BOMAG
FAYAT GROUP

Bomag GmbH

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D-56154 Boppard

Wiring illustration Verkabelungsdarstellung		
━━━	thick lines dicke Linien	routing on Powerboard Routing auf Powerboard
———	thin lines dünne Linien	harness wiring Kabelbäume

0	1	2	3	4	5	6	7	8	9
Created Erstellt: EFS MFS **M. Vogt** **22.12.2016**	**BW 211-213 D-5 Deutz TCD 3.6 Tier 3a**		BOMAG FAYAT GROUP	Cover sheet Deckblatt				Function Funktion ==	Page Blatt **1** from von **85**
Checked Geprüft: **K. Brand** **22.12.2016**								Higher-level function Anlage =	**420**
								Mounting location Einbauort +	EPE / 000 / **00**

9.9 / S01:12

10.9 / F148:2

9.9 / F67:2

S01:12 / 12.0

F148:2 / 12.0

X35
Plug, driving controller
Stecker Fahrsteuerung

Ground Electronic Masse Elektronik	Ground Electronic Masse Elektronik	Ground Electronic Masse Elektronik	Ground Electronic Masse Elektronik	Ground Electronic Masse Elektronik
GND	GND	GND	GND	GND
A34	A34	A34	A34	A34
GND	GND	GND	GND	GND
X35 55	X35 65	X35 66	X35 67	X35 68
X35 55	X35 65	X35 66	X35 67	X35 68

X5.A 19

18

3

WH
2,5 mm²

Splice 38
Spleiss

B57:2 / =DRIV/25.0

Splice 39
Spleiss

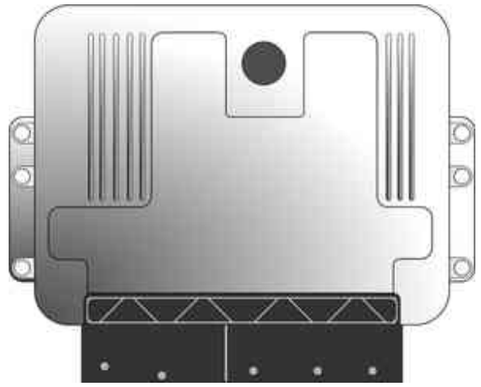
X35 28	X35 54	X35 56	X35 57	X35 58	X35 59	X35 60
X35 28	X35 54	X35 56	X35 57	X35 58	X35 59	X35 60
+Ignition / 0..32V	+UE / 0..32V	+UB / 0..32V	+UB / 0..32V	+UB / 0..32V	+UB / 0..32V	+UB / 0..32V
A34	A34	A34	A34	A34	A34	A34
+ Ignition	+UE	+UB	+UB	+UB	+UB	+UB
Ignition Zündung	Power Supply (Electronic) Spannungsvers. (Elektronik)	Power Supply (Outputs) Spannungsvers. (Ausgänge)	Power Supply (Outputs) Spannungsvers. (Ausgänge)	Power Supply (Outputs) Spannungsvers. (Ausgänge)	Power Supply (Outputs) Spannungsvers. (Ausgänge)	Power Supply (Outputs) Spannungsvers. (Ausgänge)

8.4 / 31_DCtrl

31_DCtrl / =DRIV/25.0

0	1	2	3	4	5	6	7	8	9
Created Erstellt: VogtM 22.12.2016 Checked Geprüft: K. Brand 22.12.2016	**BW 211-213 D-5 Deutz TCD 3.6 Tier 3a**		BOMAG FAYAT GROUP	Supply Driving Controller Versorgung Fahrsteuerung				Function Funktion == SDR Higher-level function Anlage = SUPL Mounting location Einbauort + EBOX	Page Blatt 11 from von 85 420 EPE / 000 / 00

A48.D
Engine-controller EMR4 (EDC 17-CV54)
Motorsteuergerät EMR4 (EDC 17-CV54)



Harness Engine interface - Engine internal
Kabelbaum Motorschnittstelle - Motorintern

D2.1 (A)
Plug, engine-controller motor-part
Stecker Motorsteuergerät Motorseite = X44

D2.2 (K)
X45 = Plug, engine-controller machine-part
Stecker Motorsteuergerät Maschinenseite

X45 D2.2
D2.2 K01 01 WH 2,5 mm² — Splice Spleiss 68 — 20.2 / X1.B:1
D2.2 K03 03 WH 2,5 mm² — Splice Spleiss 68 — 20.2 / X1.B:2
D2.2 K05 05 WH 2,5 mm²

