## **READ RANGE CHART**

HID Global literature specifies the typical read range to be expected for each of our readers. In every case for every reader, the read range performance is expressed as a span of distance. In the case of the ProxPro® reader, for instance, the typical read range is specified to be from 5.5 inches to 8 inches (14 - 20 cm). This is not a statement indicating that every reader in every environment will achieve a 8 inch read range. It specifically indicates that a reader with a 5.5 inch read range meets the factory specifications - when used with the reference card, the ProxCard® II proximity card.

The thin card models, ISOProx® card, DuoProx® card, Smart ISOProx® II, Smart DuoProx® II, and the HID Proximity and MIFARE® card use an antenna with significantly less gain than the Prox Card II proximity card. As a result, the read range with any of these cards, when used with the ProxPro reader, will be more on the order of 4 inches to 7 inches (10 - 18 cm). Performance within these limits meets the factory specifications.

It is important to note that in no case does HID Global guarantee a minimum read range. This is impossible to achieve because all radio frequency products that are "type" certified by the regulatory agencies (FCC, Canada Radio, CE, etc.) must accept the local interference created by other devices. As a result, a reader in a particularly high RF noise environment could exhibit very short read range - shorter than that listed in our specifications. This is why our specifications illustrate typical performance.

The chart below provides typical read ranges of each of our readers when used in combination with each of our cards or transponders.

PRODUCT	PROXPOINT® PLUS	MINIPROX®	THINLINE® II	PROXPRO®	PROXPRO® II	PROX80™	MAXIPROX®	ENTRYPROX®
PROXCARD® II	5.1 cm - 7.6 cm	10.2 cm - 14.0 cm	10.2 cm - 14.0 cm	14.0 cm - 20.3 cm	15.2 cm - 22.9 cm	10.2 cm - 14.0cm	40.6 cm - 73.7 cm	5.1 cm - 7.6 cm
	2.0" - 3.0"	4.0" - 5.5"	4.0" - 5.5"	5.5" - 8.0"	6.0" - 9.0"	4.0" - 5.5"	16" - 29"	2.0" - 3.0"
ISOPROX® II	3.8 cm - 6.35 cm	7.6 cm - 12.7 cm	7.6 cm - 12.7 cm	10.2 cm - 17.8 cm	12.5 cm - 20 cm	7.6 cm - 12.7 cm	38.1 cm - 50.8 cm	3.8 cm - 6.35 cm
	1.5" - 2.5"	3.0" - 5.0"	3.0" - 5.0"	4.0" - 7.0"	5.0" - 8.0"	3.0" - 5.0"	15″ - 20″	1.5" - 2.5"
DUOPROX® II	3.8 cm - 6.35 cm	7.6 cm - 12.7 cm	7.6 cm - 12.7 cm	10.2 cm - 17.8 cm	12.5 cm - 20 cm	7.6 cm - 12.7 cm	38.1 cm - 50.8 cm	3.8 cm - 6.35 cm
	1.5" - 2.5"	3.0" - 5.0"	3.0" - 5.0"	4.0" - 7.0"	5.0" - 8.0"	3.0" - 5.0"	15" - 20"	1.5" - 2.5"
SMART	3.8 cm - 6.35 cm	7.6 cm - 12.7 cm	7.6 cm - 12.7 cm	10.2 cm - 17.8 cm	12.5 cm - 20 cm	7.6 cm - 12.7 cm	38.1 cm - 50.8 cm	3.8 cm - 6.35 cm
ISOPROX® II	1.5" - 2.5"	3.0" - 5.0"	3.0" - 5.0"	4.0" - 7.0"	5.0" - 8.0"	3.0" - 5.0"	15" - 20"	1.5" - 2.5"
SMART	3.8 cm - 6.35 cm	7.6 cm - 12.7 cm	7.6 cm - 12.7 cm	10.2 cm - 17.8 cm	12.5 cm - 20 cm	7.6 cm - 12.7 cm	38.1 cm - 50.8 cm	3.8 cm - 6.35 cm
Duoprox® II	1.5" - 2.5"	3.0" - 5.0"	3.0" - 5.0"	4.0" - 7.0"	5.0" - 8.0"	3.0" - 5.0"	15" - 20"	1.5" - 2.5"
<i>iCLASS</i> ® PROX	3.8 cm - 6.35 cm	7.6 cm - 12.7 cm	7.6 cm - 12.7 cm	10.2 cm - 17.8 cm	12.5 cm - 20 cm	7.6 cm - 12.7 cm	38.1 cm - 50.8 cm	3.8 cm - 6.35 cm
	1.5" - 2.5"	3.0" - 5.0"	3.0" - 5.0"	4.0" - 7.0"	5.0" - 8.0"	3.0" - 5.0"	15" - 20"	1.5" - 2.5"
PROXIMITY &	3.8 cm - 6.35 cm	7.6 cm - 12.7 cm	7.6 cm - 12.7 cm	10.2 cm - 17.8 cm	12.5 cm - 20 cm	7.6 cm - 12.7 cm	38.1 cm - 50.8 cm	3.8 cm - 6.35 cm
Mifare®	1.5" - 2.5"	3.0" - 5.0"	3.0" - 5.0"	4.0" - 7.0"	5.0" - 8.0"	3.0" - 5.0"	15" - 20"	1.5" - 2.5"
PROXCARD® PLUS	1.2 cm - 2.5 cm	2.5 cm - 5.1 cm	2.5 cm - 3.8 cm	5.1 cm - 7.6 cm	5.1 cm - 10.2 cm	2.5 cm - 3.8 cm	20.3 cm - 33 cm	1.2 cm - 2.5 cm
	0.5" - 1.0"	1.0" - 2.0"	1.0" - 1.5"	2.0" - 3.0"	2.0" - 4.0"	1.0" - 1.5"	8.0" - 13.0"	0.5" - 1.0"
PROXKEY® II	2.5 cm - 3.8 cm	2.5 cm - 5.1 cm	2.5 cm - 5.1 cm	2.5 cm - 7.6 cm	5.1 cm - 10.2 cm	2.5 cm - 5.1 cm	15.2 cm - 43.2 cm	2.5 cm - 3.8 cm
	1.0" - 1.5"	1.0" - 2.0"	1.0" - 2.0"	1.0" - 3.0"	2.0" - 4.0"	1.0" - 2.0"	6.0" - 17.0"	1.0" - 1.5"
MICROPROX®	1.2 cm - 5.1 cm	1.2 cm - 6.4 cm	2.5 cm - 7.6 cm	2.5 cm - 10.2 cm	2.5 cm - 11.4 cm	1.2 cm - 6.4 cm	10.2 cm - 38 cm	1.2 cm - 5.1 cm
	0.5" - 2.0"	0.5" - 2.5"	1.0" - 3.0"	1.0" - 4.0"	1.0" - 4.5"	0.5" - 2.5"	4.0" - 15.0"	0.5" - 2.0"
PROXPASS® II	N/A	N/A	N/A	N/A	N/A	N/A	1.2 m - 1.8 m 4′ - 6′	N/A

PROXIMITY READ RANGE CHART