# SIEMENS

## Data sheet

Figure similar

# 3TK2826-1BB42



!!! Phased-out product !!! The successor product series is 3SK2 (see FAQ 109741483) SIRIUS safety relay with relay enabling circuits (EC) 24 V DC, 45 mm screw terminal EC instantaneous: 2 NO EC delayed: 2 SC: 4 Switch with 8 functions Basic device Maximum achievable PL according to EN 13849-1: Maximum achievable SIL according to IEC 61508: 3

product brand name         SIRIUS           graduct designation         safety relays           feelign of the product         for EMERGENCY-STOP and safety doors           General technical data         in EMERGENCY-STOP and safety doors           graduation class IP of the terminal         IP20           protection class IP of the terminal         IP20           touch protection against electrical shock         finger-safe           insulation votage rated value         300 V           ambient temperature         - 40 +80 °C           - during storage         -40 +80 °C           - during operation         -95 %           installation attitude at height above sea level         maximum           wibratin resistance according to EK 60068-2-6         5 500 Hz: 0,075 mm           shock resistance         8g / 10 ms           surge voltage resistance rated value         4000 V           EMC emitted interforence         EN 60947-5-1           installation environment regarding EMC         This product is suitable for Class A environments only. In household environments, this device can cause unwanted ratio interference. The user is required to implement appropriate measures in this case.           reference code according to EN 40719 extended according to IEC 204-2 according to IEC 61508         3           off desaged release circuit according to IEC 61508				
design of the product         for EMERCENCY-STOP and safety doors           General technical data         IP20           protection class IP of the enclosure         IP20           touch protection against electrical shock         Inger-safe           insultation voltage rated value         300 V           ambient temperature         -           • during storage         -40 +80 °C           • during operation         -25 +60 °C           air pressure according to SN 31205         90 106 kPa           maximum         Vibration resistance according to IEC 60068-2-6         5 500 Hz: 0,075 mm           shock resistance         8g / 10 ms         2 000 m           surge voltage resistance rated value         400 °V         2 000 m           surge voltage resistance rated value         4000 V         EN 60047-5-1           Installation environment regarding EMC         This product is suitable for Class A environments only. In household environments, this device can cause unwanted radio interference. The user is required to implement appropriate measures in this case.           reference code according to EN 61346-2         F           number of sensor inputs         1           • 1-channel or 2-channel         1           design of the cascading         INEC 6750           reference code according to EN 61306.	product brand name	SIRIUS		
Genoral technical data       IP20         protection class IP of the enclosure       IP20         protection class IP of the terminal       IP20         touch protection against electrical shock       finger-safe         ambient temperature       300 V         e during storage       -40 +80 °C         e during storage       -40 +80 °C         e during storage       -25 +60 °C         air pressure according to SN 31205       90 106 kPa         relative humidity during operation       -25 +60 °C         maximum       vibration resistance according to IEC 6068-2-6       5 500 Hz: 0,075 mm         shock resistance       8g / 10 ms       90 V         EMC emitted interference       EN 60947-5-1       This product is suitable for Class A environments only. In household environments, this device can cause unwanted radio interference. The user is required to implement appropriate measures in this case.         reference code according to IIN 40719 extended       cascading or in-service switching         installation of the safety-related wiring of the inputs       1       cascading or in-service switching         product feature cross-circuit-proof       Yes       SIL3       3         safety device type according to EC 61508       SIL3       3       3         i for delayed release circuit according to EC 61508 </th <th>product designation</th> <th colspan="3">safety relays</th>	product designation	safety relays		
protection class IP of the enclosure       IP20         protection class IP of the terminal       IP20         protection class IP of the terminal       IP20         function class IP of the terminal       IP20         insulation voltage rated value       300 V         ambient temperature       40 ming storage         • during operation       -25 +60 °C         air pressure according to SN 31205       90 106 kPa         relative humidity during operation       10 95 %         installation altitude at height above sea level       2000 m         maximum       vibration resistance according to IEC 60068-2-6       5 500 H2: 0,075 mm         shock resistance       8g / 10 ms       2000 m         surge voltage resistance rated value       4000 V       ENK emitted interference.         Installation environment regarding EMC       This product is suitable for Class A environments only. In household environments, this device can cause unwanted radio interference. The user is required to implement appropriate measures in this case.         reference code according to EN 61346-2       F         number of sensor inputs       1         • 1-channel or 2-channel       1         design of the cascading       Yes         stord teature cross-circuit-proof       3         Safety Integrity Level (SL)	design of the product	for EMERGENCY-STOP and safety doors		
protection class IP of the terminalIP20touch protection against electrical shockfinger-safeinsulation voltage rated value300 Vambient temperature40 +80 °C• during storage-40 +80 °C• during operation25 +60 °Cair pressure according to SN 3120590 106 KParelative humidity during operation10 95 %installation altitude at height above sea level2000 mmaximum5 500 Hz! 0,075 mmshcck resistance8g / 10 mssurge voltage resistance rated value4 000 VEMC emitted interferenceEN 60947-5-1installation environment regarding EMCThis product is suitable for Class A environments only. In household environments, this device can cause unwanted radio interference. The user is required to implement appropriate measures in this case.reference code according to EIN 61346-2Fnumber of sensor inputs1• 1-channel or 2-channel1etaiture cores-circuit-proofYesSafety Integrity Lovel (SIL)3• for delayed release circuit according to EN 615083SIL Claim Limit (subsystem) according to EN 615081• for delayed release circuit according to EN 615081• for delayed release circuit according to EN 615081• for delayed release circuit according to EN 615081<	General technical data			
Insultation voltage rated valuefinger-safeambient temperature40 +80 °C• during storage-40 +80 °C• during operation-25 +60 °Cair pressure according to SN 3120590 106 kParelative humidity during operation10 95 %Installation attitude at height above sea level2 000 mmaximumvibration resistance according to IEC 60068-2-65 500 Hz: 0.075 mmshock resistance8g / 10 mssurge voltage resistance rated value4 000 VEMC emitted interferenceEN 60947-5-1installation environment regarding EMCThis product is suitable for Class A environments only. In household environments, this device can cause unwanted radio interference. The user is required to implement appropriate measures in this case.reference code according to EN 61346-2Fnumber of sensor inputs1• 1-channel or 2-channel1design of the case-ding troduct feature cross-circuit-proof3Safety Integrity Level (SLI)a• according to IEC 615083• for delayed release circuit according to IEC 615083• for delayed release circuit according to IEC 615083• for delayed release circuit according to IEN 61364-14hardware fault tolerance according to IEC 615081• for delayed release circuit according to IEC 61508 <td< th=""><th>protection class IP of the enclosure</th><th>IP20</th></td<>	protection class IP of the enclosure	IP20		
