

Elektroplan Electric diagram

3412HT - 3625HT mit Steuerung RC28
3412HT - 3625HT with controller RC28

gültig ab Werk-Nr.:
valid from serial-No.:
H1761934
H1770083
H1802610

gültig bis Werk-Nr.:
valid up to serial-No.:
H1762488
H1770186
H1803370

H176
Baureihe /
Series

-
Seriennummer /
Serial No

02.09.2021
Ausgabedatum /
Date of issue

2290893_04
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Schutzvermerk nach ISO 16016

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Blatt / Sheet	Inhalt / Contents	Blatt / Sheet	Inhalt / Contents
1	Deckblatt cover sheet	19	Kabinenheizung Cabin-heating
2...3	Inhaltsverzeichnis contents	20	Anlasser, Vorglühanlage Starting motor, Preheat equipment
4...5	Not-Stop-Steuerung Emergency control	21	Spannungsversorgung Steuergerät Dieselmotor Voltage supply Control device diesel engine
6	Warnvorrichtungen warning devices	22	Diagnoseschnittstelle Dieselmotor Diagnostic interface diesel engine
7...8	Beleuchtung Straßenzulassung Steuerkreis Lighting Road homologation Control circuit	23	Diagnoselampe Dieselmotor Diagnostic lamp diesel engine
9	Beleuchtung Straßenzulassung Lighting Road homologation	24...28	TCD Dieselmotor TCD diesel engine
10	Arbeitsraumbeleuchtung, Rundumleuchte ROPS working area lights, patrol light ROPS	29	Sensoren Dieselmotor Sensors diesel engine
11	Armaturenbrett Spannungsversorgung Instrument panel Voltage supply	30	Füllstandsanzeige, Kraftstoff Level indicator, fuel
12	Sensor Fahrhebel, Startverriegelung Sensor Drive lever, start interlock	31	Drehzahlverstellung Dieselmotor Speed adjustment diesel engine
13...14	Schalter Armaturenbrett Switches Instrument panel	32	Sensoren Hydrauliköl Sensors Hydraulic oil
15	Multifunktionsgriff Multifunction handle	33	Hauptsicherungen, Spannungsverteilung Main-fuses, power distribution
16	Sitzkontaktschalter, Sonderausrüstung Seat contact switch, Special equipment	34	Zündschloß, Spannungsverteilung Ignition lock, power distribution
17	Anschlußstecker Fahrerkabine Electric plug Operator's cabin	35	Sicherungsbelegung Zentralelektrik Fuse occupancy Central electric
18	Klimaanlage Air conditioning	36...37	Spannungsversorgung Mikrokontroller RC28 Voltage supply Microcontroller RC28

Drawing by:	Approved by:	Last change:
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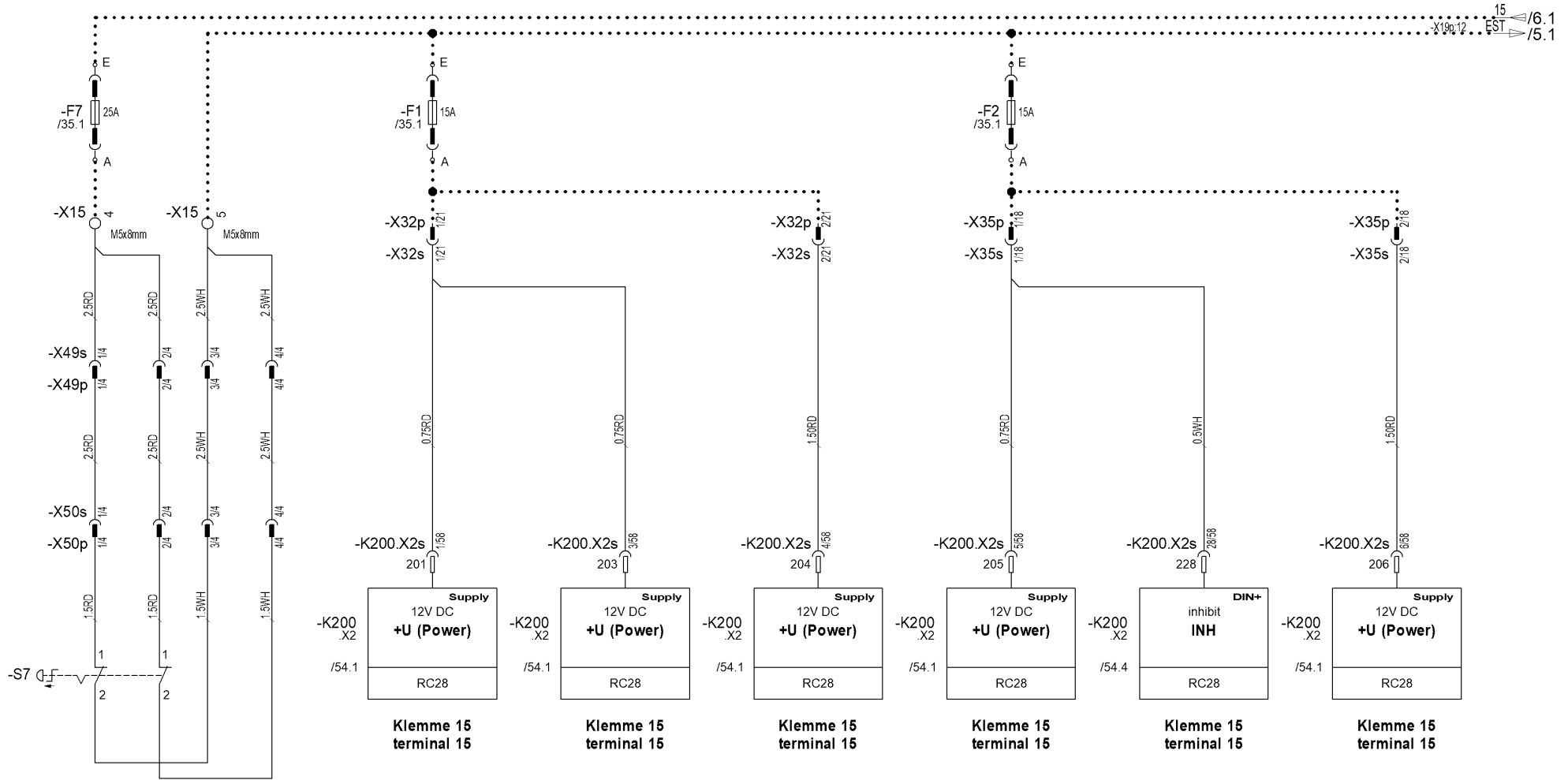
Material No.:	Revision No.:
2290893	04
Series code:	Valid for Serial No.:
H176	from to
Sheet plant:	
Sheet Location:	

Inhaltsverzeichnis
contents

Sheet
of
2
84 Sheets

Blatt / Sheet	Inhalt / Contents	Blatt / Sheet	Inhalt / Contents
38	CAN-Bus, Diagnoseschnittstelle WIDIAG CAN-Bus, Diagnostic interface WIDIAG	58...72	Übersicht Steckerbelegung General arrangement Plug occupancy
39	Schnittstelle WIFMS Interface WIFMS	73	Erklärung Aufbau Betriebsmittelkennzeichen Explanation device designation layout
40	Potentiometer Fahrhebel Potentiometer Drive lever	74	Erklärung Gerätekennbuchstaben, elektrisch Explanation device code letter, electric
41	Fahrtrieb Sensoren Drive Sensors	75	Erklärung Gerätekennbuchstaben, hydraulisch Explanation device code letter, hydraulic
42	Fahrtrieb Drehzahlsensoren Drive Speed sensors	76	Symbolerklärung Funktionseinheiten Symbol explanation of functional units
43	Parkbremse Parking brake	77	Erklärung Linienformate, Farbbezeichnungen Explanation line formats, colour designations
44	Parkbremse, Fahrtrieb Parking brake, Drive	78...84	Betriebsmittelliste device list
45	HCQ Verdichtungsmesser HCM-3 HCQ Compactometer HCM-3		
46	Sonderausrüstung Schubschild Special equipment Blade		
47	Vibration Vibration		
48...51	Reserve Reserve		
52...54	Übersicht Mikrokontroller RC28 General arrangement Microcontroller RC28		
55	Armaturenbrett Übersicht Instrument panel General arrangement		
56...57	Steuergerät Dieselmotor EDC16 Control device Diesel engine EDC16		

Drawing by:	Approved by:	Last change:	Status:	Document No.:	Material No.:	Revision No.:	Inhaltsverzeichnis contents	Sheet 3 of 84 Sheets
date 27.09.2011	date	date	AE = changeable		2290893	04		
name Lan	name	name	PF = prototype release	Partial Document No.:	Series code:	Valid for Serial No.:		
E - CAE	Document type:	Function group No.:	SF = serial release	Version No.:	H176	from to		
ESP					Sheet plant:			
					Sheet Location:			



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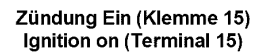
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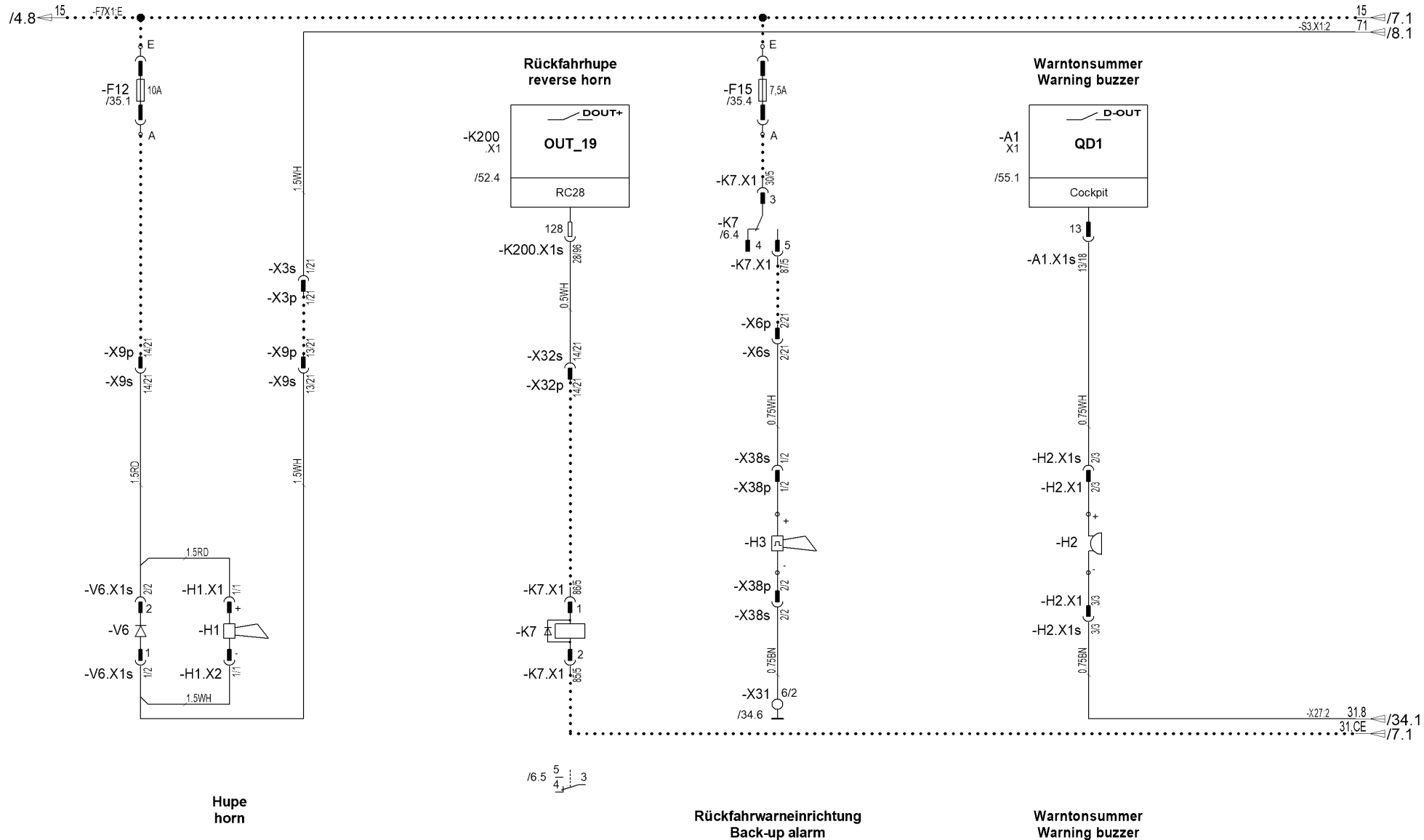
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2290893		04
Series code:	Valid for Serial No.:	
H176	from to	
Sheet plant:		
Sheet Location:		

Not-Stop-Steuerung
Emergency control

Sheet
4
of
84
Sheets



Drawing by:		Approved by:		last change:		Status:		Document No.:		Material No.:		Revision No.:		Sheet	
date 27.09.2011		date		date 02.09.2021		AE = changeable				2290893		04		5	
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		ESP		01						Sheet plant:				Sheets	
										Sheet Location:					



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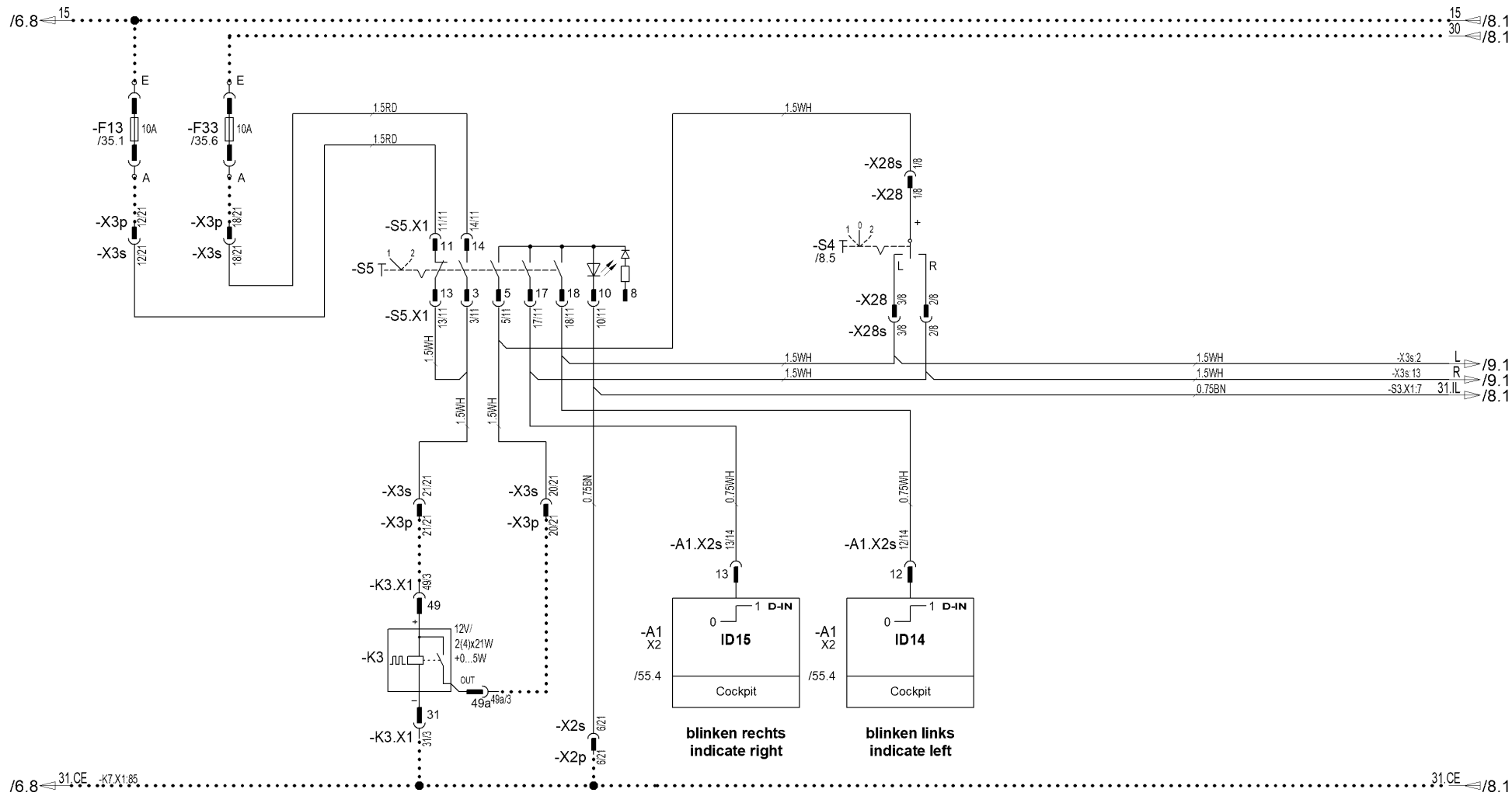
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SF = serial release	Version No.:



Material No.:	Revision No.:
2290893	04
Series code:	Valid for Serial No.:
H176	from to
Sheet plant:	
Sheet Location:	

Warnvorrichtungen
warning devices

Sheet
6
84



S5:
Warnblinkschalter
Alarm system switch

S4:
Lenkstockschalter
Steering column switch

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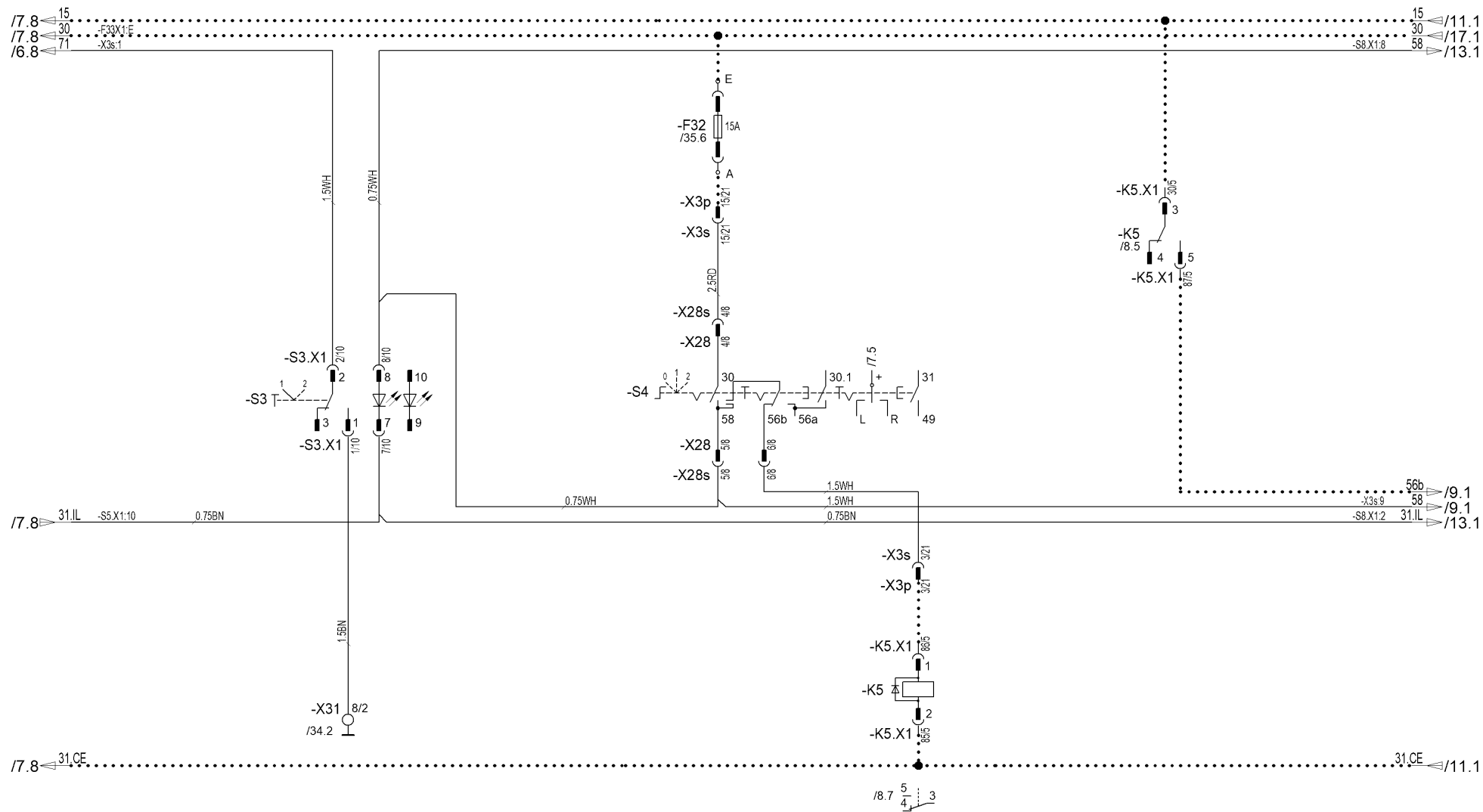
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Material No.:	Revision No.:
2290893	04
Series code:	Valid for Serial No.:
H176	from to
Sheet plant:	
Sheet Location:	

Beleuchtung Straßenzulassung Steuerkreis
Lighting Road homologation Control circuit

Sheet
7
of
84
Sheets



S3:
Taster Hupe
button - horn

S4:
Lenkstockschalter
Steering column switch

K5:
Relais Fahrlicht
Relay dipped beam

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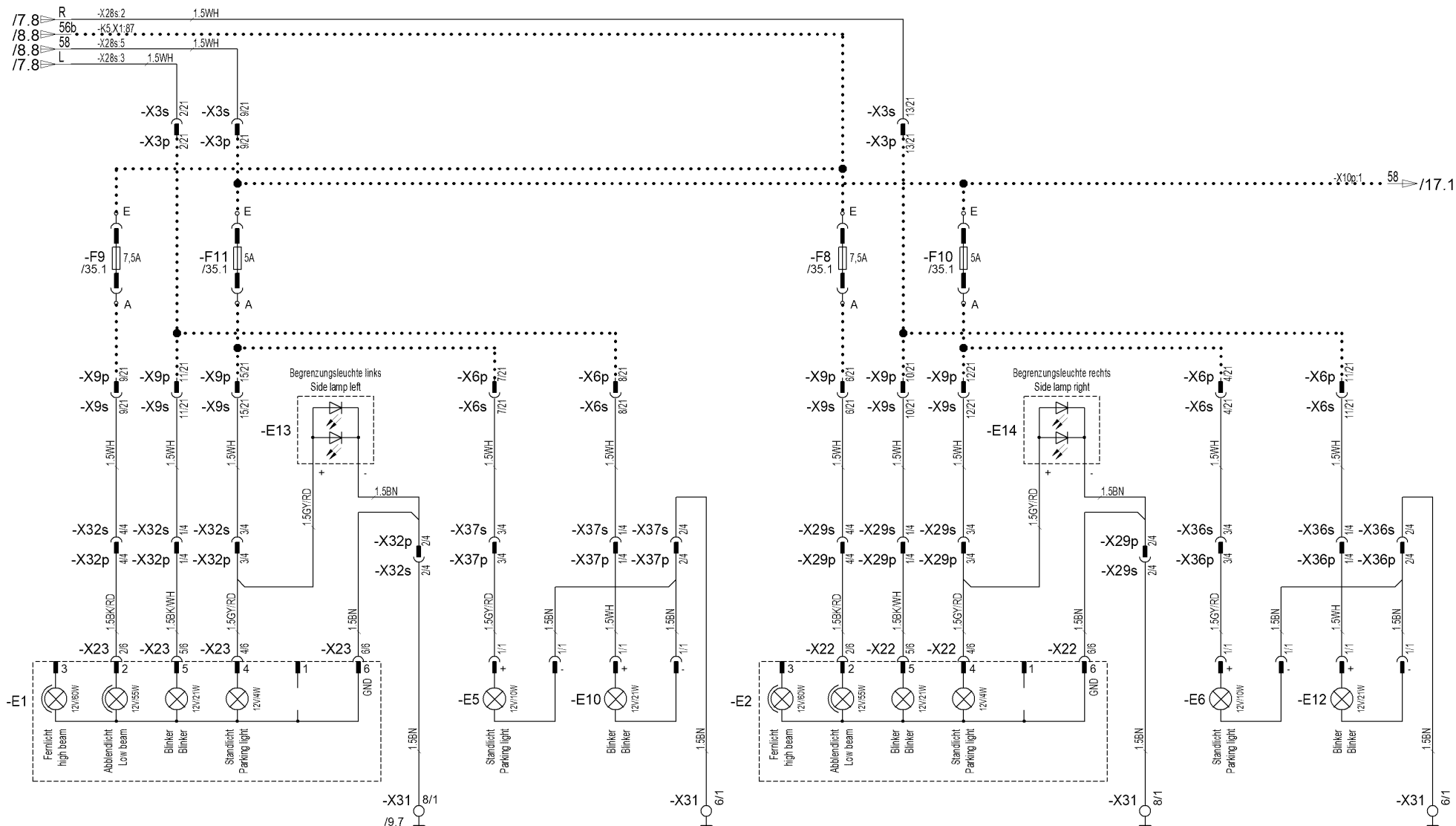
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2290893	04
Series code:	Valid for Serial No.:
H176	from to
Sheet plant:	
Sheet Location:	

Beleuchtung Straßenzulassung Steuerkreis
Lighting Road homologation Control circuit

Sheet
8
of
84
Sheets



Drawing by:	Approved by:	last change:
date 27.09.2011	date	date 02.09.2021
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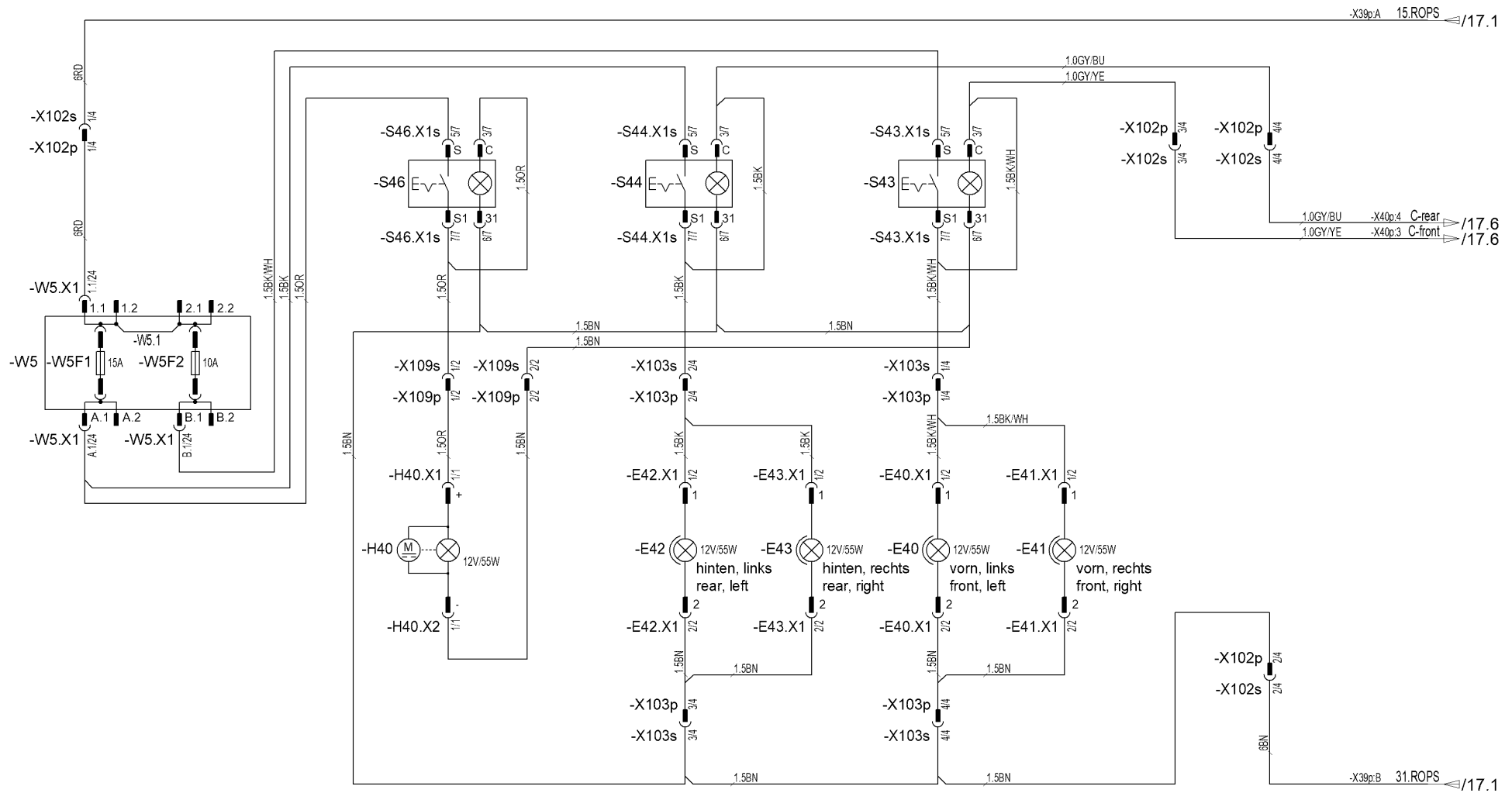
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SF = serial release	Version No.:



Material No.:	Revision No.:
2290893	04
Series code:	Valid for Serial No.:
H176	from to
Sheet plant:	
Sheet Location:	

Beleuchtung Straßenzulassung
Lighting Road homologation

Sheet
9
of
84
Sheets



W2:
Sicherungsdose ROPS
Fuse box ROPS

H40:
Rundumleuchte
patrol light

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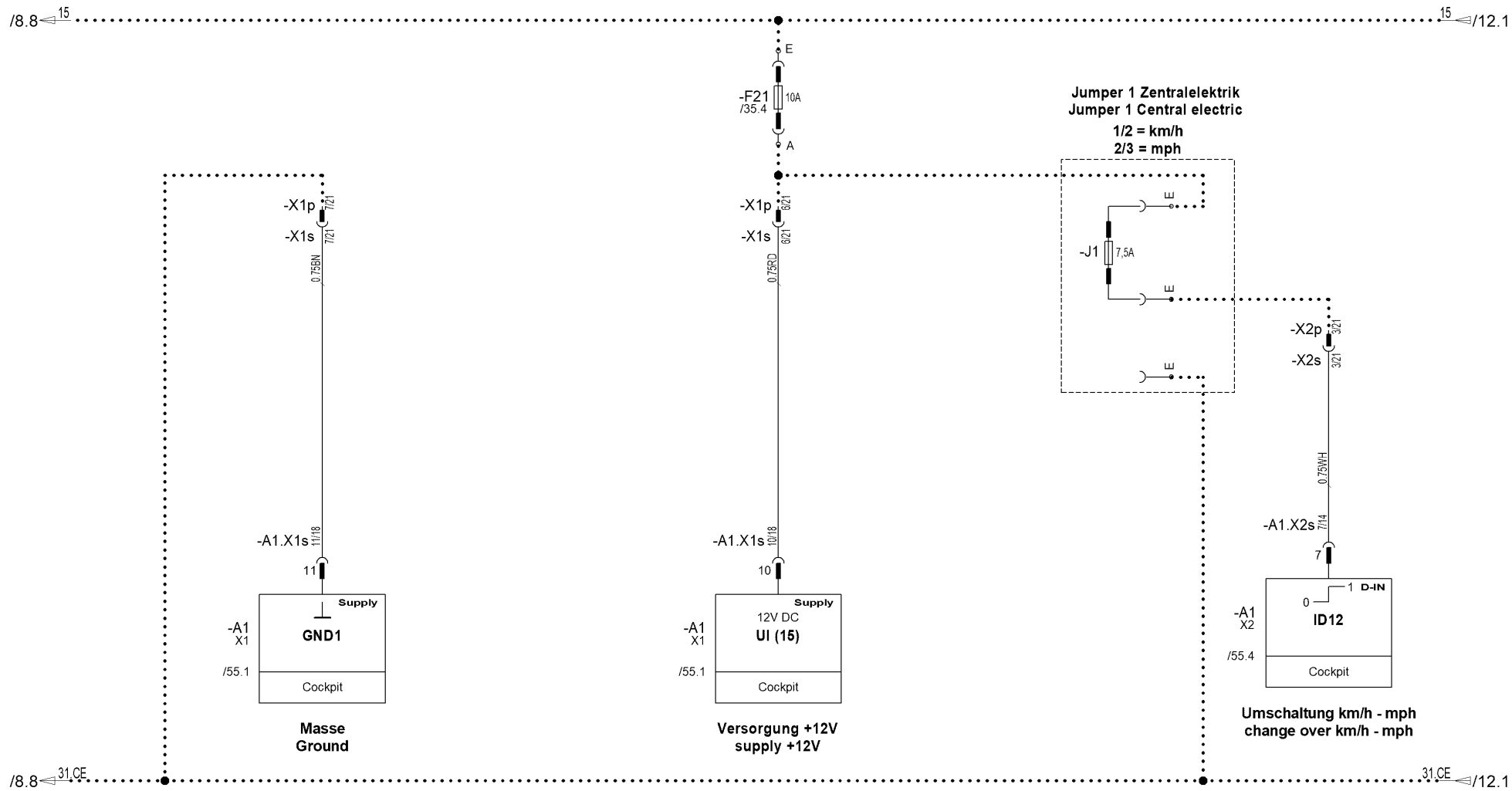
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Material No.:	Revision No.:
2290893	04
Series code:	Valid for Serial No.:
H176	from to
Sheet plant:	
Sheet Location:	

Arbeitsraumbeleuchtung, Rundumleuchte ROPS
working area lights, patrol light ROPS

