

Technical data sheet

Safety relay

Part no.: 50145355

LBK ISC BUS PS

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For illustration purposes only



Ethernet

Technical data

Basic data

Series	LBK ISC
Type	Controller for radar sensor
Application	Stationary access guarding Stationary danger zone guarding

Functions

Functions	Changeover between configurations Connection of up to 6 sensors Deactivation of sensor groups Start/restart interlock (RES), selectable Synchronization of controllers
Restart	Automatic Manual

Characteristic parameters

SIL	2, IEC 61508
SILCL	2, IEC/EN 62061
Performance Level (PL)	d, EN ISO 13849-1
MTTF _d	44 years, EN ISO 13849-1
PFH _D	4.5E-08 per hour
Mission time T _M	20 years, EN ISO 13849-1
Category	3, EN ISO 13849-1

Electrical data

Protective circuit	External power supply unit with integrated short circuit protection Overcurrent through integrated resettable fuse (max. 5s at 8A)
Performance data	
Supply voltage U _B	20 ... 28 V, DC
Current consumption, max.	1,000 mA, Without external load
Power consumption, max.	5 W
Outputs	
Number of safety-related switching outputs (OSSDs)	2 Piece(s)

Interface

Type	Ethernet, PROFINET
Ethernet	
Function	Parameterization
PROFINET	
Function	Process
PROFINET device	Device acc. to Spec V2.3.5
GSDML	GSDML acc. to Spec V2.3.5
Profile	PROFINET/PROFIsafe
Conformance class	C
Network load class	III
Security level	1
Switch functionality	IRT-ready 2-port switch acc. to IEEE 802, integrated in connection unit
Safety-related switching signals	4 Piece(s)
PROFIsafe version	V2.4 V2.61

Service interface

Type	USB
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Connection

Number of connections	7 Piece(s)
Connection 1	
Function	Voltage supply
Type of connection	Terminal
Type of terminal	Screw terminal
No. of pins	3 -pin
Connection 2	
Function	BUS OUT
Type of connection	Terminal
Connection 3	
Function	Signal IN Signal OUT
Type of connection	Terminal
Connection 4	
Function	Configuration/parametization
Type of connection	USB
Connection 5	
Function	Configuration/parametization
Type of connection	RJ45
Connection 6	
Function	PROFINET/PROFIsafe communication input
Type of connection	RJ45
Connection 7	
Function	PROFINET/PROFIsafe communication output
Type of connection	RJ45
Mechanical data	
Dimension (W x H x L)	105 mm x 58 mm x 103 mm
Housing material	Plastic
Net weight	250 g
Housing color	White
Type of fastening	DIN rail mounting Snap-on mounting

Environmental data

Ambient temperature, operation	-30 ... 60 °C
Ambient temperature, storage	-40 ... 80 °C
Relative humidity (non-condensing)	0 ... 95 %

Certifications

Degree of protection	IP 20
Protection class	II
Approvals	TÜV Süd Italia UL

Technical data

Customs tariff number	85371098
ECLASS 5.1.4	27371800
ECLASS 8.0	27371819
ECLASS 9.0	27243101
ECLASS 10.0	27371819
ECLASS 11.0	27371819
ECLASS 12.0	27371819
ECLASS 13.0	27371819
ECLASS 14.0	27371819
ECLASS 15.0	27371819
ETIM 5.0	EC001449
ETIM 6.0	EC001449
ETIM 7.0	EC001449
ETIM 8.0	EC001449
ETIM 9.0	EC001449
ETIM 10.0	EC001449

Electrical connection

Connection 1

Function	Voltage supply
Type of connection	Terminal
Type of terminal	Screw terminal
No. of pins	3 -pin

Terminal

Assignment

+	+24 V DC
E	PE
-	GND

Connection 2

Function	BUS OUT
Type of connection	Terminal
Type of terminal	Screw terminal
No. of pins	4 -pin

Terminal

Assignment

+	+12 V DC
H	CAN H
L	CAN L
-	GND

Connection 3

Function	Signal IN
	Signal OUT
Type of connection	Terminal
Type of terminal	Screw terminal
No. of pins	12 -pin

Electrical connection

Terminal	Assignment
Digital In 4	Input +24V DC
Digital In 3	Input +24V DC
Digital In 2	Input +24V DC
Digital In 1	Input +24V DC
Digital In V+	Input +24V DC, diagnostics
Digital In V-	GND
Digital Out GND	GND
Digital Out 4	Safe output
Digital Out 3	Safe output
Digital Out 2	Safe output
Digital Out 1	Safe output
Digital Out GND	GND

Connection 4

Function	Configuration/parametization
Type of connection	USB
Connector type	micro USB

Connection 5

Function	Configuration/parametization
Type of connection	RJ45

Connection 6


Function	PROFINET/PROFIsafe communication input
Type of connection	RJ45

Connection 7

Function	PROFINET/PROFIsafe communication output
Type of connection	RJ45

Accessories

Connection technology - Connection cables

	Part no.	Designation	Article	Description
	50143389	KD DN-M12-5W-P1-150	Connection cable	Connection 1: Connector, M12, Angled, Female, A-coded, 5 -pin Connector, LED: No Connection 2: Open end Shielded: Yes Cable length: 15.000 mm Sheathing material: PUR

Accessories

Connection technology - Interconnection cables

	Part no.	Designation	Article	Description
	50143385	KDS DN-M12-5W-M12-5W-P3-030	Interconnection cable	Suitable for interface: DeviceNet, CANopen Connection 1: Connector, M12, Angled, Male, A-coded, 5 -pin Connection 2: Connector, M12, Angled, Female, A-coded, 5 -pin Shielded: Yes Cable length: 3,000 mm Sheathing material: PUR
	50143386	KDS DN-M12-5W-M12-5W-P3-050	Interconnection cable	Suitable for interface: DeviceNet, CANopen Connection 1: Connector, M12, Angled, Male, A-coded, 5 -pin Connection 2: Connector, M12, Angled, Female, A-coded, 5 -pin Shielded: Yes Cable length: 5,000 mm Sheathing material: PUR
	50130632	KSS ET-M12-4A-RJ45-A-P7-010	Interconnection cable	Suitable for interface: Ethernet Connection 1: Connector, M12, Axial, Male, D-coded, 4 -pin Connection 2: RJ45 Shielded: Yes Cable length: 1,000 mm Sheathing material: PUR
	50135081	KSS ET-M12-4A-RJ45-A-P7-050	Interconnection cable	Suitable for interface: Ethernet Connection 1: Connector, M12, Axial, Male, D-coded, 4 -pin Connection 2: RJ45 Shielded: Yes Cable length: 5,000 mm Sheathing material: PUR
	50143459	KSS US-USB2-A-mic-B-V0-018	Interconnection cable	Suitable for interface: USB Connection 1: USB Connection 2: USB Shielded: No Cable length: 1,800 mm

Note



A list with all available accessories can be found on the Leuze website in the Download tab of the article detailed page.