Insulation voltage rated value300 Vambient temperature40 +80 °C• during operation-25 +60 °Cair pressure according to SN 3120590 106 KParelative humidity during operation10 95 %installation attitude at height above see level2000 mmaximumvibration resistance according to IEC 60068-2-65 500 Hz: 0,075 mmshock resistance8g / 10 mssurge voltage resistance rated value4 000 VEMC emitted interferenceEN 60947-5-1installation environment regarding EMCThis product is suitable for Class A environments only. In household environments, this device can cause unwanted radio interference. The user is required to implement appropriate measures in this case.reference code according to EIN 40719 extended according to IEC 2042-3Fnumber of sensor inputs1• 1-channel or 2-channel1design of the cascading type of the safety-related wiring of the inputs product feature cross-circuit-proof 13849-13• Dir dayed release circuit according to EN 62061 13849-13• for delayed release circuit according to EN 62061 13849-13• for delayed release circuit according to EN 62061 13849-14• fully there according to EN 50 13849-1 hardware fault tolerance according to EN 661508 13849-14PFHD with high demand rate according to EN 62061 0.000000078 1/h1	protection class IP of the terminal	IP20		
ambient temperature       40 +80 °C         • during operation       -25 +60 °C         • during operation       20 106 kPa         relative numidity during operation       10 95 %         2 000 m       2000 m         withration resistance according to EC 60068-2-6       5 500 Hz: 0.075 mm         shock resistance       8g / 10 ms         surge voltage resistance rated value       40 000 V         EMC emitted interference       EN 60947-5-1         Installation environment regarding EMC       This product is suitable for Class A environments only. In household environments, this case.         reference code according to EN 61346-2       KT         number of sensor inputs       1         • 1-channel or 2-channel       1         design of the cascading       cascading or in-service switching         ryduet feature cross-circuit-proof       Single-channel and two-channel         yes       Safety integrity Level (SL)       3         • according to EC 61508       3         SIL Claim Lintit (subsystem) according to EN 62061       3         performance level (PL)       6         • for delayed release circuit according to EK 61508       3         SIL Claim Lintit (subsystem) according to EK 61508       3         ord delayed release circuit	touch protection against electrical shock	finger-safe		
• during storage-40 +80 °C• during operation-25 +60 °Cair pressure according to SN 3120590 106 kParelative humidity during operation10 95 %installation altitude at height above sea level2 000 maximum2 000 mvibration resistance according to IEC 60068-2-65 500 Hz: 0,075 mmshock resistance8g / 10 mssurge voltage resistance rated value4 000 VEMC emitted interferenceEN 60947-5-1installation environment regarding EMCThis product is suitable for Class A environments only. In household environments, this device can cause unwanted radio interference. The environments, this device can cause unwanted radio interference.reference code according to EN 40719 extended according to IEC 40162Fnumber of sensor inputs1• 1-channel or 2-channel1• according to IEC 615083• tor delayed release circuit according to EC	insulation voltage rated value	300 V		
<ul> <li>during operation</li> <li>-25 +60 °C</li> <li>90 106 kPa</li> <li>10 95 %</li> <li>20 00 m</li> <li>90 0 106 kPa</li> <li>10 95 %</li> <li>20 00 m</li> <li>90 0 100 kPa</li> <li>10 95 %</li> <li>20 00 m</li> <li>90 0 100 kPa</li> <li>10 95 %</li> <li>20 00 m</li> <li>90 0 100 kPa</li> <li>21 95 %</li> <li>21 95 %</li> <li>22 500 H2: 0,075 mm</li> <li>83 yrge voltage resistance according to EC 60068-2-6</li> <li>83 yrge voltage resistance rated value</li> <li>4000 V</li> <li>EMC emitted interference</li> <li>10 95 %</li> <li>21 kot 200 m</li> <li>22 500 H2: 0,075 mm</li> <li>23 500 H2: 0,075 mm</li> <li>24 000 V</li> <li>EMC emitted interference</li> <li>4 000 V</li> <li>EMC emitted interference</li> <li>15 product is suitable for Class A environments only. In household environments, this device can cause unwanted radio interference. The user is required to implement appropriate measures in this case.</li> <li>KT</li> <li>reference code according to EN 61346-2</li> <li>reference code according to EN 61345-2</li> <li>reference code according to EC 61508</li> <li>according to EC 61508</li> <li>according to EN 600 to EC 61508</li> <li>SIL Claim Limit (subsystem) according to EN 62061</li> <li>performance level (PL)</li> <li>actegory according to EN 613849-1</li> <li>hardware fault tolerance according to EC 61508</li> <li>afety device type according to EC 61508-2</li> <li>probade release circuit according to EC 61508-2</li> <li>probade release circuit according t</li></ul>	ambient temperature			
air pressure according to SN 31205 relative humidity during operation installation altitude at height above sea level maximum vibration resistance according to IEC 60068-2-6 shock resistance surge voltage resistance rated value EMC emitted interference installation environment regarding EMC reference code according to DIN 40719 extended according to IEC 204-2 according to IEC 750 reference code according to EN 61346-2 number of sensor inputs • 1-channel or 2-channel • 1-channel or 2-channel product feature cross-circuit-proof Safety Integrity Level (SL) • according to IEC 61508 • for delayed release circuit according to EN 62061 SIL Claim Llimt (subsystem) according to EN 180 SIL Claim Limt (subsystem) according to EN 180 13849-1 category according to EN 180 3484-1 hardware fault tolerance according to EN 180 PFHD with high demand rate according to EN 62061 PFHD with high demand rate according to EN 62061 PHD with high demand rate according to EN 62061 PHD with PH PHD with PHD w	<ul> <li>during storage</li> </ul>	-40 +80 °C		
relative humidity during operation10 95 %Installation attitude at height above sea level maximum2 000 mvibration resistance according to IEC 60068-2-6 shock resistance5 500 Hz: 0,075 mmshock resistance8g / 10 mssurge voltage resistance rated value4 000 VEMC emitted interferenceEN 60947-5-1installation environment regarding EMCThis product is suitable for Class A environments only. In household environments, this device can cause unwanted radio interference. The user is required to implement appropriate measures in this case.reference code according to DIN 40719 extended according to IEC 204-2 according to IEC 750 reference code according to EN 61346-2Fnumber of sensor inputs1• 1-channel or 2-channel1e 1-channel or 2-channel1cascading or in-service switching single-channel and two-channel product feature cross-circuit-proof Safety Integrity Level (SIL)3• for delayed release circuit according to IEC 615083SIL Claim Limit (subsystem) according to IEC 61508SIL3SIL Claim Limit (subsystem) according to IEN 62061 13849-14• for delayed release circuit according to IEC 61508 13849-14• delayed release circuit according to IEC 61508 14849-11• delayed release circuit according to IEC 61508 14849-11• for delayed release circuit according to IEC 61508 18449-14• for delayed release circuit according to IEC 61508 18449-11• for delayed release circuit according to IEC 61508 19449-11• f	<ul> <li>during operation</li> </ul>	-25 +60 °C		
