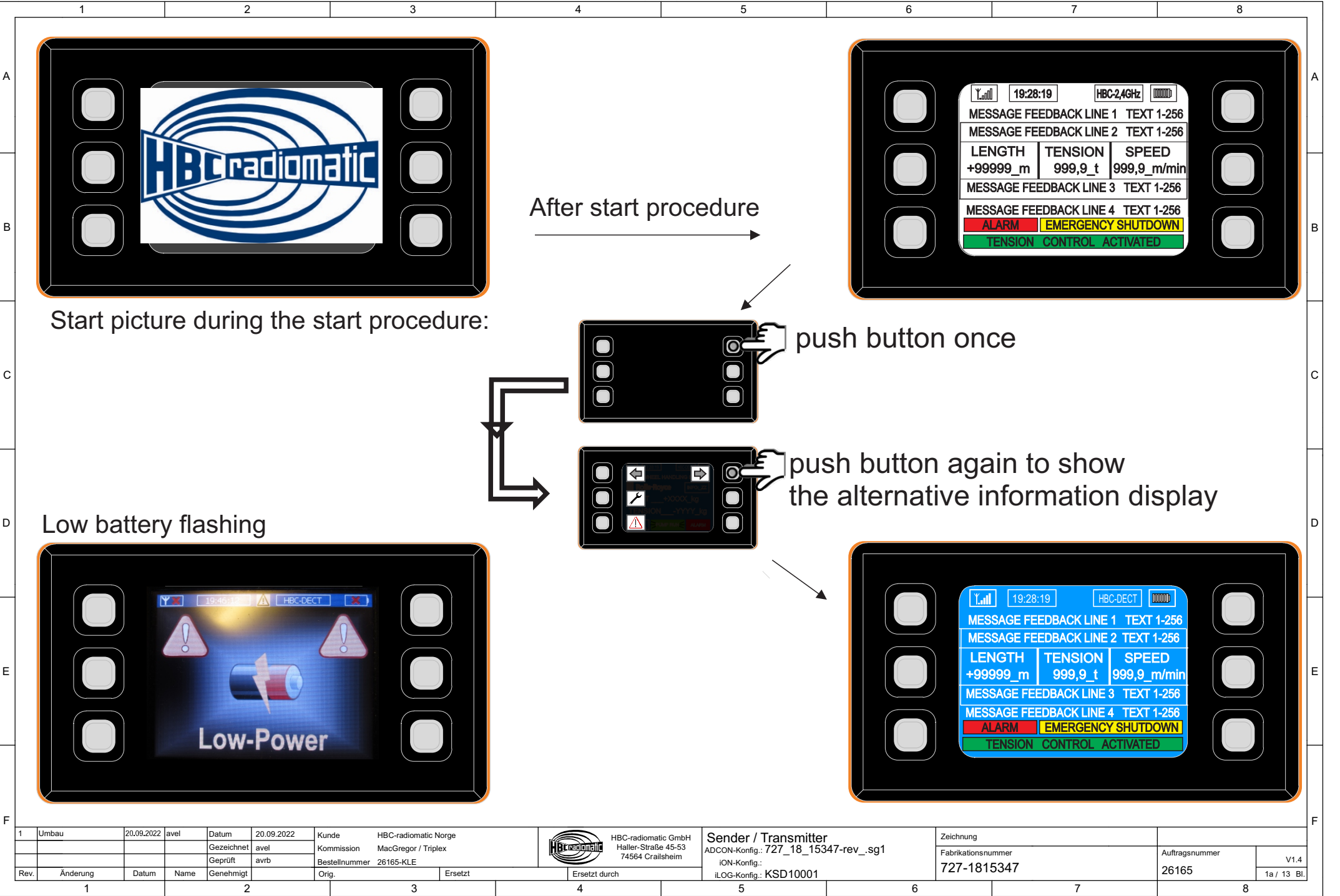
Label color: black / coloured

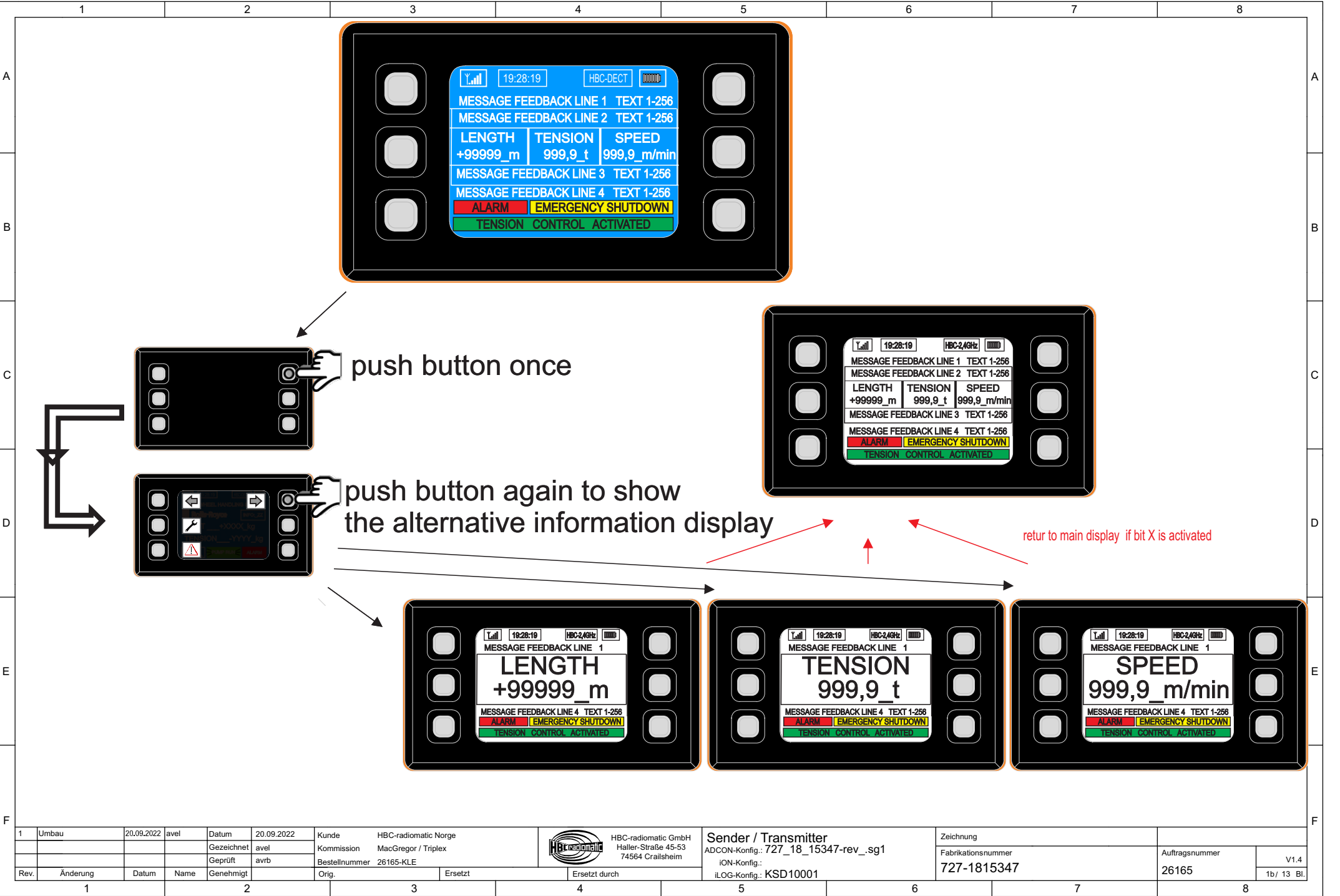
Projekt: MBARI OHC
400198450 RC-OHC-HBC-07
WBS Element 4/60185.1.C2



