



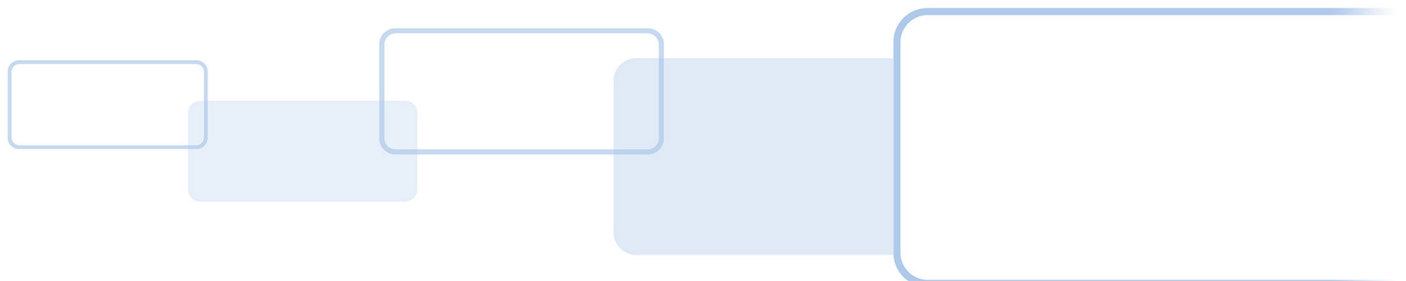
HID[®] CRESCENDO[®] DEVICES

IDENTITY AND ACCESS MANAGEMENT SOLUTIONS

HOW TO ORDER GUIDE

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Revision history

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March 2020	Initial release.	A.0

Contacts

For additional offices around the world, see www.hidglobal.com/contact/corporate-offices.

Americas and Corporate	Asia Pacific
611 Center Ridge Drive Austin, TX 78753 USA Phone: +1 866 607 7339 Fax: +1 949 732 2120	19/F 625 King's Road North Point, Island East Hong Kong Phone: +852 3160 9833 Fax: +852 3160 4809
Europe, Middle East and Africa (EMEA)	Brazil
Haverhill Business Park, Phoenix Road Haverhill, Suffolk, CB9 7AE United Kingdom Phone: +44 (0) 1440 711 822 Fax: +44 (0) 1440 714 840	Condomínio Business Center Av. Ermano Marchetti, 1435 Galpão A2 - CEP 05038-001 Lapa - São Paulo / SP Brazil Phone: +55 11 5514-7100

HID Global Technical Support: www.hidglobal.com/support.



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1 HID Crescendo Portfolio

HID® Crescendo® authenticators are the most secure credentials from HID Global that can be used to protect access to computers, networks and data and optionally be used also for secure access to physical spaces and facilities using state of the art access control technologies.

The latest version of these credentials includes the HID Crescendo Key, HID Crescendo C2300 and HID Crescendo Mobile models and are recommended for all new deployments.

The previous generation of credentials is available to ensure continued operations for customers with existing installations or who require specific capabilities that are not yet available in the latest models.



	Crescendo Key	C2300	ActivKey SIM	Crescendo FIPS ¹	C1100
Communications					
USB	•		•		
NFC	•	•			
ISO7816		•		•	•
Protocol Support					
PIV	•	•	○ ²	○	○
FIDO	•	•			
OATH	•				
Physical Access					
Seos		•		•	•
MIFARE		•		•	•
iCLASS		○ ³		•	•

¹There are also HID Crescendo PIV dual interface configuration using the same platform suitable for FIPS 201 PIV deployments. See [HID Crescendo FIPS on page 6](#) for details.

²When used with ActivID® CMS these devices can be configured with a PIV card edge for PKI operations.

³The HID C2300 with iCLASS physical access does not support contactless PKI and does not support FIDO capabilities.