Installation allitude a height above sea level maximum2 000 minstallation allitude a height above sea level maximum2 000 mwibration resistance according to IEC 60068-2-6 shock resistance surge voltage resistance rated value5 500 Hz: 0,075 mmshock resistance surge voltage resistance rated value4 000 VEMC emitted interference installation environment regarding EMCEN 60947-5-1This product is suitable for Class A environments only. In household environments, this device can cause unwanted radio interference. The user is required to implement appropriate measures in this case.reference code according to DIN 40719 extended according to IEC 204-2 according to IEC 750Freference code according to EN 61346-2 number of sensor inputsF- 1-channel or 2-channel design of the cascading type of the safety-related wiring of the inputs product feature cross-circuit-proof Safety Integrity Level (SIL) • according to IEC 615083- according to IEC 61508SIL3SIL Claim Limit (subsystem) according to EN 62061 13849-13- for delayed release circuit according to EN 62061 13849-14- for delayed release circuit according to EN 1SO 13849-14- for delayed release circuit according to IEC 61508 3afety device type according to EN 1SO 13849-14 <th>air pressure according to SN 31205</th> <th>90 106 kPa</th>	air pressure according to SN 31205	90 106 kPa		
maximumvibration resistance according to IEC 60068-2-65 500 Hz: 0,075 mmshock resistance8g / 10 mssurge voltage resistance rated value4 000 VEMC emitted interferenceEN 60947-5-1installation environment regarding EMCThis product is suitable for Class A environments only. In household environments, this device can cause unwanted radio interference. The user is required to implement appropriate measures in this case.reference code according to DIN 40719 extended according to IEC 204-2 according to IEC 750 	relative humidity during operation	10 95 %		
shock resistance8g / 10 mssurge voltage resistance rated value4 000 VEMC emitted interferenceEN 60947-5-1installation environment regarding EMCThis product is suitable for Class A environments only. In household environments, this device can cause unwanted radio interference. The user is required to implement appropriate measures in this case.reference code according to DIN 40719 extended according to IEC 204-2 according to IEC 750 reference code according to EN 61346-2Fnumber of sensor inputs1• 1-channel or 2-channel1• 1-channel or 2-channel1design of the cascading trype of the safety-related wiring of the inputs product feature cross-circuit-proof Safety Integrity Level (SIL)Sill_Claim Limit (subsystem) according to IEC 61508• for delayed release circuit according to EN 62061 13849-13• for delayed release circuit according to EN 62061 13849-13• for delayed release circuit according to EN 615083Sill_Claim Limit (subsystem) according to EN 62061 13849-14• for delayed release circuit according to EN 62061 13849-14• for delayed release circuit according to EN 61508 safety device type according to IEC 61508 safety device type according to IEN 62061 o.0000000078 1/h </th <th></th> <th>2 000 m</th>		2 000 m		
surge voltage resistance rated value4 000 VEMC emitted interferenceEN 60947-5-1installation environment regarding EMCThis product is suitable for Class A environments only. In household environments, this device can cause unwanted radio interference. The user is required to implement appropriate measures in this case.reference code according to DIN 40719 extended according to IEC 204-2 according to IEC 750 reference code according to EN 61346-2KTnumber of sensor inputs • 1-channel or 2-channel1category according to the ISO safety device type according to EN ISO 13849-13surger voltage release circuit according to EN ISO 13849-13category according to EN SO 13849-14hardware fault tolerance according to IEC 61508 safety device type according to IEC 61508-29PFHD with high demand rate according to EN 620611PFHD with high demand rate according to EN 620610.000000078 1/h	vibration resistance according to IEC 60068-2-6	5 500 Hz: 0,075 mm		
EMC emitted interferenceEN 60947-5-1installation environment regarding EMCThis product is suitable for Class A environments only. In household environments, this device can cause unwanted radio interference. The user is required to implement appropriate measures in this case.reference code according to DIN 40719 extended according to IEC 204-2 according to IEC 750 reference code according to EN 61346-2KTnumber of sensor inputs1• 1-channel or 2-channel1design of the cascading type of the safety-related wiring of the inputs product feature cross-circuit-proof Safety Integrity Level (SIL)1• according to IEC 61508 • for delayed release circuit according to EN 62061 1849-13• for delayed release circuit according to EN 1SO 13849-13• for delayed release circuit according to EN 1SO 13849-14• for delayed release circuit according to IEC 61508 13849-14• for delayed release circuit according to EN 1SO 13849-14• for delayed release circuit according to IEC 61508 13849-11• for delayed release circuit according to EN 1SO 13849-14• for delayed release circuit according to EN 1SO 13849-14• for delayed release circuit according to IEC 61508 13849-11• for delayed release circuit according to EN 1SO 13849-14• for delayed release circuit according to EN 1SO 13849-14• for delayed release circuit according to EN 1SO 13849-14• for delayed release circuit according to IEC 61508 13849-11• for delayed release circuit according to IEC 6	shock resistance	8g / 10 ms		
installation environment regarding EMCThis product is suitable for Class A environments only. In household environments, this device can cause unwanted radio interference. The user is required to implement appropriate measures in this case.reference code according to DIN 40719 extended according to IEC 204-2 according to IEC 750 reference code according to EN 61346-2KTnumber of sensor inputs1• 1-channel or 2-channel1cascading of the cascading type of the safety-related wiring of the inputs product feature cross-circuit-proof Safety Integrity Level (SIL)1• according to IEC 61508 • for delayed release circuit according to EN 62061 13849-13SIL Claim Limit (subsystem) according to EN 62061 13849-13• for delayed release circuit according to EN ISO 13849-14hardware fault tolerance according to IEC 61508 safety device type according to IEC 61508-2 Type B4PFHD with high demand rate according to EN 62061 0.000000078 1/h1	surge voltage resistance rated value	4 000 V		
environments, this device can cause unwanted radio interference. The user is required to implement appropriate measures in this case.reference code according to EC 750KTreference code according to EN 61346-2Fnumber of sensor inputs1• 1-channel or 2-channel1design of the cascadingcascading or in-service switchingtype of the safety-related wiring of the inputssingle-channel and two-channelproduct feature cross-circuit-proofYesSafety Integrity Level (SIL)3• for delayed release circuit according to EN 620613performance level (PL)e• for delayed release circuit according to EN ISO313849-14category according to EN ISO 13849-14hardware fault tolerance according to IEC 615081safety device type according to IEC 61508-2Type BPFHD with high demand rate according to EN 620610.000000078 1/h	EMC emitted interference	EN 60947-5-1		
according to IEC 204-2 according to IEC 750reference code according to EN 61346-2Fnumber of sensor inputs1• 1-channel or 2-channel1design of the cascadingcascading or in-service switchingtype of the safety-related wiring of the inputssingle-channel and two-channelproduct feature cross-circuit-proofYesSafety Integrity Level (SIL)3• according to IEC 615083• for delayed release circuit according to IEC 61508SIL3SIL Claim Limit (subsystem) according to EN 620613performance level (PL)e• for delayed release circuit according to EN ISO1astey according to EN 1SO 13849-14hardware fault tolerance according to IEC 615081safety device type according to IEC 61508-2Type BpFHD with high demand rate according to EN 620610.00000078 1/h	installation environment regarding EMC	environments, this device can cause unwanted radio interference. The		
