

# Art. 4850R Expansion Proximity Reader Module for the GSMPRO

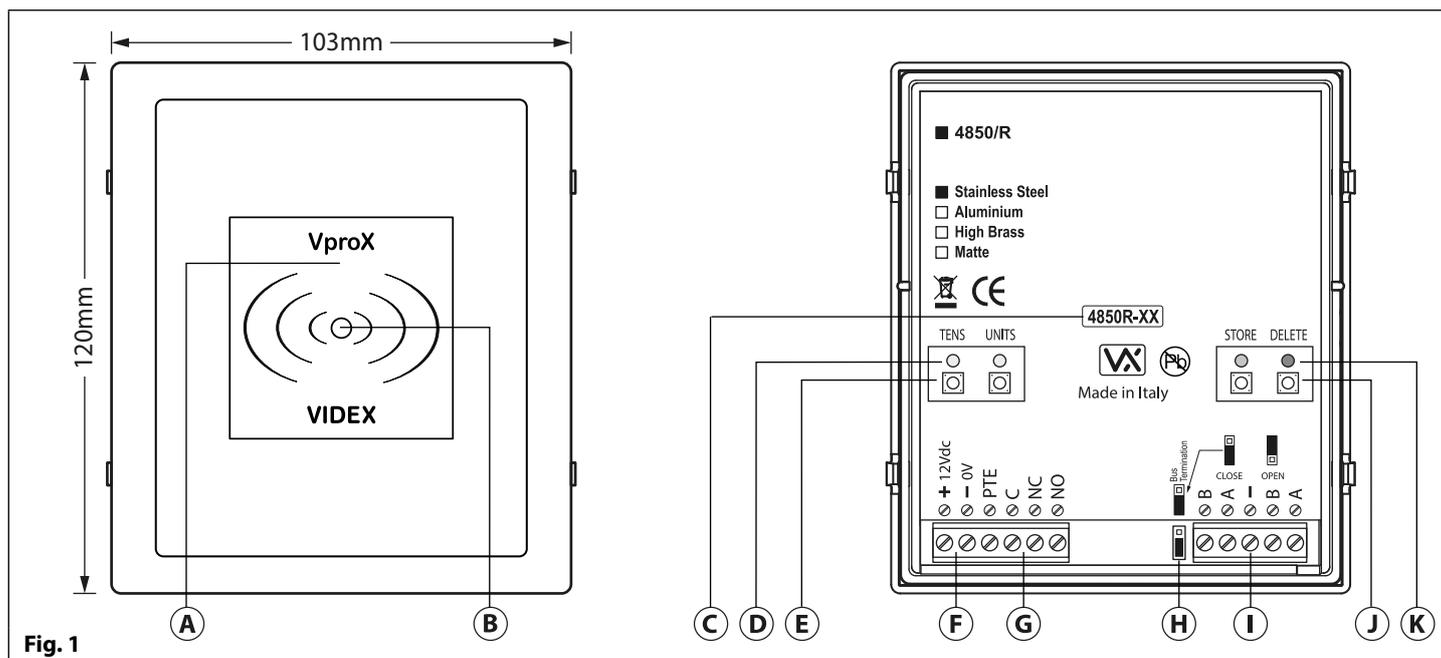


Fig. 1

## DESCRIPTION

The Art.4850R is an expansion proximity reader, **Fig.1**, that can be connected to the Art.4810 GSM intercom (3G and 4G versions) via the RS485 bus connection. It allows the GSM intercom to have up to 7 additional proximity access doors or can be used with a combination of proximity and coded access using the Art.4903 keypad (up to a total of 8 devices with the GSM's onboard reader as device ID.1).

The front of the module has a tri-colour LED to indicate to the user the status of the reader (amber = standby, green = access granted and red = access denied).

