

**Technical Reference****MR-1824 AND MR-1824-MC READERS -- COMPARISON**

AWID offers two physical versions of the medium-range proximity reader. One is optimized for mounting at a location that has no metal within at least 3 inches (preferably 4 or 5 inches). The other is optimized for mounting the reader directly on a metal surface at least as large as the reader itself. This table compares the features for these two versions. Note especially the reduction in read range for the metal-compensated MR-1824-MC.

Feature	MR-1824	MR-1824-MC
Description	Proximity reader, medium range, in ABS plastic housing	Same as MR-1824 but with 4 ferrite plates and a protective skirt added at rear
Applications	Vehicle gates and door access with medium range for easier reaching	Same as MR-1824 when metal is present near the reader
Protection from environment	Separate cover and base closed by 4 screws; electronics sealed in epoxy resin	Same as MR-1824
Antenna tuning	Normal tuning – for mounting away from all metal by 3 inches or more	Special tuning – for compensation with reader mounted on a large metal surface
Firmware versions	Revision D for most access control systems	Same as MR-1824
Data interfaces	Wiegand, RS-232 and TTL-level pulses	Same as MR-1824
To read proximity credentials (cards, tags and wafers)	All AWID 125-kHz credentials; must be AWID's products	Same as MR-1824
Mount reader in environment	Indoors or outdoors, exposed to precipitation	Same as MR-1824
Mount on surface	Non-metallic surface with no metal within 3 inches or more	Metallic surface at least as large as the reader itself
For mounting on metal pedestal or gooseneck stand	Separate MR-1824 from the stand and other metal by 3 inches or more	Place a metal surface at least as large as the reader between reader and stand
Electric power source	Independent external power supply – not the reader port's DC terminals on panel	Same as MR-1824
Power source specifications	Voltage between 5 and 12 volts DC; current capacity 1 amp or more at 12 V	Same as MR-1824
Power source features (required)	Linear (that is, not switching); regulated	Same as MR-1824
Wiring the reader to the panel	Identical to other proximity readers except for independent power supply	Same as MR-1824
Grounding the reader	Tie all grounds together – panel's reader port, reader's black wire, and power supply's negative terminal	Same as MR-1824
Read ranges (typical max.):	At 12 volts:      At 5 volts:	At 12 volts:      At 5 volts:
CS card	24 inches      12 inches	16 inches      8 inches
GR and GRMAG cards	20 inches      10 inches	13 inches      7 inches
KT keytag	16 inches      8 inches	12 inches      6 inches
PW wafer	10 inches      5 inches	7 inches      3 inches
HT hangtag	—      —	—      —
Housing color	Dark gray	Same as MR-1824
Physical dimensions	8 inches x 8 inches x 1.5 inches	8 inches x 8 inches x approx.2 inches



APPLIED WIRELESS ID

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Notes:

- (a) If two MR-1824 or MR-1824-MC readers must be installed within about 8 feet of each other without RF shielding between them, AWID offers **MR-1824-HiLo**. This is a set of two readers serving as a master and slave in two identical housings.. Only one of the readers transmits RF at any time. The two readers alternate on/off with a 0.6 second period. The MR-1824-HiLo set is interfaced to just a single reader input port in the host panel.
- (b) Installations of MR-1824, MR-1824-MC and MR-1824-HiLo require a **ferrite clamp** on the reader's DC power line, the DC ground, and the reader's drain wire. See instructions that are inserted in every reader shipment.