CEM SYSTEMS
A Tyco International Company

Last updated 9th August 2011
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Quick Guide to CEM Readers

Advanced CEM Manufactured Readers

Reader	Manufacturer	Description	Key Features	CEM Product Code
InfoProx™ IPO200/210	CEM *webEntry & AC2000 SE/AE*	***Advanced Proximity/Smartcard Reader <u>with</u> intelligent onboard database***	• Available in both 125 kHz Proximity (IPO200) and MiFare smart card technology (IPO210) options • In-built database for off-line card validation • Compact, three LED indicators and Backlit LCD display and Keypad for added PIN security	Proximity option: SPASS-IPO-200-B MiFare option: SPASS-IPO-210-B
InfoProx™ Lite IPL200/210	CEM *webEntry & AC2000 SE*	***Advanced, Low cost Proximity/Smartcard Reader <u>without</u> onboard database***	• Available in both 125 kHz Proximity (IPL200) and MiFare smart card technology (IPL210) options • 4 inputs to monitor alarms such as door held/forced conditions • Compact, three LED indicators, Backlit LCD display and Keypad for added PIN security	Proximity option: SPASS-IPL-200-B MiFare option: SPASS-IPL-210-B
InfoProx™ Exit IPX200/210	CEM *webEntry & AC2000 SE/AE*	***Advanced Exit Proximity/Smartcard Reader***	• Available in both 125 kHz Proximity (IPX200) and MiFare smart card technology (IPX210) options • Exit reader used with range of InfoProx™ and EtherProx™ card readers • Compact, three LED indicators, Backlit LCD display and Keypad for added PIN security	Proximity option: SPASS-IPX-200-B MiFare option: SPASS-IPX-210-B
EtherProx™ EPO200/210	CEM *AC2000 System Range only*	***Advanced Ethernet based Proximity/Smartcard Reader <u>with</u> intelligent onboard database***	• Available in both 125 kHz Proximity (EPO200) and MiFare smart card technology (EPO210) options • World's smallest Ethernet onboard card reader • Incorporates the functions of an intelligent card reader and a control panel • Local and remote configuration of numerous reader settings	Proximity option: SPASS-EPO-200-B MiFare option: SPASS-EPO-210-B
sPass Reader	CEM *AC2000 SE & AC2000 Lite*	***CEM contactless smart card reader with powerful 3DES (Triple DES) encryption*** ***Available for use with CEM eDCM 350 controller***	• Supports CEM DESFire technology • Available with or without keypad • Designed for use with the CEM eDCM 350 controller • Secure RS485 serial communications between reader & eDCM 350 controller • Optical tamper detect sensor • 3 LED's Green, Amber and Red and on-board sounder	sPass DESFire reader with keypad: RDR/D10/101 sPass DESFire reader no keypad: RDR/D10/100

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S610s	CEM *webEntry & AC2000 SE/AE*	***Multi-technology Intelligent Serial card reader***	• Available with reading support for 125 kHz HID Proximity, 13.56 MHz MiFare & PicoPass smartcard and a multi-technology option to support MiFare & Proximity. • Internal database stores up to 50,000 transactions in offline mode • Integrates biometric devices with existing access control systems • Keypad for PIN security & LCD Display for swipe messages *Reader messages configurable* • IP rated 66 enclosure • 4 Analogue inputs – used to monitor door and alarm condition	125 KHz Proximity: RDR/611/101 13.56 MHz MiFare: RDR/611/105 Prox & MiFare: RDR/611/104 PicoPass: RDR/611/106 External Read Head: RDR/611/109
S610e	CEM *AC2000 System range only*	***Multi-technology Intelligent IP card reader*** ***Industry's most advanced card reader***	• Onboard Ethernet connection, communicates directly to host server • Available with reading support for 125 kHz HID Proximity, 13.56 MHz MiFare, iClass, and PicoPass smartcard and a multi-technology option to support MiFare & Proximity. • Internal database stores up to 50,000 transactions in offline mode • Integrates biometric devices with existing access control systems • Keypad for PIN security & LCD Display for swipe messages *Reader messages configurable* • IP rated 66 enclosure	125 KHz Proximity: RDR/610/101 13.56 MHz MiFare: RDR/610/105 Prox & MiFare: RDR/610/104 HID iClass RDR/610/108 PicoPass: RDR/610/106 External Read Head: RDR/610/109
S610f	CEM *AC2000 SE system only*	***Advanced Intelligent IP card & Biometric reader*** ***Controller, Card Reader & Fingerprint solution in one!*** ***Industry's most advanced fully integrated access control & fingerprint card reader***	• Single solution for both access control and biometric enrolment and distribution – no longer a requirement to have a separate access control and biometric network! • Onboard Ethernet connection, communicates directly to host server • Ethernet validation, giving fast transfer of biometric data • Available with reading support for 125 kHz HID Proximity, 13.56 MHz MiFare & iClass SmartCards • Internal database stores up to 123,000 fingerprint templates online and up to 8,000 transactions in offline mode • Keypad for PIN security & LCD Display for swipe messages *Reader messages configurable* • IP rated 30 enclosure (indoor use)	125 KHz Proximity: RDR/615/101 13.56 MHz MiFare: RDR/615/105 13.56 MHz iClass RDR/615/108

