PR electronics

7908/7916

System 9000 Backplane

Honeywell wiring manual and I/O card reference list

No. 7900HW102-UK

DK ▶ PR electronics A/S tilbyder et bredt program af analoge og digitale signalbehandlingsmoduler til industriel automation. Programmet består af Isolatorer, Displays, Ex-barrierer, Temperaturtransmittere, Multifunktionelle transmittere mfl. Vi har modulerne, du kan stole på i selv barske miljøer med elektrisk støj, vibrationer og temperaturudsving, og alle produkter opfylder de strengeste internationale standarder. Vores motto »Signals the Best« er indbegrebet af denne filosofi – og din garanti for kvalitet.

UK ▶ PR electronics A/S offers a wide range of analog and digital signal conditioning devices for industrial automation. The product range includes Isolators, Displays, I.S. Interfaces, Temperature Transmitters, and Multifunctional Devices. You can trust our products in the most extreme environments with electrical noise, vibrations and temperature fluctuations, and all products comply with the most exacting international standards. »Signals the Best« is the epitome of our philosophy – and your guarantee for quality.

FR ▶ PR electronics A/S offre une large gamme de produits pour le traitement des signaux analogiques et numériques dans tous les domaines industriels. La gamme de produits s'étend des transmetteurs de température aux afficheurs, des isolateurs aux interfaces SI, jusqu'aux modules multifonctions. Vous pouvez compter sur nos produits même dans les conditions d'utilisation sévères, p.ex. bruit électrique, vibrations et fluctuations de température. Tous nos produits sont conformes aux normes internationales les plus strictes. Notre devise »SIGNALS the BEST« c'est notre ligne de conduite - et pour vous l'assurance de la meilleure qualité.

DE ▶ PR electronics A/S verfügt über ein breites Produktprogramm an analogen und digitalen Signalverarbeitungsgeräte für die industrielle Automatisierung. Dieses Programm umfasst Displays, Temperaturtransmitter, Ex- und galvanische Signaltrenner, und Multifunktionelle Geräte. Sie können unsere Geräte auch unter extremen Einsatzbedingungen wie elektrisches Rauschen, Erschütterungen und Temperaturschwingungen vertrauen, und alle Produkte von PR electronics werden in Übereinstimmung mit den strengsten internationalen Normen produziert. »Signals the Best« ist Ihre Garantie für Qualität!

SYSTEM 9000 BACKPLANE HONEYWELL WIRING MANUAL AND I/O CARD REFERENCE LIST

CONTENTS

SUPPORTED HONEYWELL DCS / SIS SYSTEMS & I/O CARDS

DCS system	I/O card reference	I/O type	PR system 9000 device	# Slot	PR ordering references
Experion C300	CC-TAIX01/11	16 x AI	8 x 9106xxB	1...8	7908-HoExp-A1B
			16 x 9106xxA	1...16	7916-HoExp-A1A
			8 x 9113xB	1...8	7908-HoExp-A1B
			16 x 9113xA	1...16	7916-HoExp-A1A
	Cx-TAOX01/11	16 x AO	8 x 9107xB	1...8	7908-HoExp-B1B
			16 x 9107xA	1...16	7916-HoExp-B1A
	Cx-TDIL01/11	32 x DI	16 x 9202xxB	1...16	7916-HoExp-C1B
			32 x 9202xxA	1...16	2 x 7916-HoExp-C1A*
	Cx-TDOB01/11	32 x DO	16 x 9203xxBx	1...16	7916-HoExp-D1B
			32 x 9203xxAx	1...16	2 x 7916-HoExp-D1A*
RUSIO	FC-IOTA-R24	32 x universal I/O	9106xxB	1...8	2 x 7908-HoRus-A1B
			9113xB		
			9107xB		
			9202xxB		
			9203xxBx		
			9106xxA	1...16	2 x 7916-HoRus-A1A
			9113xA		
			9107xA		
			9202xxA		
			9203xxAx		

!! Do not mix I.S. and non-I.S. devices on the same backplane

Please note:
(*) Two backplanes must be used for giving a total of 32 x DI or 32 x DO for the I/O cards.

BACKPLANE TO HONEYWELL SM-RUSIO I/O CARD WIRING

Honeywell RUSIO

The Backplane can operate with the Honeywell Remote Universal Safe IO device type SM-RUSIO DCS system via the Redundant IOTA board (FC-IOTA-R24).

