

DADISICK®

大迪施克

柔性触觉传感产品手册

Flexible Tactile Sensing Product Brochure



GUIDE BOOK

东莞市大迪电子科技有限公司
Dongguan Dadi Electronic Technology Co., Ltd.



Dadi Optoelectronics Company, founded in Kaohsiung, Taiwan in 1998, and its branch in Mainland China in 2006 (Dongguan Dadi Electronic Technology Co., Ltd. hereinafter referred to as Dadi Company).

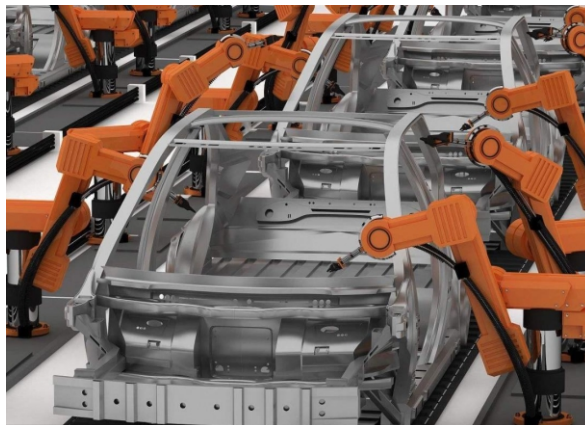
The company is specialized in the research, development, production, sales and agency of product technology, which integrates light, electricity and machinery. It is a professional manufacturer of optoelectronic products. Safety protection device and die safety inspection for preventing punching accidents such as finger breakage are devoted to. The product series includes photoelectric safety protector (safety grating, safety light curtain), measuring light curtain, detection light curtain, vehicle separation, high-precision micro-computer bottom dead point detection (mould safety inspection), multi-function misdelivery inspection of die, photoelectric reflector plate (reflective plate), reflective mould and punch press. Peripheral automation equipment, to provide high-quality products and professional services for well-known enterprises in the industry and received a piece of praise from customers.

After years of unremitting efforts, continuous transformation and continuous improvement, this product has been sold to all parts of the country and Central and South Asia, customers throughout the country's major automobile manufacturing industry, household appliances manufacturing industry, hardware processing industry and forging equipment. It is widely used in stamping machinery, shears, benders, injection moulding machines, hydraulic presses, stretchers, leather machinery, woodworking machinery, automatic assembly lines and automatic inspection of mould safety.

All the staff of our company will adhere to the business philosophy of "customer first, quality as survival, technology as development and management as efficiency" as always. We will provide high-quality products, solve practical problems, establish long-term stable and good cooperative relationship for our customers. Welcome to Dadi! Dadi will be your most ideal partner.



应用领域



目录

柔性触觉传感技术产品
机械寿命高达一千万次
Flexible tactile sensing technology products,
mechanical life up to 10 million times



安全地毯传感器 6-17
Safety Mat sensor



安全触边传感器 18-26
Safety Edge sensor



安全缓冲传感器 27-33
Safety buffer sensor



安全控制器 18-26
Safety controller



乘用车防夹安全边 36-39
Anti-clip Safety Edge of Passenger Car

DT-PSM1系列拼装型安全地毯传感器
DT-PSM1 Series Assembled Safety Carpet Sensors



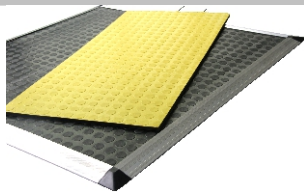
适用于民用及一般工况使用。
用于检测>20公斤人或重物。机械寿命>100万次。
It is suitable for civil and general working conditions.
Used to detect more than 20 kilograms of people or heavy objects.
Machine life > 1 million times.

DT-PSB系列安全缓冲传感器
DT-PSB Series Safety Buffer Sensors



适用于AGV自行车、立体车库及仓储等场合使用
为各种移动设备提供3D碰撞保护。
触发力从50N至600N，使用温度-20℃至+55℃
It is suitable for AGV bicycle, three-dimensional garage and warehousing and other occasions to provide 3D collision protection for various mobile devices. Triggering force ranges from 50N to 600N, using temperature from - 20℃ to + 55℃.

DT11系列拼装型安全地毯传感器
DT11 Series Assembled Safety Carpet Sensors



适用于工厂工况使用。
用于检测>20公斤人或重物。
可承受200kg/cm²的动载荷，机械寿命>300万次。
Suitable for use in factory conditions.
For testing >20 kg people or heavy objects.
It can withstand dynamic loads of 200kg/cm² and has a mechanical life of >3 million cycles.

DT-PSEC系列乘用车防夹安全边
DT-PSEC series passenger car anti-pinch safety edge



适用于各种乘用车电动车门、天窗、隔断门等的防夹保护。
最小触发力<15N
使用温度-40℃至+80℃
It is suitable for anti-pinch protection of various passenger car electric doors, sunroofs, partition doors, etc.
Minimum trigger force <15N
Use temperature -40℃ to +80℃

DT15系列抗冲击碾压型安全地毯传感器
DT15 series impact-resistant rolling safety carpet sensor



适用于重型及有油污腐蚀等恶劣工况使用。
用于检测>20公斤人或重物。
可承受800kg/cm²的动载荷，机械寿命>300万次。
Suitable for heavy duty and oily corrosion and other harsh conditions. For testing >20 kg people or heavy objects.
It can withstand dynamic loads of 800kg/cm² and has a mechanical life of >3 million cycles.

QRSN-SR/SRA系列安全控制器
QRSN-SR/SRA Series Safety Controller



QRSN-SR/SRA型安全控制器用于各种传感模式安全产品的传感信号控制。
QRSN-SRB型智能控制器适用于各种智能传感器产品的信号控制。
提供24V DC/AC 和220V AC产品。
QRSN-SR/SRA type safety controller is used for sensing signal control of safety products with various sensing modes.
QRSN-SRB intelligent controller is suitable for signal control of various intelligent sensor products.
Provide 24V DC/AC and 220V AC products.

DB-PSE系列安全触边传感器
DB-PSE series safety edge sensor



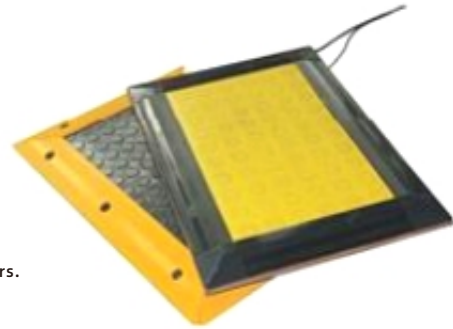
适用于车辆、机器及各种电动闸门等恶劣工况的防夹保护。
可提供3D防夹保护；
触发力从50N至250N可供选择；
使用温度-25℃至+65℃。
Suitable for anti-pinch protection of vehicles, machines and various electric gates.
3D anti-pinch protection is available;
The trigger force is available from 50N to 250N;
Use temperature -25℃ to +65℃.

安全地毯传感器 Safety carpet sensor

DT11系列与DT15系列 DT11 series and DT15 series

- DT11标准系列。适合工厂工况使用，整体封装，PVC防滑面层，防滑等级R9。
- DT15抗碾压冲击系列。适合重型工况或特殊工业场合使用，整体封装，NBR橡胶防滑层，防滑等级R9。
- 用于检测体重在20公斤以上的人或重物。
- 超过300万次机械寿命。
- DT11系列可承受动载荷<200KG/CM²。
- DT15系列可承受<800KG/CM²的冲击载荷。
- 单区域安全防护可以多个安全地毯传感器拼装使用。
- 安全地毯兼容开关模式安全控制器。
- 接受非标准尺寸和异型安全地毯产品定制。

- DT11 standard series. Suitable for factory working conditions, overall packaging, PVC non-slip surface layer, anti-skid grade R9.
- DT15 anti-rolling and impact resistant series.
- Suitable for heavy duty or special industrial applications, integral package, NBR rubber anti-skid layer, anti-skid grade R9.
- It is used to detect people or heavy objects weighing more than 20 kg.
- More than 3 million mechanical life.
- The DT11 series can withstand dynamic loads <200KG/CM².
- The DT15 series can withstand impact loads of <800KG/CM².
- Single-area safety protection can be assembled with multiple safety carpet sensors.
- The safety carpet is compatible with a switch mode safety controller.
- Customized for non-standard size and shaped safety carpet products.



1.安全地毯技术标准 Safety carpet technical standards

项目project		型号model	DT11	Dt15
检测方式Detection mode			压力传感方式Pressure sensing mode	
操作力Operational power			<20kg	
最大允许动负载 Maximum allowable live load			<200kg/cm ²	冲击载荷<800kg/cm ²
机械寿命Mechanical life			> 3,000,000次second	> 3,000,000次second
封装及表面防护层 Packaging and Surface Protection Layer			PVC	PVC,CR
环境温度ambient temperature			-20℃——+55℃	-35℃——+65℃
防护等级Protection level			Ip65	
最大湿度（23度） Maximum humidity (23 degrees)			95%(结露Condensation)	
安 排 分 类 Arrangement classification	响应时间response time		13ms	
	EN 1760-1重置命令Reset Command		支持Support	
	ISO 13849-1:2006		Cat.3	
	MTTFd		> 30年year	
	Bi0d		6*10 ⁴	
	Nop（接受Acceptance）		52560/年yea	
	IEC 61508: PFHS		9.99*10 ⁻⁴ 1/h(SIL3)	

安全地毯传感器与安全控制器QRSN-SR系列或QRSN-SRA系列共同组成的安全地毯系统符合以下标准。
Safety carpet sensors and safety controllers QRSN-SR series or QRSN-SRA series of safety carpet systems meet the following standards.

EN1760-1 ISO13856-1 EN62061-1 EN ISO13849-1 IEC61508-1 EN60204-1

2.安全地毯技术说明

Technical instructions for safety carpets

1) 安全地毯规格标准

Safety Carpet Specification Standard

安全垫规格尺寸 Safety pad specifications and dimensions (L1xL2)	DT11型type	DT15型type
	PVC整体封装型 PVC integral package	NBR整体封装抗碾压型 NBR integral package roll-resistant type
	厚度thickness 11mm	厚度thickness 15mm (20mm定制Customized)
30cmx30cm	DT11-30X30	DT15-30X30
40cmx40cm	DT11-40X40	DT15-40X40
50cmx25cm	DT11-50X25	DT15-50X25
50cmx40cm	DT11-50X40	DT15-50X40
50cmx50cm	DT11-50X50	DT15-50X50
60cmx40cm	DT11-60X40	DT15-60X40
75cmx25cm	DT11-75X25	DT15-75X25
75cmx50cm	DT11-75X50	DT15-75X50
75cmx75cm	DT11-75X75	DT15-75X75
100cmx25cm	DT11-100X25	DT15-100X25
100cmx50cm	DT11-100X50	DT15-100X50
100cmx75cm	DT11-100X75	DT15-100X75
100cmx100cm	DT11-100X100	DT15-100X100
150cmx50cm	DT11-150X50	DT15-150X50
150cmx75cm	DT11-150X75	DT15-150X75
150cmx100cm	DT11-150X100	DT15-150X100
含铝压边外缘尺寸 Size of outer edge of aluminium blank holder	L1+100mmxL2+100mm	L1+120mmxL2+120mm
备注：		
1.安全地毯尺寸为不含铝压边净尺寸，尺寸误差为+/-6mm The size of the safety carpet is net size without aluminum crimping, and the dimensional error is +/-6mm		
2.接受非标准尺寸安全地毯定制。非标准尺寸安全地毯单边长度应<3000mm,面积≤1.5m² Accept non-standard size safety carpet customization. Non-standard size safety carpets should have a single side length of <3000mm and an area of ≤1.5m ²		
3.接受异型安全地毯设计和定制，用户需提供防护区域平面图及技术要求。 异型安全地毯最大面积≤3m² To accept the design and customization of the special-shaped safety carpet, the user needs to provide the protection area plan and technical requirements. Shaped safety carpet with a maximum area of ≤3m ²		

2) 安全地毯外形尺寸、边缘非感应区及类型

Safety carpet dimensions, edge non-sensing areas and types

标准安全地毯为矩形尺寸，可根据使用要求在上表中选购。也可以根据需要定制。安全地毯传感器的单边尺寸L限于200-3000毫米，面积不大于1.5平方米。

The standard safety carpet is rectangular in size and can be purchased from the above table according to the requirements.

It can also be customized as needed.

The single-sided dimension L of the safety carpet sensor is limited to 200-3000 mm and the area is not more than 1.5 square meters.

矩形安全地毯外形尺寸如下图：

The dimensions of the rectangular safety carpet are as follows:



L1: 为安全地毯宽边

L2: 为安全地毯窄边

安全地毯表面积： $L1 \times L2 \leq 1.5m^2$

安全地毯信号电缆从窄边出线。

面积 $> 1.5m^2$ 以上的防护区域，建议采用多块安全地毯拼接方式。

安全地毯封装边缘是非传感感应区，非传感感应区域不具有感应功能，安全地毯的边缘非感应区的宽度为：

非电缆引出边非感应边缘区宽度 $S1=10mm$

电缆引出边缘非感应区宽度 $S2=20mm$

L1: for the safety carpet wide side

L2: for the narrow side of the safety carpet

Safety carpet surface area: $L1 \times L2 \leq 1.5m^2$

The safety carpet signal cable exits from the narrow side.

