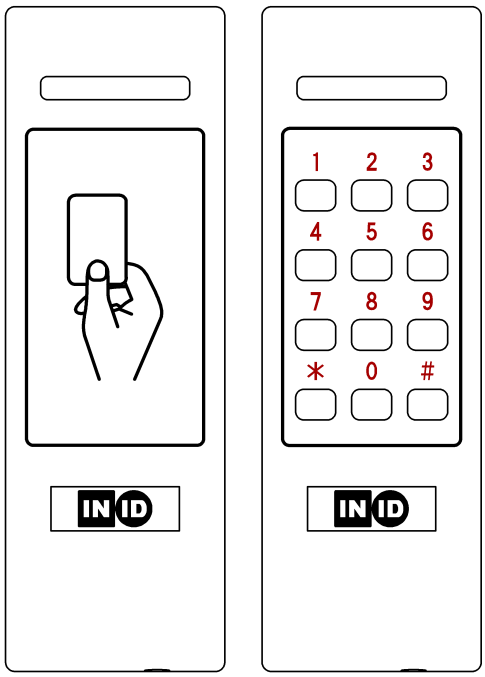
INID SmartProx readers



Specifications

Power Supply
7.5 - 20 Volt DC (12 VDC recommended)

Power consumption

model	average	peak
INID SmartProx	0.75 W	1.3 W
INID SmartProx PIN	0.75 W	1.6 W

Current consumption @12 VDC[1)]

model	average	peak
INID SmartProx	60 mA	105 mA
INID SmartProx PIN	60 mA	130 mA

[1)] Use Ohm's law to calculate current at different voltages.

Dimensions
143 x 50 x 25 mm / 5.63 x 2 x 1 inch

Material
UL94-V0 rated LEXAN® 925U

Operating temperature
-25° to 65° C / -15° to 150° F

Protection class
IP54 Complete protection against contact, protection against dust deposit. Protection from splashed water.

Models

		article number
5200	INID SmartProx reader WG/C&D/TTL	500-5200
5210	INID SmartProx reader RS485/RS422	500-5210
5220	INID SmartProx reader RS232	500-5220
5240	INID SmartProx PIN reader WG/C&D/TTL	500-5240
5250	INID SmartProx PIN reader RS485/RS422	500-5250
5260	INID SmartProx PIN reader RS232	500-5260

Parts list (1 each)
1. Reader front
2. Mounting backplate
3. Enclosure screw
4. Installation sheet
5. Configuration sheet

Cable specifications (non-shielded)

interface	maximum cable length		min.conductor size with 12 V supply	
	meters	feet	mm^2	AWG
Wiegand	61	200	0.16	25
	91	300	0.24	23
	152	500	0.40	21
Clock/Data	25	80	0.25	24
TTL serial	1.5	5		
RS232	2.4	8		
RS485/RS422 (cable power)	61	200		
	152	500	0.34	22
RS485/RS422 (local power)	1220	4000	0.25	24

For locally powered readers the minimum conductor size is 0.16mm^2, or AWG 25 for all distances and interfaces.

Features
- INID readers have a slim mullion mountable design and are designed for both in- and outdoor use. The INID reader can be mounted on any surface without significant performance degradation. For mounting to a metal surface however, a non-metallic spacer is advised.
- The switch mode power supply of the reader accepts a wide range input from 7.5 - 20 VDC. Higher supply voltages result in lower current consumption and allow for cost effective wiring with a smaller conductor diameter.
- Reader output formats are determined by the configuration switches of the reader.
- Separate models are available for card-only and card+PIN.
- Electrical interface options for WG/C&D/TTL serial, RS485/RS422 and RS232 are available with separate models.

PIN code
INID PIN readers provide several options for PIN data formats and output protocols. The card and PIN code data is sent separately and independently allowing host system determined operation for card-only, PIN-only and card and PIN usage.

Indications
User feedback is provided by a single LED bar and a multi-tone sounder. User feedback is controllable by the host system. PIN models are equipped with back lighting of the PIN code digits for usage in dark environments.

Operation
When a proximity card is read successfully the card associated code is send to the Host system, the LED bar lights briefly and the sounder sounds a short tone.
When a PIN is entered the data is transmitted; at each key press a click sound is produced and the LED bar lights briefly. The back light of the PIN code lights up after a successful card read or at the first key press.
The LED bar and the buzzer are also controllable by the Host system.