number of sensor inputs1• 1-channel or 2-channel1design of the cascadingcascading or in-service switchingtype of the safety-related wiring of the inputssingle-channel and two-channelproduct feature cross-circuit-proofYesSafety Integrity Level (SIL)-• according to IEC 615083• for delayed release circuit according to IEC 61508SIL3SIL Claim Limit (subsystem) according to EN 620613performance level (PL)-• for delayed release circuit according to EN ISO 13849-1ecategory according to EN ISO 13849-14hardware fault tolerance according to IEC 615081safety device type according to IEC 61508-2Type BPFHD with high demand rate according to EN 620610.000000078 1/h	•	KT		
• 1-channel or 2-channel1design of the cascadingcascading or in-service switchingtype of the safety-related wiring of the inputssingle-channel and two-channelproduct feature cross-circuit-proofYesSafety Integrity Level (SIL)-• according to IEC 615083• for delayed release circuit according to IEC 61508SIL3SIL Claim Limit (subsystem) according to EN 620613performance level (PL)-• for delayed release circuit according to EN ISOe13849-1-category according to EN ISO 13849-14hardware fault tolerance according to IEC 615081safety device type according to IEC 61508-2Type BPFHD with high demand rate according to EN 620610.00000078 1/h	reference code according to EN 61346-2	F		
design of the cascadingcascading or in-service switchingtype of the safety-related wiring of the inputssingle-channel and two-channelproduct feature cross-circuit-proofYesSafety Integrity Level (SIL)3• according to IEC 615083• for delayed release circuit according to IEC 61508SIL3SIL Claim Limit (subsystem) according to EN 620613performance level (PL)•• for delayed release circuit according to EN ISOe13849-1-category according to EN ISO 13849-14hardware fault tolerance according to IEC 615081safety device type according to IEC 61508-2Type BPFHD with high demand rate according to EN 620610.00000078 1/h	number of sensor inputs			
type of the safety-related wiring of the inputssingle-channel and two-channelproduct feature cross-circuit-proofYesSafety Integrity Level (SIL)3• according to IEC 615083• for delayed release circuit according to IEC 61508SIL3SIL Claim Limit (subsystem) according to EN 620613• for delayed release circuit according to EN 1SO 13849-1•• for delayed release circuit according to EN ISO 13849-1•category according to EN ISO 13849-14hardware fault tolerance according to IEC 615081safety device type according to IEC 61508-2Type BPFHD with high demand rate according to EN 620610.00000078 1/h	<ul> <li>1-channel or 2-channel</li> </ul>	1		
product feature cross-circuit-proofYesSafety Integrity Level (SIL)3• according to IEC 615083• for delayed release circuit according to IEC 61508SIL3SIL Claim Limit (subsystem) according to EN 620613performance level (PL)• for delayed release circuit according to EN ISO 13849-1• for delayed release circuit according to EN ISO 13849-1ecategory according to EN ISO 13849-14hardware fault tolerance according to IEC 615081safety device type according to IEC 61508-2Type BPFHD with high demand rate according to EN 620610.000000078 1/h	design of the cascading	cascading or in-service switching		
Safety Integrity Level (SIL)       3         • according to IEC 61508       3         • for delayed release circuit according to IEC 61508       SIL3         SIL Claim Limit (subsystem) according to EN 62061       3         performance level (PL)       •         • for delayed release circuit according to EN ISO 13849-1       4         category according to EN ISO 13849-1       4         hardware fault tolerance according to IEC 61508       1         safety device type according to IEC 61508-2       Type B         PFHD with high demand rate according to EN 62061       0.000000078 1/h	type of the safety-related wiring of the inputs	single-channel and two-channel		
<ul> <li>according to IEC 61508</li> <li>for delayed release circuit according to IEC 61508</li> <li>SIL Claim Limit (subsystem) according to EN 62061</li> <li>performance level (PL)         <ul> <li>for delayed release circuit according to EN ISO</li> <li>13849-1</li> </ul> </li> <li>category according to EN ISO 13849-1</li> <li>hardware fault tolerance according to IEC 61508</li> <li>safety device type according to IEC 61508-2</li> <li>PFHD with high demand rate according to EN 62061</li> <li>0.000000078 1/h</li> </ul>	product feature cross-circuit-proof	Yes		
<ul> <li>for delayed release circuit according to IEC 61508</li> <li>SIL Claim Limit (subsystem) according to EN 62061</li> <li>performance level (PL)         <ul> <li>for delayed release circuit according to EN ISO 13849-1</li> <li>category according to EN ISO 13849-1</li> <li>hardware fault tolerance according to IEC 61508</li> <li>safety device type according to IEC 61508-2</li> <li>PFHD with high demand rate according to EN 62061</li> </ul> </li> <li>SIL3</li> <li>SIL3</li> <li>SIL4</li> <li>SIL3</li> <li>SIL5</li> <li>SIL4</li> <li>SIL4</li> <li>SIL5</li> <li>SIL5&lt;</li></ul>	Safety Integrity Level (SIL)			
SIL Claim Limit (subsystem) according to EN 62061       3         performance level (PL)       • for delayed release circuit according to EN ISO         • for delayed release circuit according to EN ISO       •         13849-1       4         category according to EN ISO 13849-1       4         hardware fault tolerance according to IEC 61508       1         safety device type according to IEC 61508-2       Type B         PFHD with high demand rate according to EN 62061       0.000000078 1/h	<ul> <li>according to IEC 61508</li> </ul>	3		
performance level (PL)       • for delayed release circuit according to EN ISO       e         13849-1       • for delayed release circuit according to EN ISO       e         category according to EN ISO 13849-1       4         hardware fault tolerance according to IEC 61508       1         safety device type according to IEC 61508-2       Type B         PFHD with high demand rate according to EN 62061       0.000000078 1/h	<ul> <li>for delayed release circuit according to IEC 61508</li> </ul>	SIL3		
<ul> <li>for delayed release circuit according to EN ISO 13849-1</li> <li>category according to EN ISO 13849-1</li> <li>category according to EN ISO 13849-1</li> <li>hardware fault tolerance according to IEC 61508</li> <li>safety device type according to IEC 61508-2</li> <li>PFHD with high demand rate according to EN 62061</li> <li>0.000000078 1/h</li> </ul>	SIL Claim Limit (subsystem) according to EN 62061	3		
13849-1category according to EN ISO 13849-14hardware fault tolerance according to IEC 615081safety device type according to IEC 61508-2Type BPFHD with high demand rate according to EN 620610.000000078 1/h	performance level (PL)			
hardware fault tolerance according to IEC 61508       1         safety device type according to IEC 61508-2       Type B         PFHD with high demand rate according to EN 62061       0.000000078 1/h		e		
safety device type according to IEC 61508-2Type BPFHD with high demand rate according to EN 620610.0000000078 1/h	category according to EN ISO 13849-1	4		
PFHD with high demand rate according to EN 62061 0.000000078 1/h	hardware fault tolerance according to IEC 61508	1		
	safety device type according to IEC 61508-2	Туре В		
Average probability of failure on demand (PFDavg) 0.000015 1/y	PFHD with high demand rate according to EN 62061	0.000000078 1/h		
	Average probability of failure on demand (PFDavg)	0.000015 1/y		

