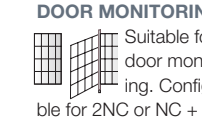




EMERGENCY STOP

Suitable for monitoring emergency stop buttons. Configurable for both 1 and 2 channel. With short circuit protection in 2 channel.



DOOR MONITORING

Suitable for door monitoring. Configurable for 2NC or NC + NO.



LIGHT CURTAIN

Suitable for monitoring light curtains. Configurable for both type 2 and type 4.



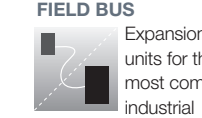
SAFETY MAT / SAFETY EDGE

Suitable for monitoring safety mats and safety edges. As long as the switch is held down by the operator, the machine cannot start. When released, the signal to the safety module is cut off.



TWO HAND CONTROL

Two hand control module suitable for controlling push buttons. Two hand operations forces the operator to activate the machine with both hands.



FIELD BUS

Expansion units for the most common industrial fieldbus systems.

	MAIN UNIT		INPUT EXPANSION				OUTPUT EXPANSION		RELAY OUTPUTS		FIELD BUS						BUS TRANSFER
	DSC-M1	DSC-M1B02	DSC-M1B	DSC-M116	DSC-M112T8	DSC-MO2	DSC-MO4	DSC-MR2	DSC-MR4	DSC-MBP	DSC-MBD	DSC-MBC	DSC-MBEC	DSC-MBEI	DSC-MBEP	DSC-MBU	DSC-MCT2
APPLICATIONS																	
Emergency stop	•	•	•	•	•												
Door monitoring	•	•	•	•	•												
Safety mat/edge	•	•	•	•	•												
Light curtain	•	•	•	•	•												
Non-contact switches	•	•	•	•	•												
Two hand control	•	•	•	•	•												
Bus Transfer Unit																	•
DSC Bus	•	•	•	•	•	•	•			•	•	•	•	•	•	•	•
Field Bus										Profibus	Devicenet	CANopen	EtherCAT	Ethernet IP	PROFINET	Universal Serial Bus	
DIMENSIONS																	
Width (mm)	22,5	22,5	22,5	22,5	22,5	22,5	22,5	22,5	22,5	22,5	22,5	22,5	22,5	22,5	22,5	22,5	22,5
SUPPLY VOLTAGE																	
24V DC	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
RESET TYPES AND TEST																	
Automatic/manual	•	•	•	•	•												
Monitored	•	•	•	•	•												
Manual monitored	•	•	•	•	•												
NUMBER OF OUTPUTS / INPUTS																	
Digital inputs	8	8	8	16	12												
Safety outputs NO								2	4								
Signal output NC								1	2								
OSSD safety output (pairs)	2	2				2	4										
Digital signal output	2	2				2	4										
EDM input	2	2				2	4										
Test output	4	4	4	4	8												
LOAD																	
Max. load, output	400mA	400mA				400mA	400mA	6A 250VAC	6A 250VAC								
ORDER INFORMATION																	
	1103400	1103410	1103420	1103421	1103422	1103430	1103431	1103440	1103441	1103450	1103451	1103452	1103453	1103454	1103455	1103456	1103457

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duelco
SAFETY solutions

DuelcoSC

safety controller



The standard in safety technology

IT PAYS TO USE SAFETY TECHNOLOGY

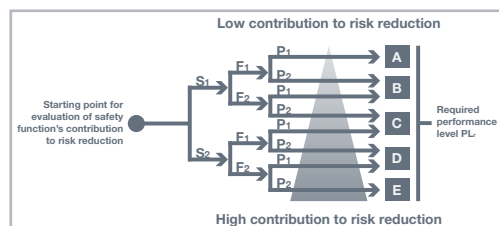
The protection of man and machine through the targeted control of hazardous movements, cost savings thanks to fewer accidents, reduced downtimes and fewer production losses – these are some of the real benefits that you can enjoy when you use Duelco safety components.

SAFETY COMPONENTS FROM DUELCO

Our safety components comply with international standards and regulations. Our safety relays mostly have been approved by BG, TÜV or another notified body and offers users considerable benefits. Long service life and high availability ensure it is cost-effective to use.

EN ISO 13849-1

As the successor standard to EN 954-1, EN ISO 13849-1 is based on the familiar categories. Equally, it examines complete safety functions, including all the components involved in their design. EN ISO 13849-1 goes beyond the qualitative approach of EN 954-1 to include a quantitative assessment of the safety functions. A performance level (PL) is used for this, building upon the categories.