When connected to the GSM via the RS485 bus it can be programmed by sending SMS text messages, refer to technical manuals **GSM4KCR\_66250754-EN\_V1-3** (for the 3G version) and **GSM4K\_66250754-4G-EN\_V2-0** (for the 4G version) or by using the GSM SK PC software (refer to manual: **GSM SK\_66251720-EN\_V2-2** or later).

It has a single onboard relay with common (C), normally open (NO) and normally closed (NC) connections and a switched 0V push to exit input (PTE) to enable the activation of the relay. The relay operating time can be set for 01 - 99 seconds or 00 for latching and can be programmed by using a combination of the tens, units and store buttons on the back of the module (also refer to **programming the relay time** on page 2). Presenting a programmed fob will activate the relay for the programmed relay time. The relay can also be activated via a push to exit button (configured as a push-to-make switch) when connected across - and PTE. It should also be noted that when the relay time has been set for latching (00) the push to exit button will operate as a "toggle" switch to latch the relay open and latch the relay closed.

The unit ID (1 - 8) can be set by using a combination of the units, store and delete buttons on the back of the module (also refer to **setting the unit ID** on page 3).

**IMPORTANT NOTE:** The Art.4850R reader can only be used as an expansion reader for the Art.4810 GSM intercom (including both 3G and 4G versions). Programming can only be carried out when connected to the GSM intercom by RS485 and by sending SMS text messages to the GSM intercom, or by using the GSM SK PC software (software version 4.0.0.7 or later), or by using the GSM mobile Apps (The SMS Wizard and/or SMS Wizard PRO). The only manual programming that can be performed on the module is the unit ID setup and relay time. All proximity fob data is stored in the GSM module's memory and not the proximity reader.

Compatible key fobs: 955/T, 955/B, 955/G, 955/R, 955/Y and/or PBX-1E; compatible proximity cards: 955/C and/or PBX-2.

**⚠ IMPORTANT NOTE: MIFARE PROXIMITY FOBS/CARDS CANNOT BE USED WITH THIS READER.**

## LEGEND

- (A)** Proximity reading area
- (B)** Status indication LED
- (C)** Current firmware version (**4850R-XX**)
- (D)** Programming indication LED's (yellow)
- (E)** Tens and Units programming buttons
- (F)** Power input terminals
- (G)** PTE input & relay (C/NC/NO) terminals
- (H)** RS485 bus termination jumper
- (I)** RS485 bus terminals
- (J)** Store and Delete programming buttons
- (K)** Store LED (green) and Delete LED (red)

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**OPERATION**

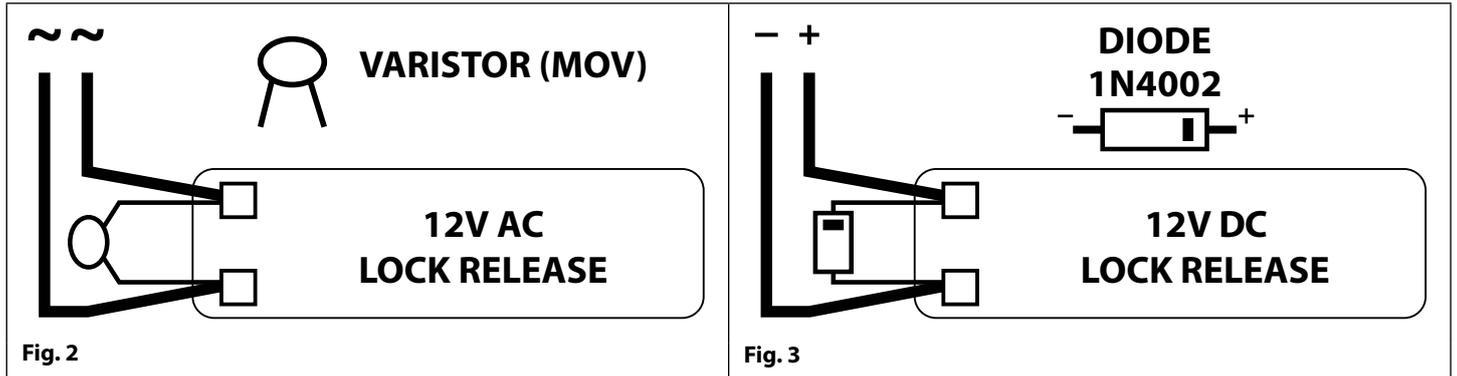
In standby the status indication LED on the front of the Art.4850R reader (**Fig.1, (B)**) will be switched ON (amber).