with low demand rate acc. to IEC 61508	
T1 value for proof test interval or service life	20 y
according to IEC 61508	20 y
number of outputs as contact-affected switching	
element	
as NC contact	
<ul> <li>for signaling function instantaneous contact</li> </ul>	1
<ul> <li>for signaling function delayed switching</li> </ul>	1
as NO contact	
<ul> <li>for signaling function delayed switching</li> </ul>	1
— safety-related instantaneous contact	2
— safety-related delayed switching	2
number of outputs as contact-less semiconductor switching element	
safety-related	
— delayed switching	0
— instantaneous contact	0
<ul> <li>for signaling function</li> </ul>	
— delayed switching	0
— instantaneous contact	2
stop category according to EN 60204-1	0 + 1
Inputs	
design of input	
<ul> <li>cascading input/functional switching</li> </ul>	Yes
feedback input	Yes
start input	Yes
Outputs	
type of electrical connection plug-in socket	Yes
operating frequency maximum	2 000 1/h
switching capacity current	
<ul> <li>of semiconductor outputs</li> </ul>	
<ul> <li>for signaling function at DC-13 at 24 V</li> </ul>	0.5 A
<ul> <li>of the NO contacts of the relay outputs at DC-13</li> </ul>	
— at 24 V	4 A
— at 115 V	0.2 A
— at 230 V	0.1 A
• of the NO contacts of the relay outputs at AC-15	
— at 24 V	4 A 4 A
— at 115 V — at 230 V	4 A 4 A
<ul> <li>of the NC contacts of the relay outputs at DC-13</li> </ul>	4 A
- at 24 V	1A
— at 24 V — at 115 V	0.2 A
— at 230 V	0.1 A
<ul> <li>of the NC contacts of the relay outputs at AC-15</li> </ul>	
— at 24 V	4 A
— at 115 V	3 A
— at 230 V	3 A
thermal current of the switching element with	5 A
contacts maximum	
electrical endurance (operating cycles) typical	100 000
mechanical service life (operating cycles) typical	10 000 000
design of the fuse link for short-circuit protection of the NO contacts of the relay outputs required	gL/gG: 4 A, or quick: 6 A
DC resistance of the cable maximum	1 000 Ω
wire length between sensor and electronics	2 000 m
evaluation device with Cu 1.5 mm <sup>2</sup> and 150 nF/km	
maximum	
Times	
make time with automatic start	50
• typical	50 ms
● at DC maximum ● at AC maximum	100 ms 100 ms
• at AC maximum make time with automatic start after power failure	100 1115
make time with automatic start after power failure	

