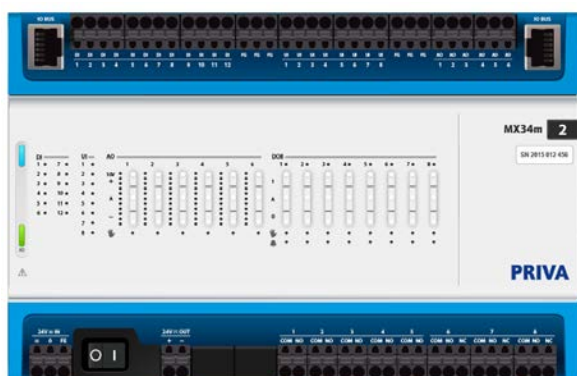# > PRIVA BLUE ID C-LINE SYSTEMOVERBLIK

Priva Blue ID C-Line er bygget op omkring en programmérbar controller til processtyring og overvågning. Controllerne og I/O-modulerne er alsidige og fleksible og kan bruges i et utal af situationer, f.eks. i bygninger.

Karakteristika/egenskaber

- pålidelig, modulopbygget og velorganiseret
- nemt at installere
- servicevenlig
- kompakt opbygget og DIN-skinne layout
- ingen konfigurationsnetværk
- fuldt IP-baseret
- brugervenlig betjening med TouchPoint
- BACnet
- åben for mange kommunikationsprotokoller
- udviklet med henblik på bæredygtighed

Modulopbygget og velorganiseret

Priva Blue ID systemet har et modulært design omkring dets controller. Begge hardwarelinjer (C-Line og S-Line) har et velorganiseret udvalg af moduler, der afspejler den nuværende praksis.

Afhængigt af hardwarelinjen er der moduler, der tilbyder analoge udgange med/uden manuel overstyring, relæudgange med/uden manuel overstyring, analoge og digitale indgange og seriel kommunikation. Dette bevirker, at der altid er et godt "fit", så pladsen i panelet udnyttes optimalt.

Simpel installation

Modulerne kan blot klikkes på en DIN-skinne. Dernæst forbindes modulerne med hinanden vha. I/O-buskablerne. Dermed skabes også de nødvendige interne forbindelser. Du kan inddele modulerne over flere skinner. Modulerne adresseres automatisk. Jumpers eller DIP switches er derfor ikke nødvendige. Dette vil minimere fejl.

Simpel installation

Perifært hardware kan forbindes meget nemt. Ledningerne monteres enkelt i de forberedte terminaler.

Line-up LED

Modulet er udstyret med en blå line-up LED. Hvis den blå LED lyser konstant, er modulet på det rette sted i henhold til den indstillede konfiguration.

Controller

Controlleren er det intelligente hjerte i Priva Blue ID systemet. Den håndterer alle input og output baseret på styreprogrammer indlæst i controlleren og modulerne. Programmerne kommer fra Top Control (Privas projektdesign og implementeringssoftware).

Kraftfuld processor

Controlleren indeholder en kraftig mikroprocessor, som garanterer høj performance. Hastigheden og computerkraften passer med kravene til moderne og integrerede systemer. Controlleren anvender pålideligt styresystem, der sikrer kvalitet og driftssikkerhed og en god forbindelse til IT-infrastrukturen. Den indbyrdes kommunikation mellem controllere er hurtig og pålidelig.

Driftsikkerhed

Såfremt strømmen svigter, forbliver softwaren i controlleren. For at spare tid og (service) omkostninger kan du tilføre systemet nye funktioner via cloud. Controlleren tester denne nye software før der skiftes til denne.

Hukommelseskort

Controlleren har et hukommelseskort, som bruges til at gemme projektfiler fra Top Control.

Betjening ved brug af Touchpoint

Systemet kan betjenes vha. én eller flere TouchPoints (touchscreens). Du kan montere dem i selve betjeningspanelet, i lågen eller på væggen.