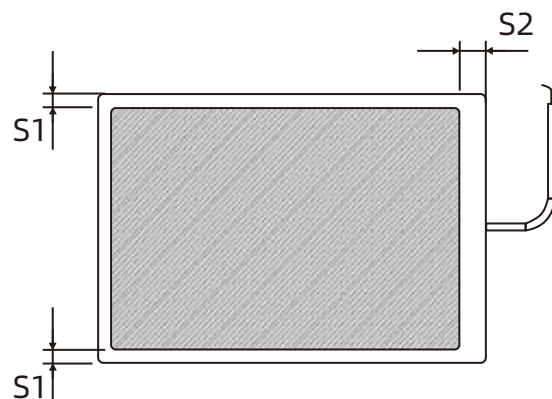
For protective areas with an area $> 1.5 m^2$ or more, it is recommended to use multiple safety carpet splicing methods.

The edge of the safety carpet package is a non-sensing sensing area, and the non-sensing sensing area does not have a sensing function.

The width of the non-sensing area of the edge of the safety carpet is:

Non-cable lead-out edge non-inductive edge area width $S1=10mm$

Cable lead-out edge non-sensing area width $S2=20mm$



安全地毯根据系统配置分为R型和K型两种型号。选择不同的组合，可以实现较大的区域的安全防护。可以采用多个安全地毯拼接安装方式。可以多区域分别控制，也可以单区域控制。一个单区域控制穿了使用安全地毯的数量应 < 10个，单区域面积应 < 8m²。

需要注意的是，单区域拼接安装只能两个安全地毯的S1边相邻。若无法保证相邻的两块安全地毯是S1边相邻，可采用分区域控制方式，以保证防护区域的安全可靠。

若安全地毯的信号电缆长度2米无法满足您的要求，请在订货时声明。

Safety carpet can be divided into R type and K type according to system configuration. Choosing different combinations can realize security protection in larger areas. Multiple safety carpet splicing and installation methods can be adopted. It can be controlled by multi-area or single-area. A single area control system has been put through. The number of safety carpets should be less than 10 and the area of single area should be less than 8 m².

It should be noted that the single area splicing installation can only be adjacent to the S1 side of two safety carpets.

If there is no guarantee that the two adjacent safety carpets are S1 The edges are adjacent to each other.

Subregional control mode can be adopted to ensure the safety and reliability of the protection area.

If the signal cable length of the safety carpet is 2 meters which can not meet your requirements, please declare when ordering.

R型  R型安全地毯 R-type safety carpet	两芯黑色TPE护套电缆VVR φ4mm 2*0.35mm²（红、黑）电缆长度2米 内部封装终端电阻（R=1.2KΩ） Two-core black TPE sheathed cable VVR Φ4mm 2*0.35mm²(red, black) cable length 2 meters, Internal package terminal resistance (R = 1.2KΩ)
K型  K型安全地毯 K-type safety carpet	2*两芯黑色TPE护套电缆 VVR φ4mm2*0.35mm² （红、黑）电缆长度2米。 2 * Two-core black TPE sheathed cable VVR Φ4mm 2 * 0.35mm² (red, black) cable length 2 meters

3) 安全地毯的安装及安装附件

Installation and installation accessories of safety carpet

安全地毯的安装表面应无凹凸物、无灰尘颗粒及大于20mm的孔洞。清洁安装表面，并遵照安装手册进行安装。

DT11/DT15型安全地毯供应范围包括安装附件，除非特殊声明，将按照安全地毯单独安装方式配置安装附件。用户不需要对安装附件进行的加工。

安全地毯安装压边采用M6内迫式膨胀螺栓固定安装。

The installation surface of safety carpet should be free of concave convex, dust particles and holes larger than 20 mm.

Clean the installation surface and follow the installation handBooks are installed.

The supply scope of DT11/DT15 type safety carpet includes installation accessories.

Unless otherwise stated, the safety carpet will be fitted separately in accordance with the installation mode of PSM2/PSM3 type safety carpet.

Install attachments. The user does not need to process the installation accessories.

Safety carpet installation and blank holder is fixed by M6 internal forced expansion bolt.

安全地毯安装附件
Safety Carpet Installation Accessories

11mm Z型 压边 Z-type blank holder		11mm 坡型 压边 直角 外接 slope blank holder right angle external connection	
15mm 20mm Z型 压边 Z-type blank holder		11mm 坡型 压边 延长 连接 Slope blank holder extension connection	
11mm 坡型 压边 Slope edge pressing		11mm 坡型 压边 直角 内接 Slope-type blank holder right angle insertion	
15mm 坡型 压边 Slope edge pressing		11mm 压边 线槽 Edge groove	
20mm 坡型 压边 Slope edge pressing		11mm 双侧 压边 线槽 Bilateral blank holder slot	

4) 安全地毯的安装及拼装图示
Installation and Assembly Diagram of Safety Carpet

Z型压边安装示意 Installation indication of Z-type blank holder		15mm(20mm) 压边外角对接 15mm (20mm) Blank holder external angle docking	
15mm(20mm) 压边安装示意 15mm (20mm) Installation indication of blank holder		15mm(20mm) 压边内角对接 15mm (20mm) Blank holder internal angle docking	
15mm(20mm) 压边拼接安装示意 15mm (20mm) Installation indication of blank holder splicing		15mm(20mm) 压边与Z型压边对接 15mm (20mm) Blank holder and Z-type Butt butt joint	
11mm 压边安装示意 11mm Installation indication of blank holder		Z型压边角接 Z-type blank holder corner joint	
11mm线槽 压边安装示意 11mm line slot Installation indication of blank holder		11mm压边 外角插接 11mm blank holder External corner socket	
11mm压边拼接 安装示意图 11 mm blank holder splicing installation diagram		11mm 压边直连 11mm Blank holder direct connection	
11mm压边 异型拼接示意 11mm blank holder Special-shaped splicing indication		11mm压边 内角插接 11mm Blank holder Inside corner socket	

5) 非标准尺寸安全地毯和异型安全地毯

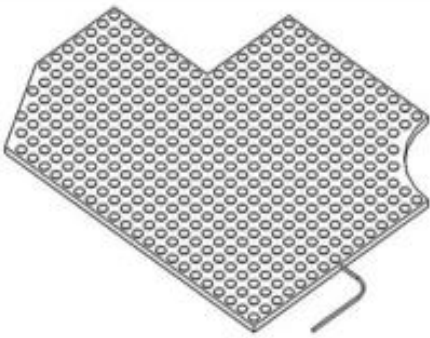
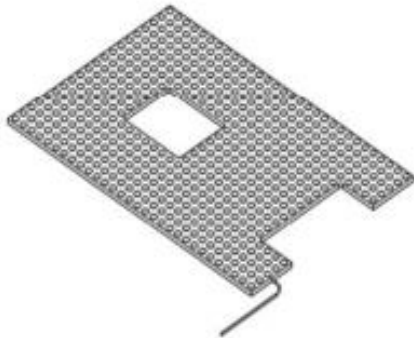
Non-standard size safety carpet and special type safety carpet

DT11型安全地毯可以按照用户要求订制非标准尺寸产品。非标准安全地毯最大单边长度不得大于3米，最大表面积≤1.5m²。

DT15型安全地毯可以订制非标准尺寸产品，也可以订制非规异型安全地毯。可以根据用户要求制作斜角、内圆弧、外圆弧等形状。也可以中间内切开孔或设置局部无感应区。

非规异型安全地毯最大面积≤3m²。电缆出线边可以根据用户要求，但不能从弧形边缘及斜边边缘出线。

Dt11 safety carpet can be customized according to user requirements of non-standard size products.
Maximum unilateral length of non-standard safety carpet shall not be greater thanThe maximum surface area is less than 1.5m².
DT15 safety carpet can be customized for non-standard size products, as well as irregular special-shaped safety carpets.
It can be made according to user's requirement.Oblique angle, inner arc, outer arc and other shapes.
It can also cut holes in the middle or set up a local non-inductive zone.
The maximum area of irregular shaped safety carpet is less than 3m².
The outlet edge of the cable can meet the user's requirements, but it can not be outlet from the arc edge and the oblique edge.

异形安全地毯分类及限制 Classification and Restriction of Special-shaped Safety Carpets		
类型 type	形状 shape	形状 shape
外形非标安全地毯 Non-standard shapeSafety carpet		非直线边非感区宽度为20mm The width of non-linear edge is 20 mm
局部开孔安全地毯 Locally perforated safety carpet		中间开孔边缘非感区 宽度为20mm The width of the non-sensitive zone at the edge of the middle opening is 20 mm.
局部非感应区 安全地毯 Local non-inductive safety carpet		安全地毯内设置非感应区域， 非感应区域边缘距离应大于20mm， 基座非感应区域最大承载力 为200Kg/cm ² Install non-inductive area in safety carpet. The edge distance of non-inductive region should be greater than 20 mm. Maximum Bearing Capacity of Non-Inductive Zone of Base200 Kg/cm

DT安全地毯的化学耐抗性 Chemical Resistance of DT Safety Carpet				
编号 number	溶液名称 Name of solution	DT-PSM3	DT-PSM2	DT-PSM1
		耐抗性 Resistance to resistance	耐抗性 Resistance to resistance	耐抗性 Resistance to resistance
1	稀酸 Dilute acid	+	+	+
2	稀碱 dilute base	+	+	+
3	非氧化酸 Non oxidized acid	+	+	+
4	金属加工油 Metal processing oil	+	+	+
5	植物油 Vegetable oil	+	+	+
6	酯类溶剂 Ester solvent	-	-	-
7	溶剂(汽油) Solvent (gasoline)	±	-	-
8	芳香烃 烃类 Aromatic hydrocarbons	-	-	-
9	酒精 alcohol	+	+	+
10	氨水 ammonia	+	+	+
11	制动液 Brake fluid	±	+	+
12	切割乳化液 Cutting Emulsion	+	+	+
13	乙酸 Acetic acid	+	+	+
14	丙酮 acetone	+	-	-
15	钾肥 Potash	±	±	±
16	甲醇 Methanol	+	+	+
17	稀料 Thinner	-	-	-
18	肥皂水 Soap water	+	+	+
19	水 water	+	+	+
注: +耐抗 ±弱耐抗 -不耐抗 Note: + resistance ±weak resistance - not resistant				

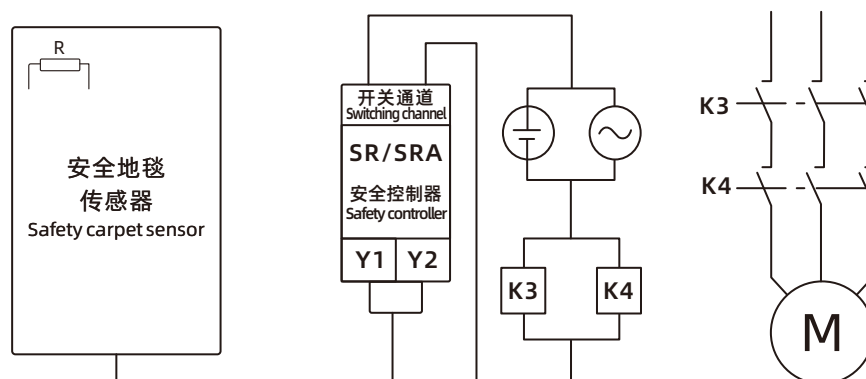
3.安全地毯的系统配置及应用 Safety carpet system configuration and application

1) 传感模式安全控制器的系统连接 Sensor mode safety controller system connection

SR系列/SRA系列安全控制器是专为安全地毯传感器设计的传感模式安全控制器。与这种安全控制器组成的安全地毯系统符合EN1760-1 ISO13856-1 En62061 ISO13849-1 IEC61508 EN60204-1标准。

The SR Series/SRA Series Safety Controllers are sensor mode safety controllers designed for safety carpet sensors.

The safety carpet system consisting of this safety controller complies with the EN1760-1 ISO13856-1 En62061 ISO13849-1 IEC61508 EN60204-1 standard.



安全地毯可以单独使用，也可以根据需要防护的区域，将几个安全地毯串联成一个防护区域使用。可以根据实际安装条件及需求选择以下组合方案：

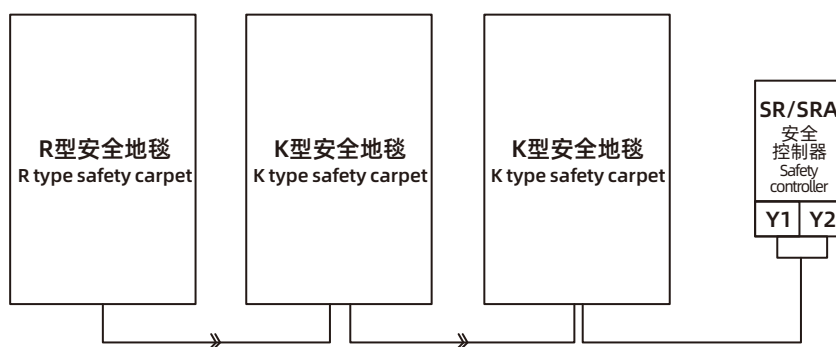
The safety mat can be used alone or in combination with several safety mats in a protected area depending on the area to be protected. The following combination schemes can be selected according to actual installation conditions and requirements:

◆ **传感输出——安全地毯的R/K型串联组合：**
Sensing output - R/K type series combination of safety carpet:

这种组合一般用于传感输出模式，单区域多块安全地毯拼装场合。这种拼接方式的单区域面积允许 $\leq 8\text{m}^2$ 。

This combination is typically used for sensing output mode, single-area, multi-block safety carpet assembly.