e typical	8 000 ms				
● typical ● maximum	8 200 ms				
make time with monitored start	6 200 ms				
maximum	100 ms				
typical	50 ms				
backslide delay time in the event of power failure	50 113				
• typical	75 ms				
• maximum	125 ms				
recovery time after power failure typical	125 ms 8.2 s				
pulse duration	0.2.0				
of the sensor input minimum	30 ms				
<ul> <li>of the ON pushbutton input minimum</li> </ul>	0.2 s				
<ul> <li>of the cascading input minimum</li> </ul>	0.2 s				
Control circuit/ Control					
type of voltage of the control supply voltage	DC				
control supply voltage 1	50				
at DC rated value	24 V				
operating range factor control supply voltage rated	2				
value of magnet coil					
• at DC	0.85 1.2				
Installation/ mounting/ dimensions					
mounting position	any				
fastening method	screw and snap-on mounting				
width	45 mm				
height	138.5 mm				
depth	120 mm				
Connections/ Terminals					
type of electrical connection	screw-type terminals				
type of connectable conductor cross-sections					
solid	1x (0.5 4.0 mm²), 2x (0.5 2.5 mm²)				
finely stranded					
	1x (0.5 2.5 mm²), 2x (0.5 1.5 mm²)				
<ul> <li>— with core end processing</li> <li>type of connectable conductor cross-sections at AWG</li> </ul>	1x (0.5 2.5 min ), 2x (0.5 1.5 min )				
type of connectable conductor cross-sections at AWG cables	1x (0.5 2.5 min ), 2x (0.5 1.5 min )				
type of connectable conductor cross-sections at AWG	2x (20 14)				
type of connectable conductor cross-sections at AWG cables					
type of connectable conductor cross-sections at AWG cables • solid	2x (20 14)				
type of connectable conductor cross-sections at AWG cables • solid • stranded	2x (20 14)				
type of connectable conductor cross-sections at AWG cables • solid • stranded Product Function	2x (20 14)				
type of connectable conductor cross-sections at AWG cables • solid • stranded Product Function product function	2x (20 14) 2x (20 14)				
type of connectable conductor cross-sections at AWG cables • solid • stranded Product Function product function • light barrier monitoring	2x (20 14) 2x (20 14) Yes				
type of connectable conductor cross-sections at AWG cables • solid • stranded Product Function product function • light barrier monitoring • standstill monitoring	2x (20 14) 2x (20 14) Yes No				
type of connectable conductor cross-sections at AWG cables • solid • stranded Product Function Product function • light barrier monitoring • standstill monitoring • protective door monitoring • automatic start • magnetically operated switch monitoring NC-NO	2x (20 14) 2x (20 14) Yes No Yes Yes Yes				
type of connectable conductor cross-sections at AWG cables • solid • stranded Product Function product function • light barrier monitoring • standstill monitoring • protective door monitoring • automatic start • magnetically operated switch monitoring NC-NO • rotation speed monitoring	2x (20 14) 2x (20 14) Yes No Yes Yes Yes No				
type of connectable conductor cross-sections at AWG cables • solid • stranded Product Function product function • light barrier monitoring • standstill monitoring • protective door monitoring • protective door monitoring • automatic start • magnetically operated switch monitoring NC-NO • rotation speed monitoring • laser scanner monitoring	2x (20 14) 2x (20 14) Yes No Yes Yes Yes No Yes				
<ul> <li>type of connectable conductor cross-sections at AWG cables <ul> <li>solid</li> <li>stranded</li> </ul> </li> <li>Product Function <ul> <li>light barrier monitoring</li> <li>standstill monitoring</li> <li>protective door monitoring</li> <li>automatic start</li> <li>magnetically operated switch monitoring NC-NO</li> <li>rotation speed monitoring</li> <li>laser scanner monitoring</li> <li>monitored start-up</li> </ul> </li> </ul>	2x (20 14) 2x (20 14) Yes No Yes Yes No Yes Yes Yes				
<ul> <li>type of connectable conductor cross-sections at AWG cables <ul> <li>solid</li> <li>stranded</li> </ul> </li> <li>Product Function <ul> <li>light barrier monitoring</li> <li>standstill monitoring</li> <li>protective door monitoring</li> <li>automatic start</li> <li>magnetically operated switch monitoring NC-NO</li> <li>rotation speed monitoring</li> <li>laser scanner monitoring</li> <li>monitored start-up</li> <li>light array monitoring</li> </ul> </li> </ul>	2x (20 14) 2x (20 14) Yes No Yes Yes No Yes Yes Yes Yes Yes				
<ul> <li>type of connectable conductor cross-sections at AWG cables <ul> <li>solid</li> <li>stranded</li> </ul> </li> <li>Product Function <ul> <li>light barrier monitoring</li> <li>standstill monitoring</li> <li>protective door monitoring</li> <li>automatic start</li> <li>magnetically operated switch monitoring NC-NO</li> <li>rotation speed monitoring</li> <li>laser scanner monitoring</li> <li>monitored start-up</li> <li>light array monitoring</li> <li>magnetically operated switch monitoring NC-NC</li> </ul> </li> </ul>	2x (20 14) 2x (20 14) Yes No Yes Yes Yes No Yes Yes Yes Yes Yes				
<ul> <li>type of connectable conductor cross-sections at AWG cables <ul> <li>solid</li> <li>stranded</li> </ul> </li> <li>Product Function <ul> <li>light barrier monitoring</li> <li>standstill monitoring</li> <li>protective door monitoring</li> <li>automatic start</li> <li>magnetically operated switch monitoring NC-NO</li> <li>rotation speed monitoring</li> <li>laser scanner monitoring</li> <li>monitored start-up</li> <li>light array monitoring</li> <li>magnetically operated switch monitoring NC-NC</li> <li>EMERGENCY OFF function</li> </ul> </li> </ul>	2x (20 14) 2x (20 14) Yes No Yes Yes Yes No Yes Yes Yes Yes Yes Yes Yes				
<ul> <li>type of connectable conductor cross-sections at AWG cables <ul> <li>solid</li> <li>stranded</li> </ul> </li> <li>Product Function <ul> <li>light barrier monitoring</li> <li>standstill monitoring</li> <li>protective door monitoring</li> <li>automatic start</li> <li>magnetically operated switch monitoring NC-NO</li> <li>rotation speed monitoring</li> <li>laser scanner monitoring</li> <li>light array monitoring</li> <li>magnetically operated switch monitoring NC-NC</li> <li>EMERGENCY OFF function</li> <li>pressure-sensitive mat monitoring</li> </ul> </li> </ul>	2x (20 14) 2x (20 14) Yes No Yes Yes Yes No Yes Yes Yes Yes Yes Yes Yes Yes Yes				
type of connectable conductor cross-sections at AWG cables • solid • stranded Product Function product function • light barrier monitoring • standstill monitoring • protective door monitoring • protective door monitoring • automatic start • magnetically operated switch monitoring NC-NO • rotation speed monitoring • laser scanner monitoring • laser scanner monitoring • monitored start-up • light array monitoring • magnetically operated switch monitoring NC-NC • EMERGENCY OFF function • pressure-sensitive mat monitoring suitability for interaction press control	2x (20 14) 2x (20 14) Yes No Yes Yes Yes No Yes Yes Yes Yes Yes Yes Yes				
type of connectable conductor cross-sections at AWG cables • solid • stranded Product Function product function • light barrier monitoring • standstill monitoring • protective door monitoring • protective door monitoring • protective door monitoring • protective door monitoring • automatic start • magnetically operated switch monitoring NC-NO • rotation speed monitoring • laser scanner monitoring • laser scanner monitoring • monitored start-up • light array monitoring • magnetically operated switch monitoring NC-NC • EMERGENCY OFF function • pressure-sensitive mat monitoring suitability for interaction press control suitability for use	2x (20 14) 2x (20 14) Yes No Yes Yes Yes No Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes				
type of connectable conductor cross-sections at AWG cables • solid • stranded Product Function product function • light barrier monitoring • standstill monitoring • protective door monitoring • protective door monitoring • protective door monitoring • automatic start • magnetically operated switch monitoring NC-NO • rotation speed monitoring • laser scanner monitoring • laser scanner monitoring • monitored start-up • light array monitoring • magnetically operated switch monitoring NC-NC • EMERGENCY OFF function • pressure-sensitive mat monitoring suitability for interaction press control suitability for use • monitoring of floating sensors	2x (20 14) 2x (20 14) Yes No Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes				
