

# SENTRY CARD READER



**Intrinsically Safe  
Security Card Reader  
with Digital Input &  
Output Capabilities**

EEx ia IIC T4  II 1 G ATEX Approved  
IP65 Ingress Protected

## The Flexible Security Card Reader for Hostile Areas

- Security and Access Control Systems
- Wiegand, HID or EM Proximity Cards
- Robust All-Weather Protection
- Multi-Drop and MODBUS Enabled

The Sentry Card Reader is designed for use in hazardous or harsh environments, with versions able to read a range of different card technologies.

ATEX Certified to EEx ia IIC T4, the Sentry is Intrinsically Safe (IS) and suitable for use in the most hazardous of areas, including those classified as Zone 0 (Div.1) with a constant risk of an explosive atmosphere.

### Proximity cards:

A non-contact technology where a card is read by passing it within a few centimetres of a radio frequency window on the front of the Sentry. With proximity technology the identification media can take a number of different formats, including a key fob device as an alternative to the standard Proximity card. Currently HID and EM4001 (or compatible) devices can be read with a Sentry.

### Wiegand cards:

A high security swipe card where data is encoded using wires embedded within the card during manufacture. Card data cannot be changed or reprogrammed. Wiegand cards are robust and reliable but relatively expensive.

Operation with Bar Code and Magnetic stripe card technologies is under development, taking advantage of the Sentry's modular design.

Communication with an IS Sentry is via the R007 interface barrier, which can be located up to 1 km away in a safe area. Host computer connection to the R007 is made using RS-232, RS-422 or RS-485 signals. (Card data read by a Sentry can also be sent to a host via a Mercury 2<sub>e</sub> Terminal, eliminating the need for a second host port.)

The Safe Area version of the Sentry has RS-422 and RS-485 connectivity available and does not need the R007 barrier.

Each Sentry can be assigned its own address to allow multi-dropped operation with RS-422/485 signals. Up to 32 Sentry units can be linked together and connected to a single control port on the host.

LEDs on the Sentry are used to provide feedback, one is under host control.

The Sentry has 4 digital inputs which can be read by the host. Two are characterised for use with IS proximity switches and the other two are general purpose Digital Inputs. The Sentry also has two opto-isolated Digital Outputs, which could be used to facilitate gate / door entry or initiate an external operation.

