

Rosslare's Open to Secure (O2S) family of readers are highly flexible smart card readers that redefine ease of use and high security in the world of RFID access control solutions. The readers support reading from and writing to the secure memory of the world's most accepted RFID technologies – MIFARE<sup>®</sup> DESFire<sup>®</sup> EV1, MIFARE<sup>®</sup> Plus, and MIFARE<sup>®</sup> Classic.

With MIFARE DESFire EV1 and MIFARE Plus credentials, you have access to the highest levels of cryptographic security with support for 128-Bit AES encrypted communications between reader and credential. With O2S preprogrammed readers and credentials, you can have the highest level of secure access control solutions right out of the box. Choose from a variety of standard configurations to get the functionality that you need –US/UK/Asia or mullion mount, proximity only or proximity & keypad authentication, pigtail or terminal block termination, and multi-format Wiegand or OSDP outputs. Or customize the reader to meet your requirements for maximum configuration flexibility.

## **GENERAL DESCRIPTION**

The AY-x6x70 readers read secure O2S ID data and the CSN from MIFARE Plus and MIFARE Classic credentials.

The AY-x6x80 readers read secure O2S ID data and the CSN from MIFARE DESFire EV1 and MIFARE Classic credentials.

## **MAIN FEATURES**

 Contactless smart card reader (13.56 MHz)

- Meets ISO14443 Type A Standard
- AES 128-Bit encryption during transmission (MIFARE Plus and MIFARE DESFire EV1)
- Reads O2S ID data from O2S credentials
- Reads CSN of non-O2S credentials
- Output formats:
  - Wiegand (per format on O2S credential)



- Clock & Data (per format on O2S credential)
- OSDP via RS-484 (selected models)
- RGB multi-color light indicator
- Blue backlit tact switch keypad
- Fully-potted construction for indoor and outdoor use
- Optical back tamper sensor
- Two LED control inputs
- Buzzer control input
- Pigtail or terminal block connectivity



# **SPECIFICATIONS**

### **ELECTRICAL SPECIFICATIONS**

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<ul> <li>Operating Voltage Range</li> </ul>	6 to 16 VDC	
Standby Input Current at 12V	85 mA	
Maximum Input Current at 12V	110 mA	
Read Range (secure credential memory)	AY-H6xx0	AY-G6xx0
MIFARE Classic	1.5 to 1.8 in. (40 to 45 mm)	1.5 to 1.8 in. (40 to 45 mm)
MIFARE Plus	1 in. (25 mm)	1.2 in. (30 mm)
MIFARE DESFire EV1	1 in. (25 mm)	1.2 in. (30 mm)
LED Control	Two Inputs: Green LED CTL and RED LED CTL – TTL	
Auxiliary Input	Buzzer CTL or Hold CTL – TTL	
Auxiliary Output	Tamper Output (OC, active low, max. sink current 30 mA)	
Supported Data Formats	Proximity: Wiegand (per format on O2S credential) Clock & Data (per format on O2S credential) OSDP via RS458 (selected models) Keypad: Seven user-selectable standard formats available	
Maximum Cable Distance to Controller	Wiegand: 500 ft (150 m) with 18-AWG cable OSDP (RS-485): 4,000 ft (1200 m) with 2x2 18-AWG twisted shielded cable	
Compatible Cards	AY-x6x70: MIFARE Plus X/S (2K, 4K) and Classic (1K, 4K), AY-x6x80: MIFARE DESFire EV1 (2K, 4K, 8K) and Classic (1K, 4K)	
ENVIRONMENTAL SPECIFICATIONS		
Operating Temperature	-24°F to 145°F (-31°C to 63°C)	
Operating Humidity	0% to 95% (non-condensing)	
Outdoor Usage	Weather-resistant, meets IP65, epoxy potted, suitable for outdoor use	
MECHANICAL SPECIFICATIONS		
Dimensions of Pigtail Models (H x W x D)	AY-G6xx0: 5.7 x 1.7 x 0.9 in. (145.3 x 42.0 x 23.0 mm) AY-H6xx0: 4.7 x 3.2 x 0.9 in. (120.0 x 80.0 x 23.0 mm)	
Dimensions of Terminal Block and OSDP Models (H x W x D)	AY-G6xx0: 5.7 x 1.7 x 1.2 in. (145.3 x 42.0 x 31.0 mm) AY-H6xx0: 4.7 x 3.2 x 1.2 in. (120.0 x 80.0 x 31.0 mm)	
Weight	AY-G6xx0: 5.5 oz (155 g) AY-H6xx0: 7.7 oz (217 g)	
SYSTEM COMPONENTS	The AY-G/H6xx0 readers are compatible with Rosslare's controllers and many other third-party Wiegand controllers	

#### ABOUT ROSSLARE SECURITY

Rosslare Security Products manufactures and markets high-quality security products via its worldwide offices and channel partners. Since 1980, Rosslare has offered high-quality systems for enterprise, small business, and residential applications. With Rosslare, you receive the best of all worlds: world-class product engineering and design; professional customer service spanning the globe; and the quality and affordability of a vertically integrated and self-owned manufacturing facility. Our expansive product range features much more than access control solutions and guard patrol management systems; we also offer applications software – such as License Plate Recognition, Time & Attendance, and DVR/alarm integration.

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