type of connectable conductor cross-sections at AWG cables • solid • stranded Product Function product function • light barrier monitoring • standstill monitoring • protective door monitoring • protective door monitoring • automatic start • magnetically operated switch monitoring NC-NO • rotation speed monitoring • laser scanner monitoring • laser scanner monitoring • monitored start-up • light array monitoring • magnetically operated switch monitoring NC-NC • EMERGENCY OFF function • pressure-sensitive mat monitoring suitability for interaction press control suitability for use • monitoring of floating sensors • monitoring of non-floating sensors	2x (20 14) 2x (20 14) Yes No Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes				
<ul> <li>type of connectable conductor cross-sections at AWG cables <ul> <li>solid</li> <li>stranded</li> </ul> </li> <li>Product Function <ul> <li>light barrier monitoring</li> <li>standstill monitoring</li> <li>protective door monitoring</li> <li>automatic start</li> <li>magnetically operated switch monitoring NC-NO</li> <li>rotation speed monitoring</li> <li>laser scanner monitoring</li> <li>light array monitoring</li> <li>magnetically operated switch monitoring NC-NO</li> <li>rotation speed monitoring</li> <li>laser scanner monitoring</li> <li>monitored start-up</li> <li>light array monitoring</li> <li>magnetically operated switch monitoring NC-NC</li> <li>EMERGENCY OFF function</li> <li>pressure-sensitive mat monitoring</li> </ul> </li> <li>suitability for interaction press control suitability for use <ul> <li>monitoring of floating sensors</li> <li>monitoring of non-floating sensors</li> <li>safety switch</li> </ul> </li> </ul>	2x (20 14) 2x (20 14) Yes No Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes				
<ul> <li>type of connectable conductor cross-sections at AWG cables <ul> <li>solid</li> <li>stranded</li> </ul> </li> <li>Product Function <ul> <li>light barrier monitoring</li> <li>standstill monitoring</li> <li>protective door monitoring</li> <li>automatic start</li> <li>magnetically operated switch monitoring NC-NO</li> <li>rotation speed monitoring</li> <li>laser scanner monitoring</li> <li>light array monitoring</li> <li>magnetically operated switch monitoring NC-NO</li> <li>rotation speed monitoring</li> <li>laser scanner monitoring</li> <li>laser scanner monitoring</li> <li>monitored start-up</li> <li>light array monitoring</li> <li>magnetically operated switch monitoring NC-NC</li> <li>EMERGENCY OFF function</li> <li>pressure-sensitive mat monitoring</li> </ul> </li> <li>suitability for interaction press control suitability for use <ul> <li>monitoring of floating sensors</li> <li>monitoring of non-floating sensors</li> <li>safety switch</li> <li>position switch monitoring</li> </ul> </li> </ul>	2x (20 14) 2x (20 14) Yes No Yes Yes Yes Yes Yes Yes Yes Yes				
<ul> <li>type of connectable conductor cross-sections at AWG cables <ul> <li>solid</li> <li>stranded</li> </ul> </li> <li>Product Function <ul> <li>light barrier monitoring</li> <li>standstill monitoring</li> <li>protective door monitoring</li> <li>automatic start</li> <li>magnetically operated switch monitoring NC-NO</li> <li>rotation speed monitoring</li> <li>laser scanner monitoring</li> <li>light array monitoring</li> <li>magnetically operated switch monitoring NC-NO</li> <li>rotation speed monitoring</li> <li>laser scanner monitoring</li> <li>light array monitoring</li> <li>magnetically operated switch monitoring NC-NC</li> <li>EMERGENCY OFF function</li> <li>pressure-sensitive mat monitoring</li> </ul> </li> <li>suitability for interaction press control suitability for use <ul> <li>monitoring of floating sensors</li> <li>safety switch</li> <li>position switch monitoring</li> <li>EMERGENCY-OFF circuit monitoring</li> </ul> </li> </ul>	2x (20 14) 2x (20 14) Yes No Yes Yes Yes Yes Yes Yes Yes Yes				
type of connectable conductor cross-sections at AWG cables • solid • stranded Product Function Product function • light barrier monitoring • standstill monitoring • protective door monitoring • protective door monitoring • automatic start • magnetically operated switch monitoring NC-NO • rotation speed monitoring • laser scanner monitoring • laser scanner monitoring • monitored start-up • light array monitoring • magnetically operated switch monitoring NC-NC • EMERGENCY OFF function • pressure-sensitive mat monitoring suitability for interaction press control suitability for use • monitoring of floating sensors • monitoring of non-floating sensors • safety switch • position switch monitoring • EMERGENCY-OFF circuit monitoring • valve monitoring • valve monitoring	2x (20 14) 2x (20 14) Yes No Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes				
type of connectable conductor cross-sections at AWG cables • solid • stranded Product Function Product function • light barrier monitoring • standstill monitoring • protective door monitoring • automatic start • magnetically operated switch monitoring NC-NO • rotation speed monitoring • laser scanner monitoring • laser scanner monitoring • monitored start-up • light array monitoring • magnetically operated switch monitoring NC-NC • EMERGENCY OFF function • pressure-sensitive mat monitoring suitability for interaction press control suitability for use • monitoring of floating sensors • safety switch • position switch monitoring • EMERGENCY-OFF circuit monitoring • valve monitoring • tactile sensor monitoring	2x (20 14) 2x (20 14) Yes No Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes				
<ul> <li>type of connectable conductor cross-sections at AWG cables <ul> <li>solid</li> <li>stranded</li> </ul> </li> <li>Product Function <ul> <li>light barrier monitoring</li> <li>standstill monitoring</li> <li>standstill monitoring</li> <li>protective door monitoring</li> <li>automatic start</li> <li>magnetically operated switch monitoring NC-NO</li> <li>rotation speed monitoring</li> <li>laser scanner monitoring</li> <li>monitored start-up</li> <li>light array monitoring</li> <li>magnetically operated switch monitoring NC-NC</li> <li>EMERGENCY OFF function</li> <li>pressure-sensitive mat monitoring</li> </ul> </li> <li>suitability for interaction press control suitability for use <ul> <li>monitoring of floating sensors</li> <li>safety switch</li> <li>position switch monitoring</li> <li>EMERGENCY-OFF circuit monitoring</li> <li>valve monitoring</li> <li>tactile sensor monitoring</li> <li>magnetically operated switch monitoring</li> </ul> </li> </ul>	2x (20 14) 2x (20 14) Yes No Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes				
type of connectable conductor cross-sections at AWG cables • solid • stranded Product Function Product function • light barrier monitoring • standstill monitoring • protective door monitoring • protective door monitoring • protective door monitoring • protective door monitoring • automatic start • magnetically operated switch monitoring NC-NO • rotation speed monitoring • laser scanner monitoring • monitored start-up • light array monitoring • magnetically operated switch monitoring NC-NC • EMERGENCY OFF function • pressure-sensitive mat monitoring suitability for interaction press control suitability for use • monitoring of floating sensors • monitoring of non-floating sensors • safety switch • position switch monitoring • EMERGENCY-OFF circuit monitoring • valve monitoring • tactile sensor monitoring • magnetically operated switch monitoring • safety-related circuits	2x (20 14) 2x (20 14) Yes No Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes				
<ul> <li>type of connectable conductor cross-sections at AWG cables <ul> <li>solid</li> <li>stranded</li> </ul> </li> <li>Product Function <ul> <li>light barrier monitoring</li> <li>standstill monitoring</li> <li>standstill monitoring</li> <li>protective door monitoring</li> <li>automatic start</li> <li>magnetically operated switch monitoring NC-NO</li> <li>rotation speed monitoring</li> <li>laser scanner monitoring</li> <li>monitored start-up</li> <li>light array monitoring</li> <li>magnetically operated switch monitoring NC-NC</li> <li>EMERGENCY OFF function</li> <li>pressure-sensitive mat monitoring</li> </ul> </li> <li>suitability for interaction press control suitability for use <ul> <li>monitoring of floating sensors</li> <li>safety switch</li> <li>position switch monitoring</li> <li>EMERGENCY-OFF circuit monitoring</li> <li>valve monitoring</li> <li>tactile sensor monitoring</li> <li>magnetically operated switch monitoring</li> </ul> </li> </ul>	2x (20 14) 2x (20 14) Yes No Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes				