# Specifications

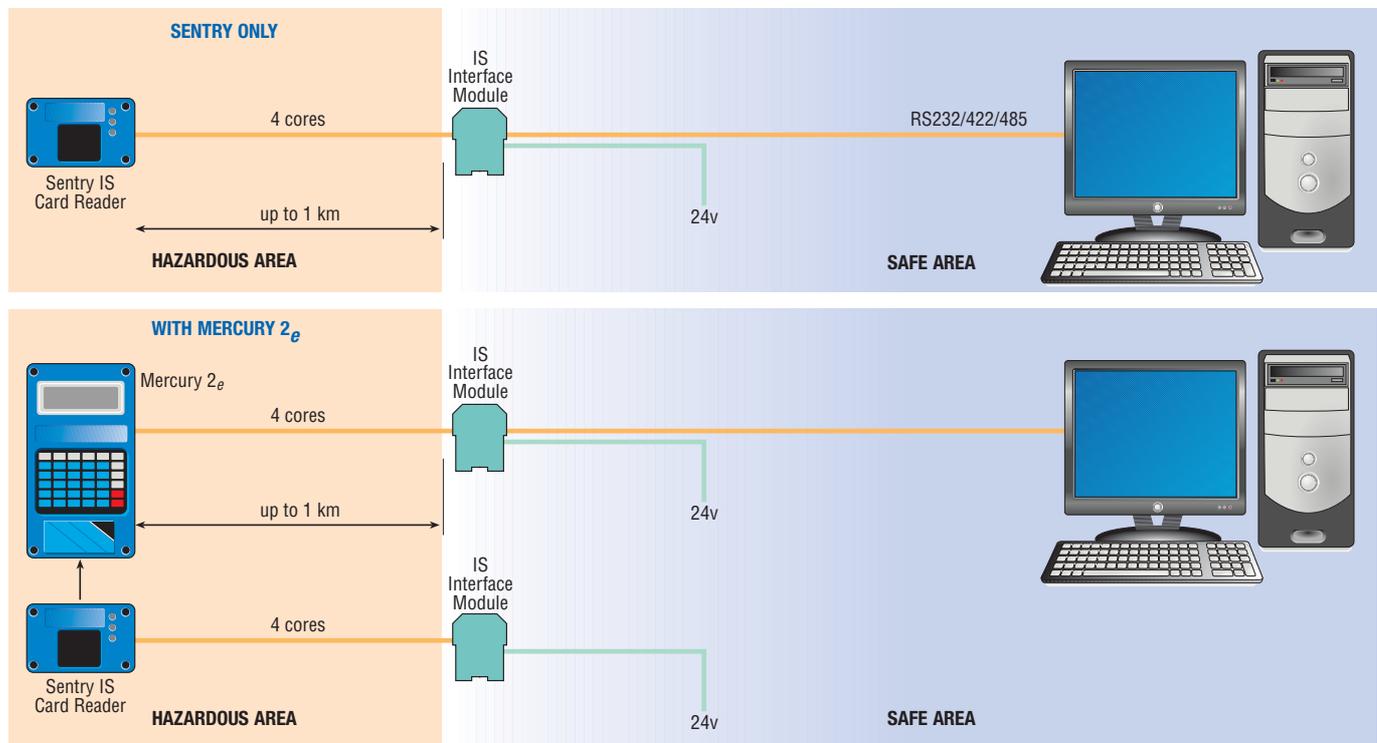
SENTRY CARD READER	
Certification:	ATEX EEx ia IIC T4, (Ta = -20°C to +60°C) Zone 0 (Division 1) SIRA Certificate. No. 99ATEX2138X
Ambient temperature:	-20°C to +60°C (operating), -40°C to +70°C (Storage)
Ingress protection:	IP65 to EN 60529
Enclosure:	Epoxy painted aluminium alloy, Weight 1.7Kg, with HID reader
Supply voltage:	20 to 32 Volts D.C. at approx 40 mA (dependent on reader used)
Data protocol:	Based on VT-100 (compatible with Mercury 2 <sub>e</sub> Terminal) & Mercury 2 <sub>e</sub> Modbus
Card formats*:	Currently Wiegand swipe cards and HID and EM4001 (or compatible) proximity card reader heads are available. The Sentry is also designed to work with barcode and magnetic cards
Inputs:	2 Inputs characterised for direct connection to proximity switches and 2 general purpose Digital Inputs
Outputs:	2 opto-isolated Digital Outputs
Multi-drop:	Up to 32 Sentry Card Readers
Baud rate:	1200 to 9600 baud with existing barriers. Up to 19,200 baud with the Mk2 R007 IS Interface (and Non IS version*)
Communication Interfaces:	IS Version- Requires R007 IS Interface Module Non IS version* - RS422 or RS485. R007 not required
Mechanical:	Height 120.00mm, Width 220.00mm, Depth 80.00mm (proximity reader) or 110.00mm (wiegand reader)
Connections:	IS version, 4-wire connection to R007 IS Interface Module. (Non IS version*, 2-wire power and 2- or 4-wire communications)

\* Reader heads to suit card formats and IS / Non IS versions are factory configured.

## Further Information

The manual and user guides for the Sentry Card Reader and the other products from Mercury IMC Ltd can be obtained from our website, directly from the Headquarters in the UK, or from any of our distributors worldwide.

## Your local distributor:



mercury **Imc** ltd

George House, Derwent Road, York Road Business Park, Malton, North Yorkshire YO17 6YB

t: +44 (0)1653 697200  
f: +44 (0)8700 667325  
e: sales@mimc.co.uk  
w: www.mimc.co.uk