	Crescendo Key	C2300	ActivKey SIM	Crescendo FIPS ¹	C1100
Prox		•		•	•
Security Evaluation					
FIPS 140-2			•	•	
Common Criteria	•	•	•	•	•

¹There are also HID Crescendo PIV dual interface configuration using the same platform suitable for FIPS 201 PIV deployments. See [HID Crescendo FIPS on page 6](#) for details.

2 Ordering Details

The sections below specify the part numbers and, if available, the programming and marking options that need to be specified when placing an order. In addition to standard part numbers that are typically in stock, it is possible to define and order custom part numbers that are built-to-order and that can include custom graphics or initialization profiles.

When you send your order for devices to HID Global, you must specify the part number and required programming information for the different technologies as specified in *Programming* column of the tables that follow for each product family. The table below can be used as a template for placing an order.

Note that quantity corresponds to SKU count:

- For the HID Crescendo Key, you order boxes of 100 units, so one unit is one box.
- For HID Crescendo cards, one unit is one card, and the minimum order quantity is 100.

SKU	Description					Quantity
Programming Details						
	Contact	Seos	iCLASS	Prox	MIFARE	
Format						
Marking	LASER UID HEX	MATCHING	MATCHING	MATCHING	MATCHING	
Card Number (CN)	N/A					
Facility Code (FC)	N/A					
Elite Key						

- If the order includes a Corporate 1000 format, remember to add part number MC-1000 Corp 1000 Management Fee with the same quantity as the number of credentials.
- If you request an Elite Key, add the MC-0036 Elite Key Management Fee.
- If there are graphical customization options, add them from [Part Numbers on page 13](#) with the same quantity as the number of credentials.

2.1 HID Crescendo Key Series

The HID Crescendo Key is a device available in USB Type A and USB Type C form factors, that delivers FIDO, PIV PKI and OATH capabilities. All models are ready-to-use FIDO USB and NFC Security Keys.

HID Crescendo Keys are available with two profiles:

- Standard profile that supports a wide combination of capabilities:
 - FIDO, with any FIDO2-compliant browsers and applications
 - PIV/PKI, initialized using a stand-alone installation of ActivID® ActivClient® middleware or using the HID Credential Management Service
 - OATH, managed by the stand-alone Device Initialization Tool
- ActivID Credential Management System (CMS) profile that requires ActivID CMS for management of PIV and OATH capabilities and is suitable for larger deployments where a complete lifecycle management solution is required to synchronize data between a user directory, one or more certification authorities and the HID Crescendo devices assigned to users.

2.1.1 Part Numbers

SKU	Description	Programming
BKA106P100	Crescendo Key Type A - Standard profile - 100 units	N/A
BKA100P100	Crescendo Key Type A - ActivID CMS profile - 100 units	N/A
BKN106P100	Crescendo Key Type C - Standard profile - 100 units	N/A
BKN100P100	Crescendo Key Type C - ActivID CMS profile - 100 units	N/A

2.2 HID Crescendo C2300

HID Crescendo C2300 smart cards are the latest generation of multi-application cards that combine logical and physical access in the same device. They exist in hardware configurations compatible with different physical access control systems. When placing an order for HID Crescendo C2300, a format must be specified for each of the included technologies.

For information about formats used in physical access technology, contact your HID PACS representative or your PACS reseller. You can also read the [Understanding Card Data Formats](#) document on the HID Global web site.

2.2.1 Part Numbers

SKU	Description	Required Programming Information
402300B	Crescendo C2300	Contact: format
402301B	Crescendo C2300 Prox	Contact: format Proximity: format, CN, FC

SKU	Description	Required Programming Information
402380B	Crescendo C2300 Seos 8K	Contact: format Seos: format, CN, FC
402381B	Crescendo C2300 Seos 8K Prox	Contact: format Seos, format, CN, FC Proximity: format, CN, FC
402300M	Crescendo C2300 Mag Stripe	Contact: format
402301M	Crescendo C2300 Prox Mag Stripe	Contact: format Proximity: format, CN, FC
402380M	Crescendo C2300 Seos 8K Mag Stripe	Contact: format Seos: format, CN, FC
402381M	Crescendo C2300 Seos 8K Prox Mag Stripe	Contact: format Seos, format, CN, FC Proximity: format, CN, FC

