



# 2N® Helios IP Audio Kit

Voice communication for all equipment



## Offer your customers convenience



Have you ever wondered just how many misunderstandings could have been avoided if you could have communicated directly with a customer who needs assistance with the car park pay point in a shopping centre? By simply pressing a button the customer could call and ask for help.

With the 2N® Helios IP Audio Kit solution, you can now afford your customers the convenience of a live attendant, and be a step ahead of the competition!

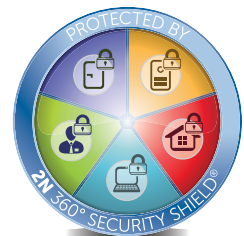
This compact module offers a range of interfaces as in microphone, loudspeaker, button and keyboard connections with universal inputs and outputs for controlling lighting or barriers.

### Why choose the 2N® Helios IP Audio Kit?

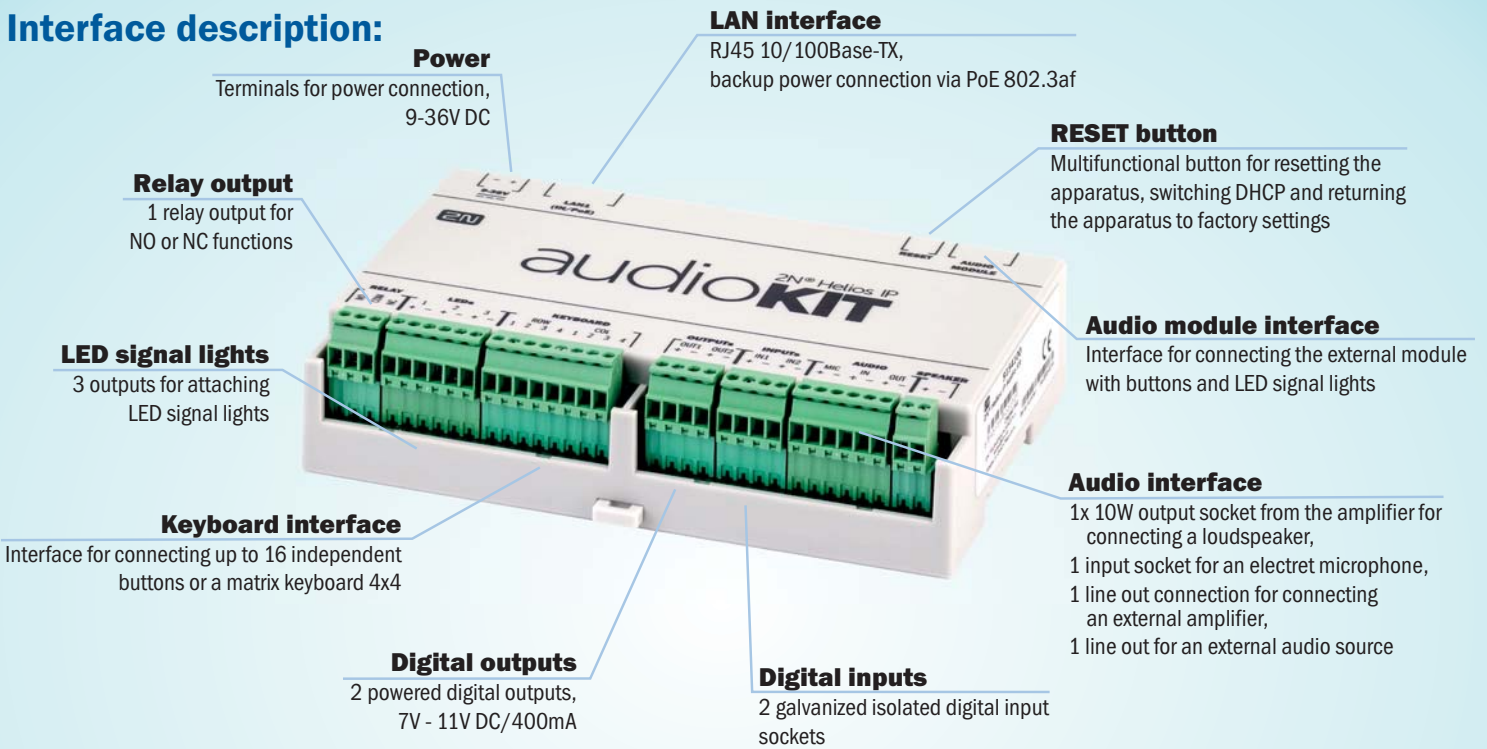
- Communication using SIP 2.0 protocol
- Integrated web server for easy configuration
- Power supply via PoE or from an external source
- Wide connectivity options
- Powerful, 10W amplifier
- Outputs for 3 LED signal lights

### Use:

- **Parking systems**  
Communications functionalities for gates, barrier control and pay points.
- **Information points**  
Information boards with the capability of immediate connection with a vacant hotel or taxi service.
- **Emergency communication points**  
Built-in intercoms.
- **Industrial furnishings**  
Workplace equipment with a built-in intercom to alert the foreman or maintenance staff quickly.
- **Cash dispensers**  
Make immediate contact with the bank possible if your card has been retained.