**Access Granted:** To operate the relay on the reader present a programmed fob/card to the proximity reading area (**Fig.1 (A)**). Once the fob/card is presented the status LED will change from amber to green and the onboard relay will activate for the duration of the programmed relay time. The reader will also emit a double beep.

**Access Denied:** If a fob/card is presented to the reader that is not stored in the GSM PRO intercom the status LED on the front of the reader (**Fig.1, (B)**) will change from amber to red and will emit 1 short beep followed by a short double beep.

**LOCK RELEASE BACK EMF PROTECTION**

A varistor must be fitted across the terminals of an AC lock release (see **Fig.2**) and a diode must be fitted across the terminals of a DC lock release (see **Fig.3**) to suppress back EMF voltages. Connect the components to the locks as shown.



**RS485 BUS TERMINATION JUMPER**

The jumper on the rear of the proximity reader sets the RS485 bus termination when connected to the Art.4810 GSM PRO or other RS485 devices. By default the jumper is set to the closed position (lower two pins). When more than one RS485 device is connected to the reader in line on the RS485 bus terminals then the jumper can be set to the open position (upper two pins) and only set to the closed position on the end of line device, see **Fig.4**.

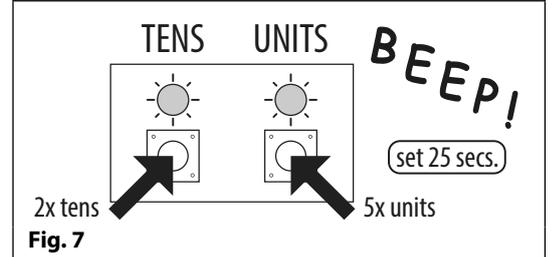
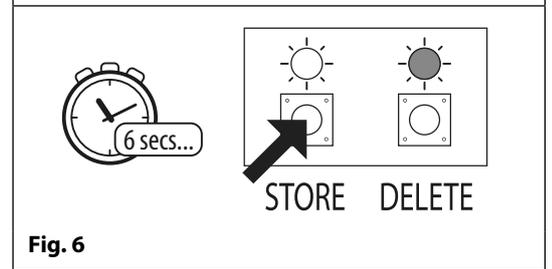
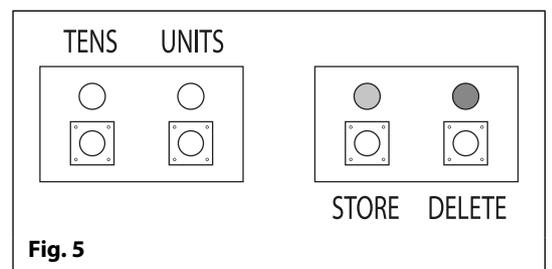


**PROGRAMMING THE RELAY TIME (00, 01 - 99)**

In standby the green store LED and red delete LED on the back of the module will be **ON**, the yellow tens and units LED's will be **OFF**, see **Fig.5**. Follow the steps below to set the relay time:

1. Press and hold down the store button for approximately 6 seconds until the green store LED switches **OFF** and the red delete LED stays **ON**, see **Fig.6**;
2. Use the tens and units buttons to set the relay time, e.g. to set the relay time to 25 press the tens buttons twice and the units button 5 times (listen for the confirmation beep each time the button is pressed and observe the yellow tens/units LED's as they should flash each time that each button is pressed), see **Fig.7**;
3. Press the store button once to confirm the setting (again listen for the confirmation beep when the button is pressed and observe the green store LED as this should flash once);
4. Both the green store LED and red delete LED will switch back **ON** and put the reader back into standby;
5. The reader is ready to be programmed.