!!! There is still power supply even if the battery disconnector switch is turned off
!!! Auch bei ausgeschaltetem Batterietrennschalter unter Spannung

D2.2 K35 35 — 20.5 / X1.B:16
D2.2 K68 68 — 20.7 / X1.B:15
D2.2 K15 15 — 20.8 / X1.B:18
D2.2 K90 90 — 20.4 / X1.B:14
D2.2 K26 26 — 20.5 / X1.B:9
D2.2 K88 88 — Splice Spleiss 33 — 20.6 / X1.B:12

D2.2 K54 54 — R23 1–2 120 Ω — 20.7 / X1.B:10
D2.2 K76 76 — R23 1–2 120 Ω — 20.7 / X1.B:13
D2.2 K75 75 — R31 1–2 120 Ω — R30 1–2 120 Ω — CAN 1 high
D2.2 K53 53 — CAN 1 low

D2.2 K02 02 BN 2,5 mm²
D2.2 K04 04 BN 2,5 mm²
D2.2 K06 06 BN 2,5 mm² — CAN 2 high
CAN 2 low
31-GND

D2.2 K87 87 — X48 1 — Plug, engine stop / Stecker Motor Stop
D2.2 K31 31 — X48 2

D2.2 K28 28
D2.2 K73 73

D2.2 K64 64 — X108 1
D2.2 K57 57 — X108 2
D2.2 K49 49 — X108 5
X108 3
X108 4

+MOT
X46 X17 2 — =SUPL/8.5 / K39:2
X46 X17 3 — =SUPL/8.5 / K39:1
X73 1 — B124 1
X73 2 — B124 2
B218 1
B218 2

Sensor, water separator fuel
Sensor Wasserabscheider Kraftstoff

Ubat A
CAN 2 high M
CAN 2 low F
CAN 1 high H
CAN 1 low G
31-GND B

X32 X22
CAN 1 = Diagnosis CAN
CAN 2 = Customer CAN

Diagnosis interface EMR
Diagnoseschnittstelle EMR

=SUPL/8.4 / 31_EMR

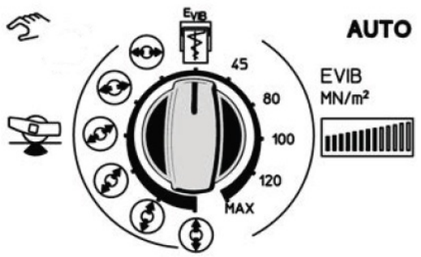
0	1	2	3	4	5	6	7	8	9
Created Erstellt: VogtM 22.12.2016	**BW 211-213 D-5 Deutz TCD 3.6 Tier 3a**		BOMAG FAYAT GROUP	Deutz TCD 3.6				Function Funktion == SDR	Page Blatt 21 from von 85
Checked Geprüft: K. Brand 22.12.2016				Deutz TCD 3.6				Higher-level function Anlage = ENGI	420
								Mounting location Einbauort + EBOX	EPE / 000 / 00

=SUPL/13.9 / FM2

+SEAT

=DRIV/25.9 / 31_Ar → 31_Ar =OPT+CAB/43.1

=DRIV+SEAT/29.2 / 15_Ar

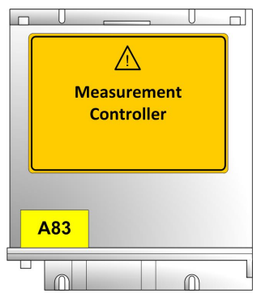


S107
Switch, amplitude adjustment
Schalter Amplitudenverstellung
12 steps
12 Stufen
4...20mA

2 (+)
1 (-)
3 (S)

X4.B 8
X5.E 14
X5.E-2 14
X5.E-2 14
X5.E 14
X88 32
X88 32

AIN8 / 10V 25mA
A83
AIN_8
Switch, amplitude adjustment Schalter Amplitudenverstellung



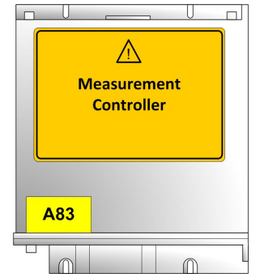
X5.E 11
X5.E-2 11
X5.E-2 11
X5.E 11
X107 7

