

Operating Instructions

Project: MBARI R/V David Packard / A-FRAME

Triplex item nr. 400198449 RC-AFR-HBC.SD.1-22
WBS Element 4/60185.1.C1
order nr.: 4504420729

Serial nr.: 727-1802317

Model: spectrum D iLOG GI

Frequency: 2.4GHz / TC241 / Focus-T

Delivery date: 12.12.2022



spectrum D

Vedlegg 1: sikkerhets informasjon

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 tilleggfunksjoner** hvis reserveknapper eller reservejoysticker blir tatt i bruk
- 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

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.
- 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.

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

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TRIPLEX



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spectrum D

CE

TRIPLEX



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spectrum D

CE

inkludert

"Tilleggsinformasjon om
sikkerhet" i bruksanvisning



727

5m

10m

RADIO CONTROLLED

WHEN WORKING ON THE SYSTEM, KEEP THE
RADIO CONTROL TRANSMITTER IN YOUR
POSSESSION OR PUT IT IN A SECURE PLACE

RADIO CONTROLLED

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CAUTION - VORSICHT - ATTENTION - ATTENZIONE - ATENCION

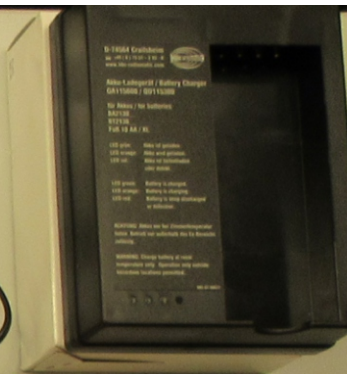


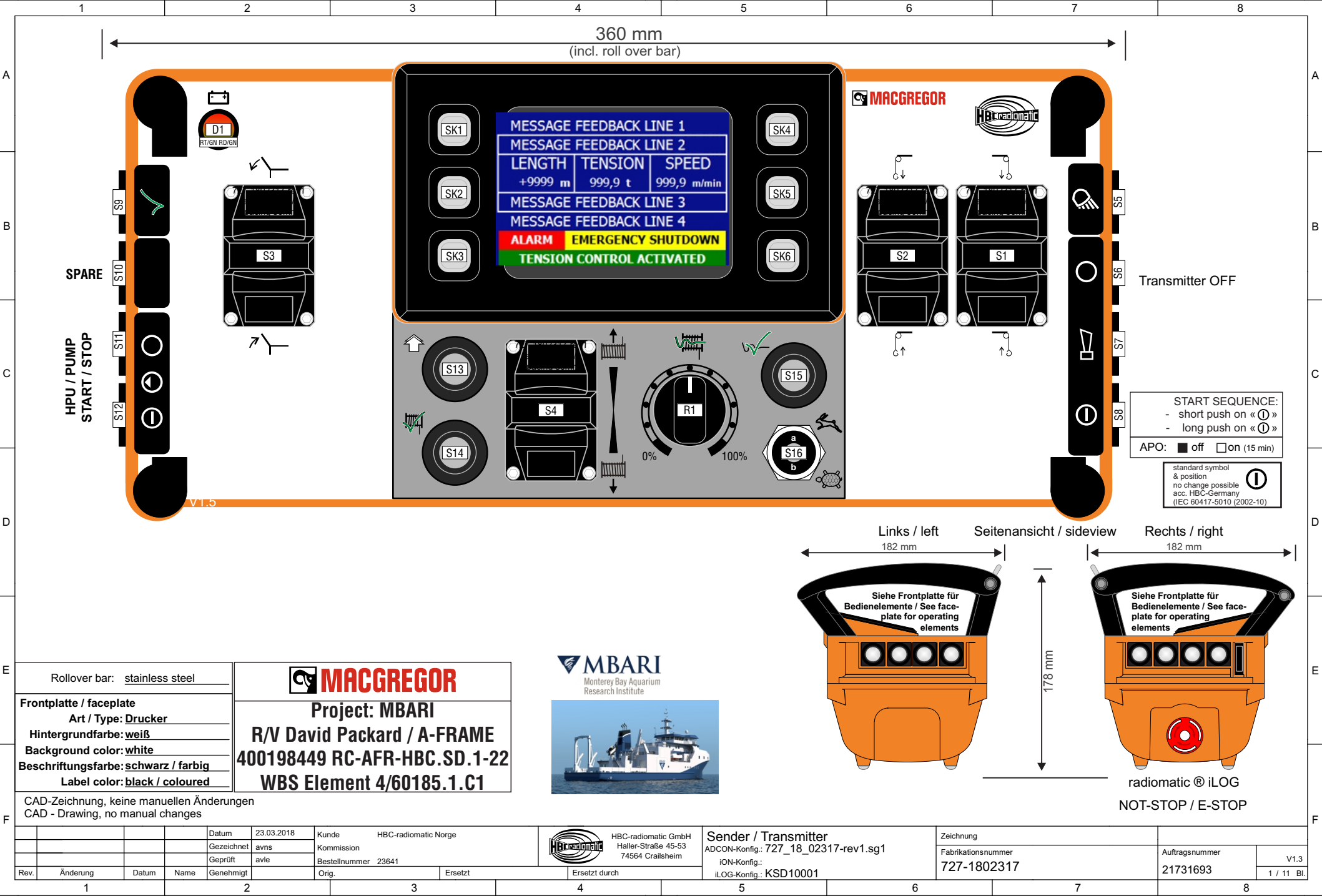
RADIO REMOTE CONTROLLED
FUNKGESTEUERT
RADIOCOMMANDE
RADIOCOMANDO
RADIO COMANDO

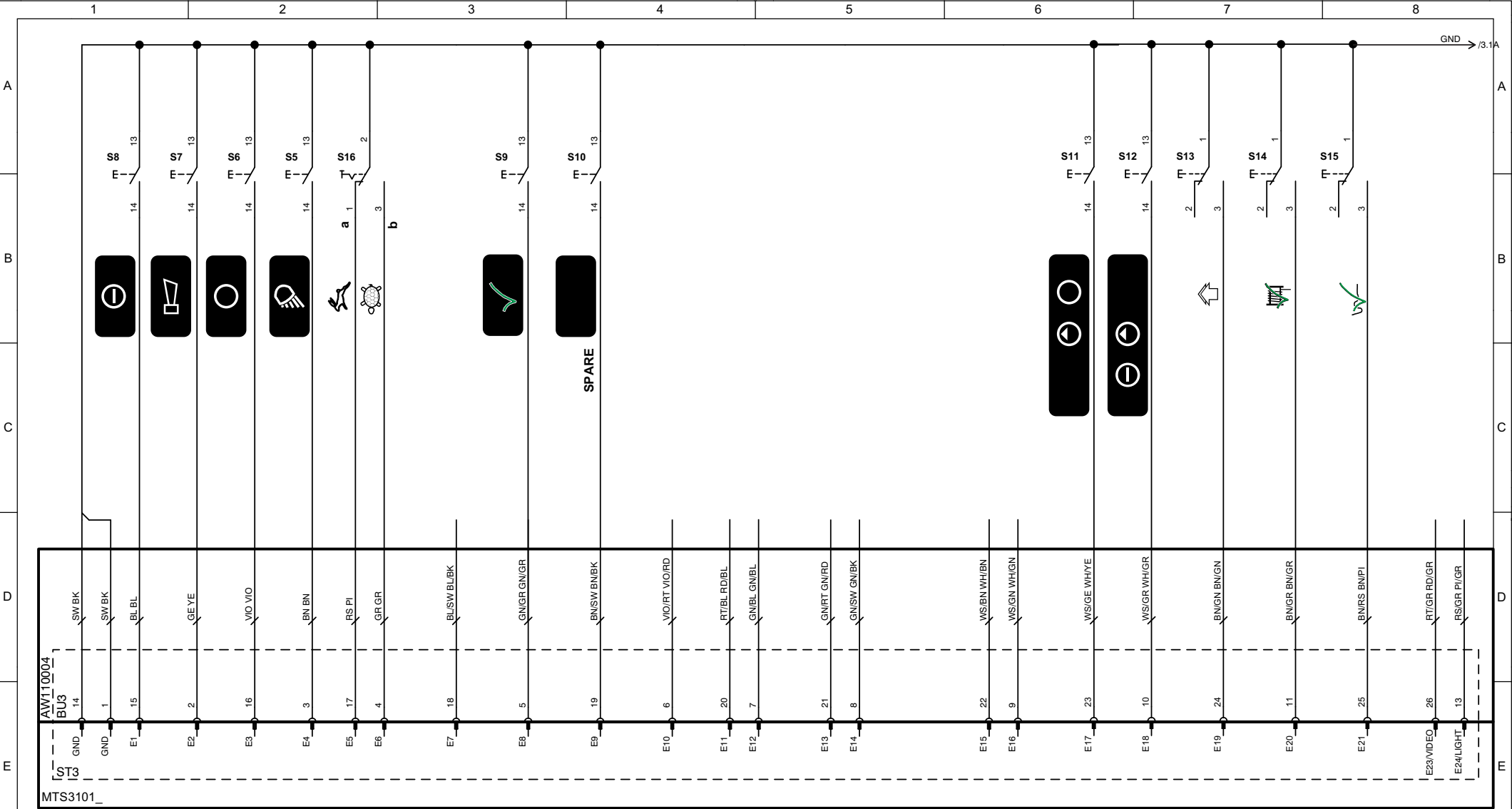
HBC-radiomatic GmbH
Tel.: +49 7051 383-0
www.hbc-radiomatic.com

US

EU







1) Generalfreigabe 062

Funk-Start radio start
Kran-Ein-Verriegelung crane on interlock
radiomatic® infrakey
Kabeloption cable option

radiomatic® zero-g
radiomatic® roll-detect
radiomatic® shock-off
inclination switch

15	APO-Zeit (min.) APO-time (min.)
----	------------------------------------

Funktion E17-24 function E17-24	LB2	■
Funktion E9-16 function E9-16	LB3	■
Funktion E41-43 function E41-43	LB4	■
■ SI1	■ SI2	

