

RFID SOLUTIONS



TRANSMITTER RS RFID

F-93160 Noisy le Grand

COMITRONIC - BTI

SAFETY SWITCH
IP 67
EN 954-1
EN 60947-5-2 / EN 60947-5-3



XORF-SA
RFID technology

Standard Machine
ISO 13849-1
EN 62061
E2 10R-04 14053
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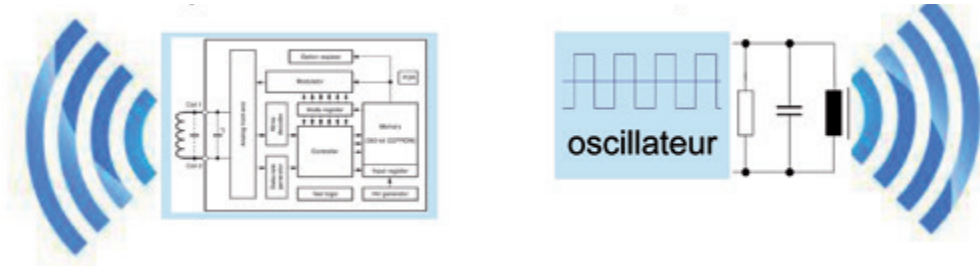
COMITRONIC - BTI

SAFETY SWITCH
IP 67
EN 954-1
EN 60947-5-2 / EN 60947-5-3



RFID solutions

Automobile safety, access with traceability,
management tools ... etc.



Benefits of PA6 housing : weather resistance, chemical stress

- ▶ Very good heat resistance
- ▶ Very good resistance to cold
- ▶ Very good resistance to chemicals and hydrocarbons
- ▶ IP 67 protection
- ▶ Indicator LED with translucent area for total protection
- ▶ Mounting with double wall brackets for sensing // or perpendicular to the floor

Benefits of TR90UV housing : resistance to sunlight, chemical stress, mechanical damage

- ▶ Very good heat resistance
- ▶ Very good resistance to cold
- ▶ Very good resistance to chemicals and hydrocarbons
- ▶ Very good resistance to milk, food products
- ▶ Hygienic for pharmaceutical application
- ▶ Resistance to glow wire
- ▶ Resistance to severe shocks
- ▶ Cut Resistance
- ▶ IP 67 protection
- ▶ Indicator LED with translucent area for total protection
- ▶ Very low apparent thickness, M30 mounting

Technological advantages :

- ▶ Suitable for sliding or rotating doors/casings
- ▶ Suitable for metallic environments
- ▶ Complete immunity to electromagnetic fields
- ▶ No mechanical contact between the transmitter (badge, tag) and the receiver (sensor)
- ▶ Broad lateral and axial alignment tolerance, wide functional sets (for poorly guided doors)
- ▶ Fraud protection through encoding 16 million inviolable codes
- ▶ Automatic code configuration through learning
- ▶ Signaling: by LED and independent auxiliary output (status of each door indicated during a serialization)
- ▶ Output cable UL2464 or overmolded robust 50cm M12 UL20549 PUR cable

AMXR-S

Controls the position of safety doors/casings with RFID encoding



RFID sensor with 16 million codes

Category 3 total security management without an external controller

Programmable code through auto-learning (no software or PC)

- ▶ Level of performance with AWAX controller: up to PL = e
- ▶ Safety category without an external controller: 3 (EN 954-1)
- ▶ Cycle after dangerous failure: B10d = 2000000 at 2 Amps
- ▶ Max activation distance: up to 24 mm
- ▶ Security contact/diagnostics: 2 x redundant NO 2A/48V and 1 x 400mA PNP auxiliary
- ▶ Detection encoding: inviolable multicode
- ▶ Indicator: LED indicates code recognition
- ▶ Reset: automatic
- ▶ Attachment: 4 tamper-proof M4 screws (in base option: BH4)
- ▶ Mounting position: 2 (double wall brackets)
- ▶ Material: PA6
- ▶ Electrical Connection: 3, 6, 12m cable (UL2464 PVC) or 50cm PUR cable with M12 connector (base + MKT)
- ▶ Sealing: IP 67
- ▶ Temperature: -20 °C to +60 °C
- ▶ Marking: pad printing + serial number for traceability

