

Bosch Contactless Card Readers

EMEA Quick Selection Guide



EM	ARD-AYK12	ARD-AYJ12	ARD-AYH12	ARD-AYQ12	ARD-AYCF64	ARD-AYCE65B	ARD-AYZ12
Bosch Controllers Compatibility	AEC2.1, AMC2-4W	AEC2.1, AMC2-4W	AEC2.1, AMC2-4W	AEC2.1, AMC2-4W	AEC2.1, AMC2-4W	AEC2.1, AMC2-4W	AEC2.1, AMC2-4W
Output Formats (Controller Interface)	Wiegand	Wiegand	Wiegand	Wiegand	Wiegand	Wiegand	Wiegand
Wiring Termination	Pigtail	Pigtail	Pigtail	Pigtail	Pigtail	Pigtail	Pigtail
Read/ Write Ability	Read only	Read only	Read only	Read only	Read only	Read only	Read only
Card Reading Bit-Length	26-bit	26-bit	26-bit	26-bit	26-bit (Card), 8-bit (Keypad)	26-bit (Card), 8-bit (Keypad)	26-bit
Card Reading Format	EM	EM	EM	EM	EM	EM	EM
Card Frequency	125 kHz	125 kHz	125 kHz	125 kHz	125 kHz	125 kHz	125 kHz
Reading Distance*	8 cm	10 cm	12 cm	6 cm	8 cm	4 cm	60 cm
Indoor/ Outdoor	Both	Both	Both	Both	Both	Both	Both
Mounting	Mullion, Surface Mount	Mullion, Surface Mount	Mullion, Surface Mount, US, EU Back Box	Mullion, Surface Mount, US, EU Back Box	Mullion, Surface Mount, US, EU Back Box	Mullion, Surface Mount	Surface Mount
Reader Dimensions in cm (in.), H x W x D	8.0 x 4.0 x 1.3 (3.2 x 1.7 x 0.5)	12.0 x 4.2 x 1.4 (4.7 x 1.7 x 0.5)	11.0 x 7.5 x 1.5 (4.3 x 3 x 0.6)	12.0 x 7.6 x 2.7 (4.7 x 3 x 1.1)	12.0 x 7.6 x 2.1 (4.7 x 3 x 0.8)	15.5 x 4.4 x 9.0 (6.1 x 1.7 x 3.5)	30.0 x 30.0 x 2.54 (11.8 x 11.8 x 1)
Tamper Protection	Switch	Switch	Switch	Switch	Switch	Switch	Switch
Operating Voltage	5-16V DC	5-16V DC	5-16V DC	5-16V DC	5-16V DC	5-16V DC	10-16V DC
Current Standby/ Current Max	35 mA (12V) / 50 mA (12V)	35 mA (12V) / 50 mA (12V)	35 mA (12V) / 100 mA (12V)	35mA (12V) / 100mA (12V)	105 mA (12V) / 140 mA (16V)	92mA (12V) / 105mA (16V)	220mA (12V) / 280mA (12V)
Stand-Alone Mode	No	No	No	No	No	No	No
IP Rating	IP 65	IP 65	IP 65	IP 65	IP 65	IP 68	IP 54
Housing Material	Plastic (Lexan 241R)	Plastic (Lexan 241R)	Plastic (Lexan 241R)	Metal (Zinc-Alloy)	Plastic (Lexan 241R)	Metal (Aluminum)	Plastic (Polycarbonate)

* using an ISO-standard card under normal conditions. Results may vary depending on credential used and the actual environment during testing

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HID Prox	ARD-PROX-PPL	ARD-MINIPROX	ARD-ENTRYPROX	ARD-PROX80
Bosch Controllers Compatibility	AEC2.1, AMC2-4W	AEC2.1, AMC2-4W	AEC2.1, AMC2-4W	AEC2.1, AMC2-4W
Output Formats (Controller Interface)	Wiegand	Wiegand	Wiegand	Wiegand
Wiring Termination	Pigtail	Pigtail	Terminal Strip	Pigtail
Read/ Write Ability	Read only	Read only	Read only	Read only
Card Reading Bit-Length	26-bit	26-bit	26-bit (Card), 26-bit (Keypad)	26-bit
Card Reading Format	HID Prox	HID Prox	HID Prox	HID Prox
Card Frequency	125 kHz	125 kHz	125 kHz	125 kHz
Reading Distance*	7 cm	12 cm	6 cm	6 cm
Indoor/ Outdoor	Both	Both	Indoor	Both
Mounting	Mullion	Mullion	US, EU Back Box, or Surface Mount	US, EU Back Box, or Surface Mount
Reader Dimensions in cm (in.), H x W x D	8.0 x 4.3 x 1.7 (3.1 x 1.7 x 0.7)	15.2 x 4.3 x 1.9 (6.0 x 1.7 x 1.0)	13.3 x 6.9 x 3.5 (5.3 x 2.8 x 1.4)	8.0 x 8.0 x 2.9 (3.1 x 3.1 x 1.1)
Tamper Protection	No	Switch	Switch	No
Operating Voltage	5-16V DC	5-16V DC	10-16V DC	5-16V DC
Current Standby / Current Max	30mA / 75mA	30mA / 75mA	No standby / 150mA (12V)	20mA (12V) / 115mA (12V)
Stand-Alone Mode	No	No	Yes	No
IP Rating	IP 65	IP 65	IP 50	IP 65
Housing Material	Plastic (Polycarbonate UL 94)	Plastic (Polycarbonate UL 94)	Plastic (Polycarbonate UL 94)	Plastic (Polycarbonate UL 94)

