

cegard/Smart

Light curtain together with the controllers cegard/Smart CGSM-B, -C, -E

BENEFITS

- ▶ Three models that meet customer-specific application requirements
 - CGSM-B for 2D/3D applications (External Modem)
 - CGSM-C for 2D/3D applications (Internal Modem)
 - CGSM-E for 2D/3D applications and Emergency Communications
- ▶ Easy installation by any elevator technician (dynamic mounting)
- ▶ Supports one, or two car door applications (e.g. front and rear car doors) using an extension module
- ▶ Universal IoT enabling across the entire elevator portfolio: different manufacturers, models and age groups of elevators
- ▶ Transparency on the health status of the elevator and especially the elevator doors
- ▶ Enabling data-driven and preventive maintenance while reducing corrective maintenance
- ▶ Enabling insight into people flow in the building
- ▶ Depending on the model chosen and associated components, the cegard/Smart system is capable of fulfilling:
 - ASME A17.1-2016 / CSA B44-16 and earlier
 - ASME A17.1-2019 / CS A B44-19 and later
 - ASME A17.5-2019 / CSA B44.1:19 and
 - EN 81-20:2020



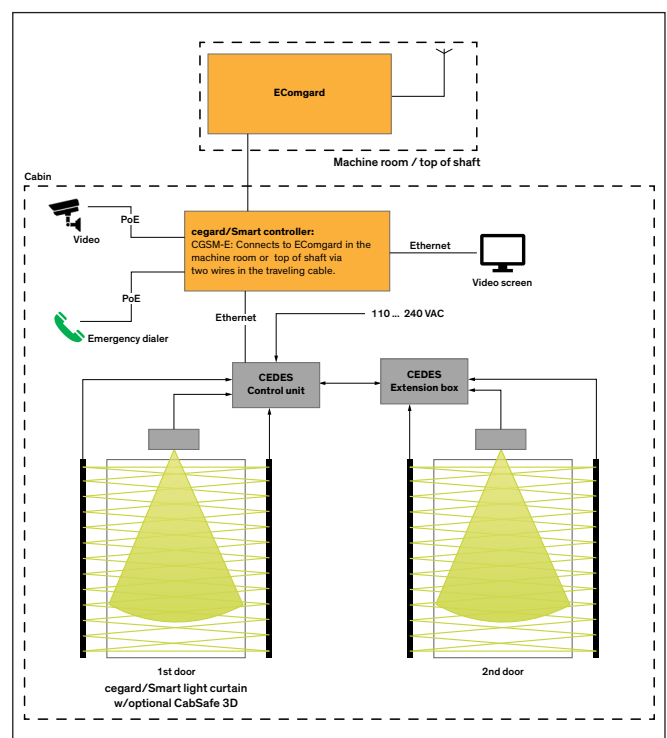
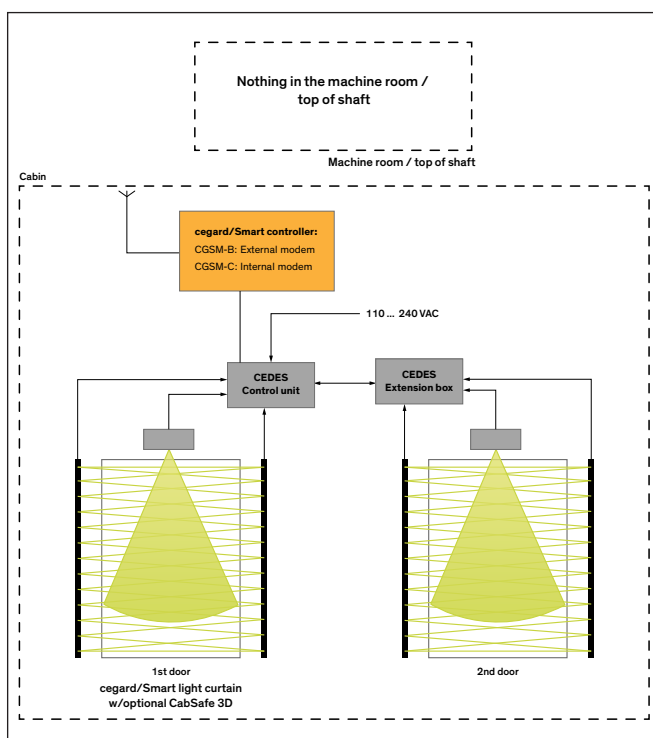
cegard/Smart-CGSM-B together with EasyGate IP