The single area of this splicing method allows $\leq 8\text{m}^2$.

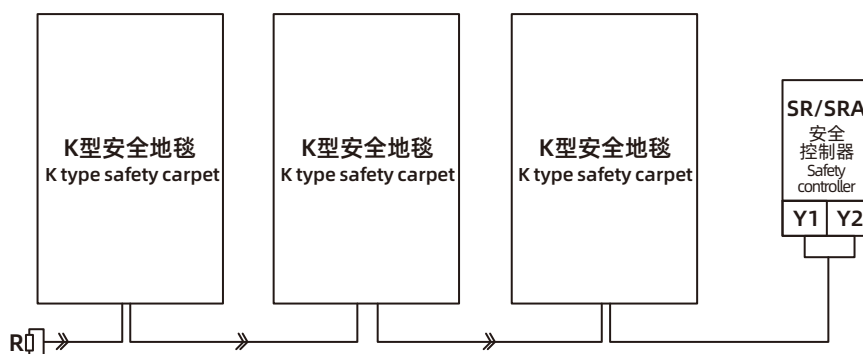


◆ **传感输出——安全地毯的K/K型串联组合(外置终端电阻方式)：**
Sensing output - K/K type series combination of safety carpet (external terminal resistance method):

这种组合用于传感输出模式，单区域多块安全地毯拼装场合。这种拼接方式的传感输出模式单区域面积允许 $\leq 8\text{m}^2$ 。

This combination is used for sensing output mode, single-area multi-block safety carpet assembly occasions.

The splicing mode of the sensing output mode allows a single area of $\leq 2.8\text{m}^2$.



◆ **传感输出——使用接线端子的R/K型串联组合：**
Sensing output - R/K type series combination using terminal blocks:

这种组合用于传感输出模式，多区域多块安全地毯串联安装场合。这种拼接方式的传感输出模式单区域面积允许 $\leq 6\text{m}^2$ 。

This combination is used for sensing output mode, multi-zone multi-block safety carpets in series installation.

The splicing mode of the sensing output mode allows a single area of $\leq 6\text{m}^2$.

4.安全地毯选型表 Safety Carpet Selection Table

安全地毯选型及型号标注说明 Safety Carpet Type Selection and Type Marking Instructions											
1区District		2区District		3区District		4区District		5区District		6区District	
系列分类 Series classification		产品编码 Product coding		规格尺寸 Specification size		系统配置 system configuration		面层 Surface layer		定制 Customized	
系列 Series	代码 Code	产品分类 Product classification	代码 Code	尺寸 size	说明 Explain	配置 collo- -cation	说明 Explain	代码 Code	说明 Explain	代码 Code	说明 Explain
安全地毯 传感器 Safety carpet sensor	DT	模块拼装型 Modular assembly type	1	1*12	L1为长边 L2为窄边 (厘米) L1 is long edge L2 is a narrow edge (CM)	R	有终端 电阻2 芯线缆 2-core cable with terminal resistance		黑色 面层 Black surface	C	非标准 尺寸 Non-standard size
		整体封装型 PVC防滑层 厚度11mm Integral package PVC anti-skid layer thickness 11 mm	2					R	黑色 面层 Black surface		
		整体封装型 NBR防滑层 厚度15,20mm Integral package NBR anti-skid layer thickness 15,20 mm	3			K	无终端 电阻4 芯线缆 4-core cable without terminal resistance	A	用户 指定 User specified	S	异型 Heterotypic
选择举例： DT15-150X65-R-C为厚度15mm的3型安全地毯，净尺寸为150CMX65CM有终端电阻 2线 输出型安全地毯，面层颜色为黑色，非标准尺寸订制。 Select examples: DT15-150X65-R-C is a type 3 safety carpet with 15mm thickness. The net size of the carpet is 150CMX65CM with terminal resistance and 2-wire output. The surface color is black. It is customized in non-standard size.											

5.使用注意事项 Use precautions

- ◆ 安全地毯不能折叠或卷曲。
- ◆ 安全地毯不能打洞、开孔。
- ◆ 安全地毯为一整体，不能切割使用。
- ◆ 请勿将钉子、螺丝钉等敲击或拧入安全地毯内。
- ◆ 不要手提电缆搬运安全地毯。
- ◆ 安全地毯为触发型电子器件，安装表面不平整会影响其使用性能。
- ◆ 安全地毯为成套供应，选择安全地毯不需要另行选择安装附件。如有额外需求，请与公司联系。
- ◆ Safety carpets should not be folded or curled.
- ◆ Safety carpets should not be perforated.
- ◆ Safety carpet as a whole, can not be cut and used.
- ◆ Do not knock nails, screws, etc. or screw them into the safety carpet.
- ◆ Do not carry safety carpets with portable cables.
- ◆ Safety carpet is a trigger type electronic device. The uneven installation surface will affect its performance.
- ◆ Safety carpet is supplied as a complete set. No additional installation accessories are needed to select safety carpet.
- ◆ For additional requirements, please contact the company.

DT拼装型安全地毯 DT Assembled Safety Carpet

DT系列 series

- DT系列拼装型安全地毯是采用模块化元件拼装组成的安全地毯，适合于一般工业工况使用，也适合民用领域安全防护使用
 - 用于检测体重在20公斤以上的人或重物
 - 超过100万次机械寿命
 - 串联使用安全地毯的最大面积 $\leq 10\text{m}^2$
 - 防护等级为IP65
 - 适用于室内少粉尘、淋雨的工作环境
 - 工业产品选用PVC防滑面层，防滑等级R9
 - 民用安全地毯允许选择常规软铺地材料作为封装防滑面层
- 
- DT series assembled safety carpet is a kind of safety carpet composed of modular components, which is suitable for general industrial conditions and civil safety protection.
 - Used to detect people or heavy objects weighing more than 20 kilograms
 - More than 1 million mechanical life cycles
 - Maximum area of safety carpet used in series is less than 10m^2
 - Protection level Ip65
 - Suitable for indoor working environment with less dust and rain
 - PVC Anti-skid Surface Layer, Anti-skid Grade R9 for Industrial Products
 - Civil safety carpets allow the selection of conventional soft paving materials as anti-skid surface for packaging

1. 拼装型安全地毯技术标准

Technical Standards for Assembled Safety Carpets

项目 project	型号 Model	DT拼装型安全地毯 DT Assembled Safety Carpet
检测方式 Detection mode		压力传感方式 Pressure sensing method
操作力 Operational power		<20kg
最大允许动负载 Maximum allowable live load		200kg/cm ²
机械寿命 Mechanical life		>1,000,000次
表面防护层材质 Material of Surface Protective Layer		PVC (聚氯乙烯) (或用户指定) PVC (polyvinyl chloride) (or user-specified)
环境温度 ambient temperature		-20°C~55°C
防护等级 Protection level		IP65
最大湿度 (23度) Maximum humidity (23 degrees)		95%(结露 Condensation)
响应时间 response time		13ms

2.拼装型安全地毯技术说明：

Technical description of assembled safety carpet:

1) 拼装型安全地毯规格选型表

Specification Selection Table for Assembled Safety Carpets

拼装型安全垫规格尺寸 Specification and Dimension of Assembled Safety Pad	DT型模块拼装型 DT Module Assembly
50cmx25cm	DT-50x25
50cmx50cm	DT-50x50
75cmx25cm	DT-75x25
75cmx50cm	DT-75x50
75cmx75cm	DT-75x75
100cmx25cm	DT-100x25
100cmx50cm	DT-100x50
100cmx75cm	DT-100x75
100cmx100cm	DT-100x100
150cmx50cm	DT-150x50
150cmx75cm	DT-150x75
150cmx100cm	DT-150x100

2) 安全地毯面层、边缘非感应区及电缆

Safety Carpet Surface, Edge Non-inductive Zone and Cable

- ◆ 拼装型安全地毯由拼装模块及封装面层组成，矩形标准尺寸，可根据需要在上表中选择。面层为PVC防滑面层。民用领域产品可以根据用户要求选择市场供应的软铺地材料作为封装面层。
- ◆ 拼装型安全地毯边缘非感应区S1=20mm；S2=20mm；
- ◆ 拼装型安全地毯的信号电缆为黑色TPE护套VVRΦ4mm；2x0.35mm²铜芯线(红黑),电缆标准长度为2米。

Assembled safety carpet is composed of assembling module and encapsulating surface layer. Rectangular standard size can be selected in the table above according to need. The surface layer is PVC anti-skid surface layer. Civil products can choose the soft paving materials supplied by the market as the packaging surface according to the user's requirements.

The non-inductive zone S1 = 20mm and S2 = 20mm at the edge of assembled safety carpet.

The signal cable of assembled safety carpet is black TPE sheath VVR4mm; 2x0.35mm copper core wire (red and black), and the standard length of cable is 2 meters.

3) 安装方法及安装附件：

Installation method and accessories:

工业应用安装附件及安全方法详见DT11系列安全地毯安装附件及安装方法。民用产品安装方法及安装附件详见民用产品技术说明。

Installation accessories and safety methods for industrial applications are detailed in LCS-PSM2 series of safety carpet installation accessories and installation methods. Installation methods and accessories for civil products are detailed in the technical instructions for civil products.

安全触边传感器 Safety Contact Sensor

DB-PSE系列 DB-PSE series

- 适用于各种应用场合，触发压力低，多种规格选择。
- 传感器长度200mm-6000mm。
- 可以折弯，适合各种机械防护场合。
- 防护等级IP65，适合各种工况使用。
- 超过300万次机械使用寿命。
- 外套采用EPDM、CR橡胶材质，耐受各种化学腐蚀，适合工厂一般工况及民用场合使用。
- 一个控制器最多可以控制10个安全触边传感器串联使用。
- 接受特殊安装形状及尺寸产品制定。
- Suitable for various applications, low trigger pressure, a variety of specifications.
- The length of the sensor ranges from 200 mm to 6000 mm.
- It can be bent and suitable for various mechanical protection occasions.
- Protection level IP65, suitable for various working conditions.
- More than 3 million mechanical life cycles.
- The coat is made of EPDM and CR rubber. It can withstand various chemical corrosion. It is suitable for general working conditions of factories and civil occasions.
- A controller can control up to 10 safety contact sensors in series.
- Accept special installation shape and size product formulation.



项目 project	型号 Model	DB-PSE series
检测方式 Detection mode		压力传感方式 Pressure sensing mode
最大感应角度 Maximum induction angle		< 90°
触发力 根据规格及用途 Triggering force according to specification and use		≥25N-250N
机械寿命 Mechanical life		> 3,000,000次second
表面防护材质 Material of Surface Protective Layer		EPDM橡胶 CR橡胶rubber
环境温度 ambient temperature		-20度——55度 (°C)
防护等级 Protection level		Ip65
最大湿度 23度 Maximum humidity 23 degrees		95% 结露Condensation
响应时间 response time		13ms
安全分类 Safety classification	EN 1760-1 重置命令 Reset command	支持Support
	ISO 13849-1 2006	分类 3 classification
	MTTF _d	> 30年year
	B _{10d}	6*10 ⁶
	N _{op} (接受) accept	52560/年year
	IEC 61508 PFH _s	9.99*10 ⁻⁸ 1/h(SIL3)

安全触边与安全控制器QRSN-SR系列或QRSN-SRA系列组成的安全地毯系统符合以下标准
Safety Carpet System consisting of Safety Contact and Safety Controller QRSN-SR Series
or QRSN-SRA Series meets the following standards

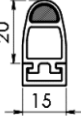
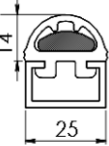
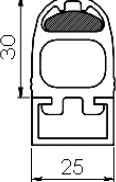
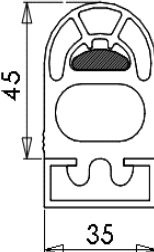
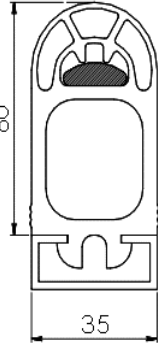
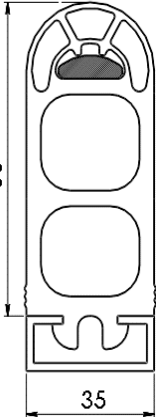
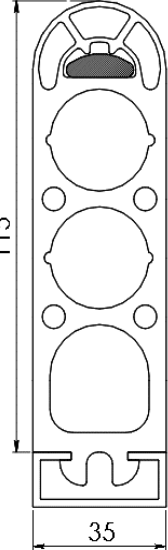
EN1760-1 ISO13856-1 EN62061 EN ISO13849-1 IEC61508 EN60204-1