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iClass Mifare Classic CSN	ARD-R10EMEA	ARD-R30	ARD-R40EMEA	ARD-RK40-AMC01	ARD-R90-AKT00
Bosch Controllers Compatibility	AEC2.1, AMC2-4W	AEC2.1, AMC2-4W	AEC2.1, AMC2-4W	AEC2.1, AMC2-4W	AEC2.1, AMC2-4W
Output Formats (Controller Interface)	Wiegand	Wiegand	Wiegand	Wiegand	Wiegand
Wiring Termination	Pigtail	Pigtail	Pigtail	Pigtail	Terminal Strip
Read/ Write Ability	Read only	Read only	Read only	Read only	Read only
Card Reading Bit-Length	iClass 26-, 35-, 37-bit/ Mifare Classic CSN	iClass 26-, 35-, 37-bit/ Mifare Classic CSN	iClass 26-, 35-, 37-bit/ Mifare Classic CSN	iClass 26-, 35-, 37-bit/ Mifare Classic CSN (Card), 4-bit (Keypad)	iClass 26-, 35-, 37-bit (Card)
Card Reading Format	iClass/ Mifare Classic CSN	iClass/ Mifare Classic CSN	iClass/ Mifare Classic CSN	iClass/ Mifare Classic CSN	iClass
Card Frequency	13.56 MHz	13.56 MHz	13.56 MHz	13.56 MHz	13.56 MHz
Reading Distance*	9 cm	10 cm	11 cm	11 cm	45 cm
Indoor/ Outdoor	Both	Both	Both	Both	Both
Mounting	Mullion	EU and Asian Back Box	EU, US, and Asian Back Box	EU, US, and Asian Back Box	Surface Mount
Reader Dimensions in cm (in.), H x W x D	10.3 x 4.8 x 2.0 (1.9 x 4.0 x 0.8)	8.4 x 8.4 x 1.9 (3.3 x 3.3 x 0.8)	12.2 x 8.4 x 2.2 (3.3 x 4.8 x 0.9)	12.2 x 8.4 x 2.3 (3.3 x 4.8 x 0.9)	30.5 x 30.5 x 3.2 (12.0 x 12.0 x 1.3)
Tamper Protection	Optical	Optical	Optical	Optical	Switch
Operating Voltage	5-16V DC	5-16V DC	5-16V DC	5-16V DC	12-24V DC
Current Standby/ Current Max	55mA / 116mA	55mA / 121mA	55mA / 121mA	65mA / 225mA	420mA (12V) / 1300mA (12V)
Stand-Alone Mode	No	No	No	No	No
IP Rating	IP 55	IP 55	IP 55	IP 55	IP 55
Housing Material	Plastic (Polycarbonate UL 94)	Plastic (Lexan 241R)	Plastic (Lexan 241R)	Metal (Zinc-Alloy)	Plastic (Polycarbonate UL 94)