CAD-Zeichnung, keine manuellen Änderungen
CAD drawing, no manual changes

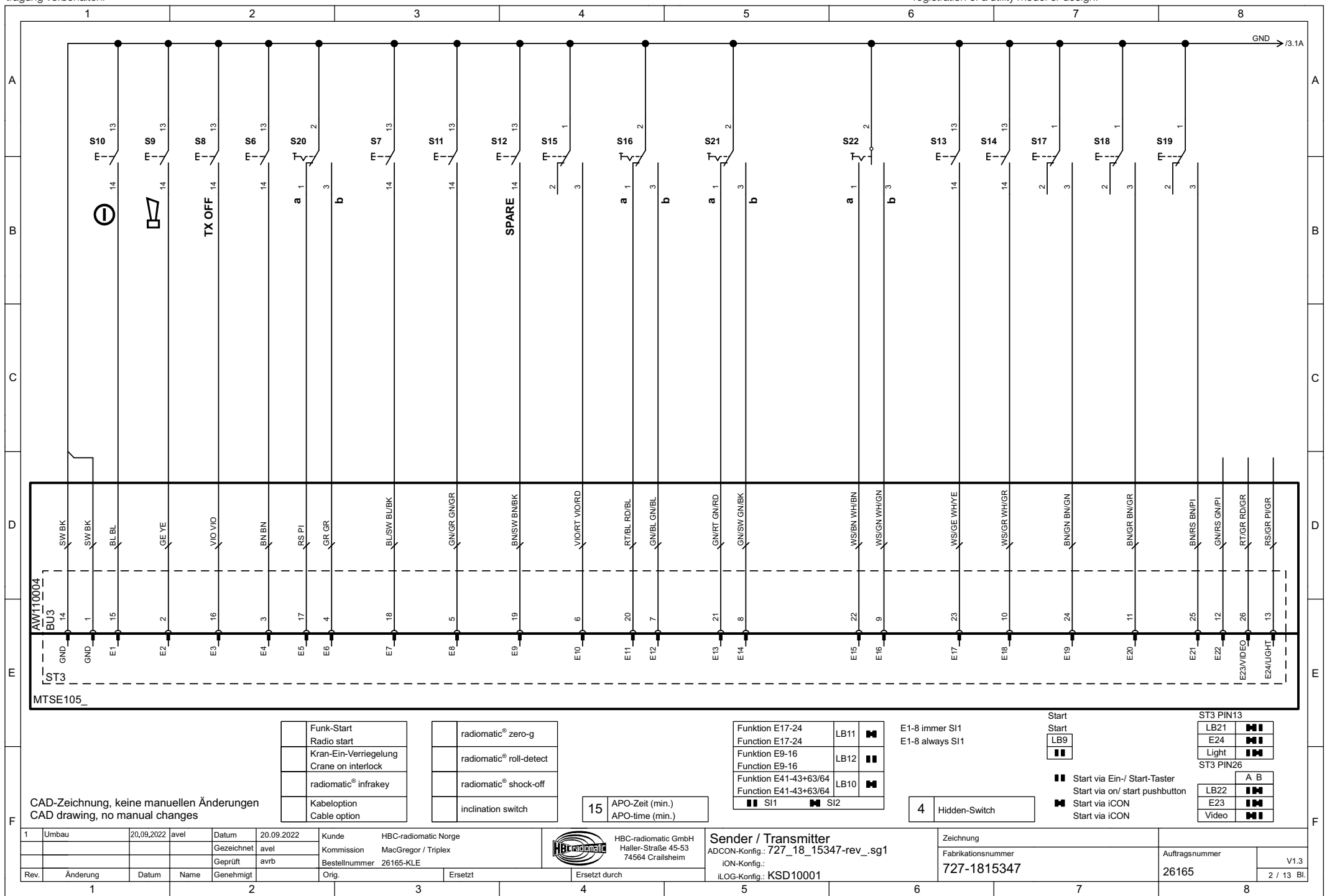
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				Gezeichnet	avel	Kommission	MacGregor / Triplex					Fabrikationsnummer		Auftragsnummer		V1.4	
				Gepprüft	avrb	Bestellnummer	26165-KLE					727-1815347		26165		1 / 13 Bl.	
Rev.	Änderung	Datum	Name	Genehmigt		Orig.	Ersetzt		Ersetzt durch								





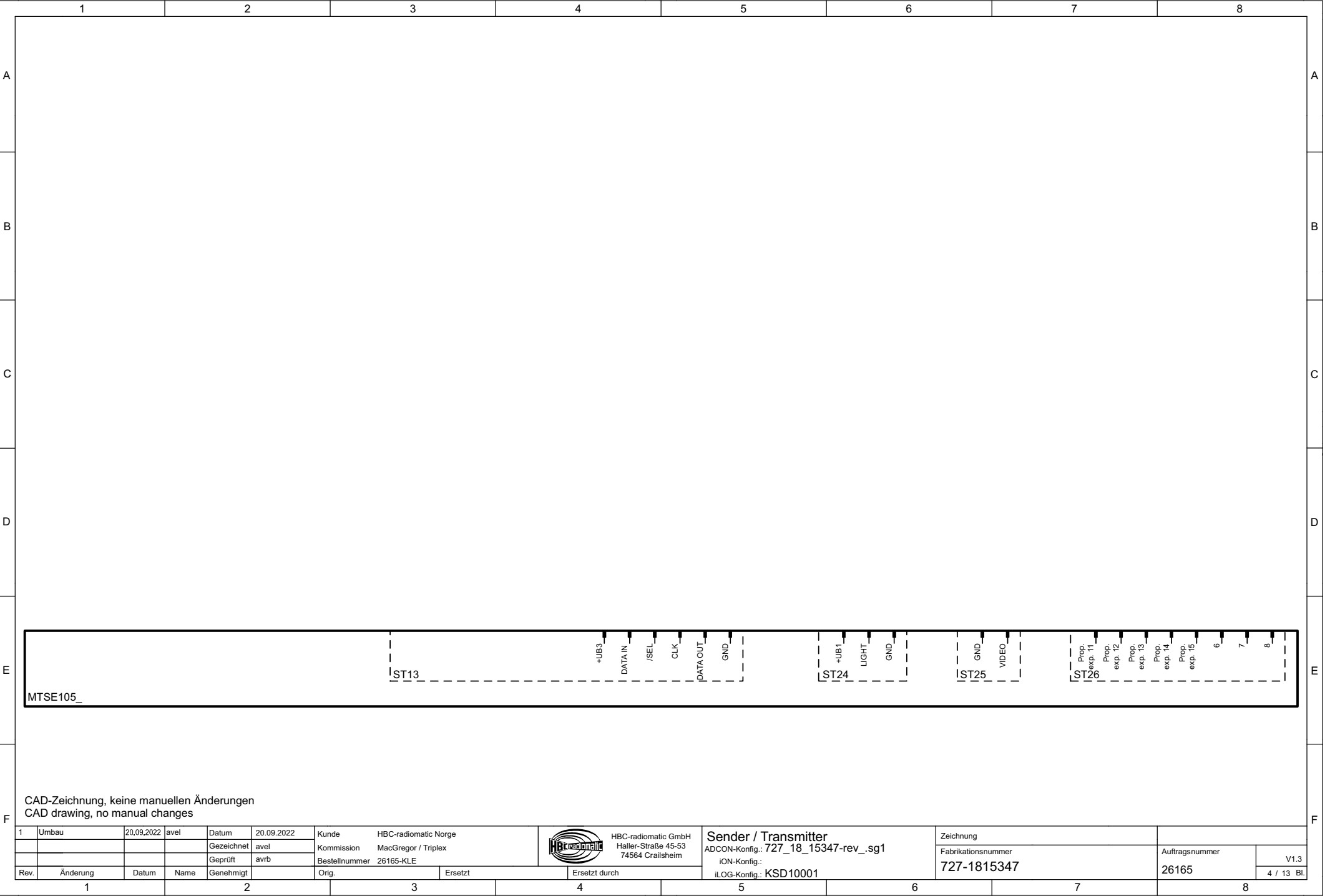
1	Umbau	20.09.2022	avel	Datum	20.09.2022	Kunde	HBC-radiomatic Norge		HBC-radiomatic GmbH Haller-Strasse 45-53 74564 Crailsheim	Sender / Transmitter ADCON-Konfig.: 727_18_15347-rev_sg1 iON-Konfig.: iLOG-Konfig.: KSD10001	Zeichnung	Fabrikationsnummer 727-1815347	Auftragsnummer 26165	V1.4 1b/ 13 Bl.
Rev.	Änderung	Datum	Name	Gezeichnet avel	Geprüft avrb	Kommission MacGregor / Triplex	Bestellnummer 26165-KLE	Ersetzt	Ersetzt durch					