E1-8 immer SI1
E1-8 always SI1

4	Hidden-Switch
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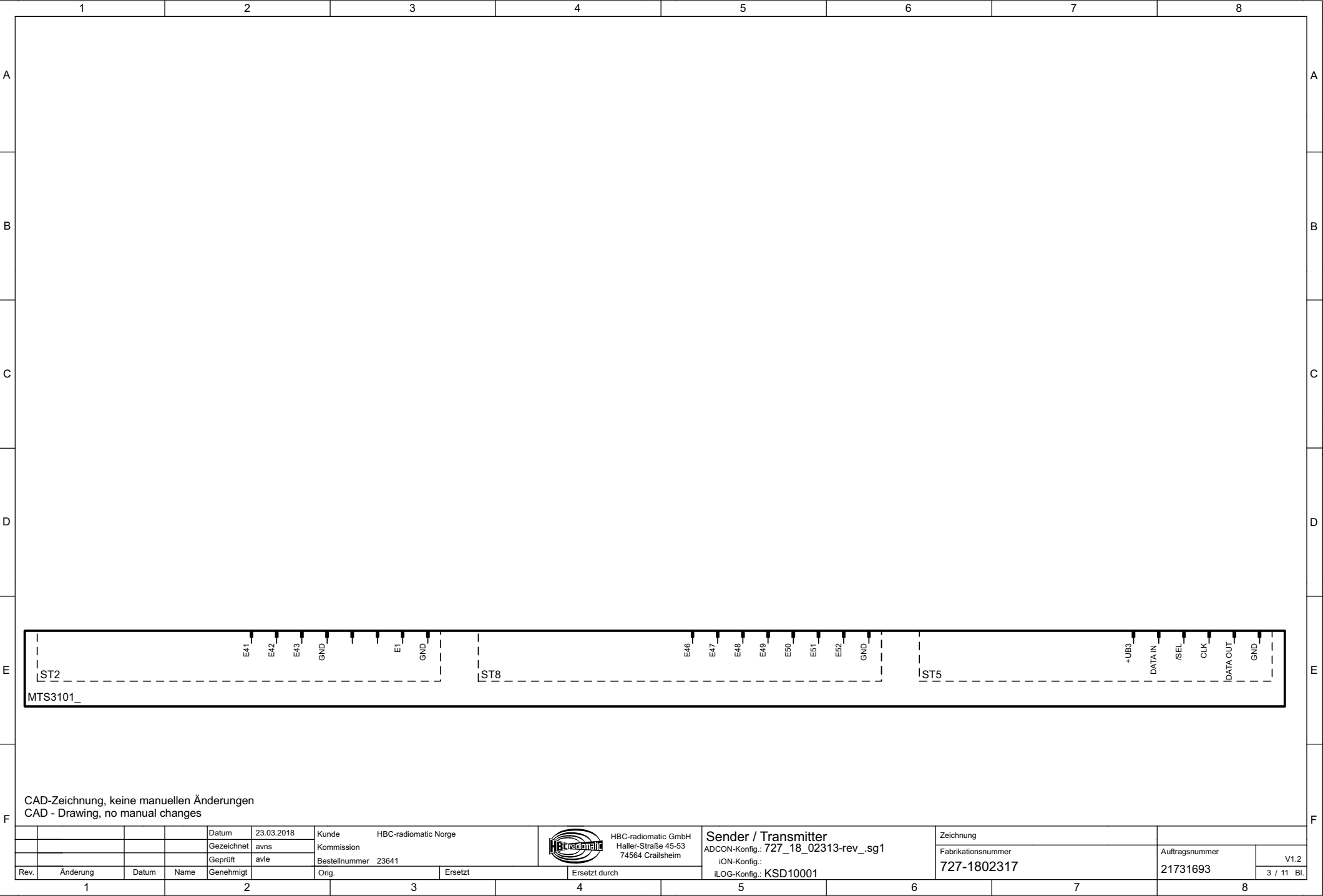
Start
start
LB8
■

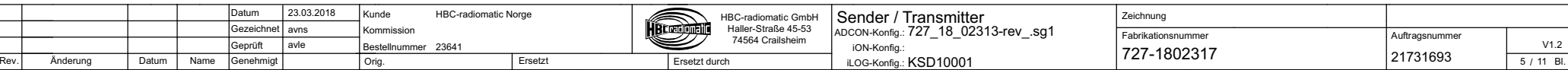
■ Start via Ein-/ Start-Taster
start via on-/ start-pushbutton
■ Start via iCON
start via iCON

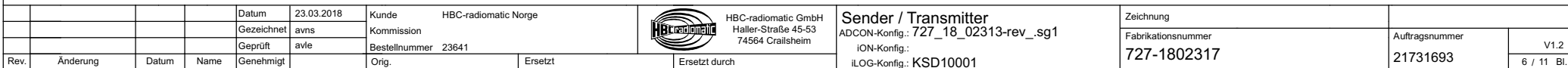
Lötbrücke auf Encoder
solder strap up Encoder
LB1 LB2 LB3
■ ■ ■

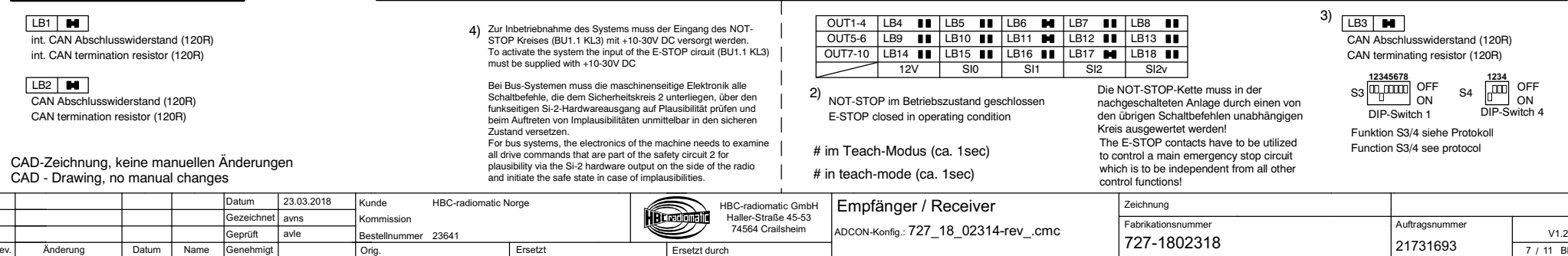
CAD-Zeichnung, keine manuellen Änderungen
CAD drawing, no manual changes