2.2.2 Programming Information

Field	Description	Example values
Contact		
Format	Determines enabled features and options. The most common values are: <ul style="list-style-type: none"> ■ CRE10006868, the standard stand-alone format for cards managed with ActivClient or the HID Credential Management Service ■ CRE000000, the format used for cards managed by ActivID CMS (on-premise) 	CRE10006868 - STANDARD CRE000000 - CMS
Elite key	Optional end customer-specific reference used to protect the card manager	
Seos		
Format	Determines the structure of PAC bits	H10302 - HID 37 Bits
Card number	Initial card number in the order	
Facility code	Optional additional field, in some formats can be a site or company code	

Field	Description	Example values
Elite key	Optional end customer-specific reference used to protect Seos vault access	
Prox		
Format	Determines the structure of PAC bits	H10302 - HID 37 Bits
Card number	Initial card number in the order	
Facility code	Optional additional field, in some formats can be a site or company code	

2.3 HID Crescendo FIPS

The HID Crescendo C2300 smart card is currently being evaluated by accredited security laboratories to obtain FIPS 140-2 and FIPS 201 certifications.

For customers that have a strict requirement to show a current validation certificate, HID Crescendo FIPS is a hybrid card with a contact FIPS 140-2 certified module used for PKI operations and optional contactless technologies for physical access.

The HID Crescendo FIPS family also includes a dual interface card compliant with FIPS 201 for issuance of US Government Personal Identity Verification (PIV) smart cards.

2.3.1 Part Numbers

SKU	Description	Programming
40000B-D14	Crescendo 144K FIPS	Contact: format
40020B-D14	Crescendo 144K FIPS iCLASS 32K	Contact: format iCLASS: format, CN, FC
40040B-D14	Crescendo 144K FIPS MIFARE Classic 4K	Contact: format MIFARE: format, CN, FC
40060B-D14	Crescendo 144K FIPS MIFARE DESFire EV1 8K	Contact: format MIFARE: format, CN, FC
40080B-D14	Crescendo 144K FIPS Seos 8K	Contact: format Seos: format, CN, FC
40021B-D14	Crescendo 144K FIPS iCLASS 32K Prox	Contact: format iCLASS: format, CN, FC

SKU	Description	Programming
		Proximity: format, CN, FC
40041B-D14	Crescendo 144K FIPS MIFARE Classic 4K Prox	Contact: format MIFARE: format, CN, FC Proximity: format, CN, FC
40061B-D14	Crescendo 144K FIPS MIFARE DESFire EV1 8K Prox	Contact: format MIFARE: format, CN, FC Proximity: format, CN, FC
40081B-D14	Crescendo 144K FIPS Seos 8K Prox	Contact: format Seos: format, CN, FC Proximity: format, CN, FC
400821B-D14	Crescendo 144K FIPS Seos 8K iCLASS 32K Prox	Contact: format Seos: format, CN, FC iCLASS: format, CN, FC Proximity: format, CN, FC
40030M-D14	Crescendo PIV Mag Stripe	N/A
40030M-D14-TAC	Crescendo TAC Mag Stripe	N/A

2.3.2 Programming Information

Field	Description	Example values
Contact		
Format	Determines enabled features and options with only two possible values: <ul style="list-style-type: none"> STAND-ALONE for cards managed with ActivClient NO-PROFILE for cards managed by ActivID CMS on-premise 	STAND-ALONE - STANDARD NO-PROFILE - CMS
Elite key	Optional end customer-specific reference used to protect the card manager	
Seos		
Format	Determines the structure of PAC bits	H10302 - HID 37 Bits
Card number	Initial card number in the order	

