

Smart Deactivator

Manual UL

MANUAL SMART DEACTIVATOR ACCORDING TO UL REGULATIONS

- SMART DEAC Mounting
- SMART DEAC Wiring
- Appendix 1 : Quick Reference

Technical Support



Email:



support-eas@nedap.com

Postal address:

N.V. Nederlandsche Apparatenfabriek "NEDAP", Parallelweg 2, 7141DC, Groenlo, The Netherlands

Safety precautions:

	CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN	
CAUTION: TO REDUCE THE RISK OF ELECTRICAL SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED NEDAP SERVICE PERSONNEL.		

  EN 50419:2005	<p>This European Standard specifies a marking</p> <ul style="list-style-type: none">• of electrical and electronic equipment in accordance with Article 11(2) of Directive 2002/96/EC (WEEE); This is in addition to the marking requirement in Article 10(3) of this Directive which requires producers to mark electrical and electronic equipment put on the market after 13 August 2005 with a 'crossed-out wheeled bin' symbol.• that applies to electrical and electronic equipment falling under Annex IA of Directive 2002/96/EC, provided the equipment concerned is not part of another type of equipment that does not fall within the scope of this Directive. Annex IB of Directive 2002/96/EC contains an indicative list of the products, which fall under the categories set out in Annex IA of this Directive;• that serves to clearly identify the producer of the equipment and that the equipment has been put on the market after 13 August 2005.
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1 Introduction

N.V. Nederlandsche Apparatenfabriek “Nedap”, hereafter called “Nedap”, is manufacturer of one of the most reliable and scalable EAS Systems in the market today.

With a Nedap EAS system you are able to reduce shoplifting costs to a minimum in combination with Nedap’s tagging solutions.

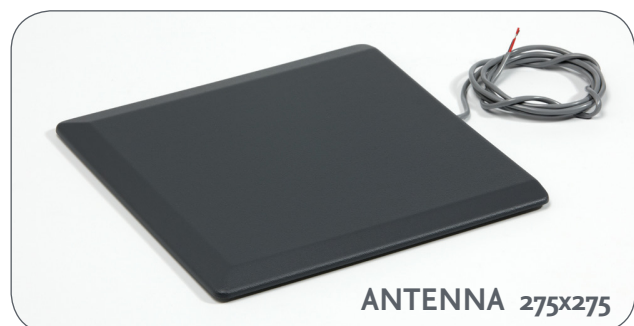
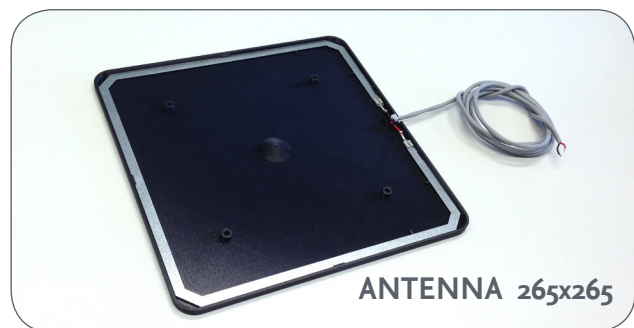
The Nedap Smart Deactivator, also called SMART DEAC, is meant for deactivation of disposable 8.2MHz RF labels.

It detects RF labels and hard tags in range of the deactivator antenna and tries to deactivate the rf labels until they are deactivated.

Some of the Smart Deactivator advantages are:

1. Constant optimal deactivation distance, independent of the tag frequency between 7.2 – 8.8 MHz
2. Deactivation behavior programmable with switches
3. Detect only Mode
4. Deactivation on input
5. Forced deactivation on input
6. Short repeating acoustical feedback for successful deactivation, continuous beep when deactivation is unsuccessful or when a hard tag is detected.
7. Prepared for connectivity in RS485 bus structure
8. Sends only a deactivation burst when a tag is detected; Low energy consumption
9. Through air synchronization with Nedap OS/T systems and other SMARTDEAC ‘s

The SMART DEAC produces an acoustic and visual signal when it detects and / or deactivates an operating RF label or hard tag.