Rev.	Änderung	Datum	Name	Genehmigt	Datum	23.03.2018	Kunde	HBC-radiomatic Norge	Kommission	Bestellnummer	23641	Orig.	Ersetzt	Ersetzt durch	Sender / Transmitter	ADCON-Konfig.: 727_18_02313-rev_.sg1	iON-Konfig.: iLOG-Konfig.: KSD10001	Zeichnung	Fabrikationsnummer	727-1802317	Auftragsnummer	21731693	V1.2 2 / 11 Bl.
1					2										4								









1		2		3		4		5		6		7		8	
Sender Transmitter		Zeile	Name	Material	Typbezeichnung		Beschreibung		Bemerkungen		Software				
		1	006-02-00267	006-02-00267	Housing transmitter spectrum D Oberteil Housing transmitter spectrum D upper housing		orange orange								
		2	107-90-00021	107-90-00021	radiomatic® ADCON										
		3	107-90-00022	107-90-00022	radiomatic® iLOG										
		4	AB13001_	AB13001_	iLOG-Lesemodul für spectrum										
		5	AF01213_	AF01213_	Display spectrum D / E (10cm Flachbandkabel) Display spectrum D / E (10cm ribbon cable)						SF001007				
		6	AP00160_	AP00160_	Überrollbügel spectrum 3/D (Edelstahl) rollover bar spectrum 3/D (stainless steel)										
		7	D1	009-10-00025	LED-Fassung ,Kunststoffeinsatz & DUO-LED		d=8mm								
		8	EE00315_	EE00315_	Encoder		Encoder spectrum VDT2 iLOG				SE0D211_ / SS00210_				
		9	HTS3BM3_	HTS3BM3_	Housing transmitter spectrum 3 Unterteil		Stop-Schlagschalter / Vibrationsmotor orange								
		10	MTS3101_	MTS3101_	Mainboard transmitter spectrum 3/D		VDT2								
		11	R1	IE340001	Potentiometer potentiometer		d=10mm								
		12	S1	JLP00140	Linear Lever HBC		black								
		13	S2	JLP00140	Linear Lever HBC		black								
		14	S3	JLP00140	Joystick Linearhebel proportional, 140mm Kabel Joystick linear lever proportional, 140mm Cables		schwarz black								
		15	S4	JLP00140	Joystick Linearhebel proportional, 140mm Kabel Joystick linear lever proportional, 140mm Cables		schwarz black								
		16	S5	IE230017	KHT, kurz KHT, short		d=16mm								
		17	S6	IE230017	KHT, kurz KHT, short		d=16mm								
		18	S7	IE230017	KHT, short		d=16mm								
		19	S8	IE230017	KHT, kurz KHT, short		d=16mm								
		20	S9	IE230017	KHT, kurz KHT, short		d=16mm								
		21	S10	IE230017	KHT, short		d=16mm								
		22	S11	IE230017	KHT, kurz KHT, short		d=16mm								
		23	S12	IE230017	KHT, kurz KHT, short		d=16mm								
		24	S13	IE230001	D-JET pushbutton		d=12mm								
		25	S14	IE230001	D-JET pushbutton		d=12mm								
		26	S15	IE230001	D-JET pushbutton		d=12mm								
		27	S16	IE120009	toggle switch maintain-maintain small		d=12mm								
CAD-Zeichnung, keine manuellen Änderungen CAD drawing, no manual changes															
		Datum	23.03.2018	Kunde		HBC-radiomatic Norge		Listen / Lists		Zeichnung		Auftragsnummer 21731693		V1.3 9 / 11 Bl.	
		Gezeichnet	avns	Kommission		HBC-radiomatic GmbH Haller-Straße 45-53 74564 Crailsheim									
		Geprüft	avle	Bestellnummer		23641									
Rev.	Änderung	Datum	Name	Genehmigt	Orig.	Ersetzt		Ersetzt durch		727-1802317					
1		2		3		4		5		6		7		8	