Sheet
10
of
84
Sheets



Drawing by:		Approved by:		last change:	
date	27.09.2011	date		date	02.09.2021
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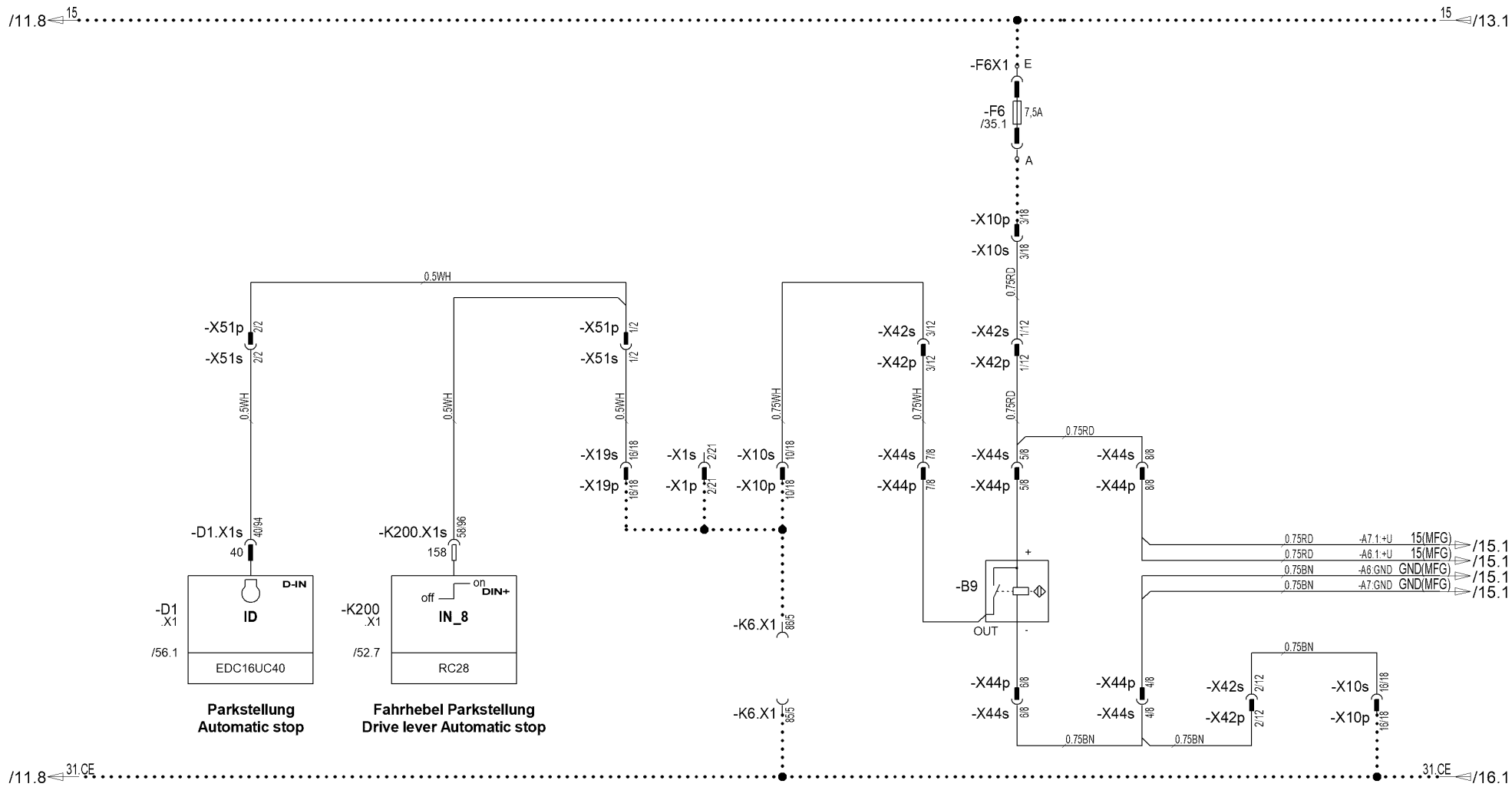
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PF = prototype release	
SF = serial release	
	Version No.:



Material No.:		Revision No.:	
2290893		04	
Series code:	Valid for Serial No.:		
H176	from to		
Sheet plant:			
Sheet Location:			

Armaturenbrett Spannungsversorgung
Instrument panel Voltage supply

Sheet	11
of	84
Sheets	



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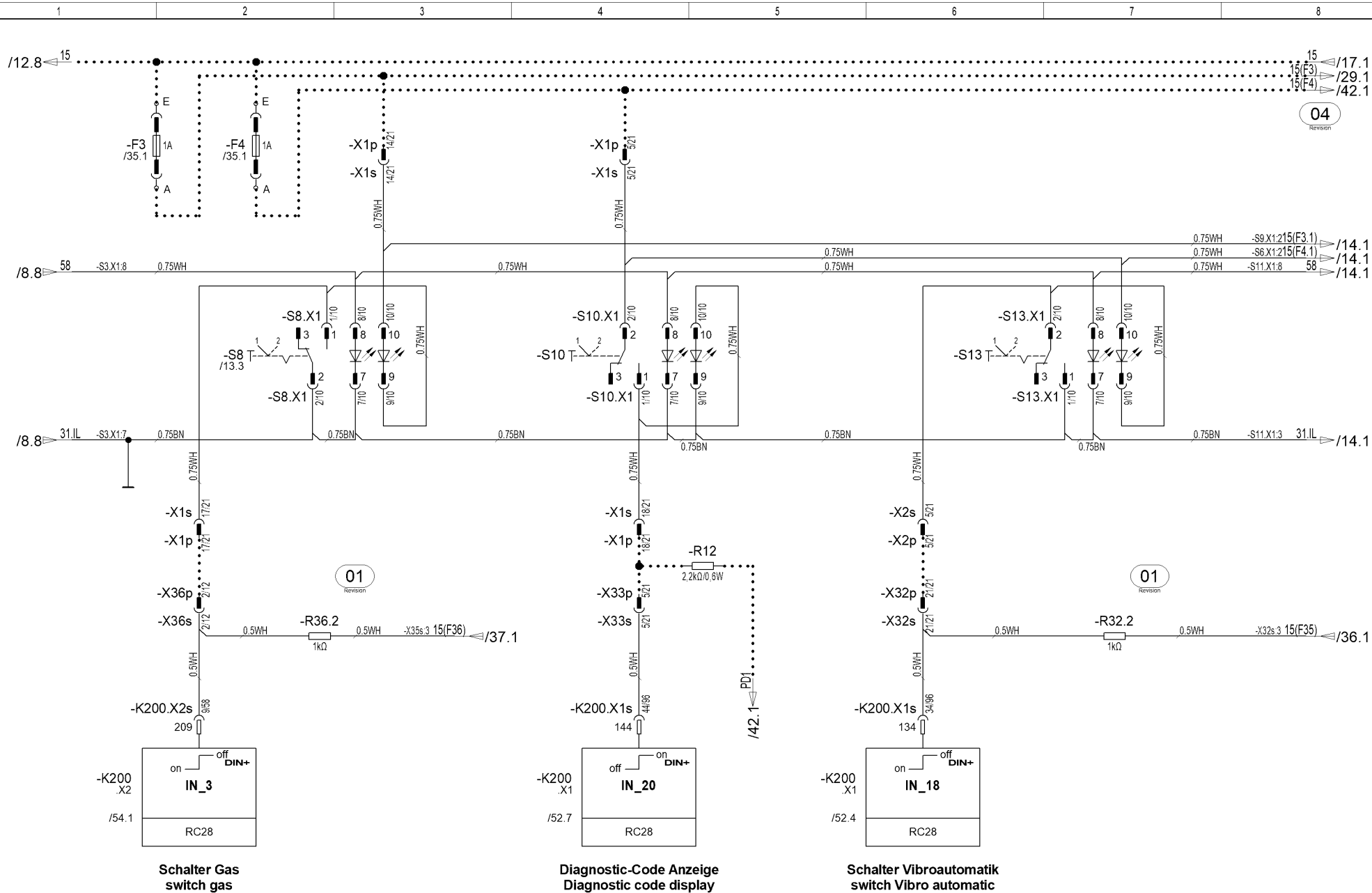
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	Version No.:



Material No.: 2290893		Revision No.: 04	
Series code: H176		Valid for Serial No.: from to	
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Sensor Fahrhebel, Startverriegelung
Sensor Drive lever, start interlock

Sheet	12
of	84
Sheets	



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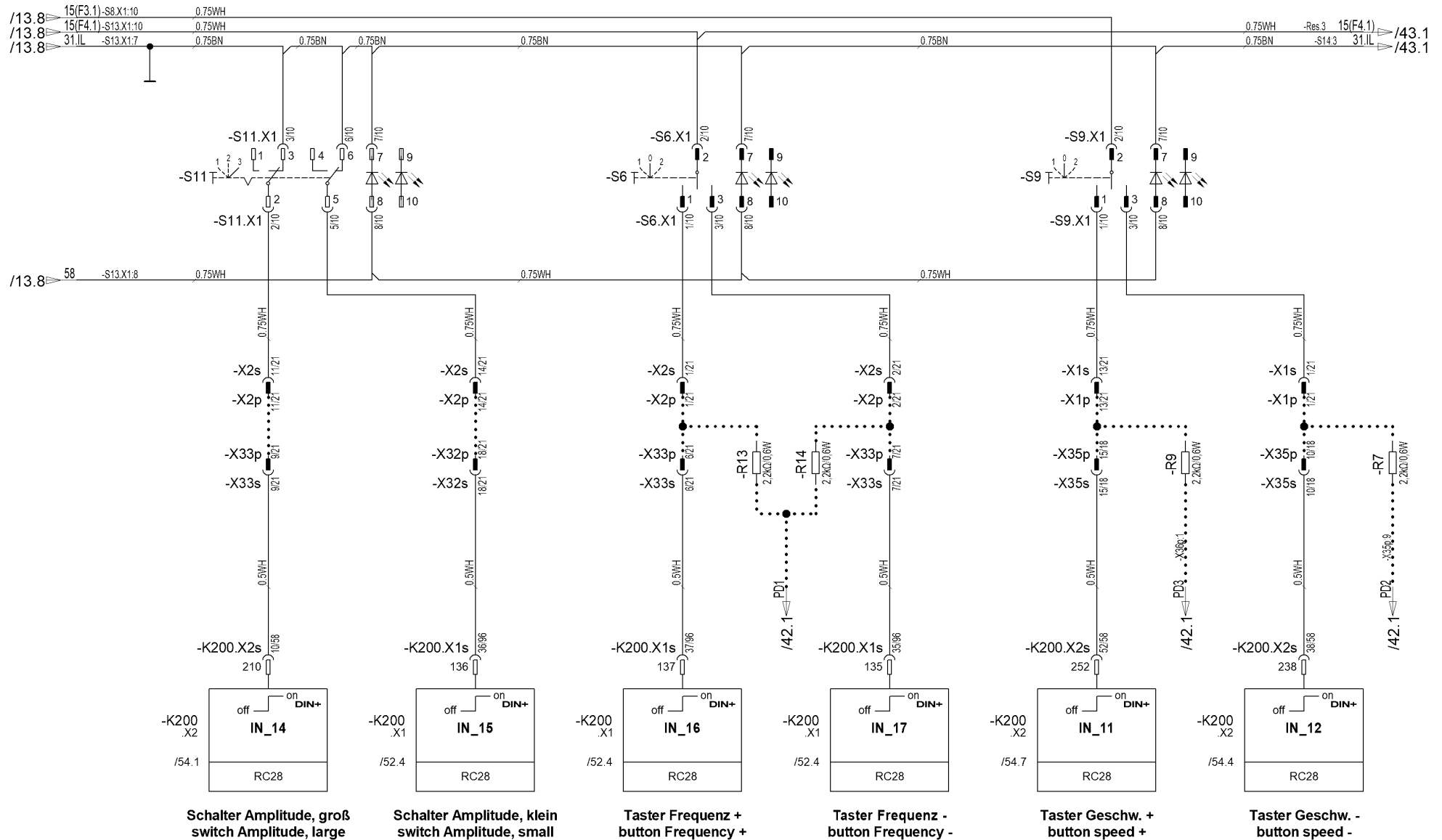
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2290893	04
Series code:	Valid for Serial No.:
H176	from to
Sheet plant:	
Sheet Location:	

Schalter Armaturen Brett
Switches Instrument panel

Sheet
13
of
84
Sheets



Drawing by: date 27.09.2011 name Lan.	Approved by: date 02.09.2021 name Lan.	last change: date 02.09.2021 name Lan.
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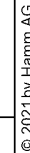
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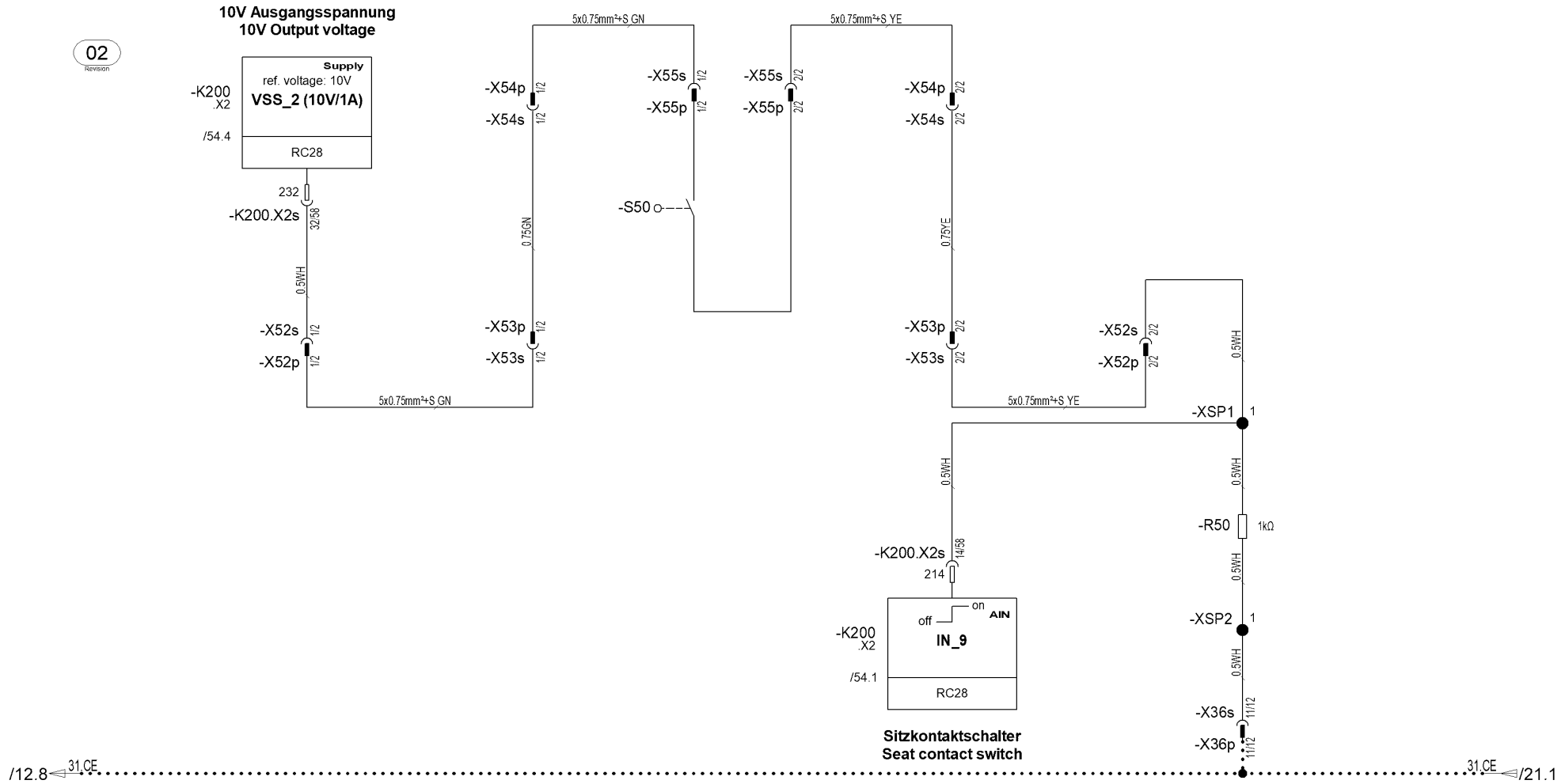
Material No.: 2290893		Revision No.: 04
Series code: H176	Valid for Serial No.: from to	
Sheet plant: Sheet Location:		

Schalter Armaturen Brett
Switches Instrument panel

Sheet of 14 84 Sheets
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Drawing by:		Approved by:		last change:		Status:		Document No.:		Material No.:		Revision No.:		Sheet	
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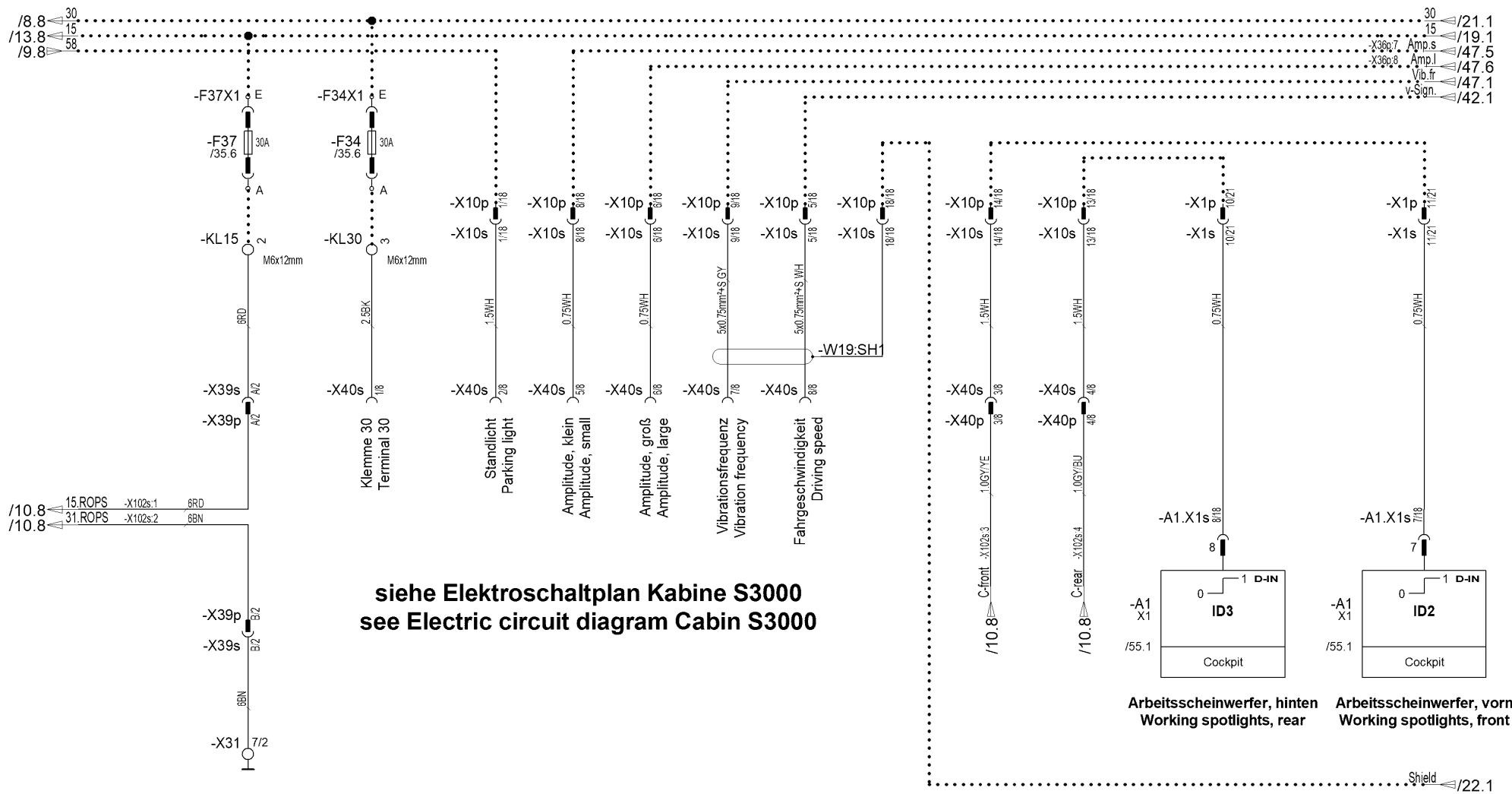
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SF = serial release	
	Version No.:



Material No.: 2290893	Revision No.: 04
Series code: H176	Valid for Serial No.: from to
Sheet plant:	
Sheet Location:	

Sitzkontaktschalter, Sonderausrüstung
Seat contact switch, Special equipment

Sheet 16 of 84 Sheets
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siehe Elektroschaltplan Kabine S3000
see Electric circuit diagram Cabin S3000

X39s / X40s = Anschlußstecker Kabine oder ROPS/FOPS
X39s / X40s = Electric plug Cabin or ROPS/FOPS

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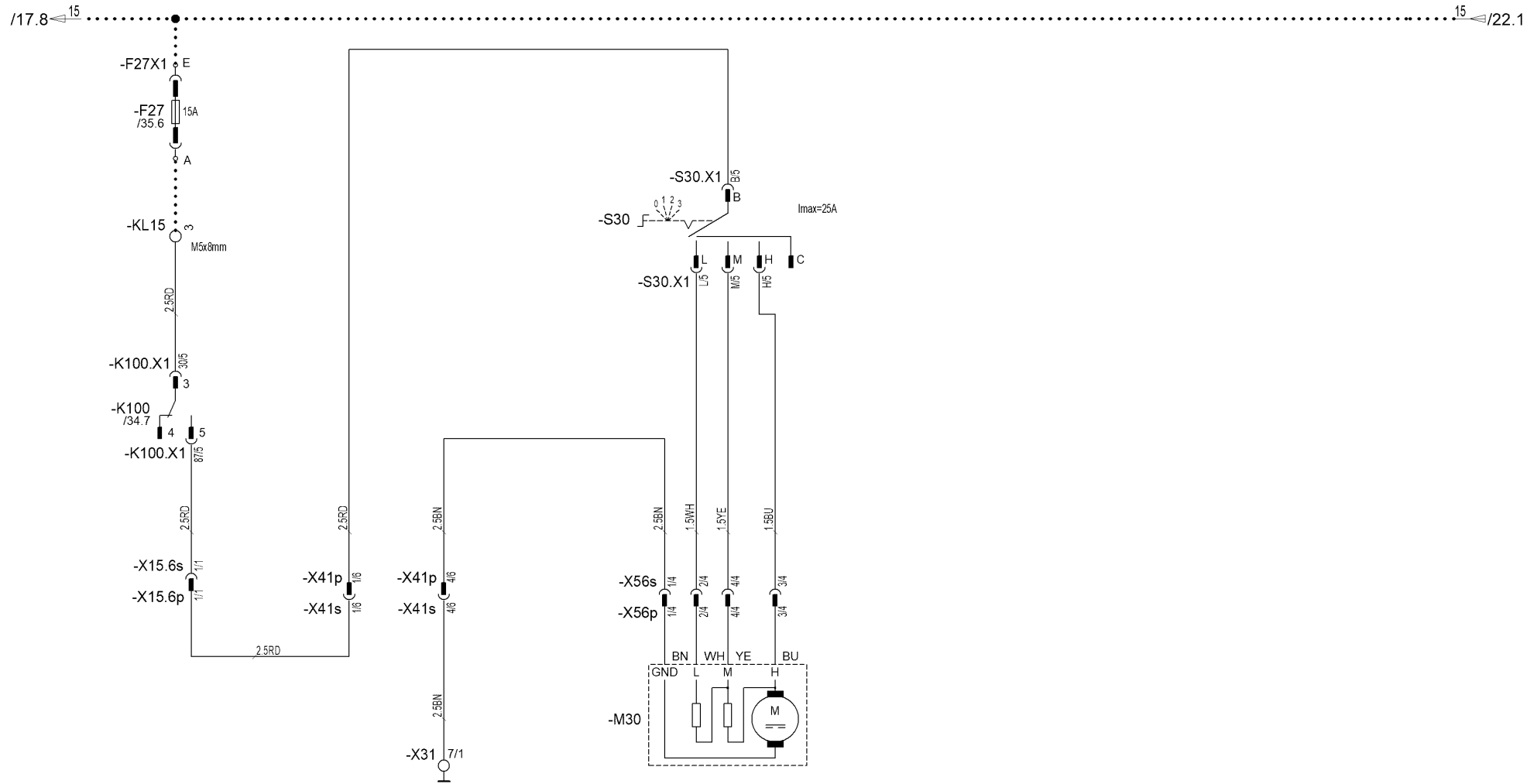
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2290893	04
Series code:	Valid for Serial No.:
H176	from to
Sheet plant:	
Sheet Location:	

Anschlußstecker Fahrerkabine
Electric plug Operator's cabin

Sheet
17
of
84
Sheets



Drawing by:		Approved by:		last change:		Status:		Document No.:		Material No.:		Revision No.:		Sheet	
date 27.09.2011		date		date 02.09.2021		AE = changeable		Document No.:		2290893		04		18	
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										Sheet Location:					
HAMM												Klimaanlage Air conditioning			



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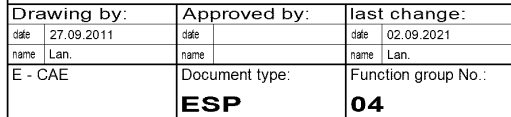
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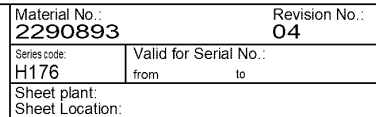
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2290893	04
Series code: H176	Valid for Serial No.:
Sheet plant:	from to
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Cabin-heating

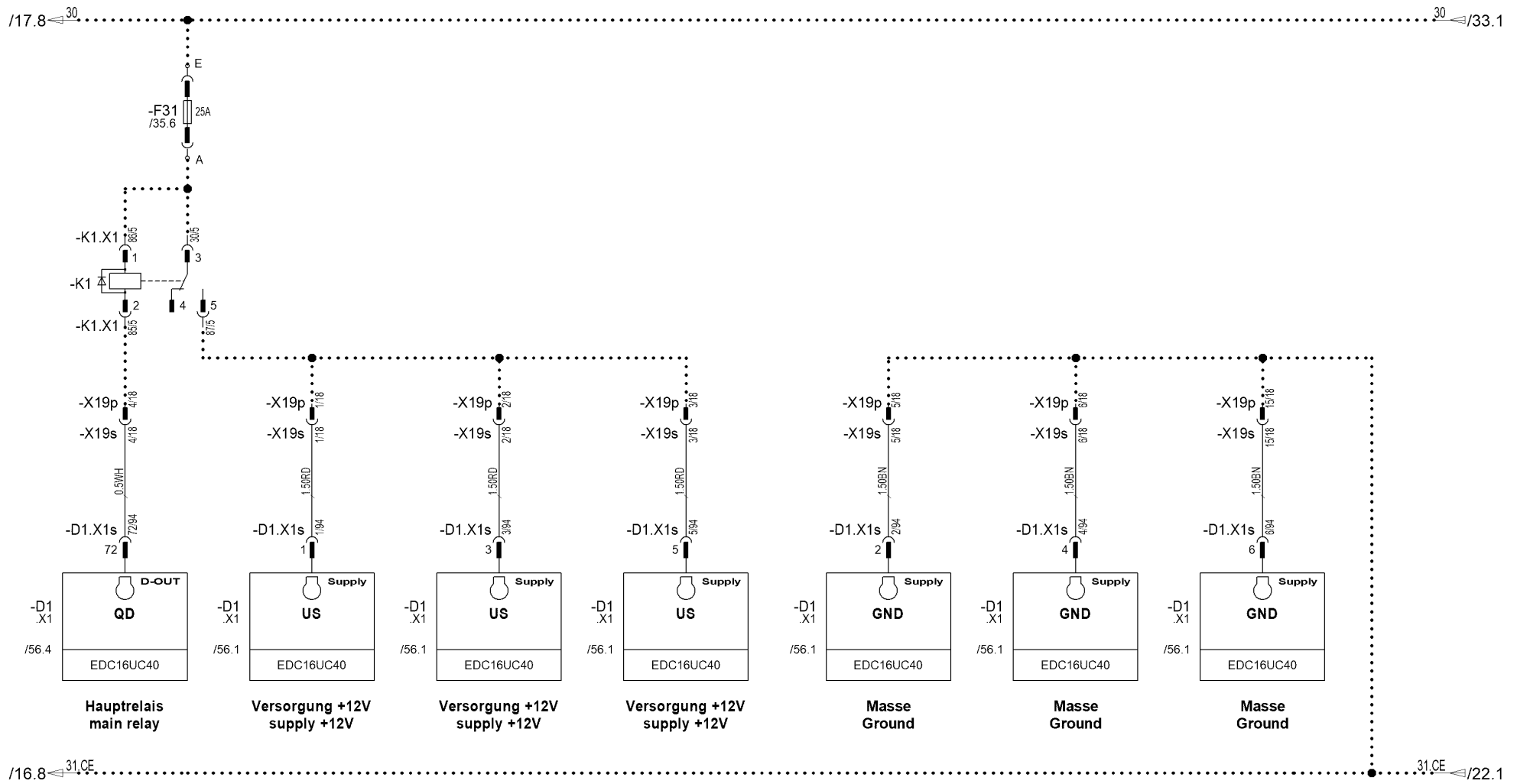
Sheet
19
of
84
Sheets



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Sheet
20
of
84 Sheets



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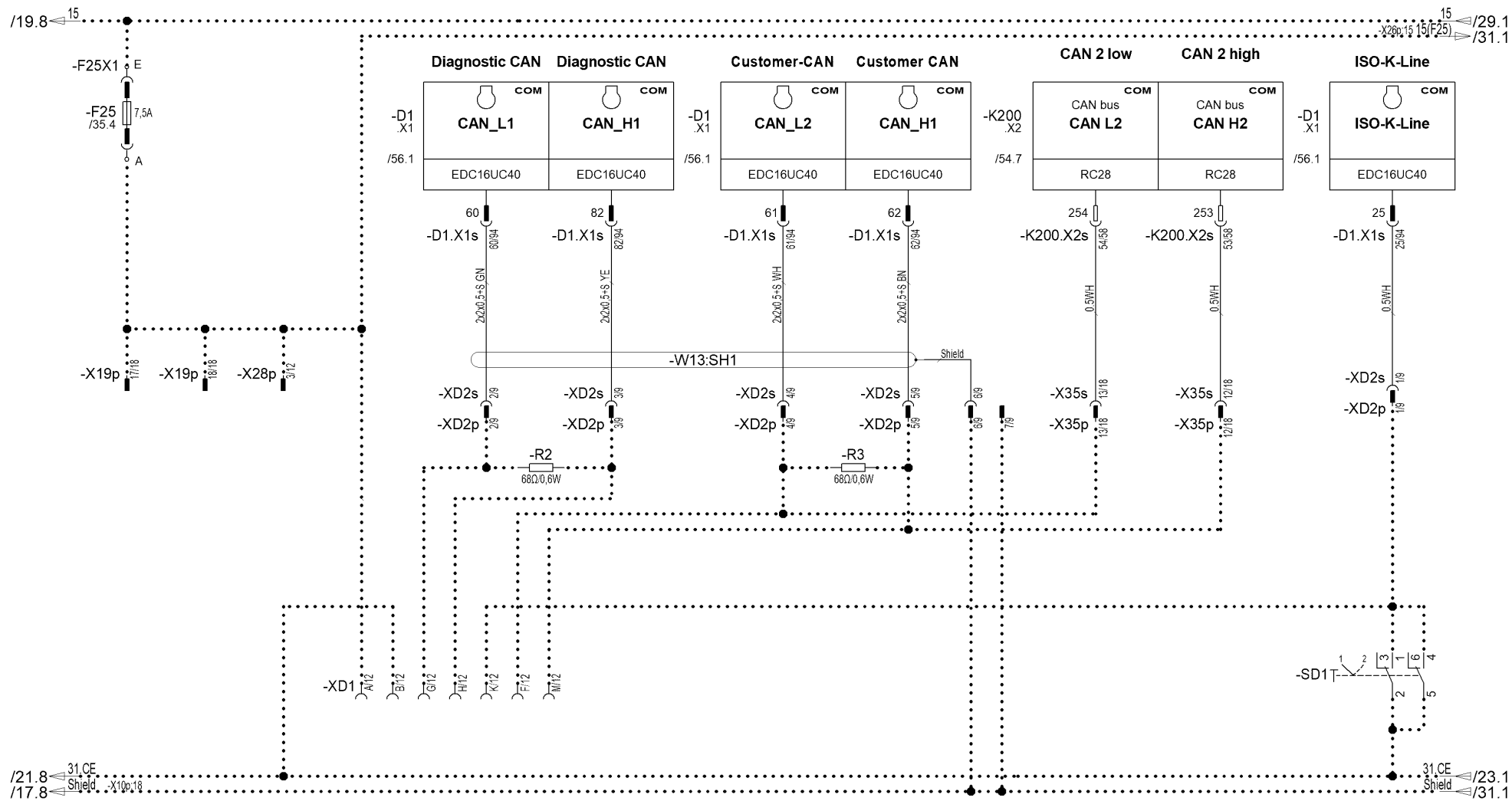
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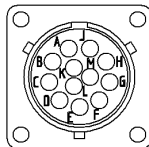
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2290893		04	
Series code:	Valid for Serial No.:		
H176	from to		
Sheet plant:			
Sheet Location:			

Spannungsversorgung Steuergerät Dieselmotor
Voltage supply Control device diesel engine