2 System overview

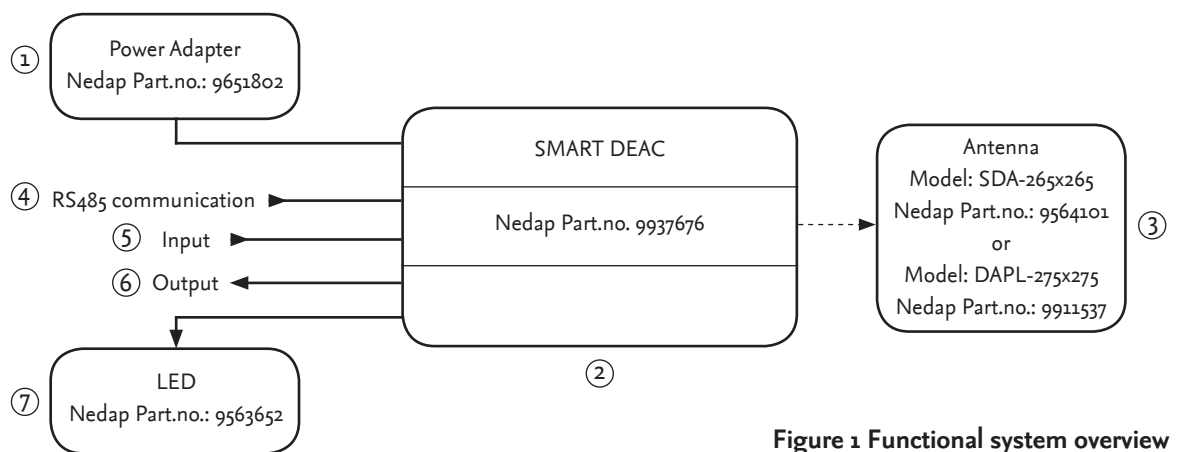


Figure 1 Functional system overview

The SMART DEAC system (Figure 1) consists of the following components:

1. AC/DC Power adapter Wall Mount 100 – 240 VAC / 12 VDC Nedap Part.no.: (9551802)
2. Smart Deactivator electronics (9937676)
3. Antenna including cable - Model: SDA-265x265 (9564101) or Model: DAPL-275x275 (9911537)
4. RS485 connection to communicate with the SMART DEAC
5. Input for functionality to be defined
6. Output for functionality to be defined
7. LED for visual indication (9563652)

The SMART DEAC system is plug & play. You only have to follow the next steps:

- Install the Smart Deactivator system according to the instructions;
- Power up the Smart Deactivator system;
- Check the functionality; by deactivating a RF label above the antenna and check it for an audio signal.
- Call Nedap EAS Support for quick hands-on problem solution in case of unforeseen trouble (see Technical Support on page 2)

3 Installation instructions

The SMART DEAC electronics unit must be powered with a NEC class2 type power source like the NEDAP AC/DC power adapter 100~240Vac/12V dc NEDAP part number 9651802.

Always place the unit near a power outlet (less than 1 meter / 3.3 feet), the power outlet should be easily accessible, also after installation.

All the outputs from the SMART DEAC are NEC class2 outputs, output voltages will be 12Vdc or less.

The inputs may only be connected to class2 powered system.

The SMARTDEAC must be mounted on a solid, nonflammable surface, using all mounting holes and proper mounting material, according to local regulations.

All wiring should be done according to local regulations.

External LED

An external LED can be connected to the connector pins marked LED + and -. We recommend the use of an UL recognized LED like the APEM red panel mount indicator led type Q14F1CXXR02.

(V_{forward} 1,6v +/-10% and I_{forward} max. 20mA)

The LED output is current limited and short-circuit protected.

4 Regulatory declaration

Compliance statements (part15.19)

This device complies with part 15 of the FCC Rules and to RSS210 of Industry Canada.

Operation is subject to the following two conditions:

- (1) this device may not cause interference, and
- (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Warning (part15.21)

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This in particular is applicable for the antenna which can be delivered with the SMART DEAC System.

RF Exposure (OET Bulletin 65)

To comply with FCC RF exposure requirements for mobile transmitting devices, this transmitter should only be used or installed at locations where there is at least 20cm / 8" separation distance between the antenna and all persons.