1	2	3	4	5	6	7	8
A	Line 1: MESSAGE FEEDBACK LINE 1 TEXT 1-256 Line 2: MESSAGE FEEDBACK LINE 2 TEXT 1-256 Line 3: LENGTH TENSION SPEED Line 4: +99999_m 999,9_t 999,9_m/min Line 5: MESSAGE FEEDBACK LINE 3 TEXT 1-256 Line 6: MESSAGE FEEDBACK LINE 4 TEXT 1-256 Line 7: ALARM EMERGENCY SHUTDOWN Line 8: TENSION CONTROL ACTIVATED Line 5: MESSAGE FEEDBACK LINE 2 TEXT 1-256 Line 6: MESSAGE FEEDBACK LINE 2 TEXT 1-256 Line 7: ALARM Line 8: TENSION CONTROL ACTIVATED Line 3: LENGTH Line 4: +99999_m Line 5: MESSAGE FEEDBACK LINE 3 TEXT 1-256 Line 6: MESSAGE FEEDBACK LINE 4 TEXT 1-256 Line 7: ALARM Line 8: TENSION CONTROL ACTIVATED Line 3: TENSION Line 4: 999,9_t Line 5: MESSAGE FEEDBACK LINE 3 TEXT 1-256 Line 6: MESSAGE FEEDBACK LINE 4 TEXT 1-256 Line 7: ALARM Line 8: TENSION CONTROL ACTIVATED Line 3: SPEED Line 4: 999,9_m/min Line 5: MESSAGE FEEDBACK LINE 3 TEXT 1-256 Line 6: MESSAGE FEEDBACK LINE 4 TEXT 1-256 Line 7: ALARM Line 8: TENSION CONTROL ACTIVATED						
B							
C							
D							
E							
F							
1	Umbau	20.09.2022	avel	Datum	20.09.2022	Kunde	HBC-radlomatic Norge
				Gezeichnet	avel	Kommission	MacGregor / Triplex
				Geprüft	avrb	Bestellnummer	26165-KLE
Rev.	Änderung	Datum	Name	Genehmigt		Orig.	Ersetzt
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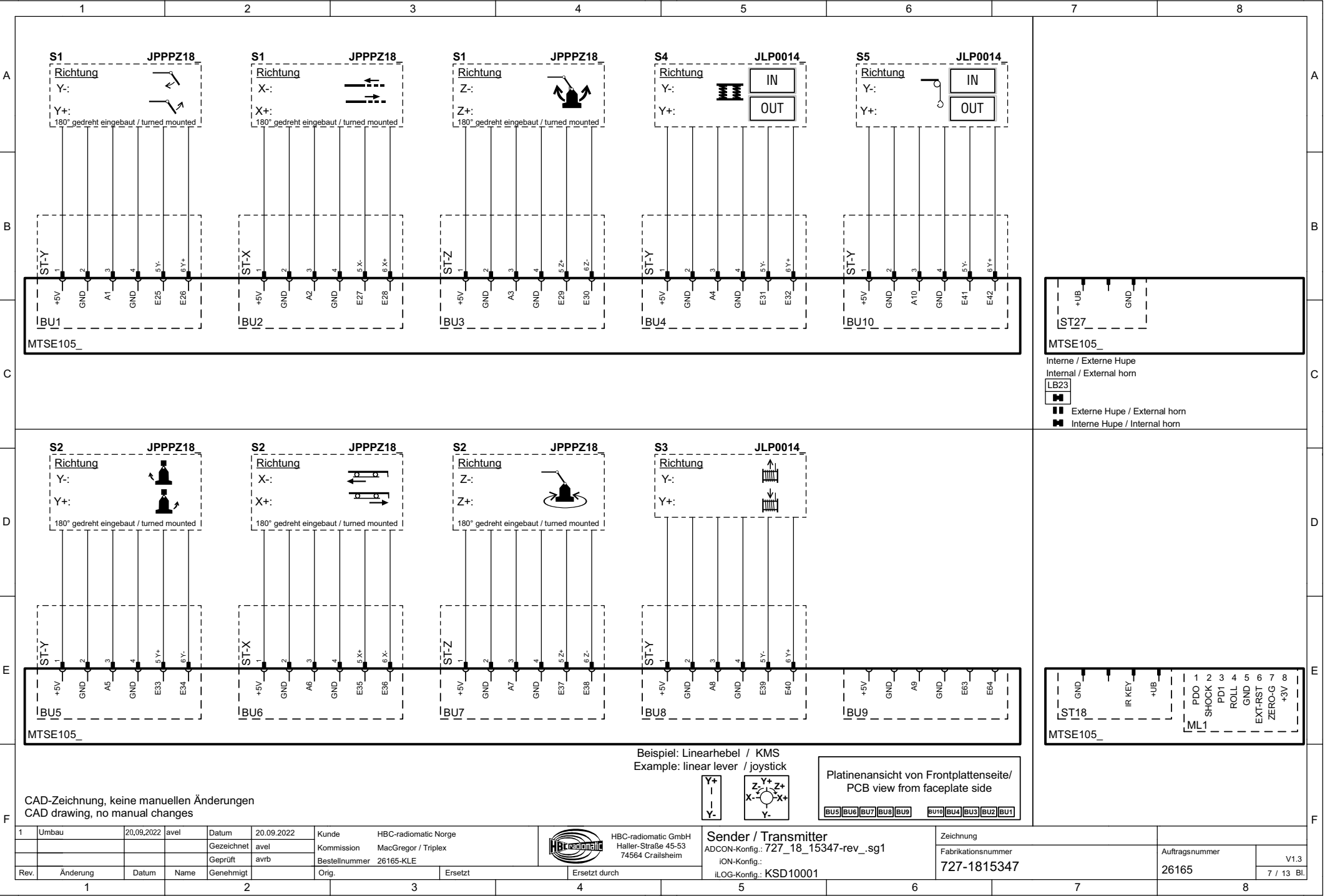


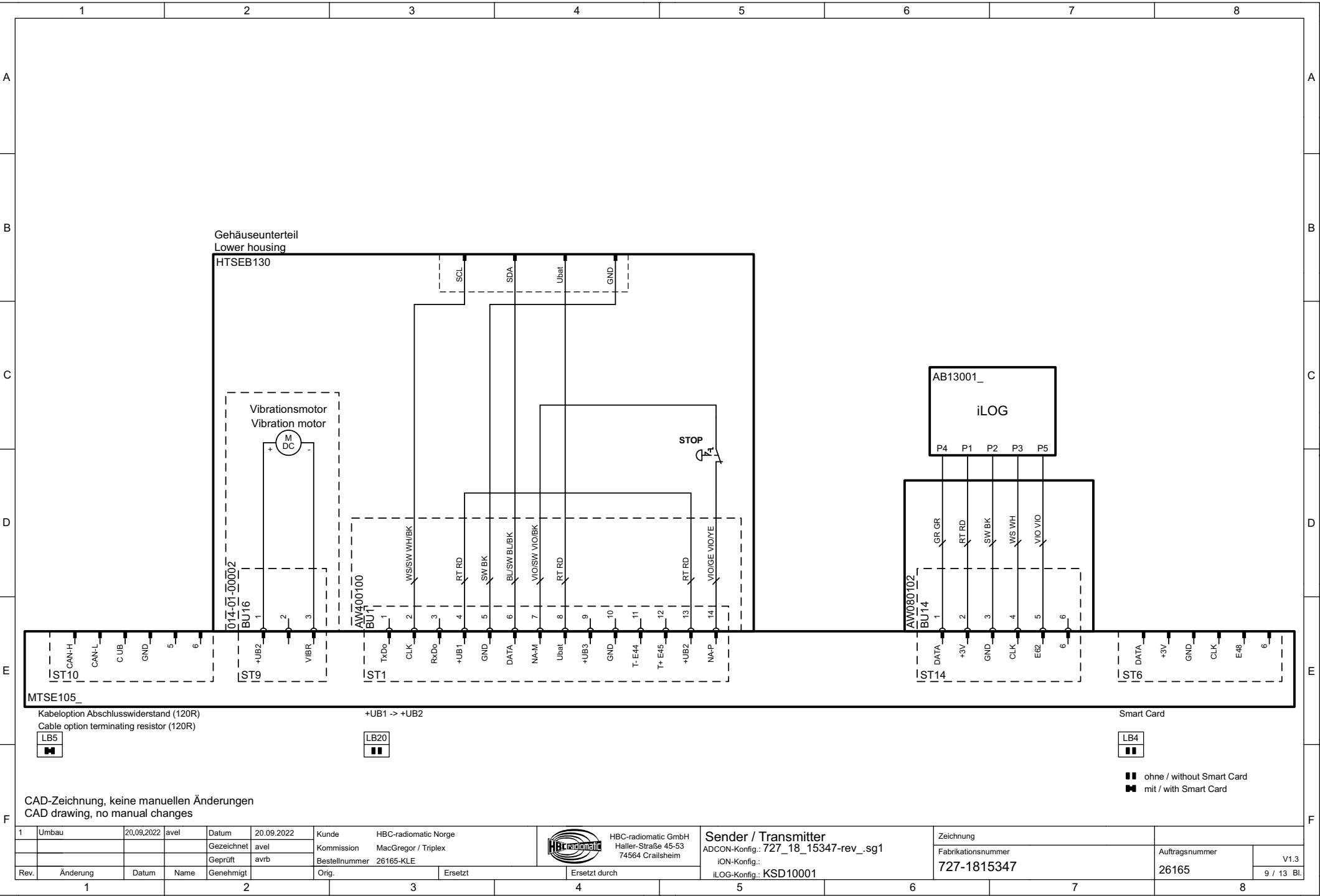
CAD-Zeichnung, keine manuellen Änderungen

CAD drawing, no manual changes

1	Umbau	20.09.2022	avel	Datum	20.09.2022	Kunde	HBC-radiomatic Norge			HBC-radiomatic GmbH Haller-Strasse 45-53 74564 Crailsheim	Sender / Transmitter		Zeichnung				
				Gezeichnet	avel	Kommission	MacGregor / Triplex				ADCON-Konfig.: 727_18_15347-rev_.sg1		Fabrikationsnummer		Auftragsnummer		
				Geprüft	avrb	Bestellnummer 26165-KLE		iON-Konfig.:			727-1815347				V1.3		
Rev.	Änderung	Datum	Name	Genehmigt		Orig.		Ersetzt				Ersetzt durch	iLOG-Konfig.: KSD10001				4 / 13 Bl.

