Indoor Proxpoint reader with keypad/display

Description

Indoor proximity card reader & keypad, with built-in Proxpoint antenna, designed for the FOXnet® security panel. An external Proxpoint antenna, fitted for outdoor use, can be connected to this device as satellite unit.

Technical specifications

Antenna
Power supply: 5 ~16VDC
Current consumption: 35mA (average); 60mA (peak)
Read range: up to 9.5cm (PROXCARD II ®)
up to 4.3cm (PROXKEY II ™)
up to 5.8cm (ISOPROX ™)
Dimensions: 79.6x43x13mm
Operating temperature: -30 ~ +65°C
Relative humidity: 95% (non condensing)
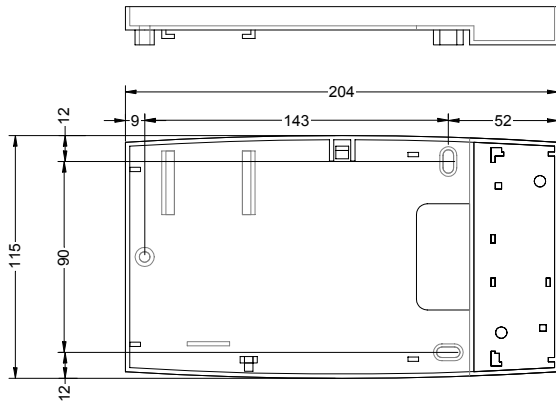
Reader interface
Power supply: 9~14VDC
Display: LCD display, 2x24 characters, with backlight
Keyboard: silicone rubber keyboard, with backlight, including numeric keys and menu keys
Current consumption: 18mA (idle); 90mA (when operated)
Additional current when all LED indicators on: 32mA
Dimensions: (see figure)

Settings

General:
SW1 (RST): shorten these pins momentary to reset the processor.
Trimmer R4: LCD display contrast adjustment

EEPROM settings:
Plug an EEPROM (address 0 through 7) in base U2 of the reader. Since EEPROM default settings are not compatible with the series of HID readers, EEPROM settings need to be modified applying the dedicated EEPROM programmer. Following parameters are related to the operation of the reader:

DeviceAddr	number from 0 through 7, unique with respect to other readers / control panels
CardFormat	3 (W26) or 4 (W37). By default, this parameter is set to 2, and needs to be modified! Only readers from version 1.07 on can process the W37 card format. Furthermore, the programmer V1.01 or higher is required to select this format.
ExtBuzzer	1
ExtLed	1
Doorlock	'door locked' feedback contact (terminal 7) (0= NC, 1= NO) . Default value= 0
Closing time	0 through 255 sec. Delay during which the door should be locked after closing it. Default value= 5
Standalone	0 (not allowed), 1 (allowed; access only to cards with a preset facility code; this selection is only allowed for W26 cards) or 2 (allowed; access to all cards with correct data format) . Default value= 0
RelayTime	1 through 255 sec. (door unlock time during stand-alone mode) . Default value= 5
FacilCode	facility code (see the parameter *stand-alone*) . Default value= 000

For more detailed information on how to use the programmer, consult data sheet 19530810.
If the address has been changed, jot it down on the sticker that is fixed on the EEPROM.
Connect the reader to the FOXnet system, observing the wiring diagram. Check if the red LED blinks (communication!) before closing the reader.

Proxpoint antenna mounting instructions

To install the external Proxpoint antenna, first remove its cover. The antenna should be fixed with two screws. Finally, place back the cover. The antenna can be placed directly on a metallic surface. Since the electronic circuit is completely sealed, it will resist harsh weather conditions. Apply a shielded cable to connect the antenna to the reader interface. The cable length should be limited to 150m.
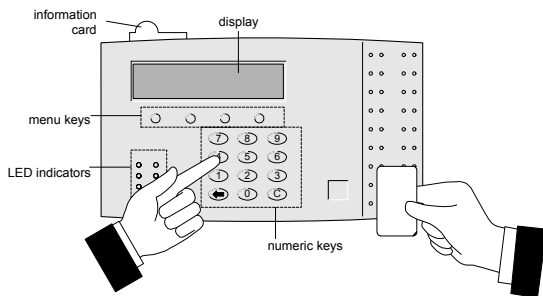
RS-485 Wiring instruction

The discussed device is connected to an RS-485 bus. The total length of the RS485 cable is limited to 1200m; interconnecting at most 32 devices. When selecting a cable, the power line should have a sufficient wire gauge with respect to the total current consumption of all connected devices (ex. a shielded or unshielded alarm cable 2x0.75mm² + 2x0.22mm²). No stubs are allowed on an RS485 line.