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**Mifare
Hitag 1
Legic**

ARD-3000MF-SDM
ARD-3000HI1-SDM
ARD-3000LE-SDM

ARD-1000MF-UP
ARD-1000HI1-UP
ARD-1000LE-UP

ARD-1000MF-AP
ARD-1000HI1-AP
ARD-1000LE-AP

ARD-1010MF-UP
ARD-1010HI1-UP
ARD-1010LE-UP

ARD-1010MF-AP
ARD-1010HI1-AP
ARD-1010LE-AP

ARD-7020MF-485
ARD-7020HI1-485
ARD-7020LE-485

	ARD-3000MF-SDM ARD-3000HI1-SDM ARD-3000LE-SDM	ARD-1000MF-UP ARD-1000HI1-UP ARD-1000LE-UP	ARD-1000MF-AP ARD-1000HI1-AP ARD-1000LE-AP	ARD-1010MF-UP ARD-1010HI1-UP ARD-1010LE-UP	ARD-1010MF-AP ARD-1010HI1-AP ARD-1010LE-AP	ARD-7020MF-485 ARD-7020HI1-485 ARD-7020LE-485
Bosch Controllers Compatibility	AMC2-4R4	AMC2-4R4	AMC2-4R4	AMC2-4R4	AMC2-4R4	AMC2-4R4
Output Formats (Controller Interface)	RS-485 L-BUS	RS-485 L-BUS	RS-485 L-BUS	RS-485 L-BUS	RS-485 L-BUS	RS-485 L-BUS
Wiring Termination	2-wire RS-485 Terminal Strip	2-wire RS-485 Terminal Strip	2-wire RS-485 Terminal Strip	2-wire RS-485 Terminal Strip	2-wire RS-485 Terminal Strip	2-wire RS-485 Terminal Strip
Read/ Write Ability	Read Only	Read Only	Read Only	Read Only	Read Only	Both
Card Reading Bit-Length	N.A., Data Record only	N.A., Data Record only	N.A., Data Record only	N.A., Data Record only	N.A., Data Record only	N.A., Data Record only
Card Reading Format	Mifare or Hitag 1 or Legic	Mifare or Hitag 1 or Legic	Mifare or Hitag 1 or Legic	Mifare or Hitag 1 or Legic	Mifare or Hitag 1 or Legic	Mifare or Hitag 1 or Legic
Card Frequency	13.56 MHz (Mifare or Legic) 125 kHz (Hitag 1)	13.56 MHz (Mifare or Legic) 125 kHz (Hitag 1)	13.56 MHz (Mifare or Legic) 125 kHz (Hitag 1)	13.56 MHz (Mifare or Legic) 125 kHz (Hitag 1)	13.56 MHz (Mifare or Legic) 125 kHz (Hitag 1)	13.56 MHz (Mifare or Legic) 125 kHz (Hitag 1)
Reading Distance*	4 cm	6 cm	6 cm	6 cm	6 cm	4 cm
Indoor/ Outdoor	Indoor	Both	Both	Both	Both	Indoor
Mounting	EU Back Box	EU Back Box	Surface Mount	EU Back Box	Surface Mount	Surface Mount, EU Back Box
Reader Dimensions in cm (in.), H x W x D	7.0 x 7.0 x 4.5 (2.8 x 2.8 x 1.8)	8.1 x 8.1 x 1.1 (3.2 x 3.2 x 0.4)	8.1 x 8.1 x 4.0 (3.2 x 3.2 x 1.6)	8.1 x 8.1 x 1.1 (3.2 x 3.2 x 0.4)	8.1 x 8.1 x 4.0 (3.2 x 3.2 x 1.6)	18.0 x 11.5 x 3.2 (7.1 x 4.5 x 1.3)
Tamper Protection	Optical	Optical	Optical	Optical	Optical	Optical
Operating Voltage	8-30V DC	8-30V DC	8-30V DC	8-30V DC	8-30V DC	12-24V DC
Current Standby/ Current Max	83mA / 146mA	71mA / 250mA	71mA / 250mA	71mA / 250mA	71mA / 250mA	133mA / 133mA
Stand-Alone Mode	No	No	No	No	No	No
IP Rating	IP 40	IP 54	IP 54	IP 54	IP 54	IP 54
Housing Material	Plastic (PC+ PMMA)	Plastic (PC+ ABS+ FR)	Plastic (PC+ ABS+ FR)	Plastic (PC+ ABS+ FR)	Plastic (PC+ ABS+ FR)	Plastic (PC+ ABS+ FR)

* using an ISO-standard card under normal conditions. Results may vary depending on credential used and the actual environment during testing

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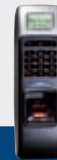
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ARD-FPBPMF-OC
ARD-FPBEPIC-OC
ARD-FPBEPFR-OC
ARD-FPBEPHP-OC



ARD-FPLN-OC



ARD-FPLS-OC

Fingerprint

	ARD-FPBPMF-OC ARD-FPBEPIC-OC ARD-FPBEPFR-OC ARD-FPBEPHP-OC	ARD-FPLN-OC	ARD-FPLS-OC
Bosch Controllers Compatibility	AEC2.1, AMC2-4W	AEC2.1, AMC2-4W	AEC2.1, AMC2-4W
Output Formats (Controller Interface)	TCP/IP, RS485, Wiegand Out	TCP/IP, RS485, Wiegand Out	N.A.
Wiring Termination	Terminal Strip	Pigtail	Pigtail
Read/ Write Ability	Read	Read/Write	N.A.
Card Reading Bit-Length	64-bit (Card)	64-bit (Card), 24-bit (Keypad)	N.A. (Card), 24-bit (Keypad)
Card Reading Format	Fingerprint, Mifare or iClass or EM or HID Prox	Fingerprint, Mifare	Fingerprint, no reading capability
Card Frequency	13.56 MHz (Mifare or iClass) 125 kHz (EM or Prox)	13,56MHz	N.A.
Reading Distance*	3 cm	4 cm	N.A.
Indoor/ Outdoor	Indoor	Both	Both
Mounting	Mullion, Surface Mount	Mullion, Surface Mount	Mullion, Surface Mount
Reader Dimensions in cm (in.), H x W x D	16.0 x 5.0 x 3.7 (6.3 x 2.0 x 1.5)	18.5 x 6.0 x 4.0 (7.3 x 2.4 x 1.6)	16.0 x 5.0 x 3.7 (6.3 x 2.0 x 1.5)
Tamper Protection	Optical	Optical	Optical
Operating Voltage	12 V DC	12 V DC	12 V DC
Current Standby/ Current Max	150mA / 200mA	160mA / 200mA	100mA / 200mA
Stand-Alone Mode	Yes	Yes	Yes
IP Rating		IP 65	IP 65
Housing Material	Plastic (ABS)	Plastic (ABS)	Plastic (ABS)

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