

NEW

OMRON

V680 RFID Handheld Reader Writer

V680-CH Series

Reliability Is Finally Here!



Main Features

- Communications possible with ISO/IEC 18000-3 (ISO/IEC 15693)-compliant ID Tags, as well as with the V680-series ID Tags.
- Equipped with RS-232C and USB interfaces.
- Supports V600-series commands to enable use with existing systems.
- Conforms to CE and FCC.

- ☐ V680-CHUD 0.8M Model with USB, 0.8 m
- ☐ V680-CHUD 1.9M Model with USB, 1.9 m
- ☐ V680-CH1D Model with RS-232C, 2.5 m
(for use with a personal computer or programmable controller)
- ☐ V680-CH1D-PSI Model with RS-232C, 0.8 m
(Recommended model: Psion Teklogix Handheld Terminal)
- ☐ V600-A22 AC Adaptor
(for V680-CH1D)
- ☐ V680-A-7527S-G2-EG-S Psion Teklogix Handheld Terminal

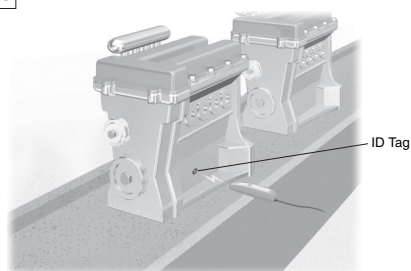
Communicate with both V680-series Tags and Tags that comply with international standards.



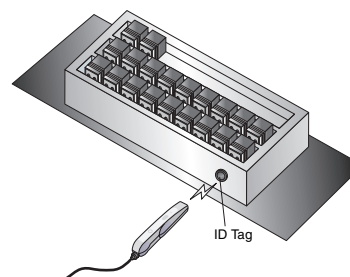
realizing

Application Examples

Automobile Parts

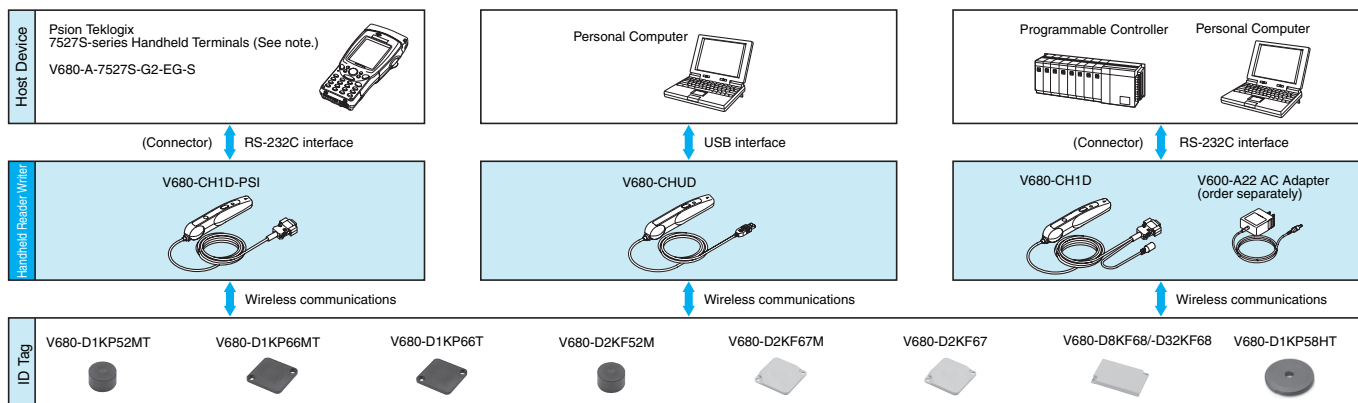


Inspecting Secondary Batteries



- Can be used for the following:
- Lot numbers
 - Model numbers
 - Production instructions
 - Process control information
 - Quality information management

System Configuration



Note. Easy Access demonstration software for V680/V600 is pre-installed.

Ratings and Specifications

Handheld Reader Writer

Item	Model	V680-CHUD 0.8M	V680-CHUD 1.9M	V680-CH1D	V680-CH1D-PSI
Power supply voltage		5 VDC±5%			
Current consumption		500 mA max. (for a power supply voltage of 5.0 V)			
Insulation resistance		50 MΩ min. (at 500 VDC) between connector and case			
Dielectric strength		1,000 VAC, 50/60 Hz for 1 min (leakage current: 1 mA max.) between connectors and case			
Vibration resistance		Destruction: 10 to 150 Hz, 0.2-mm double amplitude, with 10 sweeps for 8 min each in 6 directions			
Shock resistance		Destruction: 150 m/s ² , 3 times each in X, Y, and Z directions			
Ambient operating temperature during communication		0 to +40°C			
Ambient operating humidity during communication		35% to 85% (with no condensation)			
Ambient storage temperature		-25 to +65°C			
Ambient storage humidity		35% to 85% (with no condensation)			
Degree of protection		IEC 60529: IP63 (See note 2.)			
Cable length		0.8 m	1.9 m	2.5 m	0.8 m
Weight		Approx. 110 g (including connector and cable)	Approx. 140 g (including connector and cable)	Approx. 170 g (including connector and cable)	Approx. 120 g (including connector and cable)

Note 1. Refer to the User Manual (Cat. No. Z272) for details.

