

INDALA PRODUCT SPECIFICATIONS

This specification has been prepared to assist design professionals in the preparation of project specifications for Proximity Card Readers and Proximity Cards used in Access Control systems.

Indala reserves the right to modify this document without prior written notice.

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PRODUCT SPECIFICATIONS

FlexPass Slim Card Reader

1. The card reader shall be a FlexPass Slim proximity card reader and shall be manufactured by Indala Corporation.
2. The card reader shall read the encoded data from the access card and/or tag and transmit the data back to the host panel, giving an audible and visual indication of a properly read card.
3. The card reader shall be no larger than 5.52 x 1.74 x 1.11 inches (14.0 x 4.4 x 2.8 cm)
4. The card reader shall have a typical read range of up to 5 inches (12.7 cm), when used with a FlexCard standard proximity card. (See Page 23 for read ranges with other Indala proximity cards and tags.)
5. The card reader shall have a potted reader electronics module and a choice of bezel styles/colors, narrow enough to be mounted onto a 1.75" (4.45 cm) metal door frame or mullion.
6. The card reader shall be listed under UL 294 as an access control system unit accessory, and shall be FCC, CE, and DTI certified.
7. The card reader shall have separate terminal control points for the green LED, the red LED, and the audible indicator.
8. The card reader shall read up to 172 programmable bits of Wiegand™ formatted information for universal compatibility with all Indala Wiegand interface card applications.
9. The card reader shall have a re-present mode in which the card must be taken from the reader field before being read again. This feature is required to eliminate multiple reads from a single card presentation.
10. The card reader shall be fully weatherized, and shall have an operating temperature of -31° to 149°F (-35° to 65°C), and an operating humidity of 5-95% non-condensing.
11. The card reader shall have a lifetime warranty.
12. The card reader bezel shall be made from polycarbonate, abs, acrylic material, and shall be available in the following color choices: black, grey, white, beige, or blue.
13. The card reader shall transmit at a 125 kHz frequency.

14. The cable requirements of the card reader shall be a minimum five (5) conductor, 22 AWG, stranded cable with overall shield (for a Wiegand protocol interface). A six (6) conductor cable is required when controlling the red and green LED individually. A seven (7) conductor cable is required when both the red and green LED's are controlled by the Host.

15. The card reader shall have the following reader configuration options:

- Reader beeps and flashes green on a card read, LED normally red, single line control of LED.
- Reader flashes green on a card read, LED normally red, single line control of LED.
- Reader beeps on a card read, LED normally red, single line control of LED.
- Beeper and LED are controlled by host only, LED normally red, single line control of LED.
- Reader beeps and flashes green on a card read, LED normally off, red and green LED's controlled individually.
- Reader flashes green on a card read, LED normally off, red and green LED's controlled individually.
- Reader beeps on a card read, LED normally off, red and green LED's controlled individually.
- Beeper and LED are controlled by host only, LED normally off, red and green LED controlled individually.

16. The card reader shall communicate in a Wiegand protocol interface or ABA Track 2, and be compatible with all industry standard access control systems.

17. The voltage requirements of the card reader shall be 4 to 16 VDC.

18. The current requirements of the card reader shall be:

<u>Voltage</u>	<u>Current (DC)</u>	
	<u>Average</u>	<u>Peak</u>
5 VDC	86 mA	100 mA
12 VDC	65 mA	96 mA

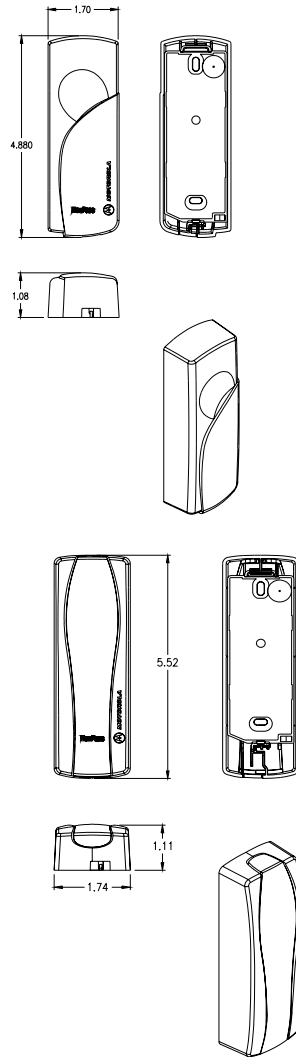
19. The card reader must have an option to be able to utilize a 30-bit password between the reader and card. This unique security feature is user definable and controlled. A card without the same password data will not result in an output from the reader.