General wiring instructions for proximity readers

- ❑ the complete installation should only be connected to ground at one point (single point grounding). Normally, this is done on the security system. The 0V output of local power supplies should never be connected to earth. Be sure that you use a proper grounding (low resistance).
- ❑ to avoid interference's, the cables of the antenna should be placed at a distance of at least 30 cm from other cables, such as high voltage lines, door lock power lines, etc.
- ❑ do not install the antenna in the vicinity of monitors (a minimum distance of 2 meters should be kept). Furthermore, take precautions when installing the antenna in areas susceptible to broad spectrum EMI noise (known sources of this type of noise are electrical motors, DC-AC converters, AC switching relays, etc.).

Operation of the main reader

This unit can be set up to operate as:
- ▪ Card reader
- ▪ Card reader with keypad
- ▪ Keypad

This selection is specified in the FOXnet Configurator.

This unit can also be instructed to switch to a control panel when recording a valid card. This option allows card holders to operate the alarm system before entering the secured area (for instance switching off the alarm detectors). The door will only be unlocked when leaving the user's menu.

Access can be authorised in two ways:
by presenting a card and/or typing a code
- ▪ move the card slowly towards the antenna until it is read.
- ▪ Enter a 5-digits pin code using the numeric keys; correct any mistake with the backspace (←) key.
- ▪ When both a card and a pin code are required, the card should always be presented first
- ▪ Generate a duress alarm by incrementing or decrementing the last digit of your code by 1.

by operating the push button
- ▪ the door will only be unlocked if the push button is enabled.

The reader status is indicated on the LCD display. This same display is used to show the user's menu when the reader switches to a control panel.

Time limit on unclosed door
Leaving the door open for a longer time then authorised will trigger an alarm. This time limit can be adjusted in the FOXnet panel. The reader will turn on an audible warning before making an alarm. The duration of this warning will be set to 30% of the programmed time, with a maximum of 1 minute.

Activate lamp test
When the reader is idle, a lamp test can be triggered by simultaneously pressing the numeric keys 0 and 1. This test will activate all indicators and the internal buzzer.

Operation of the external Proxpoint antenna

The bicolor LED indicator on the antenna turns red to indicate that the antenna is ready to read a card.
For best results, hold the proximity card parallel to the antenna. Move the card slowly towards the antenna until it is read. If the card is recognized, the LED indicator will turn green for a short time. If the card is authorized to enter, the door will be released.
During normal use, the card may be presented to the antenna at a slight angle. This will result in a loss of read range.

Inputs

Dev Addr	inputs							
	du	-	ti	slot	kf	inb	ta	prs
0	256	257	258	259	260	261	262	263
1	264	265	266	267	268	269	270	271
2	272	273	274	275	276	277	278	279
3	280	281	282	283	284	285	286	287
4	288	289	290	291	292	293	294	295
5	296	297	298	299	300	301	302	303
6	304	305	306	307	308	309	310	311
7	312	313	314	315	316	317	318	319

du   duress alarm
ti   door unclosed for too long
slot bolt position (if available on door lock)
kf   door contact fault (DC input shorted or disconnected)
inb intrusion alarm
ta   tamper alarm
prs device disconnected

To list the settings of all inputs, related to a reader, type the command line BL,PNL,*reader*

Outputs

Dev Addr	outputs							
	bl		vr	st		na	acc	
0	256	257	258	259	260	261	262	263
1	264	265	266	267	268	269	270	271
2	272	273	274	275	276	277	278	279
3	280	281	282	283	284	285	286	287
4	288	289	290	291	292	293	294	295
5	296	297	298	299	300	301	302	303
6	304	305	306	307	308	309	310	311
7	312	313	314	315	316	317	318	319

bl   no access
vr   free access
st   current door state (1= door currently unclosed)
na   card refused (pulse)
acc card accepted (pulse)

To list the status on all outputs, related to a reader, type the command line CM,PNL,*reader*

Ordering information

Proxpoint reader/keypad (complete set, with built-in Proxpoint antenna): 49820250

Satellite Proxpoint reader (antenna mounted in standard reader casing 112x116x40mm): 49820460
Cap for satellite reader (required for outside mounting):17021750

ProxPoint antenna (can be connected as satellite reader): 19140390

Printed circuit board 1618009_: 39540210
Silicone rubber keyboard: 19040150
EEPROM programmer: 49820201
Set of 8 EEPROMS (with addresses from 0 through 7): 49826900