To set the relay time for latching press and hold down the store button (follow step 1 above). Once the red delete LED stays **ON** and the green store LED is **OFF**, press the store button once to confirm (follow step 3 above). The relay time will be set for 00 seconds.



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**SETTING THE UNIT ID (1 - 8)**

In standby the green store LED and red delete LED on the back of the module will be **ON**, the yellow tens and units LED's will be **OFF**, see **Fig.5**. Follow the steps below to set the relay time:

1. Press and hold down both the store and delete buttons for approximately 6 seconds until both the green and red LED's switch **OFF**, see **Fig.8**;
2. Use the units button to set the unit ID of the reader, e.g. to set the unit ID to 5 press the units button 5 times (listen for the confirmation beep each time the button is pressed and observe the yellow units LED as this should flash each time the button is pressed), see **Fig.9**;
3. Press the store button once to confirm the setting (again listen for the confirmation beep when the button is pressed and observe the green store LED as this should flash once);
4. Both the green store LED and red delete LED will switch back **ON** and put the reader back into standby;
5. The reader is ready to be programmed.

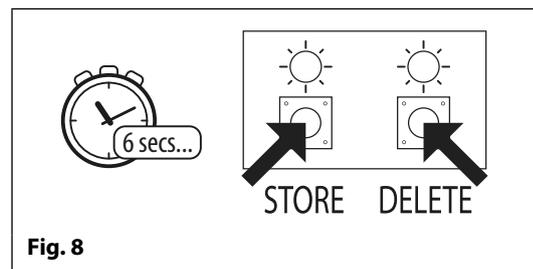


Fig. 8

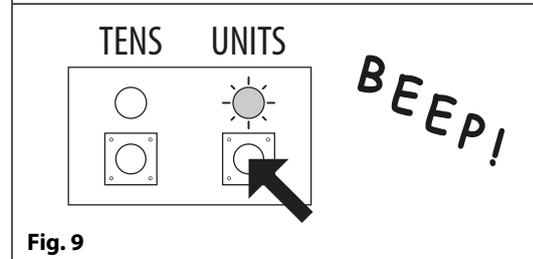


Fig. 9

**ADHESIVE GASKET PLACEMENT**

Apply the gasket seal (Y) as shown in **Fig.10**.

**ANTI-TAMPERING LOCK BRACKETS**

Fit the anti tampering lock brackets (W) as shown in **Fig.11**.

**CLEANING OF THE PLATE**

Use a clean and soft cloth. Use moderate warm water or non-aggressive cleansers. When cleaning always follow the grain of the metalwork on panels with a matte finish.

**Do not use:**

- abrasive liquids;
- chlorine-based liquids;
- metal cleaning products.

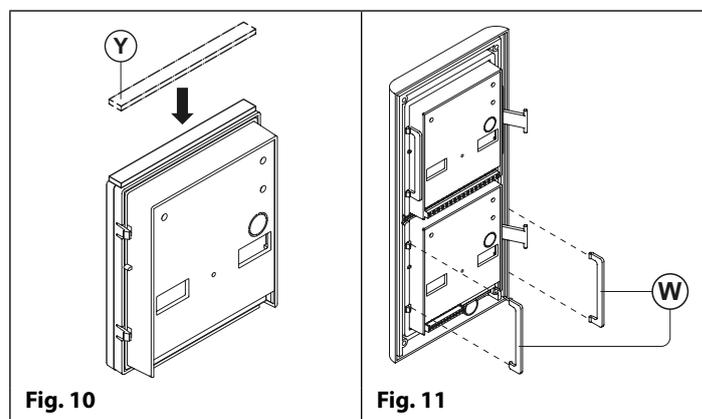


Fig. 10

Fig. 11

**TERMINAL CONNECTIONS**

Connection	Description	
+	12Vdc power input	
-	0V power input	
PTE	Switched 0V input to trigger relay	
C	Relay common connection	3A @ 24Vac/dc max.
NC	Relay normally closed connection	
NO	Relay normally open connection	
B	RS485 bus terminal connections	
A	RS485 bus terminal connections	
-	RS485 ground connection	
B	RS485 bus terminal connections	
A	RS485 bus terminal connections	