20. [Not used]

21. [Not used]

22. The card reader should have the capability of changing the bezel from a slim to a wallswitch, or from one color to another color, or from one style (shape) to another style (shape) available in the slim or wallswitch line.

FlexPass Curve Slim



FlexPass Wallswitch Card Reader

1. The card reader shall be a FlexPass Wallswitch proximity card reader and shall be manufactured by Indala.
2. The card reader shall read the encoded data from the access card and/or tag and transmit the data back to the host panel, giving an audible and visual indication of a properly read card.
3. The card reader shall be no larger than 5.52 x 3.26 x 1.11 inches (14.0 x 8.3 x 2.8 cm).
4. The card reader shall have a typical read range of up to 5 inches (12.7 cm), when used with a FlexCard standard proximity card. (See Page 23 for read ranges with other Indala proximity cards and tags.)
5. The card reader shall have a potted reader electronics module and a choice of bezel styles/colors, with properly sized mounting holes that allow it to be attached to a single gang electrical box.
6. The card reader shall be listed under UL 294 as an access control system unit accessory, and shall be FCC, CE, and DTI certified.
7. The card reader shall have separate terminal control points for the green LED, the red LED, and the audible indicator.
8. The card reader shall have up to 172 field programmable bits of Wiegand formatted information for universal compatibility with all Indala Wiegand interface card applications.
9. The card reader shall have a re-present mode in which the card must be taken from the reader field for one second before being read again. This feature is required to prevent multiple reads from a single card presentation.
10. The card reader shall be fully weatherized, and shall have an operating temperature of -31° to 149°F (-35° to 65°C), and shall have an operating humidity of 5-95% non-condensing.
11. The reader shall have a lifetime warranty.
12. The card reader shall be made from polycarbonate, abs, acrylic material, and shall be available in the following color choices: black, grey, white, beige, or blue.
13. The card reader shall transmit at a 125 kHz frequency.
14. The cable requirements of the card reader shall be a minimum five (5) conductor, 22 AWG, stranded cable with overall shield (for a Wiegand protocol

interface). A six (6) conductor cable is required when controlling the red and green LED individually. A seven (7) conductor cable is required when both the red and green LED's are controlled by the Host.

15. The card reader shall have the following reader configuration options:
- Reader beeps and flashes green on a card read, LED normally red, single line control of LED.
 - Reader flashes green on a card read, LED normally red, single line control of LED.
 - Reader beeps on a card read, LED normally red, single line control of LED.
 - Beeper and LED are controlled by host only, LED normally red, single line control of LED.
 - Reader beeps and flashes green on a card read, LED normally off, red and green LED's controlled individually.
 - Reader flashes green on a card read, LED normally off, red and green LED's controlled individually.
 - Reader beeps on a card read, LED normally off, red and green LED's controlled individually.
 - Beeper and LED are controlled by host only, LED normally off, red and green LED controlled individually.

16. The card reader shall communicate in a Wiegand protocol interface or ABA Track 2, and be compatible with all industry standard access control systems.

17. The voltage requirements of the card reader shall be 4 to 16 VDC.

18. The current requirements of the card reader shall be:

<u>Voltage</u>	<u>Current (DC)</u>	
	<u>Average</u>	<u>Peak</u>
5 VDC	80 mA	100 mA
12 VDC	65 mA	96 mA

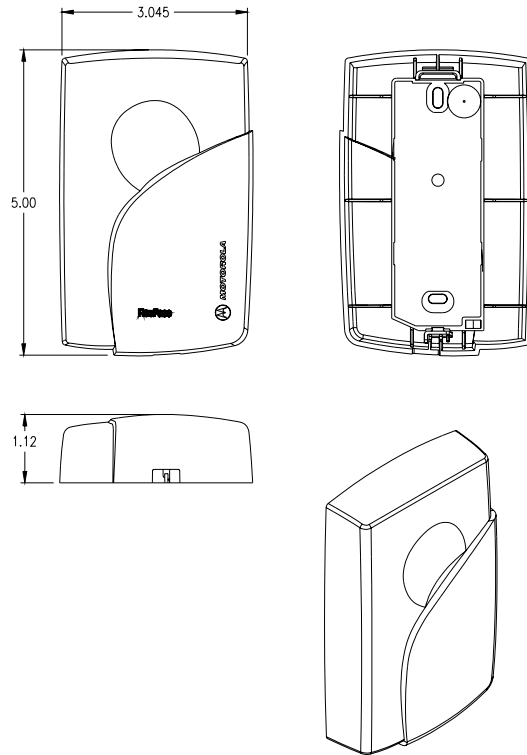
19. The card reader must have an option to be able to utilize a 30-bit password between the reader and card. This unique security feature is user definable and controlled. A card without the same password data will not result in an output from the reader.