12345678







1		2		3		4		5		6		7		8	
A	Platine / Bedienelemente/ usw. PCB's / Operating elements / etc.			Stückliste Sender / Bill of material Transmitter											
	Zeile	Name	Material	Typbezeichnung		Beschreibung		Alternativ-Material		Bemerkungen		Software			
	1	107-90-00021	107-90-00021	radiomatic® ADCON											
	2	107-90-00022	107-90-00022	radiomatic® iLOG											
B	3	AB13001_	AB13001_	iLOG-Lesemodul für spectrum											
	4	AF01217_	AF01217_	Display spectrum D/E - mit Videoschnittstelle Display spectrum D/E - with video interface		20 cm Flachbandkabel 20 cm ribbon cable						SF001007 / SF004011			
	5	AP00400_	AP00400_	Überrollbügel spectrum E (Edelstahl) rollover bar spectrum E (stainless steel)											
	6	D1	008-13-00168	LED grün/rot		d=5mm									
C	7	HTSE0_3_	HTSE0_3_	Housing transmitter spectrum E iLOG Oberteil Housing transmitter spectrum E iLOG upper housing		orange orange									
	8	HTSEB130	HTSEB130	Housing transmitter spectrum E Unterteil		Stop-Schlagschalter orange									
	9	MTSE105_	MTSE105_	Mainboard transmitter spectrum E		VDT2						SE0D212_ / SS00210_			
	10	R1	IE340001	Potentiometer potentiometer		d=10mm									
D	11	S1	JPPPZ18_	Joystick proportional Prop./Prop. mit Z-Achse, 30° Joystick proportional Prop./Prop. with Z-axis, 30°		Niederhalter (003-90-00006) + Faltenbalg (003-90-00206 or 003-90-00628 VITON) downholder (003-90-00006) + rubber bellow (003-90-00206 or 003-90-00628 VITON)									
	12	S2	JPPPZ18_	Joystick proportional Prop./Prop. mit Z-Achse, 30° Joystick proportional Prop./Prop. with Z-axis, 30°		Niederhalter (003-90-00006) + Faltenbalg (003-90-00206 or 003-90-00628 VITON) downholder (003-90-00006) + rubber bellow (003-90-00206 or 003-90-00628 VITON)									
	13	S3	JLP0014_	Joystick Linearhebel proportional, 140mm Kabel Joystick linear lever proportional, 140mm Cables		schwarz black									
	14	S4	JLP0014_	Joystick Linearhebel proportional, 140mm Kabel Joystick linear lever proportional, 140mm Cables		schwarz black									
E	15	S5	JLP0014_	Joystick Linearhebel proportional, 140mm Kabel Joystick linear lever proportional, 140mm Cables		schwarz black									
	16	S6	IE230017	KHT, kurz KHT, short		d=16mm									
	17	S7	IE230017	KHT, kurz KHT, short		d=16mm									
	18	S8	IE230017	KHT, kurz KHT, short		d=16mm									
F	19	S9	IE230017	KHT, kurz KHT, short		d=16mm									
	20	S10	IE230017	KHT, kurz KHT, short		d=16mm									
	21	S11	IE230017	KHT, kurz KHT, short		d=16mm									
	22	S12	IE230017	KHT, kurz KHT, short		d=16mm									
F	23	S13	IE230017	KHT, kurz KHT, short		d=16mm									
	24	S14	IE230017	KHT, kurz KHT, short		d=16mm									
CAD-Zeichnung, keine manuellen Änderungen CAD drawing, no manual changes															
1		Umbau		20.09.2022		avel		Datum		20.09.2022		Kunde		HBC-radiomatic Norge	
								Gezeichnet		avel		Kommission		MacGregor / Triplex	
								Geprüft		avrb		Bestellnummer		26165-KLE	
Rev.		Änderung		Datum		Name		Genehmigt				Orig.		Ersetzt	
												Ersetzt durch			
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												6			
												7			
												8			

1		2		3		4		5		6		7		8	
A	Platine / Bedienelemente/ usw. PCB's / Operating elements / etc.			Stückliste Sender / Bill of material Transmitter											
	Zeile	Name	Material	Typbezeichnung	Beschreibung			Alternativ-Material		Bemerkungen			Software		
	25	S15	IE230001	D-Jet	d=10mm										
	26	S16	IE120010	Kippschalter Rast-Rast groß std. toggle switch maintain-maintain big std.	d=12mm			IE120026							
	27	S17	IE230001	D-Jet	d=10mm										
B	28	S18	IE230001	D-Jet	d=10mm										
	29	S19	IE230001	D-Jet	d=10mm										
	30	S20	IE120009	Kippschalter Rast-Rast klein toggle switch maintain-maintain small	d=12mm										
	31	S21	IE120010	Kippschalter Rast-Rast groß std. toggle switch maintain-maintain big std.	d=12mm			IE120026							
	32	S22	IE120019	Kippschalter Rast-0-Rast groß std. toggle switch maintain-0-maintain big std.	d=12mm			IE120027							
C	33	S23	IE120019	Kippschalter Rast-0-Rast groß std. toggle switch maintain-0-maintain big std.	d=12mm			IE120027							
	34	S24	IE120019	Kippschalter Rast-0-Rast groß std. toggle switch maintain-0-maintain big std.	d=12mm			IE120027							
	35	Z1	003-90-00447	KHT, blind kurz KHT, blind short	d=16mm										
	36	Z2	003-90-00447	KHT, blind kurz KHT, blind short	d=16mm										
	37	Z3	003-90-00447	KHT, blind kurz KHT, blind short	d=16mm										
D															
E															
F															
CAD-Zeichnung, keine manuellen Änderungen CAD drawing, no manual changes															
1	Umbau	20.09.2022	avel	Datum	20.09.2022	Kunde	HBC-radiomatic Norge			HBC-radiomatic GmbH Haller-Strasse 45-53 74564 Crailsheim	Listen / Lists	Zeichnung			
				Gezeichnet	avel	Kommission	MacGregor / Triplex					Fabrikationsnummer		Auftragsnummer	
Rev.	Änderung	Datum	Name	Geprüft	avrb	Bestellnummer	26165-KLE					727-1815347		26165	
1		2		3		4		5		6		7		8	

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1		2		3		4		5		6		7		8		
A	Kabelbäume Harness			Stückliste Sender / Bill of material Transmitter												A
	Zeile	Name	Material	Typbezeichnung	Beschreibung	Alternativ-Material	Bemerkungen		Katalognummer							
	1	AW080102	AW080102	Verdrahtungshilfe harness	AMP-Buchse 6pol., 5 Adern, eco 2 UT											
	2	AW110004	AW110004	Verdrahtungshilfe harness	AMP-Buchse 26pol., 28 Adern, spectrum											
	3	AW240001	AW240001	Verdrahtungshilfe harness	AMP-Buchse 16pol., 14 Adern, spectrum											
	4	AW250004	AW250004	Verdrahtungshilfe	AVX-Buchse 8pol., 8 Adern											
	5	AW440001	AW440001	Verdrahtungshilfe harness	AMP-Buchse 8pol., 8 Adern, spectrum E41-43											
B	6	AW504100	AW504100	Binder auf USB, Editier-Schnittstelle für TFT-Display								B				
C												C				
D												D				
E												E				
F												F				
CAD-Zeichnung, keine manuellen Änderungen CAD drawing, no manual changes																
1	Umbau	20.09.2022	avel	Datum	20.09.2022	Kunde	HBC-radiomatic Norge			HBC-radiomatic GmbH Haller-Straße 45-53 74564 Crailsheim	Listen / Lists	Zeichnung				
				Gezeichnet	avel	Kommission	MacGregor / Triplex					Fabrikationsnummer		Auftragsnummer		
				Geprüft	avrb	Bestellnummer	26165-KLE					727-1815347		26165		
Rev.	Änderung	Datum	Name	Genehmigt		Orig.		Ersetzt		Ersetzt durch				V1.3		
1		2		3		4		5		6		7		8		
12 / 13 Bl.																

1

2

3

4

5

6

7

8

Platinen / Gehäuse / usw.
PCB's / Housings / etc.

Stückliste Empfänger / Bill of material Receiver

Zeile

Name

Material

Typbezeichnung

Beschreibung

Alternativ-Material

Bemerkungen

Software

1

107-90-00021

107-90-00021

radiomatic® ADCON

2

BU1

010-02-00442

Buchsenleiste 3-polig
female connector strip 3-polig

3

BU1.1

010-02-00011

Buchsenleiste 3-polig
female connector strip 3-polig

4

BU2.1

010-02-00506

Buchsenleiste 3-polig
female connector strip 3-polig

5

BU3.1

010-02-00507

Buchsenleiste 12-polig
female connector strip 12-polig

6

CM7372__

CM7372__

CAN-Manager

CAN-Manager TC20/38

SA00320_ / SB00320_
/ SY00320_

7

HR168F13

HR168F13

Kunststoff-Gehäuse FSE727, HAN 32/50, SMA - MMCX,
MR72716_
plastic-case FSE727, HAN 32/50, SMA - MMCX, MR72716_

orange
orange

8

MR72716_

MR72716_

Mainboard Empfänger 727
Mainboard Receiver 727

DC 10-30V mit geox, Kabeloption, Optokoppler
DC 10-30V with geox, cable option, optical isolator

9

OE72713_

OE72713_

NOT-STOP-Ausgabekarte
E-STOP-output card

DC, 10xHigh-Side-Switch + CAN Safety

SOE0131__s19 /
SOE0220__hex

C

Steckverbinder
Plug-in connector

Stückliste Empfänger / Bill of material Receiver

Zeile

Name

Material

Typbezeichnung

Beschreibung

Alternativ-Material

Katalognummer

Hersteller

1

AA080011

AA080011

Antennenkabel SMA + MMCX, 240mm
antenna cable SMA + MMCX, 240mm

d=9,5mm

HBC

2

X100/HAN 32A

010-03-00097

Anbaugehäuse Size 32A
addition housing Size 32A

gerade, niedrige Bauart, 2 Bügel
straight, low Type of Construction, 2 clamp

09 20 032 0301

Harting

3

010-03-00080

010-03-00080

Steckereinsatz HAN 16A (Size 16/32A)
plug insert HAN 16A (Size 16/32A)

Crimpanschluß
crimp connection

09 20 016 3001

Harting

4

010-03-00102

010-03-00102

Steckereinsatz HAN 32A (Size 32A)
plug insert HAN 32A (Size 32A)

Crimpanschluß
crimp connection

09 20 016 3011

Harting

D

Kabelbäume
Harness

Stückliste Empfänger / Bill of material Receiver

Zeile

Name

Material

Typbezeichnung

Beschreibung

Alternativ-Material

Bemerkungen

Katalognummer

E

CAD-Zeichnung, keine manuellen Änderungen
CAD drawing, no manual changes

1

Umbau

20.09.2022

avel

Datum

20.09.2022

Kunde

HBC-radiomatic Norge

Gezeichnet

avel

Kommission

MacGregor / Triplex

Geprüft

avrb

Bestellnummer

26165-KLE

Orig.