The SM-RUSIO module has 32 universal safe IO channels with configurable channel function; configuration is done via the Honeywell software configuration tool Safety Builder.

Each channel on the SM-RUSIO DCS system can be configured as: Digital Input (DI), Digital Output (DO), Analog Input (AI) or Analog Output (AO).

PR Programmable Adaptor Board

PR's Backplane universal solution is based on 16 configurable channels for RUSIO DCS system. This solution will provide possibilities for the costumer to select any type of signal (AI, AO, DI and DO) for each channel individually. The configuration has been implemented as a single DIP-switch for each IO channel in the backplane, as shown in the following figure:

Table 1: 9000 Backplane Universal Channel Configuration:

Each Backplane channel is individually configurable by the corresponding DIP-switch (CH1-CH16) as follows:

Channel configuration according to SM-RUSIO DCS system operation mode	DIP 1	DIP 2	DIP 3	DIP 4	DIP 5	DIP 6
Analog Input (9106xxB/9113xB)			●	●	●	
Analog Output (9107xB)	●	●			●	
Digital Input (Non-Line-Monitored) ('9202xxB)	●	●			●	
Digital Input (Line-Monitored) (9202xxB)	●	●				●
Digital Output (9203xxBx)	●	●				●

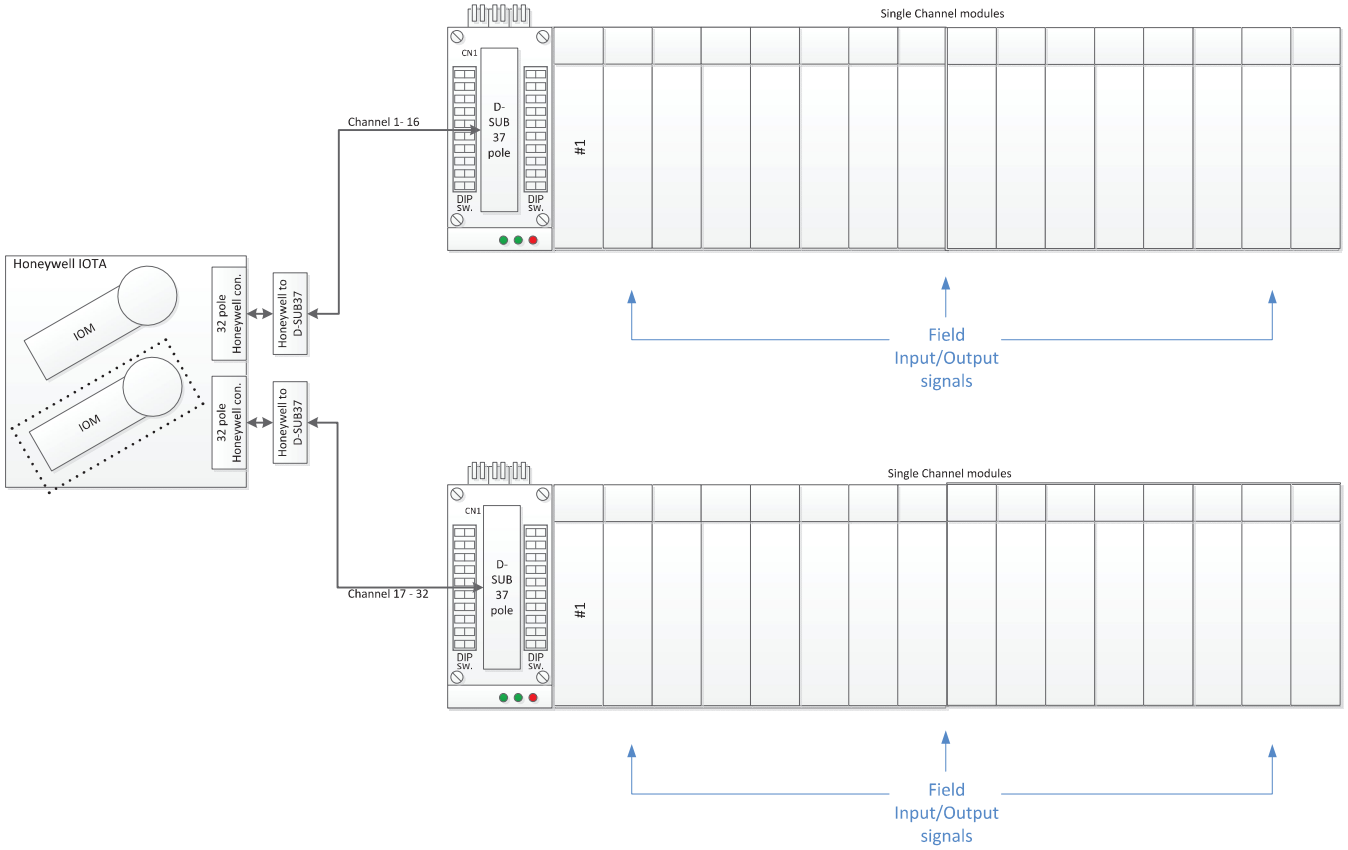
● Switch On

Please note:

*) DIP SETUP MUST BE REPEATED FOR ALL IO CHANNELS.

POWER TO THE BACKPLANE MUST BE TURNED OFF WHEN CHANGING THE DIP CONFIGURATION.

Block diagram for FC-IOTA-R24 card wiring, 32 x uni. I/O, 1 channel modules



FC-IOTA-R24 card wiring, 32 x uni. I/O, 1 channel modules, Backplane #1

9_ _ _ xxA Field equipment terminals			SUB-D37 adaptor CN1
Unit	Ch.	Supported I/O modules	
#1	1	9106xxA (*); 9107xA (*); 9202xxA (*) 9203xxAx (*); 9113xA (*)	(+) Pin 37*
			(-) Pin 19*
	2	-	-
			-
#2	1	9106xxA (*); 9107xA (*); 9202xxA (*) 9203xxAx (*); 9113xA (*)	(+) Pin 36*