## Interface description:



### Power

Terminals for power connection,  
9-36V DC

### LAN interface

RJ45 10/100Base-TX,  
backup power connection via PoE 802.3af

### RESET button

Multifunctional button for resetting the  
apparatus, switching DHCP and returning  
the apparatus to factory settings

### Relay output

1 relay output for  
NO or NC functions

### Audio module interface

Interface for connecting the external module  
with buttons and LED signal lights

### LED signal lights

3 outputs for attaching  
LED signal lights

### Audio interface

1x 10W output socket from the amplifier for  
connecting a loudspeaker,  
1 input socket for an electret microphone,  
1 line out connection for connecting  
an external amplifier,  
1 line out for an external audio source

### Keyboard interface

Interface for connecting up to 16 independent  
buttons or a matrix keyboard 4x4

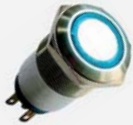
### Digital outputs

2 powered digital outputs,  
7V - 11V DC/400mA

### Digital inputs

2 galvanized isolated digital input  
sockets

## Accessories possible:



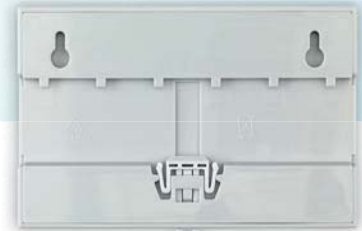
Illuminated button



Microphone



Loudspeaker



Wall-mounting bracket or on DIN rail

## Technical parameters:

<b>Signalling protocol</b>		SIP 2.0 (UDP)
<b>Audio stream</b>		
Protocols	RTP/RTSP	
Codecs	G.711	
Volume control	adjustable with automatic adaptive settings	
Full duplex	Yes (AEC)	
<b>Power source</b>		
From external source	Type 12V DC (9 - 36V DC), max. 2A	
PoE	802.3af (Class 0 - Max. 12.95W)	
<b>LAN interface</b>		
Number of LAN interfaces	1	
PoE	802.3af	
Parameters	10/100BASE-TX with Auto-MDIX, RJ-45	
Recommended cable sizes	Cat-5e or better	
<b>Audio interface</b>		
Microphone input	Normal electret microphone	
Amplifier output	Class D amplifier, MONO output socket, THD < 1% Max. 10W/4Ω Max. 5W/8Ω Max. 2.5W/16Ω	
Line out socket	600Ω	
<b>Button/keyboard interface</b>		
Number of buttons	Up to 16 independent buttons in 4 x 4 matrix	
Matrix outputs	4 (ROW1-4 terminals) $U_{out} < 0.1V (L), U_{out} > 3.2V (H)$ , max. 8mA	
Matrix inputs	4 (COL1-4 terminals) $U_{in} < 1.1V (L), U_{in} > 2.15V$ , max. $U_{in} = 5V$	
<b>LED control outputs</b>		
Number of outputs	3 (LED1+-, LED2+- a LED3+- terminals)	
Output current	Typ. 20mA	
Output voltage	Max. 12V (see note 1)	
<b>Digital outputs</b>		
Number of outputs	2 (OUT1+- a OUT2+- terminals)	
Type of output	Powered output socket with short-circuit protection	
Output voltage	12V (see note 1)	
Active output	7V - 11V DC/400mA	
<b>Logic inputs</b>		
Number of inputs	2 (IN1+- a IN2+- terminals)	
Input type	Galvanized, isolated inputs (opto-isolators)	
Parameters	$U_{in} < 1.1V (L), U_{in} > 3V (H)$ , max. $U_{in} = 32V$	
<b>Relay output</b>		
Number of outputs	1 (NC, NO, COM terminals)	
Limit parameters (DC)	Max. 30VDC/1A	
Limit parameter (AC)	Max. 125VAC/0.3A	
<b>Mechanical properties</b>		
Operating temperature	-40 °C - 55 °C	
Operating relative humidity	10% - 95% (not-condensing)	
Storage temperature	-40 °C - 70 °C	
Dimensions	142x98x34 mm (order no. 9154100) 138x90x26 mm (order no. 9154101)	
Weight	order no. 9154100 max. 280g, order no. 9154101 max. 150g	
Protection cover grade	IP20 (order no. 9154100), IP00 (order no. 9154101)	
Mounting	on wall or on DIN rail	

Note: If power supply from adapter does not reach 12V,  
then the output voltage will be limited to voltage level supplied to the unit.



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