Ersetzt

Ersetzt durch

HBC-radiomatic

HBC-radiomatic GmbH
Haller-Strasse 45-53
74564 Crailsheim

Listen / Lists

Zeichnung

Fabrikationsnummer

727-1815347

Auftragsnummer

26165

V1.3

13 / 13 Bl.

F

1

2

3

4

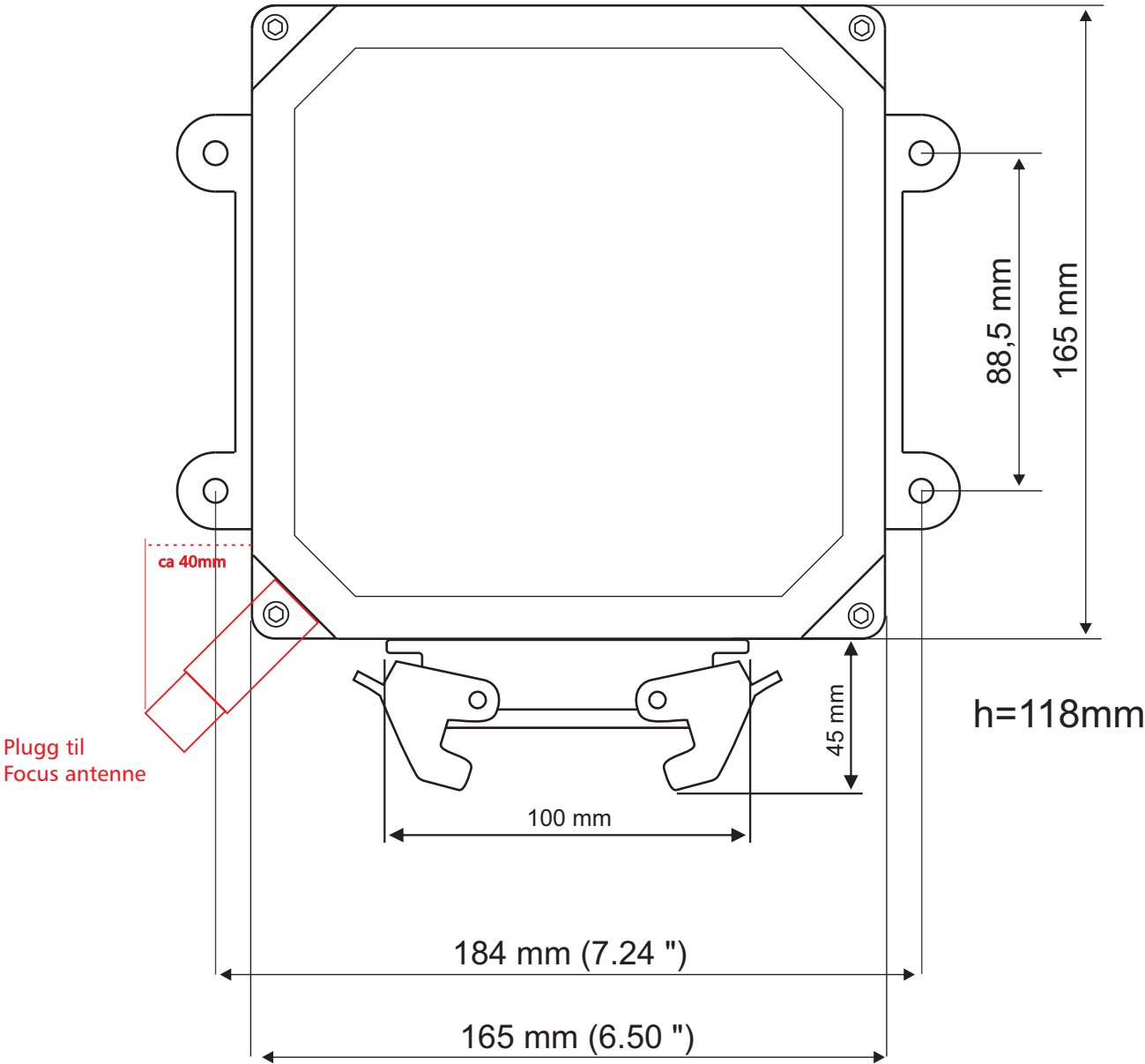
5

6

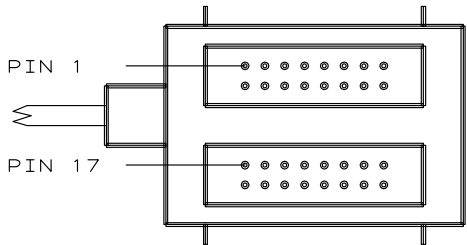
7

8

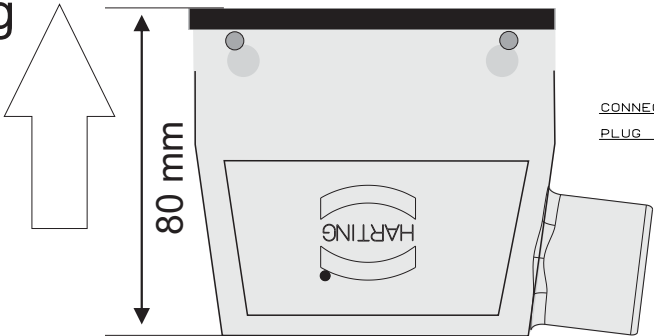
Receiver FSE 727 (HR 168)



Harting HAN 32 - plugg



VIEW FROM OUTSIDE



CONNECTOR
HBC RECEIVER
CONNECTOR : HAN 32 A
PLUG : 09 20 032 0520
HBC 010-03-00180

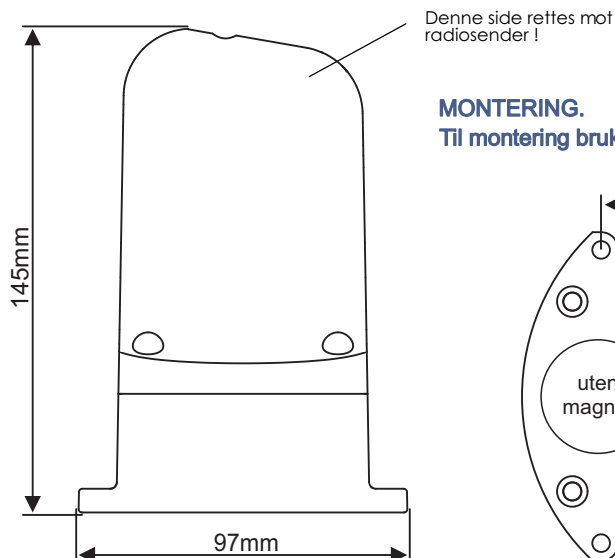
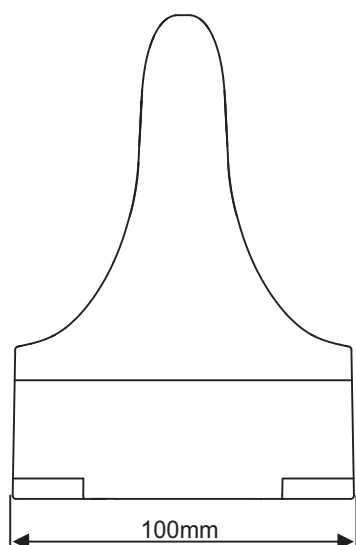
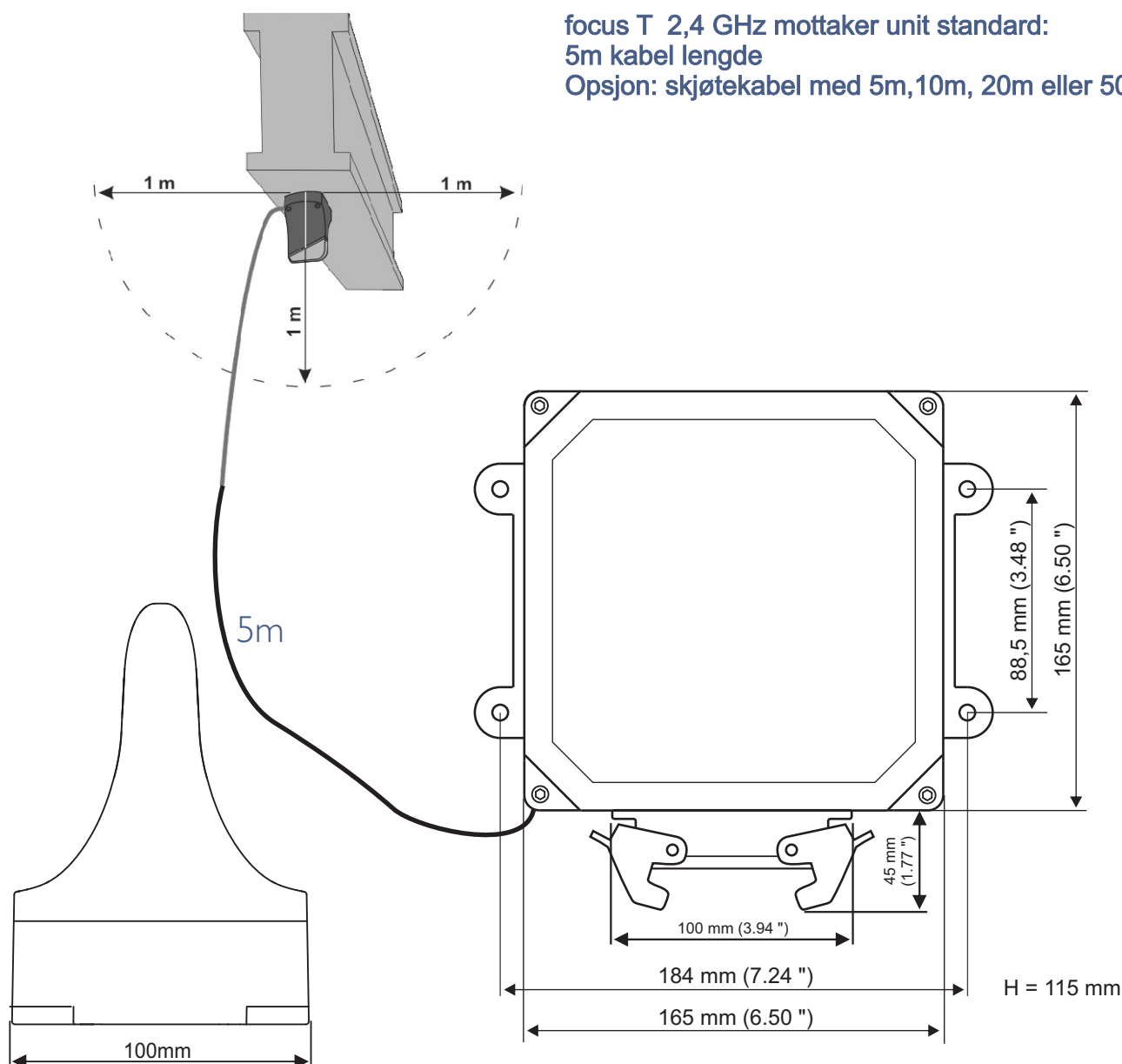
Mottaker FSE 727 focus T 2,4GHz