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			• Biometric sensor features the industry leading Suprema series fingerprint module	
S3020 Portable Reader	CEM *AC2000 System range*	***Intelligent hand held Portable Card Reader***	• Hand size, lightweight and robust for remote or random checks • Large memory capacity, up to 200,000 card IDs • Internal capacity for more than 8,000 transaction events • Full Colour TFT Touchscreen display • Proximity, MiFare (also supports DESFire CSN 32Bit), PicoPass and iClass options • WiFi connectivity to Host	Proximity option: RDR/302/001 MiFare option: RDR/302/005 PicoPass option: RDR/302/006 iClass option: RDR/302/008
S3020f Portable Fingerprint Reader	*CEM* *AC2000 SE & Lite*	***Intelligent hand held Portable Card and Biometric Reader***	• Hand size, lightweight and robust for remote or random checks • Card & Biometric verification in one portable device • Wireless encrypted TCP/IP connection to the AC2000 System. • MiFare CSN (and DESFire CSN 32Bit), PicoPass™, and HID iClass versions available • Large memory capacity, holding up to 100,000 card ID's • Provides cardholders with graphical and audio responses to a card swipe and/ or fingerprint. Also shows the current reader operating mode. • Onboard memory to store details for up to 8,000 transactions. • Fully integrated with AC2000 SE/Lite system - fingerprint templates enrolled on the CEM AC2000 enrolment station and saved on the access control server, as opposed to a smart card.	HID iClass option: RDR/302/F08 13.56Mhz MIFARE option: (also supports DESFire CSN 32Bit) RDR/302/F05 PicoPass option: RDR/302/F06

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| **S3030 Portable Reader** | *AC2000 SE v6.3 and up* | ***Intelligent hand held Portable Card Reader*** | • Hand size, lightweight and robust for remote or random checks
• Large memory capacity, up to 200,000 card IDs
• Internal capacity for more than 8,000 transaction events
• Full Colour TFT Touchscreen display
• Ability to display cardholder photographs for biometric identification
• Proximity, MiFare (also supports DESFire CSN 32Bit), PicoPass and iClass options
• WiFi connectivity to Host
• Roaming across pre-defined zones
• Mustering at safe areas with muster count and mini report
• Occupancy for head count in a defined area | Proximity option: RDR/302/301

13.56MHz MiFare option: (also supports DESFire CSN 32Bit) RDR/302/305

HID iClass option: RDR/302/308

PicoPass option: RDR/302/306 |
| **S3030f Portable Fingerprint Reader** | *AC2000 SE v6.3 and up* | ***Intelligent hand held Portable Card and Biometric Reader*** | • Hand size, lightweight and robust for remote or random checks
• Card & Biometric verification in one portable device
• Wireless encrypted TCP/IP connection to the AC2000 System.
• MiFare CSN (and DESFire CSN 32Bit), PicoPass™, and HID iClass versions available
• Large memory capacity, holding up to 200,000 card ID's
• Provides cardholders with graphical and audio responses to a card swipe and/ or fingerprint. Also shows the current reader operating mode.
• Onboard memory to store details for up to 8,000 transactions.
• Fully integrated with AC2000 SE system - fingerprint templates enrolled on the CEM AC2000 enrolment station and saved on the access control server, as opposed to a smart card.
• Roaming across pre-defined zones
• Mustering at safe areas with muster count and mini report
• Occupancy for head count in a defined area | 13.56MHz MiFare option: (also supports DESFire CSN 32Bit) RDR/302/F05