20. [Not Used]

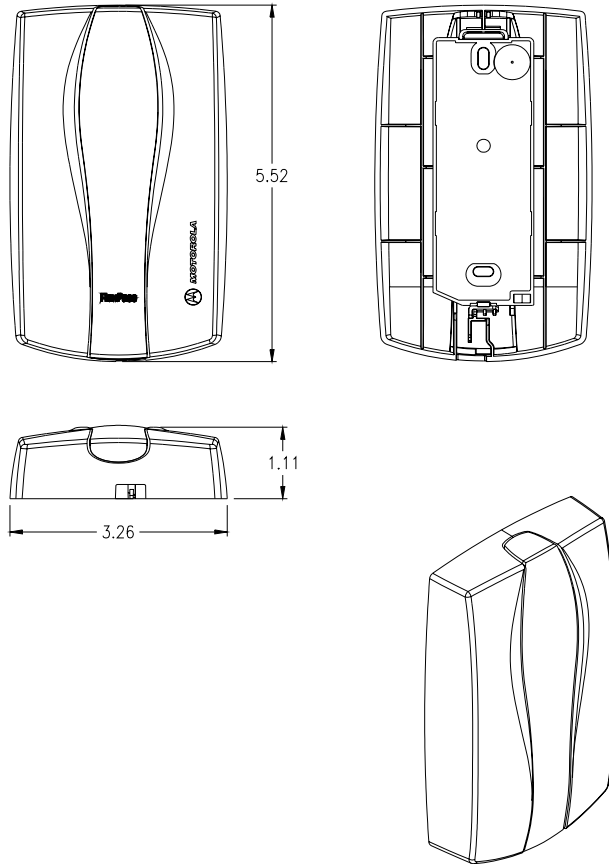
21. [Not used]

22. The card reader should have the capability of changing the bezel from a wallswitch to a slim, or from one color to another color, or from one style (shape) to another style (shape) available in the wallswitch or slim line.

FlexPass Curve Wallswitch



FlexPass Wave Wallswitch



FlexPass Mid-range Card Reader

1. The card reader shall be a FlexPass Mid-range proximity card reader and shall be manufactured by Indala.
2. The card reader shall read encoded data from the access card and/or tag and transmit the data back to the host panel, giving an audible and visual indication of a properly read card.
3. The card reader shall be no larger than 5.55 x 6.42 x 1.35 inches (14.1 x 16.3 x 3.4 cm).
4. The card reader shall have a typical read range of up to 12 inches (30.5 cm), when used with a FlexCard standard proximity card. (See Page 23 for read ranges with other Indala proximity cards and tags).
5. The card reader shall have a potted reader electronics module and a choice of bezel styles/colors, with properly sized mounting holes that allow it to be attached directly to a single or double gang electrical box.

6. The card reader shall have up to 172 field programmable bits of Wiegand formatted information for universal compatibility with all Indala Wiegand interface card applications.
7. The card reader shall be listed under UL 294 as an access control system accessory, and shall be FCC, CE, and DTI certified.
8. The card reader shall have separate terminal control points for the green LED, the red LED, and the audible indicator.
9. The card reader shall have a re-present mode in which the card must be taken from the reader field for one second before being read again. This feature is required to prevent multiple reads from a single card presentation.
10. The card reader shall be fully weatherized, and shall have an operating temperature of -31° to 149°F (-35° to 65°C), and shall have an operating humidity of 5-95% non-condensing.
11. The reader shall have a lifetime warranty.
12. The card reader shall be made from polycarbonate, abs, acrylic material, and shall be available in the following color choices: black, grey, white, beige, or blue.
13. The card reader shall transmit at a 125 kHz frequency.
14. The cable requirements of the card reader shall be a minimum five (5) conductor, 22 AWG, stranded cable with overall shield (for a Wiegand protocol interface). A six (6) conductor cable is required when controlling the red and green LED individually. A seven (7) conductor cable is required when both the red and green LED's are controlled by the Host.
15. The card reader shall have the following reader configuration options which are user selectable:
 - Reader beeps and flashes green on a card read, LED normally red, single line control of LED.
 - Reader flashes green on a card read, LED normally red, single line control of LED.
 - Reader beeps on a card read, LED normally red, single line control of LED.
 - Beeper and LED are controlled by host only, LED normally red, single line control of LED.
 - Reader beeps and flashes green on a card read, LED normally off, red and green LED's controlled individually.
 - Reader flashes green on a card read, LED normally off, red and green LED's controlled individually.
 - Reader beeps on a card read, LED normally off, red and green LED's controlled individually.

