HID® Signo™ PIV Contact Reader
Install Guide

13.56 MHz / 125 kHz / 2.4 GHz Contact Reader
SRD Model: 40TC

Supplied parts
- HID Signo mechanical keypad reader (1)
- Mounting plate with contact module
- Install 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)
- 5-pin terminal connectors (2)

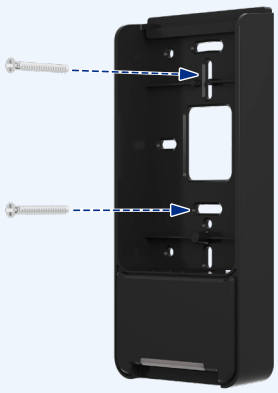
Recommended parts (not supplied)
- 5/64" hex key tool for securing the reader to the mounting plate with contact module (part number EQM-00843)
- Cable, 5-10 conductor Twisted Pair Over-All Shield and UL approved, Belden 3107A or equivalent (OSDP)
- Certified LPS DC power supply
- Metal or plastic junction box
- Drill with various bits for mounting hardware
- Mounting hardware
- 10 degree angled spacer for alternate mounting scenarios (part number 40C-K-10). Refer to the **Reader and Credentials How to Order Guide** (PLT-02630) for available options and part numbers at **https://www.hidglobal.com/documents/how-to-order**. For installation refer to the **HID Signo PIV Contact 10 Degree Spacer Install Guide** (PLT-08107)
- HID® Reader Manager™ app for configuration of the reader (available for download from the App Store or Google Play)

PLT-07787 A.0

1. Mount the mounting plate with contact module

ATTENTION
Observe precautions for handling
ELECTROSTATIC SENSITIVE DEVICES

IMPORTANT: If you are mounting multiple HID Signo readers to metal stud walls, and the readers are positioned within six feet (1.8 m) of each other, refer to the additional installation recommendations in technical bulletin PLT-05722 **https://www.hidglobal.com/PLT-05722**



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.

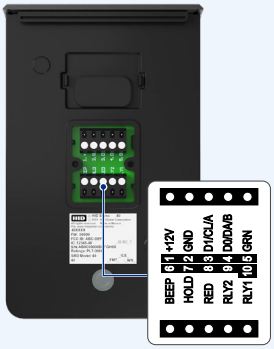
CAUTION: Use the supplied screws to ensure correct fitting and to avoid damaging the reader or mounting plate. HID is not responsible for damage due to use of unapproved mounting hardware.

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.

When installing with a 10 degree angled spacer, refer to the **HID Signo PIV Contact 10 Degree Spacer Install Guide** (PLT-08107).

2a. Wire the reader



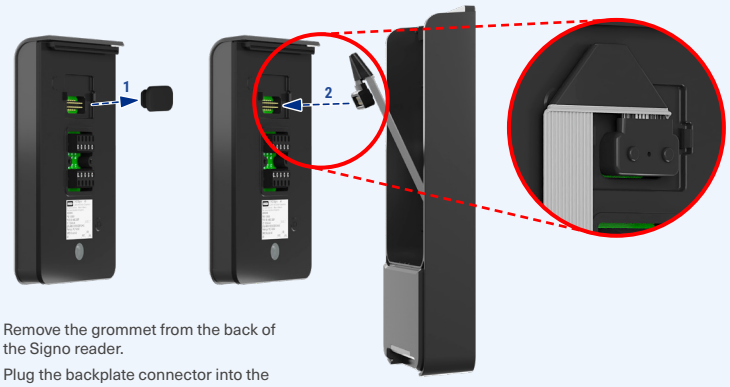
TERMINAL	DESCRIPTION
1	+VDC
2	Ground (RTN)
3	Data 1 / Clock / RS485-A*
4	Data 0 / Data / RS485-B*
5	LED Input (GRN)
6	Beeper Input
7	Hold Input
8	LED Input (RED)
9	Tamper 2 (RLY2)
10	Tamper 1 (RLY1)
–	Drain (pigtail models only)

*Dependent upon reader configuration.