Du kan nemt udvide antallet af TouchPoints og bruge dem hvor som helst. Systemet genkender, når en TouchPoint er tilsluttet; du behøver ikke at installere software.

Du kan tilslutte et TouchPoint via en Ethernet port og en 24 VDC strømforsyningsudgang fra controlleren. Du kan også bruge en ekstern strømforsyning.

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Tilgang via PC

TC Manager giver dig mulighed for at styre alle enheder, der er tilsluttet systemet fra et enkelt sted. TC Manager giver en webbaseret visualisering af den bygning, der skal administreres. Systemet understøtter brugen af logiske navne på websider i stedet for adresser. Derudover understøttes både Windows browsere og Mac browsere.
Betjening foregår via overskuelige websider. Tydelige faner og ikoner gør konfiguration og betjening hurtig og nem.

Strømforsyning

Priva leverer en række strømforsyninger, der passer til enhver situation. Privas strømforsyning giver dig en pålidelig strømforsyning, der passer præcist ind i din konfiguration.

Elektrisk isolation

Modulerne får strøm fra en 24 VDC eller 24 VAC forsyningsspænding. Terminalerne på modulerne er elektrisk isoleret fra systemets nul. Derved undgås fejl via jordklemmen.

Forsyningsspænding

Forsyningsspændingen tilsluttes controlleren og I/O-moduler. Den interne systemeffekt distribueres til udvidelsesmodulerne via I/O-bussen.

24 VDC strømforsyningsudgang

Controlleren og Mix I/O-modulerne har en 24 VDC strømforsyningsudgang. 24 VDC strømforsyningsudgangen kan anvendes til at drive et TouchPoint med 24 VDC. Udgangen må ikke anvendes til at forsyne andet udstyr.

Ekstern udstyr

Ekstern udstyr skal forsynes med spænding vha. en separat strømforsyning.

Ethernet forbindelser

Ethernet-forbindelser på controlleren kan forbinde systemet til netværket. Ethernet-forbindelserne giver ikke Power over Ethernet (PoE).

BACnet

Du kan nemt udveksle input- og outputsignaler fra I/O-modulerne med andre systemer og enheder.

Interface til busenheder

Hvis én eller flere busenheder bruges i et projekt, kan du tilslutte dem til controlleren til seriel kommunikation eller via Ethernet kommunikation.