- Beeper and LED are controlled by host only, LED normally off, red and green LED controlled individually.

16. The card reader shall communicate in a Wiegand protocol interface or ABA Track 2, and be compatible with all standard access control systems.

17. The voltage requirements of the card reader shall be 4-14 VDC.

18. The current requirements of the card reader shall be:

<u>Voltage</u>	<u>Current (DC)</u>	
	<u>Average</u>	<u>Peak</u>
5 VDC	70 mA	82 mA
12 VDC	117 mA	140 mA

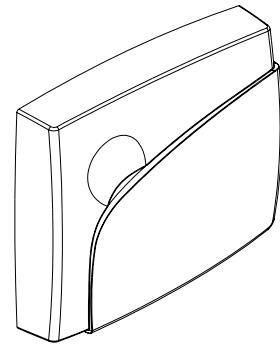
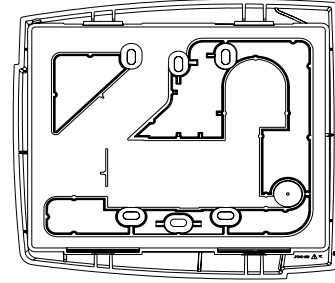
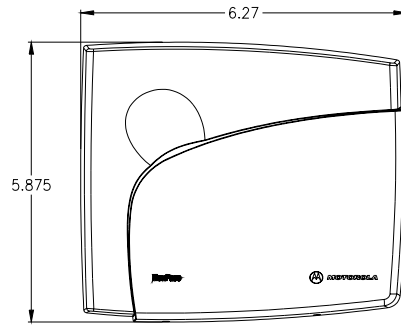
19. The card reader must have an option to be able to utilize a 30-bit password between the reader and card. This unique security feature is user definable and controlled. A card without the same password data will not result in an output from the reader.

20. [Not used]

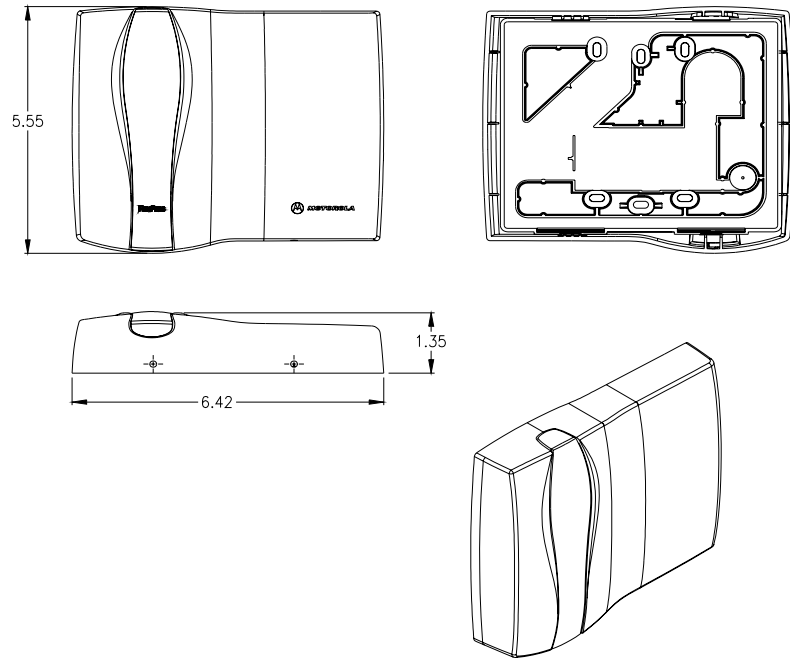
21. [Not used]

22. The card reader should have the capability of changing the bezel to another color or another style available in the mid-range line.

