NOTA: Acest desen nu constituie o obligatie de aplicare de către contractor.
El reprezintă doar un exemplu de circuit de cale utilizat la CFR si nu trebuie aplicat ca atare.

NOTE: It is not compulsory for the contractor to apply this drawing. It is only an example of track circuit in use at CFR and shall not be applied as such.

Indice Index	Data Date	Modificare Modification/Revision	Proiectant Designer	Aprobat Consultant Approved Consultant	Aprobat CFR Approved CFR
D					
C					
B					
A					

GUVERNUL ROMANIEI
ROMANIAN GOVERNMENT

PROIECT FINANŢAT DE UNIUNEA EUROPEANĂ
EUROPEAN UNION FINANCED PROJECT

CLIENT / CLIENT

C.N.C.F. "C.F.R." - S.A.

ITALFERR
GRUPPO FERROVIE DELLO STATO
Joint Venture leader

Scott Wilson

OBERMEYER
PLANEN + BERATEN GmbH

TECNIC
Consulting Engineers

CONSULTANT / CONSULTANT

			Data Date	Semnătură Signature
Aprobat Approved	Şef proiect Project manager	R. Liuzza	12.12.2011	
Aprobat Approved	Coordonator Secţiune 1 Section 1 Coordinator	C. Gambelli	12.12.2011	
Verificat Checked	Expert Cheie Key Expert	P. Amodio	12.12.2011	

SUBCONTRACTANT / SUBCONTRACTOR

AREX

Aprobat Approved	Responsabil Subcontractant Subcontractant Responsible	A. Stanciu - Dinulescu	12.12.2011	
Întocmit Elaborated	Proiectant Designer	Ing. Juganaru Adriana	12.12.2011	

Reabilitarea liniei de cale ferata Braşov - Simeria, parte componentă a coridorului IV Pan European, pentru circulaţia trenurilor cu viteza maximă de 160 km/h,
Tronsonul : Braşov - Sighişoara
Rehabilitation of the railway line Braşov - Simeria, component Part of the IV Pan-European Corridor, for the trains circulation with maximum speed of 160 km/h,
Section : Braşov - Sighişoara

Proiect/Project
2004/RO/16/P/PA/003

Faza / Phase:
D.E. / D.D.

Denumire desen / Drawing Title :

Statia / Station VANATORI
Fise de montaj rama aparataj receptie 2
Wiring diagrams for receiving equipment frame 2

Codificare / Codification System	Scara / Scale Fără / No scale	LOT / LOT	Nr. / No 01/09
EA51 01 E 17 BX SE 01 7 2 015 1			

420x297=0.125mp

RAMA APARATAJ RECEPTIE (FI2)

	1	2	3	4	5	6	7	8	9
9									
8									
7	4 CI	① 4 BDE							
6	12 Sil	③ 12 BDE	14 Sil	④ 14 BDE	1 CI	① 1 BDE	III CI	② III BDE	
5	2-8 Sil	③ 2-8 BDE	4-6 Sil	② 4-6 BDE	10a Sil	④ 10a BDE	10b Sil	④ 10b BDE	
4	YF-1AD CI	② YF-1AD BDE	024 CI	④ 024 BDE	Y-1AD CI	④ Y-1AD BDE	034 CI	② 034 BDE	
	FI2–FATA					FI2–SPATE			
3	31 12-Si FC-B	32 14-Si FC-B	33 1 C FC-B	34 III-C FC-B		34A	33A	32A	31A
2	21 2-8-Si FC-B	22 4-6-Si FC-B	23 10a Si FC-B	24 10b-C FC-B		24A	23A	22A	21A
1	11 022-C FC-B	12 024-C FC-B	13 032 C FC-B	14 034-C FC-B		14A	13A	12A	11A 4 C FC-B

01	011 IP-2 YF-1AD/024	012 IP-2 Y-1AD/034	013 IP-2 2-8/4-6	014 IP-2 10a/10b	015 IP-2 12/14	016 IP-2 1/III	016A	015A	014A	013A	012A	011A IP-2 4