Der kræves en kommunikationsprotokol for hver bus-protokol. Produktgrænseflader og universelle grænseflader er tilgængelige i TC Engineer. Eksempler omfatter produktgrænseflader til Danfoss frekvensregulatorer, pumper fra Grundfos og Wilo, og universal grænseflader til BACnet og Modbus.
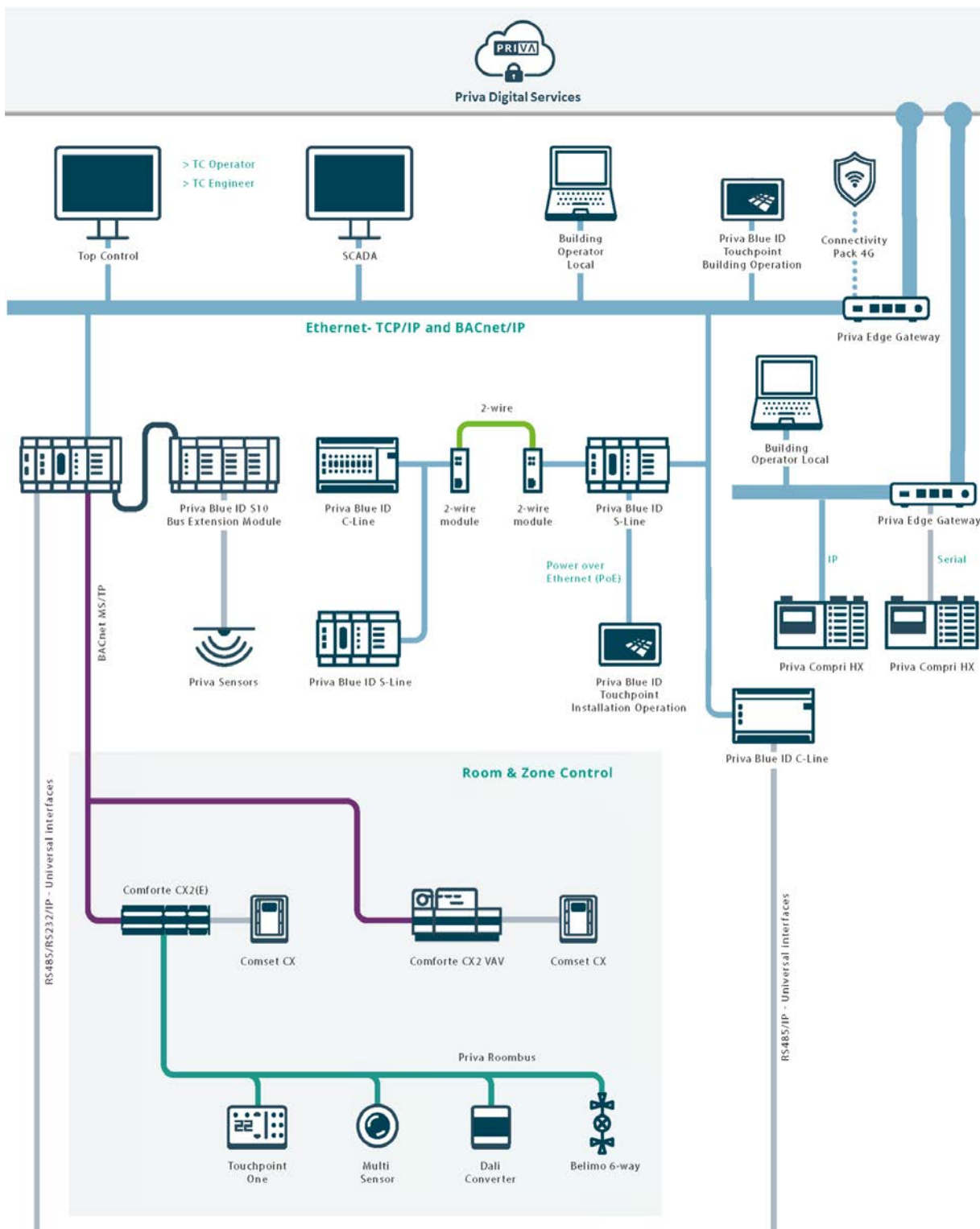
Priva Blue ID hardware lines

Priva Blue ID systemet består af Priva Blue ID S-Line and Priva Blue ID C-Line hardwarelinjer. Priva BlueID S- Line er bygget op omkring en S10 controller. Priva Blue IDC-Line er bygget op omkring en C4 controller. Ud over controlleren tilbyder begge hardwarelinjer forskellige moduler. Controlleren og modulerne giver tilsammen den kombination af input og output, som du har brug for til dit projekt.
Hardwarelinjerne kan bruges sammen i et projekt. Controllere og moduler i én hardwarelinje kan dog ikke blandes. F.eks. kan moduler fra S-Line kun bruges med en S10 controller fra S-Line. Med en C4 controller fra C-Line kan du kun anvende moduler fra C-Line. Du kan dog godt bruge en S10 controller med S-Line moduler sammen med en C4 controller med C-Line moduler inden for samme projekt.

Integration med andre Priva systemer

Priva Blue ID systemet fungerer med TC ServeCenter 8.0 og Top Integration.

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Network Priva Blue ID

Systemudvidelse

Et system kan nemt udvides. For en udvidelse af systemet med flere I/O'er kan du nemt installere yderligere I/O-moduler. Styring kan softwaremæssigt udvides via en licenskode, som nemt genereres af CTS-teknikeren.