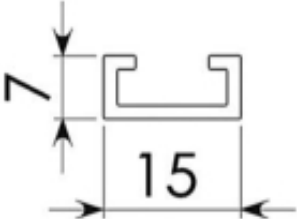
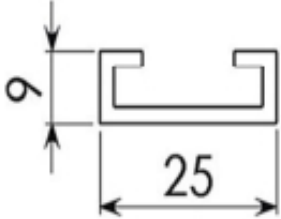
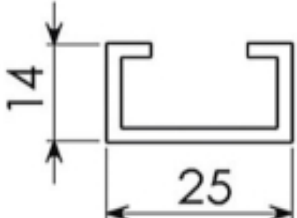
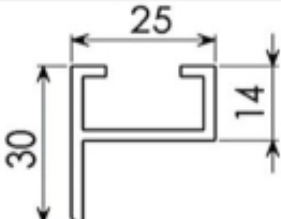
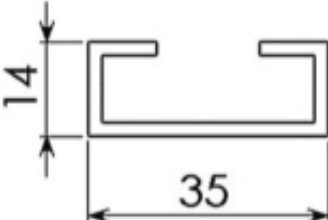
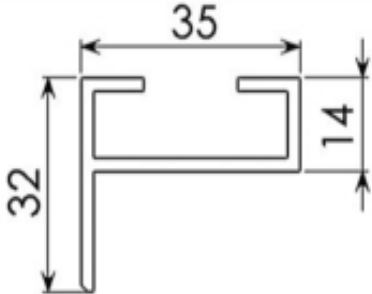
2.安全触边技术说明
Technical description of safe contact

1)安全触边规格及应用性能
Safety Contact Size and Application Performance

规格型号 Specification type	基座宽度 Base width (mm)	触发距离 Trigger distance (mm)	触发力 Triggering force (N)	超行程 Over stroke (mm)
DB-PSE-110	15	< 3	> 25	> 4
DB-PSE-120	15	< 3	> 25	> 12
DB-PSE-215	25	< 3	> 35	> 4
DB-PSE-230	25	< 3	> 50	> 19
DB-PSE-345	35	< 5	> 75	> 31
DB-PSE-360	35	< 5	> 75	> 46
DB-PSE-380	35	< 5	> 75	> 61
DB-PSE-3120	35	< 5	> 75	> 82

2)安全触边外形尺寸及安装基座
Safety Contact Size and Installation Base

安全触边断面外形表 Section Profile of Safe Contact Edge							
型号 type	DB-PSE -120	DB-PSE -215	DB-PSE 230	DB-PSE-345	DB-PSE-360	DB-PSE-380	DB-PSE-3120
外形尺寸 Outline size							

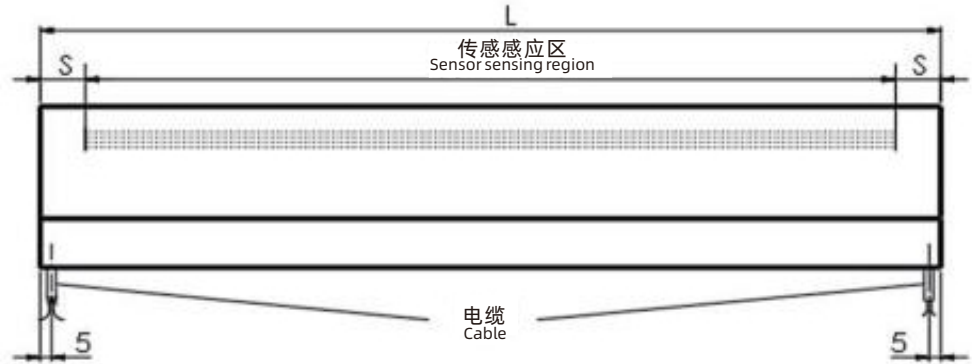
安全触边安装基座及适用规格 Safety Contact Installation Base and Applicable Specification		
15mm C型基座 15mm C base		适用于PSE-125型安全触边 Suitable for PSE-125 safety contact
25mm CS型基座 25mm CS base		适用于PSE-215、PSE-230型安全触边 Suitable for PSE-215, PSE-230 safety contact
25mm C型基座 25mm C base		适用于PSE-215、PSE-230型安全触边 Suitable for PSE-215, PSE-230 safety contact
25mm CL型基座 25mm CL base		适用于PSE-215、PSE-230型安全触边 Suitable for PSE-215, PSE-230 safety contact
35mm C型基座 35mm C base		适用于PSE-345、PSE-360、PSE-380、 PSE-3120型安全触边 Suitable for PSE-345、PSE-360、PSE-380、 PSE-3120 safety contact
35mm CL型基座 35mm CL base		适用于PSE-345、PSE-360、PSE-380、 PSE-3120型安全触边 Suitable for PSE-345、PSE-360、PSE-380、 PSE-3120 safety contact

3)安全触边技术参数及配置类型

Technical parameters and configuration types of safety contact

安全触边标准产品长度L=200mm-6100mm,
安全触边两端有非传感感应区, 非传感感应长度S=20mm
Standard product length of safety contact L = 200mm-6100mm.

There are non-sensing sensing sensing areas at both ends of the safe contact edge, and the non-sensing sensing sensing length S=20mm



安全触边根据系统配置分为R型和K型两种型号。选择不同的组合, 可以实现一台机器多个防护部位的安全防护。可以采用多个安全触边串联的安装方式, 实现多部位的防护。可以多区域分别控制, 也可以单区域控制。一个单区域控制串联使用安全触边的数量应<10个, 单区域安全触边的有效长度应<30m。

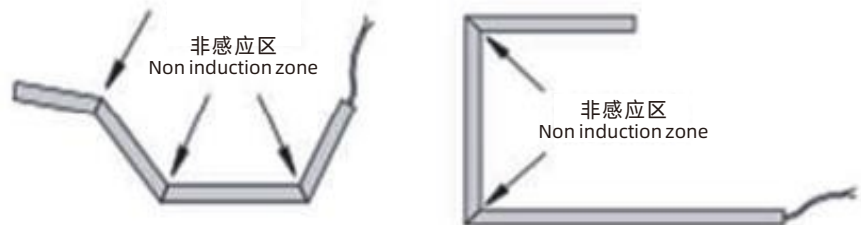
需要注意安全触边串联安装时两个安全触边相邻的非感应区不应在需要提供防护的区域内。以保证防护区域的安全可靠。

要尽量避免安全触边的直接对接安装, 因为在其直角对接部分是非感应区, 不能提供有效的安全保护。

Safety contact can be divided into R type and K type according to system configuration. By choosing different combinations, the safety protection of multiple protective parts of a machine can be realized. It can adopt the installation mode of series connection of multiple safety contacts to realize the protection of multiple parts. It can be controlled by multi-area or single-area. The number of safety contacts used in series by single area control should be less than 10, and the effective length of single area safety contacts should be less than 30 m.

It should be noted that the non-inductive zone adjacent to the two safety contacts should not be in the area where protection is required when installing the safety contacts in series. To ensure the safety and reliability of the protection area.

It is necessary to avoid the direct docking installation of safety contact edge as far as possible, because the right-angle docking part is non-inductive area, which can not provide effective safety protection.



若安全触边的信号电缆长度2米无法满足您的要求, 请在订货时声明。

If the length of the signal cable with safety contact is 2 meters which can not meet your requirements, please declare when ordering.

配置类型 Configuration type	配置示意图 Configuration diagram	电缆与终端配置 Cable and terminal configuration
K型安全触边传感器 K-type safety contact sensor		两端出线均为两芯电缆, 黑色TPE护套Φ4mm 2*0.35mm ² 。电缆长度为2m Both ends are two-core cables with black TPE sheath 4mm 2*0.35mm ² . Cable length is 2m
R型安全触边传感器 R-type safety contact sensor		一端两芯电缆, 黑色TPE护套Φ4mm 2*0.35mm ² 。电缆长度为2m, 封装电阻R=1.2KΩ Two-core cable at one end, black TPE sheath 4mm 2*0.35mm ² . Cable length is 2m, encapsulation resistance R=1.2KΩ

4)异型安全触边

Special-shaped safety contact

所有型号的安全触边都可以非直线形安装，可以折弯或弯曲，以满足各种安装场合。我们为用户提供符合以下技术参数

的产品。All models of safety contact can be installed in a non-linear form, and can be bent or bent to meet various installation occasions. We provide users with products that meet the following technical parameters.

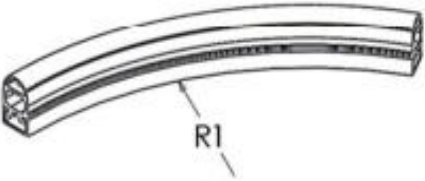
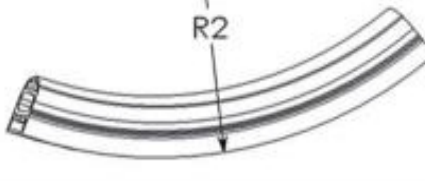
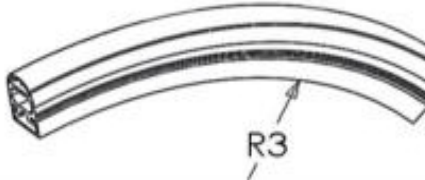
各种规格的安全触边折弯角度如下：

The safety contact bending angles of various specifications are as follows:

最大折弯角度 Maximum bending angle				
型号 Model	A	B	C	
DB-PSE-125	20°	20°	15°	
DB-PSE-215	20°	20°	20°	
DB-PSE-230	20°	20°	15°	
DB-PSE-345	15°	15°	10°	
DB-PSE-360	15°	15°	8°	
DB-PSE-380	15°	15°	5°	
DB-PSE-3120	15°	15°	5°	

各种规格的安全触边的各坐标圆弧半径如下：

The coordinate arc radius of safety contact edges of various specifications are as follows:

最大折弯角度 Maximum bending angle				
型号 Model	R1	R2	R3	
DB-PSE-125	300	450	450	
DB-PSE-215	400	350	350	
DB-PSE-230	400	450	450	
DB-PSE-345	400	450	450	
DB-PSE-360	400	500	450	
DB-PSE-380	500	600	450	
DB-PSE-3120	600	800	450	

5)安全触边的化学耐抗性

Chemical Resistance of Safe Contact Edge

安全触边的化学耐抗性 Chemical Resistance of Safe Contact Edge		
编号 number	溶液名称 Name of solution	耐抗性 Resistance to resistance
1	稀酸 Dilute acid	+
2	稀碱 dilute base	+
3	非氧化酸 Non oxidized acid	+
4	金属加工油 Metal processing oil	±
5	植物油 Vegetable oil	+
6	酯类溶剂 Ester solvent	+
7	溶剂(汽油) Solvent (gasoline)	±
8	芳香烃 烃类 Aromatic hydrocarbons	-
9	酒精 alcohol	+
10	氨水 ammonia	+
11	制动液 Brake fluid	+
12	切割乳化液 Cutting Emulsion	+
13	乙酸 Acetic acid	+
14	丙酮 acetone	+
15	钾肥 Potash	+
16	甲醇 Methanol	+
17	稀料 Thinner	-
18	肥皂水 Soap water	+
19	水 water	+
注: +耐抗 ±弱耐抗 -不耐抗 Note: + resistance ±weak resistance - not resistant		

3.安全触边的系统配置及应用

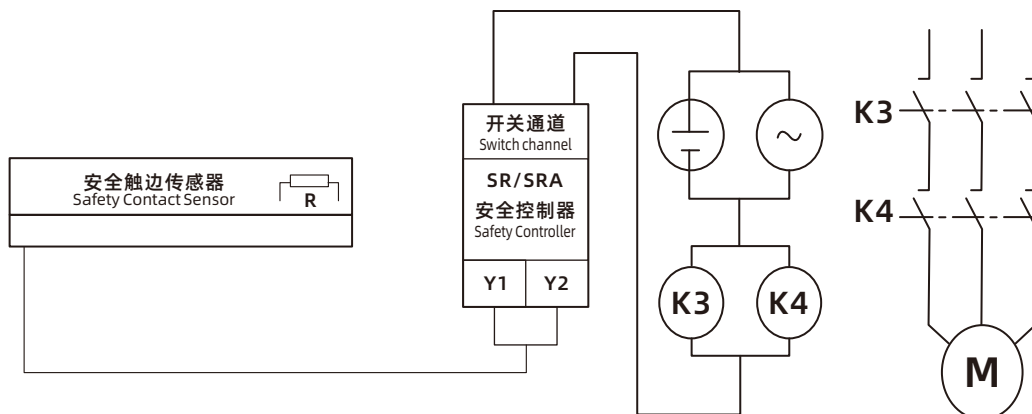
System Configuration and Application of Safety Contact Edge

1)传感模式安全控制器的系统连接

System Connection of Sensor Mode Security Controller

SR系列/SRA系列安全控制器是专为安全触边传感器设计的传感模式安全控制器。与这种安全控制器组成的安全地毯系统符合EN1760-1、ISO13856、EN62061、ISO13849-1、IEC61508、EN60204-1标准。

SR/SRA Series Safety Controller is a sensor mode safety controller designed for safety contact sensor. The safety carpet system consisting of the safety controller meets EN1760-1, ISO13856, EN62061, ISO13849-1, IEC61508 and EN60204-1 standards.