cegard/Smart-CGSM-C



cegard/Smart-CGSM-E together with EComgard



Controllers cegard/Smart CGSM-B, - C, -E

ELECTRICAL

Supply voltage U _{sp}	
- Low voltage (J2) DC input	19.2 ... 37 VDC
- High voltage (J1) AC input	100 ... 240 VAC
Supply voltage light curtain (J11 and J12)	26 VDC
Supply voltage 3D sensor (J13)	26 VDC
Max. power-up time	5 s
Typ. power consumption (cegard/Smart LC / CabSafe 3D sensor)	
- 1 LC	10 W
- 1 × LC + 1 × 3D	20 W
- 2 × LC + 2 × 3D	45 W
Inrush current (including cegard/Smart LC and CabSafe 3D sensor)	
- At 24 VDC	500 mA RMS
- At 115 VAC	350 mA
- At 230 VAC	200 mA
Output	Relay
Max. relay current	200 VAC / 5 A 125 VDC / 0.5 A 30 VDC / 5 A
Min. switching current (relay)	0.1 A / 5 VDC
Max. number of mechanical relay operations	> 20 × 10 ⁶
Max. relay switching voltage	300 VDC
Typical system response time	
- CabSafe 3D	< 250 ms
- cegard/Smart 2D	20 ms + response time cegard/Smart LC

CELLULAR NETWORK FREQUENCY BANDS - C VARIANT

LTE-FDD	B1/B2/B3/B4/B5/B7/B8/B12/B13 B18/B19/B20/B25/B26/B28/B66
LTE-TDD	B34/B38/B39/B40/B41
WCDMA	B1/B2/B4/B6/B8/B19
GSM	850/900/1800/1900 MHZ

MECHANICAL

Dimensions (w × h × l)	250 × 191 × 110 mm (9.84 × 7.52 × 4.33 in)
Housing material	Metal
Housing color	Blue
Weight	2 kg
Enclosure rating	IP20
Temperature range	
- Operation	-30 °C ... +50 °C (-22 °F ... +122 °F)
Humidity	Max. 95%, non-condensing
Max. altitude	2,000 m above sea level

GENERAL

EMC emission	EN 12015:2021
EMC immunity	EN 12016:2013, ISO 22200:2009
Vibration	IEC 60068-2-6:2007
Shock	IEC 60068-2-27:2008
RoHS, REACH	2011/65/EU, 1907/2006 EU
FCC	2014/30/EU, 2014/33/EU Class B
Certificates	
- Liftinstituut	ASME A17.1-2019 / CSA B44:19 ASME A17.1-2022 / CSA B44:22 cCSAus; CSA B44.1:19 / ASME A17.5-2019
- USA / Canada	



CEDES AG is certified according to ISO 9001: 2015.

EasyGate IP

MECHANICAL

Dimensions (w × h × l)	195 × 119 × 61 mm (7.68 × 4.69 × 2.4 in)
Weight	600 g
Enclosure rating	IP43
Humidity	Max. 90%, non condensing
Temperature range (operation)	-40°C ... +85°C

ELECTRICAL

Power adapter	(12 V / 1 A DC adapter included) option to connect an external 9 to 30 VDC power source
Backup power	4×AA batteries, constantly monitored
Status LED	Power, cellular network, FXS line, data, signal strength