HID iClass option: RDR/302/F08

PicoPass option: RDR/302/F06 |

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Reader	Manufacturer	Description	Key Features	CEM Product Code
Two Door Controllers & Read Heads				
sDCM300	CEM *AC2000 System range only*	***Intelligent two-door Control Module that interfaces with 3rd party read heads***	<u>**Low cost, intelligent two door controller**</u> • Interfaces 2 non-CEM read heads to CEM host Controller • Reader communications via standard Weigand or Mag Stripe interfaces • On-board database for off-line card validation. • RS485 to host controller • *For a complete list of read heads supported contact CEM Systems.*	DCM/310/101 (power supply & enclosure) DCM/310/004 (Board only)
eDCM300	CEM *AC2000 System range only*	***Intelligent two-door IP Control Module that interfaces with 3rd party read heads***	<u>**Low cost, intelligent two door IP controller**</u> • Interfaces 2 non-CEM read heads to CEM host Controller • Reader communications via standard Weigand or Mag Stripe interfaces • On-board database for off-line card validation. • Ethernet onboard for TCP/IP connection to host system. • *For a complete list of read heads supported contact CEM Systems.*	DCM/300/101 (power supply & enclosure) DCM/300/004 (Board only)
eDCM 350	CEM *AC2000 System range only*	***Intelligent two-door IP controller for use with CEM sPass readers***	• Interfaces two CEM sPass readers to controller • Features RS485 encrypted communications • On-board database for off-line card validation • Ethernet onboard for TCP/IP connection to host system *For a complete list of read heads supported contact CEM Systems.*	DCM/350/101 eDCM 350 (Includes enclosure & power supply/battery charger) DCM/350/004 eDCM 350 (Board Only)

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Reader	Manufacturer	Description	Key Features	CEM Product Code
sDCM 350	CEM *AC2000 System range only*	***Intelligent two-door serial controller for use with CEM sPass readers***	• Interfaces two CEM sPass readers to controller • Features RS485 encrypted communications • On-board database for off-line card validation • Communicates with the AC2000 host system via RS485 communications to an S9032/64 serial controller *For a complete list of read heads supported contact CEM Systems.*	DCM/351/101 sDCM 350 (Includes enclosure & power supply/battery charger) DCM//351/004 sDCM 350 (Board Only)
Kantech ioProx™ P225W26	KANTECH	**Proximity Reader**	• Read range up to 16.5cm • P225 ioProx™ proximity reader • 26 Bit Wiegand More information: http://www.kantech.com/products/rkc_ioprox.aspx#MoreResources	HDS/046/225
Kantech ioProx™ P225KPW26	KANTECH	**Proximity Reader <u>with</u> Keypad**	• Read range up to 16.5cm • P225KP ioProx™ proximity reader with keypad • 26 Bit Wiegand • High endurance Braille Keypad More information: http://www.kantech.com/products/rkc_ioprox.aspx#MoreResources	HDS/046/22K
HID ProxPoint® Plus	HID	**HID ProxPoint® Plus60005B Reader**	• Reads HID cards and keyfobs • ProxPoint® proximity card reader ideal for indoor and outdoor mounting • Read range up to 7.6cm More information: http://www.hidcorp.com/pdfs/products/proxpointplus.pdf	HDS/041/003

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HID MiniProx®	HID	**HID MiniProx 5365 Proximity Reader**	• MiniProx® proximity card reader ideal for indoor and outdoor mounting • Read range up to 14cm • Reads HID cards and keyfobs Fore more information visit http://www.hidcorp.com/pdfs/products/miniprox.pdf	HDS/041/001
HID ProxPro II Reader	HID	**HID ProxPro Proximity Reader**	• Available with a Wiegand or Clock-and-Data interface • Read range 20cm, low power consumption • Mounts directly on metal with minimal impact on the read range performance. Optional kit enables mounting behind glass. Fore more information visit http://www.hidcorp.com/pdfs/products/proxpro2.pdf	HDS/041/005
HID ProxPro II Reader with Keypad	HID	**HID ProxPro Proximity Reader with keypad**	• Available with a Wiegand or Clock-and-Data interface • Read range 20cm, low power consumption • Mounts directly on metal with minimal impact on the read range performance. Optional kit enables mounting behind glass.	HDS/041/004
HID iCLASS R10® HID iCLASS R30® HID iCLASS R40®	HID	**HID iCLASS smart card readers**	• Contactless smart card reader • Range range up to 8.3cm (R10), 10.2cm (R30), 10.8cm (R40) • Reads HID cards and keyfobs For more information visit http://www.hidcorp.com/pdfs/products/iclass_r10_30_40_datasheet.pdf	iCLASS R10: HDS/048/010 R30: HDS/048/030 R40: HDS/048/040

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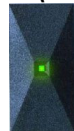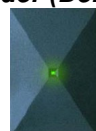*A Tyco International Company*