			(-) Pin 18*
	2	-	-
			-
#3	1	9106xxA (*); 9107xA (*); 9202xxA (*) 9203xxAx (*); 9113xA (*)	(+) Pin 35*
			(-) Pin 17*
	2	-	-
			-
#4	1	9106xxA (*); 9107xA (*); 9202xxA (*) 9203xxAx (*); 9113xA (*)	(+) Pin 34*
			(-) Pin 16*
	2	-	-
			-
#5	1	9106xxA (*); 9107xA (*); 9202xxA (*) 9203xxAx (*); 9113xA (*)	(+) Pin 33*
			(-) Pin 15*
	2	-	-
			-
#6	1	9106xxA (*); 9107xA (*); 9202xxA (*) 9203xxAx (*); 9113xA (*)	(+) Pin 32*
			(-) Pin 14*
	2	-	-
			-
#7	1	9106xxA (*); 9107xA (*); 9202xxA (*) 9203xxAx (*); 9113xA (*)	(+) Pin 31*
			(-) Pin 13*
	2	-	-
			-
#8	1	9106xxA (*); 9107xA (*); 9202xxA (*) 9203xxAx (*); 9113xA (*)	(+) Pin 30*
			(-) Pin 12*
	2	-	-
			-

Please note:
(*) Check the device manual for correct input/output signal wiring.

9_ _ _ xxAx Field equipment terminals			SUB-D37 adaptor CN1
Unit	Ch.	Supported I/O modules	
#9	1	9106xxA (*); 9107xA (*); 9202xxA (*) 9203xxAx (*); 9113xA (*)	(+) Pin 29*
			(-) Pin 11*
	2		-
			-
#10	1	9106xxA (*); 9107xA (*); 9202xxA (*) 9203xxAx (*); 9113xA (*)	(+) Pin 28*
			(-) Pin 10*
	2		-
			-
#11	1	9106xxA (*); 9107xA (*); 9202xxA (*) 9203xxAx (*); 9113xA (*)	(+) Pin 27*
			(-) Pin 9*
	2		-
			-
#12	1	9106xxA (*); 9107xA (*); 9202xxA (*) 9203xxAx (*); 9113xA (*)	(+) Pin 26*
			(-) Pin 8*
	2		-
			-
#13	1	9106xxA (*); 9107xA (*); 9202xxA (*) 9203xxAx (*); 9113xA (*)	(+) Pin 25*
			(-) Pin 7*
	2		-
			-
#14	1	9106xxA (*); 9107xA (*); 9202xxA (*) 9203xxAx (*); 9113xA (*)	(+) Pin 24*
			(-) Pin 6*
	2		-
			-
#15	1	9106xxA (*); 9107xA (*); 9202xxA (*) 9203xxAx (*); 9113xA (*)	(+) Pin 23*
			(-) Pin 5*
	2		-
			-
#16	1	9106xxA (*); 9107xA (*); 9202xxA (*) 9203xxAx (*); 9113xA (*)	(+) Pin 22*
			(-) Pin 4*
	2		-
			-

Please note:

(*) Check the device manual for correct input/output signal wiring.