focus T 2,4 GHz mottaker unit standard:

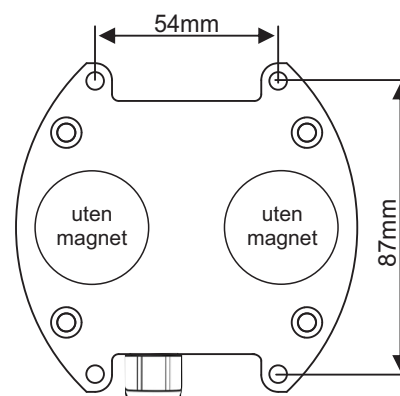
5m kabel lengde

Opsjon: skjøtekabel med 5m, 10m, 20m eller 50m lengde



MONTERING.

Til montering brukes to av de diagonale hullene.



M16

1. Dip-Schalter / dip-switch

1.1. S3

- Einstellung der CANopen Node-ID/adjustment of CANopen Node-ID

Schalter/switch S3		Funktion/function	Stellung/position	
Pos.	Wert/value		off	on
1	2 ⁰ x D	Node-ID CANopen	x	
2	2 ¹ x D	Node-ID CANopen		x
3	2 ² x D	Node-ID CANopen	x	
4	2 ³ x D	Node-ID CANopen	x	
5	2 ⁴ x D	Node-ID CANopen	x	
6	2 ⁵ x D	Node-ID CANopen	x	
7	2 ⁶ x D	Node-ID CANopen	x	
8		reserviert/reserved	x	

- Node-ID [dez]: **2**

1.2. S4

- Einstellung der Bitrate CAN/adjustment of bit rate CAN

Schalter/switch S4		Funktion/function	Stellung/position	
Pos.	Wert/value		off	on
1	2 ⁰ x D	Bit-Rate CAN		x
2	2 ¹ x D	Bit-Rate CAN	x	
3	2 ² x D	Bit-Rate CAN	x	
4		reserviert/reserved	x	

Wert	Bit Rate [kBit/s]
0	50
1	125
2	250
3	500
4	1000
5	keine Funktion/no function
6	keine Funktion/no function
7	keine Funktion/no function

- CAN-Bit-Rate[kBit/s]: **125**

2. Globale Einstellungen / global configuration

2.1. Heartbeat

aktiv	Zykluszeit/ cycle time
☒	1s

2.2. CANopen-Safety

aktiv	Zykluszeit/ cycle time
☐	50ms

- CANopen Safety SRDOs

SRDO1-Objekt	ID	1	2
Inhalt/content	default**	NA*	NA inv*

SRDO2-Objekt	ID	1	2
Inhalt/content	default**	NA inv*	NA*

* NA = 0xFF (Notauskreis geschlossen/emergency stop closed)
NA = 0x00 (Notauskreis offen/emergency stop open)

** ID = default (ID-SRDO1 = 0xFF+2*Node-ID, ID-SRDO2 = 0x100+2*Node-ID)
ID = 0x___ (Festwert konfiguriert / fixed value configured)



3. TX-Data

3.1. Digitaleingänge/digital inputs (Schalter/switches)

Index/ index	Subindex/ subindex	Bit/ bit	Funktion/ funktion	Wertebereich/ range	Quelle/ source
6000	01	0	RADIO ON S10	0/1	1.Si1/0
		1	(E22)	0/1	1.Si1/1
		2	HORN S9	0/1	1.Si1/2
		3	LIGHT S6	0/1	1.Si1/3
		4	(SLOW MODE) TURTLE S20b	0/1	1.Si1/4
		5	(FAST MODE) HARE S20a	0/1	1.Si1/5
		6		0/1	1.Si1/6
		7	ACCU LOW	0/1	1.Si1/7
	02	0	S7	0/1	2.Si1/0
		1	S11	0/1	2.Si1/1
		2	S12 (SPARE)	0/1	2.Si1/2
		3	(E23)	0/1	2.Si1/3
		4	(E24)	0/1	2.Si1/4
		5		0/1	2.Si1/5
		6		0/1	2.Si1/6
		7		0/1	2.Si1/7
	03	0	S15	0/1	3.Si1/0
		1	S16a	0/1	3.Si1/1
		2	S16b	0/1	3.Si1/2
		3	S21a	0/1	3.Si1/3
		4	S21b	0/1	3.Si1/4
		5	S22a (SPARE)	0/1	3.Si1/5
		6	S22b (SPARE)	0/1	3.Si1/6
		7	S23a	0/1	3.Si1/7
	04	0	S23b	0/1	4.Si1/0
		1	S24a	0/1	4.Si1/1
		2	S24b	0/1	4.Si1/2
		3		0/1	4.Si1/3
		4		0/1	4.Si1/4
		5		0/1	4.Si1/5
		6		0/1	4.Si1/6
		7		0/1	4.Si1/7
	05	0		0/1	5.Si1/0
		1		0/1	5.Si1/1
		2		0/1	5.Si1/2
		3		0/1	5.Si1/3
		4		0/1	5.Si1/4
		5		0/1	5.Si1/5
		6		0/1	5.Si1/6
		7		0/1	5.Si1/7
	06	0		0/1	6.Si1/0
		1		0/1	6.Si1/1
		2		0/1	6.Si1/2
		3		0/1	6.Si1/3
		4		0/1	6.Si1/4

		5		0/1	6.Si1/5
		6		0/1	6.Si1/6
		7		0/1	6.Si1/7
	07	0		0/1	7.Si1/0
		1		0/1	7.Si1/1
		2		0/1	7.Si1/2
		3		0/1	7.Si1/3
		4		0/1	7.Si1/4
		5		0/1	7.Si1/5
		6		0/1	7.Si1/6
		7		0/1	7.Si1/7



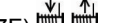
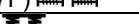
3.2. Digitaleingänge/digital inputs (Schalter/switches)

Index/ index	Subindex/ subindex	Bit/ bit	Funktion/ funktion	Wertebereich/ range	Quelle/ source
6000	08	0	HPU START S14	0/1	1.SI2/0
		1	HPU STOP S13	0/1	1.SI2/1
		2	ACTIVATE WINCH S17	0/1	1.SI2/2
		3	SELECT WINCH S18	0/1	1.SI2/3
		4	TENSION CONTROL S19	0/1	1.SI2/4
		5		0/1	
		6		0/1	
		7	PILOT VALVE S3	0/1	Logic
	09	0	PILOT VALVE S1-S2	0/1	Logic
		1	PILOT VALVE S4-S5	0/1	Logic
		2	PILOT VALVE S1 – S5	0/1	Logic
		3	PILOT R1 (OUT OF ZERO)	0/1	Logic
		4		0/1	2.SI2/4
		5		0/1	2.SI2/5
		6		0/1	2.SI2/6
		7		0/1	2.SI2/7
	0A	0	S1 X+	0/1	Logic
		1	S1 X-	0/1	Logic
		2	S1 Y+	0/1	Logic
		3	S1 Y-	0/1	Logic
		4	S1 Z+	0/1	Logic
		5	S1 Z-	0/1	Logic
		6	S2 X+	0/1	Logic
		7	S2 X-	0/1	Logic
	0B	0	S2 Y+	0/1	Logic
		1	S2 Y-	0/1	Logic
		2	S2 Z+	0/1	Logic
		3	S2 Z-	0/1	Logic
		4	S3 Y+	0/1	Logic
		5	S3 Y-	0/1	Logic
		6	S4 Y+ OUT	0/1	Logic
		7	S4 Y- IN	0/1	Logic
	0C	0	S5 Y+ OUT	0/1	Logic
		1	S5 Y- IN	0/1	Logic
		2		0/1	5.SI2/2
		3		0/1	5.SI2/3
		4		0/1	5.SI2/4
		5		0/1	5.SI2/5
		6		0/1	5.SI2/6
		7	R1 (OUT OF ZERO)	0/1	Logic
	0D	0		0/1	6.SI2/0
		1		0/1	6.SI2/1
		2		0/1	6.SI2/2
		3		0/1	6.SI2/3
		4		0/1	6.SI2/4
		5		0/1	6.SI2/5
		6		0/1	6.SI2/6

