



Intelligent Twin Reader TERMINAL

- **Control:** manage entrances such as gates, turnstiles and doors
- **Integration:** uses the globally accepted Wiegand protocol
- **Diagnostics:** 14 LED diagnostic indicators

2 reader ports | 2 relays | 4 digital inputs



WHO SHOULD USE THE ITRT?

The iTRT was released over a decade ago and has been installed in thousands of sites worldwide - from small premises all the way through to multi-site enterprise sites.

PRODUCT BENEFITS:

- Operates on older Impro systems, such as the IXP ranges, and the class-leading Access Portal suite
- Offline validation
- User configurable relay functions
- Four digital inputs for tasks such as door open sensing as well as scanner inhibit, alarm interface and more
- 14 diagnostic LEDs
- Anti-tamper switch
- 32-bit ARM7 processor
- Available in plastic housing or metal enclosure

The Intelligent Twin Reader Terminal (iTRT) works on both the IXP and Access Portal ranges of access control systems.

The unit is compatible with a variety of Impro hardware, including the multi-discipline and Wiegand reader ranges, due to full Wiegand support.

This also enables third-party Wiegand readers to be connected to the iTRT.

Each iTRT can be used with two readers and allows for relaxed and full anti-passback (APB) access on a single door, or single entry on two doors.

For sites requiring extended range the iTRT can be connected to the Impro infrared receiver and RF four-channel receivers.

Inputs and outputs

Each device comes standard with four digital inputs, including two Door Open Sensor (DOS) and two Request To Exit (REX) inputs.

Added security is assured through end-of-line (EOL) sensing on the Door Open Sensor (DOS) inputs.

Meanwhile, the two 10A independent single-pole, double-throw (SPDT) relay outputs allow for interfacing to door strikes, magnetic locks and other third party devices such as alarm panels or lighting.

Capacity

The iTRT is able to store up to 10,000 credentials and 10,000 buffered transactions per channel, whilst also providing offline validation.

Diagnostic support

The 14 LED diagnostic indicators provide a comprehensive interface, while the software utility tool enables the iTRT to be upgraded while installed on site with zero down-time.

Product options

The iTRT is available in two housing options - an ABS plastic housing or a metal enclosure with built-in IPS (integrated power supply).

Communication

Communication to the controller can be via ethernet or RS485.

Specifications

INTELLIGENT TWIN READER TERMINAL (iTRT)

Model name	iTRT plastic	iTRT metal housing
Product description	iTRT in plastic housing	iTRT in metal housing with IPS
Part number	XRT920	IPS921
Colour	Black	Black
Dimensions (d-w-h)	12.8cm x 16.6cm x 5.5cm [5" x 7" x 2"]	30.5cm x 29.5cm x 7.7cm [12" x 11" x 3"]
Approximate product weight	314g [11 oz]	3kg [7lb]
Material	ABS	Mild steel
Electrical specifications		
Input voltage	10 V DC nominal, 30 V DC max, polarity sensitive	
Power requirements at 12 VDC relays off	75 mA current 0.90 W power	
Relay power requirements at 12 VDC	An additional ~0.4 W per relay used	
Power input protection	Reverse polarity, over-voltage and over-current protection	
Wiegand port specifications		
	Minimum	Maximum
Pulse width range	21 uS	8 mS
Pulse interval range	42 uS	19 mS
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 5 A at 220 V AC 10 A at 120 V AC 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	IP40	IP20 in closed IPS box
Certifications		
CE (EU)	✓	
RoHS	✓	
SABS (RSA)	✓	



Impro Technologies
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in the access control industry

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