Field	Description	Example values
Facility code	Optional additional field, in some formats can be a site or company code	
Elite key	Optional end customer-specific reference used to protect Seos SIO	
iCLASS		
Format	Determines the structure of PAC bits	H10302 - HID 37 Bits
Card number	Initial card number in the order	
Facility code	Optional additional field, in some formats can be a site or company code	
Elite key	Optional end customer-specific reference used to restrict iCLASS memory access	
MIFARE		
Format	Determines the structure of PAC bits, can be NONE if MIFARE is not to be programmed	H10302 - HID 37 Bits
Card number	Initial card number in the order, when a format is specified	
Facility code	Optional additional field, in some formats can be a site or company code	
Prox		
Format	Determines the structure of PAC bits	H10302 - HID 37 Bits
Card number	Initial card number in the order	
Facility code	Optional additional field, in some formats can be a site or company code	

2.4 ActivID ActivKey SIM



Caution: The ActivID ActivKey® SIM that embeds C1100 and C1150 is transitioning to End-of-Life status during 2020 and customers are encouraged to migrate to HID Crescendo Key and use this new platform for all new deployments.

The ActivID ActivKey SIM is a USB key form factor with a FIPS 140-2 cryptographic module.

2.4.1 Part Numbers

SKU	Description	Programming
BKS800P100	ActivKey SIM with Crescendo C1100 - ActivID CMS profile - 100 units	N/A
BKS806P100	ActivKey SIM with Crescendo C1150 - Standard Profile - 100 units	N/A
BKS900P100	ActivKey SIM 144K FIPS - ActivID CMS Profile - 100 units	N/A
BKS906P100	ActivKey SIM 144 FIPS - Standard Profile - 100 units	N/A

2.5 HID Crescendo C1100



Caution: The HID Crescendo C1100 is transitioning to End-of-Life status during 2020 and customers are encouraged to migrate to HID Crescendo C2300 and use this new platform for all new deployments.

The HID Crescendo C1100 are hybrid smart cards with contact PKI and optional physical access control technologies. In this model, instead of using a format for the contact technology that allows to choose between stand-alone configuration for management with ActivClient or a no-profile configuration for ActivID CMS on-premise, there are different part numbers for those configurations:

- For the no-profile, the base part number is 401100
- For stand-alone, the base part number is 401150

The tables below have an X that, in the order, corresponds to either 0 for no-profile or 5 for stand-alone.

2.5.1 Part Numbers

SKU	Description	Programming
4011x00	Crescendo C11x0 contact only	N/A
4011x02	Crescendo C11x0 iCLASS 32K	iCLASS: format, CN, FC
4011x04	Crescendo C11x0 MIFARE Classic 4K	MIFARE: format, CN, FC
4011x06	Crescendo C11x0 MIFARE DESFire EV1 8K	MIFARE: format, CN, FC
4011x0Y	Crescendo C11x0 Seos 8K	Seos: format, CN, FC
4011x0A	Crescendo C11x0 iCLASS 32K Prox	iCLASS: format, CN, FC

SKU	Description	Programming
		Proximity: format, CN, FC
4011x0C	Crescendo C11x0 MIFARE Classic 4K Prox	MIFARE: format, CN, FC Proximity: format, CN, FC
4011x0G	Crescendo C11x0 MIFARE DESFire EV1 8K Prox	MIFARE: format, CN, FC Proximity: format, CN, FC
4011x0Z	Crescendo C11x0 Seos 8K Prox	Seos: format, CN, FC Proximity: format, CN, FC

2.5.2 Programming Information

Field	Description	Example values
Seos		
Format	Determines the structure of PAC bits	H10302 - HID 37 Bits
Card number	Initial card number in the order	
Facility code	Optional additional field, in some formats can be a site or company code	
Elite key	Optional end customer-specific reference used to protect Seos SIO	
iCLASS		
Format	Determines the structure of PAC bits	H10302 - HID 37 Bits
Card number	Initial card number in the order	
Facility code	Optional additional field, in some formats can be a site or company code	
Elite key	Optional end customer-specific reference used to restrict iCLASS memory access	
MIFARE		
Format	Determines the structure of PAC bits, can be NONE if MIFARE is not to be programmed	H10302 - HID 37 Bits
Card number	Initial card number in the order, when a format is specified	
Facility code	Optional additional field, in some formats can be a site or company code	