CELLULAR NETWORK - FREQUENCY BANDS

EU version (EC21-E)	
- 4G LTE	B1/B3/B5/B7/B8/B20
- UMTS/WCDMA	850/900/2100 MHz
- GSM	EGSM 900 MHz, GSM 1800 MHz
US version (EC21-A)	
- 4G LTE	B2/B4/B12
- UMTS/WCDMA	850/1700/1900 MHz
- GSM	Not supported
SIM cards	2 slots, both support 3 V and 1.8 V SIM cards
Included as standard with cegard/Smart kit	

EComgard

MECHANICAL

Dimensions (w × h × l)	270 × 240 × 80 mm (10.63 × 9.45 × 3.15 in)
Weight	2.2 kg w/o battery pack, 4.7 kg with
Enclosure rating	IP30
Temperature range	
- Operation	-20°C ... +50°C
- Storage	-40°C ... +40°C
Maximum altitude	2,000 m above sea level

ELECTRICAL

Supply voltage Usp	100 ... 240 VAC
Frequency	50/60 Hz
Power output	65 W single supply version
Power supply backup	12 V / 9 Ah internal gel-lead-acid accumulator

ANTENNA

Connector type	SMA
Impedance	50 Ω

ANTENNA

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Impedance	50 Ω

CERTIFICATES

- EN 62368-1, EN 81-28, EN 301489-1, EN 301489-7, EN 301511, EN 301908-1, EN 301908-2, EN 301908-13, EN 62311, EN 63000, EN 12016
- FCC Part 15b, UL 62368-1, PTCRB
- ICES-003 Issue 6, CSA C22.2 No.62368-1
- AS/CA S003.1, S003.3, S042.1, S042.4, AS/NZS 62368.1 App ZZ

CELLULAR NETWORK - FREQUENCY BANDS

EU version	
- LTE FDD	B1/B3/B5/B7/B8/B20
- LTE TDD	B38/B40/B41
- WCDMA	B1/B5/B8
- GSM	B3/B
US version	
- LTE FDD	B2/B4/B12
- WCDMA	B2/B4/B5
SIM cards	Included as standard with cegard/Smart EComgard kit

CERTIFICATES

The EComgard is in conformity with the relevant European Union harmonization legislation:

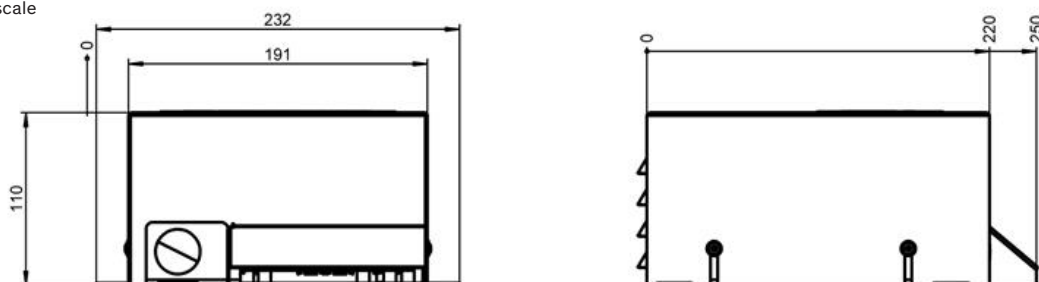
- 2014/53/EU Directive for radio equipment (RED)
- 2011/65/EU Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)

The following harmonized standards have been applied for the conformity assessment:

- Safety EN 62368-1:2020+A11:2020 EN 62311:2008
EN 301489-1 V2.2.3 EN 301489-7 V1.3.1,
EN 55032:2016
EN 55035:2018+A1:2020
EN 12016
- Radio Spectrum EN 301 511 V12.5.1 EN 301 908 V11.1.1
- RoHS EN 63000:2018