Product	Material	Connection/Type	Safety output	Auxiliary output	PL only ISO 13849-1	PL with external controller or PLC
AMXR-S	PA 6	Cable 7x0,25mm ² , L=3 m	2 NO	1 PNP NC	d	Up to « e »
AMXR-S-6M	PA 6	Cable 7x0,25mm ² , L=6 m	2 NO	1 PNP NC	d	Up to « e »
AMXR-S-12M	PA 6	Cable 7x0,25mm ² , L=12 m	2 NO	1 PNP NC	d	Up to « e »
AMXR-S-MKT	PA6	50cm PUR M12	2 NO	1 PNP NC	d	Up to « e »
FKT-2M	PUR	PUR female cord 8x0,25mm ² M12, L=2m	-	-	-	-
FKT-5M	PUR	PUR female cord 8x0,25mm ² M12, L=5m	-	-	-	-
FKT-10M	PUR	PUR female cord 8x0,25mm ² M12, L=10m	-	-	-	-
BDM1281E5S-AUX-S	PC	Junction box for automatic series connection and auxiliary outputs retrieval Able to hold 6 sensors type : ANATOM78S(ES)-M12 ANATOM98S(ES)-M12 AMX5CM12 MASSIMOTTO X5 SR ANATOM78SMKT130 EPINUS2K72-MKT	-	-	-	-
BM12	PA+ metal	Plug-in terminal replacing a sensor for BDM1281E5S-AUX-S	-	-	-	-
E00RS	PA6	Additional transmitter for AMXR-S	-	-	-	-

XORF-SA

Controls the position of security doors with RFID encoding for wheeled vehicles



**E2 Certification
UTAC**
Wheeled vehicles

RFID sensor with 16 million codes
Suitable for metallic environments
Programmable code through auto-learning (no software or PC)

- ▶ Level of performance with AWAX controller: up to PL = e
- ▶ Safety category: up to 4 (EN 954-1) with AWAX controller
- ▶ Time to dangerous failure: MTTFd = 40 years
- ▶ Max activation distance: up to 24 mm
- ▶ Security contact/diagnostics: 2 x redundant NO 50mA/30V and 1 x 50mA auxiliary PNP
- ▶ Detection encoding: inviolable multicode
- ▶ Indicator: LED indicates code recognition
- ▶ Reset: automatic
- ▶ Attachment: 4 tamper-proof M4 screws (in base option: BH4)
- ▶ Mounting position: 2 (double wall brackets)
- ▶ Material: PA6
- ▶ Electrical Connection: 50cm PUR cable with M12 connector
- ▶ Sealing: IP 67
- ▶ Standing room temperature: -30 °C to +50 °C.
- ▶ Storage temperature: -40 °C to +85 °C
- ▶ Marking: pad printing + serial number for traceability
- ▶ Certificate: E2 10R-04 14053 (UTAC)
- ▶ ISO 7637-2 (Pulse 1, 2a, 2b, 3a, 3b, 4)

Product suitable for heavy machines vibrations and shocks such as grinders, mixers, etc.

Application Example :

Very suitable for protectors/doors and floorboards with a rotational or angular movement for wheeled vehicles. Mobile mixer, mobile crusher, wood machine, mobile tank vehicle, dumpster, road equipment, long-distance transport truck, public works equipment, forestry, agriculture, etc.