FlexPass Curve Mid-range



FlexPass Wave Mid-range



ASP+ FlexPass PinProx Combination Keypad & Card Reader

1. The card reader shall be a FlexPass Reader & Keypad proximity card reader and shall be manufactured by Indala.
2. The card reader shall read the encoded data from the access card and/or tag and transmit the data back to the host panel, giving an audible and visual indication of a properly read card.
3. The card reader shall be no larger than 4.4 x 2.82 x 0.67 inches (11.1 x 7.16 x 1.69 cm).
4. The card reader shall have a typical read range of up to 4 inches (10 cm), when used with a FlexCard standard proximity card.
5. The card reader shall have a potted reader electronics module and a choice of colors, with properly sized mounting holes that allow it to be attached to a single gang electrical box.
6. The card reader shall be listed under UL 294 as an access control system unit accessory, and shall be FCC, CE, and DTI certified.
7. The card reader shall have separate terminal control points for the green LED, the red LED, and the audible indicator.
8. The card reader shall have up to 172 field programmable bits of Wiegand formatted information for universal compatibility with all Indala Wiegand interface card applications.
9. The card reader shall have a re-present mode in which the card must be taken from the reader field for one second before being read again. This feature is required to prevent multiple reads from a single card presentation.
10. The card reader shall be fully weatherized, and shall have an operating temperature of -22° to 149°F (-30° to 65°C).
11. The reader shall have a lifetime warranty.
12. The card reader shall be made from polycarbonate, abs, acrylic material, and shall be available in the following color choices: black or beige.
13. The card reader shall transmit at a 125 kHz frequency.
14. The card reader shall have the following reader configuration options:
 - Reader beeps and flashes green on a card read, LED normally red, single line control of LED.

- Reader flashes green on a card read, LED normally red, single line control of LED.
- Reader beeps on a card read, LED normally red, single line control of LED.
- Beeper and LED are controlled by host only, LED normally red, single line control of LED.
- Reader beeps and flashes green on a card read, LED normally off, red and green LED's controlled individually.
- Reader flashes green on a card read, LED normally off, red and green LED's controlled individually.
- Reader beeps on a card read, LED normally off, red and green LED's controlled individually.
- Beeper and LED are controlled by host only, LED normally off, red and green LED controlled individually.

15. The card reader shall communicate in a Wiegand protocol interface or ABA Track 2, and be compatible with all industry standard access control systems.

16. The voltage requirements of the card reader shall be 4 to 16 VDC.

17. The card reader shall incorporate an integrated, weatherized keypad capable of transmitting Personal Identification Numbers (PIN's) over reader data line wiring.

18. The keypad function shall be capable of transmitting any of three outputs; Wiegand, 3 x 4 Matrix, or 8 bit burst. The cable requirements for the 3 X 4 output is a minimum seven (7) conductor cable, separate from and in addition to the seven (7) conductor reader cable.

19. The keypad function shall be capable of buffering up to four (4) PIN entries before transmitting data over the Wiegand lines.

20. The keypad function shall be configurable to send the PIN number when the pound sign (#) or star (*) key is pressed, or to clear incomplete PIN numbers.

21. The current requirements of the card reader shall be:

<u>Voltage</u>	<u>Current (DC)</u>	
	<u>Average</u>	<u>Peak</u>
5 VDC	95 mA	100 mA
12 VDC	75 mA	91 mA

22. The card reader must have an option to be able to utilize a 30-bit password between the reader and card. This unique security feature is user definable and controlled. A card without the same password data will not result in an output from the reader.

23. [Not used]

24. [Not used]

ASP+ FlexPass Long-Range Card Reader

1. The card reader shall be a FlexPass ASR-620+ Long-Range proximity card reader and shall be manufactured by Indala.
2. The card reader shall read the encoded data from the access card and/or tag and transmit the data back to the host panel, giving an audible and visual indication of a properly read card.
3. The card reader shall be no larger than 11.2 x 11.2 x 1.8 inches (28.4 x 28.4 x 4.6 cm).
4. The card reader shall have a typical read range of up to 28 inches (71 cm), when used with a FlexCard standard proximity card. (See Page 23 for read ranges with other Indala proximity cards and tags.)
5. The card reader shall be provided with an internal tamper switch that will indicate an alarm condition if an unauthorized attempt is made to disassemble the unit.
6. The card reader shall have a potted reader electronics module and a removable bezel.
7. The card reader shall have up to 172 field programmable bits of Wiegand formatted information for universal compatibility with all Indala Wiegand interface card applications.
8. The card reader shall be listed under UL 294 as an access control system accessory, and shall be FCC and CE certified.
9. The card reader shall have separate terminal control points for the green LED, the red LED, and the audible indicator.
10. The card reader shall have a re-present mode in which the card must be taken from the reader field for one second before being read again. This feature is required to prevent multiple reads from a single card presentation.
11. The card reader shall be fully weatherized, and shall have an operating temperature of -31° to 150°F (-35° to 65°C), and shall have an operating humidity of 5-95% non-condensing.
12. The reader shall have a lifetime warranty.
13. The reader shall be made from polycarbonate, abs, acrylic material, and shall be black.
14. The card reader shall transmit at a 125 kHz frequency.