+DRUM

W1
12x0,75
9
10
X86:2 / =MEAS/35.1
X86 1
RD
+
B97
Sensor, adjustable motor
Sensor Verstellmotor
-
BK
X86 2
S
WH
X86 3

W1
12x0,75
11
X107 8
X88 9
X88 9

AIN7 / 10V 25mA
A83
AIN_7
Position exciter Erregerposition

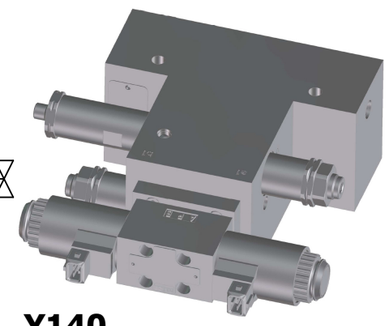


Exciter up Erreger auf	Exciter down Erreger ab	Exciter priority Erreger Priorität
PWM_2	PWM_1	DO_5
A83	A83	A83
OUT2 / 4A curr.-measur.	OUT1 / 4A curr.-measur.	OUT6 / 4A

X88 47 → X88 47 → X107 9
X88 46 → X88 46 → 10
X88 61 → 61 → 11

+DRUM

W2
7x1,0
1
3
Y140
400-1200mA
b1 (v.r.)
1
2
Y141
400-1200mA
a1 (v.l.)
1
2
-W2
7x1,0
2
4
Splice
Spleiss
8
BN
1,5 mm²
X107 12



=SUPL/12.9 / 31_MCtrl
BN
1,5 mm²

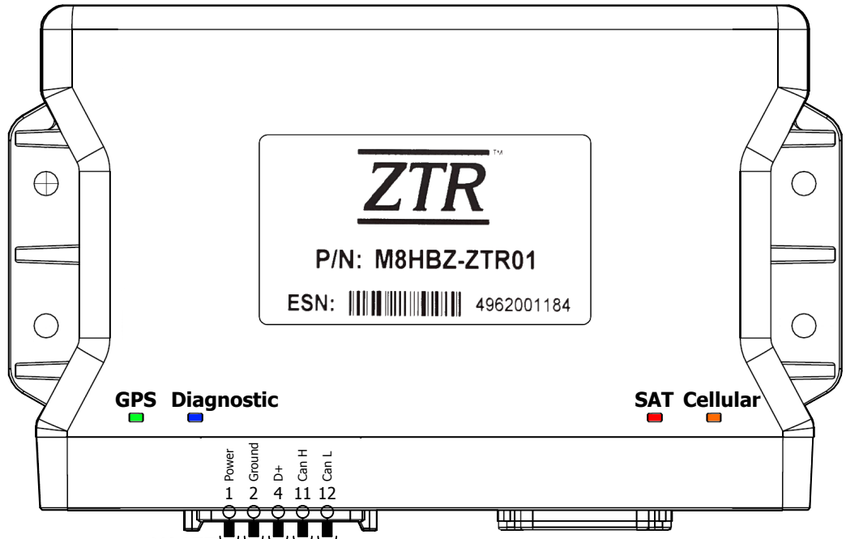
Solenoid valve, exciter up
Magnetventil Erreger auf

Solenoid valve, exciter down
Magnetventil Erreger ab

0		1	2	3	4	5	6	7	8	9
Created Erstellt	**VogtM** **22.12.2016**	**BW 211-213 D-5 Deutz TCD 3.6 Tier 3a**		BOMAG FAYAT GROUP	Variocontrol Variocontrol				Function / Funktion == **SDR** Higher-level function / Anlage = **VIB** Mounting location / Einbauort + **EBOX**	Page / Blatt **31** from / von **85** **420** EPE / 000 / **00**
Checked Geprüft	**K. Brand** **22.12.2016**									