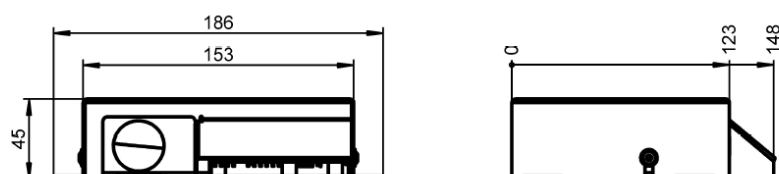
Dimensions – controller

All dimensions in mm
Proportions not to scale



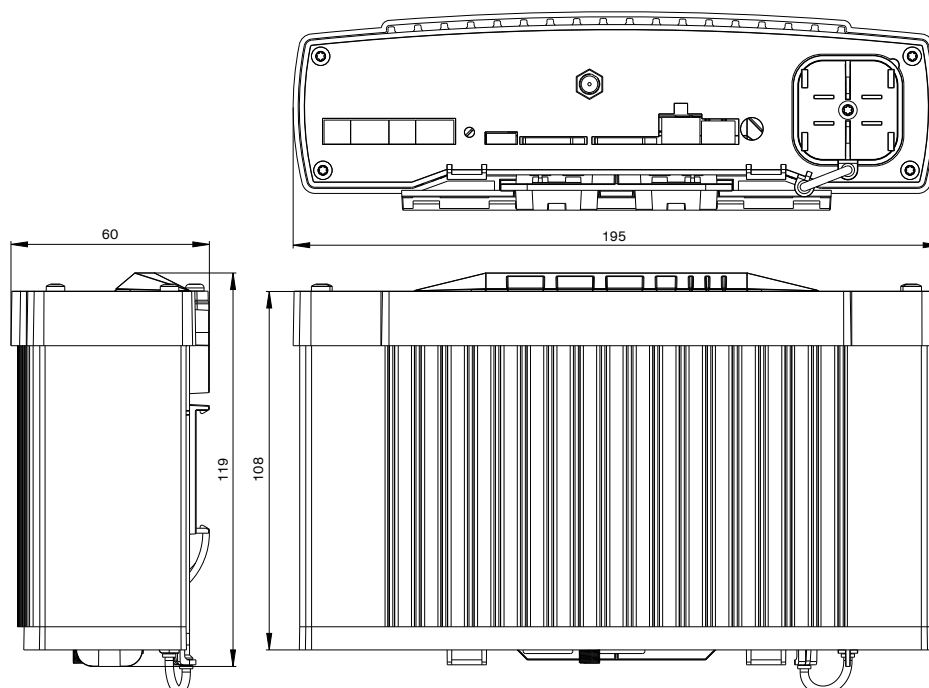
Dimensions – extension module

All dimensions in mm
Proportions not to scale