Connector Assignments

Wiegand / Clock & Data / TTL serial

1	D1 / DATA TXD	**3**	BUZZER RXD	**5**	GND
2	D0 / CLOCK	**4**	LED	**6**	POWER

RS485 / RS422

1	RS485 TRX- RS422 TX-	**3**	RS485 N.C. RS422 RX+	**5**	GND
2	RS485 TRX+ RS422 TX+	**4**	RS485 N.C. RS422 RX-	**6**	POWER

Caution: *floating communication lines may cause spurious emissions. Ensure all communication lines are properly biased and terminated.*

RS232

1	TXD	**3**	RTS	**5**	GND
2	CTS	**4**	RXD	**6**	POWER

Installation instructions

1 Determine an appropriate position for the reader and drill two holes for mounting the backplate and one hole for the cable, see diagram for measurements. Do not mount readers less than 20 cm (8 inches) apart.
2 Pull the cable trough the hole in the backplate and mount the backplate. Protect the cable against sharp edges and any damage from chafing.
3 Prepare the end of the cable and wires, eliminate any loose or frayed strands. Keep the wire ends as short as practical.
4 Connect the wires to the connector according to the reader type. Wire ends and optional permanent links shall be kept as short as possible.
5 Place the reader front over the hinge of the backplate and close the reader (see diagram), keeping the wiring in the lower part of the reader housing. DO NOT use excessive force, retract the cable if necessary.
6 Test the reader: apply power and present a valid card. The LED bar should flash and the sounder should produce a short tone indicating a successful read. If the Host system is connected to LED bar and sounder inputs these should follow the functionality of the Host system.
7 The reader front should now be secured to the backplate using the supplied enclosure screw.

Configuration

The reader is factory configured to read H-PX cards. For other cards and output formats, refer to the enclosed *SmartProx quick reference guide Card and output selection* configuration sheet.

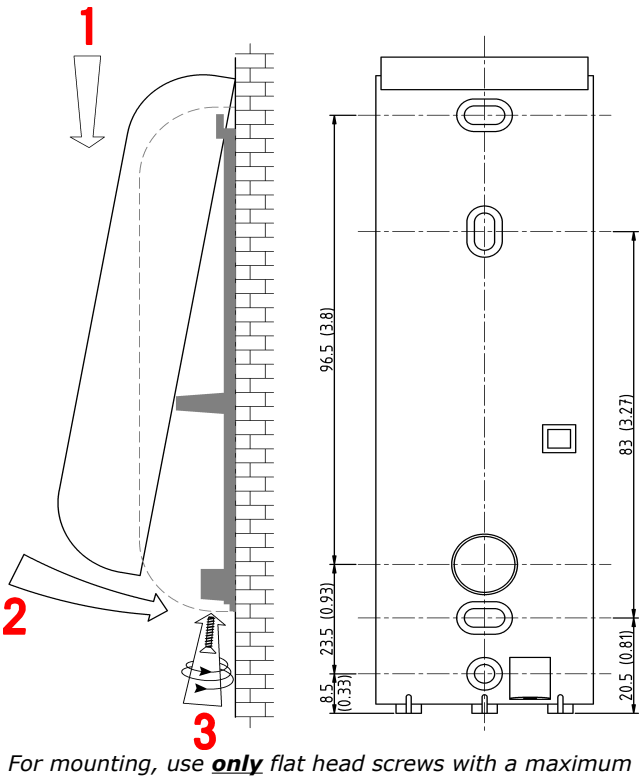
Certifications

FCC, IC

FCC ID: YAB-NGRPSPX
IC: 8908A-NGRPSPX

Warning (part 15.21)

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



*For mounting, use **only** flat head screws with a maximum shank size of 4 mm (5/32", #7)*

Compliance statement (part 15.19)

This device complies with part 15 of the FCC Rules.
Operation is subject to the following two conditions:
(1) this device may not cause harmful interference, and
(2) this device must accept any interference received, including interference that may cause undesired operation.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :
(1) l'appareil ne doit pas produire de brouillage, et
(2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Information to the User (Part 15.105 (b))

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, 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 frequency 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 does cause 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 the dealer or an experienced radio/TV technician for help.

Complies with: *CAN ICES-3 (B)/NMB-3(B)*

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