15. The cable requirements of the card reader shall be a minimum five (5) conductor, 22 AWG, stranded cable with overall shield (for a Wiegand protocol interface). A six (6) conductor cable is required when controlling the red and green LED individually. A seven (7) conductor cable is required when both the red and green LED's are controlled by the Host.

16. The card reader shall have the following reader configuration options which are user selectable:

- Reader beeps and flashes green on a card read, LED normally red, single line control of LED.
- Reader flashes green on a card read, LED normally red, single line control of LED.
- Reader beeps on a card read, LED normally red, single line control of LED.
- Beeper and LED are controlled by host only, LED normally red, single line control of LED.
- Reader beeps and flashes green on a card read, LED normally off, red and green LED's controlled individually.
- Reader flashes green on a card read, LED normally off, red and green LED's controlled individually.
- Reader beeps on a card read, LED normally off, red and green LED's controlled individually.
- Beeper and LED are controlled by host only, LED normally off, red and green LED controlled individually.

17. The card reader shall communicate in a Wiegand protocol interface or ABA Track 2, and be compatible with all standard access control systems.

18. The voltage requirements of the card reader shall be 12-24 VDC.

19. The current requirements of the card reader shall be:

<u>Voltage</u>	<u>Current (DC)</u>	
	<u>Average</u>	<u>Peak</u>
12 VDC	1 A	1.2 A
24 VDC	750 mA	900 mA

20. The card reader must have an option to be able to utilize a 30-bit password between the reader and card. This unique security feature is user definable and controlled. A card without the same password data will not result in an output from the reader.

21. [Not used]

22. [Not used]

23. The card reader must be able to fine tune excitation frequency to maximize excitation field strength improving read range performance.

ASP+ FlexCard Standard Proximity Card

1. The access card shall be a FlexCard Standard proximity card, Model Number FPCRD, and shall be manufactured by Indala.
2. The access card shall have a lifetime warranty.
3. The access card shall have up to 172 field programmable bits of Wiegand formatted information for universal compatibility with all Indala Wiegand interface reader applications.
4. The access card shall be "Passive" (non-battery operated) proximity technology.
5. The access card shall have a permanent ink jet identification number printed onto it. The card numbering options shall be:
 - Sequential Matching - The internal identification numbers and the external ink jet numbers shall both be sequential and shall match (i.e. internal numbers 1-100, external ink jet numbers 1-100).
 - Sequential Non-Matching - the internal identification numbers and the external ink jet numbers will be sequential but they will not match (i.e. internal numbers 1-100, external ink jet numbers 200-300).
 - Random Non-Matching - the internal identification number shall be random numbers, the external ink jet numbers will be sequential, and the internal and external numbers will not match (i.e. internal numbers 2, 7, 13, 18, etc., external ink jet numbers 1-100).
 - No External Card Numbering - the internal identification numbers are either sequential or random, there are no external ink jet card numbers.
6. The access card shall be slot punched on the short edge of the card for a vertical portrait oriented photo, shall be offered with multicolor custom graphics, and be compatible with most self adhesive photo pouches and PVC labels for use with a direct print printer.
7. The access card shall be no larger than 3.38 x 2.13 x 0.065 inches (86 x 54 x 1.8 mm).
8. The access card shall have an operating temperature of –22° to 140°F (-30° to 65°C), and shall have an operating relative humidity of 5-95% non-condensing.

9. The read range of the access card shall be extremely consistent, and not be affected by body shielding or variable environmental conditions.
10. The access card shall be offered with more than a trillion unique codes.
11. The access card must have an option to be able to utilize a 30-bit password between the reader and card. This unique security feature is user definable and controlled. A card without the same password data will not result in an output from the reader.
12. [Not used]
13. The card must respond to the 125 kHz reader at 62.5 kHz.
14. The access card must allow a reader dependent, read range from 5-28 inches (12-71 cm).