安全触边可以单独使用，也可以根据需要防护的区域，将几个安全触边串联成一个防护区域使用。可以根据实际安装条件及需求选择以下组合方案：

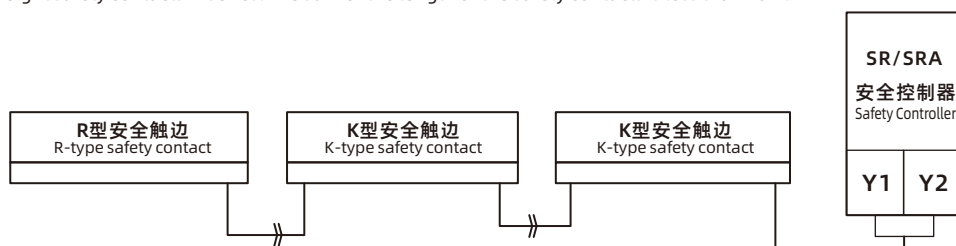
Safety contact can be used alone, or several safety contacts can be connected in series into a protective area according to the need to protect the area. The following combination schemes can be selected according to the actual installation conditions and requirements:

◆ 传感输出——安全触边的R/K型串联组合：

Sensor Output - R/K Series Combination of Safe Contact Edge:

这种组合一般用于传感输出模式，单区域多个安全触边组合使用，这种拼接方式用于一个移动结构多点防护的场合，串联连接一个组合最多允许8个安全触边串联，安全触边长度之和 $\leq 40\text{m}$ 。

This combination is generally used in the output mode of sensor and the combination of multiple safety contacts in a single area. This splicing method is used in the case of multi-point protection of a mobile structure. A combination can be connected in series with up to eight safety contacts in series. The sum of the length of the safety contacts is less than 40m.

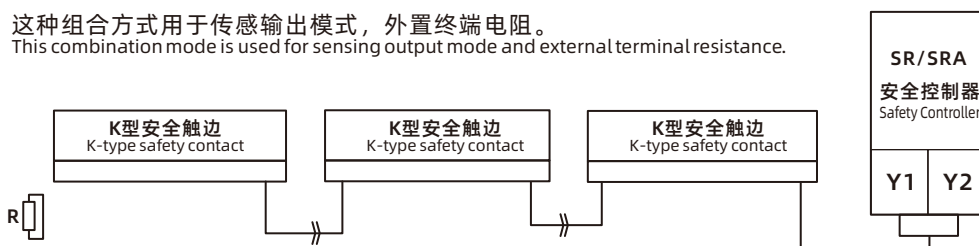


◆ 传感输出——安全触边的K/K型组合：

Sensor Output-K/K Combination of Safe Contact Edge:

这种组合方式用于传感输出模式，外置终端电阻。

This combination mode is used for sensing output mode and external terminal resistance.

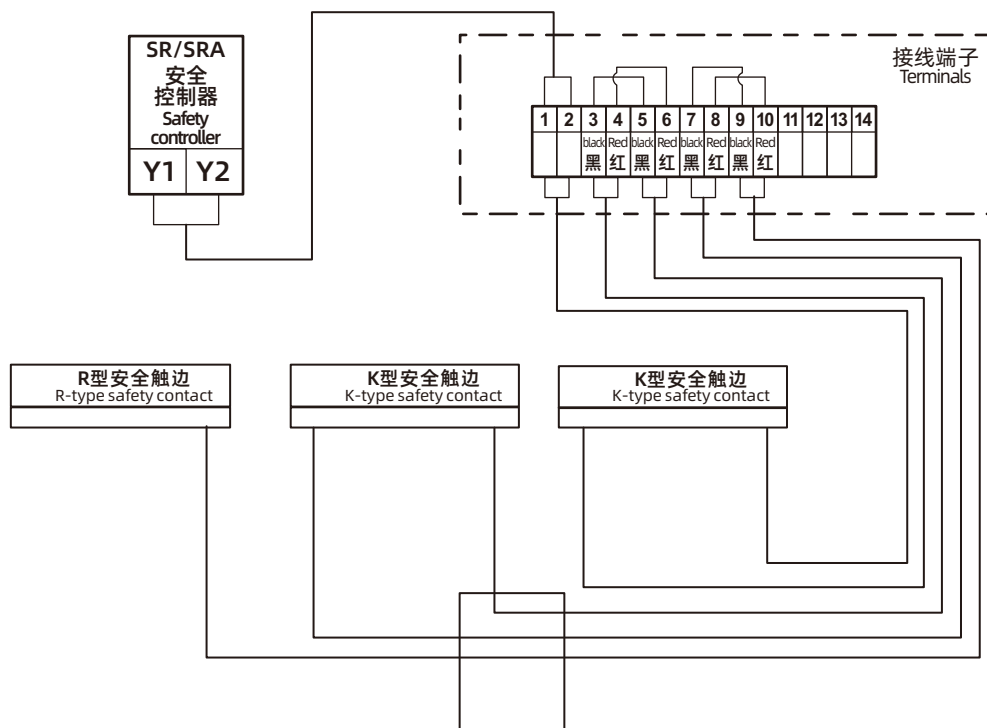


◆ 传感输出——使用接线端子的R/K型串联组合：

Sensor Output - R/K Series Combination Using Connection Terminals:

这种组合用于传感输出模式，多区域的多块安全触边串联安装使用。这种拼接方式用于一个操作人员对一台机器多操作工位的安全防护。（注：若采用此种系统设计，需注意电缆长度。）

This combination is used for sensing output mode, multi-area and multi-block safe contact installation and use in series. This splicing method is used for the safety protection of an operator for a machine with multiple operating positions. (Note: Cable length should be paid attention to if the design of this system is adopted.)

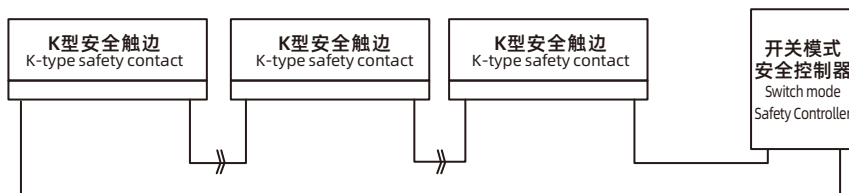


2) 开关模式安全控制器的系统连接（其它厂家的开关模式安全控制器）

System Connection of Switch Mode Safety Controller (Switch Mode Safety Controller of Other Manufacturers)

安全触边传感器既可以与SR系列和SRA系列传感模式安全控制器匹配，也可以与其它厂家的开关模式安全控制器匹配使用。开关输出模式单区域多根安全触边传感器拼装系统连接方式见下图：

The safety contact sensor can be matched not only with SR and SRA sensor mode safety controllers, but also with other manufacturers' switch mode safety controllers. Switch output mode, single area, multiple safety contact sensors assembling system connection mode is shown in the following figure:



建议：接入开关输出模式安全控制器的拼接安全触边的总长度应该 $\leq 15\text{m}$ 。开关模式安全控制器使用的参数匹配请咨询安全控制器生产厂家。

Suggestion: The total length of the splicing safety contacts of the output mode safety controller of the access switch should be less than 15m. For parameter matching of switching mode safety controller, consult the manufacturer of safety controller.

4.安全触边的选型
Selection of Safety Contact Edge

安全触边选型表 Safety Contact Type Selection Table											
1区 1 District		2区 2 District		3区 3 District		4区 4 District		5区 5 District		6区 6 District	
系列分类 Series classification		产品编码 Product coding		规格尺寸 Specification size		系统配置 system configuration		安装方式 Installation mode		其他 Other	
系列 Series	代码 Code	产品分类 Product classification	代码 Code	尺寸 size	说明 Explain	配置 configuration	说明 Explain	代码 Code	说明 Explain	代码 Code	说明 Explain
安全触边 传感器 Safety Contact Sensor	DB-PSE	基座宽度15mm Base width 触边高度25mm Contact height	125	A	安全触边 长度（厘米） Safety touch Length (cm)	R	有终端电阻 2芯线缆 2-core cable with terminal resistance	C	C型安装 基座 C-type mounting base	S	异型定制 Special-shaped customization
		基座宽度25mm 触边高度15mm	215								
		基座宽度15mm 触边高度25mm	230								
		基座宽度15mm 触边高度25mm	345			K	无终端电阻 4芯线缆 4-core cable without terminal resistance	L	L型安装 基座 L-type mounting base		
		基座宽度15mm 触边高度25mm	360								
		基座宽度15mm 触边高度25mm	380								
		基座宽度15mm 触边高度25mm	312								

选型举例 Example of selection

DB-PSE230-120-R-C 为安装导轨宽度25mm 缓冲体高度30mm 长度120cm 有终端电阻 2线输出型安全触边，安装导轨为C型
DB-PSE230-120-R-C is a type of safety contact with terminal resistance 2-wire output. The width of the installation guide is 25 mm, the height of the buffer is 30 mm, the length is 120 cm. The installation guide is type C.

5.使用注意事项：
Use precautions:

- ◆ 请勿长时间对安全触边的某个位置施加负载，否则可能会导致安全触边损坏。
- ◆ 请勿将安全触边浸没于水中或用于频繁溅水的场合。
- ◆ 请勿通过拽拉电缆的方式提起或搬动安全触边。
- ◆ 请严格按产品的化学耐抗性使用。
- ◆ Do not load the safe contact for a long time, otherwise it may cause damage to the safe contact.
- ◆ Do not immerse the safety contact in water or use it in occasions of frequent splashes.
- ◆ Do not lift or move the safety contact by pulling the cable.
- ◆ Please use the product strictly according to its chemical resistance.

安全缓冲传感器 Safety Buffer Sensor

DT-PSB 系列 DT-PSB series

- 安全缓冲传感器主要应用于机库门、AGV运输车、自动输送系统等领域。防止对机器和人的挤压危害。
- DT的缓冲器是传感模式控制的安全系统，具有部件自诊断功能。系统的可靠性优于开关模式控制系统。
- 触发及缓冲行程及触发灵敏度可满足各种需求。
- 安全缓冲传感器可扩展应用到开关模式控制的系统。
- 安全缓冲器防护等级：IP65 (IP54)
- 安全缓冲器有R型、K型，4种标准安装导轨。
- 安全缓冲器机械寿命>100万次
- 外表面PU、PVC封装或织物包覆。
- 外表面黑色（色卡9005/1021），也可按用户要求制作。

Safety buffer sensor is mainly used in hangar door, AGV transporter, automatic conveying system and other fields. Prevent extrusion hazards to machines and people.

The buffer of DT is a safety system controlled by sensing mode, which has the function of self-diagnosis of components. The reliability of the system is better than that of the switching mode control system. Trigger and buffer stroke and trigger sensitivity can meet various requirements.

Safety buffer sensor can be extended to switch mode control system.

Security Buffer Protection Level: IP65 (IP54)

Safety bumper has R type, K type, 4 kinds of standard installation guide rail.

Safety buffer mechanical life > 1 million times
External surface PU, PVC packaging or fabric coating.

The outer surface is black (color card 9005/1021), which can also be made according to user's requirements.



1.安全缓冲器技术标准

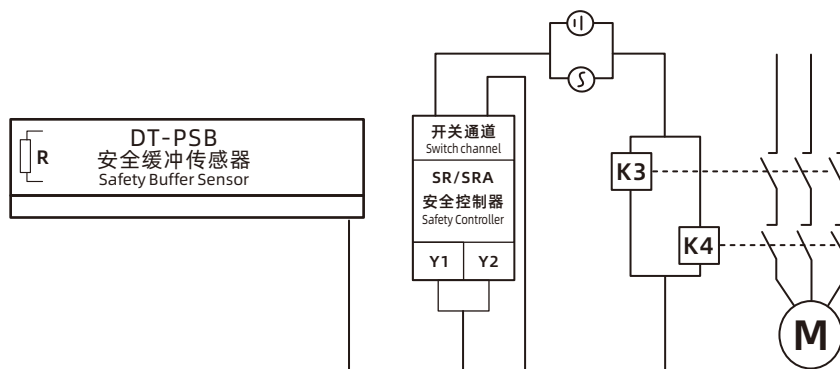
Safety Buffer Technical Standard

项目 project		型号 Model		DT-PSB	
安全缓冲器类型 Safety Buffer Type		A型（传感器后置型） Type A (Sensor Postposition)		F型（传感器前置型） Type F (Sensor Front-end)	
面层材料 Surface material		PU、PVC	织物材料 Fabric material	PU、PVC	织物材料 Fabric material
检测方式 Detection mode		压力传感方式Pressure sensing mode			
触发力 Triggering force		< 150N-600N		< 50N-150N	
最大感应角度 Maximum induction angle		< 90°			
机械寿命 Mechanical life		> 1,000,000次 second	> 100,000次 second	> 1,000,000次 second	> 100,000次 second
耐腐蚀性 Corrosion resistance		耐蚀性（见附表） Corrosion resistance (see table)	耐机油、柴油等 Resistant to oil, diesel, etc.	耐蚀性（见附表） Corrosion resistance (see table)	耐机油、柴油等 Resistant to oil, diesel, etc.
环境温度 ambient temperature		-20℃——+55℃			
防护等级 Protection level		IP65	IP54	IP65	IP54
安全分类 Safety classification	EN 1760-1: 重置命令 Reset command	支持(手动/自动)Support(Manual/automatic)			
	ISO 13849-1: 2006	分类 3 classification			
	MTTF _d	> 30年year			
	B _{10d}	6*10 ⁶			
	N _{op} (接受accept)	52560/年year			
	IEC 61508:PFH	9.99*10 ⁻⁸ 1/h(SIL3)			
安全缓冲传感器与安全控制器QRSN-SR系列或QRSN-SRA系列共同组成的安全地毯系统符合以下标准。 The safety carpet system composed of safety buffer sensor and safety controller QRSN-RS series or QRSN-SRA series meets the following standards.					
EN1760-1 ISO13856-1 EN62061 EN ISO13849-1 IEC61508 EN60204-1					

2.安全缓冲器技术说明

Technical description of safety buffer

安全缓冲器是包括缓冲传感器、信号输出线缆和安全控制器组成的保护装置。
Safety buffer is a protective device consisting of buffer sensor, signal output cable and safety controller.