Product	Material	Connection/Type	Safety output	Auxiliary output	PL with AWAX or PLC controller ISO 13849-1
XORF-SA	PA 6	50cm PUR M12	2 NO	1 PNP NC	Up to « e »
FKT-5M	PUR	PUR female cord 8x0,25mm ² M12, L=5m	-	-	-
FKT-10M	PUR	PUR female cord 8x0,25mm ² M12, L=10m	-	-	-
FKT-15M	PUR	PUR female cord 8x0,25mm ² M12, L=15m	-	-	-
E00SA	PA6	Additional transmitter for XORF-SA	-	-	-

XORF

Controls the position of safety doors/casings with RFID encoding

Version 12V for
wheeled vehicles



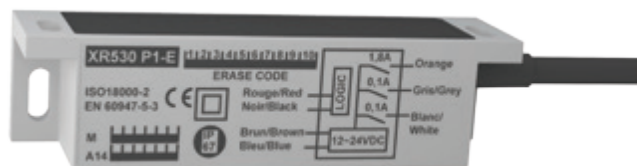
RFID sensor with 16 million codes
Suitable for metallic environments
Programmable code through auto-learning (no software or PC)

- ▶ Max activation distance: up to 24 mm
- ▶ Security contact/diagnostics: 2 x 400mA and 1 x 200mA auxiliary PNP
- ▶ Detection encoding: inviolable multicode
- ▶ Indicator: LED indicates code recognition
- ▶ Reset: automatic
- ▶ Attachment: 4 tamper-proof M4 screws (in base option: BH4)
- ▶ Mounting position: 2 (double wall brackets)
- ▶ Material: PA6
- ▶ Electrical Connection: 50cm PUR cable with M12 connector
- ▶ Sealing: IP 67
- ▶ Standing room temperature: -25 °C to +70 °C.
- ▶ Storage temperature: -40 °C to +85 °C
- ▶ Marking: pad printing + serial number for traceability

Product	Material	Connection/Type	Safety output	Auxiliary output	PL with AWAX or PLC controller ISO 13849-1
XORF-12V	PA 6	Cable 7x0,25mm ² , L=3 m	2 NO	1 PNP NC	No
XORF-12V	PA 6	Cable 7x0,25mm ² , L=6 m	2 NO	1 PNP NC	No
XORF-12V	PA 6	Cable 7x0,25mm ² , L=12 m	2 NO	1 PNP NC	No
E00SF	PA6	Additional transmitter for XORF-SA	2 NO	1 PNP NC	-

XR 530P

Card access control with RFID encoding



RFID sensor with 16 million codes

Lock control and two alarm levels

Programmable code through auto-learning (no software or PC)

- ▶ Switching cycle: B10 = 1 million
- ▶ Max activation distance: up to 25 mm
- ▶ Contact/diagnostics: 1 x 1.8A PNP timed 5s/2 x 200m APNP
- ▶ Alarm 1 (120s failure to close) and 2 (30s breaking open)
- ▶ Duration of alarms editable upon request (XR530P, P1 ... P10)
- ▶ Detection encoding: 16 million
- ▶ Indicator: LED indicates code recognition
- ▶ Optional erasing card to reassign new codes
- ▶ Encoding of geographic location: (base + E1 to E10) Reset : automatic
- ▶ Attachment: 4 tamper-proof M4 screws (in base option: BH4)
- ▶ Mounting position: 2 (double wall brackets)
- ▶ Material: PA6
- ▶ Electrical Connection: 3, 6, 12m (UL2464 PVC)
- ▶ Sealing: IP 67
- ▶ Temperature: -25 °C to +70 °C.
- ▶ Marking: pad printing + serial number for traceability
- ▶ Option: badge nail, screw, plate screw, key chain, card ... etc.
- ▶ Application example: access to luxury showcases with lock control

Ability to form 10 groups maximum for location encoding :

- Equipment for three stores
- E1 erasing card for store 1 group 1
- E2 erasing card for store 2 for group 2
- E3 erasing card for store 3 group 3
- Transmitters from one group do not work in other groups

