

HID® Signo™ Reader

Install Guide



13.56 MHz/125 kHz/2.4 GHz Contactless and Keypad Readers
SRD Models: 20, 20K, 40, 40K

Supplied parts

- HID Signo Reader (1)
- Installation Guide (1)
- Flat head/countersunk 0.138-20 x 1.5" self-tapping screws (2) – for installing the reader directly to a wall (no junction box)
- Flat head/countersunk 0.138-32 x 0.375" machine screws (3) – for Imperial (US) junction box installation (2) and attaching the reader to the mounting plate (1)
- Flat head/countersunk M3.5 x 12mm machine screws (2) – for Metric (EU etc) junction box installation
- Flat head/countersunk 0.138-32 x 0.375" security screw (1) – alternative anti-tamper screw for attaching the reader to the mounting plate
- 5-pin terminal connectors, terminal strip models only (2)

Recommended parts (not supplied)

- Cable, 5-10 conductor (Wiegand or Clock-and-Data), 4 conductor Twisted Pair Over-All Shield and UL approved, Belden 3107A or equivalent (OSDP)
- Certified LPS DC power supply
- Metal or plastic junction box
- Security tool HID 04-0001-03 (for anti-tamper screw)
- Drill with various bits for mounting hardware
- Mounting hardware
- Reader spacer when mounting on or near metal or metal junction boxes. Refer to the *Reader and Credentials How to Order Guide* (PLT-02630) for available options and part numbers
- Junction box

Specifications

	20	20K	40	40K
INPUT VOLTAGE (V DC)	12V DC			
CURRENT				
STANDBY AVG ¹	60 mA	65 mA	65 mA	70 mA
MAX AVG ²	70 mA	75 mA	75 mA	80 mA
PEAK ³	250 mA	250 mA	250 mA	250 mA
OPERATING TEMPERATURE	-30° F to 150° F (-35° C to 66° C)			
CABLE LENGTH	Communication Lines Wiegand = 500 ft - 18 AWG (152 m) 300 ft - 20 AWG (91 m) RS-485 = Max bus length: 4,000 ft - 24 AWG (1,219 m) Max length between nodes: 1,640 ft - 24 AWG (500m)			
REGULATORY REF NUMBER	20	20K	40	40K
FREQUENCY	BLE: 2.4–2.480 GHz, HF: 13.56 MHz, LF: 125 kHz			
FCC IDS	JQ6-SIGN020	JQ6-SIGN020K	JQ6-SIGN040	JQ6-SIGN040K
IC IDS	2236B-SIGN020	2236B-SIGN020K	2236B-SIGN040	2236B-SIGN040K

1 Standby AVG - RMS current draw without a card in the RF field.

2 Maximum AVG - RMS current draw during continuous card reads. Not evaluated by UL.

3 Peak - highest instantaneous current draw during RF communication.

Optional features

Tamper – Enabled by default and activated when the mounting plate is removed. The tamper is normally closed and changes to open circuit between Tamper 1 and Tamper 2 control lines. Tamper 1 and Tamper 2 control lines are interchangeable. Either of these lines can be connected with the reader ground line to reduce the number of cable cores required in the reader cable. Tamper 1 and Tamper 2 are rated 0–12VDC at 100mA.

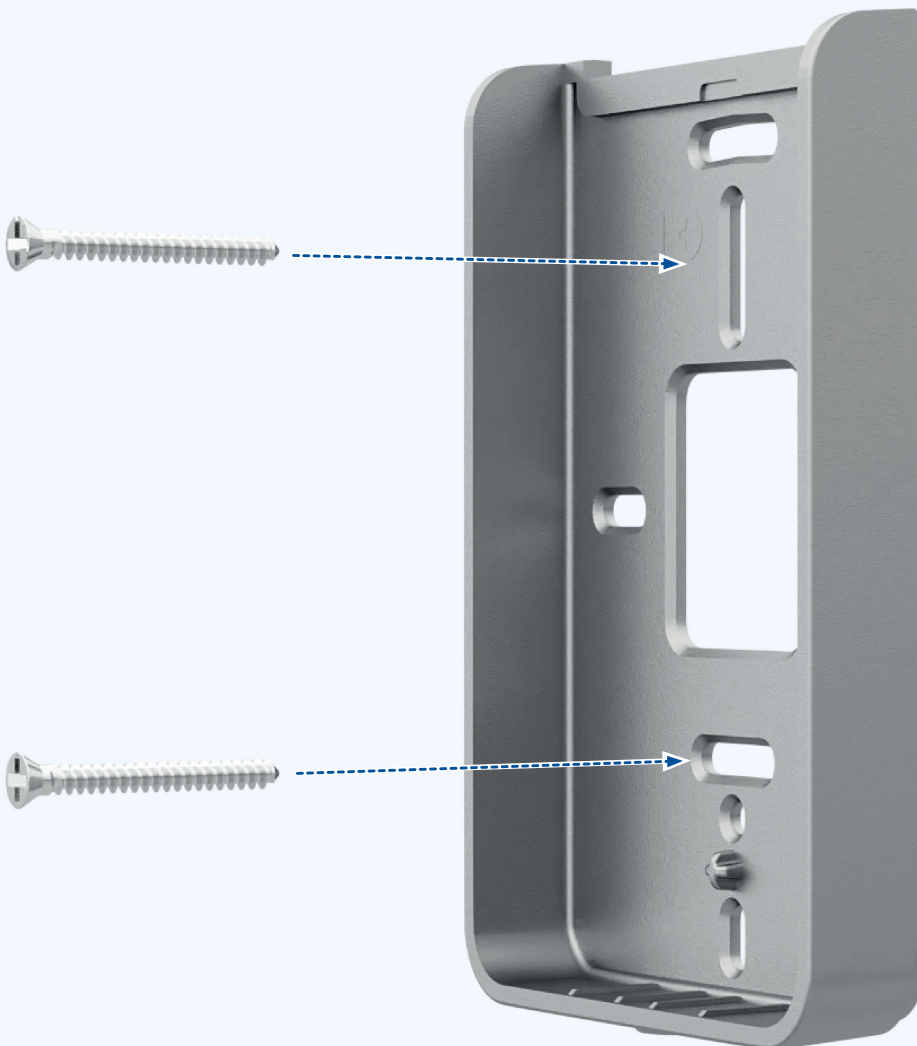
Hold Input – When asserted, this line either buffers a card (default) or disables a card read until released, as configured.