Information to the User (Part 15.106(b))

Note: This equipment has been tested and found to comply with the limits for a class B digital devices, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequent energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment causes harmful interference to radio or television reception, which can be determined by turning the equipment off and on , the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult your local Nedap Business Partner or
- Consult the dealer of the radio communication device(s) or an experienced radio/TV technician for help.

5 Specifications SMART DEAC

Environmental

Description				
Material Construction	Aluminium			
Protection Class	IP20			
	Min.	Typical	Max.	Condition
Operating frequency	7.5 MHz	8.2 MHz	8.8 MHz	
Operational temperature	0 °C / 32 °F		40 °C / 104 °F	
Storage temperature	-10 °C / 14 °F		+70 °C / 158 °F	
Relative Humidity	20 %		90 %	non-condensing
Operating Distance		0.3 m / 12"		Tag-dependant

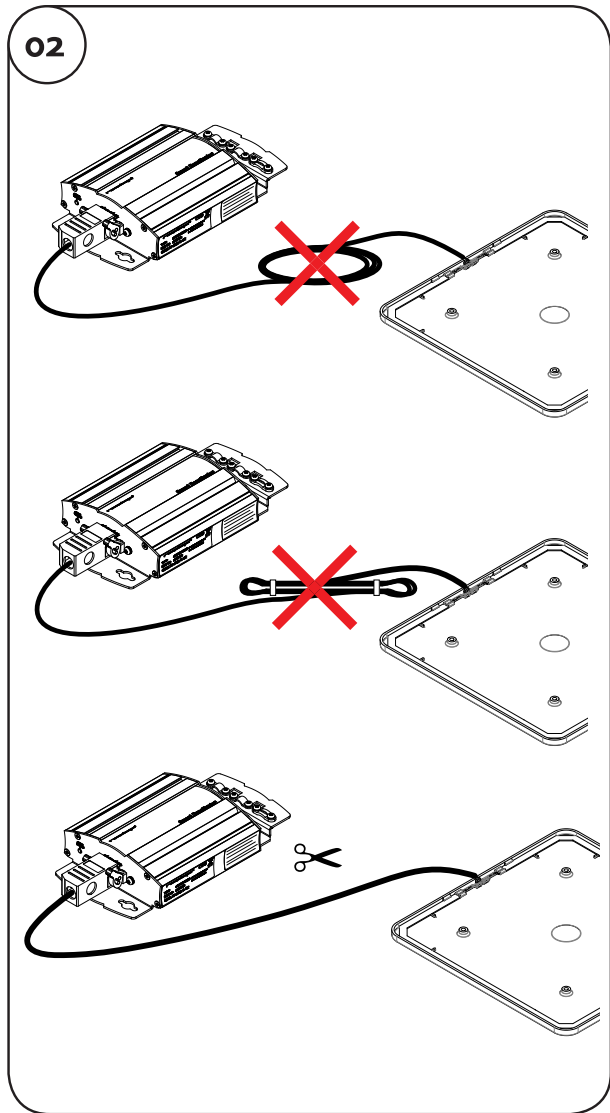
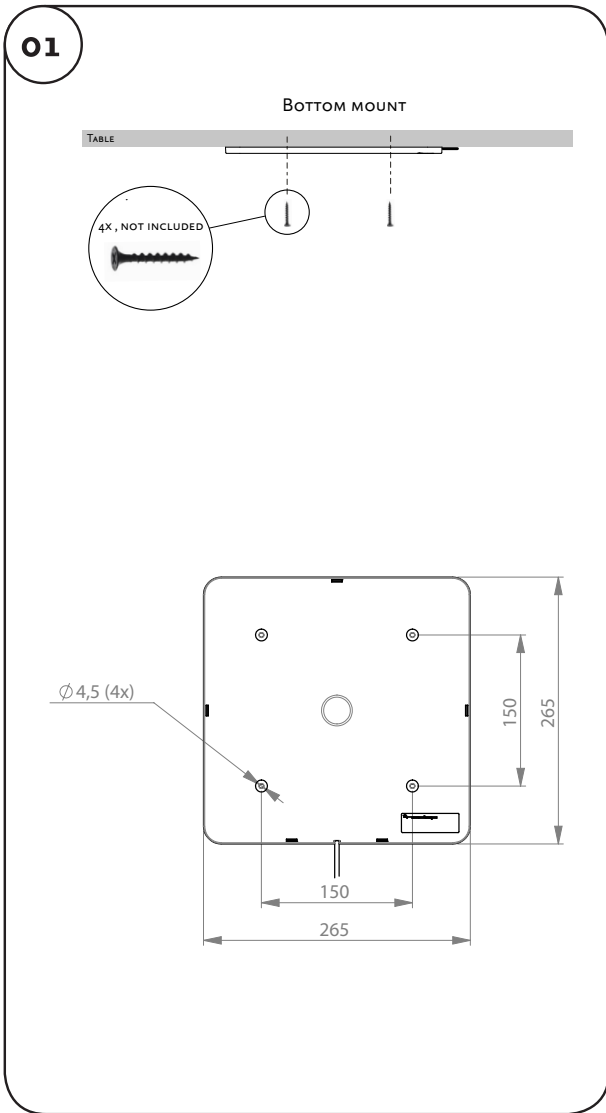
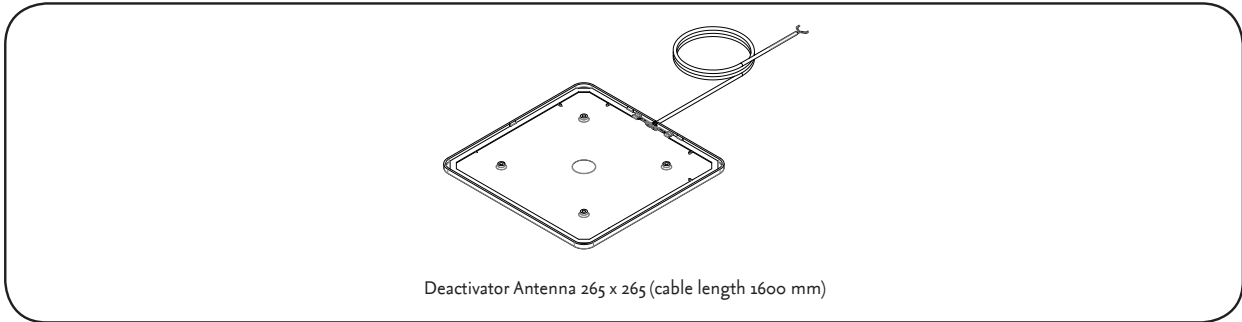
Input Requirements and electrical specifications