Field	Description	Example values
Prox		
Format	Determines the structure of PAC bits	H10302 - HID 37 Bits
Card number	Initial card number in the order	
Facility code	Optional additional field, in some formats can be a site or company code	

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3 Customization Options

3.1 Options for Smart Card Form Factors

HID Global offers a wealth of options to make secure and personalized credentials. You can learn more from your HID Global Account Manager and from the [Identity on Demand Success Guide](#) available online.

3.1.1 Artwork

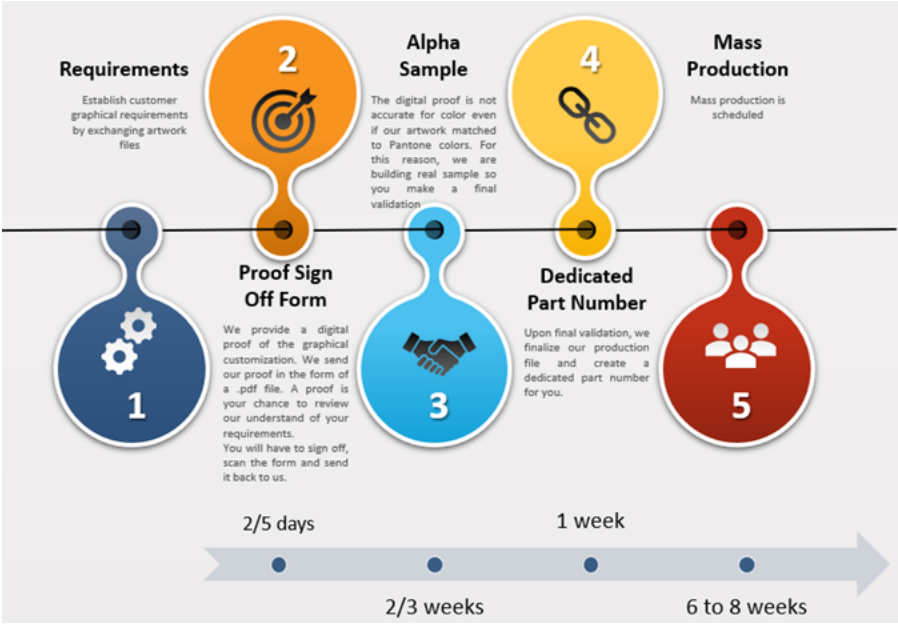
A custom artwork can be printed directly during the lamination process of the card and can include security features like holograms that cannot be reproduced.

3.1.2 Part Numbers

SKU	Description
LITHO-CMYK	Single side underlamine offset 4 color
LITHO-CMYK-4-4	Dual side underlamine offset 4 color
LITHO-SPOT	Spot color (Pantone)
LITHO-BLACK	Black offset printing
LC-0001	Artwork Proof
ANTI-UV	Ultraviolet static printing
HOLO-SURFACE	Surface HID Standard Hologram
HOLO-EMBEDDED	Embedded HID Standard Hologram

3.2 Options for USB Key Form Factors

3.2.1 Customization Process Flow



3.2.2 Graphic Requirements - HID Global recommendations?

- No fancy effect (shadow, fading, 50% black...); only plain pantone colors for casing and overlay
- No metallic color
- The logo should have a minimum height of 3mm
- Characters should have a minimum height of 1.5mm