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HID iCLASS RK40®	HID	**Read only contactless smart card reader with keypad**	• Using 13.56 MHz contactless smart card technology • Combine a contactless card presentation with a personal identification number (PIN) to support dual authentication of identity. • Offers the same features as the RK40, with the extended ability to read/write user data to HID **iCLASS** credentials. Fore more information visit http://www.hidcorp.com/pdfs/products/iclass_rk40.pdf	HDS/048/K40
HID iCLASS R90	HID	**Long range smart card reader**	• Ideal for installations incorporating parking control and long read range applications. For more information visit http://www.hidcorp.com/pdfs/products/r90.pdf	HDS/048/090
IE SmartID MiFare Smartcard CSN reader	Integrated Engineering (IE)	**IE SmartID MiFare Smartcard CSN reader – (C&D/Wiegand) SI-8020**	• Read range 2-5cm • Unique design • Fits in modern environment – stylish and elegant For more information: http://www.ieprox.com/files/Datasheets/060201-SmartID-line.pdf	HDS/075/020
IE SmartID MiFare Flash & Pinpad CSN reader	Integrated Engineering (IE)	**IE SmartID MiFare Flash& Pinpad CSN (C&D/Weigand) SI-8045**	• Read range 2-5cm • Unique design • Fits in modern environment – stylish and elegant • Flash & keypad For more information: http://www.ieprox.com/files/Datasheets/060201-SmartID-line.pdf	HDS/075/K45
i-key Receiver	i-key	**Long Range Access Control** **i-key Receiver RX**	• Dimensions 127(L) x 100(W) x 46(D) mm • IP56 Rating • Read range is 25 metres • Frequency – 433.92 MHz	Contact CEM for product code

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i-key Fob	i-key	**Long Range Access Control** **i-key fob**	• Convenience of long range access control with the simplicity of close range Proximity readers with i-key fobs • Dimensions 54(L) x 38(W) x 15 (D) mm • Weight 22g • Frequency – 433.92 MHz	* i-key fob only (ikey TX) * ikey Fob with HID (ikey TX/H) * ikey Fob with MiFare (ikey TX/M)
Farpointe MiFare Smartcard Reader (Delta 3)	Farpointe Data, Inc.	**Delta 3: ISO 14443 Type A and Type B Contactless Smart Card Reader**	• Contactless smart card technology • Designed to mount directly to a metal door or window frame • Delivers non-contact read ranges up to 2.5 inches (63.5 mm) • Physical size – (76 x 38 x 12 mm) • Available in both black and off-white covers.	HDS/073/003
Farpointe MiFare Smartcard Reader (Delta 5)	Farpointe Data, Inc.	**Delta5: ISO 14443 Type A and Type B Contactless Smart Card Reader**	• Contactless smart card technology • Designed to mount directly to a metal door or window frame • Delivers non-contact read ranges up to 4 inches (100 mm) • Physical size – (114 x 76 x 10 mm) • Available in both black and off-white covers.	HDS/073/005
Farpointe MiFare Smartcard Reader (Delta 6.4)	Farpointe Data, Inc.	**Delta 6.4: ISO 14443 Type A and Type B Contactless Smart Card Reader Plus keypad**	• Contactless smart card technology • Designed to mount directly to flat surfaces & ideal for high security PIN, dual verification • Delivers non-contact read ranges up to 3.25 inches (75 mm) • Physical size – (117 x 77 x 11 mm) • Produces enhanced visibility in dark locations • Available in both black and off-white covers.	Contact CEM for product code
L1 V-Flex	L-1 IDENTITY SOLUTIONS	**Bioscrypt V-Flex (fingerprint reader with weigand input/output)**	• Biometric fingerprint reader. Stores 4000 fingerprints • Requires external Wiegand device. • Enrolment time: 3 seconds / Verification time: 1 second	HDS/080/000

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0L1 V-Prox	L-1 IDENTITY SOLUTIONS	**Bioscrypt V-Prox (fingerprint reader with HID prox reader)**	• Biometric fingerprint reader. Stores 4000 fingerprints • Requires external Wiegand device. • Enrolment time: 3 seconds / Verification time: 1 second • Industry's most accurate finger-scan algorithm (FVC 2002 & 2004) For more information: http://www.bioscrypt.com/products/vprox.shtml	HDS/081/000
L1 V-Smart	L-1 IDENTITY SOLUTIONS	**Bioscrypt V-Smart (fingerprint reader with either MiFare or iClass reader)**	• **Biometrics Dual-factor authentication with a finger and card!** • Portable database - finger scans are stored on the smart card and not on the reader • Supports MIFARE® contactless smart card technology • Dual-factor authentication For more information: http://www.bioscrypt.com/products/vsmart.shtml	MiFare option: HDS/086/000 iClass option: Contact CEM