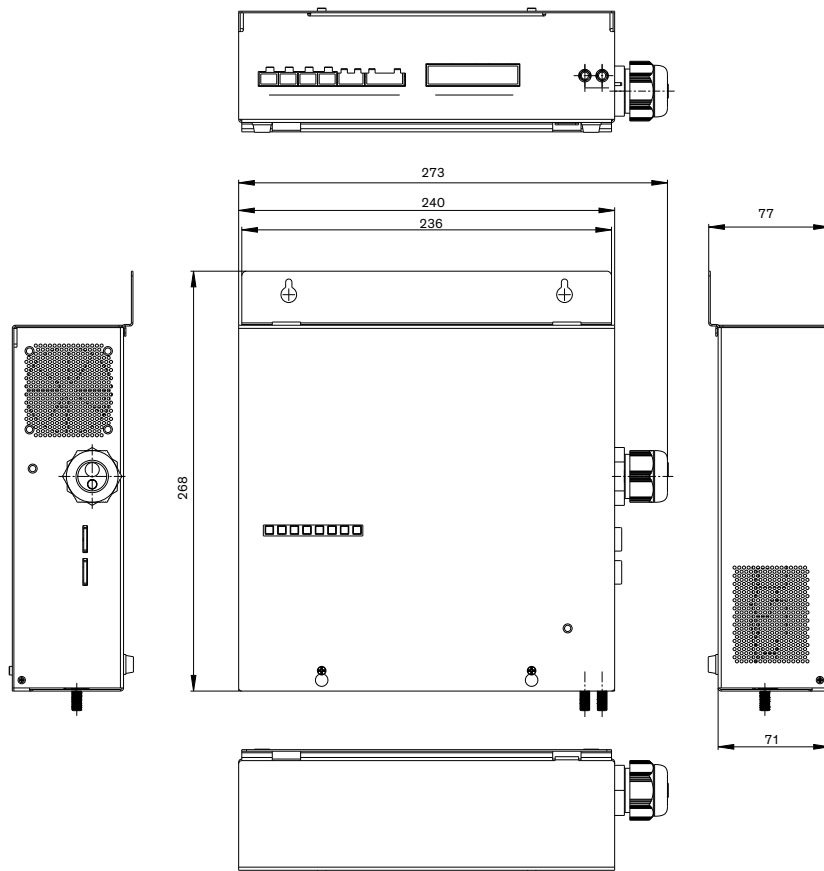
Dimensions – EasyGate IP

All dimensions in mm
Proportions not to scale

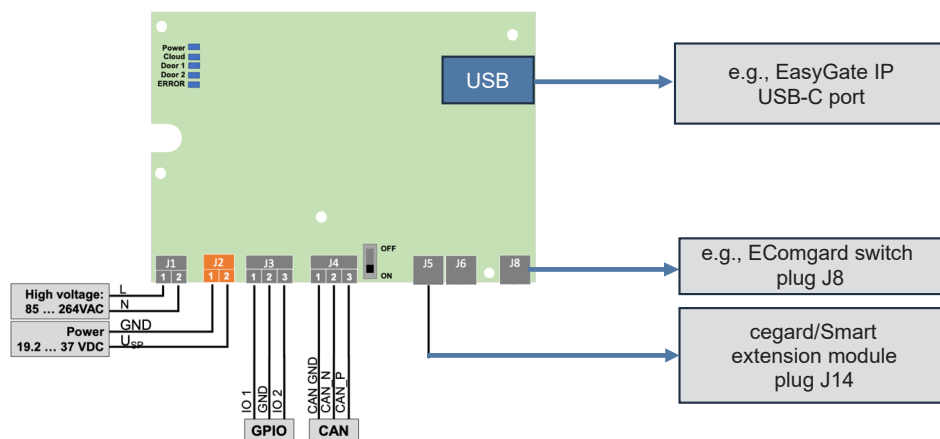


Dimensions – EComgard

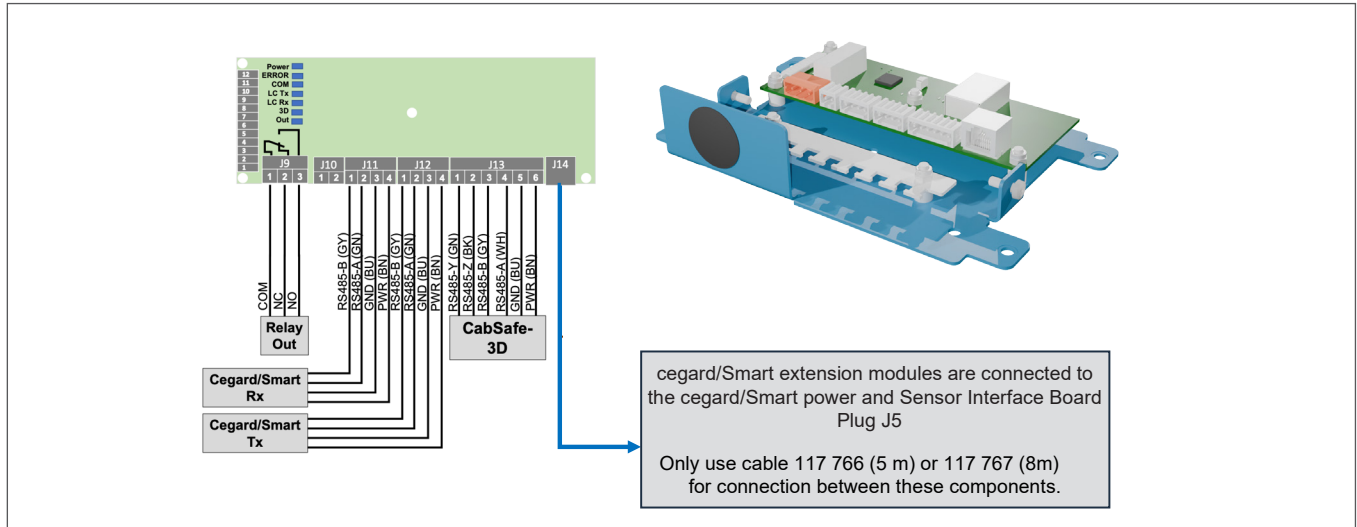
All dimensions in mm
Proportions not to scale