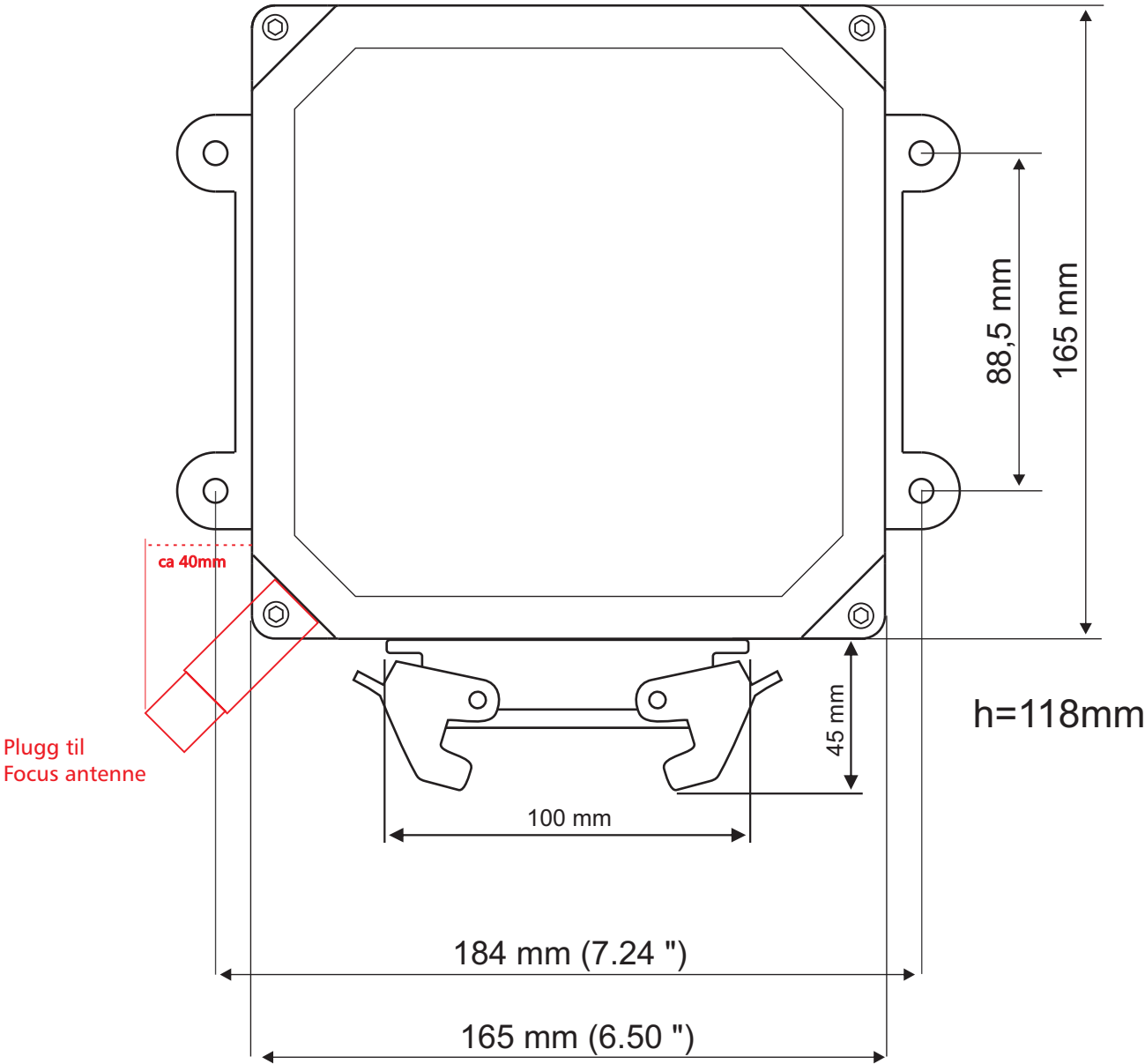
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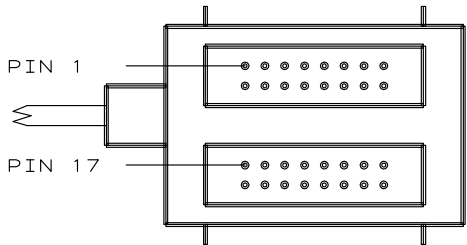
1	2	3	4	5	6	7	8																																																					
A	Sender Kabelbaum Transmitter Harness <table><thead><tr><th>Zeile</th><th>Name</th><th>Material</th><th>Typbezeichnung</th><th>Beschreibung</th><th>Bemerkungen</th></tr></thead><tbody><tr><td>1</td><td>AW080102</td><td>AW080102</td><td>Verdrahtungshilfe harness</td><td>AMP-Buchse 6pol., 5 Adern, eco 2 UT</td><td></td></tr><tr><td>2</td><td>AW110004</td><td>AW110004</td><td>Verdrahtungshilfe harness</td><td>AMP-Buchse 26pol., 28 Adern, spectrum</td><td></td></tr><tr><td>3</td><td>AW240001</td><td>AW240001</td><td>Verdrahtungshilfe harness</td><td>AMP-Buchse 16pol., 14 Adern, spectrum</td><td></td></tr><tr><td>4</td><td>AW504100</td><td>AW504100</td><td>Binder auf USB, Editier-Schnittstelle für TFT-Display</td><td></td><td></td></tr></tbody></table>							Zeile	Name	Material	Typbezeichnung	Beschreibung	Bemerkungen	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	AW504100	AW504100	Binder auf USB, Editier-Schnittstelle für TFT-Display			A																						
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1		2		3		4		5		6		7		8						
A	Empfänger Receiver		Zeile	Name	Material	Typbezeichnung		Beschreibung		Bemerkungen		Software		A						
			1	107-90-00021	107-90-00021	radiomatic® ADCON														
			2	BU1	010-02-00499	Buchsenleiste 3-polig female connector strip 3-polig														
			3	BU1.1	010-02-00011	Buchsenleiste 3-polig female connector strip 3-polig														
			4	BU1.2	010-02-00526	Buchsenleiste 21-polig female connector strip 21-polig														
			5	BU2.1	010-02-00506	Buchsenleiste 3-polig female connector strip 3-polig														
			6	BU3.1	010-02-00507	Buchsenleiste 12-polig female connector strip 12-polig														
			7	CM7372__	CM7372__	CAN-Manager		CAN-Manager TC20/38				SA00320_ / SB00320_ / SY00320_								
			8	HR168913	HR168913	Kunststoff-Gehäuse FSE727, HAN 32/50, BNC - MMCX, MR72716_ plastic-case FSE727, HAN 32/50, BNC - MMCX, MR72716_		orange orange												
			9	MR72716_	MR72716_	Mainboard Empfänger 727 Mainboard Receiver 727		DC 10-30V mit geox, Kabeloption, Optokoppler DC 10-30V with geox, cable option, optical isolator												
B	6	BU3.1	010-02-00507	Buchsenleiste 12-polig female connector strip 12-polig								B								
	7	CM7372__	CM7372__	CAN-Manager		CAN-Manager TC20/38				SA00320_ / SB00320_ / SY00320_										
	8	HR168913	HR168913	Kunststoff-Gehäuse FSE727, HAN 32/50, BNC - MMCX, MR72716_ plastic-case FSE727, HAN 32/50, BNC - MMCX, MR72716_		orange orange														
C	9	MR72716_	MR72716_	Mainboard Empfänger 727 Mainboard Receiver 727		DC 10-30V mit geox, Kabeloption, Optokoppler DC 10-30V with geox, cable option, optical isolator						C								
	10	OE72713_	OE72713_	NOT-STOP-Ausgabekarte E-STOP-output card		DC, 10xHigh-Side-Switch + CAN Safety				SOE0130__s19 / SOE0220__hex										
D	Steckereinheit Plug-in unit		Zeile	Name	Material	Typbezeichnung		Beschreibung		Katalognummer		Hersteller		D						
			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								
E	Kabelbaum Harness		Zeile	Name	Material	Typbezeichnung		Beschreibung		Bemerkungen				E						
F	CAD-Zeichnung, keine manuellen Änderungen CAD drawing, no manual changes				Datum	23.03.2018		Kunde HBC-radiomatic Norge		 HBC-radiomatic GmbH Haller-Straße 45-53 74564 Crailsheim		Listen / Lists		Zeichnung				F		
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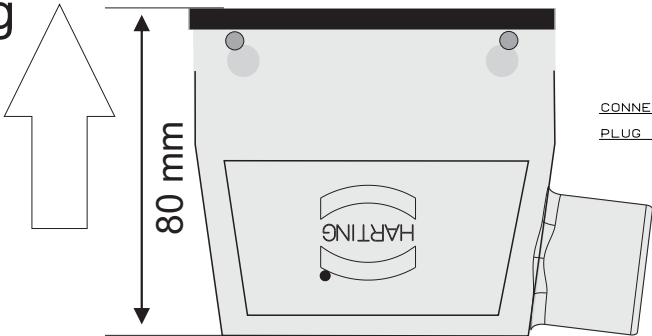
Receiver FSE 727 (HR 168)