1. Mount the mounting plate



ATTENTION

Observe precautions for handling ELECTROSTATIC SENSITIVE DEVICES



CAUTION: Install the reader on a flat, stable surface. Failure to do so may compromise the IP rating and/or tamper feature. If mounting on or near metal, a spacer is recommended for optimal read performance. Refer to the *Readers and Credentials How to Order Guide* (PLT-02630) for available options and part numbers.

CAUTION: Use the supplied screws to ensure correct fitting and to avoid damaging the reader or mounting plate. HID is not responsible for damage due to use of unapproved mounting hardware.

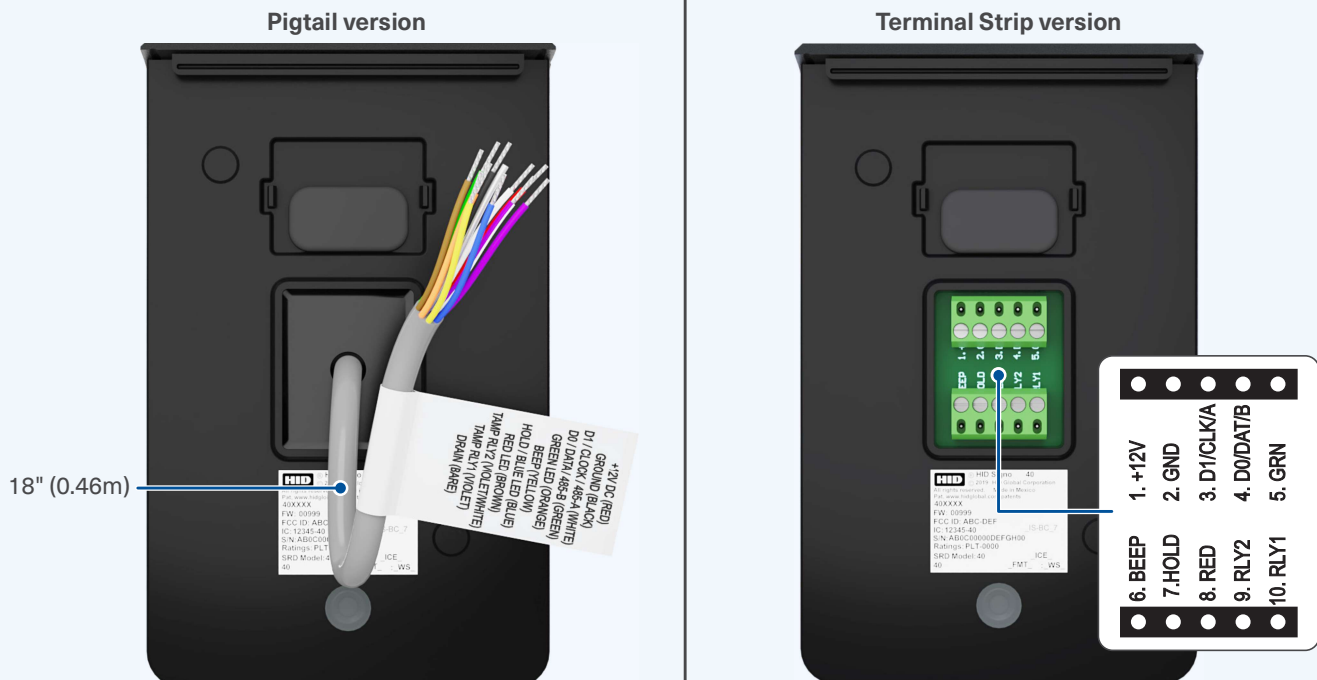
For Imperial (US):

Use supplied flat head/countersunk 0.138-32 x 0.375" screws.