WARNING: all card readers and card reader printed circuit boards are shipped without any EEPROM!
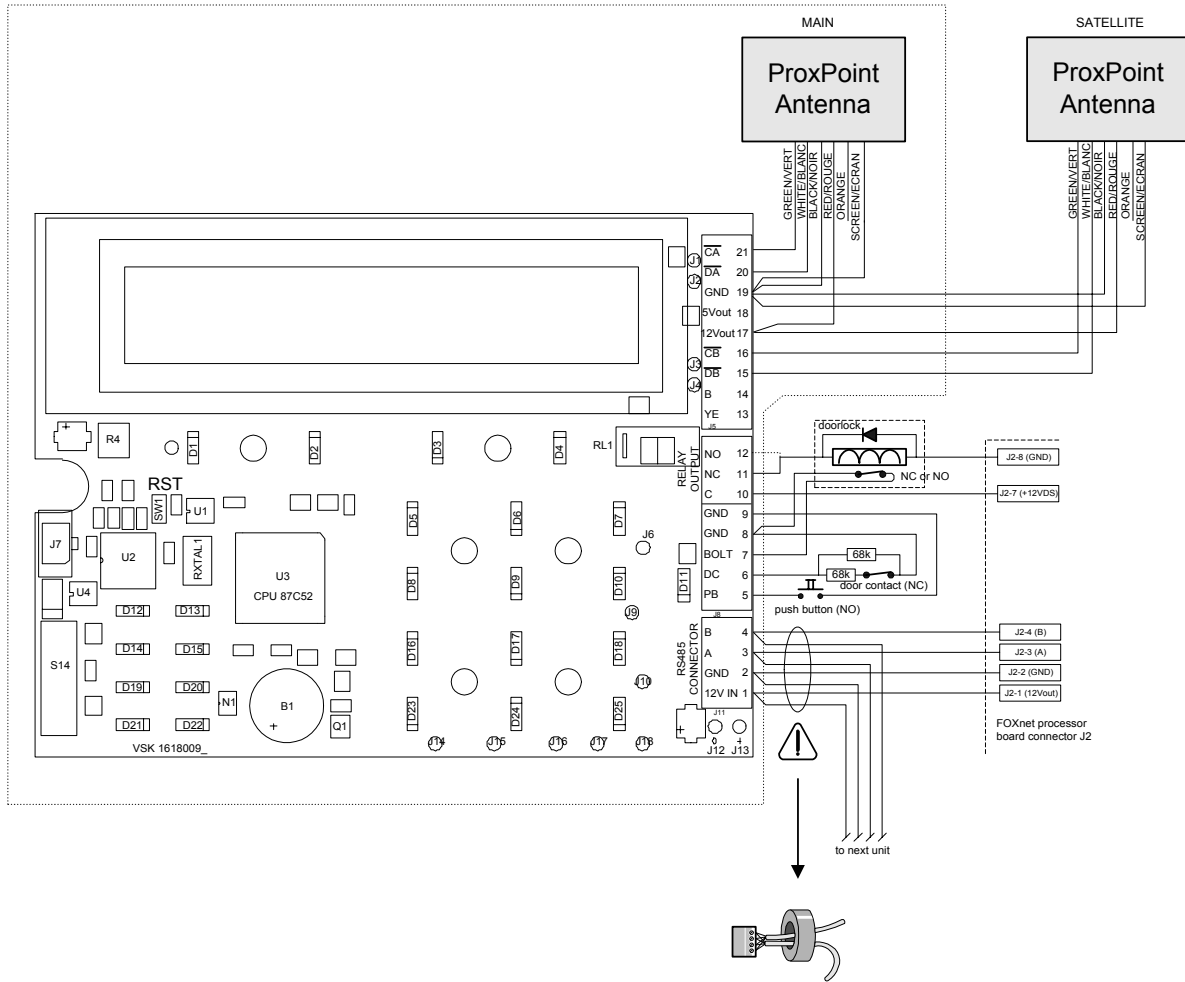
Ordering information (VdS approved range)

On VdS approved units LED 7 is replaced by a green LED and LED 8 is replaced by a yellow LED .

