

System Data for Mechanical and Electrical Coupling of Rail Vehicles



E037 Control interconnector – Auto coupler

Vehicle class	Interconnector manufacturer	Part numbers and BR catalogue numbers
Class 378	Dellner	Bombardier part number 3EER400009-7297

Pin / tube numbers and control train line functions

The following 12 sleeves and pins are low voltage (typically 5V TTL) signals

Side X1		Side X2	
Pin no.	Signal name	Pin no.	Signal name
1	WTB1A (TCMS Bus 1)	101	WTB2A (TCMS Bus 2)
2	WTB1B (TCMS Bus 1)	102	WTB2B (TCMS Bus 2)
15	WTB2A (TCMS Bus 2)	115	WTB1A (TCMS Bus 1)
16	WTB2B (TCMS Bus 2)	116	WTB1B (TCMS Bus 1)
17	PIS Databus (screen)	117	PIS Databus (screen)
30	PIS Databus (1)	130	PIS Databus (3)
31	PIS Databus (2)	131	PIS Databus (4)
43	CCTV Databus (screen)	143	CCTV Databus (screen)
56	CCTV Databus (1)	156	CCTV Databus (3)
58	Audio Speech + ve	158	Audio Speech + ve
70	CCTV Databus (2)	170	CCTV Databus (4)
71	Audio Speech - ve	171	Audio Speech - ve

The remainder of the listed contacts are 110V control signals

Side X1		Side X2	
Pin no.	Signal name	Pin no.	Signal name
6	Traction Notch 1	106	Traction Notch 1
7	Auxiliary Set	107	Auxiliary Set

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8	Pan Up / MCB Close	108	Pan Up / MCB Close
9	PA Select	109	PA Select
10	Brake Continuity	110	Brake Continuity
11	Brake Negative	111	Brake Negative
12	Electro-Pneumatic Brake Code Emergency	112	Electro-Pneumatic Brake Code Emergency
20	Fault Acknowledge	120	Fault Acknowledge
21	Spare (Connected)	121	Spare (Connected)
24	Control Negative	124	Control Negative
25	Control Negative	125	Control Negative
33	Couple Proving	133	Couple Proving
34	Traction Notch 2	134	Traction Notch 2
35	Ice Mode	135	Ice Mode
36	Signal Bell	136	Signal Bell
37	Electro-Pneumatic Brake Code 1	137	Electro-Pneumatic Brake Code 1
38	Emergency Control Positive	138	Control Positive
39	Emergency Control Positive	139	Control Positive
46	Forward	146	Reverse
47	Reverse	147	Forward
48	Traction Stop	148	Traction Stop
49	a.c. Selected	149	a.c. Selected
50	d.c. Selected	150	d.c. Selected
51	Electro-Pneumatic Brake Code 2	151	Electro-Pneumatic Brake Code 2
52	Control Positive	152	Emergency Control Positive
53	Control Positive	153	Emergency Control Positive
60	Spare (Connected)	160	Spare (Connected)
61	Emergency Lights	161	Emergency Lights
62	Spare (Connected)	162	Spare (Connected)
63	Spare (Connected)	163	Spare (Connected)
64	Traction (Door) Interlock 1	164	Traction (Door) Interlock 1
65	Traction (Door) Interlock 2	165	Traction (Door) Interlock 2
73	Door Release Left	173	Door Release Right

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74	Door Release Right	174	Door Release Left
75	Door Close RHS / LHS	175	Door Close RHS / LHS
76	Passenger Communication	176	Passenger Communication
77	Couple	177	Couple
79	Uncouple	179	Uncouple
80	Uncouple	180	Uncouple

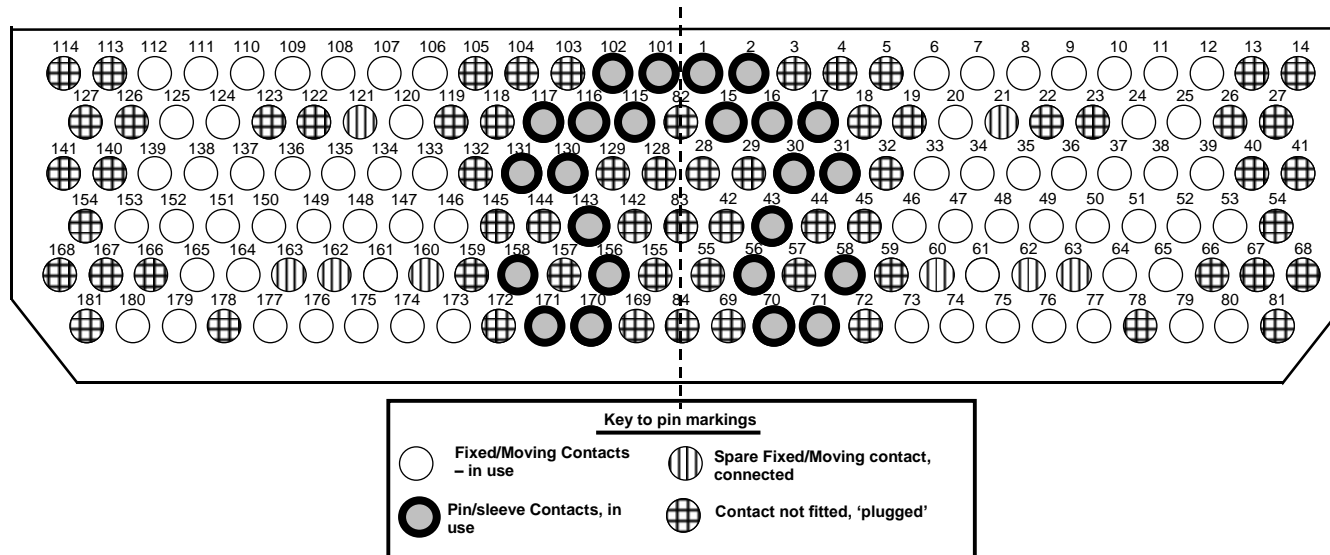
The diagram shows the layout and numbering of the Dellner coupler contacts. The diagram shows the pins / sleeve contacts, the fixed / moving contacts, the connected spare contacts and the 'plugged contacts' where a blanking plug is fitted.

Each sleeve (numbered nn) in section X1 has an equivalent pin (numbered 1nn) in section X2. Similarly each fixed contact (numbered nn) in section X1 has an equivalent moving contact (numbered 1nn) in section X2. The numbering is reflected about the vertical dotted line drawn at the centre of the coupling, passing through unused connections 82, 83 and 84. All unused locations are plugged.

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Pins or moving contacts, - X2

Sleeves or fixed contacts, - X1



Dellner Auto coupler pin numbering (viewed from front, under cover)