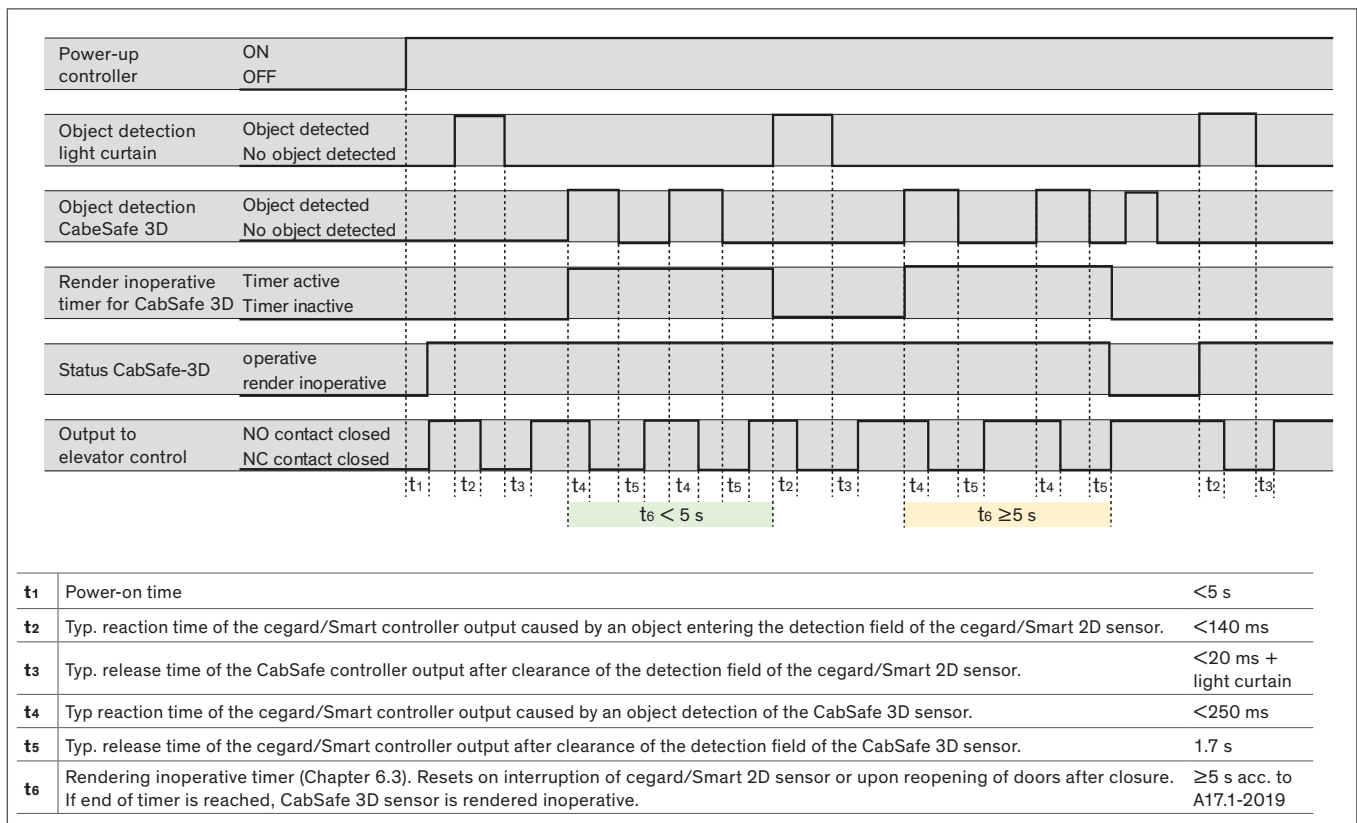
Electrical connection - incoming power and Gateway PCB