施加压力在缓冲传感器上将产生控制指令，控制指令通过信号传输线缆输送给安全控制器，安全控制器将控制指令转换成信号输出到机器的控制系统，从而达到对机器的控制。

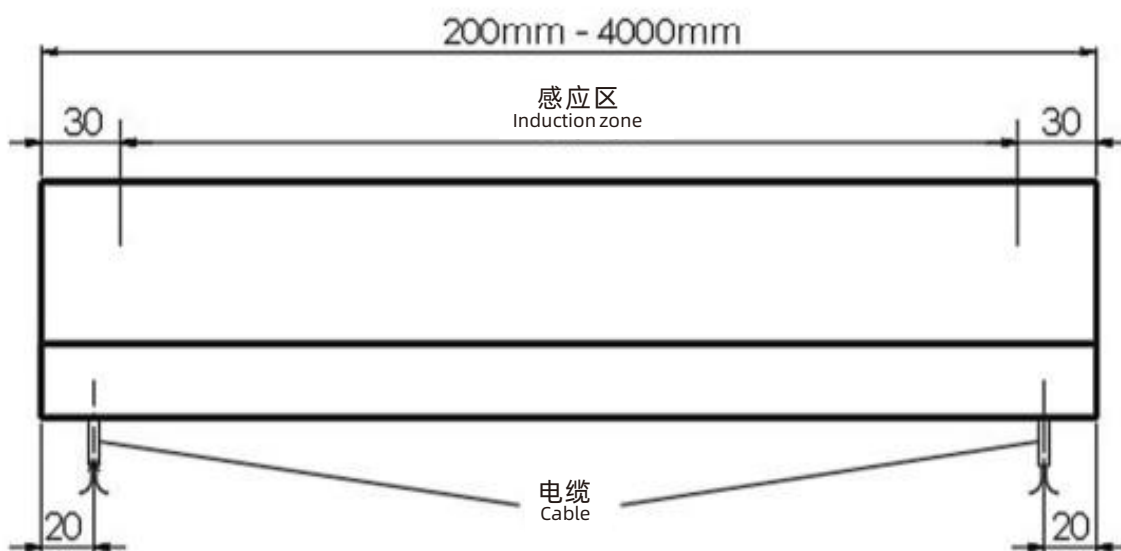
Pressure will produce control instructions on the buffer sensor. The control instructions are transmitted to the safety controller through the signal transmission cable. The safety controller converts the control instructions into signals and outputs them to the control system of the machine to achieve the control of the machine.

1)安全缓冲器产品标准:

Safety Buffer Product Standards:

安全缓冲器长度范围为200mm-4000mm。安全缓冲器两端各有一长度为30mm的非感应区。非感应区域不能提供防止挤压的安全保护。

The length of the safety buffer ranges from 200 mm to 4000 mm. Each end of the safety buffer has a non-inductive area of 30 mm in length. Non-inductive area can not provide safety protection against extrusion.



安全缓冲器的信号输出线缆为黑色TPE护套VVRΦ4mm；2x0.35mm²铜芯电缆。

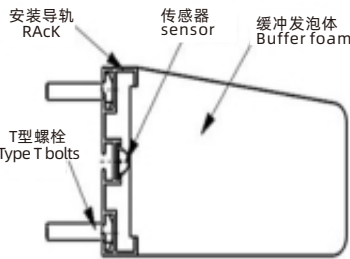
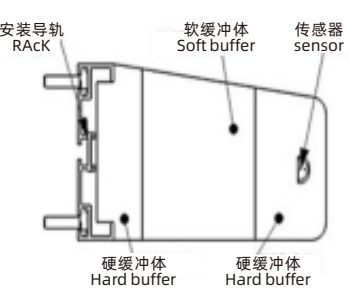
The signal output cable of safety buffer is black TPE sheath VVRΦ4mm and 2x0.35mm² copper core cable.

2) 安全缓冲器类型
Safety Buffer Type

安全缓冲器配置类型分为R型安全缓冲器和K型安全缓冲器，配置类型如下：
The configuration types of security buffer are divided into R-type security buffer and K-type security buffer.
The configuration types are as follows:

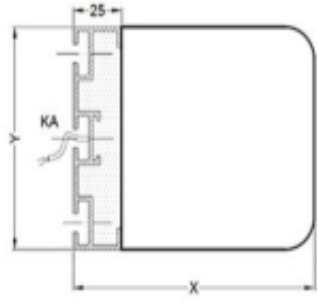
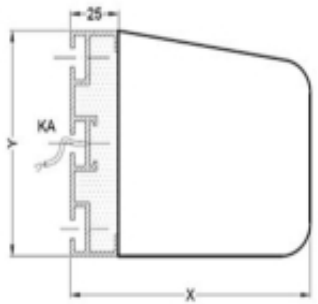
安全缓冲器配置类型 Security Buffer Configuration Type	
R型安全缓冲器 R-type safety buffer	K型安全缓冲器 K-type safety buffer
	
一端两芯电缆，黑色TPE护套Φ4mm 2*0.35mm² 电缆长度为2m，封装电阻R=1.2KΩ One end two core cable, black TPE sheath 4m m 2*0.35mm² cable length is 2m, encapsulation resistance R=1.2KΩ	两端出线均为两芯电缆，黑色TPE护套Φ4mm 2*0.35mm² 电缆长度为2m Both ends are two-core cables, The length of black TPE sheath 4m m 2*0.35mm cable is 2m.

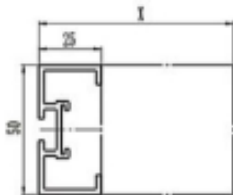
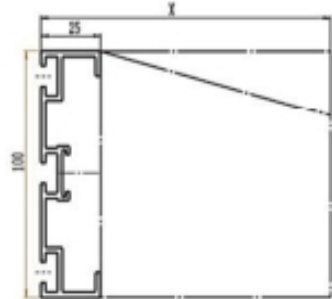
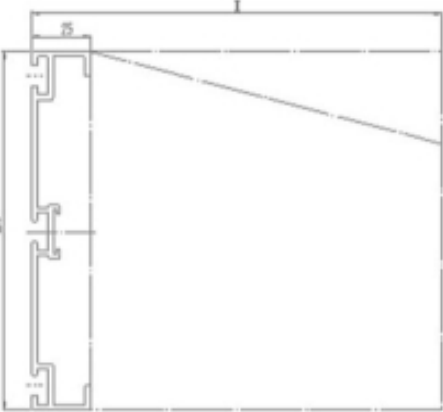
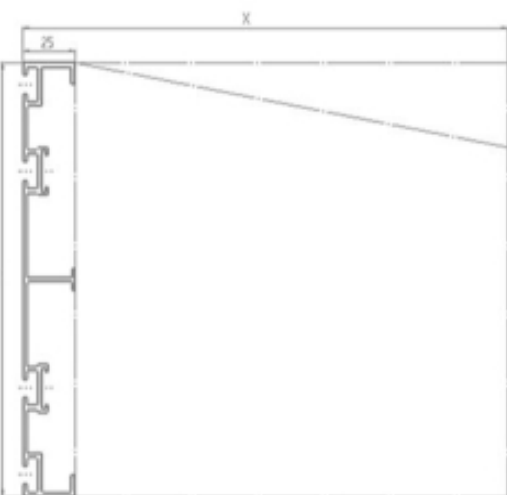
安全缓冲器根据防护用途不同分为A型（传感器后置）安全缓冲器和F型（传感器前置）安全缓冲器。两种类型的安全缓冲器触发力不同，分别应用于不同的安全防护目的。
Safety buffer can be divided into type A (sensor rear) safety buffer and type F (sensor front) safety buffer according to different protection purposes.
The triggering force of the two types of safety buffers is different, and they are applied to different safety protection purposes.

安全缓冲器使用类型 Safety buffer usage type	
A型安全缓冲器 Type A Safety Buffer	F型安全缓冲器 Type F Safety Buffer
	
触发力<150N-600N,属于重触发型安全缓冲器。缓冲超行程较小, 适用于自动输送机的安全防护。多应用于对设备的安全防护。 The trigger force is less than 150N-600N, which belongs to the re-triggered safety buffer. The buffer overrun is small. It is suitable for the safety protection of automatic conveyor. It is mostly applied to the safety protection of equipment.	触发力<50N-150N,属于轻触发型安全缓冲器，缓冲超行程大， 适用于各种自动行进设备及特殊防护场合。 The trigger force is less than 50N-150N, which belongs to the light trigger type safety buffer with large buffer overrun. It is suitable for all kinds of automatic travel equipment and special protective occasions.

3) 缓冲发泡体及安装导轨
Buffer Foam Body and Installation Guide

安全缓冲器有2种缓冲体形状，用户可以根据使用性质选择：
There are two kinds of buffer shapes in the security buffer. Users can choose according to the nature of use:

A型缓冲发泡体 Buffer foam type A	B型缓冲发泡体 Buffer foam type B
	

安全缓冲器安装导轨及缓冲体深度 Safety Buffer Installation Guide and Buffer Depth		
1型导轨 1 guide rail (50mm)		缓冲发泡体: A型, 缓冲器深度: X=60mm-150mm 安装螺栓位置: 导轨中心 Buffer foam body: type A, Buffer Depth: X = 60mm-150mm Installation bolt position: guide rail center
2型导轨 2 guide rail (100mm)		缓冲发泡体: A型、B型 缓冲器深度: X=60mm-200mm 安装螺栓位置: 导轨中心或 80mm对称槽口 Buffer foams: type A, type B Buffer Depth: X = 60mm-200mm Installation bolt position: guide rail center or 80mm symmetrical groove
3型导轨 3 guide rail (150mm)		缓冲发泡体: A型、B型 缓冲器深度: X=60mm-300mm 安装螺栓位置: 导轨中心或 130mm对称槽口 Buffer foams: type A, type B Buffer Depth: X = 60mm-300mm Installation bolt position: guide rail center or 130mm symmetrical groove
4型导轨 4 guide rail (200mm)		缓冲发泡体: A型、B型 缓冲器深度: X=60mm-500mm 安装螺栓位置: 180mm或 100mm对称槽口 Buffer foams: type A, type B Buffer Depth: X = 60mm-500mm Installation bolt position: 180mm or 100mm symmetrical groove

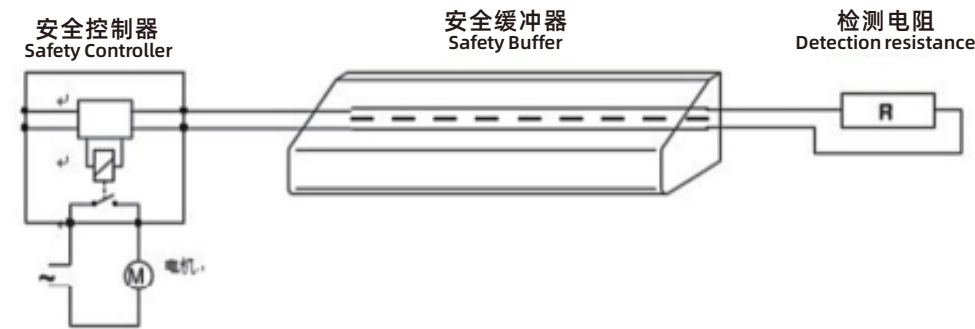
4) 安全缓冲器的阻抗
Impedance of Safety Buffer

DT-PSB安全缓冲器化学耐抗性 Chemical Resistance of DT-PSB Safety Buffer				
编号 number	溶液名称 Name of solution	PU防护层 PU protective layer 耐抗性 Resistance to resistance	PVC防护层 PVC protective layer 耐抗性 Resistance to resistance	织物防护层 Fabric protective layer 耐抗性 Resistance to resistance
1	稀酸 Dilute acid	+	+	-
2	稀碱 dilute base	+	+	-
3	非氧化酸 Non oxidized acid	+	+	+
4	金属加工油 Metal processing oil	+	+	+
5	植物油 Vegetable oil	+	+	+
6	酯类溶剂 Ester solvent	-	-	-
7	溶剂(汽油) Solvent (gasoline)	±	-	-
8	芳香烃 烃类 Aromatic hydrocarbons	-	-	-
9	酒精 alcohol	+	+	+
10	氨水 ammonia	+	+	-
11	制动液 Brake fluid	±	+	-
12	切割乳化液 Cutting Emulsion	+	+	+
13	乙酸 Acetic acid	+	+	-
14	丙酮 acetone	+	-	-
15	钾肥 Potash	±	±	-
16	甲醇 Methanol	+	+	-
17	稀料 Thinner	-	-	-
18	肥皂水 Soap water	+	+	+
19	水 water	+	+	+
注：+耐抗 ±弱耐抗 -不耐抗 Note: + resistance ±weak resistance - not resistant				

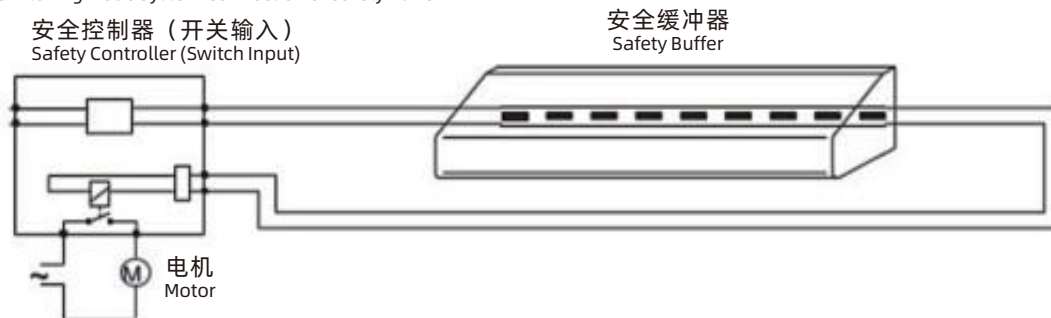
3.安全缓冲器的系统使用
System Use of Safety Buffer

DT-PSB型安全缓冲器兼容传感模式系统和开关模式系统，两种控制模式的系统连接原理如下：
DT-PSB type safety buffer is compatible with sensor mode system and switch mode system. The system connection principle of the two control modes is as follows:

1) 安全缓冲器的传感模式系统连接
Sensor Mode System Connection of Safety Buffer



3)安全缓冲器的开关模式系统连接 Switching Mode System Connection of Safety Buffer



安全缓冲器可以单独使用，也可以几个安全缓冲器串联组成一个系统使用，可以采用安全缓冲器的R/K型组合，也可以采用安全缓冲器的K/K型组合。具体连接方案请参见安全触边部分。

The safety buffer can be used alone or in combination with several safety buffers. It can be used in a combination of R/K type of safety buffer or K/K type combination of safety buffer. Please refer to the safety touch section for the specific connection scheme.