001	002	003	004	005	006	007	008	009	0010	0011	0012
12x100Ω/0,3A											

0012A	0011A	0010A	009A	008A	007A	006A	005A	004A	003A	002A	001A
1x100Ω/0,3A											

Statia: VANATORI

EA51 01 E 17 BX SE 017 2 015 1 2/9

420x297=0.125mp

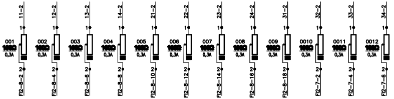
FI2–FATA

31	12 Si	32	14 Si	33	1 C	34	III–C
1	FI2–8–17	1	FI2–7–1	1	FI2–7–3	1	FI2–7–5
2	009–1	2	0010–1	2	0011–1	2	0012–1
3	015–1 61–11	3	015–5 63–11	3	016–1 65–11	3	016–5 67–11
4	015–2 61–71	4	015–6 63–71	4	016–2 65–71	4	016–6 67–71

21	2–8 Si	22	4–6 Si	23	10a Si	24	10b–SI
1	FI2–8–9	1	FI2–8–11	1	FI2–8–13	1	FI2–8–15
2	005–1	2	006–1	2	007–1	2	008–1
3	013–1 51–11	3	013–5 53–11	3	014–1 55–11	3	014–5 57–11
4	013–2 51–71	4	013–6 53–71	4	014–2 55–71	4	014–6 57–71

11	YF–1AD	12	024 C	13	Y–1AD	14	034–C
1	FI2–8–1	1	FI2–8–3	1	FI2–8–5	1	FI2–8–7
2	001–1	2	002–1	2	003–1	2	004–1
3	011–1 41–11	3	011–5 43–11	3	012–1 45–11	3	012–5 47–11
4	011–2 41–71	4	011–6 43–71	4	012–2 45–71	4	012–6 47–71

011	YF–1AD/024	012	Y–1AD/034	013	2–8/4–6	014	10a/10b	015	12/14	016	1/III
1	11–3	1	13–3	1	21–3	1	23–3	1	31–3	1	33–3
2	11–4	2	13–4	2	21–4	2	23–4	2	31–4	2	33–4
3	FI2–6–1	3	FI2–6–5	3	FI2–6–9	3	FI2–6–13	3	FI2–6–17	3	FI2–6–21
4	8 FI2–6–33	4	8 011–8	4	8 012–8	4	8 013–8	4	8 014–8	4	8 015–8
5	12–3	5	14–3	5	22–3	5	24–3	5	32–3	5	34–3
6	12–4	6	14–4	6	22–4	6	24–4	6	32–4	6	34–4
7	FI2–6–3	7	FI2–6–7	7	FI2–6–11	7	FI2–6–15	7	FI2–6–19	7	FI2–6–23
8	4 012–4	8	4 013–4	8	4 014–4	8	4 015–4	8	4 016–4	8	4 FI2–6–33


11–2
12–2
13–2
14–2
21–2
22–2
23–2
24–2
31–2
32–2
33–2
34–2
1
001
0,3A
002
0,3A
003
0,3A
004
0,3A
005
0,3A
006
0,3A
007
0,3A
008
0,3A
009
0,3A
0010
0,3A
0011
0,3A
0012
0,3A
2
FI2–8–2
FI2–8–4
FI2–8–6
FI2–8–8
FI2–8–10
FI2–8–12
FI2–8–14
FI2–8–16
FI2–8–18
FI2–7–2
FI2–7–4
FI2–7–6

Statia: VANATORI

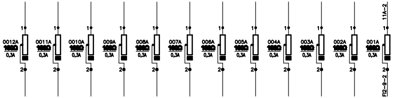
FI2–SPATE

34A		33A		32A		31A	
1		1		1		1	
2		2		2		2	
3		3		3		3	
4		4		4		4	

24A		23A		22A		21A	
1		1		1		1	
2		2		2		2	
3		3		3		3	
4		4		4		4	

14A		13A		12A		11A	4–C
1		1		1		1	FI2–9–1
2		2		2		2	001A–1
3		3		3		3	011A–1 71–11
4		4		4		4	011A–2 71–71

016A		015A		014A		013A		012A		011A	4–C
1		1		1		1		1		1	11A–3
2		2		2		2		2		2	11A–4
3		3		3		3		3		3	FI2–6–25
4		4		4		4		4		4	8 FI2–6–35
5		5		5		5		5		5	
6		6		6		6		6		6	
7		7		7		7		7		7	
8		8		8		8		8		8	4


11A–2
1
0012A
0,3A
0011A
0,3A
0010A
0,3A
009A
0,3A
008A
0,3A
007A
0,3A
006A
0,3A
005A
0,3A
004A
0,3A
003A
0,3A
002A
0,3A
001A
0,3A
2
FI2–9–2

