

iCall LB-Receiver

This new BOSCH Local Bus receiver unit is developed in cooperation with BOSCH. This BOSCH receiver is connected to the Local Bus using a 4 wire connection. The BOSCH receiver is programmed as one address on the bus, which can contain up to a maximum of 50. All wireless call points can be integrated to the iCall system without the use of a server. A second transparent mode is integrated, so all received data could also be sent directly to the Netrix.

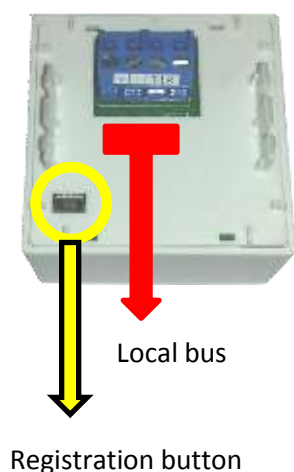
**General system description**

The local bus is a four wire bus that can be connected to any cable structure. Bus topology, star topology or a combination of both can be used. The maximum total cable length between the IP-units and the furthest LB-units on the bus is 1000m or the lowest voltage at the LB-units Tx or Rx wire is 18V DC. The four wire bus is composed of one wire conducting 24V DC, one wire serving as GND, one wire serving as Rx and one wire serving as Tx. The IP-unit can support up to 50 LB-units per bus. If there are more than 50 LB-units an additional IP unit is needed and another bus needs to be created.

Transmitters

CRS-SB-423FI	F.01U.066.665	S37 (434.01) with black button
CRS-NC-S37-RD	F.01U.140.055	S37 (434.01) with red button
CRS-NC-S37-RS	F.01U.140.052	S37 (434.01) with cancel function
CRS-NC-S37-RD-RS	F.01U.140.056	S37 (434.01) with red button and cancel function
CRS-NC-S35	F.01U.140.045	S35 U (434.01) with pull cord
CRS-NC-S35-RS	F.01U.140.047	S35 U (434.01) with cancel function
CRS-NC-MD	F.01U.140.035	Man Down
CRS-NC-N46	F.01U.140.037	Wall transmitter N46 (434.01)
CRS-NC-N46-2R	F.01U.140.038	Wall transmitter N46 (434.01) with 2 relays
CRS-NC-N46-PR	F.01U.140.083	Wall transmitter N46 (434.01) with presence
CRS-NC-N46-2R-PR	F.01U.140.039	Wall transmitter N46 (434.01) with 2 relays and coded Key
CRS-NC-WSD	F.01U.140.044	Smoke detector SD (434.01)
CRS-NC-RAC	F.01U.140.059	contact RAC (434.01)
CRS-NC-S37L	F.01U.140.049	S37L-Locator (434.01)
CRS-NC-S37L-WD	F.01U.140.050	S37L-Locator (434.01) without dementia alarm
CRS-NC-S37L-OD	F.01U.140.051	S37L-Locator (434.01) only dementia alarm
CRS-NC-S37L-WM	F.01U.140.053	S37L-Locator (434.01) without alarm button
CRS-NC-S37L-EX	F.01U.140.054	S37L-Locator Extended (434.01)
CRS-NC-S37E-ACC	F.01U.140.093	Accompaniment S37E