Sheet
21
of
84
Sheets



View contact-side



XD1:
Diagnosestecker Dieselmotor
Diagnostic connector diesel engine

SD1:
Diagnosetaster
Diagnostic push button switch

Drawing by:	Approved by:	Last change:
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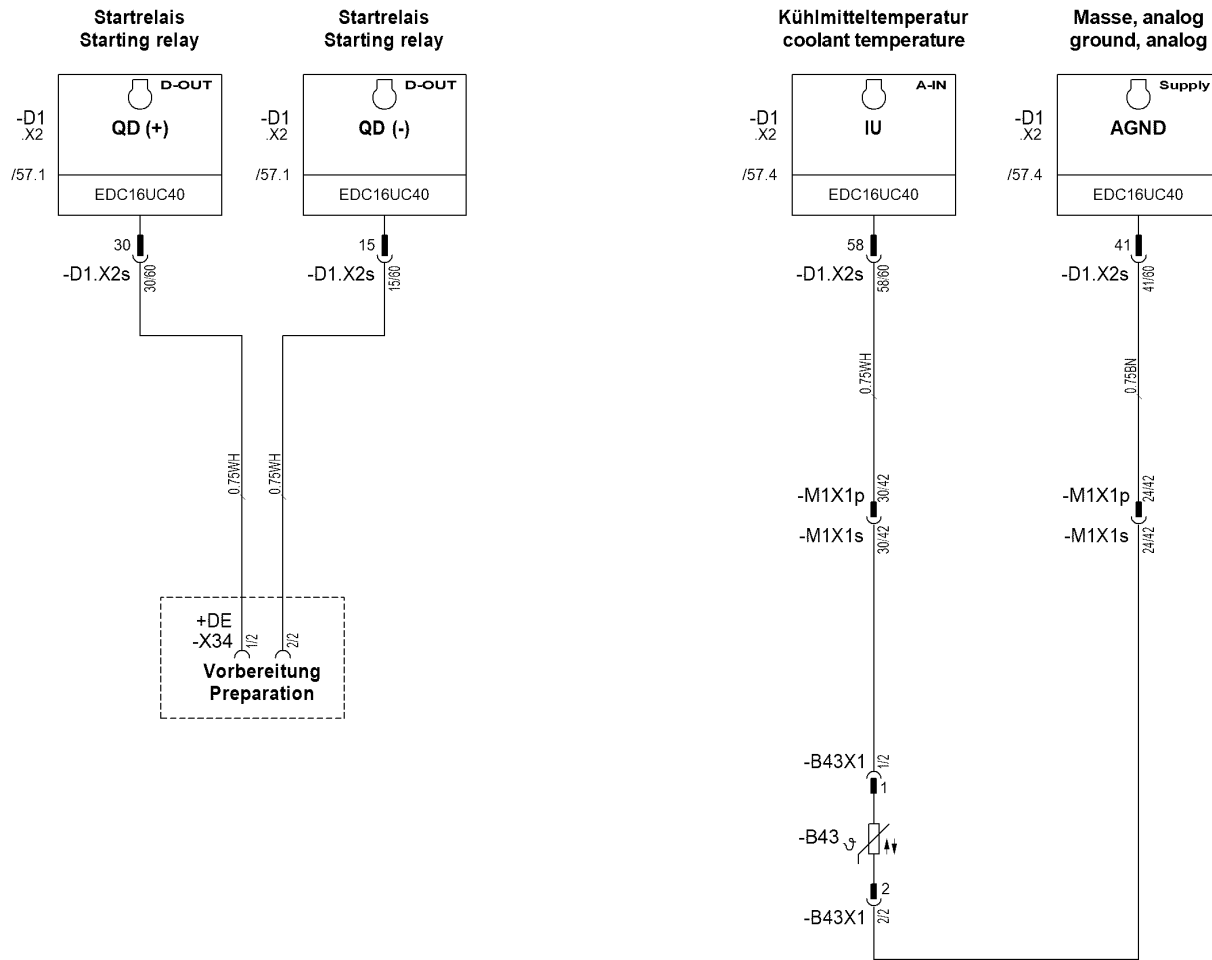
Material No.:	Revision No.:
2290893	04
Series code:	Valid for Serial No.:
H176	from to
Sheet plant:	
Sheet Location:	

Diagnoseschnittstelle Dieselmotor
 Diagnostic interface diesel engine

Sheet
22
of
84
Sheets



Drawing by:		Approved by:		last change:		Status:		Document No.:		Material No.:		Revision No.:		Sheet:	
date 27.09.2011		date		date 02.09.2021		AE = changeable		Partial Document No.:		2290893		04		23	
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E - CAE		Document type:		Function group No.:		SF = serial release		Version No.:		H176		from to		84	
		ESP		04						Sheet plant:				Sheets	
										Sheet Location:					
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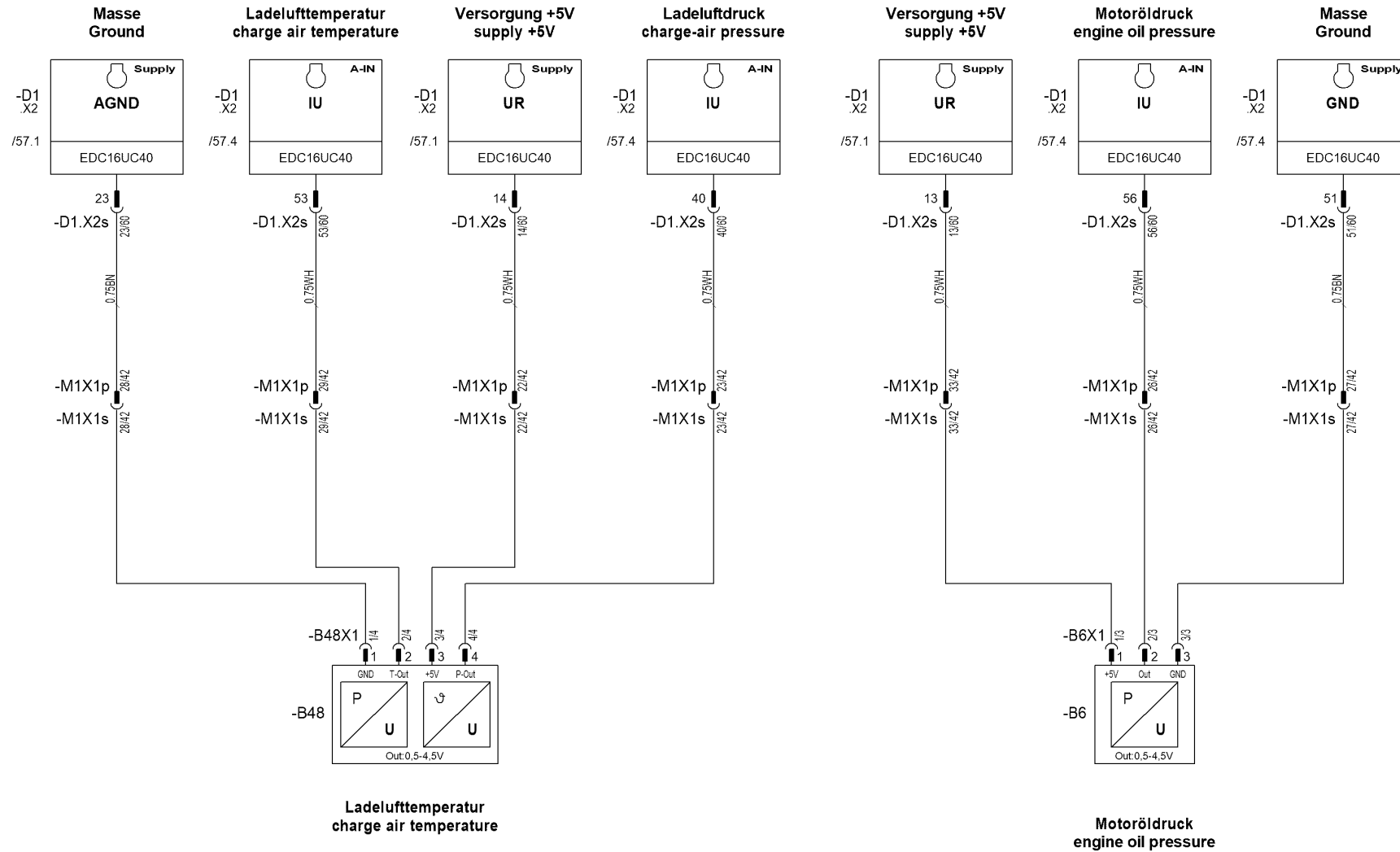


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2290893		04	
Series code:	Valid for Serial No.:		
H176	from	to	
Sheet plant:			
Sheet Location:			

TCD Dieselmotor
TCD diesel engine

Sheet
24
of
84
Sheets

1 2 3 4 5 6 7 8



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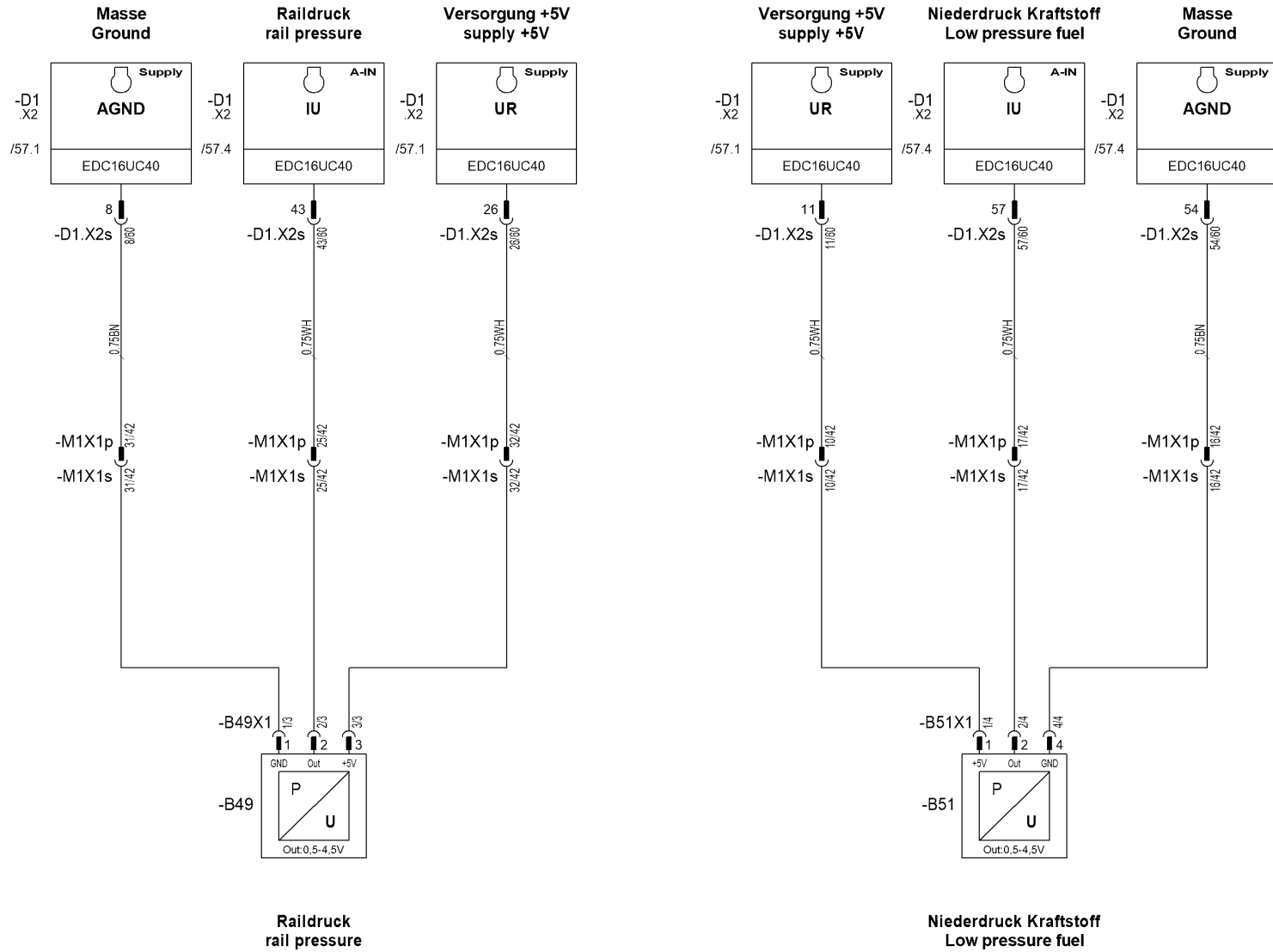
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Material No.: 2290893	Revision No.: 04
Series code: H176	Valid for Serial No.: from to
Sheet plant:	
Sheet Location:	

TCD Dieselmotor
TCD diesel engine

Sheet
25
of
84
Sheets



Drawing by:		Approved by:		last change:	
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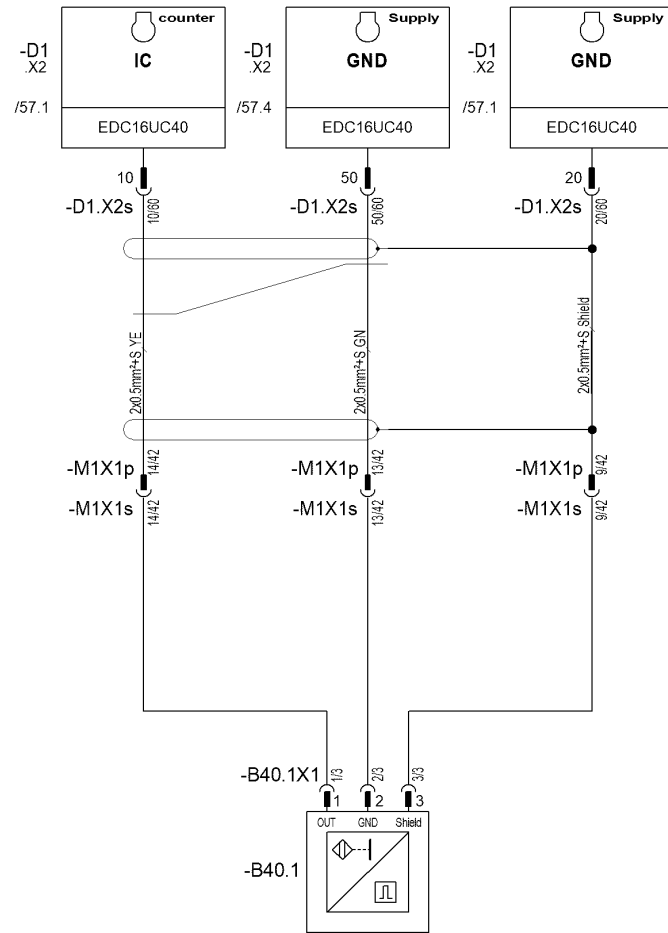
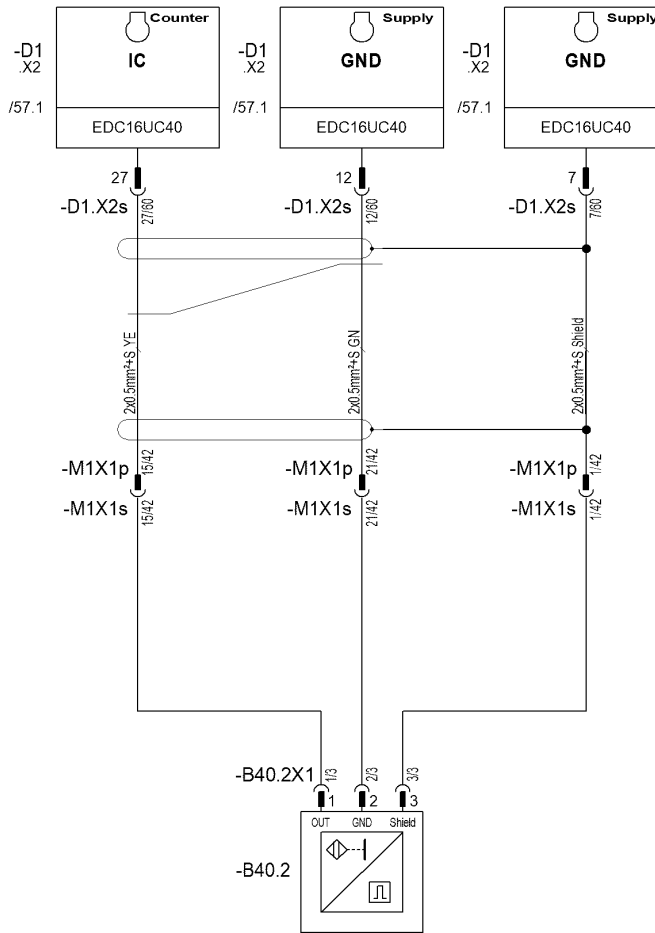
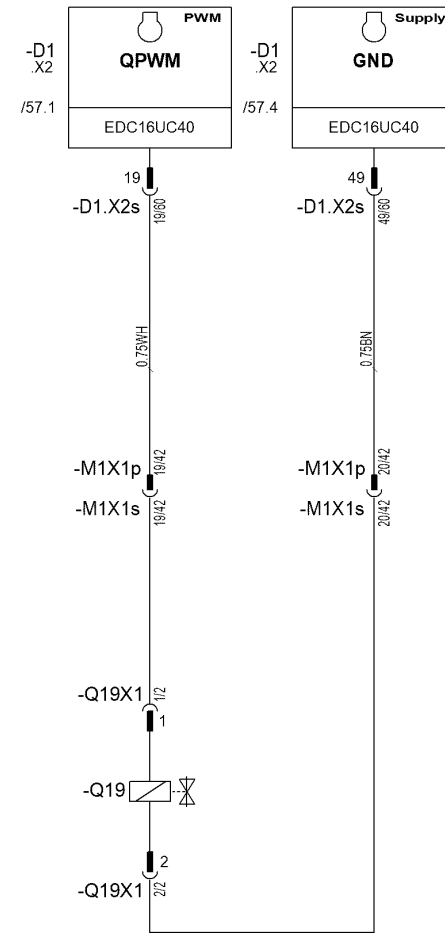
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		Version No.:	



Material No.:		Revision No.:	
2290893		04	
Series code:		Valid for Serial No.:	
H176		from to	
Sheet plant:			
Sheet Location:			

TCD Dieselmotor
TCD diesel engine

Sheet	
26	
of	
84	
Sheets	

Drehzahlsensor Nockenwelle
Speed sensor Camshaft**Drehzahlsensor Nockenwelle**
Speed sensor Camshaft**Drehzahlsensor Kurbelwelle**
Speed sensor Crankshaft**Drehzahlsensor Kurbelwelle**
Speed sensor Crankshaft**FCU Ventil**
FCU Valve**FCU Ventil**
FCU Valve

Drawing by:	Approved by:	last change:	Status:
date 27.09.2011	date	date 02.09.2021	AE = changable
name Lan.	name	name Lan.	PF = prototype release
E - CAE	Document type:	Function group No.:	SF = serial release
	ESP	04	

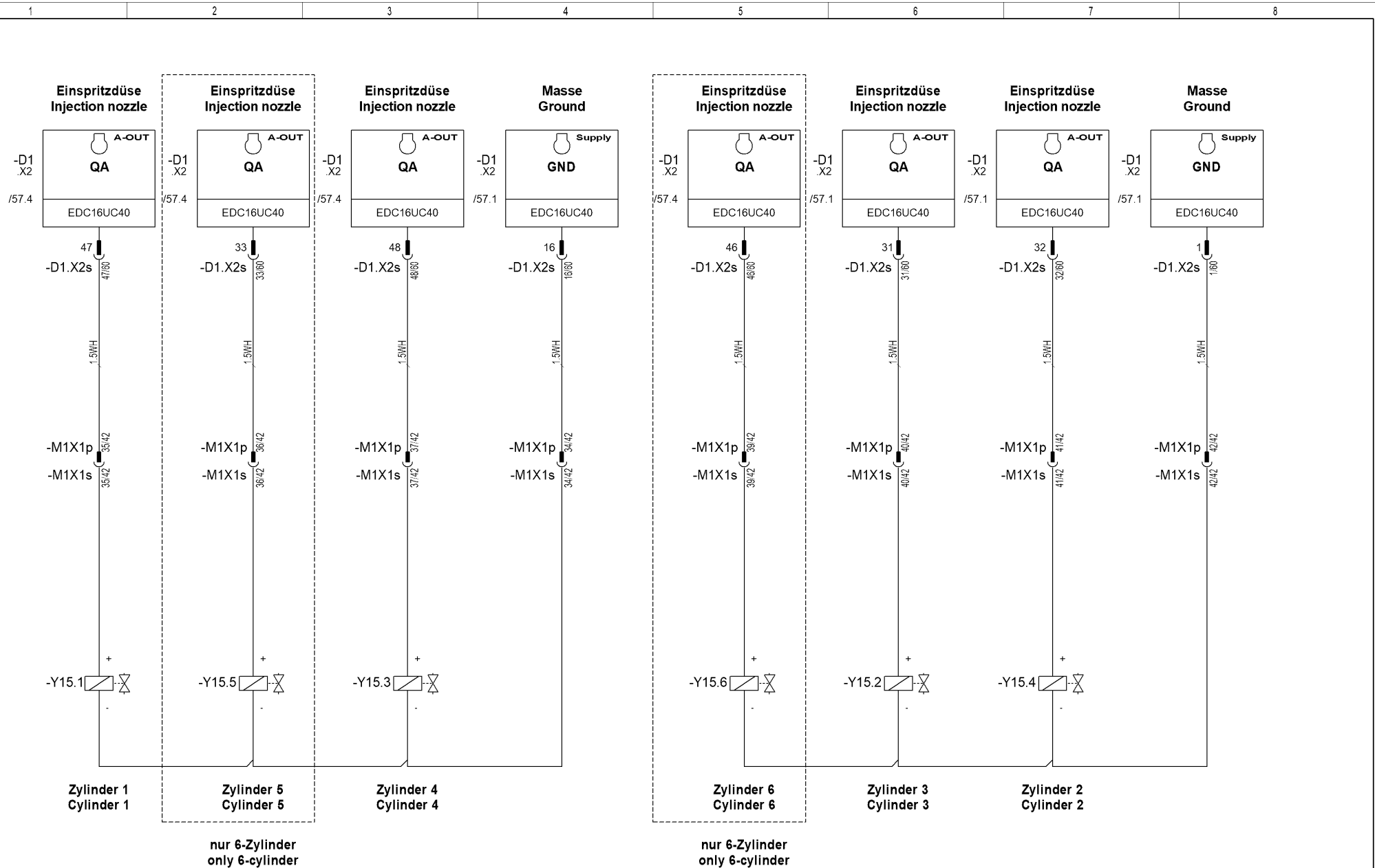
Document No.:	Partial Document No.:	Version No.:



Material No.:	Revision No.:
2290893	04
Series code:	Valid for Serial No.:
H176	from to
Sheet plant:	
Sheet Location:	

TCD Dieselmotor
TCD diesel engine

Sheet
27
of
84
Sheets



Drawing by:		Approved by:		last change:	
date	27.09.2011	date		date	02.09.2021
name	Lan.	name		name	Lan.
E - CAE		Document type:		Function group No.:	
		ESP		04	

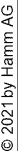
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PF = prototype release	Partial Document No.:
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	Version No.:



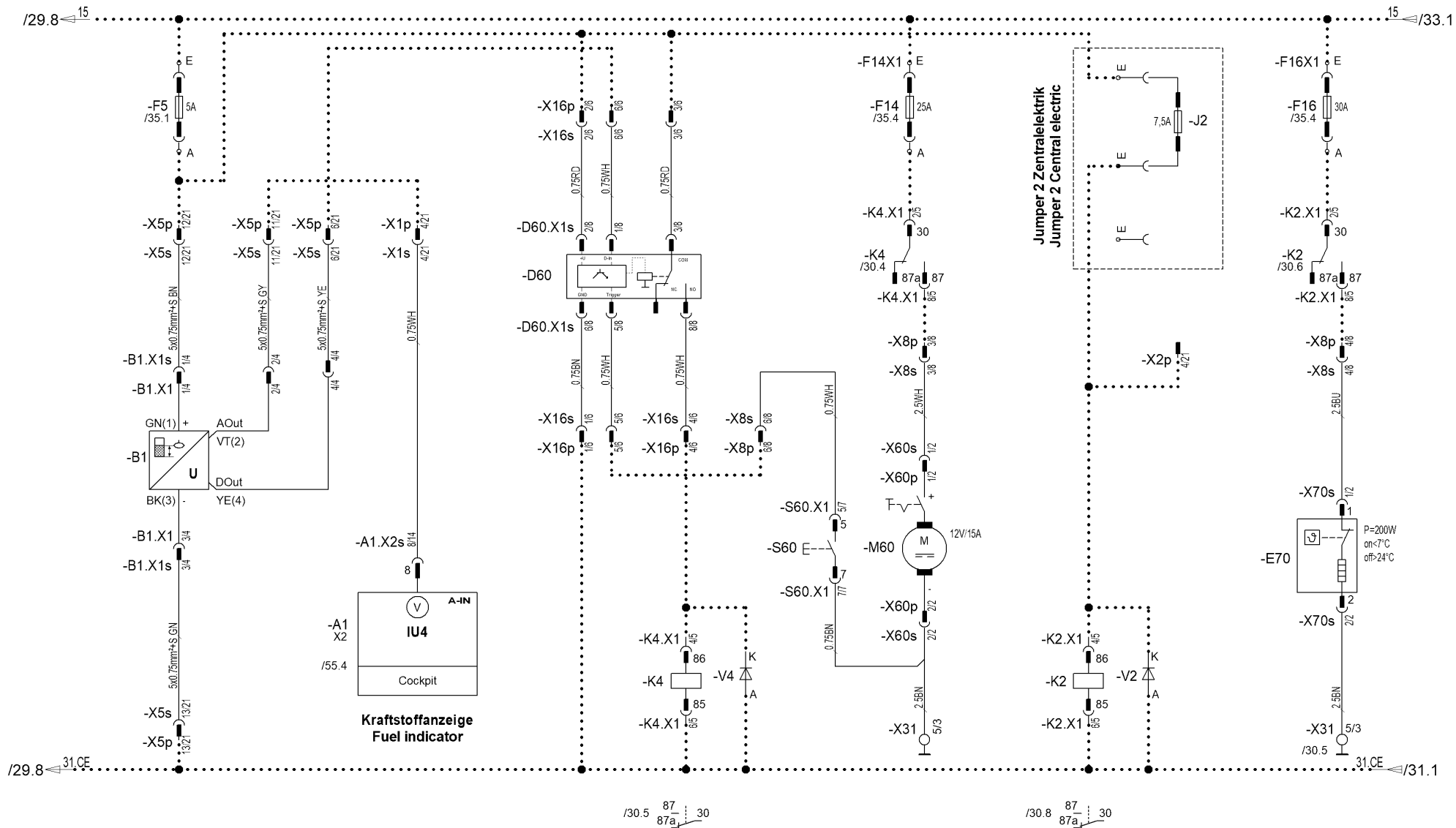
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2290893		04	
Series code:	Valid for Serial No.:		
H176	from	to	
Sheet plant:			
Sheet Location:			

TCD Dieselmotor
TCD diesel engine

Sheet
28
of
84
Sheets



Drawing by:		Approved by:		last change:		Status: AE = changeable PF = prototype release SF = serial release	Document No.: Partial Document No.: Version No.:		Material No.: 2290893		Revision No.: 04		Sensoren Dieselmotor Sensors diesel engine	Sheet 29 of 84 Sheets
date	27.09.2011	date		date	02.09.2021				Series code: H176		Valid for Serial No.: from to			
name	Lan.	name		name	Lan.									
E - CAE		Document type: ESP		Function group No.: 04										



B1:
Füllstandsgeber, Kraftstoff
Level transmitter, fuel

D60:
Steuergerät Betankungspumpe, Option
Control device Refuel pump, optional

M60:
Betankungspumpe, Option
Refuel pump, optional

E70:
Racor Kraftstoffvorfilter mit Heizung, Option
Racor Fuel prefilter with Heating, optional

Drawing by:	Approved by:	Last change:
date 27.09.2011	date	date 02.09.2021
name Lan.	name	name Lan.
E - CAE	Document type:	Function group No.:
	ESP	04

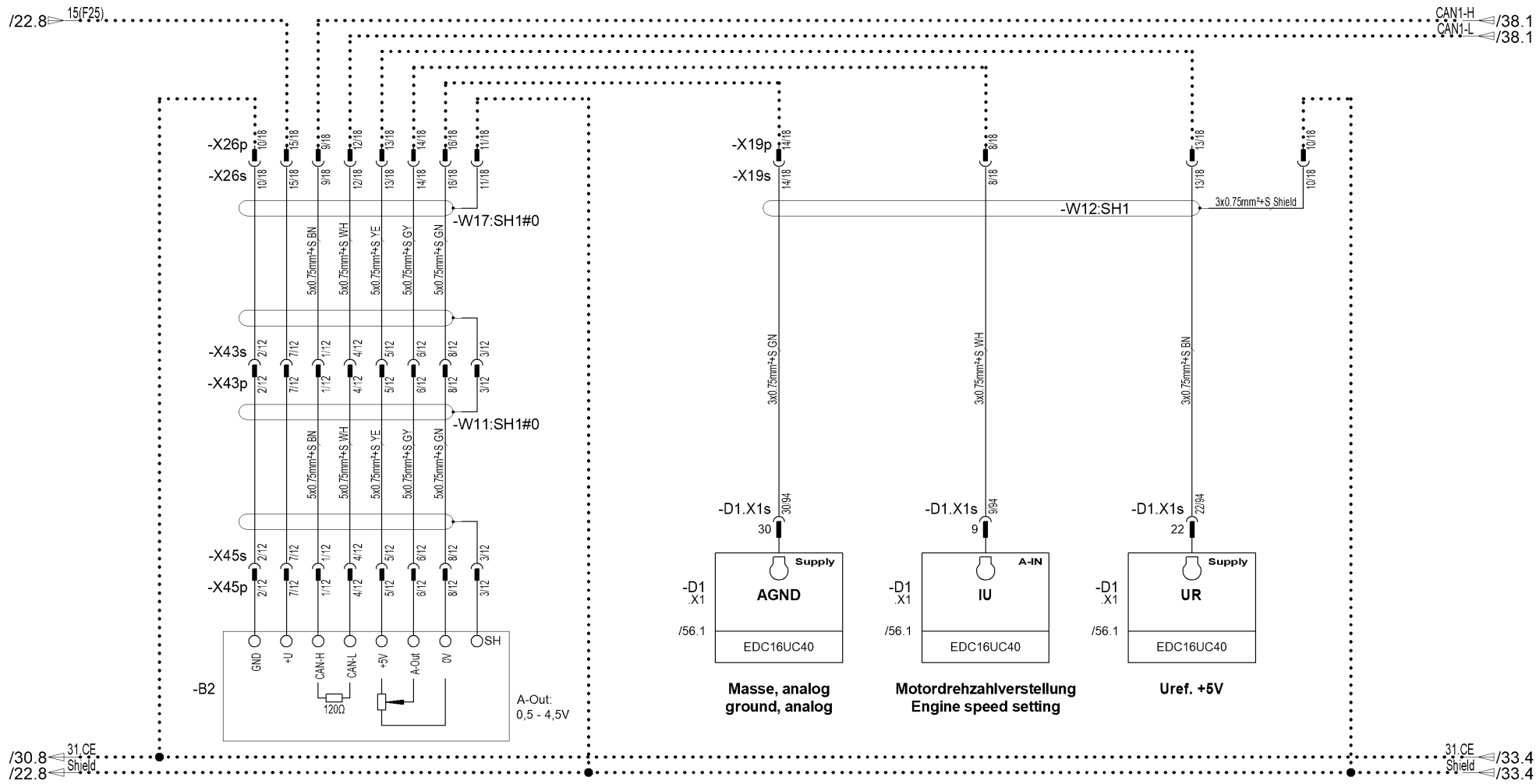
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PF = prototype release	Partial Document No.:
SF = serial release	
	Version No.:



Material No.:	Revision No.:
2290893	04
Series code:	Valid for Serial No.:
H176	from to
Sheet plant:	
Sheet Location:	

Füllstandsanzeige, Kraftstoff
Level indicator, fuel

Sheet
30
of
84
Sheets



Drawing by:	Approved by:	last change:	Status:
date 27.09.2011	date 02.09.2021		AE = changable
name Lan.	name	name Lan.	PF = prototype release
E - CAE	Document type:	Function group No.:	SF = serial release
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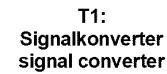
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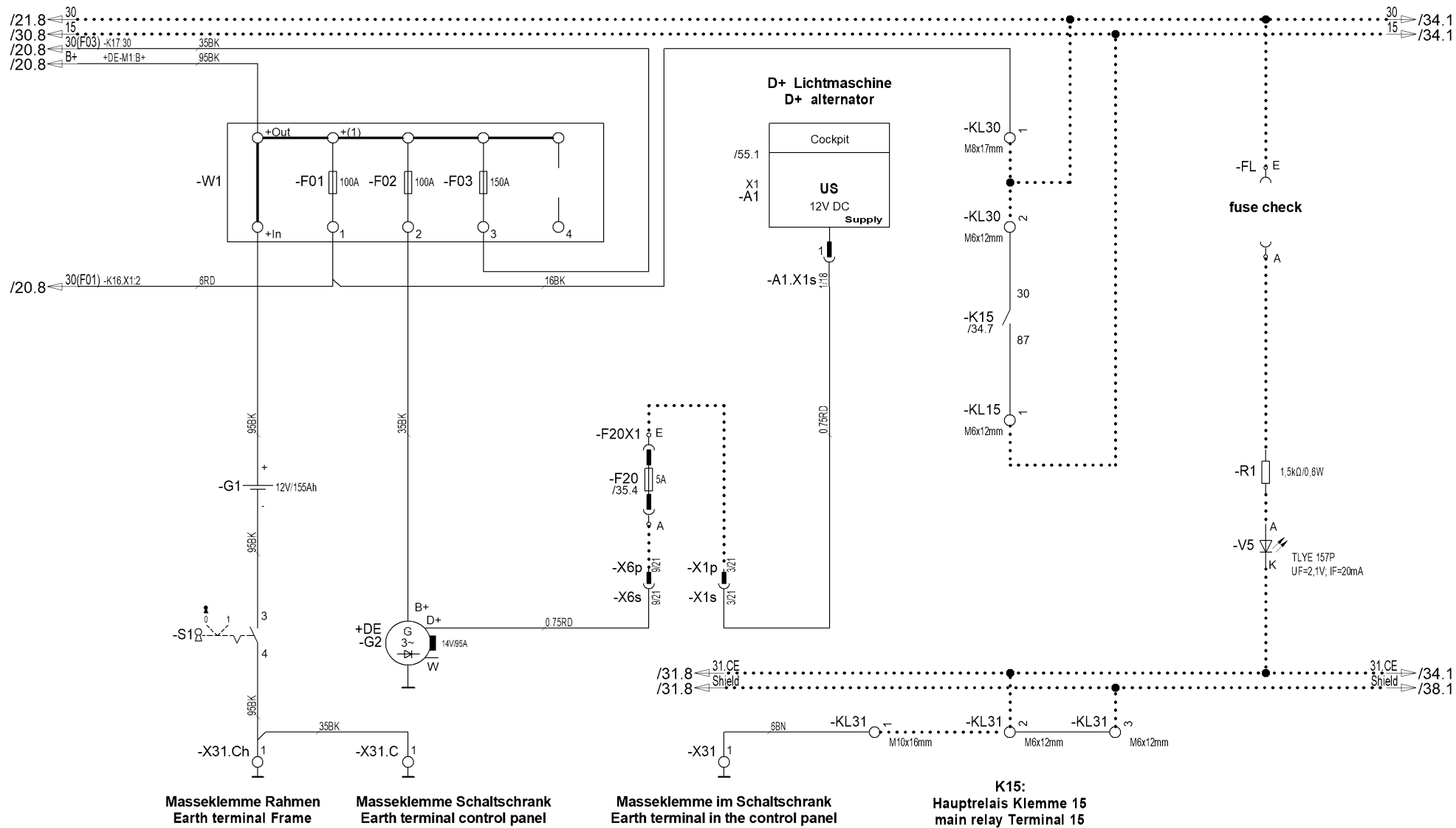
Material No.:	Revision No.:
2290893	04
Series code:	Valid for Serial No.:
H176	from to
Sheet plant:	
Sheet Location:	