ASP+ FlexISO-XT with Magstripe Imageable Proximity Card

1. The access card shall be a FlexISO-XT multi-technology proximity and magnetic stripe card, and shall be manufactured by Indala.
2. The RFID access card shall have a lifetime warranty. Magnetic stripe warranty shall be 2 years.
3. The access card shall have up to 172 field programmable bits of Wiegand formatted information for universal compatibility with all Indala Wiegand reader applications.
4. The access card shall be "Passive" (non -battery operated) proximity technology.
5. The access card shall have a permanent identification number printed onto it. The card numbering options shall be:
 - Sequential Matching - The internal identification numbers and the external ink jet numbers shall both be sequential and shall match (i.e. internal numbers 1-100, external ink jet numbers 1-100).
 - Sequential Non-Matching - the internal identification numbers and the external ink jet numbers will be sequential but they will not match (i.e. internal numbers 1-100, external ink jet numbers 200-300).
 - Random Non-Matching - the internal identification number shall be random numbers, the external ink jet numbers will be sequential, and the internal and external numbers will not match (i.e. internal numbers 2, 7, 13, 18, etc., external ink jet numbers 1-100).

- No External Card Numbering - the internal identification numbers are either sequential or random, there are no external ink jet card numbers.
6. The access card shall be capable of having a photo or image printed directly onto the surface of the card with a direct print printer, shall be offered with multicolor custom graphics, and shall have the option of a slot punch on the vertical or horizontal edge of the card for a portrait or landscape oriented photo.
 7. The access card shall be provided with a high coercivity (4000 oe) magnetic stripe on the back side of the card.
 8. The access card shall be no larger than 3.38 x 2.12 x 0.03 inches (86 x 54 x 0.76 mm), nominal thickness may vary by +/- of 0.003" (0.08 mm).
 9. The access card shall have an operating temperature of -22° to 150°F (-30° to 65°C), and shall have an operating relative humidity of 5-95% non-condensing.
 10. The read range of the access card shall be extremely consistent, and not affected by body shielding or variable environmental conditions.
 11. The access card shall be offered with more than one trillion unique codes.
 12. The access card must have an option to be able to utilize a 30-bit password between the reader and card. This unique security feature is user definable and controlled. A card without the same password data will not result in an output from the reader.
 13. [Not used]
 14. The card must respond to the 125 kHz reader at 62.5 kHz.
 15. The access card must have a reader dependent, read range from 5-28 inches (12-71 cm).

ASP+ FlexISO-XT Imageable Proximity Card

1. The access card shall be a FlexISO™ imageable proximity access control card and shall be manufactured by Indala.
2. The access card shall have a lifetime warranty.
3. The access card shall have up to 172 field programmable bits of Wiegand formatted information for universal compatibility with all Indala Wiegand interface reader applications. Once programmed, the 172 bit fields may be locked to prevent reprogramming or left unlocked to allow reprogramming of cards..

4. The access card shall be "Passive" (non-battery operated) proximity technology.
5. The access card shall have a permanent identification number printed onto it. The card numbering options shall be:
 - Sequential Matching - The internal identification numbers and the external ink jet numbers shall both be sequential and shall match (i.e. internal numbers 1-100, external ink jet numbers 1-100).
 - Sequential Non-Matching - the internal identification numbers and the external ink jet numbers will be sequential but they will not match (i.e. internal numbers 1-100, external ink jet numbers 200-300).
 - Random Non-Matching - the internal identification number shall be random numbers, the external ink jet numbers will be sequential, and the internal numbers and external numbers will not match (i.e. internal numbers 2, 7, 13, 18, etc., external ink jet numbers 1-100).
 - No External Card Numbering - the internal identification numbers are either sequential or random, there are no external ink jet card numbers.
6. The access card shall be capable of having a photo or image printed directly onto the surface of the card with a direct print printer, shall be offered with multicolor custom graphics, and shall have the option of a slot punch on the vertical or horizontal edge of the card for a portrait or landscape photo format.
7. The access card shall be no larger than 3.38 x 2.12 x 0.03 inches (86 x 54 x 0.76 mm), nominal thickness may vary by +/- 0.003 inches (0.08 mm).
8. The access card shall have an operating temperature of -22° to 150°F (-30° to 65°C), and shall have an operating humidity of 5-95% non-condensing.
9. The read range of the access card shall be extremely consistent, and not affected by body shielding or variable environmental conditions.
10. The access card shall be offered with more than one trillion unique codes.
11. The access card must have an option to be able to utilize a 30-bit password between the reader and card. This unique security feature is user definable and controlled. A card without the same password data will not result in an output from the reader.
12. [Not used]
13. The card must respond to the 125 kHz reader at 62.5 kHz.

