# OSDP reader
# **MODULE**

- **Global standard:** open platform, accredited by the IEC

- **Security:** higher levels of security (AES-128 encryption)

- **Cost effective:** reduced cabling and installation complexity

**2** reader ports | **2** relays | **4** digital inputs



## WHO SHOULD USE THE OSDP READER MODULE?

Organisations looking to increase their security and interoperability, with a future-proofed technology that is a global open standard.

### PRODUCT BENEFITS:

- Encrypted communication between reader and controller, to prevent security breaches
- Supports both OSDP and Wiegand protocols for simplified upgrade path
- Bidirectional communication for remote reader management
- Installation can be up to 1,000m from the controller
- Plug-and-play simplicity
- Eight diagnostic LEDs
- Supports a variety of reader types, including biometrics

Impro's OSDP module meets the needs for high security, whilst maintaining true plug-and-play simplicity in an installation.

### Security
OSDP provides higher levels of security with up to AES-128 encryption between the reader and controller, removing the risk of "man-in-the-middle" attacks possible with legacy protocols.

In addition, OSDP constantly monitors wiring to protect against tampering and provide feedback on the reader state.

### Bidirectional communication
Installation is simplified with the use of OSDP's bidirectional communication, as readers can be configured through the software.

Another benefit is the ability to customise the reader interface to display messages or adjust audio/visual feedback.

### Reduced costs
Installing OSDP requires two wires, compared to 11 wires for Wiegand, resulting in an immediate cost saving. In addition, due to the simplicity of installation, there's less time on site.

OSDP can also achieve up to ten times longer cable runs from the controller, again reducing site complexity and cost.

### Open standard
OSDP operates on a globally accredited open standard, which is quickly being adopted by manufacturers. This enables the industry to continue evolving the standard, its interoperability and enable the future-proofing of your access control.

### Upgrade compatibility
An unique feature of Impro's OSDP module is support for both OSDP and Wiegand, to enable a simplified upgrade path. The module is able to manage both protocols, reducing the need for immediate rip and replace of all readers, when upgrading to OSDP.

# Specifications
# OSDP READER MODULE

| Model name | OSDP reader module | OSDP reader module IPS |
|---|---|---|
| Product description | OSDP reader module in plastic housing | OSDP reader module for IPS box |
| Part number | HMX900 | HMX901 |
| Colour | Black | Black |
| Dimensions (d-w-h) | 18.6cm x 9.9cm x 5.7cm [7.3" x 3.9" x 2.3"] | 17.5cm x 7.1cm x 3.8cm [6.9" x 2.8" x 1.5"] |
| Approximate product weight | 280g [9.9 oz] | 250g [8.8oz] |
| Material | ABS plastic | ABS plastic |
| **Electrical specifications** | | |
| Input voltage | 12 VDC nominal, 15 VDC max, polarity sensitive | |
| Power requirements at 12 VDC relays off | 60 mA current<br>0.9 W power | |
| Relay power requirements at 12 VDC | An additional ~0.4 W per relay used | |
| Power input protection | Reverse polarity and over-current protection transient voltage protection | |
| **Wiegand port specifications** | | |
| | Minimum | Typical | Maximum |
| Pulse width range | 21uS | 42uS | 8mS |
| Pulse interval minimum | 100uS | 200uS | 8mS |
| Pulse interval maximum | 8mS | 9mS | 17mS |
| **OSDP port specifications** | | |
| Baud rate | 115.2Kbit/s, dependent on cable type | |
| **Input specifications** | | |
| Digital inputs | Four | |
| Input type | 2 dry contact inputs with end-of-line (EOL) sensing and 2 dry contact inputs without end-of-line (EOL) sensing | |
| **Output specifications** | | |
| Number of relay outputs | Two | |
| Output type | Relay output: 2x independent, single-pole, double-throw (SPDT) dry contact relays | |
| Relay contacts | NO • COM • NC | |
| Contact ratings | 10 A at 28 V DC<br>5 A at 220 V AC<br>12 A at 120 V AC<br><br>100,000 operations minimum | |
| **Environmental specifications** | | |
| Operating temperature | -25° to +60° C [-13° to +140° F] | |
| Storage temperature | -40° to +80° C [-40° to +176° F] | |
| Operating humidity | 0 to 95% relative humidity non-condensing (at +40° C / +104° F) | |
| Environmental rating | IP20 | IP20 in closed IPS box |
| **Certifications** | | |
| CE (EU) | ✓ | |
| UL | On request | |
| RoHS | ✓ | |
| SABS (RSA) | ✓ | |