**TECHNICAL SPECIFICATION**

- Working voltage:** 12Vdc +/- 10%
- Current (standbay):** 150mA
- Current (operation):** 150mA (max.)
- Number of relays:** 1x, C, NC and NO
- Relay current/voltage:** 3A @ 24Vac/dc (max.)
- Push to exit inputs:** 1x, PTE (switched 0V)
- RS485 bus connections:** 2x A, 2x B and - (GND)
- RS485 termination:** Yes, Jumper
- Networkable:** via RS485 (up to 8 devices max.)
- Programming:** Tens, units, store & delete buttons (for unit ID & relay time only)
- Working Temperature:** -20 +60°C

**IT IS RECOMMENDED THAT ANY CABLING AND VIDEX PRODUCTS BE INSTALLED BY A COMPETENT AND QUALIFIED ELECTRICIAN, SECURITY INSTALLATION SPECIALIST OR COMMUNICATIONS ENGINEER.**

For further cabling information and installation notes refer to the wiring diagram on page 4.

**CABLE REQUIREMENTS**

**POWER SUPPLY & LOCK CONNECTIONS:**

For the connections for the power supply output to the Art.4810 GSM PRO intercom, the Art.4850R keypad and the lock release connections, see table below.

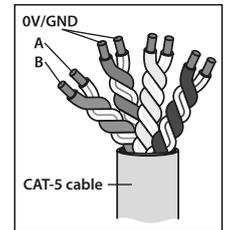
Distance	20m	50m	100m
Cross Sectional Area (CSA)	0.5mm <sup>2</sup>	1.0mm <sup>2</sup>	1.5mm <sup>2</sup>

Ideally the power supply should be located as close to the GSM PRO intercom panel or the proximity module as possible for best performance. The maximum acceptable resistance for the above cables = 3Ω or less for best possible performance.