4.安全缓冲器的选型 Safety buffer selection

安全触边选型表 Safety Contact Type Selection Table											
1区 1 District		2区 2 District		3区 3 District		4区 4 District		5区 5 District		6区 6 District	
系列分类 Series classification		产品编码 Product coding		规格尺寸 Specification size		系统配置 system configuration		类型 Types of		其他 Other	
系列 Series	代码 Code	产品分类 Product classification	代码 Code	尺寸 size	说明 Explain	配置 configuration	说明 Explain	代码 Code	说明 Explain	代码 Code	说明 Explain
安全缓冲型传感器 Safety buffer type sensor	DT-PSB	50mm安装导轨 RACK	1	A*B	A为深度 B为长度 (毫米) A for depth B is length (mm)	R	有终端电阻 2芯线缆 2-core cable with terminal resistance	A	后置 传感器型 Postsensor type	R	红色 red
		100mm安装导轨 RACK	2				K		无终端电阻 4芯线缆 4-core cable without terminal resistance		F
		150mm安装导轨 RACK	3			W		黑/黄条色 Black/yellow stripe			
		200mm安装导轨 RACK	4								
选型举例 Example of selection											
DT-PSB1-80*9DD-R-A 为宽度50mm安装导轨、缓冲器深度80mm、长度900mm 有终端电阻传感器后置型安全缓冲器 Install rear-mounted safety buffer with terminal resistance sensor for 50mm width, 80mm buffer depth and 900mm length											

- 安全缓冲传感器成套供货，供货包括安装导轨及安装附件。
 - 安全缓冲器根据使用条件选用不同的表面包覆材料，请在订货确认单上注明，以便我们为您提供满足您使用环境的表面包覆材料。
- Safety buffer sensor set supply, including installation of guide rail and accessories.
Safety bumpers choose different surface coating materials according to the conditions of use.
Please specify them on the order confirmation sheet so that we can provide you with surface coating materials to meet your use environment.

5.使用注意事项： Use precautions:

- ◆ 请勿长时间对安全缓冲器的某个位置施加负载，否则可能会导致安全缓冲器损坏。
- ◆ 请勿划破安全缓冲器面层，一旦面层破损，安全缓冲器使用寿命将大大降低。
- ◆ 请勿通过拽拉电缆的方式提起或搬动安全缓冲器。
- ◆ 请严格按产品的化学耐抗性选用安全缓冲器。

Do not load the security buffer for a long time, or it may cause damage to the security buffer.

Do not scratch the surface layer of the safety buffer. Once the surface layer is damaged, the service life of the safety buffer will be greatly reduced.

Do not lift or move the safety buffer by pulling the cable.

Please select the safety buffer strictly according to the chemical resistance of the product.

乘用车防夹安全边传感器

Safety Side Sensor for Passenger Vehicle Anti-pinch

DT-PSEC 系列

DT-PSEC series



- 触发灵敏度高，一般在10N至50N之间
- 尺寸小，便于隐蔽安装。外形及安装方式可任意配置
- 适应极端气候条件
- 兼顾密封条功能
- 适合乘用车侧滑门、后备箱门、天窗、隔断门窗等使用
- TPE材质封装，装夹安装或3M丙烯酸胶带粘接安装
- The trigger sensitivity is high, usually between 10N and 50N.
- Small size, easy to install concealed. Shape and installation mode can be disposed arbitrarily
- Adaptation to extreme climatic conditions
- Consideration of Sealing Strip Function
- Suitable for passenger car side sliding doors, backup box doors, skylights, partition doors and windows, etc.
- TPE material package, clamping installation or 3M propylene tape bonding installation

1. 产品技术特征

Technical description of safety buffer

项目 project	型号 Model	DT-PSEC
检测方式 Detection mode		压力传感方式Pressure sensing mode
操作力 Operational power		<10N-50N
机械寿命 Mechanical life		> 1,000,000次 second
表面防护层材质 Material of Surface Protective Layer		TPE
环境温度 ambient temperature		-25℃- 80℃
防护等级 Protection level		Ip65
最大湿度（23度） Maximum humidity (23 degrees)		95%(结露Condensation)
响应时间 response time		10ms
安全分类 Safety classification	EN 1760-1: 重置命令 Reset command	支持Support
	ISO 13849-1: 2006	分类 3 classification
	MTTF _d	> 30年year
	B _{10d}	6*10 ⁶
	N _{op} (接受accept)	52560/年year
	IEC 61508:PFH	9.99*10 ⁻³ 1/h (SIL3)

2.乘用车防夹安全边传感器常用标准表

Standard Table for Safety Side Sensors of Passenger Vehicles

乘用车防夹安全边传感器基本参数

Basic Parameters of Safety Side Sensor for Passenger Vehicle Anti-pinch

	PSE-0C01	PSE-0C02	PSE-0M01	PSE-0C03	PSE-0C04	PSE-0C05	PSE-0C12	PSE-0C10	PSE-0C15
断面形状 Section shape									
防护等级 Protection level	IP65								
感应耐久测试 Induction Durability Test	测试头 Φ10mm/测试力 F=100N 测试次数>3,000,000次 Test head Φ10mm/test force F=100N test times>3,000,000 times								
感应力 Induction force	<25N	<50N	<35N	<40N	<40N	<50N	<50N	<50N	<50N
感应行程 Induction stroke	<1.5mm	<2mm	<1mm	<2mm	<2mm	<1.2mm	<2mm	<2mm	<2mm
有效感应角 Effective induction angle	<60°	<80°	<80°	<100°	<80°	<60°	<80°	<60°	<80°
内圆弯曲半径 Bending radius of inner circle	>80mm	>150mm	>80mm	>70mm	>150mm	>500mm	>150mm	>150mm	>150mm
外圆弯曲半径 Circle bending radius	>50mm	>120mm	>50mm	>60mm	>120mm	>300mm	>120mm	>120mm	>120mm
平面弯曲半径 Planar bending radius	>120mm	>20mm	>120mm	>30mm	>20mm	>15mm	>20mm	>20mm	>20mm
使用温度 Service temperature	零下25℃到80℃ Between 25 °C and 80 °C								
短时极限温度 Short-term limit temperature	零下40℃到95℃ Between 40 °C and 95 °C								
终端电阻 Terminal resistance	1.2KΩ±1%								
功率 power	max. 250 mW								
表面电阻 Surface resistance	<300Ω(触发时When triggered)								
额定电功率 Rated power	电压Voltage max. 24V DC 电流max. 20mA min.1mA (无终端电阻No terminating resistor)								
连接电缆 Connecting cable	TPE护套 TPE jacket Φ3.7mm 2*0.35mm ²	TPE护套 TPE jacket Φ3.4mm 2*0.25mm ²	PVC护套 PVC jacket Φ1.4mm 2*0.35mm ²	TPE护套 TPE jacket Φ4.1mm 2*0.35mm ²	TPE护套 TPE jacket Φ3.4mm 2*0.25mm ²	PVC护套 PVC jacket Φ1.4mm 2*0.35mm ²	PVC护套 PVC jacket Φ2.7mm 2*0.25mm ²	TPE护套 TPE jacket Φ3.7mm 2*0.25mm ²	PVC护套 PVC jacket Φ2.7mm 2*0.25mm ²
等级Grade IEC 60228	5	6	5	6	6	5	6	6	5
尺寸误差 Dimensional error	符合meets the ISO 3302 L2 和and ISO 3002 E2								

根据汽车生产厂需求，接受厂家定制。

According to the needs of automobile manufacturers, they accept factory customization.

安全控制器 Safety controller

QRSN-SR系列series/QRSN-SRA系列series

- 产品适用于安全防护与智能控制;
- 控制器支持手动和自动复位, 适用于直流/交流24V, 交流220V电压环境;
- 性能等级PLE, 符合EN ISO13849, 安全等级Cat.4, 机械寿命100万次以上。
- The product is suitable for safety protection and intelligent control;
- The controller supports manual and automatic reset, suitable for DC/AC 24V, AC 220V voltage environment;
- Performance class PLE, in accordance with EN ISO13849, safety class Cat.4, mechanical life of more than 1 million times.



产品技术特征

Product technical characteristics

项目 project	型号 model	/QRSN-SRA 104-2A1B	/QRSN-SRA 134-2A1B	/QRSN-SR 8302-3A1B	/QRSN-SR 8303-3A1B
安全分类 Safety classification	性能级别 Performance level	Ple	Ple	Ple	Ple
	安全类别 Safety category	Cat.3	Cat.3	Cat.4	Cat.4
寿命 Life	机械寿命 Mechanical life	>100万次 The 1 million time	>100万次 The 1 million time	>300万次 The 3 million time	>300万次 The 3 million time
	电器寿命 Electrical life	Cat.3	Cat.3	Cat.4	Cat.4
时间 time	响应时间 response time	<10ms	<10ms	<30ms	<30ms
	再启动时间 Restart time	<190ms	<190ms	<300ms	<300ms
控制器 —输入 Controller-Input	传感器类型 Sensor type	PSM、PSE、PSB	PSE、PSB	PSM、PSE、PSB	PSE、PSB
	检测类型 Detection type	1.2K终端电阻 Terminal resistance	1.2K终端电阻 Terminal resistance	1.2K终端电阻 Terminal resistance	1.2K终端电阻 Terminal resistance
	监控电路 Monitoring circuit	1X2通道 passageway	1X2通道 passageway	1X2通道 passageway	1X2通道 passageway
控制器 —输出 Controller - Output	触点数量 Number of contacts	2NO+1NC	2NO+1NC	3NO+1NC	3NO+1NC
	开关电流 Switching current (min./max)	10mA/2A	10mA/2A	10mA/2A	10mA/2A
	开关容量 Switching capacity (max.)	5A/24VDC	5A/220VAC	5A/24VDC	5A/220VAC
安装条件 installation conditions	安装方式 Installation mode	导轨Guide	导轨Guide	导轨Guide	导轨Guide
	防护等级 Protection level	IP20	IP20	IP20	IP20
	环境温度 ambient temperature	-20℃—+50℃	-20℃—+50℃	-20℃—+60℃	-20℃—+60℃
	环境湿度 max (23℃) Ambient humidity	95 %	95 %	90 %	90 %
使用条件 Conditions of use	外形尺寸 Outline size	45x75x104.5mm	45x75x105mm	23x99x144.5mm	23x99x144.5mm
	复位方式 Reset mode	自动/手动 Automatic/manual	自动/手动 Automatic/manual	自动/手动 Automatic/manual	自动/手动 Automatic/manual
	连接电压 Connection voltage	AC/DC 24V	AC 220V	AC/DC 24V	AC 220V
	耗电量 Connection voltage	<5VA	<7VA	<6VA	<8VA

1.产品说明
Product description

QRSN-SR系列/QRSN-SRA系列专门为安全防护和智能控制推出的用于压敏保护装置的信号处理的安全控制器。它评估监测带有监控终端电阻的各种触觉传感器输出信号。集成输出信号切换装置，将评估监测的安全信号直接传输到下游控制器。上述2种系列的安全控制器具有很高的性能及安全等级类别。适用于安全地毯传感器、安全触边传感器、安全缓冲传感器的应用。

2种系列的安全控制器产品均拥有手动及自动复位功能，适应极端环境条件，可支持AC/DC:24V以及AC:220V的供电环境使用。

QRSN-SR系列是一款具有3路NO（常开）安全输出触点和1路NC（常闭）辅助输出触点的安全控制器。适用于配套工业领域的安全地毯传感器、安全触边传感器和安全缓冲传感器的使用。

QRSN-SRA系列是一款具有2路NO（常开）安全输出触点和1路NC（常闭）辅助输出触点。适用于配套工业及民用领域的安全地毯传感器、安全触边传感器和安全缓冲传感器的使用。也适用于智能领域的相应传感器器件配套使用。

The QRSN-SR Series/QRSN-SRA Series is a safety controller for signal processing for pressure sensitive protection devices for safety and intelligent control.