FC-IOTA-R24 card wiring, 32 x uni. I/O, 1 channel modules, Backplane #2

9_ _ _ xxAx Field equipment terminals			SUB-D37 adaptor CN1
Unit	Ch.	Supported I/O modules	
#1	1	9106xxA (*); 9107xA (*); 9202xxA (*) 9203xxAx (*); 9113xA (*); 9116xx (*, **)	(+) Pin 37*
			(-) Pin 19*
	2	-	-
			-
#2	1	9106xxA (*); 9107xA (*); 9202xxA (*) 9203xxAx (*); 9113xA (*); 9116xx (*, **)	(+) Pin 36*
			(-) Pin 18*
	2	-	-
			-
#3	1	9106xxA (*); 9107xA (*); 9202xxA (*) 9203xxAx (*); 9113xA (*); 9116xx (*, **)	(+) Pin 35*
			(-) Pin 17*
	2	-	-
			-
#4	1	9106xxA (*); 9107xA (*); 9202xxA (*) 9203xxAx (*); 9113xA (*); 9116xx (*, **)	(+) Pin 34*
			(-) Pin 16*
	2	-	-
			-
#5	1	9106xxA (*); 9107xA (*); 9202xxA (*) 9203xxAx (*); 9113xA (*); 9116xx (*, **)	(+) Pin 33*
			(-) Pin 15*
	2	-	-
			-
#6	1	9106xxA (*); 9107xA (*); 9202xxA (*) 9203xxAx (*); 9113xA (*); 9116xx (*, **)	(+) Pin 32*
			(-) Pin 14*
	2	-	-
			-
#7	1	9106xxA (*); 9107xA (*); 9202xxA (*) 9203xxAx (*); 9113xA (*); 9116xx (*, **)	(+) Pin 31*
			(-) Pin 13*
	2	-	-
			-
#8	1	9106xxA (*); 9107xA (*); 9202xxA (*) 9203xxAx (*); 9113xA (*); 9116xx (*, **)	(+) Pin 30*
			(-) Pin 12*
	2	-	-
			-

Please note:
(*) Check the device manual for correct input/output signal wiring.