Priva Blue ID C-Line

Maximum system configuration	
Number of controllers	1 x, choice of: • Priva Blue ID C4 C-MX34 Controller • Priva Blue ID C4 C-MX34m Controller with manual override
Number of Mix I/O modules	1 x, choice of: • Priva Blue ID C-Line MX34 Mix input/output module • Priva Blue ID C-Line MX34m Mix input/output module with manual override
Number of expansion modules	2 x, choice of: • Priva Blue ID C-Line UI8 Universal input module • Priva Blue ID C-Line UI8s Universal input module with signaling • Priva Blue ID C-Line DOR6 Relay output module • Priva Blue ID C-Line DOR6m Relay output module with manual override
TC Manager users	maximum of 5 at the same time

Software-based expansion of controller	Number of inputs and outputs (I/O)
Priva Blue ID C4 C-MX34 Controller 20 Priva Blue ID C4 C-MX34m Controller with manual override 20	0 … 20
Priva Blue ID C4 C-MX34 Controller 50 Priva Blue ID C4 C-MX34m Controller with manual override 50	0 … 50
Priva Blue ID C4 C-MX34 Controller 84 Priva Blue ID C4 C-MX34m Controller with manual override 84	0 … 84

The tables below show the maximum configurations of a project.

Maximum configuration per project	
Operation using Touchpoint[1]	50

[1] Irrespective of the type of operation.

Numbers per project or per building section[1] specified in TC Manager for operation with TC Manager[2]	
Number of controllers (S10 or C4)	20
Number of terminal unit systems (Comforte CX, Comforte CX2, Comforte CX VAV, Comforte CX2 VAV)	600

[1] With the help of the *BuildingSection* start-up parameter, TC Manager can be started with a filter by a specified building section. In this case, the numbers shown in the table will represent the numbers within the specified building section.

[2] Depending on project size and project composition. Please contact your Priva account manager for advice if the project size and project composition are greater than the specified numbers of Priva Blue ID and Comforte CX controllers.

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Priva Blue ID C-Line suite

Priva Blue ID C4 C-MX34 Controller		
5210001	Priva Blue ID C4 C-MX34 Controller	controller with • 12 digital inputs • 8 universal inputs • 6 analogue outputs • 8 relay outputs • 4 Ethernet ports • RS485 port • alarm output • 24 VDC power supply output easy to expand with more I/O via the licence code
5210002	Priva Blue ID C4 C-MX34m Controller with manual override	controller manual override and • 12 digital inputs • 8 universal inputs • 6 analogue outputs • 8 relay outputs • 4 Ethernet ports • RS485 port • alarm output • 24 VDC power supply output easy to expand with more I/O via the licence code

Priva Blue ID C-Line expansion modules		
5211001	Priva Blue ID C-Line MX34 Mix input/output module	expansion module with • 12 digital inputs • 8 universal inputs • 6 analogue outputs • 8 relay outputs • 24 VDC power supply output
5211002	Priva Blue ID C-Line MX34m Mix input/output module with manual override	expansion module with manual override and • 12 digital inputs • 8 universal inputs • 6 analogue outputs • 8 relay outputs • 24 VDC power supply output
5213001	Priva Blue ID C-Line UI8 Universal input module	expansion module with 8 universal inputs
5213002	Priva Blue ID C-Line UI8s Universal input module with signaling	expansion module with 8 universal inputs and indication
5215001	Priva Blue ID C-Line DOR6 Relay output module	expansion module with 6 relay outputs
5215002	Priva Blue ID C-Line DOR6m Relay output module with manual override	expansion module with 6 relay outputs and manual override

Module for 2-wire		
5020005	ORing Network module (IMC-V111ET-TB)	module of ORing with 1 Ethernet port and 1 port for 2-wire

Power supply		
5050003	Priva Blue ID PS70 Power supply module	24 VDC, maximum output power of 70 W
5050004	Priva Blue ID PS120 Power supply module	24 VDC, maximum output power of 120 W