Product	Material	Connection/Type	Lock output	Alarm output 1 and 2	B10d
XR530P-Ex	PA 6	Cable 7x0,25mm ² , L=3 m X=group 1 to 10	1 PNP NO	2 PNP NO	1 million
XR530P-Ex-6M	PA 6	Cable 7x0,25mm ² , L=6 m X=group 1 to 10	1 PNP NO	2 PNP NO	1 million
XR530P-Ex-12M	PA 6	Cable 7x0,25mm ² , L=12 m X=group 1 to 10	1 PNP NO	2 PNP NO	1 million
CB02 ERASING	PA6	Erasing card X=group 1 to 10	-	-	-
CC07BJ	Leather	RFID round-shaped leather keyring	-	-	-
CC08BJ	Leather	RFID square-shaped keyring	-	-	-
CB01	PA	Credit card sized RFID badge	-	-	-
CB02	PA	Rigid RFID badge with clip hole	-	-	-
OX7	CER	RFID programmable chip to be embedded	-	-	-
E530	PA6	Additional transmitter XR530	-	-	-

XRS 485

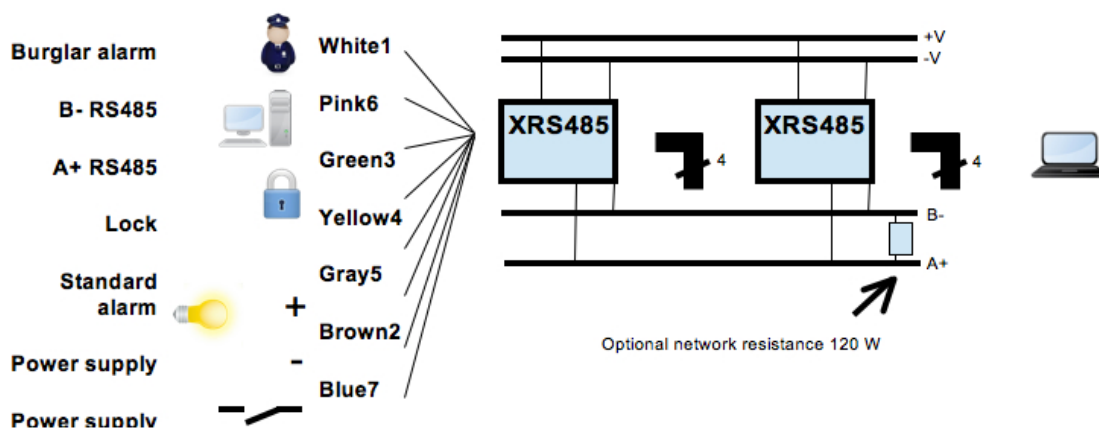
Card access control with RFID encoding and traceability



RFID sensor with 16 million codes
Lock control and «burglar» alarm
Supervision, traceability via PC, RS485 network and output contacts

- ▶ Life cycle: 20 years
 - ▶ Max activation distance: up to 45 mm
 - ▶ Contact/diagnostics: 1 x 1.8A PNP timed 5s/2 x 100mA PNP
 - ▶ Alarm 1 (120s failure to close) and 2 (30s breaking open)
 - ▶ Detection encoding: inviolable multicode
 - ▶ Indicator: LED indicates code recognition
 - ▶ Reset: automatic
 - ▶ Attachment: 4 tamper-proof M4 screws (in base option: BH4)
 - ▶ Mounting position: 1
 - ▶ Material: POLYCARBONATE
 - ▶ Electrical Connection: 50cm PUR cable with M12 connector
 - ▶ Sealing: IP 67
 - ▶ Temperature: -20 °C to +60 °C
 - ▶ Marking: pad printing + serial number for traceability
 - ▶ Options :
 - Software for real-time monitoring with openings traceability via PC (ref MDB13-SP.)
 - Software programming of badges and network configuration (ref MDB13-PR.)
 - Automatic network connection (LKS485): up to 8 cascading boxes and 4 readers per box or 32 readers. Individual contact outputs on each box
 - badge nail, screw, plate screw, key chain, card ... etc.
- Application example: access to luxury showcases with lock control and traceability