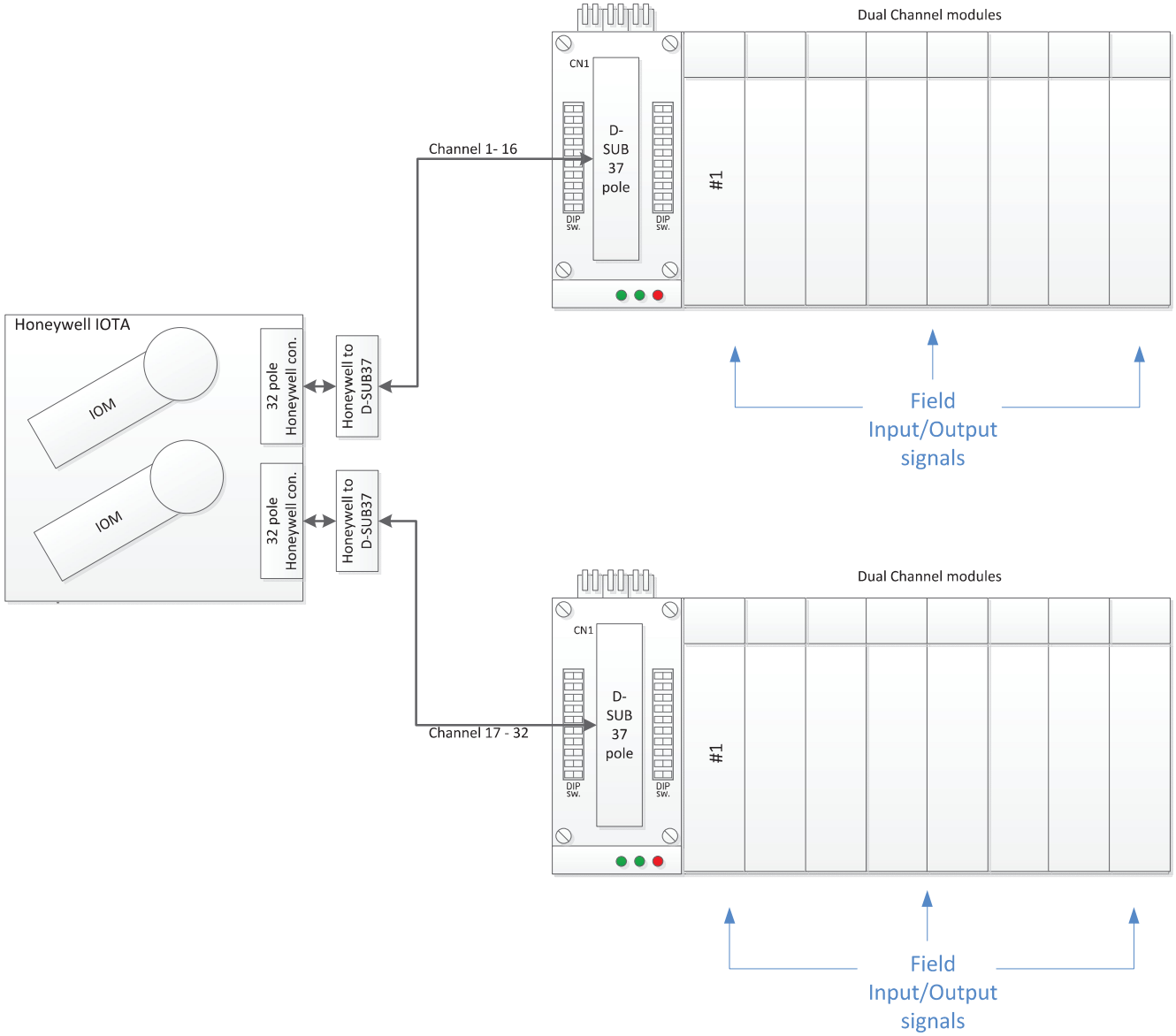
9_ _ _ xxAx Field equipment terminals			SUB-D37 adaptor CN1
Unit	Ch.	Supported I/O Modules	
#9	1	9106xxA (*); 9107xA (*); 9202xxA (*) 9203xxAx (*); 9113xA (*); 9116xx (*, **)	(+) Pin 29*
			(-) Pin 11*
	2	-	-
			-
#10	1	9106xxA (*); 9107xA (*); 9202xxA (*) 9203xxAx (*); 9113xA (*); 9116xx (*, **)	(+) Pin 28*
			(-) Pin 10*
	2	-	-
			-
#11	1	9106xxA (*); 9107xA (*); 9202xxA (*) 9203xxAx (*); 9113xA (*); 9116xx (*, **)	(+) Pin 27*
			(-) Pin 9*
	2	-	-
			-
#12	1	9106xxA (*); 9107xA (*); 9202xxA (*) 9203xxAx (*); 9113xA (*); 9116xx (*, **)	(+) Pin 26*
			(-) Pin 8*
	2	-	-
			-
#13	1	9106xxA (*); 9107xA (*); 9202xxA (*) 9203xxAx (*); 9113xA (*); 9116xx (*, **)	(+) Pin 25*
			(-) Pin 7*
	2	-	-
			-
#14	1	9106xxA (*); 9107xA (*); 9202xxA (*) 9203xxAx (*); 9113xA (*); 9116xx (*, **)	(+) Pin 24*
			(-) Pin 6*
	2	-	-
			-
#15	1	9106xxA (*); 9107xA (*); 9202xxA (*) 9203xxAx (*); 9113xA (*); 9116xx (*, **)	(+) Pin 23*
			(-) Pin 5*
	2	-	-
			-
#16	1	9106xxA (*); 9107xA (*); 9202xxA (*) 9203xxAx (*); 9113xA (*); 9116xx (*, **)	(+) Pin 22*
			(-) Pin 4*
	2	-	-
			-

Please note:

(*) Check the device manual for correct input/output signal wiring.

(**) Check table 1 for the correct channel configuration.