Description				
	Min.	Typical	Max.	Condition
Input Voltage	90 VAC	100-240	264 VAC	Full Range; 50/60Hz
Input Current	0.35 A	-	0.7 A	264 VAC - 90 VAC
Line Frequency	47 Hz	50-60 Hz	63 Hz	-
Operation Voltage				
Power		3 W		230 VAC 50Hz

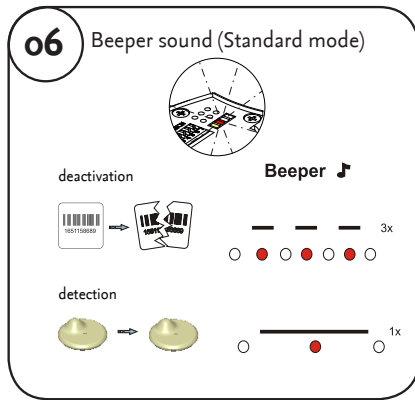
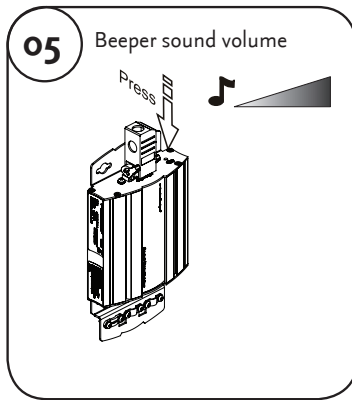
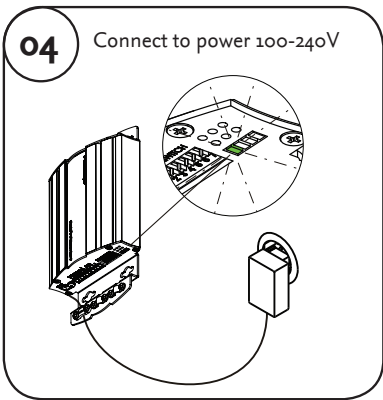
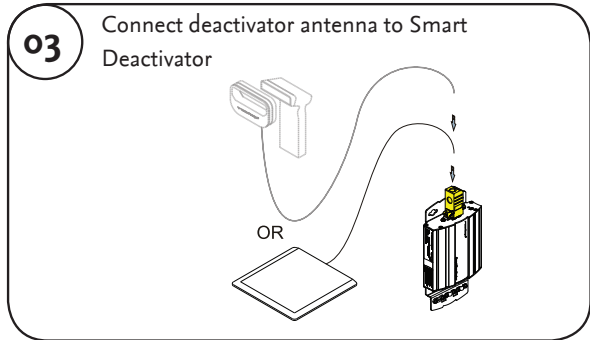
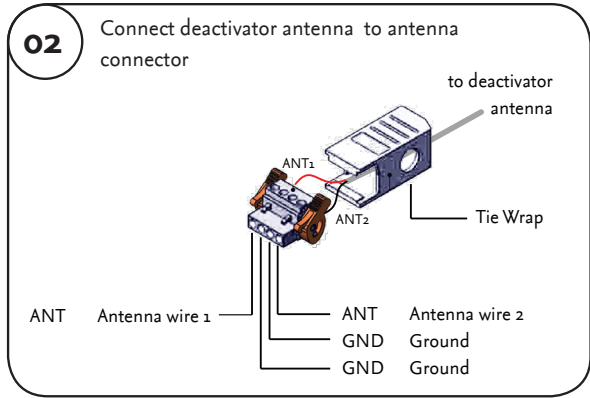
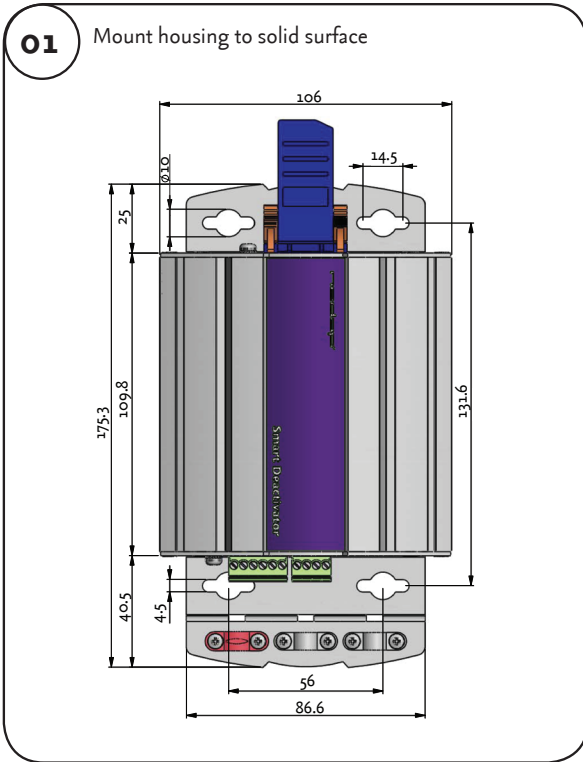
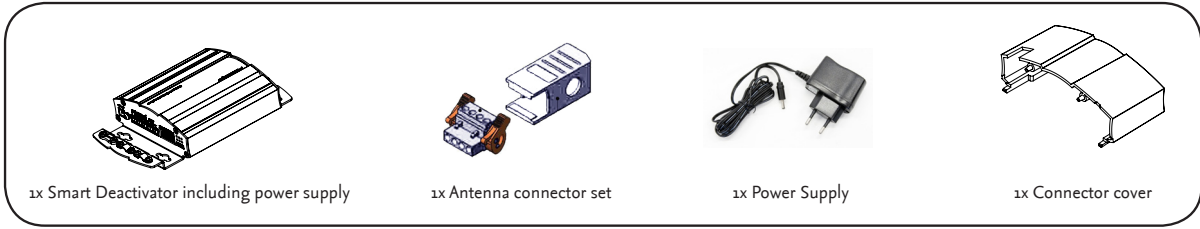
Regulations