Drehzahlverstellung Dieselmotor
Speed adjustment diesel engine

Sheet
31
of
84
Sheets



Sheet:
32
of
84 Sheets



Drawing by:	Approved by:	last change:
date 27.09.2011	date	date 02.09.2021
name Lan.	name	name Lan.
E - CAE	Document type:	Function group No.:
	ESP	06

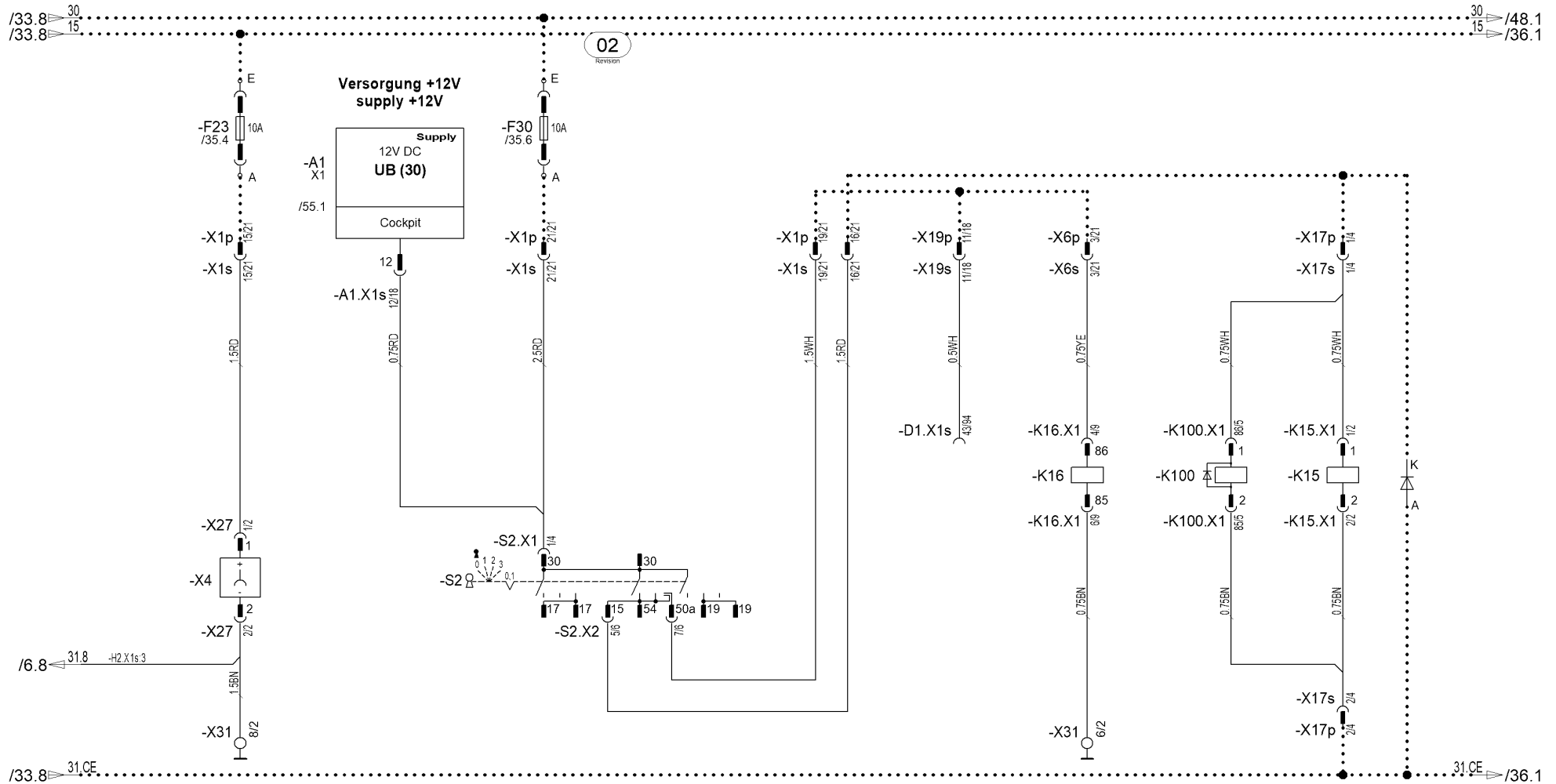
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PF = prototype release	Partial Document No.:
SF = serial release	
	Version No.:



Material No.:	Revision No.:
2290893	04
Series code:	Valid for Serial No.:
H176	from to
Sheet plant:	
Sheet Location:	

Hauptsicherungen, Spannungsverteilung
Main-fuses, power distribution

Sheet
33
of
84
Sheets



Steckdose Lenksäule
Socket Steering column

S2:
Zünd-Startschalter
Ignition switch

K16:
Startrelais
Starting relay

K100:
Relais Kabinenheizung
Relay Cabin-heating

Drawing by:	Approved by:	Last change:
date 27.09.2011	date	date 02.09.2021
name Lan.	name	name Lan.
E - CAE	Document type:	Function group No.:
	ESP	06

Status:	Document No.:
AE = changable	
PF = prototype release	Partial Document No.:
SF = serial release	
Version No.:	



Material No.:	Revision No.:
2290893	04
Series code:	Valid for Serial No.:
H176	from to
Sheet plant:	
Sheet Location:	

Zündschloß, Spannungsverteilung
Ignition lock, power distribution

Sheet
34
of
84
Sheets

-F1 /4.3		Leistungsausgänge Mikrokontroller RC28 Power outputs Microcontroller RC28
-F2 /4.6		Leistungsausgänge Mikrokontroller RC28 Power outputs Microcontroller RC28
-F3 /13.1		Sensoren Sensors
-F4 /13.2		Sensoren Sensors
-F5 /30.1		Kraftstoffanlage Fuel system
-F6 /12.6		Sensoren Fahrerstand, Multifunktionsgriff Sensors Operator platform, Multifunction handle
-F7 /4.1		Not-Stop-Steuerung Emergency control
-F8 /9.5		Fahrlicht rechts Driving light right
-F9 /9.1		Fahrlicht links dipped beam left
-F10 /9.6		Standlicht rechts Parking light right
-F11 /9.2		Standlicht links Parking light left
-F12 /6.1		Warntonsummer Warning buzzer
-F13 /7.1		Warnblinkanlage Klemme 15 Warning flasher system Terminal 15

-F14 /30.5		Betankungspumpe Refuel pump
-F15 /6.5		Rückfahrwarneinrichtung Back-up alarm
-F16 /30.8		Kraftstoffvorwärmung Fuel preheating
-F17: Reserve		
-F18 /45.1		Verdichtungsmesser HCM Compactometer HCM
-F19 /38.6		Diagnoseschnittstelle WIDIAG Diagnostic interface WIDIAG
-F20 /33.4		Erregerstromkreis Lichtmaschine excitation current alternator
-F21 /11.5		Armaturenbrett Instrument panel
-F22: Reserve		
-F23 /34.2		Steckdose Lenksäule Socket Steering column
-F24: Reserve		
-F25 /22.1		Diagnoseschnittstelle und Drehzahlverstellung Dieselmotor Diagnostic interface and Speed adjustment diesel engine
-F26: Reserve		

-F27 /19.1		Kabinenheizung Cabin-heating
-F28: Reserve		
-F29: Reserve		
-F30 /34.3		Zündschalter Klemme 30 Ignition switch Terminal 30
-F31 /21.2		Steuergerät Dieselmotor EMR Control device diesel engine EMR
-F32 /8.4		Lenkstockschalter Klemme 30 Steering column switch Terminal 30
-F33 /7.2		Warnblinkanlage Klemme 30 Warning flasher system Terminal 30
-F34 /17.2		Kabine Klemme 30 Cabin Terminal 30
-F35 /36.2		Steuerteil Mikrokontroller RC28 control circuit Microcontroller RC28
-F36 /37.2		Steuerteil Mikrokontroller RC28 control circuit Microcontroller RC28
-F37 /17.2		Kabine Klemme 15 Cabin Terminal 15

Drawing by:		Approved by:		last change:	
date	27.09.2011	date		date	02.09.2021
name	Lan.	name		name	Lan.
E - CAE		Document type:		Function group No.:	
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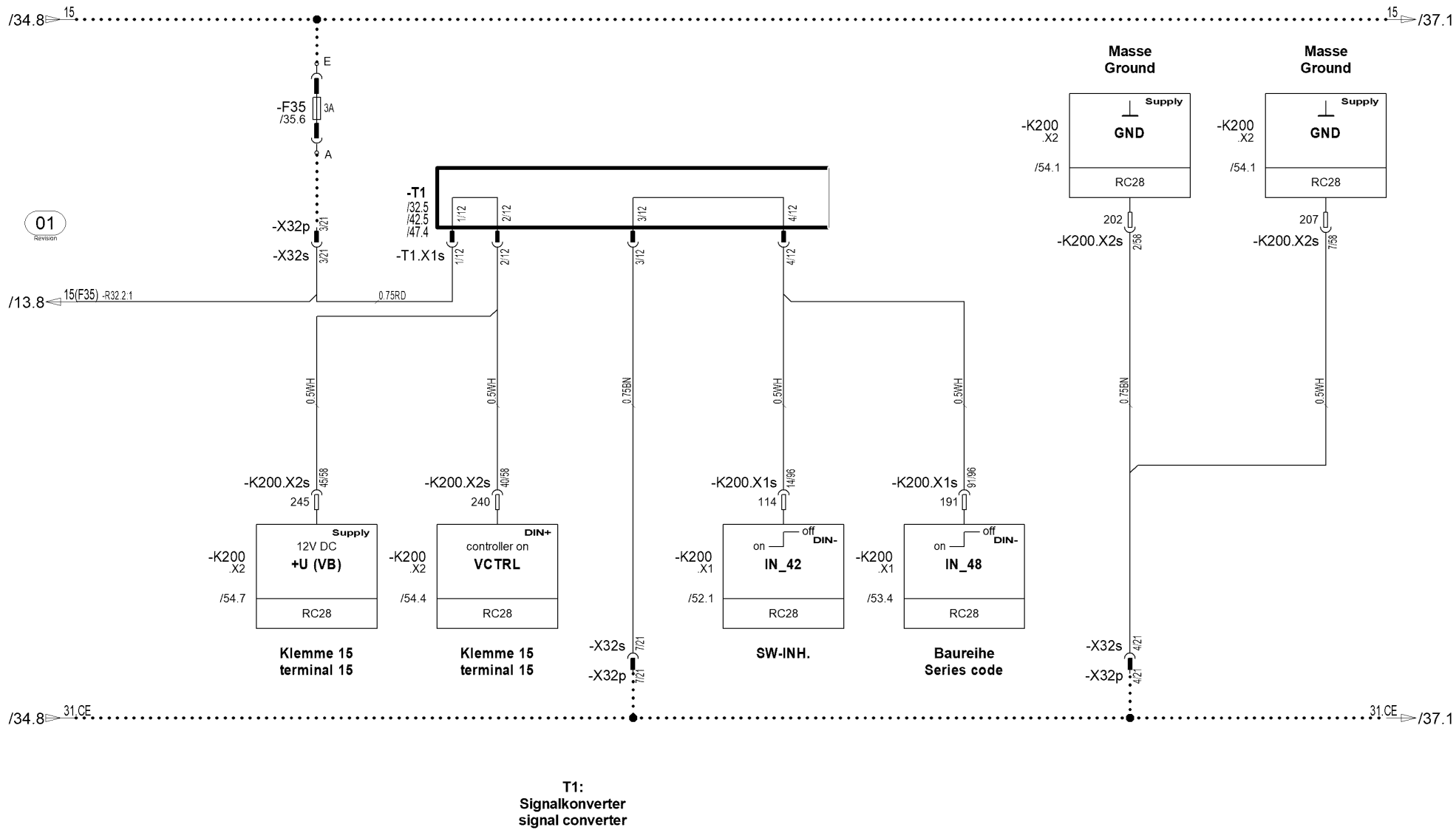
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PF = prototype release	Partial Document No.:
SF = serial release	
	Version No.:



Material No.:		Revision No.:	
2290893		04	
Series code:	Valid for Serial No.:		
H176	from	to	
Sheet plant:			
Sheet Location:			

Sicherungsbelegung Zentralelektrik
Fuse occupancy Central electric

Sheet
35
of
84
Sheets



Drawing by:	Approved by:	last change:
date 27.09.2011	date	date 02.09.2021
name Lan.	name	name Lan.
E - CAE	Document type:	Function group No.:
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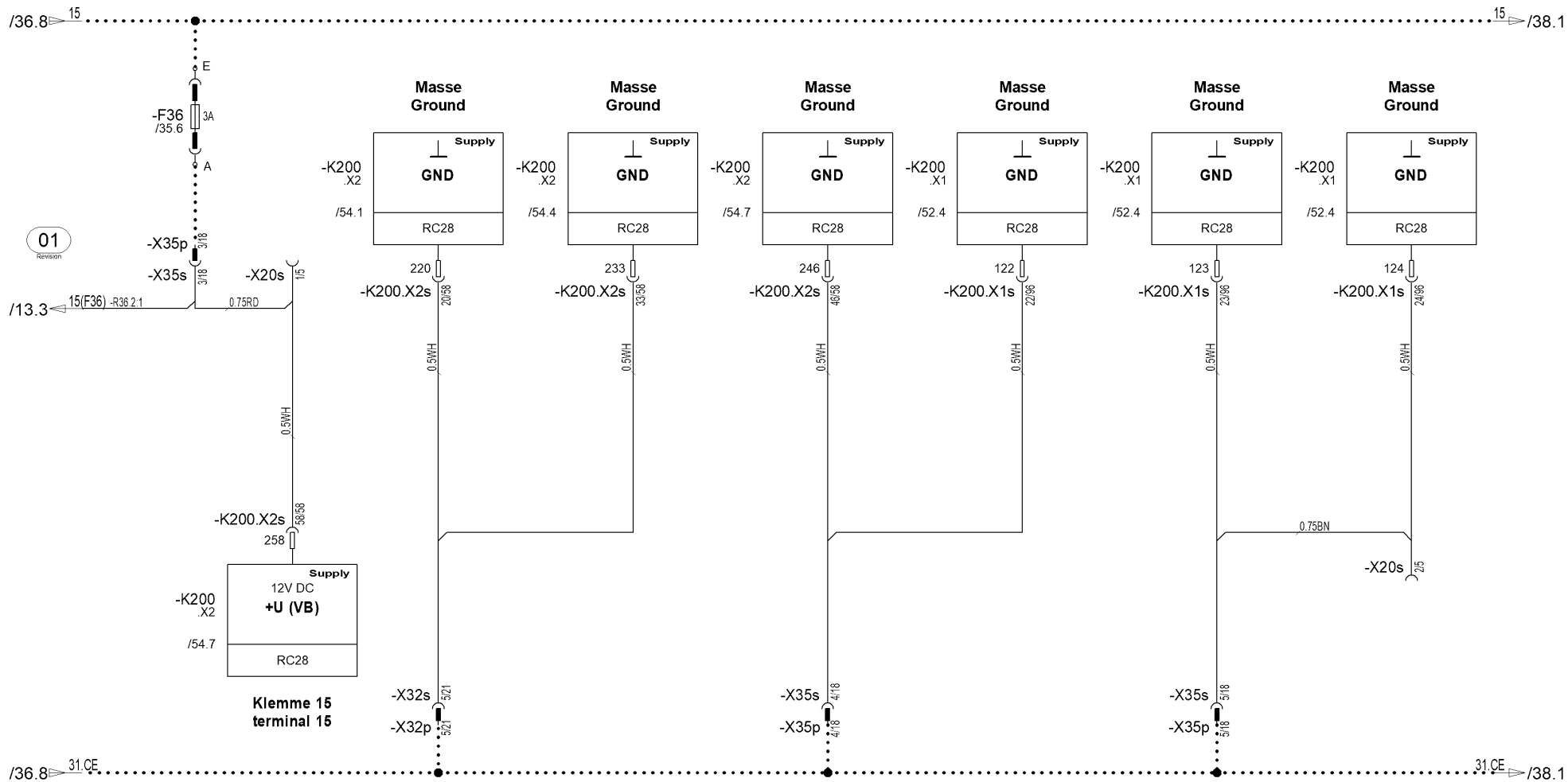
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PF = prototype release	Partial Document No.:
SF = serial release	
	Version No.:



Material No.:	Revision No.:
2290893	04
Series code:	Valid for Serial No.:
H176	from to
Sheet plant:	
Sheet Location:	

Spannungsversorgung Mikrocontroller RC28
Voltage supply Microcontroller RC28

Sheet
36
of
84
Sheets



Drawing by:	Approved by:	last change:
date 27.09.2011	date	date 02.09.2021
name Lan.	name	name Lan.
E - CAE	Document type:	Function group No.:
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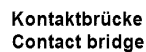
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Material No.:	Revision No.:
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Series code:	Valid for Serial No.:
H176	from to
Sheet plant:	
Sheet Location:	

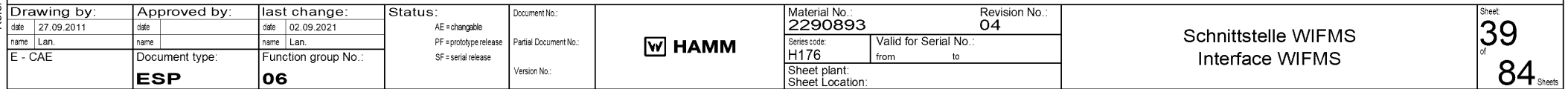
Spannungsversorgung Mikrokontroller RC28
Voltage supply Microcontroller RC28

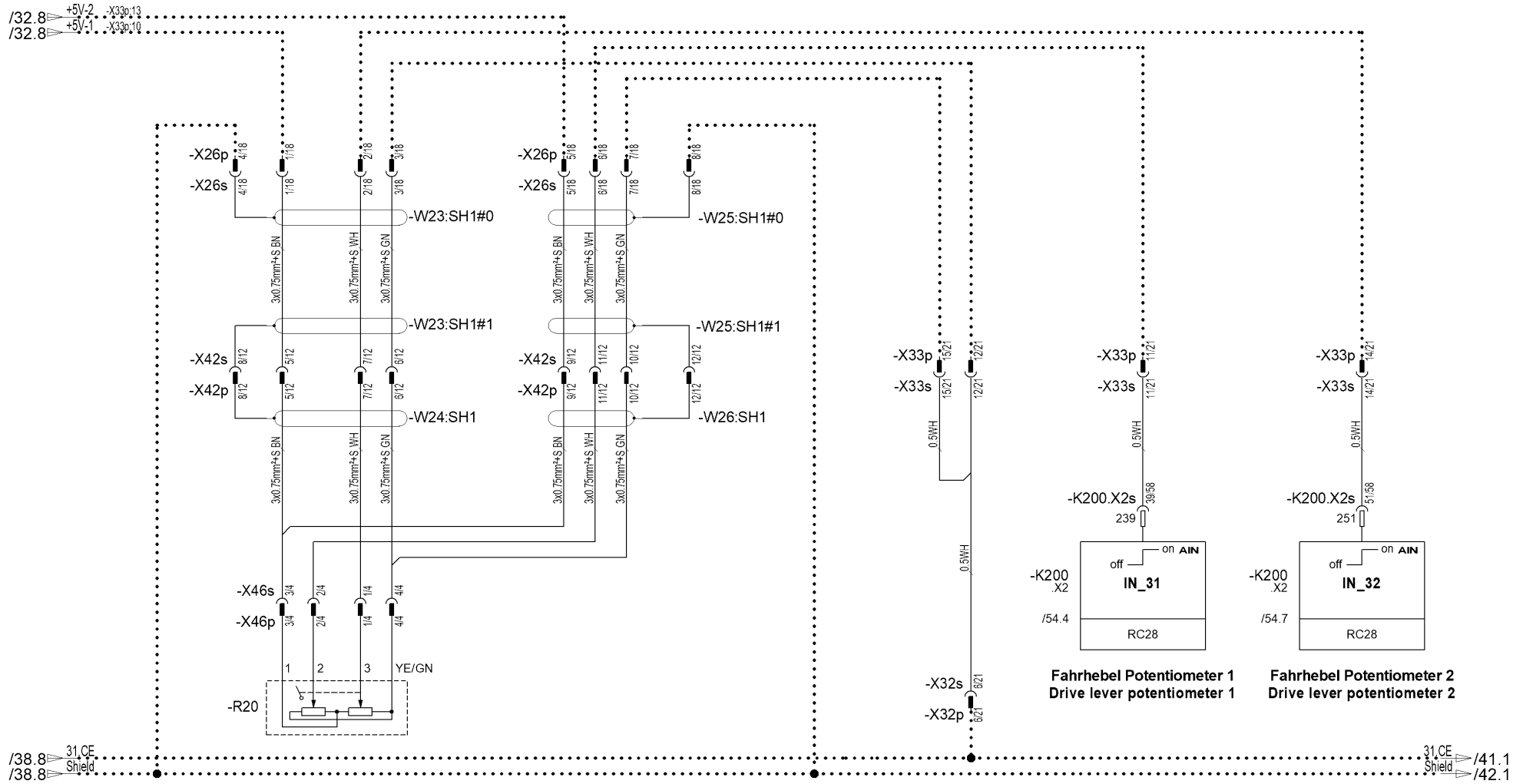
Sheet
37
of
84
Sheets



XD5:
Diagnoseschnittstelle WIDIAG
Diagnostic interface WIDIAG

Drawing by:		Approved by:		last change:		Status:		Document No.:		Material No.:		Revision No.:		CAN-Bus, Diagnoseschnittstelle WIDIAG CAN-Bus, Diagnostic interface WIDIAG		Sheet	
date 27.09.2011		date		date 02.09.2021		AE = changeable				2290893		04				38	
name Lan.		name		name Lan.		PF = prototype release		Partial Document No.:		Series code:		Valid for Serial No.:				of	
E - CAE		Document type:		Function group No.:		SF = serial release		Version No.:		H176		from to				84	
		ESP		06						Sheet plant:						Sheets	
										Sheet Location:							





R20:
Potentiometer Fahrhebel
Potentiometer Drive lever

Drawing by:	Approved by:	last change:
date 27.09.2011	date 02.09.2021	
name Lan.	name Lan.	
E - CAE	Document type:	Function group No.:
	ESP	08

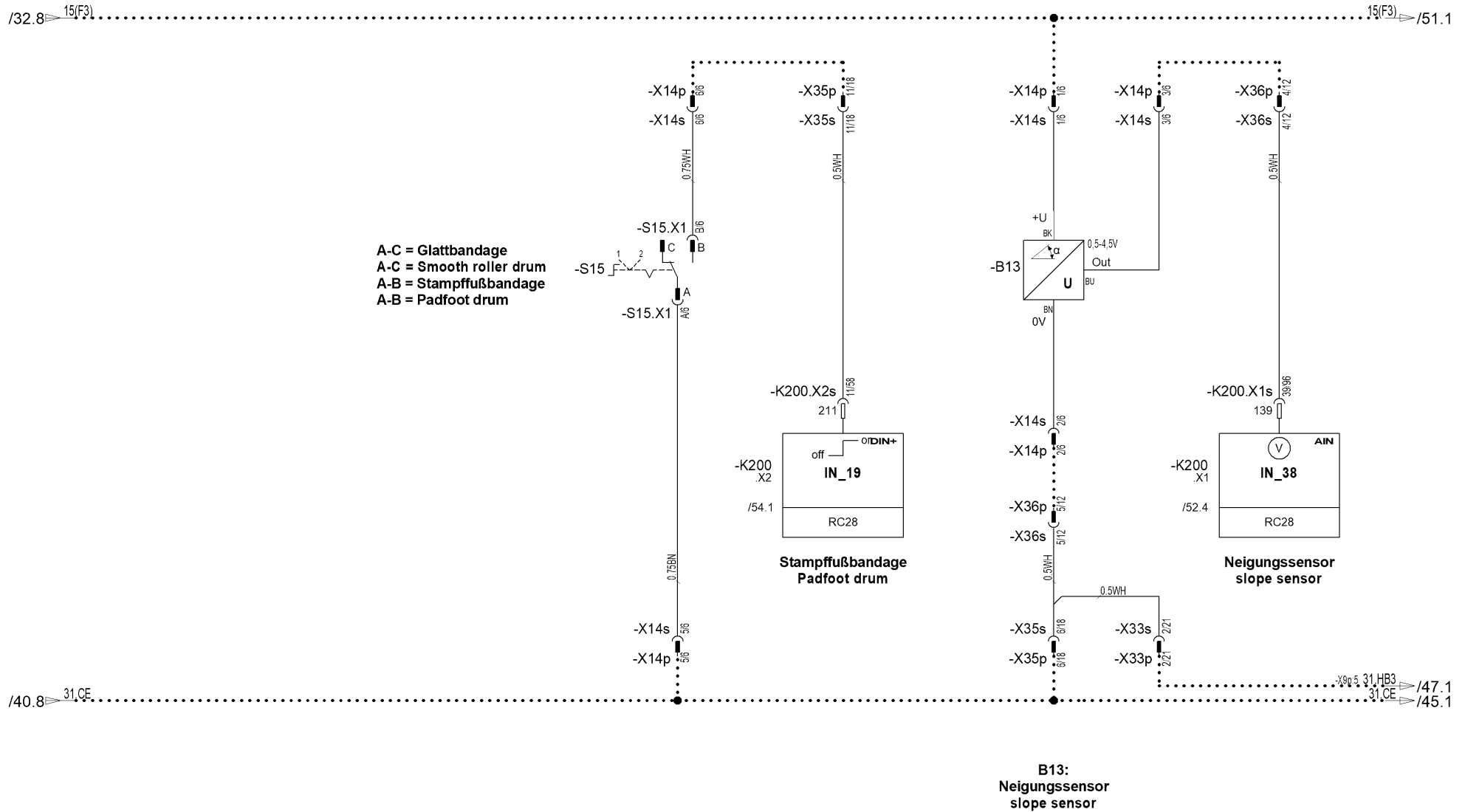
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PF = prototype release	Partial Document No.:
SF = serial release	Version No.:



Material No.:	Revision No.:
2290893	04
Series code:	Valid for Serial No.:
H176	from to
Sheet plant:	
Sheet Location:	

Potentiometer Fahrhebel
Potentiometer Drive lever

Sheet
40
of
84
Sheets



Drawing by:	Approved by:	last change:
date 27.09.2011	date	date 02.09.2021
name Lan.	name	name Lan.
E - CAE	Document type: ESP	Function group No.: 08

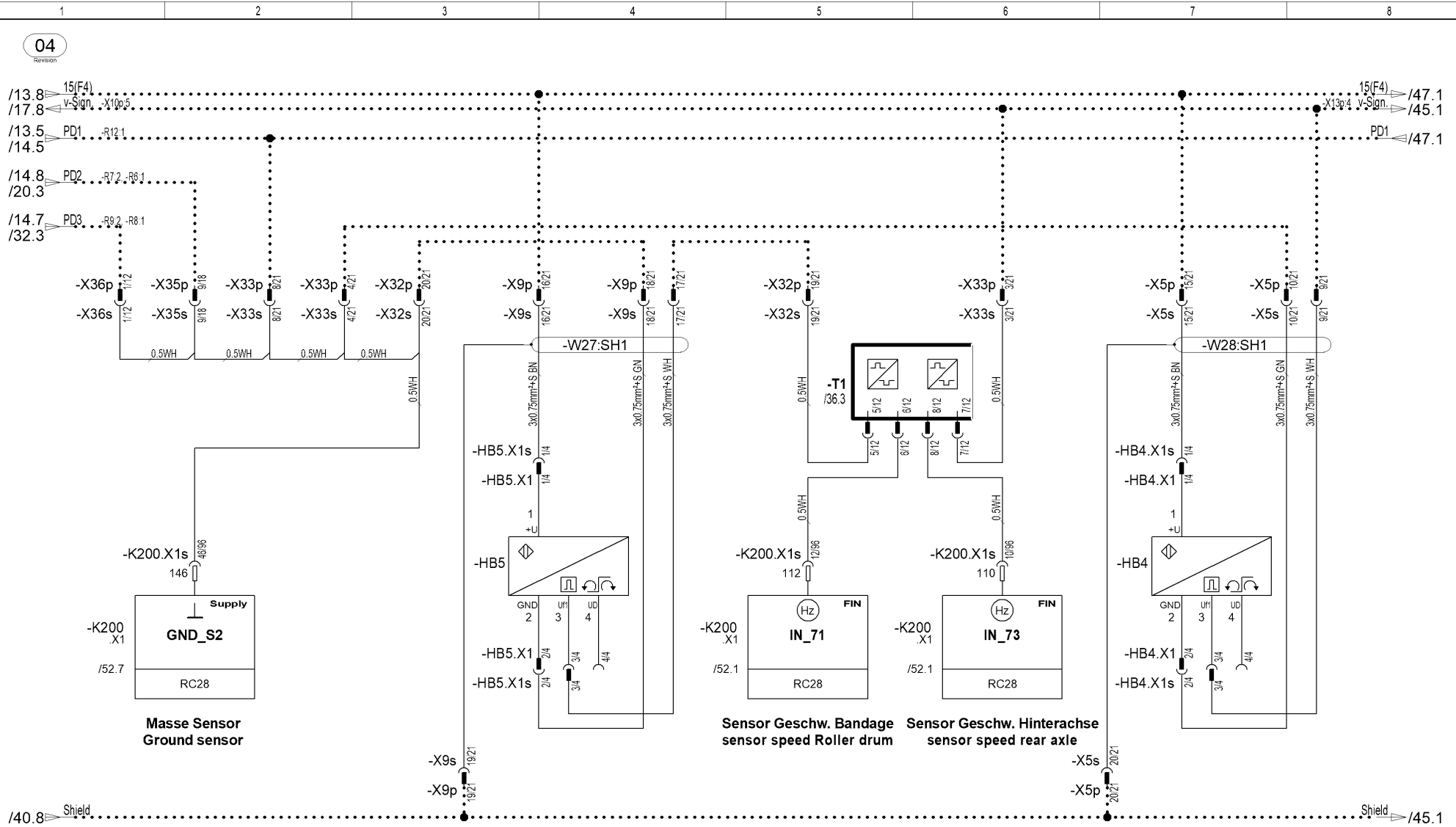
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PF = prototype release	Partial Document No.:
SF = serial release	Version No.:



Material No.: 2290893	Revision No.: 04
Series code: H176	Valid for Serial No.: from to
Sheet plant: Sheet Location:	

Fahr Antrieb Sensoren
Drive Sensors

Sheet 41 of 84 Sheets
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B5:
Drehzahlsensor, Bandagenmotor
Speed sensor, drum motor

T1:
Signalkonverter
signal converter

B4:
Drehzahlsensor, Achsmotor
Speed sensor, axle motor

Drawing by:	Approved by:	Last change:
date 27.09.2011	date	date 02.09.2021
name Lan.	name	name Lan.
E - CAE	Document type:	Function group No.:
	ESP	08

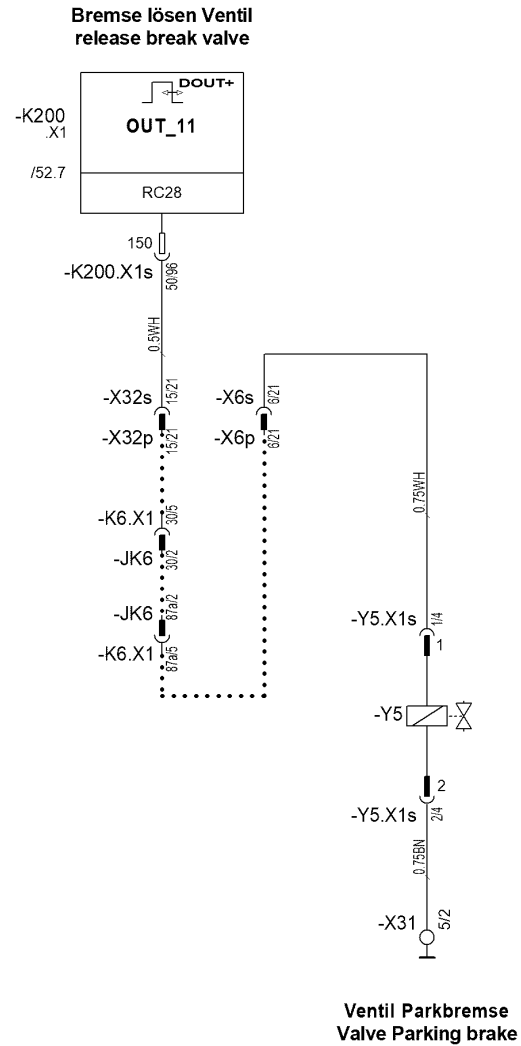
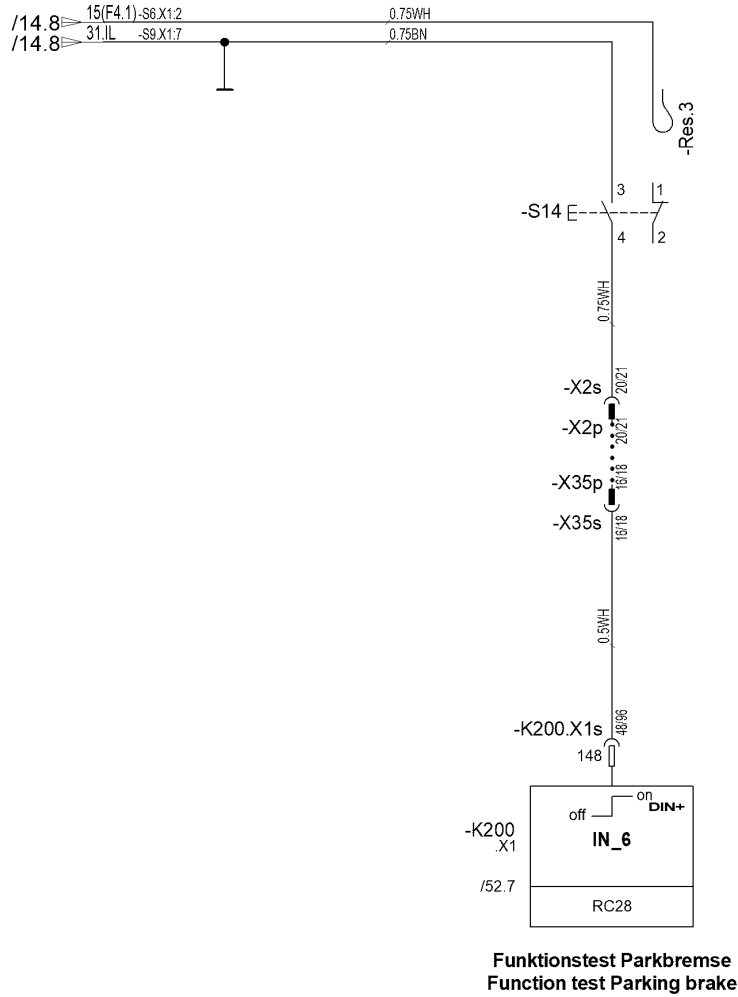
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PF = prototype release	Partial Document No.:
SF = serial release	Version No.:



Material No.:	Revision No.:
2290893	04
Series code:	Valid for Serial No.:
H176	from to
Sheet plant:	
Sheet Location:	

Fahrertrieb Drehzahlsensoren
Drive Speed sensors

Sheet
42
of
84
Sheets



Drawing by:	Approved by:	last change:
date 27.09.2011	date	date 02.09.2021
name Lan.	name	name Lan.
E - CAE	Document type:	Function group No.:
	ESP	08

Status:	Document No.:
AE = changable	
PF = prototype release	Partial Document No.:
SF = serial release	
	Version No.:



Material No.:	Revision No.:
2290893	04
Series code:	Valid for Serial No.:
H176	from to
Sheet plant:	
Sheet Location:	

Parkbremse
Parking brake

Sheet
43
of
84
Sheets

1

2

3

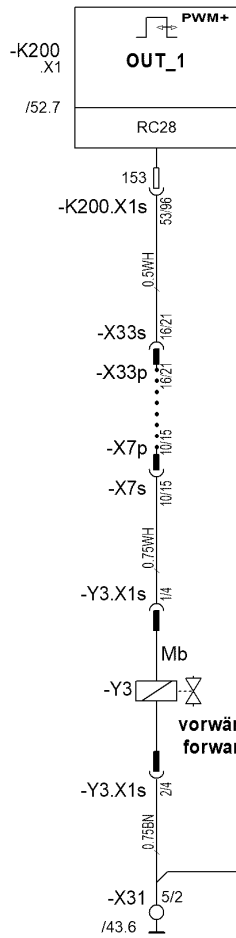
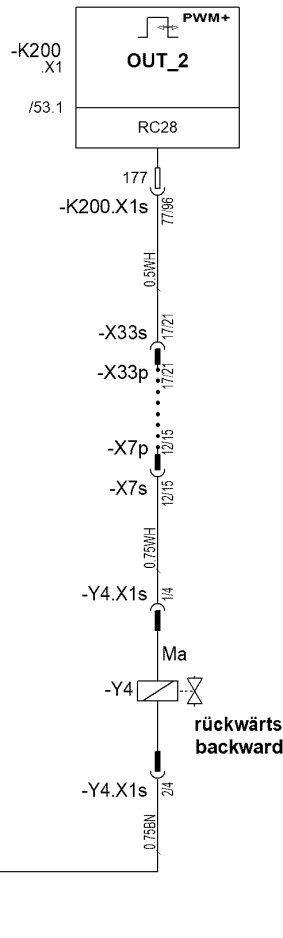
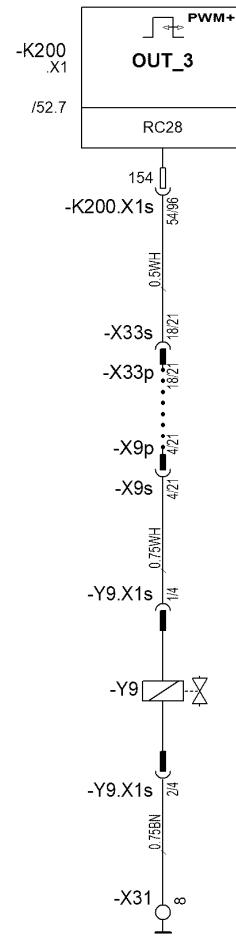
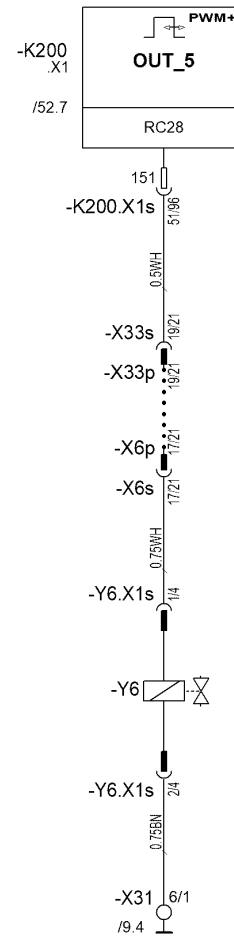
4

5

6

7

8

Fahrpumpe vorwärts
Drive pump forward**Fahrpumpe**
Drive pump**Fahrpumpe rückwärts**
Drive pump reverse**Fahrpumpe**
Drive pump**Antriebsmotor Bandage**
Driving motor Roller drum**Bandagenantrieb**
Drum drive**Antriebsmotor Achse**
Driving motor axle**Antrieb Hinterachse**
Drive rear axle

Drawing by:	Approved by:	last change:
date 27.09.2011	date	date 02.09.2021
name Lan.	name	name Lan.
E - CAE	Document type:	Function group No.:
	ESP	08

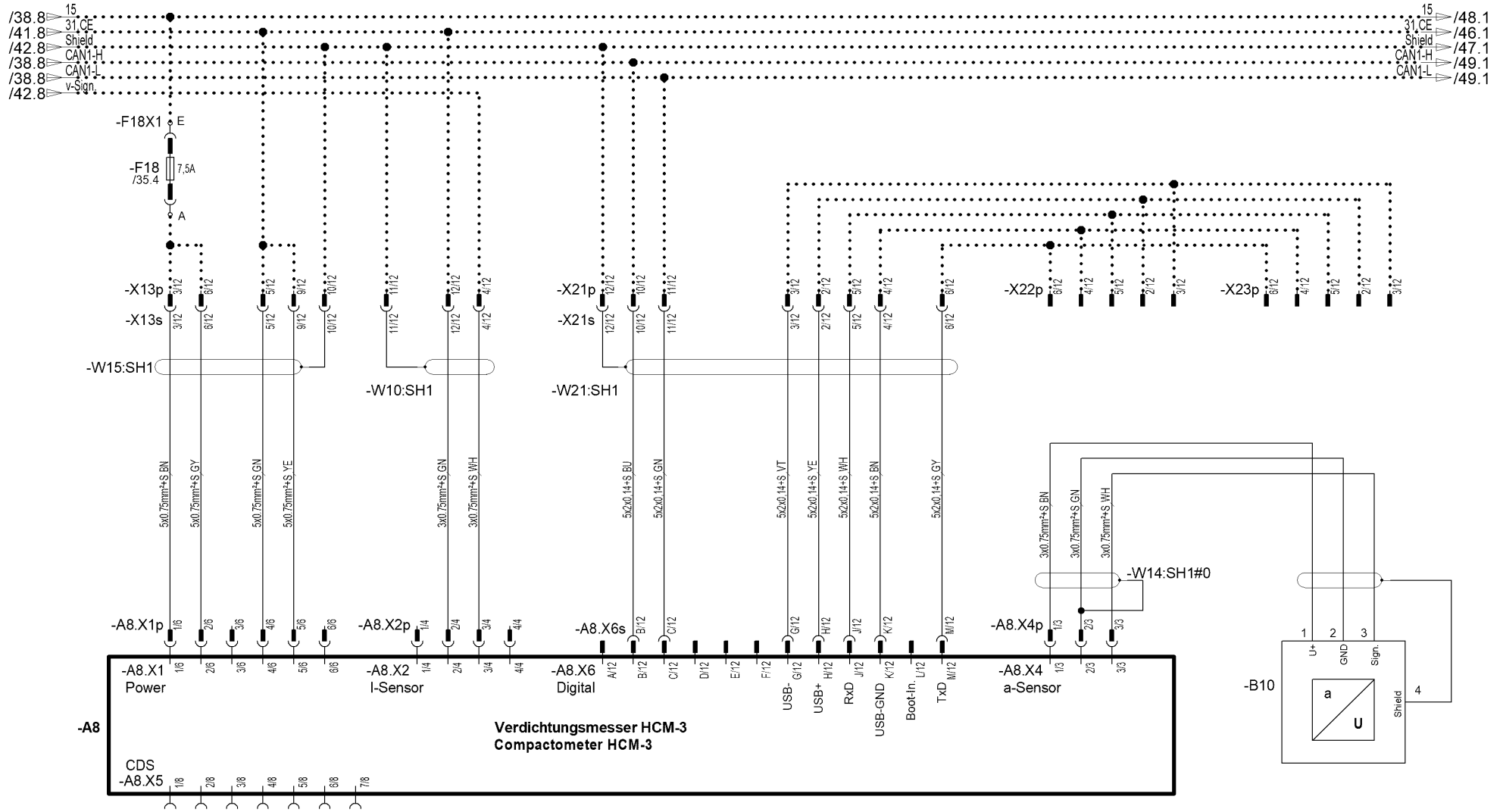
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PF = prototype release	Partial Document No.:
SF = serial release	
Version No.:	



Material No.:	Revision No.:
2290893	04
Series code:	Valid for Serial No.:
H176	from to
Sheet plant:	
Sheet Location:	

Parkbremse, Fahrantrieb
Parking brake, Drive

Sheet
44
of
84 Sheets



Drawing by:	Approved by:	last change:
date 27.09.2011	date 02.09.2021	
name Lan.	name Lan.	name Lan.
E - CAE	Document type:	Function group No.:
	ESP	15

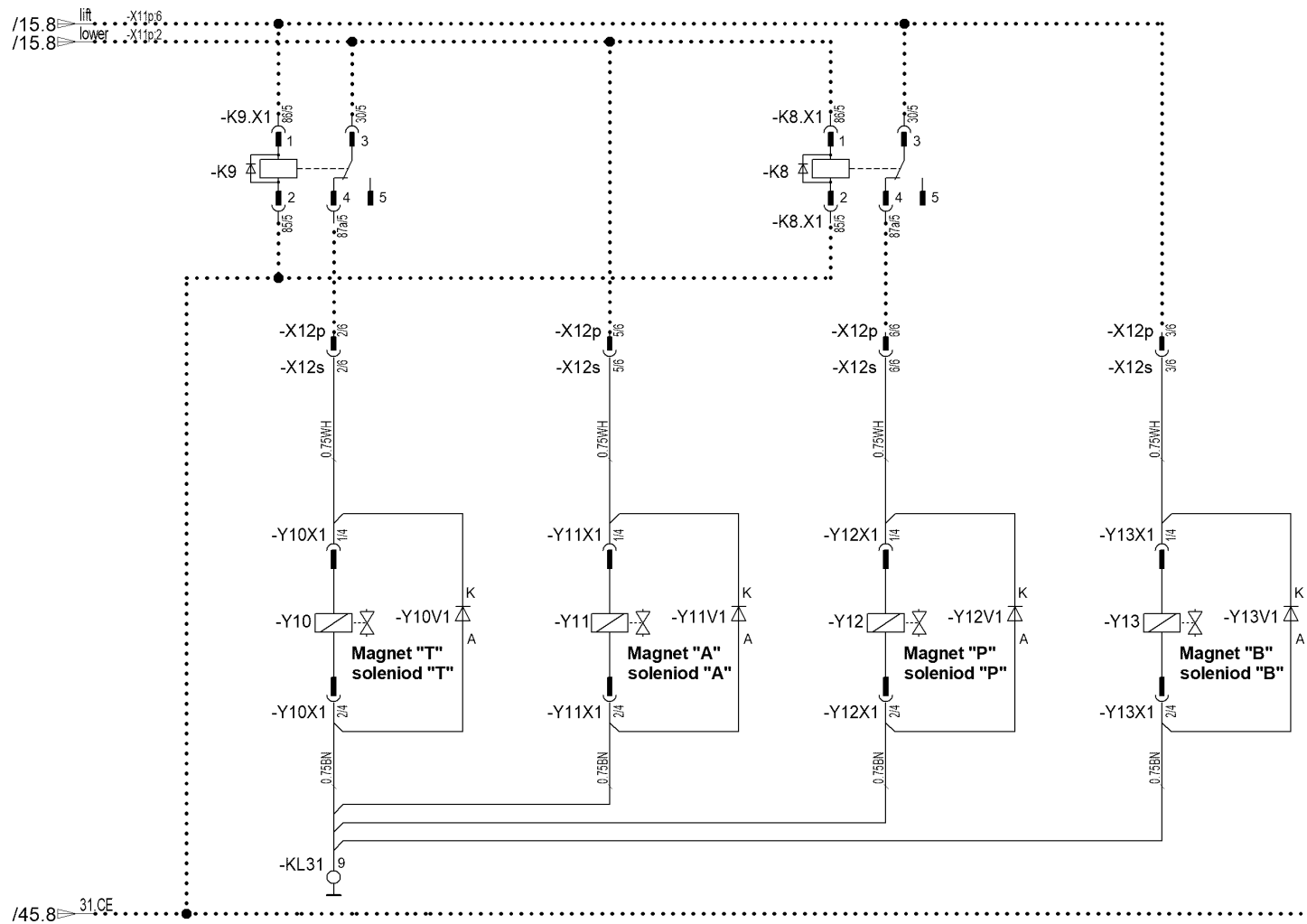
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SF = serial release	
	Version No.:



Material No.:	Revision No.:
2290893	04
Series code:	Valid for Serial No.:
H176	from to
Sheet plant:	
Sheet Location:	

HCQ Verdichtungsmesser HCM-3
HCQ Compactometer HCM-3

Sheet
45
of
84
Sheets



	Y10	Y11	Y12	Y13
heben lift			X	X
senken lower	X	X		
Schwimmbetrieb Floating mode		X		X

Drawing by:		Approved by:		last change:	
date	27.09.2011	date		date	02.09.2021
name	Lan.	name		name	Lan.
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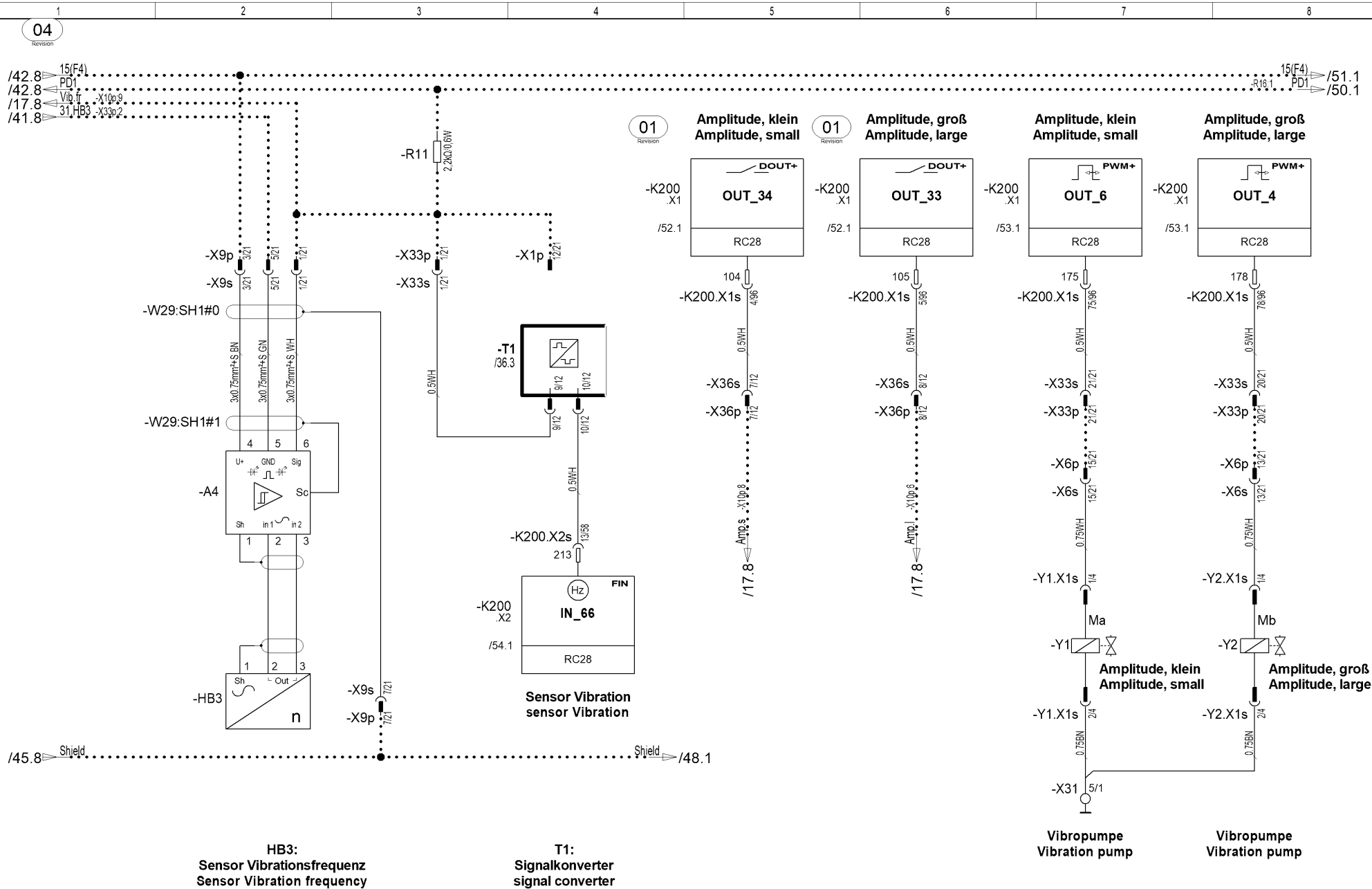
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Material No.:		Revision No.:	
2290893		04	
Series code:	Valid for Serial No.:		
H176	from	to	
Sheet plant:			
Sheet location:			

Sonderausrüstung Schubschild
Special equipment Blade

Sheet
46
of
84 Sheets



Drawing by:	Approved by:	last change:
date 27.09.2011	date 02.09.2021	
name Lan.	name	name Lan.
E - CAE	Document type:	Function group No.:
	ESP	26

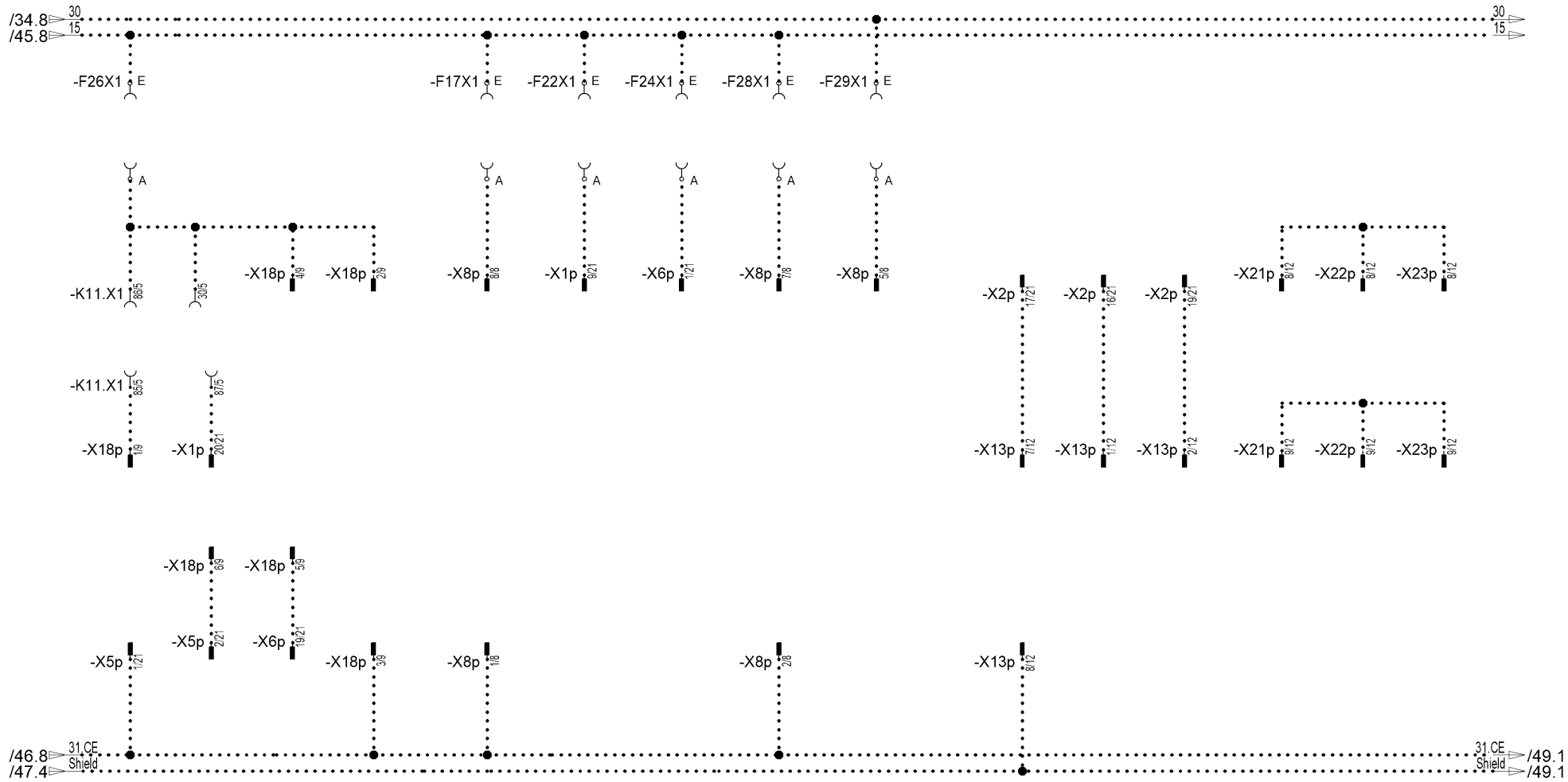
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SF = serial release	Version No.:



Material No.:	Revision No.:
2290893	04
Series code:	Valid for Serial No.:
H176	from to
Sheet plant:	
Sheet Location:	

Vibration
Vibration

Sheet
47
of
84
Sheets



Drawing by:		Approved by:		last change:	
date		date		date	
27.09.2011				02.09.2021	
name		name		name	
Lan.				Lan.	
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Document No.:

Partial Document No.:

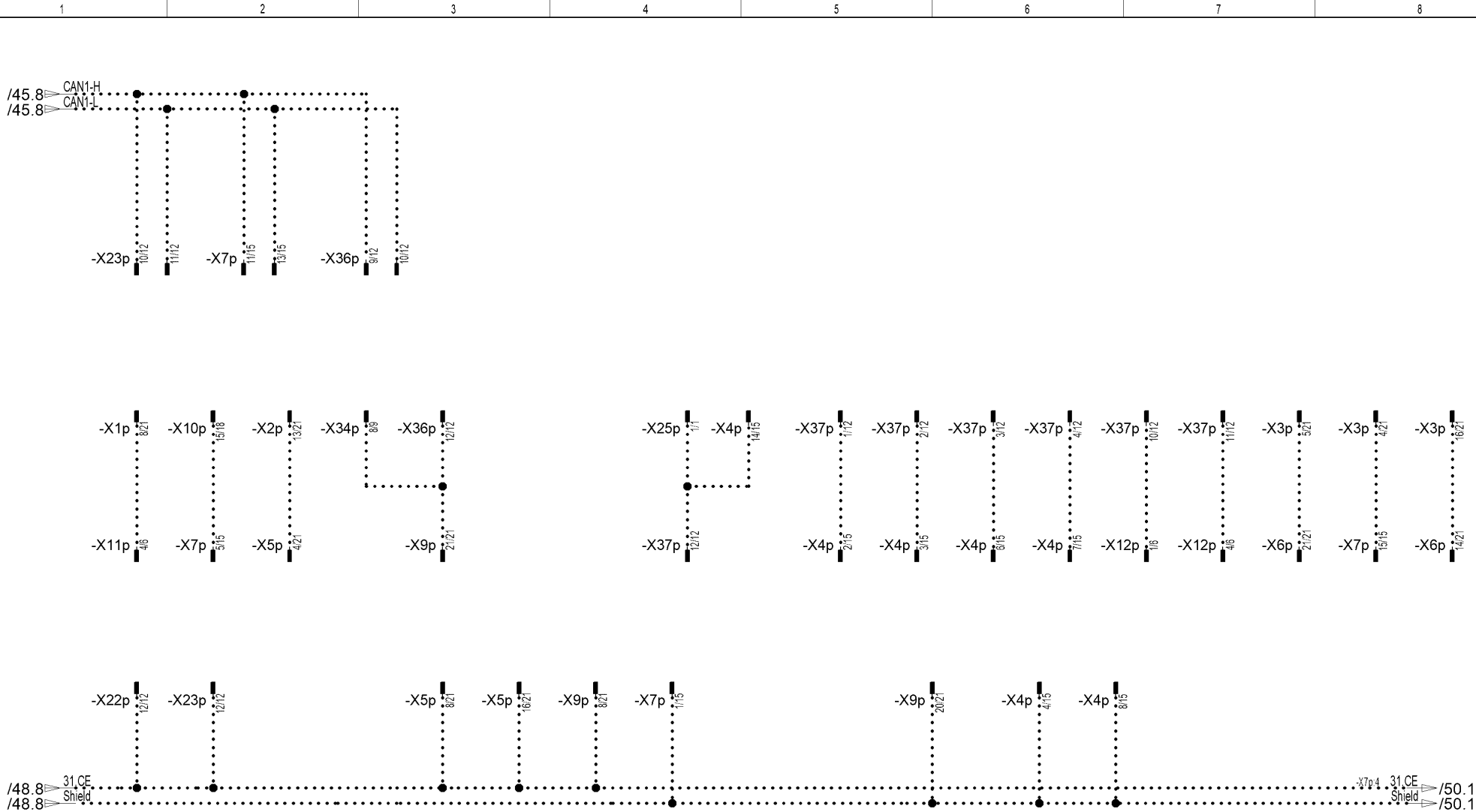
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Material No.:		Revision No.:	
2290893		04	
Series code:		Valid for Serial No.:	
H176		from to	
Sheet plant:			
Sheet Location:			

Reserve
Reserve

Sheet
48
of
84
Sheets



Drawing by:		Approved by:		last change:	
date 27.09.2011		date		date 02.09.2021	
name Lan.		name		name Lan.	
E - CAE		Document type:		Function group No.:	
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Status:	
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SF = serial release	

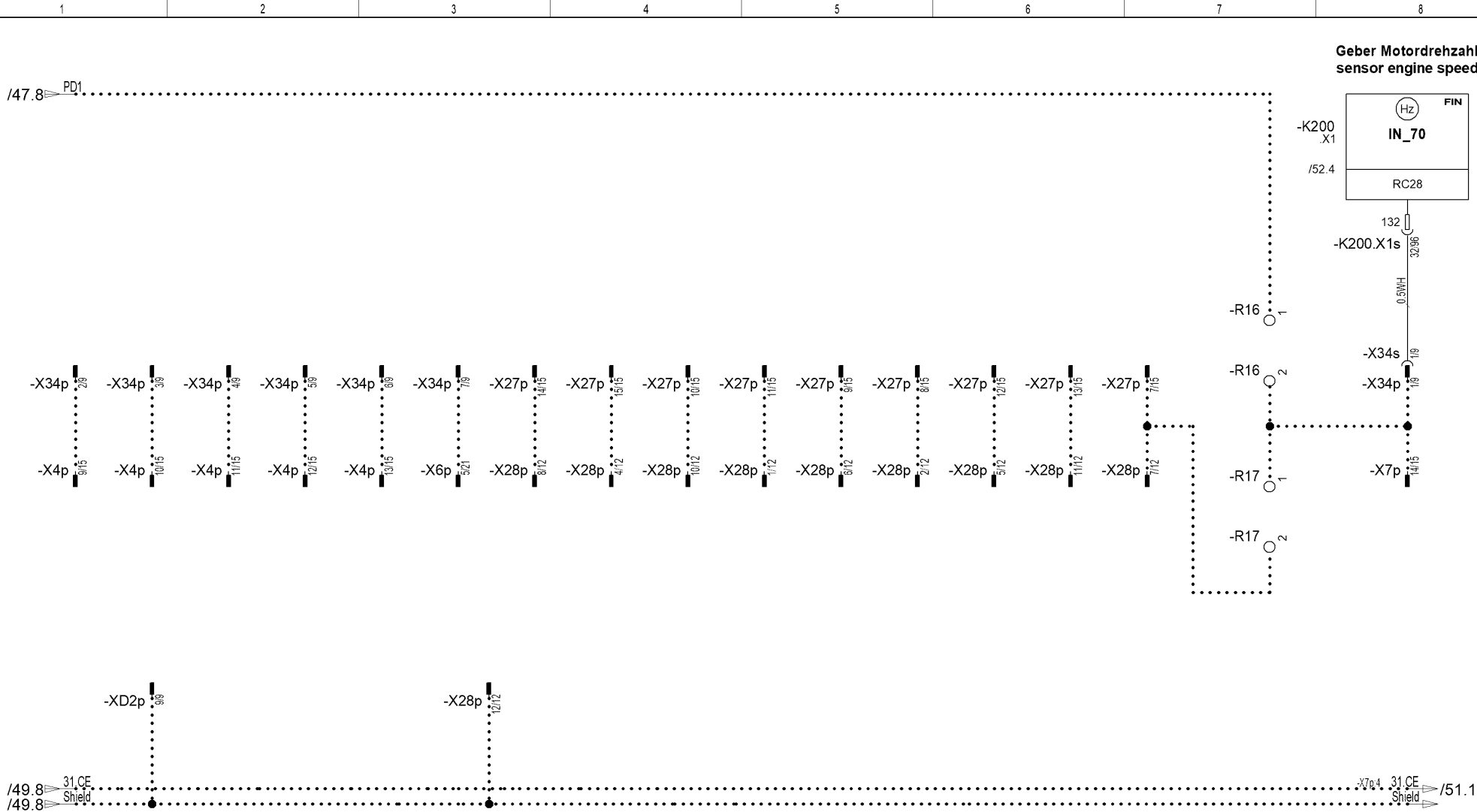
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Version No.:



Material No.:		Revision No.:	
2290893		04	
Series code:		Valid for Serial No.:	
H176		from to	
Sheet plant:			
Sheet Location:			

Reserve
Reserve

Sheet
49
of
84
Sheets



Drawing by:		Approved by:		last change:	
date		date		date	
name		name		name	
E - CAE		Document type:		Function group No.:	
		ESP			

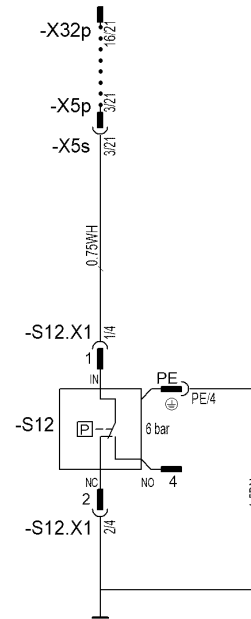
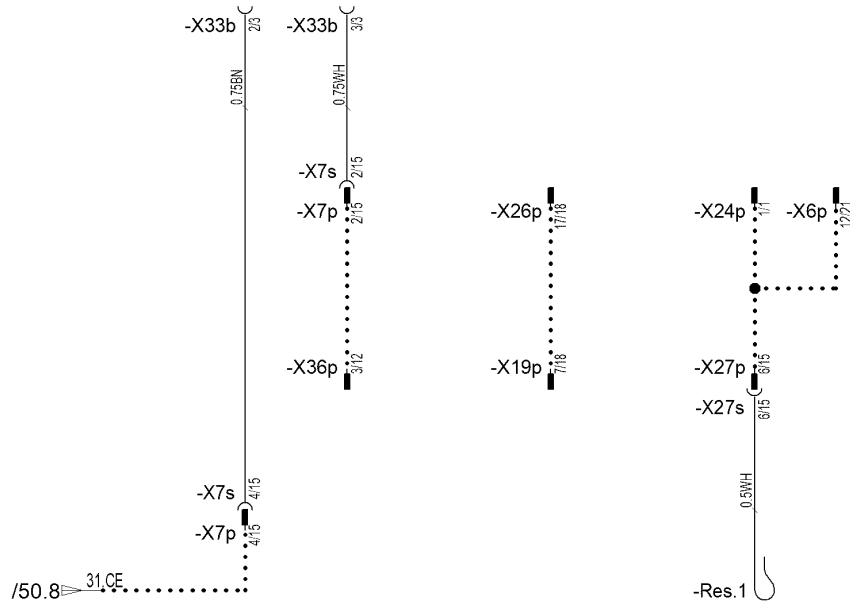
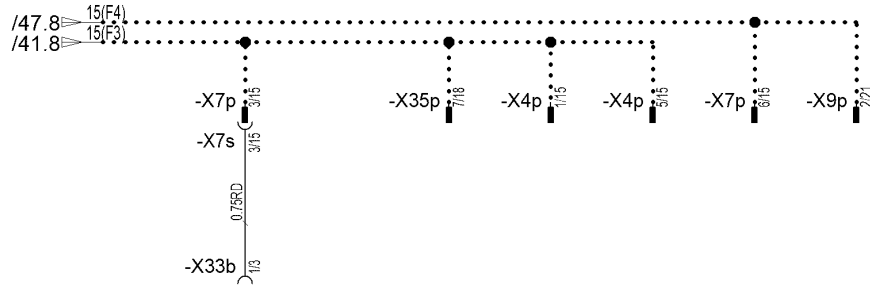
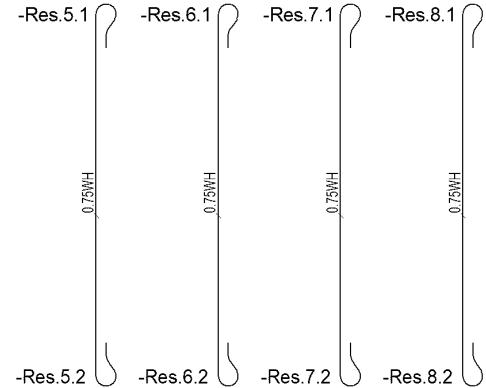
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Document No.:
Partial Document No.:
Version No.:

Material No.:		Revision No.:	
2290893		04	
Series code:		Valid for Serial No.:	
H176		from to	
Sheet plant:			
Sheet Location:			

Reserve	
Reserve	

Sheet
50
of
84
Sheets

**Armaturenkasten**
Instrument box**war S14:4.2****war X1:2**

S12:
Druckschalter, Parkbremse; ausser Funktion
Pressure switch, parking brake; not in function

Elektrokasten
Electrical Box

Drawing by:	Approved by:	last change:
date 27.09.2011	date	date 02.09.2021
name Lan.	name	name Lan.
E - CAE	Document type:	Function group No.:
	ESP	

Status:	Document No.:
AE = changable	
PF = prototype release	Partial Document No.:
SF = serial release	Version No.:



Material No.:	Revision No.:
2290893	04
Series code:	Valid for Serial No.:
H176	from to
Sheet plant:	
Sheet Location:	

Reserve
Reserve

Sheet
51
of
84
Sheets

Electric	1																2																3																4																5																6																7																8															
	RC28-14/30																																																																																																																															
	-K2001/3																																																																																																																															
Schutzvermerk nach ISO 16016 beachten	Anschluss Pin				Signal signal				Querverweis cross-reference				Beschreibung description				Anschluss Pin				Signal signal				Querverweis cross-reference				Beschreibung description				Anschluss Pin				Signal signal				Querverweis cross-reference				Beschreibung description																																																																																			
	.X1 :101				OUT_16 PWM+												.X1 :121				IN_62 AIN												.X1 :141				IN_39 AIN								Position Stellzylinder Position Setting cylinder																																																																																			
	.X1 :102				OUT_36 DOUT+												.X1 :122				GND Supply				/37.5				Masse Ground				.X1 :142				IN_23 DIN+																																																																																											
	.X1 :103				OUT_20 DOUT+												.X1 :123				GND Supply				/37.6				Masse Ground				.X1 :143				IN_22 DIN+																																																																																											
	.X1 :104				OUT_34 DOUT+				/47.4				Amplitude, klein Amplitude, small				.X1 :124				GND Supply				/37.7				Masse Ground				.X1 :144				IN_20 DIN+				/13.4				Diagnostic-Code Anzeige Diagnostic code display																																																																																			
	.X1 :105				OUT_33 DOUT+				/47.5				Amplitude, groß Amplitude, large				.X1 :125				OUT_17 PWM+								Amplitude + Amplitude +				.X1 :145				GND_S1 Supply																																																																																											
	.X1 :106				OUT_22 DOUT+												.X1 :126				OUT_15 PWM+												.X1 :146				GND_S2 Supply				/42.1				Masse Sensor Ground sensor																																																																																			
	.X1 :107				OUT_21 DOUT+												.X1 :127				OUT_35 PWM+												.X1 :147				IN_4 DIN+																																																																																											
	.X1 :108				IN_68 FIN												.X1 :128				OUT_19 DOUT+				/6.3				Rückfahrrhupe reverse horn				.X1 :148				IN_6 DIN+				/43.3				Funktionstest Parkbremse Function test Parking brake																																																																																			
	.X1 :109				IN_75 FIN												.X1 :129				OUT_18 PWM+								Amplitude - Amplitude -				.X1 :149				OUT_9 PWM+																																																																																											
	.X1 :110				IN_73 FIN				/42.6				Sensor Geschw. Hinterachse sensor speed rear axle				.X1 :130				OUT_13 PWM+												.X1 :150				OUT_11 DOUT+				/43.5				Brems lösen Ventil release break valve																																																																																			
	.X1 :111				IN_74 FIN												.X1 :131				OUT_14 PWM+												.X1 :151				OUT_5 PWM+				/44.6				Antriebsmotor Achse Driving motor axle																																																																																			
	.X1 :112				IN_71 FIN				/42.5				Sensor Geschw. Bandage sensor speed Roller drum				.X1 :132				IN_70 FIN				/50.8				Geber Motordrehzahl sensor engine speed				.X1 :152				OUT_7 PWM+																																																																																											
	.X1 :113				IN_72 FIN												.X1 :133				IN_69 FIN												.X1 :153				OUT_1 PWM+				/44.2				Fahrpumpe vorwärts Drive pump forward																																																																																			
	.X1 :114				IN_42 DIN-				/36.4				SW-INH.				.X1 :134				IN_18 DIN+				/13.5				Schalter Vibroautomatik switch Vibro automatic				.X1 :154				OUT_3 PWM+				/44.5				Antriebsmotor Bandage Driving motor Roller drum																																																																																			
	.X1 :115				IN_43 DIN-				/39.6				Startunterbrechung Start interruption				.X1 :135				IN_17 DIN+				/14.5				Taster Frequenz - button Frequency -				.X1 :155				IN_45 DIN-																																																																																											
	.X1 :116				IN_63 AIN												.X1 :136				IN_15 DIN+				/14.3				Schalter Amplitude, klein switch Amplitude, small				.X1 :156				IN_46 DIN-																																																																																											
	.X1 :117				IN_64 AIN												.X1 :137				IN_16 DIN+				/14.4				Taster Frequenz + button Frequency +				.X1 :157				IN_10 DIN+				/39.7				Startfreigabe Starting release																																																																																			
	.X1 :118				IN_65 AIN												.X1 :138				IN_52 AIN												.X1 :158				IN_8 DIN+				/12.3				Fahrhebel Parkstellung Drive lever Automatic stop																																																																																			
	.X1 :119				IN_40 AIN												.X1 :139				IN_38 AIN				/41.7				Neigungssensor slope sensor				.X1 :159				IN_7 DIN+				/32.2				Verschmutzungsanzeige Hydraulikölfilter clogging indicator Hydraulic oil filter																																																																																			
	.X1 :120				IN_41 AIN												.X1 :140																.X1 :160				CAN L4 COM				/39.5																																																																																							
	Drawing by:				Approved by:				last change:				Status:				Document No.:				Material No.:				Revision No.:				Übersicht Mikrokontroller RC28 General arrangement Microcontroller RC28																Sheet																																																																																			
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Electric	1		2		3		4		5		6		7		8	
	RC28															
	-K200															
	3/3															
	Anschluss Pin	Signal signal	Querverweis cross-reference	Beschreibung description	Anschluss Pin	Signal signal	Querverweis cross-reference	Beschreibung description	Anschluss Pin	Signal signal	Querverweis cross-reference	Beschreibung description	Anschluss Pin	Signal signal	Querverweis cross-reference	Beschreibung description
	.X2 :201	+U (Power) Supply	/4.2	Klemme 15 terminal 15	.X2 :221	OUT_47 AOUT			.X2 :241	OUT_28 DOUT+						
	.X2 :202	GND Supply	/36.6	Masse Ground	.X2 :222	IN_13 DIN+	/15.3	Vibrotaster Vibration push button switch	.X2 :242	OUT_29 DOUT+						
	.X2 :203	+U (Power) Supply	/4.3	Klemme 15 terminal 15	.X2 :223	IN_5 DIN+			.X2 :243	OUT_27 DOUT+						
	.X2 :204	+U (Power) Supply	/4.4	Klemme 15 terminal 15	.X2 :224	IN_21 DIN+			.X2 :244	OUT_31 DOUT+						
	.X2 :205	+U (Power) Supply	/4.5	Klemme 15 terminal 15	.X2 :225	IN_27 DIN+			.X2 :245	+U (VB) Supply	/36.2	Klemme 15 terminal 15				
Schutzvermerk nach ISO 16016 beachten	.X2 :206	+U (Power) Supply	/4.7	Klemme 15 terminal 15	.X2 :226	IN_37 AIN			.X2 :246	GND Supply	/37.4	Masse Ground				
	.X2 :207	GND Supply	/36.7	Masse Ground	.X2 :227	IN_57 AIN			.X2 :247	IN_25 DIN+		Startfreigabe Starting release				
	.X2 :208	IN_67 FIN			.X2 :228	INH DIN+	/4.6	Klemme 15 terminal 15	.X2 :248	IN_29 DIN-						
	.X2 :209	IN_3 DIN+	/13.1	Schalter Gas switch gas	.X2 :229	IN_55 AIN			.X2 :249	IN_51 DIN-						
	.X2 :210	IN_14 DIN+	/14.2	Schalter Amplitude, groß switch Amplitude, large	.X2 :230	DIN+			.X2 :250	IN_1 DIN+						
	.X2 :211	IN_19 DIN+	/41.5	Stampffußbandage Padfoot drum	.X2 :231	IN_35 AIN			.X2 :251	IN_32 AIN	/40.7	Fahrhebel Potentiometer 2 Drive lever potentiometer 2				
	.X2 :212	IN_28 DIN+			.X2 :232	VSS_2 (10V/1A) Supply	/16.2	10V Ausgangsspannung 10V Output voltage	.X2 :252	IN_11 DIN+	/14.6	Taster Geschw. + button speed +				
	.X2 :213	IN_66 FIN	/47.4	Sensor Vibration sensor Vibration	.X2 :233	GND Supply	/37.3	Masse Ground	.X2 :253	CAN H2 COM	/22.6	CAN 2 high				
	.X2 :214	IN_9 AIN	/16.5	Sitzkontaktschalter Seat contact switch	.X2 :234	IN_26 DIN+			.X2 :254	CAN L2 COM	/22.6	CAN 2 low				
	.X2 :215	CAN H1 COM	/38.2	CAN 1 high	.X2 :235	IN_24 DIN+			.X2 :255	VSS_3 (5V/0.25A) Supply	/32.6	Ausgangsspannung +5V Output voltage +5V				
Refer to protection notice ISO 16016	.X2 :216	CAN L1 COM	/38.3	CAN 1 low	.X2 :236	IN_2 DIN+	/20.2	Klemme 50 terminal 50	.X2 :256	OUT_30 DOUT+						
	.X2 :217	IN_36 AIN			.X2 :237	IN_30 DIN+			.X2 :257	OUT_32 DOUT+						
	.X2 :218	IN_54 AIN			.X2 :238	IN_12 DIN+	/14.7	Taster Geschw. - button speed -	.X2 :258	+U (VB) Supply	/37.2	Klemme 15 terminal 15				
	.X2 :219	VSS_1 (5V/0.15A) Supply			.X2 :239	IN_31 AIN	/40.6	Fahrhebel Potentiometer 1 Drive lever potentiometer 1	:							
	.X2 :220	GND Supply	/37.2	Masse Ground	.X2 :240	VCTRL DIN+	/36.3	Klemme 15 terminal 15	:							
	Drawing by:		Approved by:		last change:		Status:		Document No.:		Material No.:		Revision No.:		Übersicht Mikrokontroller RC28 General arrangement Microcontroller RC28	
date 27.09.2011		date		date 02.09.2021		AE = changable		Partial Document No.:		2290893		04				
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E - CAE		Document type:		Function group No.:		SF = serial release				H176		from to				
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Electric

Refer to protection notice ISO 16016 beachten

Refer to protection notice ISO 16016

1		2		3		4		5		6		7		8	
03 Revision															
Cockpit															
-A11/1															
Anschluss Pin	Signal signal	Querverweis cross-reference	Beschreibung description	Anschluss Pin	Signal signal	Querverweis cross-reference	Beschreibung description	Anschluss Pin	Signal signal	Querverweis cross-reference	Beschreibung description				
X1 :1	US Supply	/33.5	D+ Lichtmaschine D+ alternator	X2 :3	ID9 D-IN		Amplitude, groß Amplitude, large	:							
X1 :2	CAN_H1 COM	/38.4	CAN-High	X2 :4	IU3 A-IN		Sprungbetrieb (RMV) Double jump (RMV)	:							
X1 :3	CAN_L1 COM	/38.4	CAN-Low	X2 :5	ID10 D-IN		Parkbremse parking brake	:							
X1 :4	IF1 F-IN		Motordrehzahlanzeige Engine speed indicator	X2 :6	ID11 D-IN		Masse, analog ground, analog	:							
X1 :5	IF2 F-IN		Vibrationsfrequenz Vibration frequency	X2 :7	ID12 D-IN	/11.7	Umschaltung km/h - mph change over km/h - mph	:							
X1 :6	ID1 D-IN		Kraftstoffvorfilter Fuel prefilter	X2 :8	IU4 A-IN	/30.2	Kraftstoffanzeige Fuel indicator	:							
X1 :7	ID2 D-IN	/17.8	Arbeitsscheinwerfer, vorn Working spotlights, front	X2 :9	GND2 Supply		Masse (HCM) Ground (HCM)	:							
X1 :8	ID3 D-IN	/17.7	Arbeitsscheinwerfer, hinten Working spotlights, rear	X2 :10	ID13 D-IN		Amplitude, klein Amplitude, small	:							
X1 :9	ID4 D-IN		Vorglühen Preheat	X2 :11	IU5 A-IN		Verdichtungswert (HMV) Compaction data (HMV)	:							
X1 :10	UI (15) Supply	/11.4	Versorgung +12V supply +12V	X2 :12	ID14 D-IN	/7.5	blinken links indicate left	:							
X1 :11	GND1 Supply	/11.2	Masse Ground	X2 :13	ID15 D-IN	/7.4	blinken rechts indicate right	:							
X1 :12	UB (30) Supply	/34.2	Versorgung +12V supply +12V	X2 :14	ID16 D-IN	/23.3	Diagnoselampe Dieselmotor Diagnostic lamp diesel engine	:							
X1 :13	QD1 D-OUT	/6.6	Warntonsummer Warning buzzer	:				:							
X1 :14	IF3 F-IN		Geschwindigkeitsanzeige Speed indicator	:				:							
X1 :15	ID5 D-IN		Hydraulikölfilter Hydraulic oil filter	:				:							
X1 :16	ID6 D-IN		Luftfilter air filter	:				:							
X1 :17	ID7 D-IN		Kühlmittelstand Coolant level	:				:							
X1 :18	ID8 D-IN		Motoröldruck engine oil pressure	:				:							
X2 :1	IU1 A-IN		Hydrauliköltemp. hydraulic oil temp.	:				:							
X2 :2	IU2 A-IN		Motortemperatur engine temp.	:				:							
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		ESP								Sheet plant:					
										Sheet Location:					
1	2	3	4	5	6	7	8	55 of 84 Sheets							

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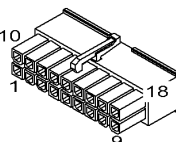
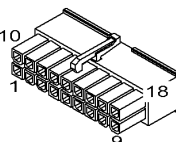
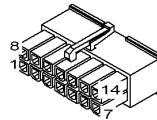
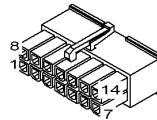
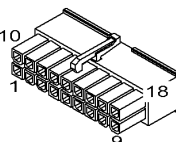
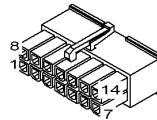
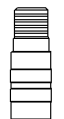
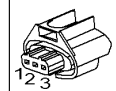
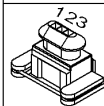
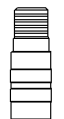
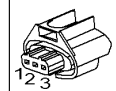
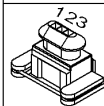
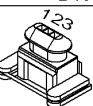
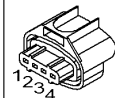
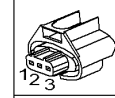
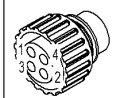
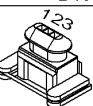
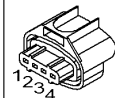
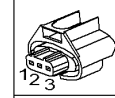
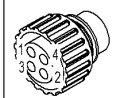
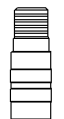
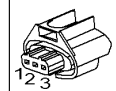
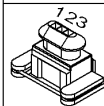
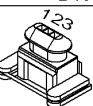
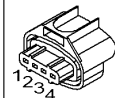
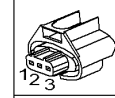
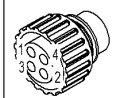
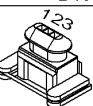
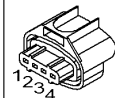
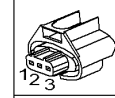
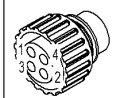
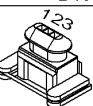
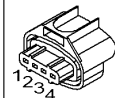
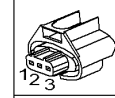
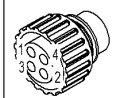
Schutzvermerk nach ISO 16016 beachten

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Electric	EDC16UC40																																		
	-D1																																		
	1/2																																		
	Anschluss Pin				Signal signal				Querverweis cross-reference				Beschreibung description				Anschluss Pin				Signal signal				Querverweis cross-reference				Beschreibung description						
	.X1 :1				US Supply				/21.2				Versorgung +12V supply +12V				.X1 :64				IU A-IN				/29.7				Kraftstoffvorfilter Fuel prefilter						
	.X1 :2				GND Supply				/21.5				Masse Ground				.X1 :72				QD D-OUT				/29.4				Hauptrelais main relay						
	.X1 :3				US Supply				/21.3				Versorgung +12V supply +12V				:77				ID D-IN				/21.1				Luftfilter air filter						
	.X1 :4				GND Supply				/21.6				Masse Ground				.X1 :79				ID D-IN				/29.2				Kühlmittelstand Coolant level						
	.X1 :5				US Supply				/21.4				Versorgung +12V supply +12V				.X1 :82				CAN_H1 COM				/22.3				Diagnostic CAN						
	.X1 :6				GND Supply				/21.7				Masse Ground				.X1 :92				D-OUT QD								Vorglühen Preheat						
Schutzvermerk nach ISO 16016 beachten	.X1 :9				IU A-IN				/31.5				Motordrehzahlverstellung Engine speed setting				:																		
	.X1 :22				UR Supply				/31.6				Uref. +5V				:																		
	.X1 :25				ISO-K-Line COM				/22.7				ISO-K-Line				:																		
	.X1 :28				UI Supply				/5.1				Zündung Ein (Klemme 15) Ignition on (Terminal 15)				:																		
	.X1 :29				US Supply								Ref. Spannung +12V ref. voltage +12V				:																		
	.X1 :30				AGND Supply				/31.4				Masse, analog ground, analog				:																		
	.X1 :40				ID D-IN				/12.2				Parkstellung Automatic stop				:																		
	.X1 :43				ID D-IN								Motor Start start engine				:																		
	.X1 :48				QD D-OUT								Motordrehzahl engine speed				:																		
	.X1 :55				QD				/23.1				Diagnoselampe Diagnostic lamp				:																		
Refer to protection notice ISO 16016	.X1 :60				CAN_L1 COM				/22.3				Diagnostic CAN				:																		
	.X1 :61				CAN_L2 COM				/22.4				Customer-CAN				:																		
	.X1 :62				CAN_H1 COM				/22.5				Customer CAN				:																		
	.X1 :63				AGND2 Supply				/29.6				Masse, analog ground, analog				:																		
Drawing by:				Approved by:				last change:				Status:				Document No.:				Material No.:				Revision No.:				Steuergerät Dieselmotor EDC16 Control device Diesel engine EDC16				Sheet 56 of 84 Sheets			
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.X2 :1		GND Supply		/28.7		Masse Ground		.X2 :33		QA A-OUT		/28.2		Einspritzdüse Injection nozzle		:																																																																																
.X2 :7		GND Supply		/27.5		Schirm shield		.X2 :34		QD (+) D-OUT		/20.4		Relais Glühkerzen Relay heater plug		:																																																																																
.X2 :8		AGND Supply		/26.2		Masse Ground		.X2 :40		IU A-IN		/25.4		Ladeluftdruck charge-air pressure		:																																																																																
.X2 :10		IC counter		/27.1		Drehzahlsensor Nockenwelle Speed sensor Camshaft		.X2 :41		AGND Supply		/24.5		Masse, analog ground, analog		:																																																																																
.X2 :11		UR Supply		/26.5		Versorgung +5V supply +5V		.X2 :43		IU A-IN		/26.2		Raildruck rail pressure		:																																																																																
.X2 :12		GND Supply		/27.5		Masse Ground		.X2 :46		QA A-OUT		/28.5		Einspritzdüse Injection nozzle		:																																																																																
.X2 :13		UR Supply		/25.5		Versorgung +5V supply +5V		.X2 :47		QA A-OUT		/28.1		Einspritzdüse Injection nozzle		:																																																																																
.X2 :		UR Supply		/25.3		Versorgung +5V supply +5V		.X2 :48		QA A-OUT		/28.3		Einspritzdüse Injection nozzle		:																																																																																
.X2 :15		QD (-) D-OUT		/24.2		Startrelais Starting relay		.X2 :49		GND Supply		/27.7		Masse Ground		:																																																																																
.X2 :16		GND Supply		/28.4		Masse Ground		.X2 :50		GND Supply		/27.2		Masse Ground		:																																																																																
.X2 :		QPWM PWM		/27.6		FCU Ventil FCU Valve		.X2 :51		GND Supply		/25.7		Masse Ground		:																																																																																
.X2 :20		GND Supply		/27.3		Schirm shield		.X2 :53		IU A-IN		/25.2		Ladelufttemperatur charge air temperature		:																																																																																
.X2 :21		ID D-IN		/20.5		Vorglühen Preheat		.X2 :54		AGND Supply		/26.7		Masse Ground		:																																																																																
.X2 :23		AGND Supply		/25.1		Masse Ground		.X2 :56		IU A-IN		/25.6		Motoröldruck engine oil pressure		:																																																																																
.X2 :24		QD (-) D-OUT		/20.4		Relais Glühkerzen Relay heater plug		.X2 :57		IU A-IN		/26.6		Niederdruck Kraftstoff Low pressure fuel		:																																																																																
.X2 :26		UR Supply		/26.3		Versorgung +5V supply +5V		.X2 :58		IU A-IN		/24.4		Kühlmitteltemperatur coolant temperature		:																																																																																
.X2 :27		IC Counter		/27.4		Drehzahlsensor Kurbelwelle Speed sensor Crankshaft		:								:																																																																																
.X2 :30		QD (+) D-OUT		/24.1		Startrelais Starting relay		:								:																																																																																
.X2 :31		QA A-OUT		/28.6		Einspritzdüse Injection nozzle		:								:																																																																																
.X2 :32		QA A-OUT		/28.6		Einspritzdüse Injection nozzle		:								:																																																																																
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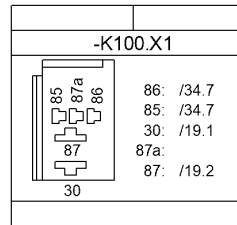
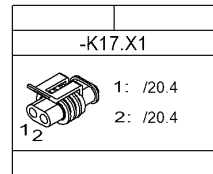
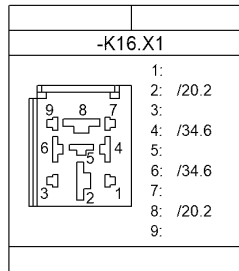
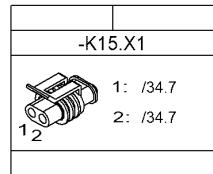
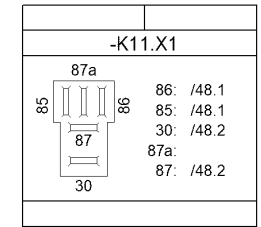
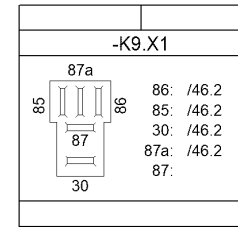
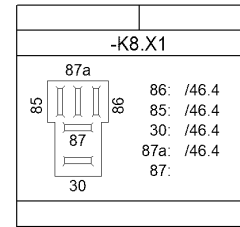
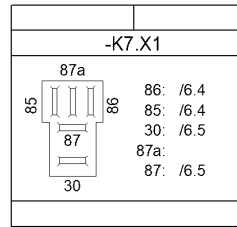
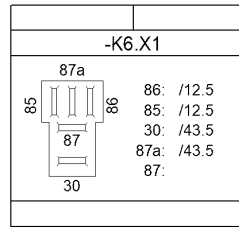
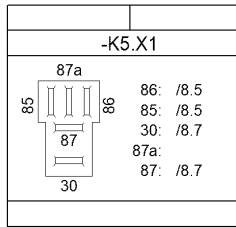
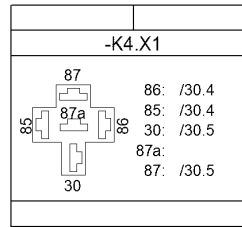
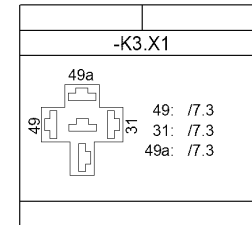
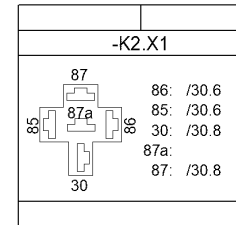
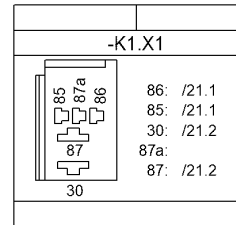
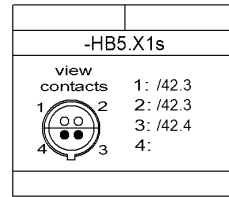
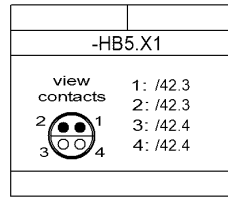
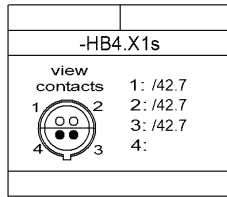
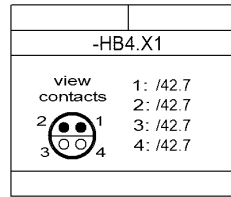
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1	2	3	4	5	6	7	8

-E6.X1s		-E6.X2s		-E10.X1s		-E10.X2s		-E12.X1s		-E12.X2s		-E40.X1		-E41.X1	
															
1: /9.7		1: /9.7		1: /9.4		1: /9.4		1: /9.8		1: /9.8		1: /10.5 2: /10.5		1: /10.6 2: /10.6	

-E42.X1		-E43.X1		-H1.X1		-H1.X2		-H2.X1		-H2.X1s		-H40.X1		-H40.X2	
															
1: /10.4 2: /10.4		1: /10.5 2: /10.5		1: /6.2		1: /6.2		1: 2: /6.6 3: /6.6 3=2		1: 2: /6.6 3: /6.6 2-3		1: /10.3		1: /10.3	

Drawing by:		Approved by:		last change:		Status: AE = changable PF = prototype release SF = serial release		Document No.: Partial Document No.: Version No.:		 HAMM		Material No.: 2290893		Revision No.: 04		Übersicht Steckerbelegung General arrangement Plug occupancy				Sheet: 59 of 84 Sheets	
date 27.09.2011		date		date 02.09.2021								Series code: H176		Valid for Serial No.: from to							
name Lan.		name		name Lan.								Sheet plant:		Sheet Location:							
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Drawing by:	Approved by:	last change:
date 27.09.2011	date 02.09.2021	
name Lan.	name Lan.	
E - CAE	Document type:	Function group No.:
	ESP	

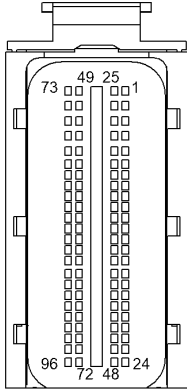
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PF = prototype release	Partial Document No.:
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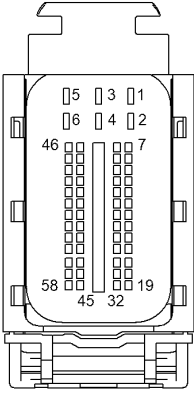


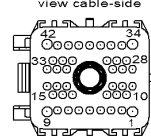
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2290893	04
Series code:	Valid for Serial No.:
H176	from to
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Sheet Location:	

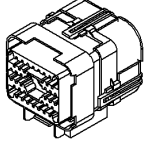
Übersicht Steckerbelegung
General arrangement Plug occupancy

Sheet
60
of
84
Sheets

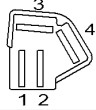
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	4: /47.5	24: /37.8	44: /13.4	64: /32.5	84:
	5: /47.6	25:	45:	65:	85:
	6:	26:	46: /42.2	66:	86:
	7:	27:	47:	67:	87:
	8:	28: /6.4	48: /43.3	68:	88:
	9:	29:	49:	69:	89:
	10: /42.6	30:	50: /43.5	70:	90:
	11:	31:	51: /44.7	71:	91: /36.6
	12: /42.5	32: /50.8	52:	72:	92:
	13:	33:	53: /44.2	73:	93:
	14: /36.5	34: /13.6	54: /44.5	74:	94:
	15: /39.6	35: /14.5	55:	75: /47.7	95:
	16:	36: /14.3	56:	76:	96:
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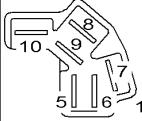
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	2: /36.7	22: /15.3	42:
	3: /4.4	23:	43:
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	5: /4.6	25:	45: /36.2
	6: /4.7	26:	46: /37.5
	7: /36.8	27:	47:
	8:	28: /4.6	48:
	9: /13.2	29:	49:
	10: /14.2	30:	50:
	11: /41.5	31:	51: /40.8
	12:	32: /16.2	52: /14.6
	13: /47.4	33: /37.4	53: /22.7
	14: /16.5	34:	54: /22.6
	15: /38.2	35:	55: /32.7
	16: /38.3	36: /20.2	56:
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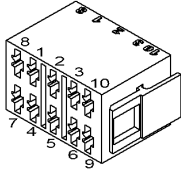
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	17: /26.6	31: /26.2	
	18:	32: /26.4	
	19: /25.4	33: /28.2	
	20: /25.3	34: /28.1	
	21: /27.5	35: /28.4	
	22: /27.8	36: /25.5	
	23: /27.7	37: /28.3	
	24: /24.6	38:	
	25: /26.3	39: /28.5	
	26: /25.6	40: /28.6	
	27: /25.1	41: /28.8	
	28: /25.7	42: /28.7	
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	13: /27.1		
	14: /27.2		

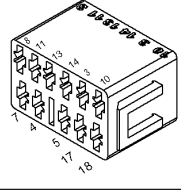
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	20: /25.3	34: /28.1	
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	24: /24.6	38:	
	25: /26.3	39: /28.5	
	26: /25.6	40: /28.6	
	27: /25.1	41: /28.8	
	28: /25.7	42: /28.7	
	1: /27.6		
	2:		
	3:		
	4:		
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	6:		
	7:		

-Q19X1	
	1: /27.7
	2: /27.7

-S2.X1	
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	2:
	3:
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-S2.X2	
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	6:
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	9:
	10:

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	1: /8.2
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	3:
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date 27.09.2011		date		date 02.09.2021	
name Lan.		name		name Lan.	
E - CAE		Document type:		Function group No.:	
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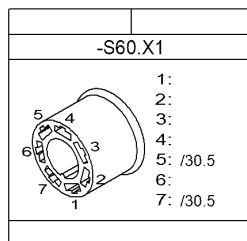
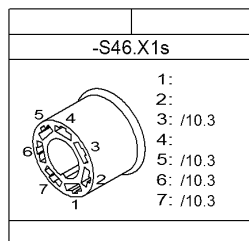
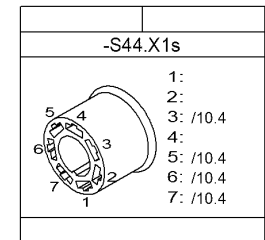
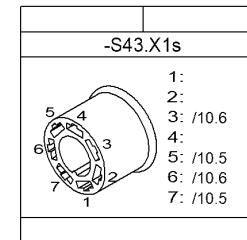
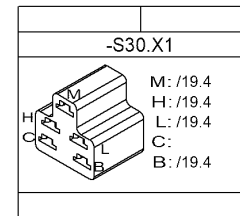
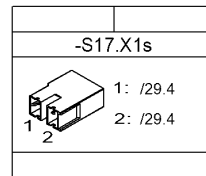
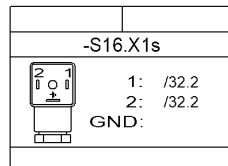
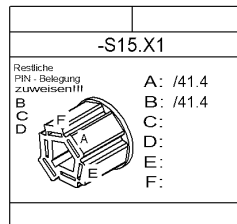
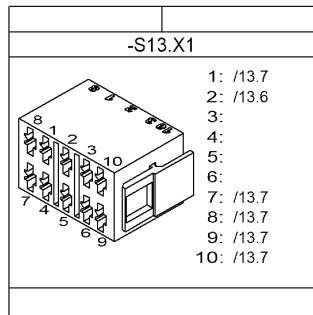
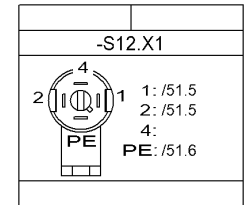
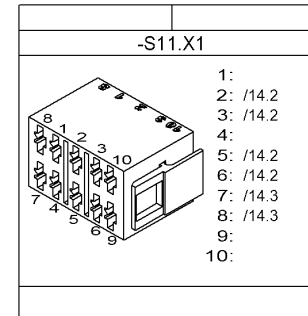
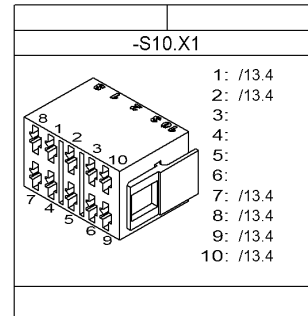
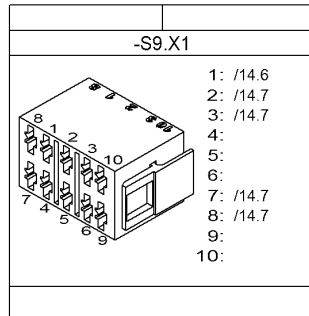
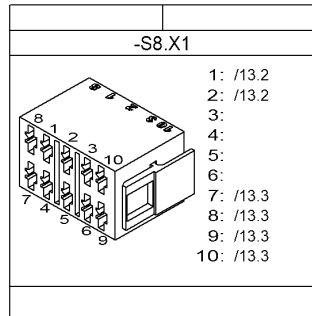
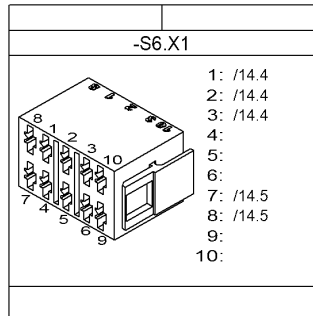
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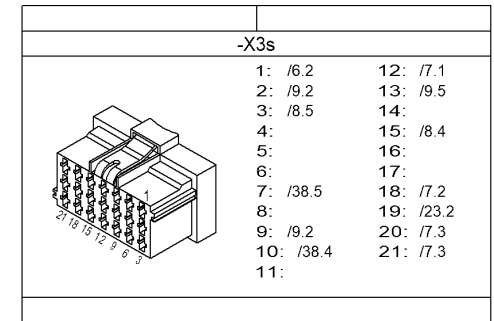
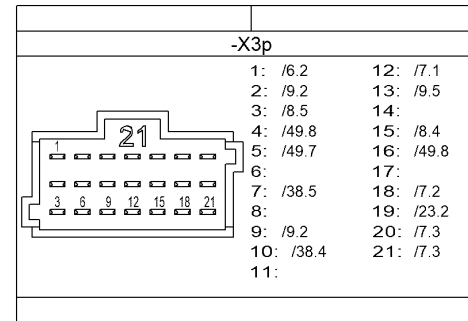
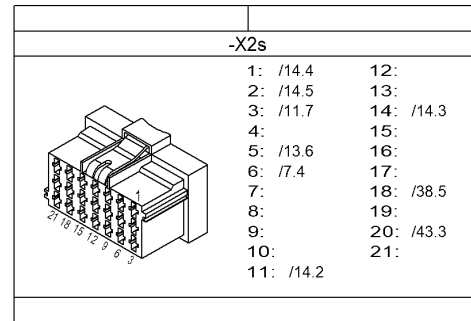
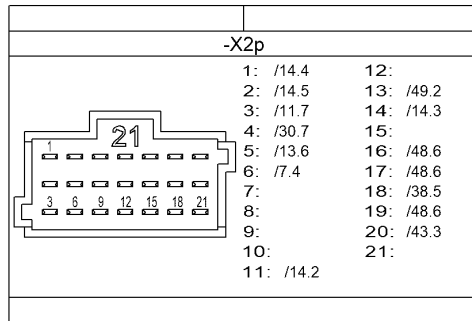
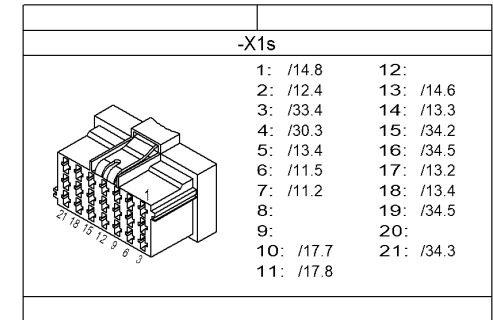
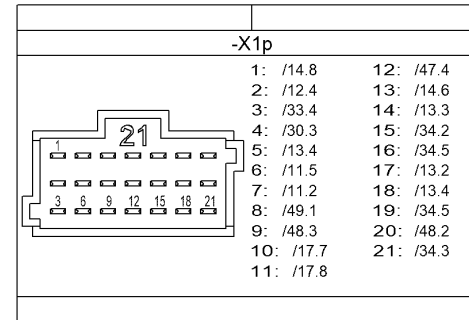
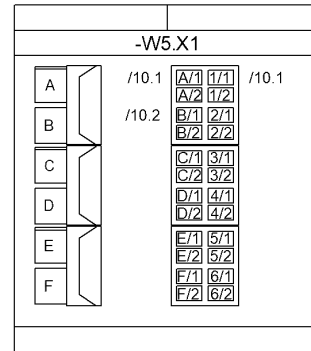
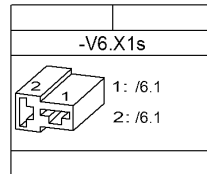
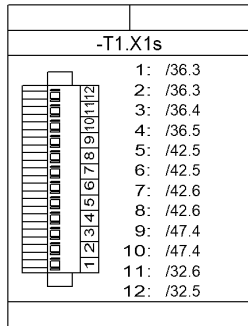
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2290893		04	
Series code: H176		Valid for Serial No.:	
Sheet plant:		from to	
Sheet Location:			

Übersicht Steckerbelegung
General arrangement Plug occupancy

Sheet	
61	
of	
84	
Sheets	



Drawing by:		Approved by:		last change:		Status: AE = changable PF = prototype release SF = serial release	Document No.: Partial Document No.: Version No.:		Material No.: 2290893		Revision No.: 04		Übersicht Steckerbelegung General arrangement Plug occupancy		Sheet 62 of 84 Sheets
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name	Lan.	name		name	Lan.				Sheet plant: Sheet Location:						
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Drawing by:	Approved by:	last change:
date 27.09.2011	date 02.09.2021	
name Lan	name Lan	name Lan
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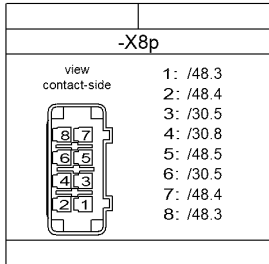
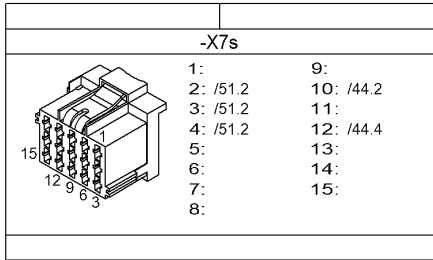
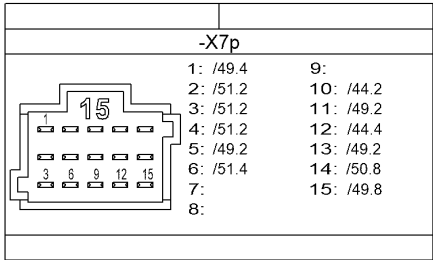
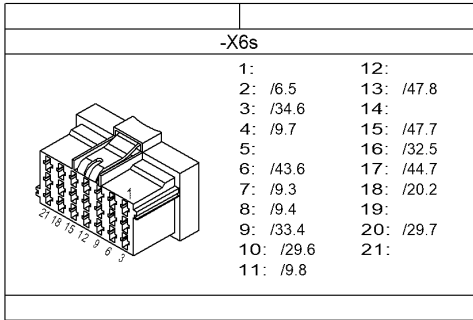
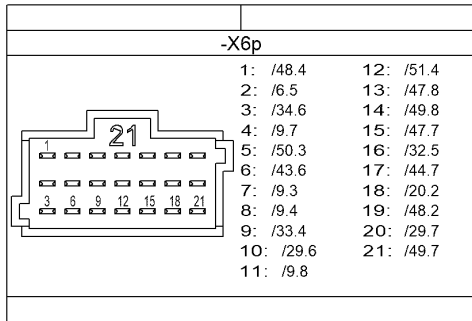
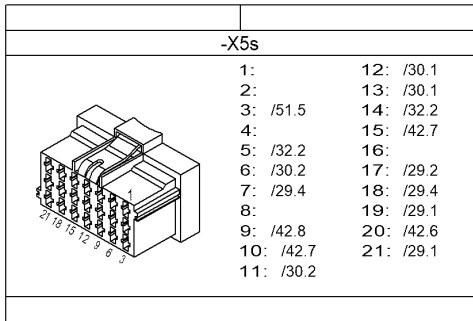
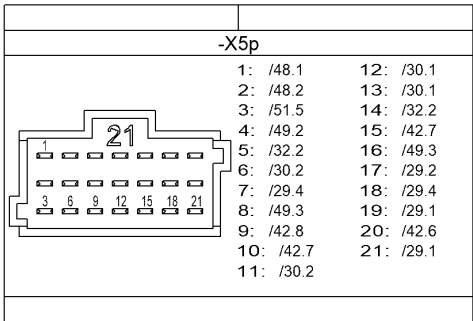
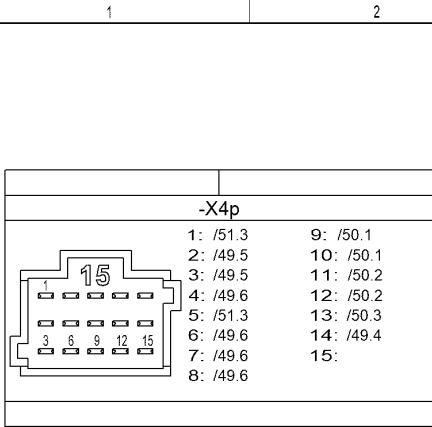
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Material No.:	Revision No.:
2290893	04
Series code:	Valid for Serial No.:
H176	from to
Sheet plant:	
Sheet Location:	

Übersicht Steckerbelegung
General arrangement Plug occupancy

Sheet
63
of
84
Sheets



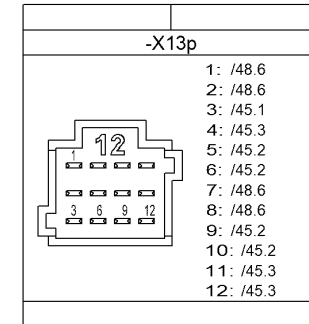
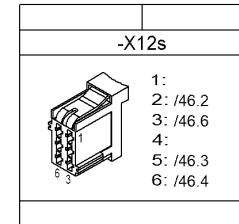
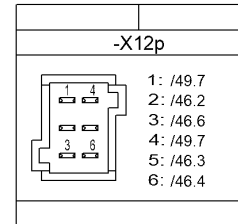
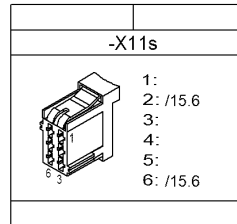
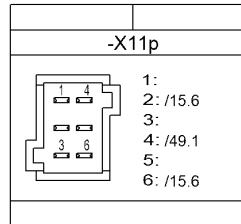
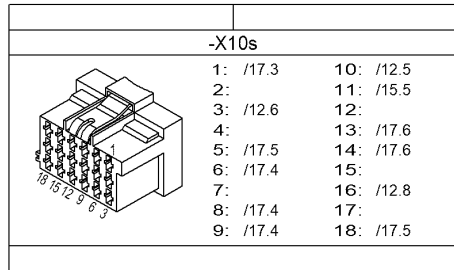
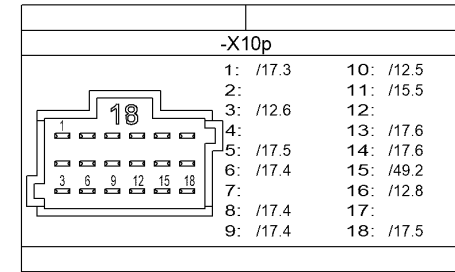
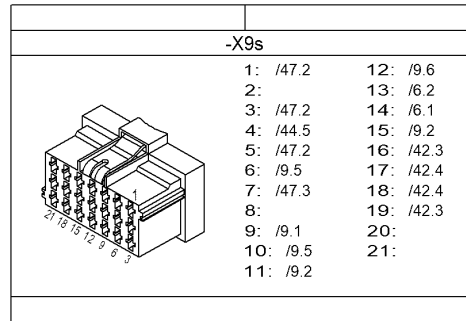
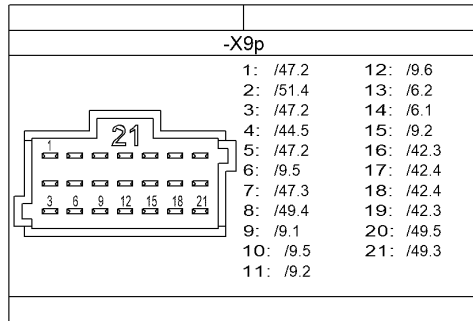
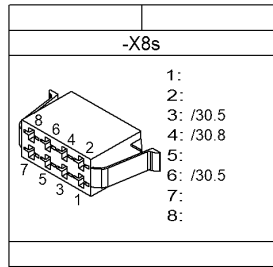
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name Lan.	name	name Lan.
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Material No.:	Revision No.:
2290893	04
Series code:	Valid for Serial No.:
H176	from to
Sheet plant:	
Sheet Location:	

Übersicht Steckerbelegung
General arrangement Plug occupancy



Drawing by:	Approved by:	last change:
date 27.09.2011	date	date 02.09.2021
name Lan.	name	name Lan.
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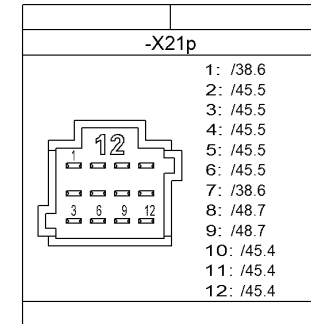
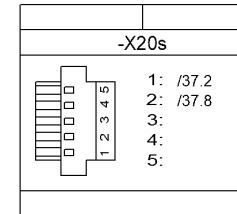
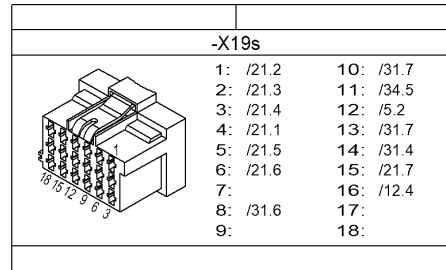
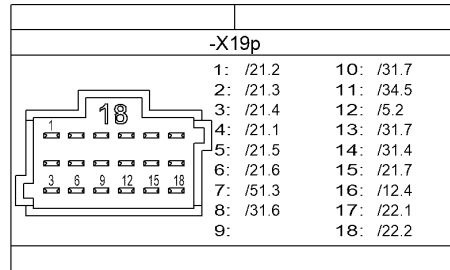
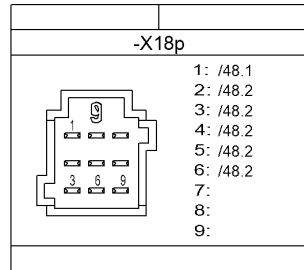
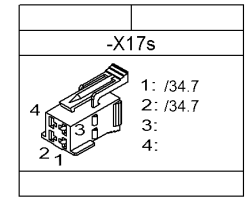
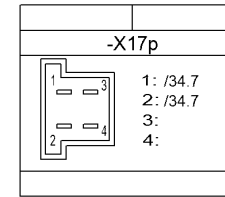
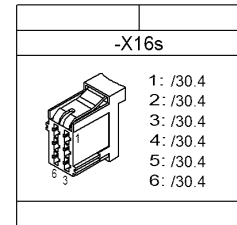
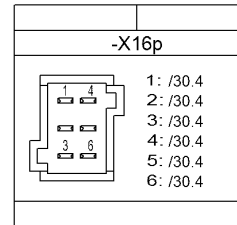
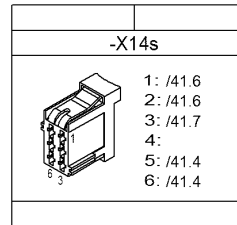
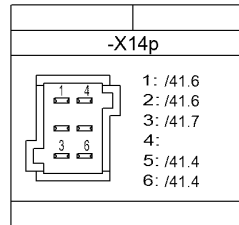
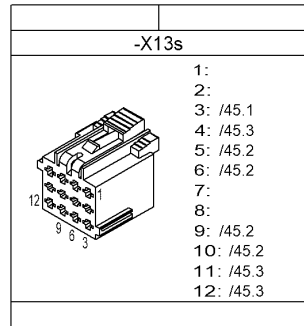
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SF = serial release	
Version No.:	



Material No.:	Revision No.:
2290893	04
Series code:	Valid for Serial No.:
H176	from to
Sheet plant:	
Sheet Location:	

Übersicht Steckerbelegung
General arrangement Plug occupancy

Sheet
65
of
84
Sheets



Drawing by:	Approved by:	last change:
date 27.09.2011	date	date 02.09.2021
name Lan.	name	name Lan.
E - CAE	Document type:	Function group No.:
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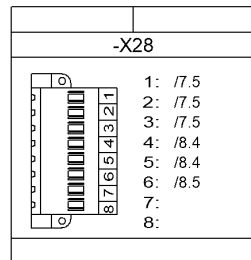
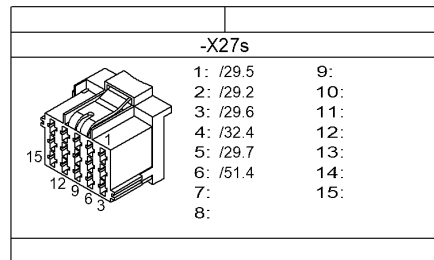
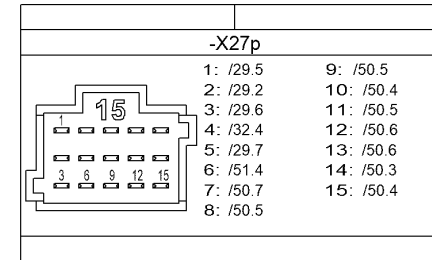
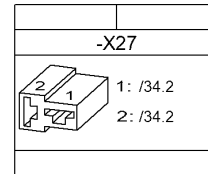
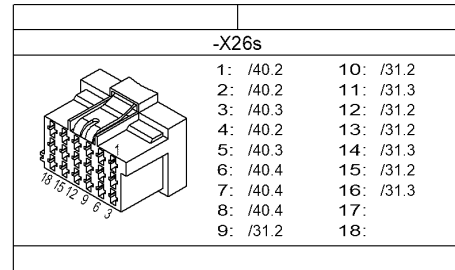
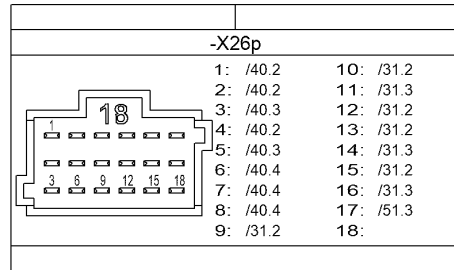
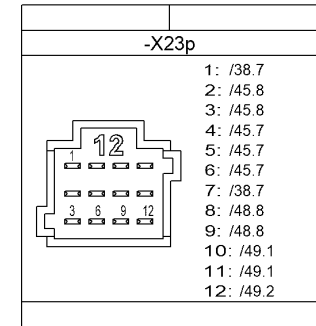
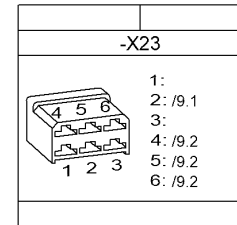
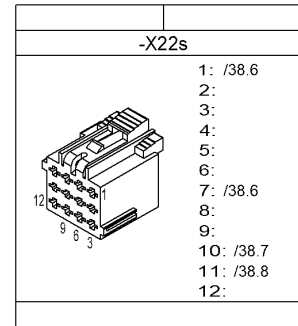
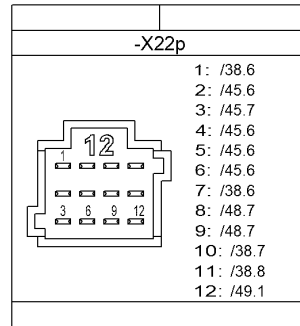
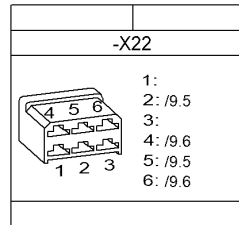
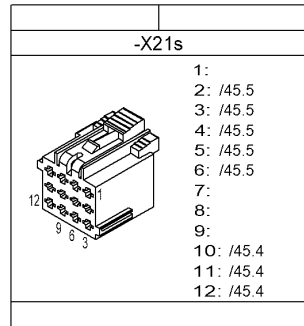
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Version No.:	



Material No.:	Revision No.:
2290893	04
Series code:	Valid for Serial No.:
H176	from to
Sheet plant:	
Sheet Location:	

Übersicht Steckerbelegung
General arrangement Plug occupancy

Sheet
66
of
84
Sheets



Drawing by:	Approved by:	last change:
date 27.09.2011	date	date 02.09.2021
name Lan.	name	name Lan.
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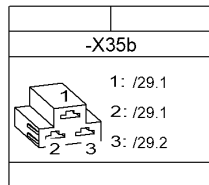
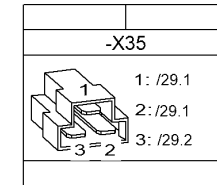
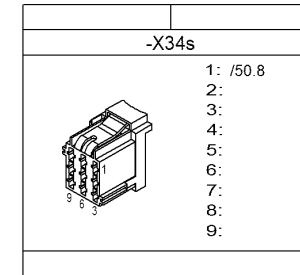
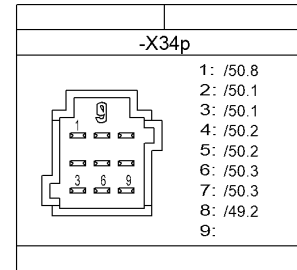
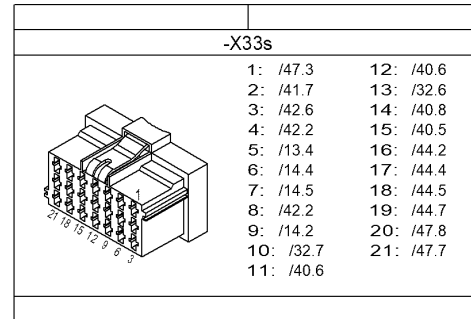
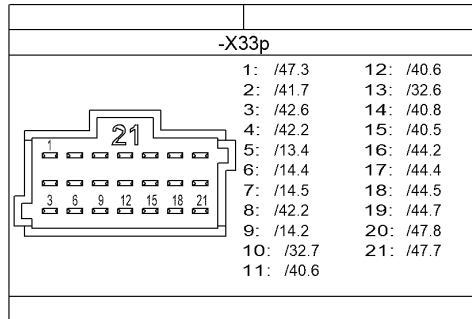
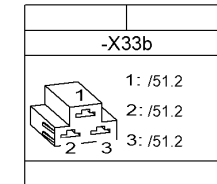
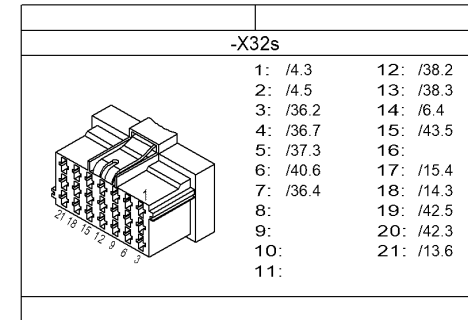
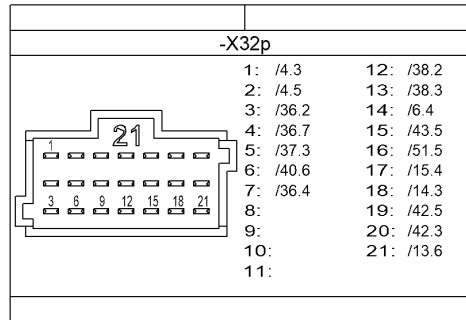
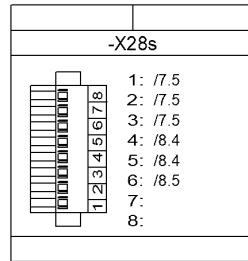
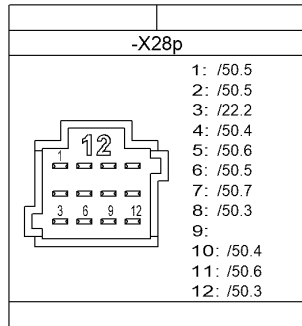
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Material No.:	Revision No.:
2290893	04
Series code:	Valid for Serial No.:
H176	from to
Sheet plant:	
Sheet Location:	

Übersicht Steckerbelegung
General arrangement Plug occupancy

Sheet
67
of
84
Sheets



Drawing by:	Approved by:	last change:
date 27.09.2011	date	date 02.09.2021
name Lan.	name	name Lan.
E - CAE	Document type:	Function group No.:
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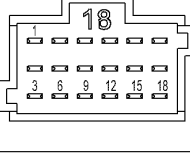
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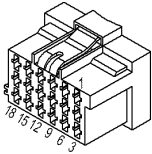


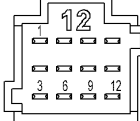
Material No.:	Revision No.:
2290893	04
Series code:	Valid for Serial No.:
H176	from to
Sheet plant:	
Sheet Location:	

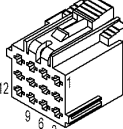
Übersicht Steckerbelegung
General arrangement Plug occupancy

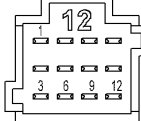
Sheet
68
of
84
Sheets

-X35p																			
	<table><tr><td>1: /4.6</td><td>10: /14.8</td></tr><tr><td>2: /4.7</td><td>11: /41.5</td></tr><tr><td>3: /37.2</td><td>12: /22.7</td></tr><tr><td>4: /37.5</td><td>13: /22.6</td></tr><tr><td>5: /37.7</td><td>14: /32.2</td></tr><tr><td>6: /41.6</td><td>15: /14.6</td></tr><tr><td>7: /51.2</td><td>16: /43.3</td></tr><tr><td>8: /20.2</td><td>17:</td></tr><tr><td>9: /42.2</td><td>18:</td></tr></table>	1: /4.6	10: /14.8	2: /4.7	11: /41.5	3: /37.2	12: /22.7	4: /37.5	13: /22.6	5: /37.7	14: /32.2	6: /41.6	15: /14.6	7: /51.2	16: /43.3	8: /20.2	17:	9: /42.2	18:
1: /4.6	10: /14.8																		
2: /4.7	11: /41.5																		
3: /37.2	12: /22.7																		
4: /37.5	13: /22.6																		
5: /37.7	14: /32.2																		
6: /41.6	15: /14.6																		
7: /51.2	16: /43.3																		
8: /20.2	17:																		
9: /42.2	18:																		

-X35s																			
	<table><tr><td>1: /4.6</td><td>10: /14.8</td></tr><tr><td>2: /4.7</td><td>11: /41.5</td></tr><tr><td>3: /37.2</td><td>12: /22.7</td></tr><tr><td>4: /37.5</td><td>13: /22.6</td></tr><tr><td>5: /37.7</td><td>14: /32.2</td></tr><tr><td>6: /41.6</td><td>15: /14.6</td></tr><tr><td>7: /41.6</td><td>16: /43.3</td></tr><tr><td>8: /20.2</td><td>17:</td></tr><tr><td>9: /42.2</td><td>18:</td></tr></table>	1: /4.6	10: /14.8	2: /4.7	11: /41.5	3: /37.2	12: /22.7	4: /37.5	13: /22.6	5: /37.7	14: /32.2	6: /41.6	15: /14.6	7: /41.6	16: /43.3	8: /20.2	17:	9: /42.2	18:
1: /4.6	10: /14.8																		
2: /4.7	11: /41.5																		
3: /37.2	12: /22.7																		
4: /37.5	13: /22.6																		
5: /37.7	14: /32.2																		
6: /41.6	15: /14.6																		
7: /41.6	16: /43.3																		
8: /20.2	17:																		
9: /42.2	18:																		

-X36p													
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1: /42.1													
2: /13.2													
3: /51.2													
4: /41.7													
5: /41.6													
6: /32.5													
7: /47.5													
8: /47.6													
9: /49.2													
10: /49.3													
11: /16.7													
12: /49.3													

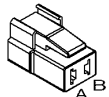
-X36s	
	1: /42.1
	2: /13.2
	3:
	4: /41.7
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	8: /47.6
	9:
	10:
	11: /16.7
	12:

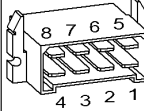
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1: /49.5													
2: /49.5													
3: /49.6													
4: /49.6													
5: /29.6													
6: /29.5													
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10: /49.7													
11: /49.7													
12: /49.4													

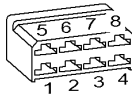
-X38p			
	<table><tr><td>1: /6.5</td></tr><tr><td>2: /6.5</td></tr></table>	1: /6.5	2: /6.5
1: /6.5			
2: /6.5			

-X38s			
	<table><tr><td>1: /6.5</td></tr><tr><td>2: /6.5</td></tr></table>	1: /6.5	2: /6.5
1: /6.5			
2: /6.5			

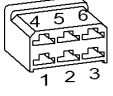
-X39p	
	A: /17.2 B: /17.2

-X39s	
	A: /17.2 B: /17.2

-X40p									
	<table><tr><td>1:</td></tr><tr><td>2:</td></tr><tr><td>3: /17.6</td></tr><tr><td>4: /17.6</td></tr><tr><td>5:</td></tr><tr><td>6:</td></tr><tr><td>7:</td></tr><tr><td>8:</td></tr></table>	1:	2:	3: /17.6	4: /17.6	5:	6:	7:	8:
1:									
2:									
3: /17.6									
4: /17.6									
5:									
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7:									
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-X40s																	
	<table><tr><td>1:</td><td>/17.2</td></tr><tr><td>2:</td><td>/17.3</td></tr><tr><td>3:</td><td>/17.6</td></tr><tr><td>4:</td><td>/17.6</td></tr><tr><td>5:</td><td>/17.4</td></tr><tr><td>6:</td><td>/17.4</td></tr><tr><td>7:</td><td>/17.4</td></tr><tr><td>8:</td><td>/17.5</td></tr></table>	1:	/17.2	2:	/17.3	3:	/17.6	4:	/17.6	5:	/17.4	6:	/17.4	7:	/17.4	8:	/17.5
1:	/17.2																
2:	/17.3																
3:	/17.6																
4:	/17.6																
5:	/17.4																
6:	/17.4																
7:	/17.4																
8:	/17.5																

-X41p							
	<table><tr><td>1: /19.2</td></tr><tr><td>2:</td></tr><tr><td>3:</td></tr><tr><td>4: /19.3</td></tr><tr><td>5:</td></tr><tr><td>6:</td></tr></table>	1: /19.2	2:	3:	4: /19.3	5:	6:
1: /19.2							
2:							
3:							
4: /19.3							
5:							
6:							

-X41s														
	<table><tr><td>1:</td><td>/19.2</td></tr><tr><td>2:</td><td></td></tr><tr><td>3:</td><td></td></tr><tr><td>4:</td><td>/19.3</td></tr><tr><td>5:</td><td></td></tr><tr><td>6:</td><td></td></tr></table>		1:	/19.2	2:		3:		4:	/19.3	5:		6:	
1:	/19.2													
2:														
3:														
4:	/19.3													
5:														
6:														

Drawing by:	Approved by:	last change:
date 27.09.2011	date	date 02.09.2021
name Lan.	name	name Lan.
E - CAE	Document type:	Function group No.:
	ESP	

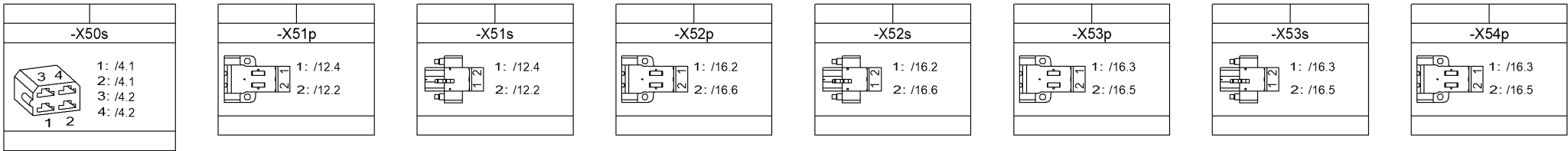
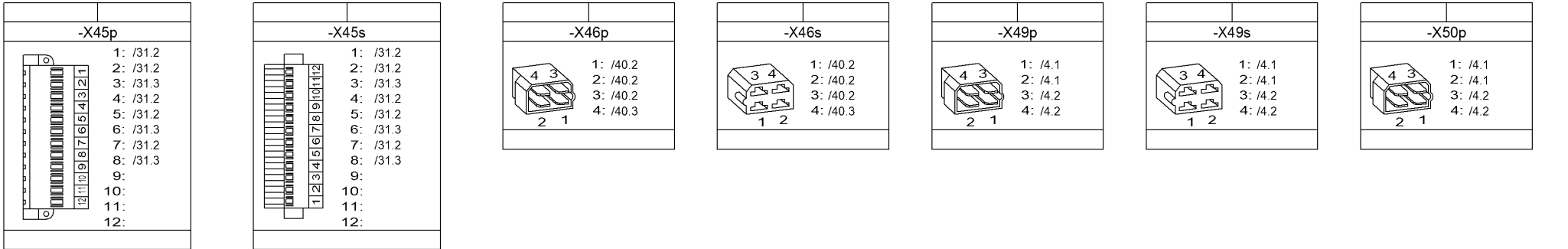
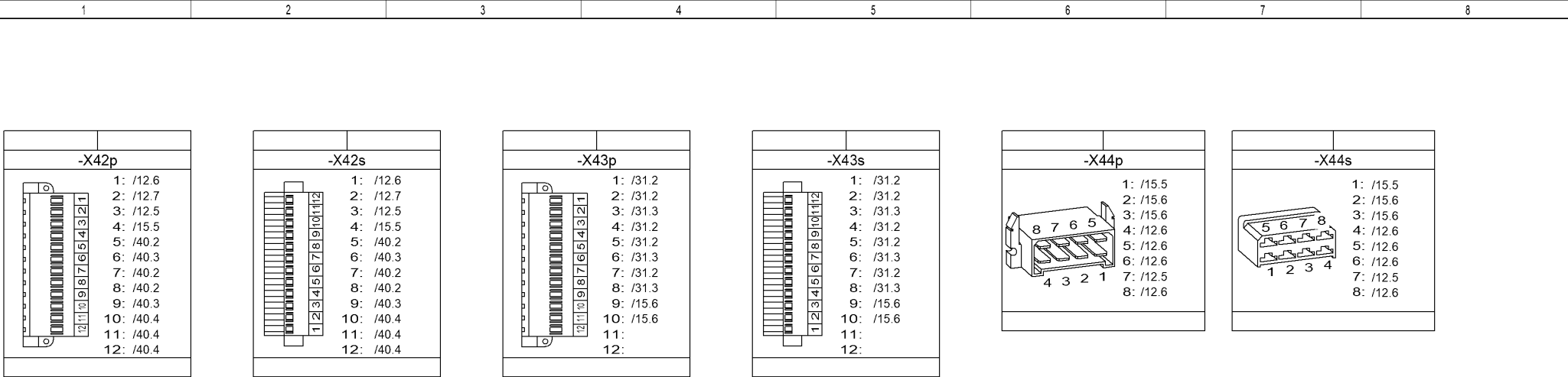
Status:	Document No.:
AE = changable	
PF = prototype release	Partial Document No.:
SF = serial release	
	Version No.:

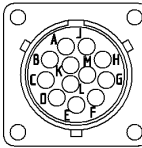
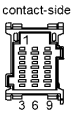
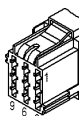
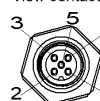
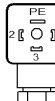


Material No.:	Revision No.:
2290893	04
Series code:	Valid for Serial No.:
H176	from to
Sheet plant:	
Sheet Location:	

Übersicht Steckerbelegung
General arrangement Plug occupancy

Sheet
69
of
84
Sheets



1	2	3	4	5	6	7	8
-X54s  1: /16.3 2: /16.5	-X55p  1: /16.4 2: /16.4	-X55s  1: /16.4 2: /16.4	-X56p  1: /19.4 2: /19.4 3: /19.4 4: /19.4	-X56s  1: /19.4 2: /19.4 3: /19.4 4: /19.4	-X60p  1: /30.5 2: /30.5	-X60s  1: /30.5 2: /30.5	
-X70s  1: /30.8 2: /30.8	-X102p  1: /10.1 2: /10.7 3: /10.7 4: /10.7	-X102s  1: /10.1 2: /10.7 3: /10.7 4: /10.7	-X103p  1: /10.5 2: /10.4 3: /10.4 4: /10.5	-X103s  1: /10.5 2: /10.4 3: /10.4 4: /10.5	-X109p  1: /10.3 2: /10.3	-X109s  1: /10.3 2: /10.3	
-X400s  1: /39.4 2: /39.5 3: /39.6 4: /39.7	-XD1 View contact-side  A: /22.2 B: /22.3 C: D: E: F: /22.3 G: /22.3 H: /22.3 J: K: /22.3 L: M: /22.3	-XD2p view contact-side  1: /22.8 2: /22.3 3: /22.4 4: /22.5 5: /22.5 6: /22.6 7: /22.6 8: /23.2 9: /50.1	-XD2s  1: /22.8 2: /22.3 3: /22.4 4: /22.5 5: /22.5 6: /22.6 7: 8: /23.2 9:	-XD5 View contacts  1: /38.7 2: /38.7 3: /38.7 4: /38.7 5: /38.8	-Y1.X1s black  1: /47.7 2: /47.7 3: PE:		

Drawing by:	Approved by:	last change:
date 27.09.2011	date 02.09.2021	
name Lan.	name	name Lan.
E - CAE	Document type:	Function group No.:
	ESP	

Status:	Document No.:
AE = changable	
PF = prototype release	Partial Document No.:
SF = serial release	
	Version No.:



Material No.:	Revision No.:
2290893	04
Series code:	Valid for Serial No.:
H176	from to
Sheet plant:	
Sheet Location:	

Übersicht Steckerbelegung
General arrangement Plug occupancy

Sheet
71
of
84
Sheets

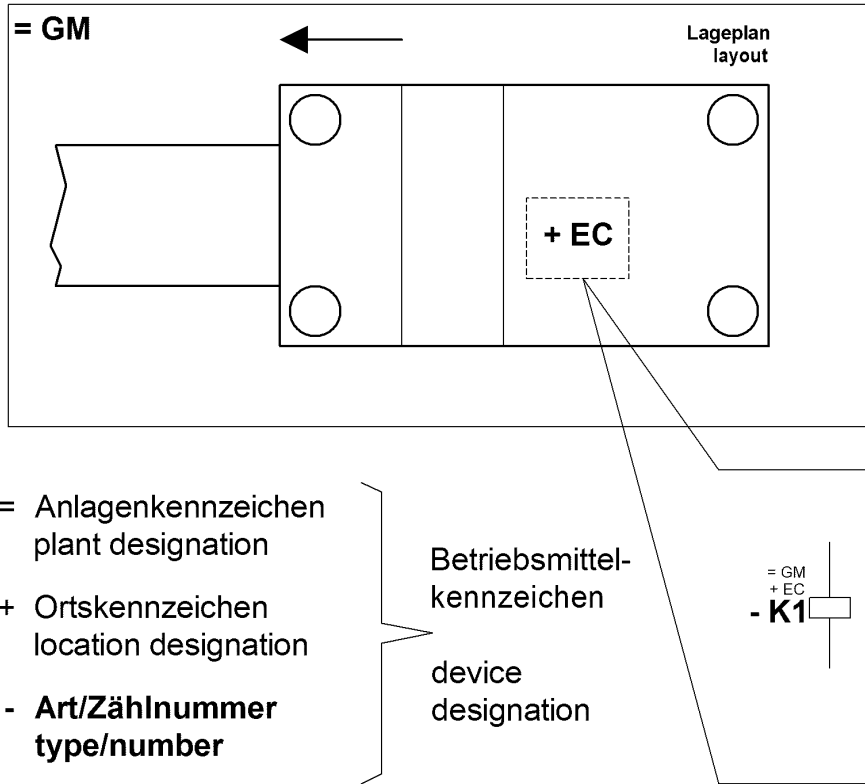
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-Y2.X1s 1: /47.8 2: /47.8 3: PE:	-Y3.X1s 1: /44.2 2: /44.2 3: PE:	-Y4.X1s 1: /44.4 2: /44.4 3: PE:	-Y5.X1s 1: /43.6 2: /43.6 3: PE:	-Y6.X1s 1: /44.7 2: /44.7 3: PE:	-Y9.X1s 1: /44.5 2: /44.5 3: PE:	-Y10X1 1: /46.2 2: /46.2 3: PE:

-Y11X1 1: /46.3 2: /46.3 3: PE:	-Y12X1 1: /46.4 2: /46.4 3: PE:	-Y13X1 1: /46.6 2: /46.6 3: PE:	+DE -X34 1: /24.2 2: /24.2	+LF -X29p 1: /9.5 2: /9.7 3: /9.6 4: /9.5	+LF -X29s 1: /9.5 2: /9.7 3: /9.6 4: /9.5	+LF -X32p 1: /9.2 2: /9.3 3: /9.2 4: /9.1
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+LF -X32s 1: /9.2 2: /9.3 3: /9.2 4: /9.1	+LR -X36p 1: /9.8 2: /9.8 3: /9.7 4:	+LR -X36s 1: /9.8 2: /9.8 3: /9.7 4:	+LR -X37p 1: /9.4 2: /9.4 3: /9.3 4:	+LR -X37s 1: /9.4 2: /9.4 3: /9.3 4:
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Drawing by:	Approved by:	last change:	Status:	Document No.:	Material No.:	Revision No.:	Übersicht Steckerbelegung General arrangement Plug occupancy		Sheet 72 of 84 Sheets
date 27.09.2011	date	date 02.09.2021	AE = changable PF = prototype release SF = serial release	Partial Document No.:	2290893	04			
name Lan.	name	name Lan.			Series code: H176	Valid for Serial No.: from to			
E - CAE	Document type: ESP	Function group No.:		Version No.:	Sheet plant: Sheet Location:				

Aufbau Betriebsmittelkennzeichen / device designation configuration



- Minimales Betriebsmittelkennzeichen: Nur Art/Zählnummer
minimal device designation: type/number only
- Maximales Betriebsmittelkennzeichen: Anlagenkennzeichen, Ortskennzeichen und Art/Zählnummer
maximum device designation: plant designation, location designation and type/number
- **Anlagenkennzeichen, Ortskennzeichen und Art/Zählnummer sind nur IN KOMBINATION eindeutig!**
plant designation, location designation and type/number are only explicitly IN COMBINATION!

Bezeichnungserklärungen / designation explanations

Stecker zu Stecker Verbindung / connector to connector connection

-X20p
1/3
/24.7
GN

-X20s
1/3
/24.7
GN

-X20p

-X20s

1/3

/24.7

GN

Deutsch

p = Stiftkontakt

s = Buchsenkontakt

Kontakt 1 von 3 Kontakten

Steckermaster auf Blatt 24,
Strompfad 7

Gehäusefarbe Stecker = Grün

English

p = pin contact

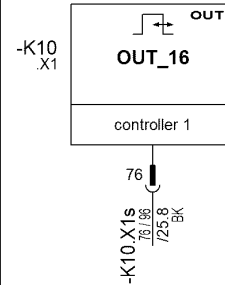
s = socket contact

contact 1 of 3 contacts

connector master on sheet 24,
current path 7

connector housing colour = green

Gerät zu Stecker Verbindung / device to connector connection



-K10

.X1

OUT

OUT_16

controller 1

76

-K10.X1s

Art/Zählnummer Gerät

Anschlusstecker X1 am Gerät

Schnittstellentyp

Schnittstellenname

Gerätename

Kontakt des Anschlussteckers

Art/Zählnummer Gegenstecker
(Stecker erbt zusätzlich zur
eigenen Art/Zählnummer, die
Art/Zählnummer des Gerätes
an dem er angeschlossen ist.
Dadurch ist eine eindeutige
Zuordnung von Gerät und
zugehörigem Stecker möglich)

type/number device

connector plug X1 on device

interface type

interface name

device name

contact of connector plug

type/number mating connector
(connector inherits additionally to
its own type/number, the
type/number of the device it is
connected to.
Thus permits a clear allocation of
device and appendant mating
connector)

Drawing by:	Approved by:	last change:
date 27.09.2011	date	date 02.09.2021
name Lan.	name	name Lan.
E - CAE	Document type:	Function group No.:
	ESP	

Status:	Document No.:
AE = changable	
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SF = serial release	
	Version No.:



Material No.:	Revision No.:
2290893	04
Series code:	Valid for Serial No.:
H176	from to
Sheet plant:	
Sheet Location:	

Erklärung Aufbau Betriebsmittelkennzeichen
Explanation device designation layout

Sheet
73
of
84
Sheets

Gerätekennbuchstaben, elektrisch (beispielhaft) / device code letter, electric (exemplified)					
<u>Gerätekennbuchstabe / device code letter</u>	<u>Deutsch</u>	<u>English</u>	<u>Gerätekennbuchstabe / device code letter</u>	<u>Deutsch</u>	<u>English</u>
- A	Bauteile mit zwei oder mehr Aufgaben Dieselmotor Radio	devices with two or more tasks diesel engine radio	- P	Hupe Leuchtdiode Signallampe Fahrtenschreiber anzeigendes Messgerät	horn light emitting diode signal lamp tachograph displaying measuring instrument
- B	Sensor Näherungsschalter Messwandler	sensor proximity switch measuring transformer	- R	Diode Widerstand	diode resistor
- C	Kondensator	capacitor	- S	Schalter	switch
- E	Heizung Lampe Leuchte	heating lamp light	- T	Gleichrichter Verstärker Transformator Frequenzwandler	rectifier amplifier transformer frequency converter
- F	Sicherung Leitungsschutzschalter Motorschutzschalter	fuse circuit breaker motor protection switch	- W	Kabel Elektrische Leitung Sammelschiene	cable wire bus bar
- G	Batterie Generator	battery generator	- X	Klemme Klemmenleiste Steckdose	terminal terminal strip outlet
- K	Relais Schütz Regler Prozessrechner SPS-Steuerung	relay contactor controller process computer programmable logic controller (PLC)			
- M	Elektromotor Betätigungsspule	electric motor coil			

Drawing by:	Approved by:	last change:
date 27.09.2011	date	date 02.09.2021
name Lan.	name	name Lan.
E - CAE	Document type: ESP	Function group No.:

Status:	Document No.:
AE = changable	
PF = prototype release	Partial Document No.:
SF = serial release	Version No.:

		Material No.: 2290893	Revision No.: 04
		Series code: H176	Valid for Serial No.: from to
		Sheet plant: Sheet Location:	

Erklärung Gerätekennbuchstaben, elektrisch Explanation device code letter, electric
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Sheet 74 of 84 Sheets
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Gerätekennbuchstaben, hydraulisch (beispielhaft) / device code letter, hydraulic (exemplified)		
<u>Gerätekennbuchstabe / device code letter</u>	<u>Deutsch</u>	<u>English</u>
- HA	Ventilblock	valve-block
- HG	Hydraulikpumpe	hydraulic pump
- HK	Mengenteiler Prioritätsventil Stromregelventil hydraulisch	flow divider priority valve hydraulic flow control valve
- HM	Hydraulikmotor Hydraulikzylinder	hydraulic motor hydraulic cylinder
- HQ	Bremsventil Kugelhahn Lenkeinheit Wegeventil	braking valve ball valve steering unit direction control valve
- HV	Hydraulikfilter	hydraulic filter
- Ma	Ventil Magnetspule a	valve coil a
- Mb	Ventil Magnetspule b	valve coil b

Drawing by:	Approved by:	last change:
date 27.09.2011	date	date 02.09.2021
name Lan.	name	name Lan.
E - CAE	Document type: ESP	Function group No.:

Status:
AE = changable PF = prototype release SF = serial release

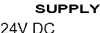
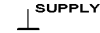
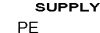
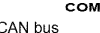
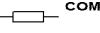
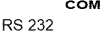
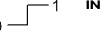
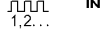
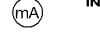
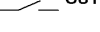
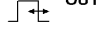
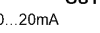
Document No.:
Partial Document No.:
Version No.:



Material No.:	Revision No.:
2290893	04
Series code: H176	Valid for Serial No.: from to
Sheet plant: Sheet Location:	

Erklärung Gerätekennbuchstaben, hydraulisch Explanation device code letter, hydraulic
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Sheet
75
of
84
Sheets

Symbolerklärungen * / symbol explanations *			
Symbol / symbol	Bedeutung / standing	Symbol / symbol	Bedeutung / standing
 SUPPLY 24V DC	Spannungsversorgung power supply	 OUT	Rechteckgenerator square-wave generator
 SUPPLY	Masse ground	 ECU	Anschluss Motorsteuergerät connection to engine control unit
 SUPPLY PE	Schutzleiter protection earth	*Standardsymbole sind von DIN EN 60671 abgeleitet Standard symbols are derived from DIN EN 60617	
 COM CAN bus	CAN Busleitung CAN bus line		
 COM	Abschlusswiderstand terminating resistor		
 COM RS 232	RS 232 Schnittstellenleitung RS 232 interface circuit		
 0 1 IN	Digitaleingang (allgemein) digital input (in general)		
 IN	Pulseingang pulse input		
 1,2... IN	Zählereingang counter input		
 IN	Spannungseingang voltage input		
 IN	Stromeingang current input		
 IN	Widerstandseingang resistance input		
 IN	Frequenzeingang frequency input		
 OUT	Digitalausgang digital output		
 OUT	Pulsweitenmodulationsausgang pulse width modulation output		
 0...20mA OUT	analoge Stromquelle analogue current supply		

Drawing by: date 27.09.2011 name Lan.	Approved by: date name	last change: date 02.09.2021 name Lan.	Status: AE = changable PF = prototype release SF = serial release	Document No.: Partial Document No.: Version No.:		Material No.: 2290893 Series code: H176 Sheet plant: Sheet Location:	Revision No.: 04 Valid for Serial No.: from to	Symboleklärung Funktionseinheiten Symbol explanation of functional units	Sheet: 76 of 84 Sheets
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Linienformate / line formats			Farbbezeichnungen / colour designations		
<u>Linienart / line type</u>	<u>Linienstärke / Grafik / line thickness / graphic</u>	<u>Bedeutung / standing</u>	<u>Abkürzungen Farbbezeichnungen / colour abbreviations</u>	<u>Deutsch</u>	<u>English</u>
Volllinie / solid line	0,25mm	Standard / standard	BU	blau	blue
			BN	braun	brown
Strichpunktlinie / dash-dotted line	0,25mm	PE (Schutzerde) / PE (protecting earth)	YE	gelb	yellow
			GN	grün	green
Strichlinie / dashed line	0,25mm	Bauteilumrandung, bzw. Zusammengehörigkeit / component border, togetherness	GY	grau	grey
			OG	orange	orange
Strichlinie / dashed line	0,25mm	Optionen / options	PK	rosa	pink
			RD	rot	red
Punktlinie / dotted line	0,75mm	Leiterbahnverbindungen einer Platine (nicht als Drahtleitung ausgeführte Verbindung) / conductor line of a edge board	BK	schwarz	black
			TQ	türkis	turquoise
			VT	violett	violet
			WH	weiss	white

Drawing by:	Approved by:	last change:
date 27.09.2011	date	date 02.09.2021
name Lan.	name	name Lan.
E - CAE	Document type: ESP	Function group No.:

Status:	Document No.:
AE = changable	
PF = prototype release	Partial Document No.:
SF = serial release	Version No.:



Material No.:	Revision No.:
2290893	04
Series code: H176	Valid for Serial No.: from to
Sheet plant:	
Sheet Location:	

Erklärung Linienformate, Farbbezeichnungen
Explanation line formats, colour designations

Sheet
77
of
84
Sheets

Betriebsmittelkennzeichen / Device designation	Blatt / Sheet	Betriebsmittelkennzeichen / Device designation	Blatt / Sheet	Betriebsmittelkennzeichen / Device designation	Blatt / Sheet
-A1	/55.1	-B40.1X1	/58.8	-E6.X1s	/59.1
-A1.X1s	/58.1	-B40.2	/27.5	-E6.X2s	/59.2
-A1.X2s	/58.3	-B40.2X1	/58.1	-E10	/9.4
-A4	/47.2	-B43	/24.5	-E10.X1s	/59.3
-A6	/15.2	-B43X1	/58.2	-E10.X2s	/59.4
-A6.1	/15.3	-B48	/25.3	-E12	/9.8
-A7	/15.4	-B48X1	/58.3	-E12.X1s	/59.5
-A7.1	/15.5	-B49	/26.3	-E12.X2s	/59.6
-A8	/45.1	-B49X1	/58.4	-E13	/9.2
-A8.X1p	/58.5	-B51	/26.6	-E14	/9.6
-A8.X2p	/58.6	-B51X1	/58.5	-E40	/10.5
-A8.X4p	/58.7	-D1	/56.1	-E40.X1	/59.7
-A8.X6s	/58.1	-D1.X1s	/59.2	-E41	/10.6
-B1	/30.1	-D1.X2s	/59.4	-E41.X1	/59.8
-B1.X1	/58.3	-D60	/30.4	-E42	/10.4
-B1.X1s	/58.4	-D60.X1s	/59.6	-E42.X1	/59.1
-B2	/31.2	-E1	/9.1	-E43	/10.5
-B6	/25.6	-E1 +DE	/20.6	-E43.X1	/59.2
-B6X1	/58.5	-E2	/9.5	-E70	/30.8
-B8	/32.5	-E2 +DE	/20.7	-F01	/33.2
-B8.X1s	/58.6	-E3 +DE	/20.7	-F1	/35.1
-B9	/12.6	-E4 +DE	/20.7	-F1X1	/4.3
-B10	/45.7	-E5	/9.3	-F02	/33.3
-B11	/29.6	-E5 +DE	/20.8	-F2	/35.1
-B11.X1s	/58.7	-E5.X1s	/59.7	-F2X1	/4.6
-B12	/29.1	-E5.X2s	/59.8	-F03	/33.3
-B13	/41.6	-E6	/9.7	-F3	/35.1
-B40.1	/27.2	-E6 +DE	/20.8	-F3X1	/13.1

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E - CAE	Document type: ESP	Function group No.:

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SF = serial release	Version No.:



Material No.:	Revision No.:
2290893	04
Series code:	Valid for Serial No.:
H176	from to
Sheet plant:	
Sheet Location:	

Betriebsmittelliste
device list

Sheet
78
of
84
Sheets

Betriebsmittelkennzeichen / Device designation	Blatt / Sheet	Betriebsmittelkennzeichen / Device designation	Blatt / Sheet	Betriebsmittelkennzeichen / Device designation	Blatt / Sheet
-F4	/35.1	-F18X1	/45.1	-F35	/35.6
-F4X1	/13.2	-F19	/35.4	-F35X1	/36.2
-F5	/35.1	-F19X1	/38.6	-F36	/35.6
-F5X1	/30.1	-F20	/35.4	-F36X1	/37.2
-F6	/35.1	-F20X1	/33.4	-F37	/35.6
-F6X1	/12.6	-F21	/35.4	-F37X1	/17.2
-F7	/35.1	-F21X1	/11.5	-F38	/5.2
-F7X1	/4.1	-F22X1	/48.3	-FL	/33.7
-F8	/35.1	-F23	/35.4	-G1	/33.2
-F8X1	/9.5	-F23X1	/34.2	-G2 +DE	/33.3
-F9	/35.1	-F24X1	/48.4	-H1	/6.2
-F9X1	/9.1	-F25	/35.4	-H1.X1	/59.3
-F10	/35.1	-F25X1	/22.1	-H1.X2	/59.4
-F10X1	/9.6	-F26X1	/48.1	-H2	/6.7
-F11	/35.1	-F27	/35.6	-H2.X1	/59.5
-F11X1	/9.2	-F27X1	/19.1	-H2.X1s	/59.6
-F12	/35.1	-F28X1	/48.4	-H3	/6.5
-F12X1	/6.1	-F29X1	/48.5	-H40	/10.3
-F13	/35.1	-F30	/35.6	-H40.X1	/59.7
-F13X1	/7.1	-F30X1	/34.3	-H40.X2	/59.8
-F14	/35.4	-F31	/35.6	-HB3	/47.2
-F14X1	/30.5	-F31X1	/21.2	-HB4	/42.7
-F15	/35.4	-F32	/35.6	-HB4.X1	/60.1
-F15X1	/6.5	-F32X1	/8.4	-HB4.X1s	/60.2
-F16	/35.4	-F33	/35.6	-HB5	/42.3
-F16X1	/30.8	-F33X1	/7.2	-HB5.X1	/60.3
-F17X1	/48.3	-F34	/35.6	-HB5.X1s	/60.4
-F18	/35.4	-F34X1	/17.3	-J1	/11.6

Drawing by:	Approved by:	Last change:
date 27.09.2011	date 02.09.2021	
name Lan.	name	name Lan.
E - CAE	Document type: ESP	Function group No.:

Status:	Document No.:
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Material No.:	Revision No.:
2290893	04
Series code:	Valid for Serial No.:
H176	from to
Sheet plant:	
Sheet Location:	

Betriebsmittelliste
device list

Sheet
79
of
84
Sheets

Betriebsmittelkennzeichen / Device designation	Blatt / Sheet	Betriebsmittelkennzeichen / Device designation	Blatt / Sheet	Betriebsmittelkennzeichen / Device designation	Blatt / Sheet
-J1X1	/11.7	-K9	/46.2	-M1X1s	/61.1
-J1X2	/11.7	-K9.X1	/60.7	-M1X2	/20.7
-J1X3	/11.7	-K11.X1	/60.8	-M1X2	/20.8
-J2	/30.7	-K15	/34.7	-M30	/19.4
-J2X1	/30.7	-K15.X1	/60.1	-M60	/30.5
-J2X2	/30.7	-K16	/34.6	-Q19	/27.7
-J2X3	/30.7	-K16.X1	/60.2	-Q19X1	/61.3
-J3	/38.1	-K16X2p :1	/20.2	-R1	/33.7
-J3X1	/38.1	-K16X2s :1	/20.2	-R2	/22.3
-J3X2	/38.1	-K17	/20.4	-R3	/22.5
-J3X3	/38.1	-K17.X1	/60.3	-R4	/23.2
-JK6 :30	/43.5	-K100	/34.7	-R5	/23.2
-JK6 :87a	/43.5	-K100.X1	/60.4	-R6	/20.3
-K1	/21.1	-K200	/52.1	-R7	/14.8
-K1.X1	/60.5	-K200.X1s	/61.2	-R8	/32.2
-K2	/30.6	-K200.X2s	/61.5	-R9	/14.7
-K2.X1	/60.7	-KL15	/17.2	-R10	/29.6
-K3	/7.3	-KL15	/19.1	-R11	/47.3
-K3.X1	/60.8	-KL15	/33.6	-R12	/13.4
-K4	/30.4	-KL30	/17.3	-R13	/14.5
-K4.X1	/60.1	-KL30	/33.6	-R14	/14.5
-K5	/8.5	-KL30	/33.6	-R15	/38.1
-K5.X1	/60.2	-KL31	/33.5	-R16	/50.7
-K6.X1	/60.3	-KL31	/33.6	-R16	/50.7
-K7	/6.4	-KL31	/33.7	-R17	/50.7
-K7.X1	/60.4	-KL31	/46.2	-R17	/50.7
-K8	/46.4	-M1 +DE	/20.1	-R20	/40.2
-K8.X1	/60.6	-M1X1p	/61.7	-R32.2	/13.7

Drawing by:	Approved by:	last change:
date 27.09.2011	date 02.09.2021	
name Lan.	name Lan.	
E - CAE	Document type: ESP	Function group No.:

Status:	Document No.:
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PF = prototype release	Partial Document No.:
SF = serial release	Version No.:



Material No.:	Revision No.:
2290893	04
Series code:	Valid for Serial No.:
H176	from to
Sheet plant:	
Sheet Location:	

Betriebsmittelliste
device list

Sheet
80
of
84
Sheets

Betriebsmittelkennzeichen / Device designation	Blatt / Sheet	Betriebsmittelkennzeichen / Device designation	Blatt / Sheet	Betriebsmittelkennzeichen / Device designation	Blatt / Sheet
-R36.2	/13.2	-S8.X1	/62.3	-S60.X1	/62.2
-R50	/16.7	-S9	/14.7	-SD1	/22.8
-Res.1	/51.4	-S9.X1	/62.4	-T1	/32.5
-Res.2	/32.4	-S10	/13.4	-T1	/36.3
-Res.3	/43.3	-S10.X1	/62.5	-T1	/42.5
-Res.5.1	/51.7	-S11	/14.2	-T1	/47.4
-Res.5.2	/51.7	-S11.X1	/62.7	-T1.X1s	/63.1
-Res.6.1	/51.7	-S12	/51.5	-V2	/30.7
-Res.6.2	/51.7	-S12.X1	/62.8	-V4	/30.5
-Res.7.1	/51.8	-S13	/13.7	-V5	/33.7
-Res.7.2	/51.8	-S13.X1	/62.1	-V6	/6.1
-Res.8.1	/51.8	-S14	/43.3	-V6.X1s	/63.2
-Res.8.2	/51.8	-S15	/41.4	-V7	/23.2
-S1	/33.2	-S15.X1	/62.2	-W1	/33.2
-S2	/34.3	-S16	/32.2	-W2	/5.2
-S2.X1	/61.4	-S16.X1s	/62.3	-W5	/10.1
-S2.X2	/61.5	-S17	/29.4	-W5.1	/10.1
-S3	/8.2	-S17.X1s	/62.5	-W5.X1	/63.3
-S3.X1	/61.6	-S30	/19.4	-W5F1	/10.1
-S4	/8.4	-S30.X1	/62.6	-W5F2	/10.2
-S5	/7.3	-S43	/10.5	-X1p	/63.5
-S5.X1	/61.8	-S43.X1s	/62.7	-X1s	/63.7
-S6	/14.4	-S44	/10.4	-X2p	/63.1
-S6.X1	/62.1	-S44.X1s	/62.8	-X2s	/63.4
-S7	/4.1	-S46	/10.3	-X3p	/63.6
-S7.1	/4.1	-S46.X1s	/62.1	-X3s	/63.8
-S7.2	/4.1	-S50	/16.4	-X4	/34.2
-S8	/13.2	-S60	/30.5	-X4p	/64.1

Drawing by:	Approved by:	last change:
date 27.09.2011	date 02.09.2021	
name Lan.	name	name Lan.
E - CAE	Document type: ESP	Function group No.:

Status:	Document No.:
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SF = serial release	Version No.:



Material No.:	Revision No.:
2290893	04
Series code:	Valid for Serial No.:
H176	from to
Sheet plant:	
Sheet Location:	

Betriebsmittelliste
device list

Sheet
81
of
84
Sheets

Betriebsmittelkennzeichen / Device designation	Blatt / Sheet	Betriebsmittelkennzeichen / Device designation	Blatt / Sheet	Betriebsmittelkennzeichen / Device designation	Blatt / Sheet
-X5p	/64.3	-X18p	/66.1	-X31	/30.8
-X5s	/64.5	-X19p	/66.3	-X31	/33.4
-X6p	/64.7	-X19s	/66.5	-X31	/44.2
-X6s	/64.1	-X20s	/66.6	-X31	/44.7
-X7p	/64.3	-X21p	/66.8	-X31	/47.7
-X7s	/64.5	-X21s	/67.1	-X31 +DE	/20.1
-X8p	/64.7	-X22	/67.2	-X31.C	/33.3
-X8s	/65.1	-X22p	/67.4	-X31.Ch	/20.2
-X9p	/65.3	-X22s	/67.5	-X31.Ch	/33.2
-X9s	/65.5	-X23	/67.6	-X32p	/68.4
-X10p	/65.7	-X23p	/67.8	-X32p +LF	/72.7
-X10s	/65.1	-X24p :1	/51.4	-X32s	/68.6
-X11p	/65.3	-X25p :1	/49.4	-X32s +LF	/72.1
-X11s	/65.4	-X26p	/67.1	-X33b	/68.8
-X12p	/65.5	-X26s	/67.3	-X33p	/68.1
-X12s	/65.6	-X27	/67.5	-X33s	/68.4
-X13p	/65.8	-X27p	/67.6	-X34 +DE	/72.4
-X13s	/66.1	-X27s	/67.1	-X34p	/68.5
-X14p	/66.2	-X28	/67.3	-X34s	/68.7
-X14s	/66.4	-X28p	/68.1	-X35	/68.8
-X15	/4.1	-X28s	/68.2	-X35b	/68.1
-X15	/4.2	-X29p +LF	/72.5	-X35p	/69.1
-X15.6p :1	/19.2	-X29s +LF	/72.6	-X35s	/69.3
-X15.6s :1	/19.2	-X31	/6.5	-X36p	/69.5
-X16p	/66.5	-X31	/8.2	-X36p +LR	/72.2
-X16s	/66.6	-X31	/9.3	-X36s	/69.6
-X17p	/66.6	-X31	/17.2	-X36s +LR	/72.3
-X17s	/66.8	-X31	/19.3	-X37p	/69.8

Drawing by:	Approved by:	last change:
date 27.09.2011	date 02.09.2021	
name Lan.	name Lan.	
E - CAE	Document type: ESP	Function group No.:

Status:	Document No.:
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PF = prototype release	Partial Document No.:
SF = serial release	Version No.:



Material No.:	Revision No.:
2290893	04
Series code:	Valid for Serial No.:
H176	from to
Sheet plant:	
Sheet Location:	

Betriebsmittelliste
device list

Sheet:
82
of
84
Sheets

1	2	3	4	5	6	7	8	
Betriebsmittelkennzeichen / Device designation		Blatt / Sheet	Betriebsmittelkennzeichen / Device designation		Blatt / Sheet	Betriebsmittelkennzeichen / Device designation		Blatt / Sheet
-X37p +LR		/72.4	-X53p		/70.6	-Y2.X1s		/72.1
-X37s +LR		/72.5	-X53s		/70.7	-Y3		/44.2
-X38p		/69.1	-X54p		/70.8	-Y3.X1s		/72.2
-X38s		/69.2	-X54s		/71.1	-Y4		/44.4
-X39p		/69.3	-X55p		/71.2	-Y4.X1s		/72.3
-X39s		/69.4	-X55s		/71.3	-Y5		/43.6
-X40p		/69.5	-X56p		/71.4	-Y5.X1s		/72.4
-X40s		/69.6	-X56s		/71.5	-Y6		/44.7
-X41p		/69.8	-X60p		/71.6	-Y6.X1s		/72.5
-X41s		/69.1	-X60s		/71.7	-Y9		/44.5
-X42p		/70.1	-X70s		/71.1	-Y9.X1s		/72.6
-X42s		/70.2	-X102p		/71.2	-Y10		/46.2
-X43p		/70.4	-X102s		/71.3	-Y10V1		/46.3
-X43s		/70.5	-X103p		/71.4	-Y10X1		/72.8
-X44p		/70.6	-X103s		/71.5	-Y11		/46.3
-X44s		/70.7	-X109p		/71.6	-Y11V1		/46.4
-X45p		/70.1	-X109s		/71.7	-Y11X1		/72.1
-X45s		/70.2	-X400s		/71.1	-Y12		/46.4
-X46p		/70.4	-XD1		/71.2	-Y12V1		/46.5
-X46s		/70.5	-XD2p		/71.4	-Y12X1		/72.2
-X49p		/70.6	-XD2s		/71.5	-Y13		/46.6
-X49s		/70.7	-XD5		/71.6	-Y13V1		/46.6
-X50p		/70.8	-XS1		/5.2	-Y13X1		/72.3
-X50s		/70.1	-XSP1		/16.7	-Y15.1		/28.1
-X51p		/70.2	-XSP2		/16.7	-Y15.2		/28.6
-X51s		/70.3	-Y1		/47.7	-Y15.3		/28.3
-X52p		/70.4	-Y1.X1s		/71.7	-Y15.4		/28.7
-X52s		/70.5	-Y2		/47.8	-Y15.5		/28.2

Drawing by:		Approved by:		last change:	
date 27.09.2011		date		date 02.09.2021	
name Lan.		name		name Lan.	
E - CAE		Document type:		Function group No.:	
		ESP			

Status:		Document No.:	
AE = changeable		Partial Document No.:	
PF = prototype release		Version No.:	
SF = serial release			



Material No.:		Revision No.:	
2290893		04	
Series code:		Valid for Serial No.:	
H176		from to	
Sheet plant:			
Sheet Location:			

Betriebsmittelliste
device list

Sheet:	
83	
of	
84	
Sheets	

Betriebsmittelkennzeichen / Device designation	Blatt / Sheet	Betriebsmittelkennzeichen / Device designation	Blatt / Sheet	Betriebsmittelkennzeichen / Device designation	Blatt / Sheet
-Y15.6	/28.5				

Drawing by:		Approved by:		last change:		Status:		Document No.:		Material No.:		Revision No.:		Betriebsmittelliste device list		Sheet 84 of 84 Sheets	
date 27.09.2011		date		date 02.09.2021		AE = changable		Partial Document No.:		2290893		04					
name Lan.		name		name Lan.		PF = prototype release		Version No.:		Series code: H176		Valid for Serial No.:					
E - CAE		Document type: ESP		Function group No.:		SF = serial release				Sheet plant:		from to					