**RS485 BUS CONNECTIONS:**

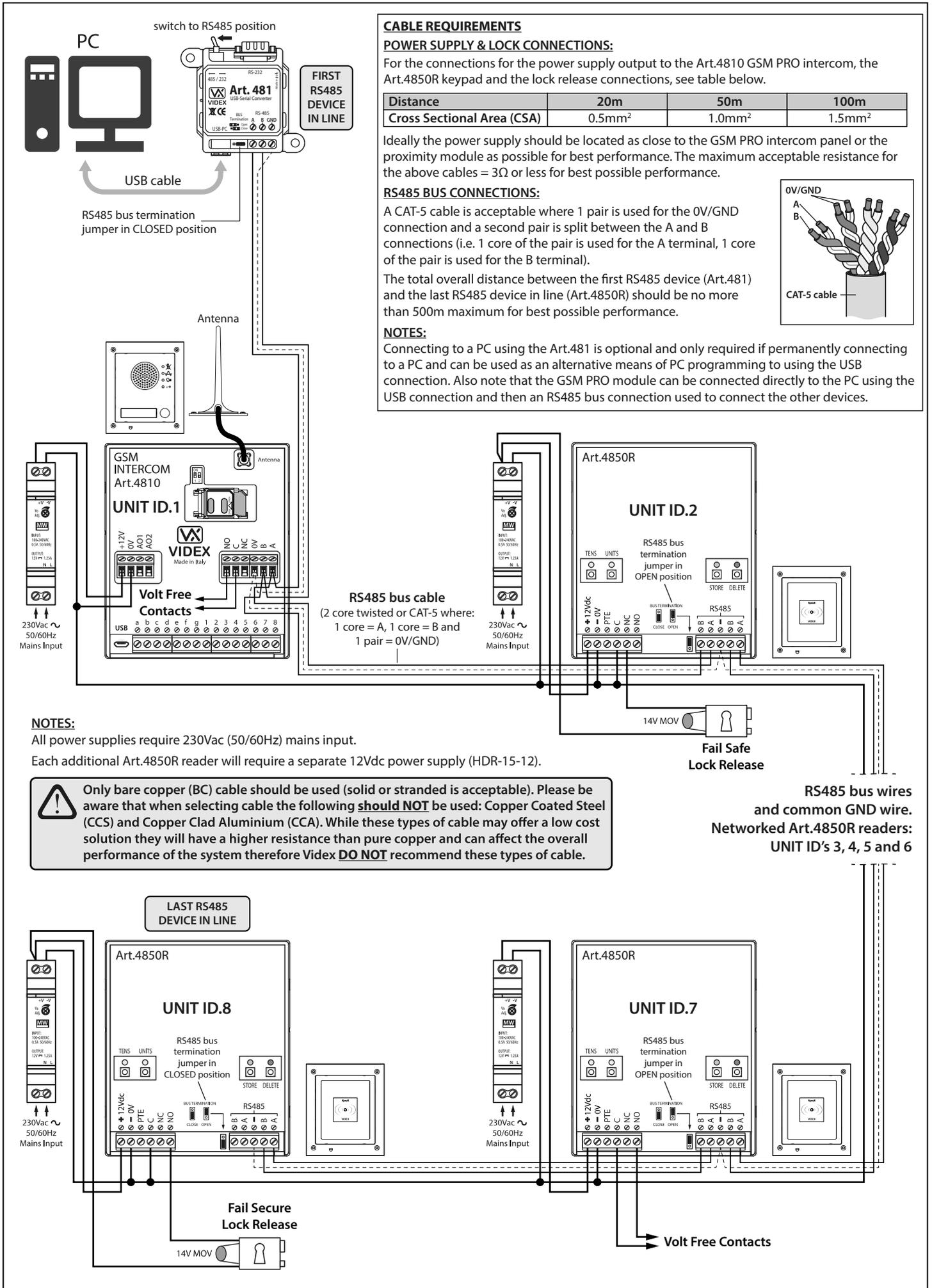
A CAT-5 cable is acceptable where 1 pair is used for the 0V/GND connection and a second pair is split between the A and B connections (i.e. 1 core of the pair is used for the A terminal, 1 core of the pair is used for the B terminal).

The total overall distance between the first RS485 device (Art.481) and the last RS485 device in line (Art.4850R) should be no more than 500m maximum for best possible performance.



**NOTES:**

Connecting to a PC using the Art.481 is optional and only required if permanently connecting to a PC and can be used as an alternative means of PC programming to using the USB connection. Also note that the GSM PRO module can be connected directly to the PC using the USB connection and then an RS485 bus connection used to connect the other devices.



**NOTES:**

All power supplies require 230Vac (50/60Hz) mains input.

Each additional Art.4850R reader will require a separate 12Vdc power supply (HDR-15-12).

**Only bare copper (BC) cable should be used (solid or stranded is acceptable). Please be aware that when selecting cable the following should NOT be used: Copper Coated Steel (CCS) and Copper Clad Aluminium (CCA). While these types of cable may offer a low cost solution they will have a higher resistance than pure copper and can affect the overall performance of the system therefore Videx DO NOT recommend these types of cable.**

RS485 bus wires and common GND wire.  
Networked Art.4850R readers:  
UNIT ID's 3, 4, 5 and 6





**ENG DISPOSAL**

In accordance with the Legislative Decree no. 49 of 14 March 2014 "Implementation of the Directive 2012/19/EU on waste electrical and electronic equipment (WEEE)".