M12 Connector Functions Principle of the RS 485 Network



Product	Material	Connection/Type	Lock output	Alarm output	B10
XRS485-IA-12V or 24V	PC	50cm PUR M12 External door contactor Front side detection 12V or 24V power supply	1 PNP NO	2 PNP NO	1 million
XRS485-IB-12V or 24V	PC	50cm PUR M12 External door contactor Rear side detection 12V or 24V power supply	1 PNP NO	2 PNP NO	1 million
XRS485-IAC-12V or 24V	PC	50cm PUR M12 External door contactor Front side detection 12V or 24V power supply Shock sensor	1 PNP NO	2 PNP NO	1 million
XRS485-IBC-12V or 24V	PC	50cm PUR M12 External door contactor Rear side detection 12V or 24V power supply Shock sensor	1 PNP NO	2 PNP NO	1 million
XRS485-SA-12V or 24V	PC	50cm PUR M12 Integrated door contactor Front side detection 12V or 24V power supply	1 PNP NO	2 PNP NO	1 million
XRS485-SB-12V or 24V	PC	50cm PUR M12 Integrated door contactor Rear side detection 12V or 24V power supply	1 PNP NO	2 PNP NO	1 million
XRS485-SAC-12V or 24V	PC	50cm PUR M12 Integrated door contactor Front side detection 12V or 24V power supply Shock sensor	1 PNP NO	2 PNP NO	1 million
XRS485-SBC-12V or 24V	PC	50cm PUR M12 Integrated door contactor Rear side detection 12V or 24V power supply Shock sensor	1 PNP NO	2 PNP NO	1 million
E485	PA	Additional RFID transmitter for XRS485-S	-	-	-
MDB13-PR	-	Badge programming software	-	-	-
MDB13-SP	-	PC monitoring software	-	-	-
LKS485	PC	Network connection box 4 x XRS485	4	8	-
CC07BJ	Leather	RFID round-shaped leather keyring	-	-	-
CC08BJ	Leather	RFID square-shaped keyring	-	-	-
CB01	PA	Credit card sized RFID badge	-	-	-
CB02	PA	Rigid RFID badge with clip hole	-	-	-
WRC06	PA	RFID bracelet	-	-	-
KEA03	PA	RFID keyfob	-	-	-
OX7	CER	RFID programmable chip to be embedded	-	-	-

LKS 485

M12 XRS485 connection box for setting RS485 network
automatic and deferral outlets

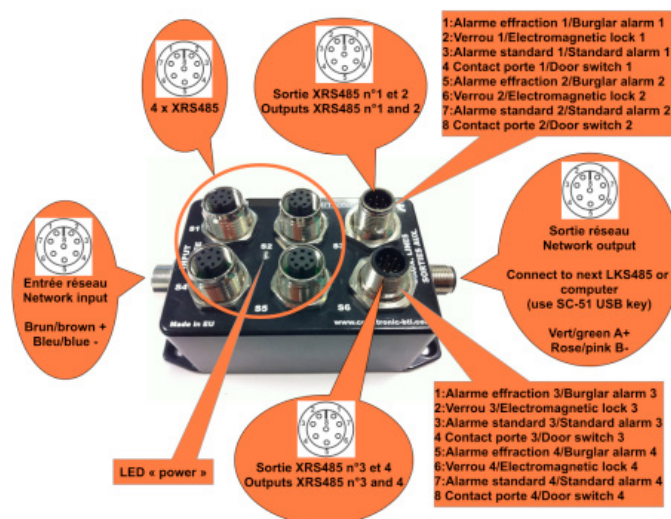


Ultra-compact format

Automatic RS485 networking with M12 connector output

Deferral of all M12 connector outputs

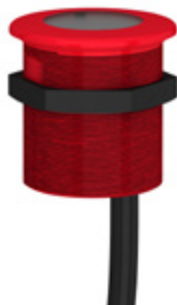
- ▶ Indicator: LED indicates activation of the network
 - ▶ Attachment: 4 M3 screws (with washers)
 - ▶ Mounting position: 1
 - ▶ Material: POLYCARBONATE
 - ▶ Electrical connection: 8 M12 connectors
 - ▶ Sealing: IP 54
 - ▶ Temperature: -20 °C to +60 °C
 - ▶ Marking: pad printing + serial number for traceability
 - ▶ Options : - Software for real-time monitoring with openings traceability via PC (ref MDB13-SP.)
 - Software programming of badges and network configuration (ref MDB13-PR.)
 - Automatic network connection (LKS485): up to 8 cascading boxes and 4 readers per box or 32 readers. Individual contact outputs on each box
 - badge nail, screw, plate screw, key chain, card ... etc.
- Application example: access to luxury showcases with lock control and traceability