For Metric (EU etc):

Use supplied flat head/countersunk M3.5 x 12mm screws.

2. Wire the reader



PIGTAIL	TERMINAL	DESCRIPTION
Red	1	+VDC
Black	2	Ground (RTN)
White	3	Wiegand Data 1 / Clock / RS485-A*
Green	4	Wiegand Data 0 / Data / RS485-B*
Orange	5	LED Input (GRN)
Yellow	6	Beeper Input
Blue	7	Hold Input / LED Input (BLUE)*
Brown	8	LED Input (RED)
Violet/White	9	Tamper 2 (RLY2)
Violet	10	Tamper 1 (RLY1)
Bare	—	Drain (pigtail models only)

*Dependent upon reader configuration

Notes:

- Wiring the reader incorrectly may permanently damage the reader.
- Previous iCLASS® readers had reversed RS-485 wiring (P2-7 & P2-6 - A & B). When upgrading to a HID Signo reader, ensure proper connections as defined above.
- Data 0 and Data 1 wires for Wiegand may be reused for OSDP. However, standard Wiegand cable may not meet RS485 twisted pair recommendations.
- For OSDP cable lengths greater than 200 ft (61 m) or EMF interference, install 120Ω +/- 2Ω resistor across RS-485 termination ends.
- For keypad configuration, with the keypad reader operating as 26 bit emulation, enter the facility code followed by # within five seconds of power-up. The facility code must be entered as three digits (i.e., for a facility code of 10 enter 0-1-0-#). If unsuccessful, the reader LED displays solid red. Power-cycle the reader and retry entering the facility code.
- HID Signo readers use facility codes between 1-255, and no default is set. Once a facility code is entered, the reader LED displays violet, then solid red. Then, power-cycle the reader. If there are two short beeps after entering a PIN, the reader facility code is not configured. In this case, power-cycle the reader and retry entering the facility code.

3. Secure the reader to the mounting plate



1. Hook the top of the reader on the top of the mounting plate.
2. Align the bottom of reader with the bottom of the mounting plate.
3. Secure the reader to the mounting plate using the supplied 0.138-32 x 0.375" screw.

Security/anti-tamper screw:
0.138-32 x 0.375" screw (supplied)

Non-security/standard screw:
0.138-32 x 0.375" screws (supplied)

4. Power and test the reader



Power the reader. The reader will beep and the LED will flash.



Test the reader with a credential. The reader will beep and the LED will flash.

CE Marking

HID Global hereby declares that these proximity readers are in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EU.

Por el presente, HID Global declara que estos lectores de proximidad cumplen con los requisitos esenciales y otras disposiciones relevantes de la Directiva 2014/53/EU.

HID Global déclare par la présente que ces lecteurs à proximité sont conformes aux exigences essentielles et aux autres stipulations pertinentes de la Directive 2014/53/EU.

A HID Global, por meio deste, declara que estes leitores de proximidade estão em conformidade com as exigências essenciais e outras condições da diretiva 2014/53/EU.

HID Global bestätigt hiermit, dass die Leser die wesentlichen Anforderungen und anderen relevanten Bestimmungen der Richtlinie 2014/53/EU erfüllen.

HID Global dichiara che i lettori di prossimità sono conformi ai requisiti essenziali e ad altre misure rilevanti come previsto dalla Direttiva europea 2014/53/EU.

Download copies of the Radio Equipment Directive Declaration of Conformity (DoC) at: <http://www.hidglobal.com/certifications>

Taiwan

According to "Administrative Regulations on Low Power Radio Waves Radiated Devices" Without permission granted by the NCC, any company, enterprise, or user is not allowed to change frequency, enhance transmitting power or alter original characteristic as well as performance to a approved low power radio-frequency devices. The low power radio-frequency devices shall not influence aircraft security and interfere legal communications; If found, the user shall cease operating immediately until no interference is achieved. The said legal communications means radio communications is operated in compliance with the Telecommunications Act. The low power radio-frequency devices must be susceptible with the interference from legal communications or ISM radio wave radiated devices.

Korean KCC

	20, 20K, 40, 40K
항목	규격
송신주파수	RFID:13.56 MHz
수신주파수	RFID:13.56 MHz
출력	RFID: 10m에서 47.544mv이하
전원	DC 12.0V
전파형식	A1D
발진방식	X-tal
변조방식	RFID: ASK, NFC: GFSK

Russia

Дата изготовления указана на маркировке оборудования

Представитель в Российской Федерации	
Название	ООО «Дофин»
Адрес	140573, РФ, Московская обл., Озерский район, с. Бояркино
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