2b. Wire the reader

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 readers with Tamper Evident Labels, inspect your reader after first unboxing. If any seals are broken, please contact HID Technical Support.

3. Connect the contact module to the reader

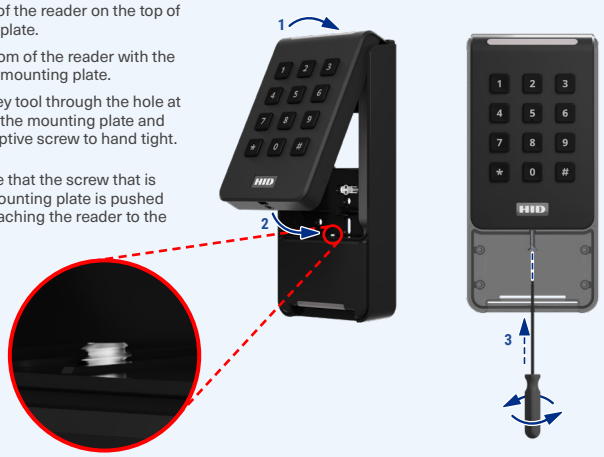


1. Remove the grommet from the back of the Signo reader.
2. Plug the backplate connector into the the Signo expansion port.

4. 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 the reader with the bottom of the mounting plate.
3. Insert a hex key tool through the hole at the bottom of the mounting plate and tighten the captive screw to hand tight.

Note: Make sure that the screw that is captive in the mounting plate is pushed down before attaching the reader to the mounting plate.



5. Power and test the reader

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

Note: Idle LED may vary depending on reader configuration.

Test the reader with a credential. The reader will beep and the top LED will flash. Enter the credential PIN and wait for a green LED.

Test the reader by inserting a credential into the card slot. Wait for the LEDs to flash, then enter a PIN.

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 12V DC at 100mA (resistive).

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

Specifications

Input Voltage (V DC)	12V DC
Standby Current AVG[1]	97 mA
Max Current AVG[2]	118 mA
Peak Current[3]	250 mA
Operating Temperature	-30° F to 150° F (-35° C to 66° C)
Humidity Range	0% to 95% non-condensing
Cable Length	**Communication Lines** **RS-485** = Max bus length: 4,000 ft - 24 AWG (1,219 m) Max length between nodes: 1,640 ft - 24 AWG (500 m)
Regulatory Ref Number	40TC
Frequency	BLE: 2.4–2.480 GHz, HF: 13.56 MHz, LF: 125 kHz
FCC IDS	JQ6-SIGN40TC
IC IDS	2236B-SIGNO40TC

[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.

Regulatory

UL

Connect only to a Listed Access Control / Burglary power-limited power supply. These readers are intended to be used with listed (UL294) control equipment. Suitable for outdoor use.

Only Wiegand, OSDP, and Bluetooth communications have been evaluated by UL.

HID Signo readers are compatible with HID Mobile Access® version 3.0.0 and later using mobile devices with BLE version 4.2 and later listed at:
https://www.hidglobal.com/mobile-access-compatible-devices.

Install in accordance with NFPA70 (NEC) Local Codes, and authorities having jurisdiction. Follow all National and Local Codes.

UL 294 Performance Levels

Model #	Access Control Line Security Level	Destructive Attack Level	Endurance Level	Stand-By Power Level	Conditions
40TC	Level I	Level I	Level IV	Level I	

FCC

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.

CAUTION: Any changes or modifications to this device not explicitly approved by the manufacturer could void your authority to operate this equipment.

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.

Canada Radio Certification

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

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.

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

SECURITY UL LISTED Equipment 8T2 9 ACC Control READER

c UL LISTED General Signaling Equipment

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For technical support, please visit: https://support.hidglobal.com