Product	Material	Connection/Type	Lock output	Alarm output	Extension
LKS485	PC	Network connection box 4 x XRS485	4	8	1

XS 308

RFID tag reader/writer for PLC



Ultra-compact, very thin, plugs directly into the PLC
Process management, sorting ... etc.
MODBUS RS485 (RTU) or RS232 (ASCII) network

- ▶ Life cycle: 20 years
- ▶ Max activation distance: up to 45 mm
- ▶ Contact: 1 x strobe PNP /1 RS485 (base + 485) or RS232 (base + 232)
- ▶ Detection encoding: infinite
- ▶ Indicator: LED indicates code recognition
- ▶ Reset: automatic
- ▶ Mounting: M30 nut provided
- ▶ Mounting position: 1
- ▶ Material: TR90UV
- ▶ Electrical connection: screwless terminal
- ▶ Sealing: IP 67
- ▶ Temperature: -20 °C to +60 °C
- ▶ Marking: screen printing
- ▶ Options : - Stainless steel badge holder: AXKEF/CARD HOLDER
- badge nail, screw, plate screw, key chain, card ... etc.

The choice of the communication protocol :

❶ RS232C:

- Point-to-point link
- Maximum length of cable 15m
- ASCII protocol or Modbus

❷ RS485:

- Multipoint connection up to 31 slaves to one master.
- Maximum length of cable 15m
- ASCII protocol or Modbus
- POLLING method: the master polls each slave successively in an infinite loop
- «on demand» method when the «strobe» output goes to one (presence of tag), the master polls the drive that stored the tag data.

Product	Material	Connection/Type	Strobe output (tag)
XS308-485-5	TR90UV	Screw-in terminal block R/W : 5 octets	1 PNP NO
XS308-485-18	TR90UV	Screw-in terminal block R/W : 18 octets	1 PNP NO
XS308-232-5	TR90UV	Screw-in terminal block Read : 5 octets	1 PNP NO
XS308-232-18	TR90UV	Screw-in terminal block Read : 18 octets	1 PNP NO
XS308-232-DA	TR90UV	Screw-in terminal block Read : double ASCII	1 PNP NO
CC07BJ	Leather	RFID round-shaped leather keyring	-
CC08BJ	Leather	RFID square-shaped keyring	-
CB01	PA	Credit card sized RFID badge	-
CB02	PA	Rigid RFID badge with clip hole	-
WRC06	PA	RFID bracelet	-
KEA03	PA	RFID keyfob	-
OX7	CER	RFID programmable chip to be embedded	-
AXKEF/SUPPORT CARTE	INOX 304	RFID card support for XS308 and AXKEF CE10/13 readers	-

AXKEF CE13

RFID tag reader with 8-bit outputs for PLC



22.5mm DIN rail enclosure with removable terminals
Economy of cabling (8 outputs for 255 functions)
No programming

- ▶ Life cycle: 20 years
- ▶ Max activation distance: up to 45 mm
- ▶ Contact: 8 x 200 m APNP for 8-bit format
- ▶ Detection encoding: 16 million
- ▶ Indicator: 8 LEDs indicating the pathways activated
- ▶ Reset: no
- ▶ Mounting: symmetrical DIN 35mm rail after DIN 50022
- ▶ Mounting: IP 54 electrical enclosure
- ▶ Material: PA6
- ▶ Electrical connection: Maximum 14 AWG (2.08 mm²)
- ▶ Temperature: -15 °C to +60 °C
- ▶ Marking: label + serial number for traceability
- ▶ Option: badge nail, screw, plate screw, key chain, card ... etc.