Electrical connection - cegard/Smart sensor interface PCB / extension module



Timing diagram (include light curtain, 3D TOF sensor and control unit)



Ordering information for North American kits:

Part No.	Model designation	Description
	Light curtain only for front-only or front and rear doors:	
117 921	CGS-SY-B1-12D000-2	cegard/Smart One CGSM-B1 7' NA
117 922	CGS-SY-B1-22D000-2	cegard/Smart Two CGSM-B1 7' NA
	Light curtain & TOF 3D for front-only or front and rear doors:	
117 923	CGS-SY-B1-13DBSTBT-2	cegard/Smart 3D One CGSM-B1 7' BOT NA
117 924	CGS-SY-B1-23DBSTBT-2	cegard/Smart 3D Two CGSM-B1 7' BOT NA
	Light curtain & emergency communication for front-only or front and rear doors:	
117 925	CGS-SY-E1-12D000-2	cegard/Smart EComgard One 7' NA
117 926	CGS-SY-E1-22D000-2	cegard/Smart EComgard Two 7' NA
	Light curtain, TOF 3D & emergency communication for front-only or front and rear doors:	
117 927	CGS-SY-E1-13DBSTBT-2	cegard/Smart EComgard 3D One 7' BOT NA
117 936	CGS-SY-E1-23DBSTBT-2	cegard/Smart EComgard 3D Two 7' BOT NA

Ordering information for European kits:

Part No.	Model designation	Description
	Light curtain only for front-only or front and rear doors:	
117 928	CGS-SY-B2-12D000	cegard/Smart One CGSM-B2 EU
117 929	CGS-SY-B2-22D000	cegard/Smart Two CGSM-B2 EU
	Light curtain & TOF 3D for front-only or front and rear doors:	
117 930	CGS-SY-B2-13DBSTFL	cegard/Smart 3D One CGSM-B2 EU
117 931	CGS-SY-B2-23DBSTFL	cegard/Smart 3D Two CGSM-B2 EU
	Light curtain & emergency communication for front-only or front and rear doors:	
117 932	CGS-SY-E2-12D000	cegard/Smart EComgard One EU
117 933	CGS-SY-E2-22D000	cegard/Smart EComgard Two EU
	Light curtain, TOF 3D & emergency communication for front-only or front and rear doors:	
117 934	CGS-SY-E2-13DBSTFL	cegard/Smart EComgard 3D One EU
117 935	CGS-SY-E2-23DBSTFL	cegard/Smart EComgard 3D Two EU

Type descriptions

cegard/Smart system

CGS – SY – ab – ccccd – e, ffff

a:	cegard/Smart controller type	
	- Controller with EasyGate IP	B
	- Controller Integrated 4G/LTE	C
	- Controller with EComgard	E
b:	System Variants	
	- Universal	Omitted
	- North America	1
	- Europe	2
cccc:	Sensors included	
	For one door 2D/3D	
	- 2D Only	12D000
	- 3D Standard Black	13DBST
	- 3D Tall Door Left-side (TDL)	
	Mounting, Black	13DBTL
	- 3D Tall Door Right-side (TDR)	
	Mounting, Black	13DBTR
	For two door 2D/3D	
	- 2D Only	22D000
	- 3D Standard Black	23DBST
	- 3D TDL Black x 1 +	
	TDR Black x 1	23DBTD
dd:	3D Mounting Type	
	- 3D Flush Mount	FL
	- 3D Back of Transom Mount	BT
e:	North America Mounting Hardware (omitted for European kits)	
	- No VS / MP / SP	0
	- 2.1 m / 7 ft VS / MP / SP	2
	- 3 m / 10 ft VS / MP / SP	3