<ul> <li>TÜV (German te</li> <li>UL approval</li> <li>BG BIA approval</li> </ul>	chnical inspectorate)	certificate	Yes Yes Yes			
General Product App	roval			EMC	Functional Safety/Safety of Machinery	Test Certificates
	<b>U</b>	EAC		RCM	<u>Type Examination</u> <u>Certificate</u>	<u>Special Test Certific-</u> <u>ate</u>

## other

### **Confirmation**

#### Further information

Information- and Downloadcenter (Catalogs, Brochures,...)

https://www.siemens.com/ic10

Industry Mall (Online ordering system)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3TK2826-1BB42

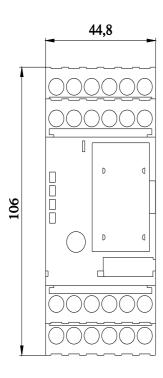
Cax online generator

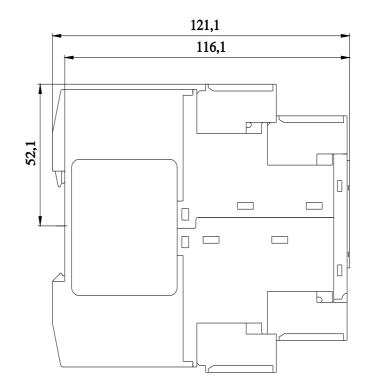
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3TK2826-1BB42

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

https://support.industry.siemens.com/cs/ww/en/ps/3TK2826-1BB42

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3TK2826-1BB42&lang=en





last modified:

7/6/2022 🖸