Operation		
5060001	Priva Blue ID TouchPoint *This article is no longer supplied.*	operating unit with touchscreen
5060002	Priva Blue ID TouchPoint Flush *This article is no longer supplied.*	operating unit with recessed touchscreen
5060003	Priva Blue ID TouchPoint V2	operating unit with touchscreen
5060004	Priva Blue ID TouchPoint Flush V2	operating unit with recessed touchscreen
5060101	Priva Blue ID Wall bracket	frame for mounting TouchPoint on wall
5060103	Priva Blue ID Panel bracket Flush	frame for integrating TouchPoint Flush into panel
5060104	Priva Blue ID TouchPoint Flush Back Cover (for panel mounting) *This article is no longer supplied.*	cover for TouchPoint Flush

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SX100.1 and Compri Gateway		
5200011	Priva Blue ID SX100.1	embedded PC for Priva Cloud services and Top Control 8 historical data (TC History, TC History Proxy and TC LAN Manager)
5200012	Priva Blue ID SX100.1L Compri Gateway	Gateway to Compri projects from Priva Blue ID

Priva Blue ID C-Line accessories		
5219001	Priva Blue ID C-Line Click-on mounting frame large (set 5 pcs)	blue plastic sheet for shielding the connections of large modules in a DIN 43870 distribution box
5219002	Priva Blue ID C-Line Click-on mounting frame small (set 5 pcs)	blue plastic sheet for shielding the connections of small modules in a DIN 43870 distribution box
5219010	Priva Blue ID C-Line Number Card set 1 - 4	set of number stickers for affixing the module number to the module
5219101	Priva Blue ID C-Line screw connector set C-MX34/MX34	set of all angled screw connectors required for controllers or Mix I/O modules
5219102	Priva Blue ID C-Line screw connector set UI8	set of all angled screw connectors required for universal input modules
5219103	Priva Blue ID C-Line screw connector set DOR6	set of all angled screw connectors required for relay output modules
5219105	Priva Blue ID C-Line push connector set C-MX34/MX34	set of spare push connectors (2-pin, 3-pin en 4-pin) for all Priva Blue ID C-Line modules
5219110	Priva Blue ID C-Line IO bus cable length 10 cm	10 cm I/O bus cable for connecting modules via the I/O bus
5219111	Priva Blue ID C-Line IO bus cable length 200 cm	200 cm I/O bus cable for connecting modules via the I/O bus
3772039	Angled USB connector	angled connector for USB port (host) on a controller
5110001	Priva Blue ID SDHC card 32 Gb	32 Gb memory card for storing project properties

General specifications of Priva Blue ID C-Line controllers and modules

System power supply	Requirements
The system power supply for the controllers and Mix I/O modules must meet the following requirements.	
Output voltage	24 VAC ± 25%; 50/60 Hz ± 5 % 24 VDC ± 10%
Insulation	double insulation between input and output
Type of power supply	for UL916, CSA C22.2 No. 205: UL listed / CSA certified Class 2 extra low output voltage power supply

Housing	
IP code	IP20 (IEC 60529)
Flammability class	V-0 (UL 94)
Recycle code	7
Colour	housing: white (RAL9001) and blue (NCS S 1560-R90B) connections and connectors: black (RAL9011)
Type of device	open type equipment for: • indoor use only • pollution degree 2 environment

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Installation and connection

Installation and connection	
Installation	in control panel: • accessible to authorised personnel only • can be clicked onto horizontally or vertically positioned DIN rail. DIN rail installed directly on a mounting plate or floating with respect to the mounting plate in DIN 43870 distribution box
Type of DIN rail	35 x 7.5 (1.38 x 0.30 inches) or 35 x 15 mm (1.38 x 0.59 inches) (height x depth), in accordance with IEC 60715
Connector type for power supply and I/O	pluggable terminal block screw connectors (optional)
Permitted core cross section area	solid:: 0.2 ... 2.5 mm² (25 ... 14 AWG) flexible with ferrule connector: 0.2 ... 2.5 mm² (25 ... 14 AWG) flexible with double ferrule connector: 0.2 ... 1.5 mm² (25 ... 16 AWG)
Strip length/connector length (terminal block)	solid: 10 mm (0.39 inches) flexible with ferrule connector: 10 mm (0.39 inches) flexible with double ferrule connector: 12 mm (0.47 inches)
Strip length/connector length (screw connector)	8 mm (0.31 inches)
Identification of connections	labelling with an explanatory abbreviation
Maximum length of I/O bus cable between modules	3 m (9.84 ft)
Maximum length of I/O bus (total, including modules)	20 m (65.62 ft)