-A175
Electronic system, Morey Telematics
Elektronik Morey Telematik

-A177
ECU ZTR telematics
ECU ZTR Telematik



-XA175 8 RD, 10 WH, 16 BK

-X51 RD 1, WH 3, BK 2

-XA177 1, 2, 4, 11, 12

+EBOX/40.5 / X6.D:4

fuse MD+
Sicherung MD+
F129
Splice Spleiss 88 — 1 — 2 — Splice Spleiss 89
3A

+EBOX/40.5 / X6.D:2

+EBOX/40.5 / X6.D:3

+EBOX/40.5 / X6.D:7

+EBOX/40.5 / X6.D:8

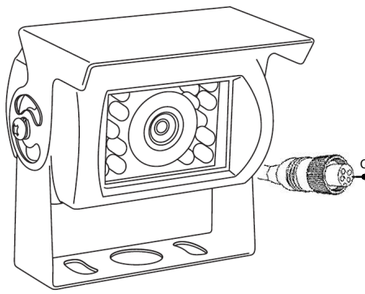
0	1	2	3	4	5	6	7	8	9
Created Erstellt EFS MFS **M. Vogt** **22.12.2016**	**BW 211-213 D-5 Deutz**		BOMAG FAYAT GROUP	Morey Telematics, ZTR Telematics				Function Funktion == **SDR**	Page Blatt **41** from von **85**
Checked Geprüft **K. Brand** **22.12.2016**	**TCD 3.6 Tier 3a**			Morey Telematic, ZTR Telematic				Higher-level function Anlage = **OPT**	**420**
								Mounting location Einbauort + **MOT**	EPE / 000 / **00**

49.8 / X202:2

50.7 / GND_CAB

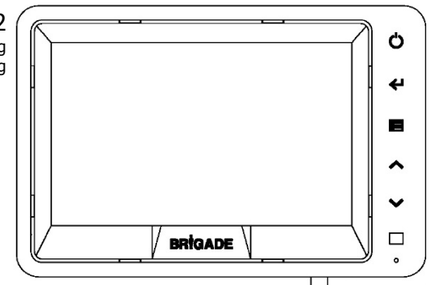
44.4 / Rev

P32
Camera, back up monitoring
Kamera Rückraumüberwachung



CA1

P42
Display, back up monitoring
Monitor Rückraumüberwachung



Pin 1 - 12/24V DC
Pin 2 - Gnd
Pin 3 - Trigger Cam 1
Pin 4 - Trigger Cam 2
Pin 5 - Trigger Cam 3

X50
1 RD
2 BK
3 WH
4 BU
5 BN

CA1
CA2
C/

CA1
CA2
CA3

0		1	2	3	4	5	6	7	8	9
Created Erstellt	**VogtM 22.12.2016**	**BW 211-213 D-5 Deutz TCD 3.6 Tier 3a**		BOMAG FAYAT GROUP	Back up monitoring Rückraumüberwachung				Function Funktion == **SDR**	Page Blatt **51** from von **85**
Checked Geprüft	**K. Brand 22.12.2016**								Higher-level function Anlage = **OPT**	**420**
									Mounting location Einbauort + **CAB**	EPE / 000 / **00**

Pin overview
Pin Übersicht

A34				Driving Controller Fahrsteuerung		
Plug Stecker	Pin Kontakt	Page Blatt	Path Pfad	Description Beschreibung	Signal	Signal
X35	1	13	2	AGND	AGND	Analogmasse
X35	2	27	5	OUT10 / 2,5A curr.-feedb.	Travel motor axle	Fahrmotor Achse
X35	3	27	8	OUT12 / 2,5A curr.-feedb.	Travel motor drum	Fahrmotor Bandage
X35	4			RxD_1		
X35	5			TxD_1		
X35	6	26	2	AIN1 / 10V 25mA	Pressure sensor, travel pump axle MA	Drucksensor Fahrpumpe Achse MA
X35	7	26	3	AIN3 / 10V 25mA	Pressure sensor, travel pump axle MB	Drucksensor Fahrpumpe Achse MB
X35	8	33	5	AIN5 / 10V 25mA	Sensor, height adjustment plates	Sensor Höhenverstellung Platten
X35	9	24	1	AIN7 / 10V 25mA	D+ Alternator	D+ Generator
X35	10	33	6	DIN18 / 0..32V	Plate pump enable	Freigabe Plattenpumpe
X35	11	32	4	OUT20 / 2,5A curr.-feedb.	Floating position dozer blade	Schwimmstellung Planierschild
X35	12	25	5	DIN2 / 0..32V, DRZ	Speed axle	Geschwindigkeit Achse
X35	13	25	4	DIN4 / 0..32V	Direction axle	Drehrichtung Achse
X35	14	29	8	DIN6 / 0..32V	BTS brake	BTS Bremse
X35	15	25	3	DIN8 / 0..32V	Seat contact	Sitzkontakt
X35	16	25	4	DIN10 / 0..32V, DRZ	Proximity switch, arm rest right	Näherungsinitiator Armlehne rechts
X35	17	25	7	DIN12 / 0..32V	Direction drum	Drehrichtung Bandage
X35	18			DIN14 / 0..32V, DRZ		
X35	19			DIN16 / 0..32V, DRZ		
X35	20	27	3	OUT14 / 4A curr.-measur.	Travel pump drum forward	Fahrpumpe Bandage vorwärts
X35	21	27	4	OUT16 / 4A curr.-measur.	Travel pump drum backward	Fahrpumpe Bandage rückwarts
X35	22	33	7	OUT18 / 4A curr.-measur.	Vibration pump plates	Vibrationspumpe Platten
X35	23	13	2	8.5VEXT	8,5V Sensor Power	8,5V Sensor Spannung
X35	24	28	8	OUT9 / 2,5A curr.-feedb.	Relay, shut off solenoid engine	Relais Hubmagnet Abschaltung Motor
X35	25	28	8	OUT11 / 2,5A curr.-feedb.	Warning horn	Signalhorn
X35	26	15	3	CAN1_L	CAN 1 low	CAN 1 low