Harting HAN 32 - plugg



VIEW FROM OUTSIDE



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

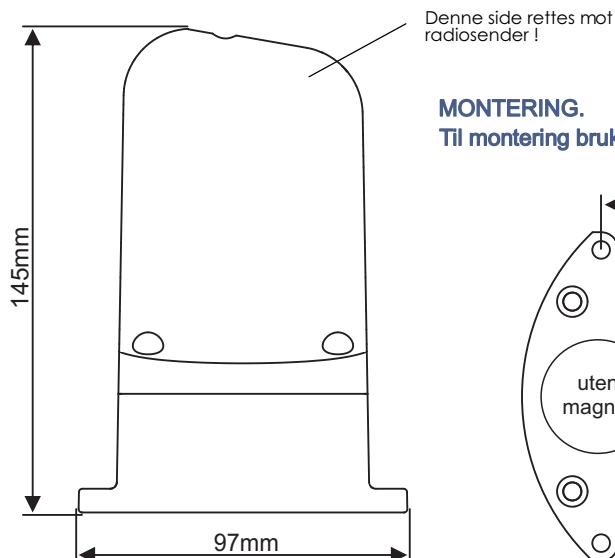
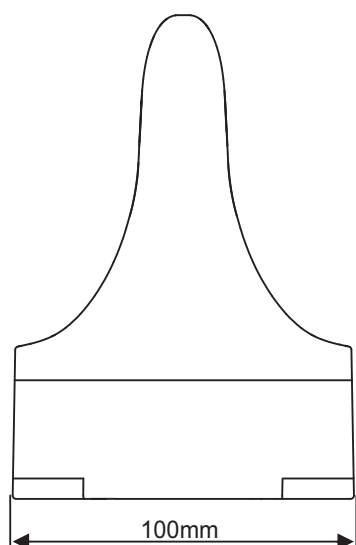
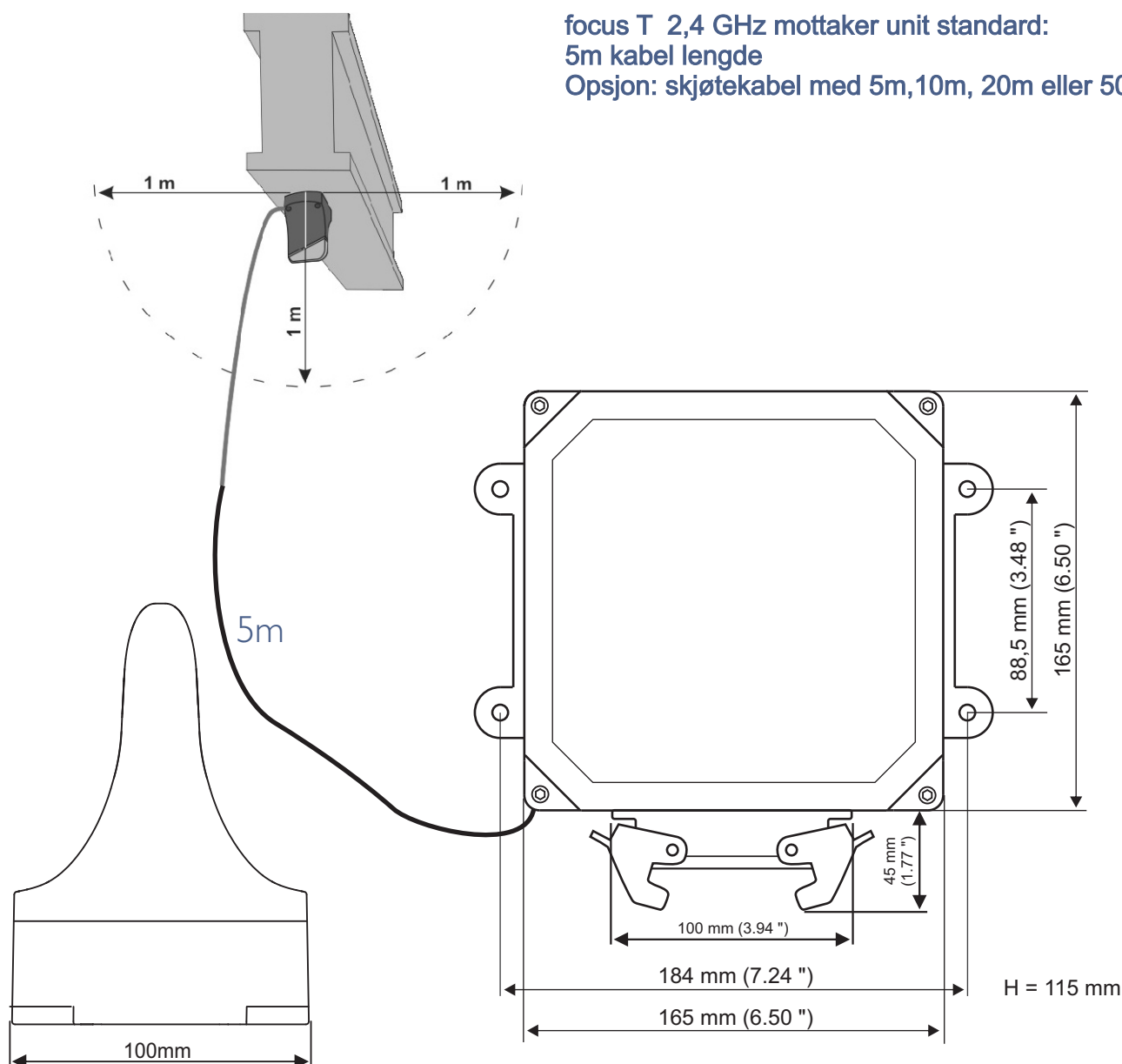
Mottaker FSE 727 focus T 2,4GHz