2. This does not include the connector section. The main unit is not resistant to chemical or oils.

Tag Communications Specifications

Transmission is possible with currently sold V680-series ID Tags.

ID Tags	Communications distance	
	Read	Write
V680-D1KP52MT	0 to 9.0 mm	0 to 7.5 mm
V680-D1KP52MT (embedded in metal: steel)	0 to 3.0 mm	0 to 2.5 mm
V680-D1KP66MT	0 to 21.0 mm	0 to 18.0 mm
V680-D1KP66T	0 to 27.0 mm	0 to 25.0 mm
V680-D1KP58HT	0 to 19.0 mm	0 to 17.0 mm
V680-D2KF52M	0 to 7.0 mm	0 to 7.0 mm
V680-D2KF52M (embedded in metal: steel)	0 to 2.0 mm	0 to 2.0 mm
V680-D2KF67M	0 to 22.0 mm	0 to 22.0 mm
V680-D2KF67	0 to 28.0 mm	0 to 28.0 mm
V680-D8KF68	0 to 32.0 mm	0 to 32.0 mm
V680-D32KF68	0 to 32.0 mm	0 to 32.0 mm

Note. ID Tag Mounting Conditions

- V680-D1KP52MT: Embedded in resin or steel.
- V680-D1KP66MT: ID Tag mounted with steel on back surface.
- V680-D1KP66T: ID Tag mounted on resin surface (no metal on back surface).
- V680-D1KP58HT: ID Tag mounted on resin surface (no metal on back surface).
- V680-D2KF52M: Embedded in resin or steel.
- V680-D2KF67M: ID Tag mounted with steel on back surface.
- V680-D2KF67: ID Tag mounted on resin (no metal on back surface).
- V680-D8KF68: ID Tag mounted on resin (no metal on back surface).
- V680-D32KF68: ID Tag mounted on resin (no metal on back surface).

Host Communications Specifications

Host Communications Interface Specifications

<V680-CHUD>

Item	Model	V680-CHUD
Interface connector		Series A plug
USB version		Ver 1.1
Communications speed		Full speed (12 Mbps)
Device class		COM class

<V680-CH1D or V680-CH1D-PSI>

Item	Model	V680-CH1D	V680-CH1D-PSI
Connector		D-SUB 9-pin (compatible with IBM PC/AT or compatible) (See note 1.)	D-SUB 9-pin
Standards		RS-232C	
Transmission path connections		1:1	
Communications method		2-wire half-duplex	
Synchronization		Start-stop (stop bits = 1 or 2) (See note 2.)	
Baud rate		2,400, 4,800, 9,600, 19,200, or 38,400 bps (See note 2.)	
Transmission code		ASCII (7-bit) or JIS8 (See note 2.)	
Communications control procedure		1:1 protocol	
Error detection		Vertical parity (even, odd, or none) (See note 2.)	

Note 1. To convert to a 25-pin connector, use the Sunhayato SGC-X9P/25P-2 or the equivalent.
2. Set using a setting command.

Also Available:

Psion Teklogix Handheld Terminals

V680-A-7527S-G2-EG-S



Includes the Handheld Terminal, batteries, and a charger.

This document provides information mainly for selecting suitable models. Please read the Instruction Sheet carefully for information that the user must understand and accept before purchase, including information on warranty, limitations of liability, and precautions.

OMRON Corporation
Industrial Automation Company
Sensing Devices Division H.Q.
Industrial Sensors Division

Shiokoji Horikawa, Shimogyo-ku,
Kyoto, 600-8530 Japan
Tel: (81)75-344-7022
Fax: (81)75-344-7107

Regional Headquarters

OMRON EUROPE B.V.
Sensor Business Unit
Carl-Benz-Str. 4, D-71154 Nufringen,
Germany
Tel: (49) 7032-811-0
Fax: (49) 7032-811-199

OMRON ELECTRONICS LLC
One Commerce Drive Schaumburg,
IL 60173-5302 U.S.A.
Tel: (1) 847-843-7900/Fax: (1) 847-843-7787

OMRON ASIA PACIFIC PTE. LTD.
No. 438A Alexandra Road # 05-05/08 (Lobby 2),
Alexandra Technopark, Singapore 119967
Tel: (65) 6835-3011/Fax: (65) 6835-2711

OMRON (CHINA) CO., LTD.
Room 2211, Bank of China Tower,
200 Yin Cheng Zhong Road,
Pu Dong New Area, Shanghai, 200120, China
Tel: (86) 21-5037-2222/Fax: (86) 21-5037-2200

Authorized Distributor:

Note: Specifications subject to change without notice.

Cat. No. Q157-E1-01