Plug overview
Steckerübersicht

Designation Bezeichnung	Mounting location Einbauort	Function text Funktionstext
X21	+DRUM	Plug, transducer acceleration rear Stecker Beschleunigungsaufnehmer hinten

Contact Kontakt	Page Blatt	Path Pfad	Type Typ
1	35	3	Deutsch DT 4 pole
2	35	4	
3	35	4	
4	35	3	

Designation Bezeichnung	Mounting location Einbauort	Function text Funktionstext
X25	+REFR	Plug, access double pump Stecker Anschluß Doppelpumpe

Contact Kontakt	Page Blatt	Path Pfad	Type Typ
1	26	2	Deutsch DTM 8 pole
2	26	3	
3	26	4	
4	26	4	
5	26	2	
6	27	3	
7	27	3	
8	27	4	

Designation Bezeichnung	Mounting location Einbauort	Function text Funktionstext
X26	+SEAT	Plug, potentiometer frequency plates Stecker Potentiometer Frequenzverstellung Anbauplatten

Contact Kontakt	Page Blatt	Path Pfad	Type Typ
1	29	4	AMP Mate´n´loc 3 pole white
2	29	4	
3	29	4	

Designation Bezeichnung	Mounting location Einbauort	Function text Funktionstext
X27	+PLA	Plug, quick connect coupling plates Stecker Schnellverschlußkupplung Platten

Contact Kontakt	Page Blatt	Path Pfad	Type Typ
1	33	5	
2	33	5	
3	33	4	

Designation Bezeichnung	Mounting location Einbauort	Function text Funktionstext
X28	+REFR	Plug, sensor height adjustment plates Stecker Sensor Höhenverstellung Platten

Contact Kontakt	Page Blatt	Path Pfad	Type Typ
1	33	5	Deutsch DTM 3 pole
2	33	5	
3	33	5	

Designation Bezeichnung	Mounting location Einbauort	Function text Funktionstext
X29	+REFR	Plug, access lifting unit plates Stecker Anschluß Hubwerk Platten

Contact Kontakt	Page Blatt	Path Pfad	Type Typ
1	33	7	Deutsch DTM 6 pole
2	33	6	
3	33	6	
4	33	4	
5	33	6	
6	33	6	

Designation Bezeichnung	Mounting location Einbauort	Function text Funktionstext
X30	+REFR	Plug, backup alarm buzzer Stecker Rückfahrwarnsummer

Contact Kontakt	Page Blatt	Path Pfad	Type Typ
1	28	7	Deutsch DT 2 pole
2	28	7	

Designation Bezeichnung	Mounting location Einbauort	Function text Funktionstext
X35	+EBOX	Plug, driving controller Stecker Fahrsteuerung

Contact Kontakt	Page Blatt	Path Pfad	Type Typ
1	13	2	AMP 68 pole
2	27	5	
3	27	8	
4			
5			
6	26	2	
7	26	3	
8	33	5	
9	24	1	
10	33	6	
11	32	4	
12	25	5	
13	25	4	
14	29	8	
15	25	3	
16	25	4	
17	25	7	
18			
19			
20	27	3	
21	27	4	
22	33	7	
23	13	2	
24	28	8	
25	28	8	
26	15	3	
27	15	2	
28	11	1	
29	26	4	
30	26	4	
31	33	6	
32	25	2	
33	15	5	
34	30	3	
35	25	6	
36	24	3	
37	24	5	