Block diagram for FC-IOTA-R24 card wiring, 32 x uni. I/O, 2 channel modules



FC-IOTA-R24 card wiring, 32 x uni. I/O, 2 channel modules, Backplane #1

9_ _ _ xxBx Field equipment terminals			SUB-D37 adaptor CN1
Unit	Ch.	Supported I/O modules	
#1	1	9106xxA (*); 9107xA (*); 9202xxA (*) 9203xxAx (*); 9113xA (*)	(+) Pin 37*
			(-) Pin 19*
	2		(+) Pin 36*
			(-) Pin 18*
#2	1	9106xxA (*); 9107xA (*); 9202xxA (*) 9203xxAx (*); 9113xA (*)	(+) Pin 35*
			(-) Pin 17*
	2		(+) Pin 34*
			(-) Pin 16*
#3	1	9106xxA (*); 9107xA (*); 9202xxA (*) 9203xxAx (*); 9113xA (*)	(+) Pin 33*
			(-) Pin 15*
	2		(+) Pin 32*
			(-) Pin 14*
#4	1	9106xxA (*); 9107xA (*); 9202xxA (*) 9203xxAx (*); 9113xA (*)	(+) Pin 31*
			(-) Pin 13*
	2		(+) Pin 30*
			(-) Pin 12*
#5	1	9106xxA (*); 9107xA (*); 9202xxA (*) 9203xxAx (*); 9113xA (*)	(+) Pin 29*
			(-) Pin 11*
	2		(+) Pin 28*
			(-) Pin 10*
#6	1	9106xxA (*); 9107xA (*); 9202xxA (*) 9203xxAx (*); 9113xA (*)	(+) Pin 27*
			(-) Pin 9*
	2		(+) Pin 26*
			(-) Pin 8*
#7	1	9106xxA (*); 9107xA (*); 9202xxA (*) 9203xxAx (*); 9113xA (*)	(+) Pin 25*
			(-) Pin 7*
	2		(+) Pin 24*
			(-) Pin 6'
#8	1	9106xxA (*); 9107xA (*); 9202xxA (*) 9203xxAx (*); 9113xA (*)	(+) Pin 23*
			(-) Pin 5*
	2		(+) Pin 22*
			(-) Pin 4*

Please note:

(*) Check the device manual for correct input/output signal wiring.

FC-IOTA-R24 card wiring, 32 x uni. I/O, 2 channel modules, Backplane #2

9_ _ _ xxBx Field equipment terminals			SUB-D37 adaptor CN1
Unit	Ch.	Supported I/O modules	
#1	1	9106xxA (*); 9107xA (*); 9202xxA (*) 9203xxAx (*); 9113xA (*)	(+) Pin 37*
			(-) Pin 19*
	2		(+) Pin 36*
			(-) Pin 18*
#2	1	9106xxA (*); 9107xA (*); 9202xxA (*) 9203xxAx (*); 9113xA (*)	(+) Pin 35*
			(-) Pin 17*
	2		(+) Pin 34*
			(-) Pin 16*
#3	1	9106xxA (*); 9107xA (*); 9202xxA (*) 9203xxAx (*); 9113xA (*)	(+) Pin 33*
			(-) Pin 15*
	2		(+) Pin 32*
			(-) Pin 14*
#4	1	9106xxA (*); 9107xA (*); 9202xxA (*) 9203xxAx (*); 9113xA (*)	(+) Pin 31*
			(-) Pin 13*
	2		(+) Pin 30*
			(-) Pin 12*
#5	1	9106xxA (*); 9107xA (*); 9202xxA (*) 9203xxAx (*); 9113xA (*)	(+) Pin 29*
			(-) Pin 11*
	2		(+) Pin 28*
			(-) Pin 10*
#6	1	9106xxA (*); 9107xA (*); 9202xxA (*) 9203xxAx (*); 9113xA (*)	(+) Pin 27*
			(-) Pin 9*
	2		(+) Pin 26*
			(-) Pin 8*
#7	1	9106xxA (*); 9107xA (*); 9202xxA (*) 9203xxAx (*); 9113xA (*)	(+) Pin 25*
			(-) Pin 7*
	2		(+) Pin 24*
			(-) Pin 6*
#8	1	9106xxA (*); 9107xA (*); 9202xxA (*) 9203xxAx (*); 9113xA (*)	(+) Pin 23*
			(-) Pin 5*
	2		(+) Pin 22*
			(-) Pin 4*

Please note:

(*) Check the device manual for correct input/output signal wiring.