Proxpoint reader/keypad (complete set, with built-in Proxpoint antenna), VdS approved: 49820260
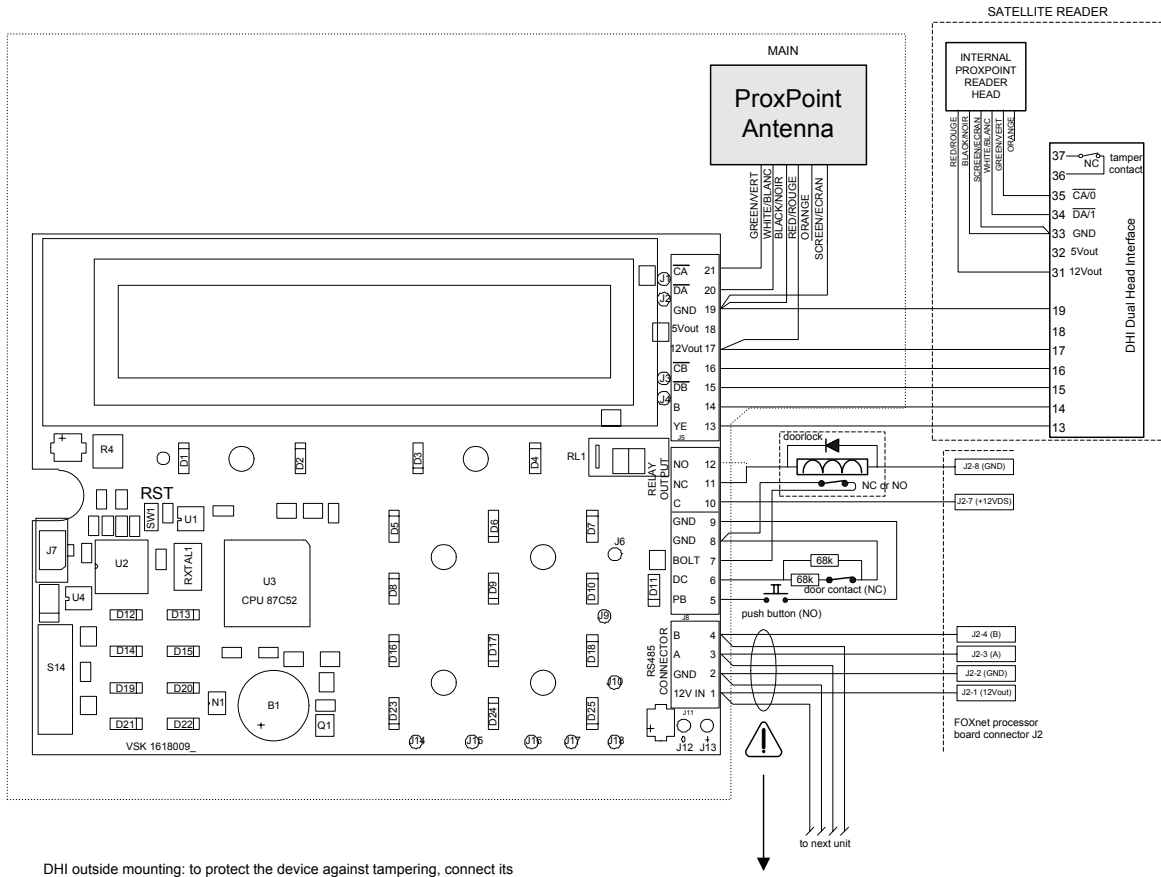
Wiring diagram 1 (with satellite antenna 19140390)

A ferrite is included with reader 49820250. It should be fitted as indicated in the wiring diagram below.
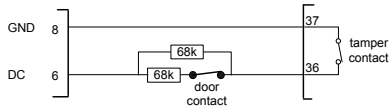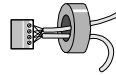

insert ferrite around connection cable for EMC requirements
voer aansluitkabel door ferrietkern voor EMC compatibiliteit
passez câble de raccordement à travers d'une ferrite pour des raisons de compatibilité CEM

SATELLITE READER

INTERNAL
PROXPOINT
READER
HEAD

MAIN

ProxPoint
Antenna

DHI Dual Head Interface

37 NC tamper contact
36
35 CA/0
34 DA/1
33 GND
32 5Vout
31 12Vout

CA 21
DA 20
GND 19
5Vout 18
12Vout 17
CB 16
DB 15
B 14
YE 13

RELAY OUTPUT
NO 12
NC 11
C 10

GND 9
GND 8
BOLT 7
DC 6
PB 5

RS485 CONNECTOR
B 4
A 3
GND 2
12V IN 1

doorlock

NC or NO

J2-8 (GND)

J2-7 (+12VDS)

68k
door contact (NC)
push button (NO)

J2-4 (B)
J2-3 (A)
J2-2 (GND)
J2-1 (12Vout)

FOXnet processor
board connector J2

to next unit

VSK 1618009_

DHI outside mounting: to protect the device against tampering, connect its
tamper contact in series with the door contact.
DHI als buitenlezer: teneinde de lezer te beschermen tegen vandalisme plaatst
u het tamper contact in serie met het deurcontact .
DHI montage à l'extérieur: afin de détecter le vandalisme, connectez le contact
d'autoprotection en série avec le contact de porte.

insert ferrite around connection cable for EMC requirements
voer aansluitkabel door ferrietkern voor EMC compatibiliteit
passez câble de raccordement à travers d'une ferrite pour des raisons de
compatibilité CEM

GND 8
DC 6

68k
68k
door contact

37
36
tamper contact