Connections



Name	Description
R	Rx data line
T	Tx data line
-	GND
+	+24V DC

Order information

NWBAES4900 iCall LB-Receiver BOSCH

Version		V0.1					
Bosch Coupler							
General Absolute Maximum Ratings !			min	typ	max	unit	
	Supply Voltage		V _{CC} (LocalBus)	18	24	30	V
	Supply Current forward		I _{fVCC LB}	45	45,5	75	mA
	Operating Temperature (ambient)		T _{amb}	0	-	70	°C
	Maximum reverse voltage		V _{r VCC LB}	-	-	40	V
	Leakage current (reverse)		I _{r VCC LB}	-	-	15 *	µA
Mechanical properties							
Group	Symbol	Parameter		min	typ	max	unit
Dimensions	H x W x D	PCB's		-	36 x 50 x 50	-	mm
				-	1417 x 1968,5 x 1968,5	-	mil
		Housing		-	33 x 55,7 x 55,9	-	mm
				-	1299 x 2193 x 2200	-	mil
		Totoal (Housing with ring and frame)		-	37 x 81 x 81	-	mm
				-	1456,7 x 3189 x 3189	-	mil
Weight	M	Total weight	IndigoCare PCB	-	16	-	g
				-	0,56	-	ounce
			Bosch PCB	-	15	-	g
				-	0,53	-	ounce
			Both PCB's	-	31	-	g
				-	1,09	-	ounce
			Total PCB's + housing	-	55	-	g
				-	1,94	-	ounce
Material	Housing material Reference Doc : .datasheet PolyIac PA-707.pdf	Type of material	ABS			-	
		Tensile Elongation	-	15	-	%	
		Tensile Strength	-	500	-	Kg/cm2	
			-	7090	-	lb/in2	
		Vicat Softening Temp	-	105	-	°C	
			-	221	-	°F	
		impact strength (1/4", 23°C)	-	14	-	Kg-cm/cm	
		PCB	Type of material	FR-4, Td>=325°C, T260>=60', T288>=5', CTEz<=3.7%, Tg>=135°C			-

Electrical properties							
Group	Symbol	Parameter	State	min	typ	max	unit
Power	V _{cc} (LocalBus)	Supply voltage	Local Bus PWR	18	24	30	V
	I _{cc} (Coupler PCB)	Current consumption	V _{cc} = 18V	-	26,15	-	mA
			V _{cc} = 24V	-	26,21	-	mA
			V _{cc} = 30V	-	26,29	-	mA
	I _{cc} (Coupler + Bosch)		standby ; V _{cc} = 18V	45,5	45,62	48,2	mA
			standby ; V _{cc} = 24V	45,3	45,45	48,2	mA
			standby ; V _{cc} = 30V	45,02	45	48,1	mA
			transceiving ; V _{cc} = 18V	-	56	-	mA
			transceiving ; V _{cc} = 24V	-	55	-	mA
			transceiving ; V _{cc} = 30V	-	54	-	mA
	P _{tot} (Coupler PCB)	V _{cc} = 18V	-	470,7	-	mW	
		V _{cc} = 24V	-	629,0	-	mW	
		V _{cc} = 30V	-	788,7	-	mW	
	P _{tot} (Coupler + Bosch)	Power consumption	standby ; V _{cc} = 18V	819	821,2	867,6	mW
			standby ; V _{cc} = 24V	1087,2	1090,8	1156,8	mW
			standby ; V _{cc} = 30V	1350,6	1350,0	1443	mW
transceiving ; V _{cc} = 18V			-	1008,0	-	mW	
transceiving ; V _{cc} = 24V			-	1320,0	-	mW	
transceiving ; V _{cc} = 30V	-	1620,0	-	mW			
General properties							
Group	Parameter		condition	min	typ	max	unit
Tranceiver	frequency		Tx / Rx	-	434,0	-	MHz
	Send Power		Tx / Rx	-	2	-	mW
	Transmission Range		Tx (open field)	250	-	-	m
	273.40			-	-	yd	
	Transmission Pulse		Tx	-	< 1	-	s
Modulation		Tx / Rx	-	FSK	-	-	
Thermal properties							
Group	Symbol	Parameter	refers to	min	typ	max	unit
Thermal	T _{amb}	Operating temperature	ambient	0	25	45	°C
	-	flamability rating UL94	plastic	32	77	113	°F
Regulations							
Parameter			condition	Compliance			
EMC (immunity, radiated , conducted)				measurement result (ref doc. EMC- Bosch Coupler.doc)			
ESD				not yet performed			
FCC				not yet performed			

* V_{reverse}=30V & T_{amb}=25°C