14. The access card must have a reader dependent, read range from 5-28 inches (12-71 cm).

ASP+ FlexKey Key Tag

1. The access control key tag shall be a FlexKey proximity key tag and shall be manufactured by Indala.
2. The access key tag shall have a lifetime warranty.
3. The access key tag shall have up to 172 programmable bits of Wiegand formatted information for universal compatibility with all Indala Wiegand reader applications.
4. The access key tag shall be "Passive" (non-battery operated) proximity technology.
5. The access key tag shall have a permanent ink jet identification number printed onto it. The card numbering options shall be:
 - Sequential Matching - The internal identification numbers and the external ink jet numbers shall both be sequential and shall match (i.e. internal numbers 1-100, external ink jet numbers 1-100).
 - Sequential Non-Matching - the internal identification numbers and the external ink jet numbers will be sequential but they will not match (i.e. internal numbers 1-100, external ink jet numbers 200-300).
 - Random Non-Matching - the internal identification number shall be random numbers, the external ink jet numbers will be sequential, and the internal and external numbers will not match (i.e. internal numbers 2, 7, 13, 18, etc., external ink jet numbers 1-100).
 - No External Key Tag Numbering - the internal identification numbers are either sequential or random, there are no external ink jet card numbers.
6. The access key tag shall be no larger than 1.725" x 1.197" x 0.215" (43.8 x 30.4 x 5.46 mm).
7. The access key tag shall have an operating temperature of -22 to 150 degrees Fahrenheit (-30 to 65 degrees Celsius), and shall have an operating humidity of 5-95% non-condensing.
8. The read range of the access key tag shall be extremely consistent, and not affected by body shielding or variable environmental conditions.
9. The access key tag shall be offered with more than a trillion unique codes.

10. The access key tag must have an option to be able to utilize a 30-bit password between the reader and key tag. This unique security feature is user definable and controlled. A key tag without the same password data will not result in an output from the reader.

11. [Not used]

12. The key tag must respond to the 125 kHz reader at 62.5 kHz.

13. The key tag must have a reader dependent, read range from 2.5-14 inches (6.4-35.5 cm).

**Indala
Proximity Reader, Card, and Tag Read Ranges**

Indala specifies the typical read range to be expected for each reader. In every case for every reader, the read range performance is expressed as a span of distance. In the case of the FlexPass Mid-range reader, for instance, the typical read range is specified to be 12 inches (30.5 cm). This is not a statement indicating that every reader in every environment will achieve a 12-inch read range. It specifically indicates that a reader meets the factory specifications - when used with the reference card, the FlexCard standard proximity card.

The thin card models, FlexISO-XT Imageable card uses an antenna with significantly less gain than the FlexCard standard proximity card. As a result, the read range with any of these cards, when used with the FlexPass Mid-range reader, will be less than the 12 inches (30.5 cm). Performance within these limits meets the factory specifications.

It is important to note that in no case does Indala guarantee a minimum read range. This is impossible to achieve because all radio frequency products that are “type” certified by the regulatory agencies (FCC, DTI, PTT, etc.) must accept the local interference created by other devices. As a result, a reader in a particularly high RF noise environment could exhibit very short read range – shorter than that listed in our specifications. This is why our specifications illustrate typical performance.

The chart below provides typical read ranges of each Indala reader when used in combination with each Indala card or tag.

Proximity Cards & Tags

	FlexCard	FlexISO-XT	FlexKey
ASP+ FlexPass Card Readers			
SLIM	Up to 5” 12.7cm	Up to 5” 12.7cm	Up to 2.5” 6.4cm
WALLSWITCH	Up to 5” 12.7cm	Up to 5” 12.7cm	Up to 2.5” 6.4cm
MID-RANGE	Up to 12” 30.5cm	Up to 12” 30.5cm	Up to 6” 15cm
LONG-RANGE	Up to 28” 71cm	Up to 28” 71cm	Up to 14” 35.5cm