Statia: VANATORI

RANDUL 4,5

59		58		57		56		55		54		53		52		51	
			10b BDE		10b Sil		10a BDE		10a Sil		4-6 BDE		4-6 Sil		2-8 BDE		2-8 Sil
		12	**0x220**			12	**0x220**			12	**0x220**			12	**0x220**		
		11	FI2-4-30	11	24-3	11	FI2-4-26	11	23-3	11	FI2-4-22	11	22-3	11	FI2-4-18	11	21-3
				13	**OS**			13	**OS**			13	**OS**			13	**OS**
		32	7-33			32	5-33			32	3-33			32	1-33		
		31	7-53			31	5-53			31	3-53			31	1-53		
				33	8-32			33	6-32			33	4-32			33	2-32
		52	**+24S4**			52	**+24S4**			52	**+24S2**			52	**+24S3**		
		51	**Ax220**			51	**Ax220**			51	**Ax220**			51	**Ax220**		
				53	8-31			53	6-31			53	4-31			53	2-31
		72	**OS**			72	**OS**			72	**OS**			72	**OS**		
		71	FI2-4-32	71	24-4	71	FI2-4-28	71	23-4	71	FI2-4-24	71	22-4	71	FI2-4-20	71	21-4

49		48		47		46		45		44		43		42		41	
			034 BDE		034 CI		Y-1AD BDE		Y-1AD CI		024 BDE		024 Sil		YF-1AD BDE		YF-1AD CI
		12	**0x220**			12	**0x220**			12	**0x220**			12	**0x220**		
		11	FI2-4-14	11	14-3	11	FI2-4-10	11	13-3	11	FI2- 4-6	11	12-3	11	FI2-4-2	11	11-3
				13	**OS**			13	**OS**			13	**OS**			13	**OS**
		32	7-33			32	5-33			32	3-33			32	1-33		
		31	7-53			31	5-53			31	3-53			31	1-53		
				33	8-32			33	6-32			33	4-32			33	2-32
		52	**+24S2**			52	**+24S4**			52	**+24S4**			52	**+24S2**		
		51	**Ax220**			51	**Ax220**			51	**Ax220**			51	**Ax220**		
				53	8-31			53	6-31			53	4-31			53	2-31
		72	**OS**			72	**OS**			72	**OS**			72	**OS**		
		71	FI2-4-16	71	14-4	71	FI2-4-12	71	13-4	71	FI2-4-8	71	12-4	71	FI2-4-4	71	11-4

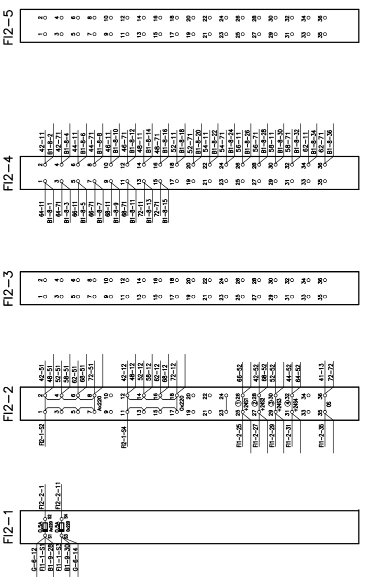
Statia: VANATORI

RANDUL 6,7

79		78		77		76		75		74		73		72		71	
															4 BDE		4 CI
		12				12				12				12	**0x220**		
		11		11		11		11		11		11		11	FI2-4-13	11	11A-3
				13				13				13				13	**OS**
		32				32				32				32	1-33		
		31				31				31				31	1-53		
				33				33				33				33	2-32
		52				52				52				52	**+24S1**		
		51				51				51				51	**Ax220**		
				53				53				53				53	2-31
		72				72				72				72	**OS**		
		71		71		71		71		71		71		71	FI2-4-15	71	11A-4

69		68		67		66		65		64		63		62		61	
			III BDE		III CI		1 BDE		1 CI		14 BDE		14 Sil		12 BDE		12 Sil
		12	**0x220**			12	**0x220**			12	**0x220**			12	**0x220**		
		11	FI2-4-9	11	34-3	11	FI2-4-5	11	33-3	11	FI2-4-1	11	32-3	11	FI2-4-34	11	31-3
				13	**OS**			13	**OS**			13	**OS**			13	**OS**
		32	7-33			32	5-33			32	3-33			32	1-33		
		31	7-53			31	5-53			31	3-53			31	1-53		
				33	8-32			33	6-32			33	4-32			33	2-32
		52	**+24S2**			52	**+24S1**			52	**+24S4**			52	**+24S3**		
		51	**Ax220**			51	**Ax220**			51	**Ax220**			51	**Ax220**		
				53	8-31			53	6-31			53	4-31			53	2-31
		72	**OS**			72	**OS**			72	**OS**			72	**OS**		
		71	FI2-4-11	71	34-4	71	FI2-4-7	71	33-4	71	FI2-4-3	71	32-4	71	FI2-4-36	71	31-4