Application examples :

- Secured control of robotic tools or machines to avoid errors and incompatibilities.
- Keyed to blend Bigbag, tank, container contents
- Automatic sorting of products in harsh environments, without color or brightness or shape constraint
- Monitoring of batches (sleds, pallets, trays ... etc.)
- Production monitoring
- Selection of recipes for ready meals
- Operating mode and selective acknowledgment
- Tracking the authorization of operators in maintenance, production and regulation
- Access control store
- Replacement of a switch/selector in humid, dirty, aseptic environments

Product	Material	Connection/Type	Output
AXKEF-CE13	PA 6	Removable screw-in terminal block	8 PNP NO momentary
CC07BJ	Leather	RFID round-shaped leather keyring	-
CC08BJ	Leather	RFID square-shaped keyring	-
CB01	PA	Credit card sized RFID badge	-
CB02	PA	Rigid RFID badge with clip hole	-
AXKEF/SUPPORT CARTE	INOX 304	RFID card support for XS308 and AXKEF CE10/13 readers	-
BA30RF	TR90UV	Additional mini RFID reader	DIGITAL

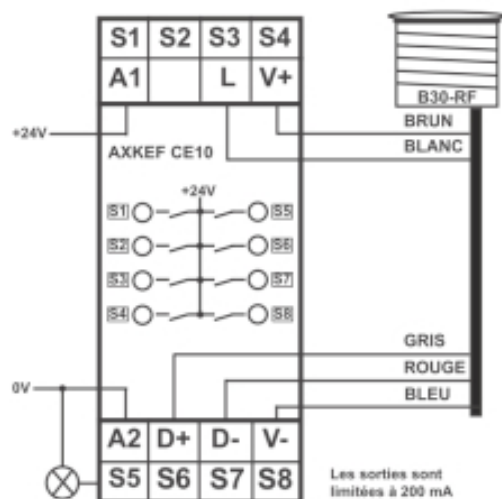
AXKEF CE10

Hierarchical RFID 8 access control zones, 250 badges



22.5mm DIN rail enclosure with removable terminals
No software or PC configuration
8 combinable outputs

- ▶ Life cycle: 20 years
- ▶ Max activation distance: up to 45 mm
- ▶ Contact: 8 x 200 mA PNP for 8-bit format
- ▶ Detection encoding: 16 million
- ▶ Indicator: 8 LEDs indicating the pathways activated
- ▶ Action: Momentary (ref + M), bistable (ref + B), timed (ref + MK)
- ▶ Mounting: symmetrical DIN 35mm rail after DIN 50022
- ▶ Mounting: IP 54 electrical enclosure
- ▶ Material: PA6
- ▶ Electrical connection: Maximum 14 AWG (2.08 mm²)
- ▶ Sealing: IP 67
- ▶ Temperature: -15 °C to +60 °C
- ▶ Marking: label + serial number for traceability
- ▶ Option: badge nail, screw, plate screw, key chain, card ... etc



Application examples :

- Authorization of staff up to 8 hierarchical levels
- Office, building access (replaces digital code)
- Access campsite, vacation village, sports club

Product	Material	Connection/Type	Output
AXKEF-CE10-M	PA 6	Removable screw-in terminal block Momentary output action	8 PNP NO momentary
AXKEF-CE10-B	cuir	Removable screw-in terminal block Bistable output action	8 PNP NO bistable
AXKEF-CE10-MT	cuir	Removable screw-in terminal block Time-delayed output action	8 PNP NO time-delayed
CC07BJ	Leather	RFID round-shaped leather keyring	-
CC08BJ	Leather	RFID square-shaped keyring	-
CB01	PA	Credit card sized RFID badge	-
CB02	PA	Rigid RFID badge with clip hole	-
OX7	CER	RFID programmable chip to be embedded	-
AXKEF/SUPPORT CARTE	INOX 304	RFID card support for XS308 and AXKEF CE10/13 readers	-
BA30RF	TR90UV	Additional mini RFID reader	DIGITAL

BADGES



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