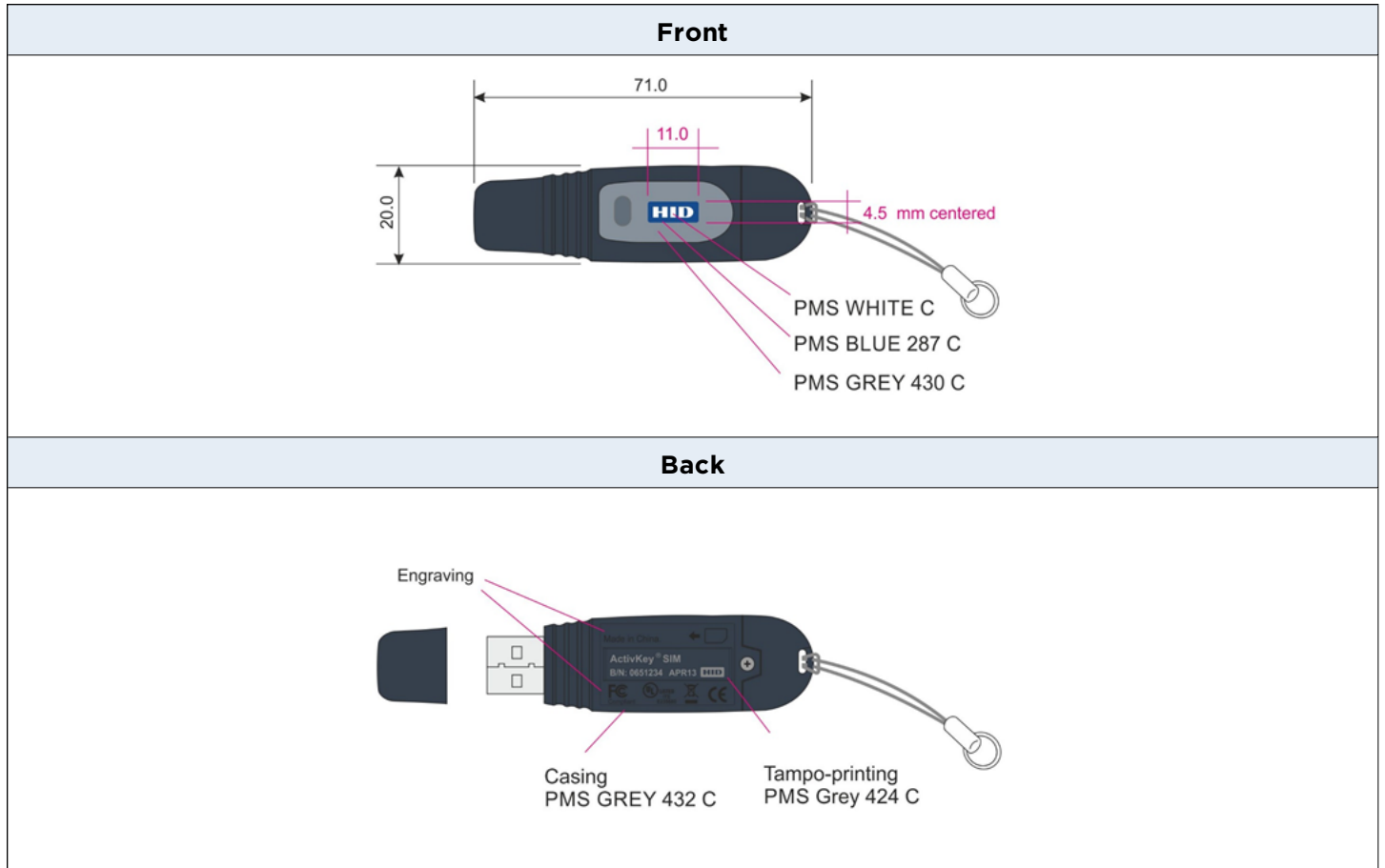
3.2.3 What is the basic information required before starting any proof validation?

- Pantone colors (drawing, text, ...)
- Font (Arial, ...)
- Font size
- Position of the logo on the windows glass (correctly adjusted, centered...)

3.2.4 Artwork file - Document format?

- All files sent to HID Global should be in Adobe® Illustrator® version CS6 or earlier

3.2.5 ActivID ActivKey SIM



3.2.6 HID Crescendo Key