It evaluates the monitoring of various tactile sensor output signals with monitoring termination resistance. An integrated output signal switching device that transmits the safety signal for evaluation monitoring directly to the downstream controller. The above two series of safety controllers have a high performance and safety class. Suitable for safety carpet sensors, safety edge sensors, and safety buffer sensors.

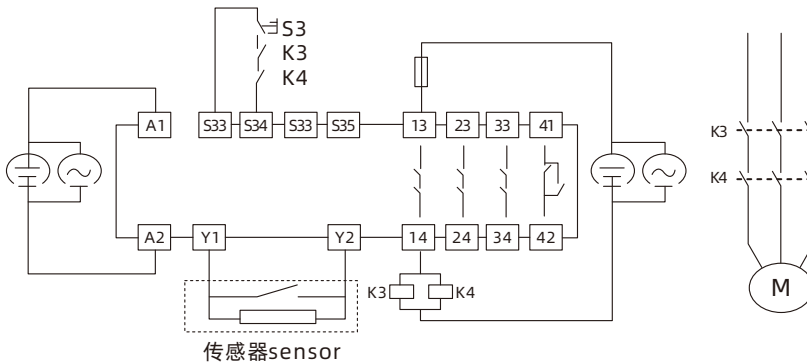
Both series of safety controllers are equipped with manual and automatic reset functions to meet extreme environmental conditions and can be used in AC/DC: 24V and AC: 220V power supply environments.

The QRSN-SR series is a safety controller with 3 NO (normally open) safety output contacts and 1 NC (normally closed) auxiliary output contact. Applicable to the use of safety carpet sensors, safety edge sensors and safety buffer sensors in the supporting industrial field.

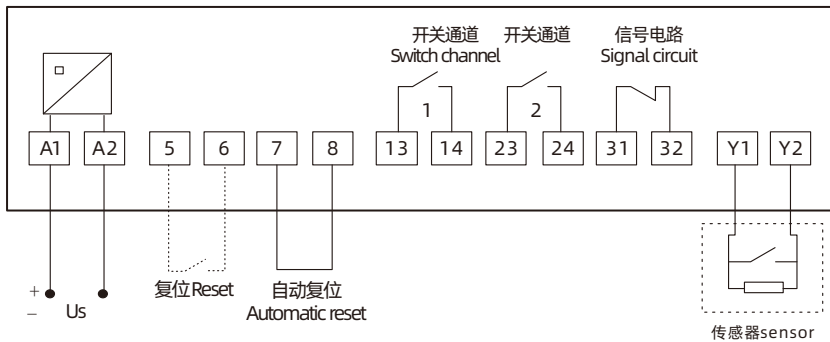
The QRSN-SRA series is a 2-way NO (normally open) safety output contact and a 1-way NC (normally closed) auxiliary output contact. Applicable to the use of safety carpet sensors, safety edge sensors and safety buffer sensors for industrial and civil applications. It is also suitable for use with the corresponding sensor parts in the intelligent field.

1)安装应用及系统连接
Install applications and system connections

- QRSN-SR系列安全控制器的系统连接
- System connection of QRSN-SR series safety controller



- QRSN-SRA系列安全控制器的系统连接
- System connection of QRSN-SRA series safety controller



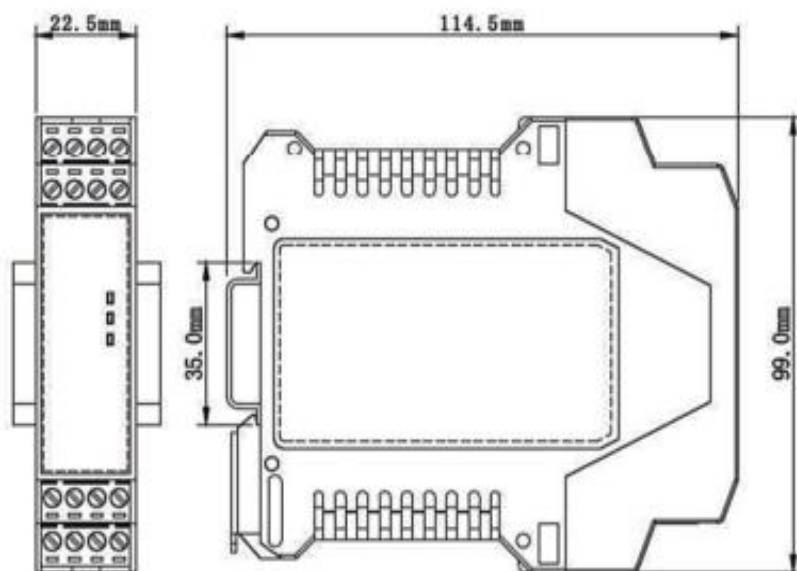
2) 外形尺寸 Shape size

·QRSN-SR系列安全控制器

外形尺寸（深高宽）：114.5mm, 99.0mm, 22.5mm

QRSN-SR Series Safety Controllers

Shape size (depth, height and width): 114.5 mm, 99.0 mm, 22.5 mm

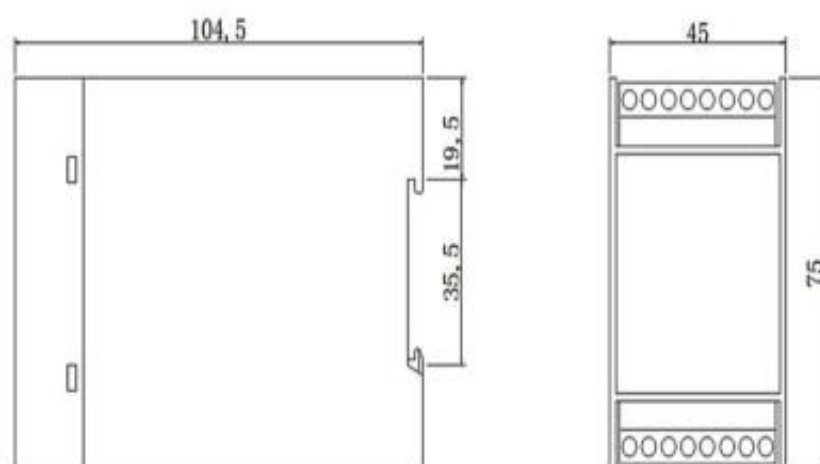


·QRSN-SRA系列安全控制器

外形尺寸（深高宽）：104.5mm, 75.0mm, 45.0mm

QRSN-SRA Series Safety Controllers

Shape size (depth, height and width): 104.5 mm, 75.0 mm, 45.0 mm



2.安全控制器选型 Selection of Safety Controller

安全控制器选型表 Safety Controller Selection Table				
型号 model	类型 Types of	工作电压 Operating Voltage	输出端子 Output terminal	适用领域 Field of application
QRSN-SRA104-2A1B	安全/智能类 Security/smart class	AC/DC24V	2NO 1NC	匹配配套用于PSM安全地毯, PSE安全触边, PSB安全缓冲器 全系列安全/智能类产品 Matching for PSM safety carpet, PSE safety edge, PSB safety buffer full range of safety / smart products
QRSN-SRA134-2A1B	安全/智能类 Security/smart class	AC 220V	2NO 1NC	匹配配套用于PSM安全地毯, PSE安全触边, PSB安全缓冲器 全系列安全/智能类产品 Matching for PSM safety carpet, PSE safety edge, PSB safety buffer full range of safety / smart products
QRSN-SRB104-2A1B	智能类 Intelligent class	AC/DC24V	2NO 1NC	匹配用于PSE安全触边, PSB安全缓冲器系列智能类产品,以及 民用智能型产品。 Matching for PSE safety touch, PSB safety buffer series intelligent products, and civil intelligent products.
QRSN-SRB134-2A1B	智能类 Intelligent class	AC 220V	2NO 1NC	匹配用于PSE安全触边, PSB安全缓冲器系列智能类产品,以及 民用智能型产品。 Matching for PSE safety touch, PSB safety buffer series intelligent products, and civil intelligent products.
QRSN-SRB302-3A1B	安全类 Security class	AC/DC24V	3NO 1NC	配套用于PSM安全地毯, PSE安全触边系列安全类产品 (出口欧美型) Supporting PSM safety carpet, PSE safety edge series safety products (exported to Europe and the United States)
QRSN-SRB303-3A1B	安全类 Security class	AC 220V	3NO 1NC	配套用于PSM安全地毯, PSE安全触边系列安全类产品 (出口欧美型) Supporting PSM safety carpet, PSE safety edge series safety products (exported to Europe and the United States)

安全控制器QRSN-SR803系列与QRSN-SRA1X4系列安全控制器符合以下标准。
The safety controller QRSN-RS803 series and the QRSN-SRA1X4 series safety controllers meet the following standards.

EN1760-1 ISO13856-1 EN62061 EN ISO13849-1 IEC61508 EN60204-1

3.选型及使用注意事项 Selection and use precautions

- 1)请根据具体使用工况选用适合应用类型的产品;
 - 2) 本公司的安全控制器是限于配套压敏传感保护装置信号处理的安全控制器;
 - 3) 系统供电电压必须与铭牌上的标明电压相一致;
 - 4) 只能在最低防护等级为IP54的环境 (例如开关柜) 中安装使用安全控制器;
 - 5) 当安装在开关柜中时, 确保与热源有足够的距离 (至少2厘米);
 - 6) 连接电源电压时, 请注意引脚分配;
 - 7) 当连接电感负载时, 请将浪涌吸收 (RC模块) 安装在负载电源端上;
 - 8) 应用于安全领域时不能将安全控制器与其他控制单元交叉链接;
 - 9) 确保连接的外部部件是本手册规定的产品;
 - 10)安全控制器的控制电路中连接设备或下游控制器也处于双通道模式;
 - 11) 如果发生故障和可见的损坏, 请将安全控制器停止工作;
 - 12) 不要在易燃易爆环境中使用安全控制器。
- 1) Please select suitable products according to the specific operating conditions.
 - 2) The company's safety controller is limited to signal processing safety controller of supporting pressure sensitive sensor protection device;
 - 3) The supply voltage of the system must be consistent with the marked voltage on the nameplate.
 - 4) Safety controllers can only be installed in environments with IP54 as the lowest level of protection (e.g. switchgear).
 - 5) When installed in the switch cabinet, ensure adequate distance from the heat source (at least 2 cm);
 - 6) When connecting power supply voltage, pay attention to pin distribution.
 - 7) When connecting the inductance load, install the surge absorption (RC module) on the power supply end of the load.
 - 8) When applied in the field of security, the safety controller can not be cross-linked with other control units.
 - 9) Ensure that the external components of the connection are the products specified in this manual;
 - 10) In the control circuit of the safety controller, the connecting device or the downstream controller are also in the dual-channel mode.
 - 11) In case of malfunction and visible damage, stop the safety controller.
 - 12) Do not use safety controllers in flammable and explosive environments.

产品订货确认单 Product Order Confirmation Order					
购货单位 Purchaser				联系人 Contact	
地址 Address				联系电话 Contact number	
交货地址 Delivery Address				交货时间 Delivery time	
使用行业 Use industry	机械制造 Machine made	☐	使用环境 Use environment	干环境 Dry environment	☐
	化工、橡胶 Chemical, rubber	☐		淋水环境 Watering environment	☐
	轻工、纺织 Light industry, textile	☐		油污环境 Oily environment	☐
	民用、车辆 Civilian, vehicle	☐		腐蚀环境 Corrosive environment	☐
采购产品 Purchase products		规格或参数 Specifications or parameters		控制类型选择 Control type selection	
安全地毯 Safety carpet	☐	长度 length		R型 Type R	☐
		宽度 width		K型 Type K	☐
安全触边 Safety touch	☐	底座宽度 Base width		R型 Type R	☐
		触边高度 Contact Height		K型 Type K	☐
		触发力(kg) Triggering force		PAE型 Type PAE	☐
安全缓冲器 Safety buffer	☐	底座宽度 Base width		R型 Type R	☐
		缓冲高度 Buffer height		K型 Type K	☐
		触发力(kg) Triggering force	<15kg ☐ >15kg ☐	PAB型 Type PAB	☐
安全控制器 Safety controller	☐	QRSN-SR系列series	☐	电压24VDC Voltage	☐
		QRSN-SR系列series	☐	电压220VAC Voltage	☐
定制产品图形 及技术要求 Custom product graphics and technical requirements					

注：请在上述条款中选择您的状况在选择项中填入数据或打√
 Note: Please select your status in the above clauses and fill in the data or √.

www.dgdadi.com

DADISICK®
大迪施克

www.dgdadi.com

东莞市大迪电子科技有限公司
Dongguan Dadi Electronic Technology Co., Ltd.

地址：东莞市横沥镇三江工业区10号
ADD: No. 10 Sanjiang Industrial Zone, Hengli Town, Dongguan City
TEL: 0769-81108586
FAX: 0769-81177455
E-mail: dadidgljc@126.com
http: //www.dadisick.com



大迪公众号



天猫AAP扫码进入旗舰店