focus T 2,4 GHz mottaker unit standard:

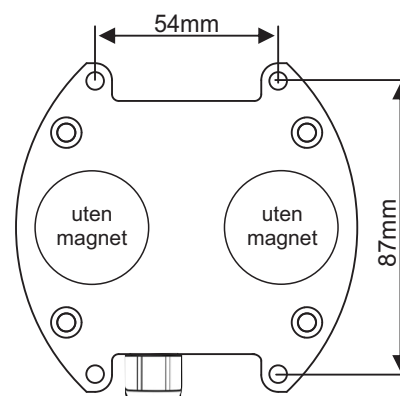
5m kabel lengde

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]: **4**

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 S8	0/1	1.Si1/0
		1		0/1	1.Si1/1
		2	HORN S7	0/1	1.Si1/2
		3	LIGHT S5	0/1	1.Si1/3
		4	(SLOW MODE) TURTLE S16b	0/1	1.Si1/4
		5	(FAST MODE) HARE S16a	0/1	1.Si1/5
		6		0/1	1.Si1/6
		7	ACCU LOW	0/1	1.Si1/7
	02	0		0/1	2.Si1/0
		1	S9	0/1	2.Si1/1
		2	S10 (SPARE)	0/1	2.Si1/2
		3		0/1	2.Si1/3
		4		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		0/1	3.Si1/0
		1		0/1	3.Si1/1
		2		0/1	3.Si1/2
		3		0/1	3.Si1/3
		4		0/1	3.Si1/4
		5		0/1	3.Si1/5
		6		0/1	3.Si1/6
		7		0/1	3.Si1/7
	04	0		0/1	4.Si1/0
		1		0/1	4.Si1/1
		2		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 S12	0/1	1.SI2/0
		1	HPU STOP S11	0/1	1.SI2/1
		2	ACTIVATE WINCH S13	0/1	1.SI2/2
		3	SELECT WINCH S14	0/1	1.SI2/3
		4	TENSION CONTROL S15	0/1	1.SI2/4
		5		0/1	
		6		0/1	
		7	PILOT VALVE S4	0/1	Logic
	09	0	PILOT VALVE S1-S3	0/1	Logic
		1		0/1	Logic
		2	PILOT VALVE S1 – S4	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 Y+	0/1	Logic
		1	S1 Y-	0/1	Logic
		2	S2 Y+	0/1	Logic
		3	S2 Y-	0/1	Logic
		4		0/1	Logic
		5		0/1	Logic
		6		0/1	Logic
		7		0/1	Logic
	0B	0	S3 Y+	0/1	Logic
		1	S3 Y-	0/1	Logic
		2		0/1	Logic
		3		0/1	Logic
		4	S4 Y+	0/1	Logic
		5	S4 Y-	0/1	Logic
		6		0/1	Logic
		7		0/1	Logic
	0C	0		0/1	Logic
		1		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
		7		0/1	6.SI2/7
	0E	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 Y- (FF-80) / S1 Y+ (00-7F) 	-128 ... +127	Prop 1
	02	S2 Y- (FF-80) / S2 Y+ (00-7F) 	-128 ... +127	Prop 2
	03		-128 ... +127	Prop 3
	04		-128 ... +127	Prop 4
	05	S3 Y- (FF-80) / S3 Y+ (00-7F) 	-128 ... +127	Prop 5
	06		-128 ... +127	Prop 6
	07	S4 Y- (FF-80) / S4 Y+ (00-7F) 	-128 ... +127	Prop 7
	08		-128 ... +127	Prop 8
	09		-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

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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	TxB 3/8