The crossed-out bin symbol on the equipment or on the packaging indicates that when the product reaches the end of its lifetime, it must be collected separately from mixed municipal waste. The user must, therefore, dispose of the equipment at the end of its lifetime in the suitable waste collection centres or bring it to the retailer during the purchase of a new equipment of equivalent type at the ratio of one-to-one. Furthermore, the user is allowed to dispose of the WEEEs of very small size (domestic appliances without any external dimension exceeding 25 cm (9.84 inches) for free to the retailers, without any purchase obligation. The correct waste disposal of the WEEEs contributes to their reuse, recycling and recovery and avoids potential negative effects on the environment and human health due to the possible presence of dangerous substances within them.

**ITA SMALTIMENTO**

Ai sensi del Decreto Legislativo 14 marzo 2014, n° 49 "Attuazione della direttiva 2012/19/UE sui rifiuti di apparecchiature elettriche ed elettroniche (RAEE)".

Il simbolo del cassonetto barrato riportato sull'apparecchiatura o sulla sua confezione indica che il prodotto alla fine della propria vita utile deve essere raccolto separatamente dagli altri rifiuti urbani misti. L'utente dovrà, pertanto, conferire l'apparecchiatura giunta a fine vita presso gli idonei centri di raccolta differenziata oppure riconsegnarla al rivenditore al momento dell'acquisto di una nuova apparecchiatura di tipo equivalente, in ragione di uno a uno. L'utente ha, inoltre, la possibilità di conferire gratuitamente presso i distributori, senza alcun obbligo di acquisto, per i RAEE di piccolissime dimensioni (per le apparecchiature di tipo domestico con nessuna dimensione esterna superiore a 25 cm).

L'adeguata raccolta differenziata dei RAEE contribuisce al loro riutilizzo, riciclaggio e recupero ed evita potenziali effetti negativi sull'ambiente e sulla salute umana dovuti alla eventuale presenza di sostanze pericolose al loro interno.

**FRA ÉLIMINATION**

Conformément au décret législatif n° 49 du 14 mars 2014 relatif à l'« Application de la directive 2012/19 / UE relative aux déchets d'équipements électriques et électroniques (DEEE) ».

Le symbole de la poubelle barrée sur l'équipement ou sur son emballage indique que le produit en fin de vie utile doit être collecté séparément des autres déchets municipaux en mélange. L'utilisateur doit donc remettre l'équipement en fin de vie aux centres de collecte appropriés ou le restituer au revendeur lors de l'achat d'un nouveau type d'équipement équivalent, dans le rapport de un à un. De plus, l'utilisateur a la possibilité de conférer gratuitement aux distributeurs, sans aucune obligation d'achat, de très petits DEEE (pour les appareils ménagers sans dimensions extérieures supérieures à 25 cm). La collecte séparée adéquate des DEEE contribue à leur réutilisation, leur recyclage et leur valorisation et évite les éventuels effets négatifs sur l'environnement et la santé humaine en raison de la présence possible de substances dangereuses dans ceux-ci.

**SPA ELIMINACIÓN**

De conformidad con el Decreto legislativo n. 49 de 14 de marzo 2014 "Aplicación de la Directiva 2012/19/UE relativa a residuos de aparatos eléctricos y electrónicos (RAEE)".

El símbolo del contenedor tachado indicado sobre los aparatos o sobre los embalajes señala que el producto al final de su vida útil debe ser recogido separadamente de otros residuos municipales mezclados. Por tanto, el usuario deberá conferir los aparatos al final de su vida útil en los apropiados centros de recogida selectiva o devolverlos al revendedor al momento de la compra de nuevos aparatos equivalentes, en una relación de uno a uno. Además, el usuario tiene la posibilidad de entregar sin cargo a los distribuidores, sin ninguna obligación de compra, los RAEEs muy pequeños (para electrodomésticos sin dimensiones externas superiores a 25 cm).