	OE	7		0/1	6.SI2/7
		0	SI 1 (COMUNICATION CIRCUIT OK)	0/1	
		1	SI 2 (ZERO POSITION TEST)	0/1	
		2		0/1	
		3		0/1	
		4	TELEGRAM COUNTER 2^0	0/1	
		5	TELEGRAM COUNTER 2^1	0/1	
		6	TELEGRAM COUNTER 2^2	0/1	
		7	TELEGRAM COUNTER 2^3	0/1	

Index/ index	Subindex/ subindex	Bit/ bit	Funktion/ funktion	Wertebereich/ range	Quelle/ source
6000	0F	0	NA Zustand / E-Stop State	0/1	SI1
		1	NA Zustand / E-Stop State	0/1	SI1
		2	NA Zustand / E-Stop State	0/1	SI1
		3	NA Zustand / E-Stop State	0/1	SI1
		4	NA Zustand / E-Stop State	0/1	SI1
		5	NA Zustand / E-Stop State	0/1	SI1
		6	NA Zustand / E-Stop State	0/1	SI1
		7	NA Zustand / E-Stop State	0/1	SI1
	10	0	NA Zustand invertiert / E-Stop inverted	0/1	SI1
		1	NA Zustand invertiert / E-Stop inverted	0/1	SI1
		2	NA Zustand invertiert / E-Stop inverted	0/1	SI1
		3	NA Zustand invertiert / E-Stop inverted	0/1	SI1
		4	NA Zustand invertiert / E-Stop inverted	0/1	SI1
		5	NA Zustand invertiert / E-Stop inverted	0/1	SI1
		6	NA Zustand invertiert / E-Stop inverted	0/1	SI1
		7	NA Zustand invertiert / E-Stop inverted	0/1	SI1

3.3. Analogeingänge/Analog inputs

Index/ index	Subindex/ subindex	Funktion/ funktion	Wertebereich/ range	Quelle/ source
6400	01	S1 X- (FF-80) / S1 X+ (00-7F) 	-128 ... +127	Prop 1
	02	S1 Y- (FF-80) / S1 Y+ (00-7F) 	-128 ... +127	Prop 2
	03	S1 Z- (FF-80) / S1 Z+ (00-7F) 	-128 ... +127	Prop 3
	04	S2 X- (FF-80) / S1 X+ (00-7F) 	-128 ... +127	Prop 4
	05	S2 Y- (FF-80) / S1 Y+ (00-7F) 	-128 ... +127	Prop 5
	06	S2 Z- (FF-80) / S1 Z+ (00-7F) 	-128 ... +127	Prop 6
	07	S3 Y- (FF-80) / S3 Y+ (00-7F) 	-128 ... +127	Prop 7
	08	S4 Y- (FF-80) / S4 Y+ (00-7F) 	-128 ... +127	Prop 8
	09	S5 Y- (FF-80) / S5 Y+ (00-7F) 	-128 ... +127	Prop 9
	0A	R1 POTI TENSION 0...100% 	0 ... 127	Prop 10

3.4. TX PDO-Mapping

- 1. TX PDO (0x180+Node-ID)

PDO-Objekt	1	2	3	4	5	6	7	8
Mappingparam.	6000/01	6000/02	6000/03	6000/04	6000/05	6000/06	6000/07	6000/0F

- 2. TX PDO (0x280+Node-ID)

PDO-Objekt	1	2	3	4	5	6	7	8
Mappingparam.	6000/08	6000/09	6000/0A	6000/0B	6000/0C	6000/0D	6000/0E	6000/10

- 3. TX PDO (0x380+Node-ID)

PDO-Objekt	1	2	3	4	5	6	7	8
Mappingparam.	6400/01	6400/02	6400/03	6400/04	6400/05	6400/06	6400/07	6400/08

- 4. TX PDO (0x480+Node-ID)

PDO-Objekt	1	2
Mappingparam.	6400/09	6400/0A

4. RX-Data

4.1. Digitalausgänge/Digital outputs

Index/ Index	Subindex/ subindex	Funktion/ funktion	Darstellung/ description	Wertebereich/ range	Ziel/ target	
6200	01	LENGHT (Bit 0 – 7)	DISPLAY LINE 4a +/- 0...99999	(-99999) – (+99999)	TxB 1/1	
	02	LENGHT (Bit 8 – 15)			TxB 1/2	
	03	LENGHT (Bit 16 – 23)			TxB 1/3	
	04	LENGHT (Bit 24 – 31)			TxB 1/4	
	05	TENSION (Bit 0 – 7)	DISPLAY LINE 4b 0...999,9	0 – 9999	TxB 1/5	
	06	TENSION (Bit 8 – 15)			TxB 1/6	
	07	SPEED (Bit 0 – 7)	DISPLAY LINE 4c 0...999,9	0 – 9999	TxB 1/7	
	08	SPEED (Bit 8 – 15)			TxB 1/8	
	09	MESSAGE 1	DISPLAY LINE 1	0-255	TxB 2/1	
	0A	MESSAGE 2	DISPLAY LINE 2	0-255	TxB 2/2	
	0B	MESSAGE 3	DISPLAY LINE 5	0-255	TxB 2/3	
	0C	MESSAGE 4	DISPLAY LINE 6	0-255	TxB 2/4	
	0D				TxB 2/5	
	0E				TxB 2/6	
	0F				TxB 2/7	
	10				TxB 2/8	
	11	0	DISPLAY LINE 1 (OFF/ON)		0/1	TxB 3/1
		1	DISPLAY LINE 1 (OFF/FLASH)		0/1	
		2	DISPLAY LINE 2 (OFF/ON)		0/1	
		3	DISPLAY LINE 2 (OFF/FLASH)		0/1	
		4	DISPLAY LINE 3 (OFF/ON)		0/1	
		5	DISPLAY LINE 3 (OFF/FLASH)		0/1	
		6	DISPLAY LINE 4 (OFF/ON)		0/1	
		7	DISPLAY LINE 4 (OFF/FLASH)		0/1	
	12	0	DISPLAY LINE 5 (OFF/ON)		0/1	TxB 3/2
		1	DISPLAY LINE 5 (OFF/FLASH)		0/1	
		2	DISPLAY LINE 6 (OFF/ON)		0/1	
		3	DISPLAY LINE 6 (OFF/FLASH)		0/1	
		4	DISPLAY LINE 7A (OFF/ON)		0/1	
		5	DISPLAY LINE 7A (OFF/FLASH)		0/1	
		6	DISPLAY LINE 7B (OFF/ON)		0/1	
		7	DISPLAY LINE 7B (OFF/FLASH)		0/1	
	13	0	DISPLAY LINE 8 (OFF/ON)		0/1	TxB 3/3
		1	DISPLAY LINE 8 (OFF/FLASH)		0/1	
		2	LENGTH DISPLAY LINE 4 VALUE 2^0 *		0 – 3	
		3	LENGTH DISPLAY LINE 4 VALUE 2^1 *			
		4	TENSION DISPLAY LINE 4 VALUE 2^0 *		0 – 3	
		5	TENSION DISPLAY LINE 4 VALUE 2^1 *			
		6	SPEED DISPLAY LINE 4 VALUE 2^0 *		0 – 3	
		7	SPEED DISPLAY LINE 4 VALUE 2^1 *			
	14	0			0/1	TxB 3/4
		1			0/1	
		2			0/1	
		3	VIBRATION		0/1	
		4	back to display “MAIN PAGE”		0/1	
		5			0/1	
		6			0/1	
		7			0/1	

* Einheit Zuordnung siehe Tabelle 4.2 / Unit assignment, see table 4.2.