Statia: VANATORI


F12-5
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42-11
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44-11
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46-11
B1-8-10
46-71
B1-8-12
48-11
B1-8-14
48-71
B1-8-16
52-11
B1-8-18
52-71
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54-71
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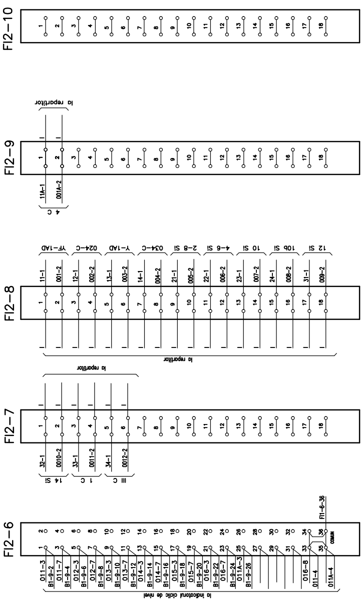
62-12
68-12
72-12
66-52
42-52
48-52
52-52
58-52
44-52
64-52
41-13
72-72
Ax220
0x220
①
②
③
④
+24S1
+24S2
+24S3
+24S4
0S
F12-1-S2
F12-1-S4
F11-2-25
F11-2-27
F11-2-29
F11-2-31
F11-2-35
F12-1
F12-2-1
F12-2-11
0.5A
Ax220
S2
S1
0.5A
0x220
S4
S3
G-6-12
F11-1-S1
B1-9-28
F11-1-S3
B1-9-30
G-6-14

Statia: VANATORI

EA51 01 E 17 BX SE 017 2 015 1 7/9

420x297=0.125mp


F12-10
F12-9
la repartitor
11A-1
001A-2
4 C
F12-8
YF-1AD
024-C
Y-1AD
034-C
2-8 Si
4-6 Si
10 Si
10b Si
12 Si
11-1
001-2
12-1
002-2
13-1
003-2
14-1
004-2
21-1
005-2
22-1
006-2
23-1
007-2
24-1
008-2
31-1
009-2
la repartitor
la repartitor
F12-7
32-1
0010-2
33-1
0011-2
34-1
0012-2
14 Si
1 C
III C
F11-6-36
F12-6
COMUN
011-3
B1-9-2
011-7
B1-9-4
012-3
B1-9-6
012-7
B1-9-8
013-3
B1-9-10
013-7
B1-9-12
014-3
B1-9-14
014-7
B1-9-16
015-3
B1-9-18
015-7
B1-9-20
016-3
B1-9-22
016-7
B1-9-24
011A-3
B1-9-26
016-8
011-4
011A-4
la indicatorul ciclic de nivel

Statia: VANATORI

EA51 01 E 17 BX SE 017 2 015 1 8/9

420x297=0.125mp

BUCLE TENSIUNI

+24S1		+24S2		+24S3		+24S4		Ax220		0x220		0S	
FI2-2-26		FI2-2-28		FI2-2-30		FI2-2-32		FI2-2-2		FI2-2-12		FI2-2-36	
66-52		42-52		52-52		44-52		42-51		42-12		41-13	
72-52		48-52		62-52		46-52		44-51		44-12		42-72	
		54-52				56-52		46-51		46-12		43-13	
		68-52				58-52		48-51		48-12		44-72	
						64-52		FI2-2-2		FI2-2-12		45-13	
								FI2-2-4		FI2-2-14		46-72	
								52-51		52-12		47-13	
								54-51		54-12		48-72	
								56-51		56-12		58-72	
								58-51		58-12		57-13	
								FI2-2-4		FI2-2-14		56-72	
								FI2-2-6		FI2-2-16		55-13	
								62-51		62-12		54-72	
								64-51		64-12		53-13	
								66-51		66-12		52-72	
								68-51		68-12		51-13	
								FI2-2-6		FI2-2-16		61-13	
								FI2-2-8		FI2-2-18		62-72	
								72-51		72-12		63-13	
												64-72	
												65-13	
												66-72	
												67-13	
												68-72	
												71-13	
												72-72	
		FI2-2-28				FI2-2-32						FI2-2-36	

Statia: VANATORI

420x297=0.125mp