Safety approvals of the Power Adapter
<ul style="list-style-type: none"> cULus according to UL/CSA 60950-1 CB according to IEC60950-1 TUV EN60950-1 (2006) NEC Class 2 CE Europe according to EN300330 Japan PSE
Telecom system approval
<ul style="list-style-type: none"> Canada IC according to RSS210 IC ID:1444A-SMARTDEAC US according to FCC Part 15 FCC ID:CGDSMARTDEAC CE according to EN300330 Japan pending
In compliance with Human exposure assessment according to:
<ul style="list-style-type: none"> EN62369-1 and EN50364 ICNIRP Guidelines IEEE C95.1 RSS102 ARIB STD-38 IEC62369-1
Electromagnetic compatibility
<ul style="list-style-type: none"> EN 301 489 (Emission according to EN55022) IEC 61000-6-2 IEC 61000-6-3 CISPR 22

Deactivator Antenna 265x265



	GROENLO THE NETHERLANDS	DSGN : CB
		DATE : 27 FEBRUARY 2014 12:08 PM
QUICK REFERENCE : ANTENNA 265X265	Copyright © by N.V. Nederlandsche Apparatenfabriek NEDAP. No part of this drawing may be reproduced or distributed in any form or by any means, or stored in a data base or retrieval system without the prior written permission of NEDAP.	REV : A
		ARTICLE NO : 9741704
		PAGE : 1 OF 1
		DRAWING : T9741704-45.01



 retail GROENLO - HOLLAND	DRW: CB 2013/05/29
	CHK:
DESCRIPTION: QUICK REF. SMART DEACTIVATOR ART. NO. 9200002	DOC. ARTICLE NO: 5276802
	REV. : B.03
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	DRAWING: T9937-676

GND	Power connector: Ground
+12V	Power Connector +12V DC
LED +	LED Output Connector +
LED -	LED Output Connector -
Out C	Output Common
Out NO	Normal Open
Inp A	Input Anode
Inp K	Input Kathode
+12V	5 - 12V
RS485 A	+ It is possible, by using a special RS485 converter and software, to adjust some settings.
RS485 B	RS485 Connector A
GND	RS485 Connector B

Program Switch settings version v6.8, version label on bottom of unit)

1	Standard mode	LED Yellow LED Orange	Low after deactivation High at input signal
2	Line Termination RS485		
3	Detect only mode	LED Yellow LED Orange	Low after detection Flash
4	Output after 10 seconds of detection	LED Yellow LED Orange	High after 10 seconds detection not used
5	Forced deactivation, for 90 seconds after input signal	LED Yellow LED Orange	High after 10 seconds detection High during deactivation
6	Input used as switch for buzzer volume	LED Yellow LED Orange	low after deactivation High at input signal
7	Counting output inverted - Standard mode	LED Yellow LED Orange	High pulse after deactivation not used
8	Detect only - Output inverted	LED Yellow LED Orange	High pulse after detection Flash
9	Deactivation only if input is high (software > 6.3)	LED Yellow LED Orange	High pulse after detection High during deactivation
10	Low = Standard sensitivity (Software > 6.4) High = Low sensitivity		
11	(software V7.0) DLL mode - Transaction Controlling		
12	(software V7.0) Version: >V7.5 4 = low Address 1 (standard) 4 = high Address 2		

Settings only for use with iSense
Version: >V7.6

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RENOS	RS485	SMART DEACTIVATOR	RS485
+12V	→		→
A	→		B
B	→		A
GND	→		-

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Smart-Deactivator 1	1 2 3 4 5 6 7 8	3 = No Line Termination 4 = Low Address 1
Smart-Deactivator 2	1 2 3 4 5 6 7 8	3 = Line Termination RS485 4 = High Address 2

Antenna connector side

Connector side

Status LEDs

- Green = Power
- Red = Label detected -> flash (Standard mode)
- Yellow = Label deactivated -> 3 flashes (Standard mode)
- Orange = Output LED
- White = Status LED

Depending on dipswitch settings, LED behaviour can be different. (See Program switch settings)



parallelweg 2d
nl-7141 dc groenlo
the netherlands
t +31 (0) 544 471555
f +31 (0) 544 465814
e info-rs@nedap.com
i www.nedap-retail.com

www.nedap.com