Index/ Index	Subindex/ subindex	Funktion/ funktion		Darstellung/ description	Wertebereich/ range	Ziel/ target
6200	15	0	Decimal point LENGTH Value 2^0		0-3	TxB 3/5
		1	Decimal point LENGTH Value 2^1			
		2	Decimal point TENSION Value 2^0		0-3	
		3	Decimal point TENSION Value 2^1			
		4	Decimal point SPEED Value 2^0		0-3	
		5	Decimal point SPEED Value 2^1			
		6			0/1	
		7			0/1	
	16	0			0/1	TxB 3/6
		1			0/1	
		2			0/1	
		3			0/1	
		4			0/1	
		5			0/1	
		6			0/1	
		7			0/1	
	17	0	not used in this sys- tem	(Shift-Register LED A1)	0/1	TxB 3/7
		1	not used in this sys- tem	(Shift-Register LED A2)	0/1	
		2	not used in this sys- tem	(Shift-Register LED A3)	0/1	
		3	not used in this sys- tem	(Shift-Register LED A4)	0/1	
		4	not used in this sys- tem	(Shift-Register LED A5)	0/1	
		5	not used in this sys- tem	(Shift-Register LED A6)	0/1	
		6	not used in this sys- tem	(Shift-Register LED A7)	0/1	
		7	not used in this sys- tem	(Shift-Register LED A8)	0/1	
	18	Reserve				0 – 255

4.2. Einheit Zuordnung / Unit assignment

DISPLAY LINE 4 (LENGTH)

Wertebereich/ range	Einheit/ unit
0	m
1	feet
2	ft
3	

DISPLAY LINE 4 (TENSION)

Wertebereich/ range	Einheit/ unit
0	t
1	LBS
2	Kg
3	

DISPLAY LINE 4 (SPEED)

Wertebereich/ range	Einheit/ unit
0	m/min
1	m/s
2	feet/min
3	ft/min

4.3. Dezimalpunkt / Decimal point

Wertebereich/ range	Dezimal- punkt/ Decimal point
0	0
1	0,0
2	0,00
3	0,000



MAIN Page

white background



display service



blue background



Line 1

MESSAGE FEEDBACK LINE 1

Line 2

MESSAGE FEEDBACK LINE 2

Line 3

LENGTH TENSION SPEED

Line 4

+9999 m 999,9 t 999,9 m/min

Line 5

MESSAGE FEEDBACK LINE 3

Line 6

MESSAGE FEEDBACK LINE 4

Line 7a/b

ALARM EMERGENCY SHUTDOWN

Line 8

TENSION CONTROL ACTIVATED

L

„LENGTH„ Page

T

„TENSION„ Page

S

„SPEED„ Page

MESSAGE FEEDBACK LINE 1

MESSAGE FEEDBACK LINE 2

LENGTH TENSION SPEED

+9999 m 999,9 t 999,9 m/min

MESSAGE FEEDBACK LINE 3

MESSAGE FEEDBACK LINE 4

ALARM EMERGENCY SHUTDOWN

TENSION CONTROL ACTIVATED

LENGTH Page

„MAIN“ Page



white background



display service



blue background



Line 1

MESSAGE FEEDBACK LINE 1

Line 3

LENGTH

Line 4

+99999 m

Line 6

MESSAGE FEEDBACK LINE 4

Line 7a/b

ALARM EMERGENCY SHUTDOWN

Line 8

TENSION CONTROL ACTIVATED

T

„TENSION„ Page

S

„SPEED„ Page

MESSAGE FEEDBACK LINE 1

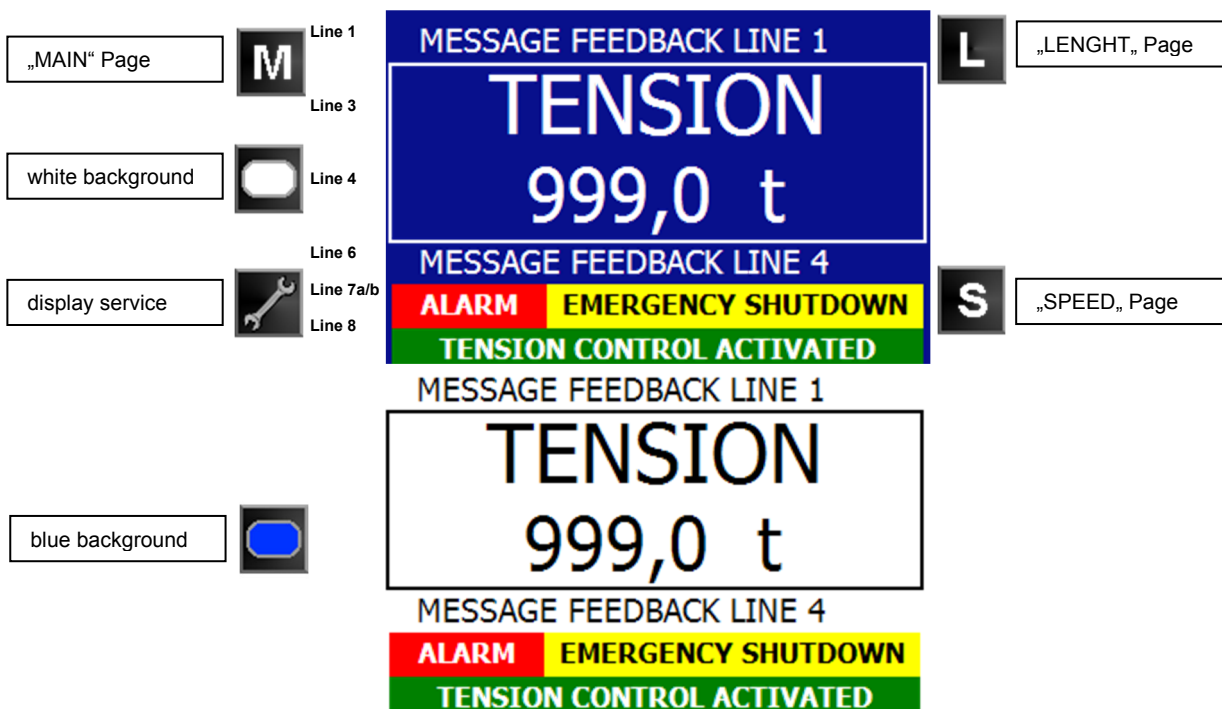
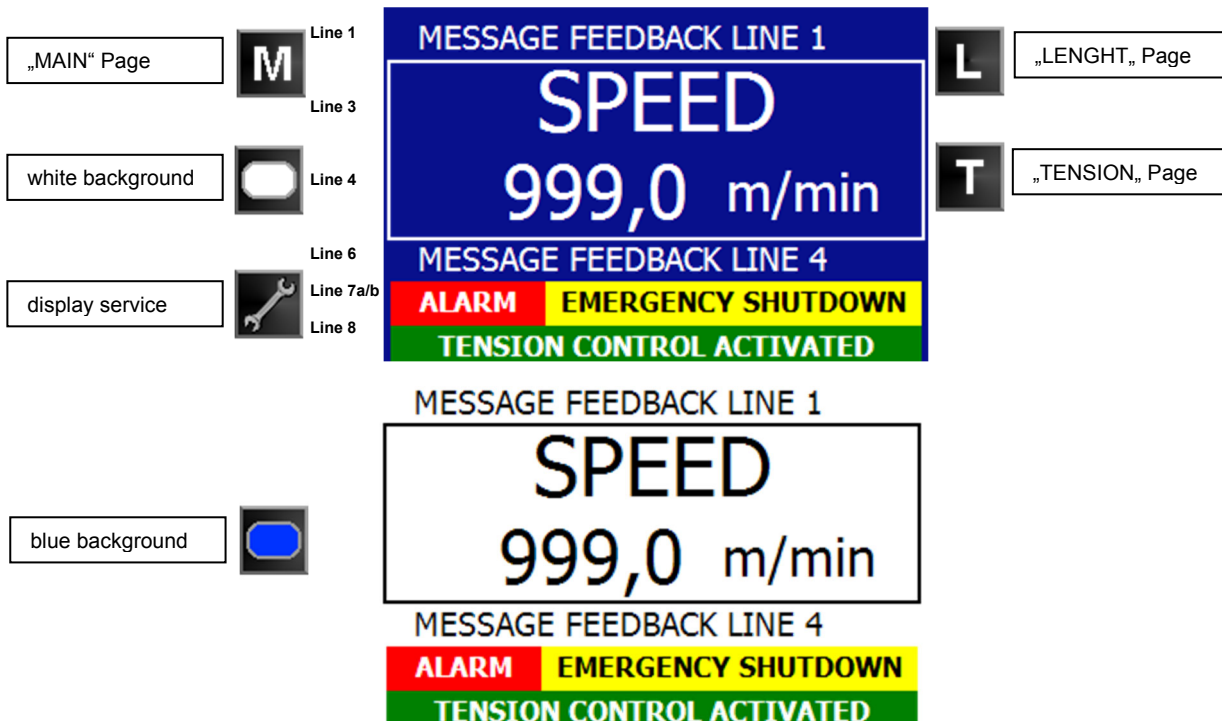
LENGTH

+99999 m

MESSAGE FEEDBACK LINE 4

ALARM EMERGENCY SHUTDOWN

TENSION CONTROL ACTIVATED

TENSION PageSPEED Page

Back to "MAIN PAGE" also with pushbutton S13 (SELECT WINCH) or feedback-command 6200/14/ Bit 4.
 Each "MESSAGE LINE" has an own editable (with special HBC-USB-connecting-cable) text-file in the display folder TXT. In all display text files the first text-line has no text (only one space character) and is used for NO TEXT-OUTPUT on the display.

4.4. RX PDO-Mapping

- 1. RX PDO (0x200+Node-ID)

PDO-Objekt	1	2	3	4	5	6	7	8
Mappingparam.	6200/01	6200/02	6200/03	6200/04	6200/05	6200/06	6200/07	6200/08

- 2. RX PDO (0x300+Node-ID)

PDO-Objekt	1	2	3	4	5	6	7	8
Mappingparam.	6200/09	6200/0A	6200/0B	6200/0C	6200/0D	6200/0E	6200/0F	6200/10

- 3. RX PDO (0x400+Node-ID)

PDO-Objekt	1	2	3	4	5	6	7	8
Mappingparam.	6200/11	6200/12	6200/13	6200/14	6200/15	6200/16	6200/17	6200/18

- 4. RX PDO (0x500+Node-ID)

PDO-Objekt	1	2	3	4	5	6	7	8
Mappingparam.	6200/19	6200/1A	6200/1B	6200/1C	6200/1D	6200/1E	6200/1F	6200/20