La recogida selectiva apropiada de los RAEEs contribuye a su reutilización, reciclaje y valorización y evita potenciales impactos negativos sobre el medio ambiente y la salud humana debidos a la posible presencia de sustancias peligrosas dentro de ellos.

**NLD VERWIJDERING**

In overeenstemming met het Wetsbesluit nr. 49 van 14 maart 2015 "Implementatie van de Richtlijn 2012/19/EU inzake afgedankte elektrische en elektronische apparaten (AEEA)".

Het doorgekruiste vuilnisbaksymbool op het apparaat of de verpakking geeft aan dat het product aan het einde van zijn levensduur niet samen met het gewone huisvuil weggegooid mag worden. De gebruiker moet het apparaat aan het einde van zijn levensduur inleveren bij een gepast inzamelpunt of de winkel waar hij een nieuw apparaat van een gelijksoortig type zal kopen. De gebruiker kan tevens AEEA's van een zeer klein formaat (huishoudapparaten met een buitenafmeting kleiner dan 25 cm (9,84 inch) gratis en zonder enige aankoopverplichting bij handelaars inleveren. Een juiste verwijdering van AEEA's draagt bij tot hergebruik, recycling en terugwinning, en voorkomt potentiële negatieve effecten op het milieu en de menselijke gezondheid door de mogelijke aanwezigheid van gevaarlijke stoffen.

**POR ELIMINAÇÃO**

De acordo com o Decreto Legislativo n.º 49 de 14 de março de 2014 "Implementação da Diretiva 2012/19/UE relativa aos resíduos de equipamentos elétricos e eletrónicos (REEE)".

O símbolo do caixote do lixo riscado no equipamento ou na embalagem indica que quando o produto atinge o fim da sua vida útil, deve ser recolhido separadamente dos resíduos urbanos mistos. O utilizador deve, portanto, eliminar o equipamento no final da sua vida útil nos centros de recolha de resíduos adequados ou levá-lo ao vendedor durante a compra de um novo equipamento de tipo equivalente, na proporção de um para um. Além disso, o utilizador pode eliminar gratuitamente os REEE de dimensões muito reduzidas aos vendedores, sem qualquer obrigação de compra. (só aparelhos domésticos sem qualquer dimensão externa que exceda 25 cm, ou seja 9,84 polegadas). A correta eliminação dos REEE contribui para a sua reutilização, reciclagem e recuperação e evita potenciais efeitos negativos sobre o ambiente e a saúde humana devido à possível presença de substâncias perigosas no seu interior.

<b>MANUFACTURER</b> <b>FABBRICANTE</b> <b>FABRICANT</b> <b>FABRICANTE</b> <b>FABRIKANT</b> <b>FABRICANTE</b> الشركة المصنعة	<b>VIDEX ELECTRONICS S.P.A.</b> Via del Lavoro, 1 63846 Monte Giberto (FM) Italy Tel (+39) 0734 631669 Fax (+39) 0734 632475 www.videx.it - info@videx.it	
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The product is CE marked demonstrating its conformity and is for distribution within all member states of the EU with no restrictions. This product follows the provisions of the European Directives 2014/30/EU (EMC); 2014/35/EU (LVD); 2011/65/EU (RoHS): CE marking 93/68/EEC.

Le produit est marqué CE à preuve de sa conformité et peut être distribué librement à l'intérieur des pays membres de l'union européenne EU.  
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يحمل المنتج علامة التوافق الأوروبي CE لإظهار توافقه مع المواصفات ذات الصلة وإمكانية توزيعه في كافة دول الاتحاد الأوروبي بدون أية قيود. يلبي هذا المنتج جميع متطلبات التوجيهات الأوروبية 2014/30/ت.س.م. (EMC) ; 2014/35/ت.س.م. (LVD) ; 2011/65/ت.س.م. (RoHS) : علامة المطابقة للمواصفات الأوروبية CE 93/68/ت.س.م.م.

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