Environment

Environment	
Permitted temperature inside control panel of a working system (without air flow)	0 ... 50 ℃ (32 ... 122 °F)
Permitted temperature during transport and storage	-20 ... 70 ℃ (-4 ... 158 °F)
Maximum height	3000 m (9842 ft)
Permitted ambient relative humidity	10%...95% (non-condensing)
Shock resistance	EN 60068-2-27 (Ea)
Vibration resistance	EN 60068-2-27 (Fc)
Installation category	II
Other installation and environmental requirements	do not expose to direct sunlight

Legislation and standards

Legislation and standards		
Canada / USA	[CSA c US mark]	• UL 916 (energy management equipment) • UL 61010-1 (measurement and control equipment) • UL 61010-2-201 (measurement and control equipment) • CSA C22.2 No 61010-1-12 (measurement and control equipment) • CSA C22.2 No 61010-2-201-14 (measurement and control equipment) • CSA C22.2 No 61010-1-04 (measurement and control equipment) • CSA C22.2 No 205-12 (signal equipment)

	EMC	• in compliance with 47 CFR Part 15 Subpart B, Class B (FCC Rules) Functioning must meet two conditions:
		  1. The system must not cause harmful interference.
		  2. The system must acknowledge all interference received, including interference that may cause unwanted operations.
		• ISM system, in accordance with Canadian standard ICES-001

Europe	CE	• Low Voltage Directive 2006/95/EC:
		  • EN 61010-1 (measurement and control equipment)
		  • EN 61010-2-201 (measurement and control equipment)
		• EMC Directive 2004/108/EC:
		  • EN 61326-1 (measurement and control equipment)
		  • EN 61000-6-2 (generic immunity standard)
		  • EN 61000-6-3 (generic emission standard)
		• RoHS directive 2011/65/EU

	[WEEE mark]	in compliance with WEEE directive 2012/19/EU
International	IEC	• IEC 61010-1 (measurement and control equipment) • IEC 61010-2-201 (measurement and control equipment)

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Legislation and standards		
International	BTL BACnet	• The Priva Blue ID C4 C-MX34 Controller and Priva Blue ID C4 C-MX34m Controller with manual override are BTL-registered with BACnet International. • Priva is a member of the BACnet Interest Group Europe.

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General specifications of TouchPoints

Housing	Priva Blue ID TouchPoint	Priva Blue ID TouchPoint Flush
Installation	with magnets on metal surface or wall-mounted in frame	flush-mounted
IP code	IP30	IP66
Housing type (NEMA 250)	1	4X, indoor use only
Flammability class	V-0 (UL 94)	
Recycle code	7	
Device type	open device, for use in a pollution degree 2 environment	

Environment	
Permitted temperature inside control cabinet during normal operation	0 ... 50 ºC
Permitted temperature during transport and storage	-20... 70 ºC
Permitted relative ambient humidity	10 % ... 95 % (non-condensing)
Shock and vibration resistance	IEC 61131-2
Installation category	II

Regulations and standards		

Europe	CE	• Low Voltage Directive 2014/35/EU
		  • EN 62368-1:2014 (audio/video, information and communication technology equipment)
		• EMC Directive 2014/30/EU
		  • EN 55032: edition 2.0, Class A of Class B (multimedia equipment emission requirements)
		  • EN 55035:2017 (multimedia equipment immunity requirements)
		  • EN 61000-6-2:2016 (generic immunity standard)
		  • EN 61000-6-3:2021 (generic emission standard)
		• RoHS Directive 2011/65/EU

	(WEEE symbol)	in compliance with WEEE directive 2002/96/EC

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