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

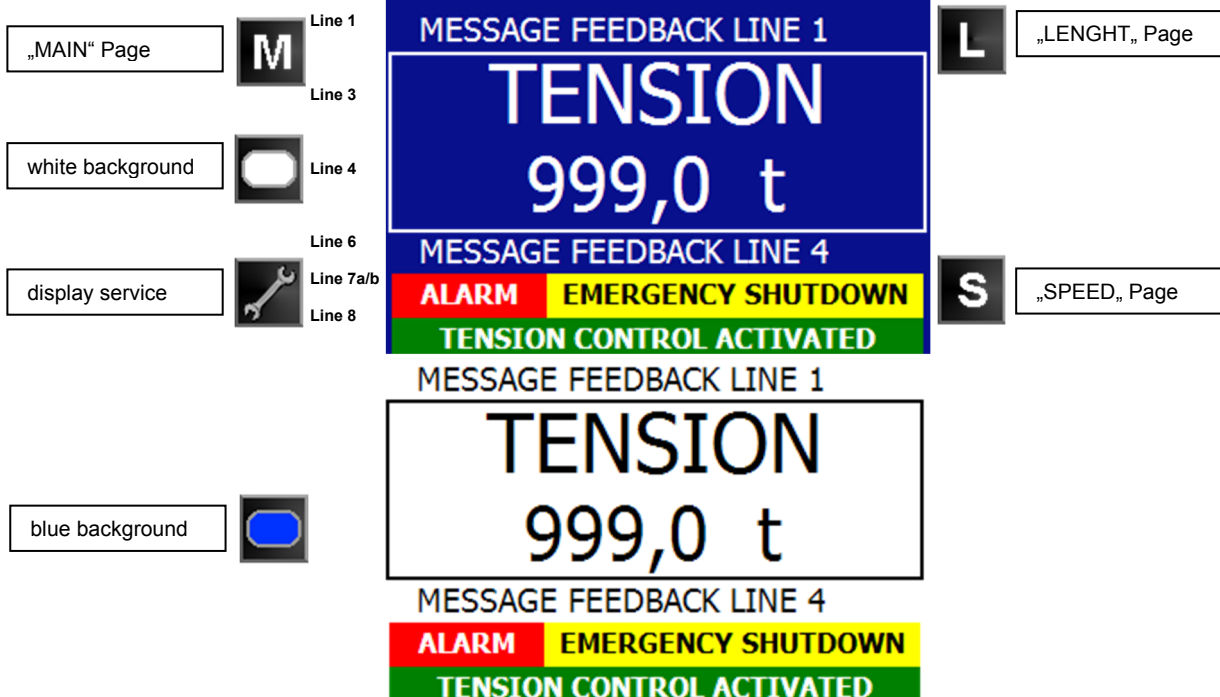
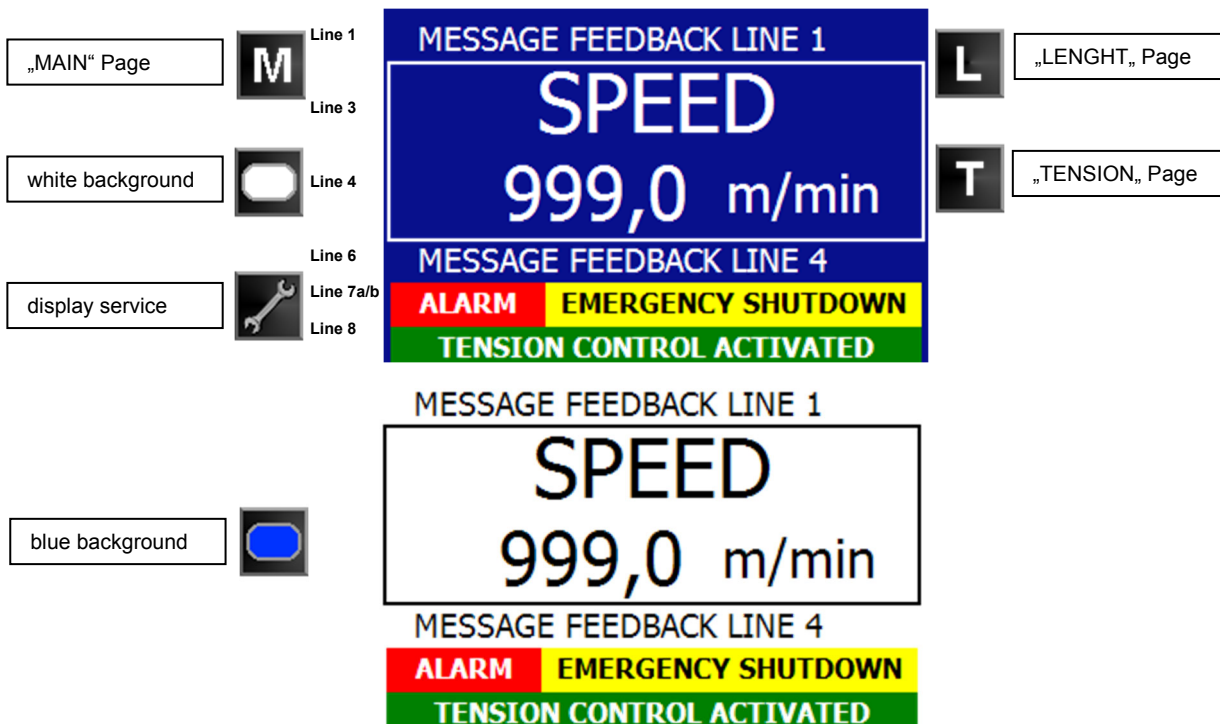
LENGTH

+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