Risk analysis in accordance with EN 13849-1

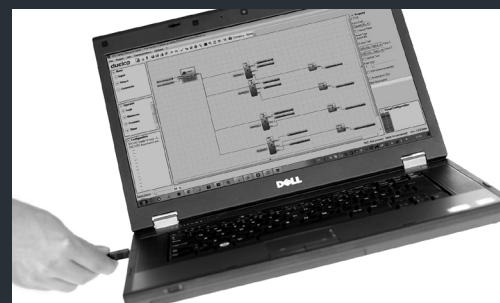
SAFETY ASSESSMENT IN ACCORDANCE WITH EN/IEC 62061

According to the standard EN/IEC 62061, safety requirements in control technology can be divided into safety integrity levels. SIL 3 represents the highest risk reduction and protection level, where the safety function must always be maintained. The risk is estimated through consideration of the severity of injury (Se), the frequency and duration of exposure to the hazard (Fr), probability of occurrence of a hazardous event (Pr) and the possibility of avoiding or limiting the harm (Av).

Consequences	SE	Class CL = Fr + Pr + Av				
		3-4	5-7	8-10	11-13	14-15
Death, losing an eye or arm	4	SIL 2	SIL 2	SIL 2	SIL 3	SIL 3
Permanent, losing fingers	3		OM	SIL 1	SIL 2	SIL 3
Reversible, medical attention	2			OM	SIL 1	SIL 2
Reversible, first aid	1				OM	SIL 1

Risk assessment and definition of the required safety integrity level (SIL)

DuelcoSC is modular and programmable



SYSTEM FEATURES

Configurable over USB from any pc with "Duelco safety designer" software installed.

- Up to 128 digital inputs
- Up to 16 OSSD output pairs
- Up to 14 expansion modules (max 4 of each type)
- External monitoring with the most common fieldbus systems

DUELCO SAFETY DESIGNER (DSD)

- Easy drag and drop configuration of all safety functions.
- Functional validation of design with safety information.
- Password management.

DSC is certified for SIL3 – SILCL3 – Ple – CAT. 4

DSC offers numerous advantages compared to traditional safety relays.

- Reduced number of components
- Easy electrical installation
- Configuration with logical operations and simple drag and drop software



- DENMARK**
 Headquarters Duelco A/S
 Systemvej 8 | DK-9200 Aalborg
 Tel. +45 7010 1007 | Fax: +45 7010 1008
 info@duelco.dk | www.duelco.dk
- AUSTRALIA**
 Sertec P/L
 2/35 Ethel Street | Yeerongpilly, Q. 4105
 Tel. (+61) 7 39481144 | Fax: (+61) 7 39481344
 E-mail: sertece@sertec.com.au | www.sertec.com.au
- BELGIUM**
 forTop automation & energycontrol
 H. Consciencestraat 36 | 1600 Sint-Pieters-Leeuw
 Contact person: Mr. Peter Heremans
 Tel. (+32) (0)70 210009
 E-mail: info@ftop.be | www.ftop.be
- BRASIL**
 Produtos Electronicos Metalax Ltda
 Rua Jose Rataelli, 221
 São Paulo - SP - Brasil | CEP 04763-280
 Tel. (+55) (11) 5683 5700
 E-mail: metalax@metalax.com.br | www.metalax.com.br
- CHINA**
 OEM Trading (Shanghai) Co., Ltd. Room 1117
 Huahai China Tower | 885 Renmin Road | Shanghai 200010
 Tel. (+86) (0)21 3307 0588 EXT 202
 Fax: (+86) (0)21 3307 0303
 E-mail: info@oemtrading.com.cn
- CZECH REPUBLIC & SLOVAKIA**
 OEM Automatic, spol.s.r.o.
 Průmysl 239 | 250 98 Zábřeh
 Tel. (+420) 241 484 940 | Fax: (+420) 241 484 941
 E-mail: info@oem-automatic.cz | www.oem-automatic.cz
- ENGLAND**
 OEM-Automatic Ltd
 Whitacres, Cambridge Road + Whelstone + Leicester LE8 6ZG
 Tel. (+44) 116 2849900 + Fax: (+44) 116 2841721
 E-mail: information@uk.oem.se + www.oem.co.uk
- ESTONIA**
 OEM EESTI OÜ
 Pärnu mnt. 139d/1 | 11317 Tallin
 Tel. (+372) 6550871 | Fax: (+372) 6550873
 E-mail: info@oem.ee | www.oem.ee
- FINLAND**
 OEM Finland OY
 Fiskarsinkatu 3 | 20750 Turku
 Tel. (+358) 207499499 | Fax: (+358) 207499456
 E-mail: info@fi.oem.se | www.oem.fi
- FRANCE**
 JLP Automatismes
 Rue de la Télématique | BP-781 | 42951 Saint Etienne cedex 9
 Tel. (+33) 477938858 | Fax: (+33) 477930368
 E-mail: info@jpautomatismes.fr | www.jpautomatismes.fr
- GERMANY**
 HÜET Automatisation & Humedical
 Kaiserstr.161 | D-76133 Karlsruhe
 Tel. (+49) (0) 721-1566533 | Fax: (+49) (0) 721-2039950
 E-mail: info@huet-automatisierung.de | www.elcobau.com
- HUNGARY**
 Conpart Kft.
 9072 Győr | Zsigmond kir. út 1
 Tel. (+36) 96618790 | Fax: (+36) 96310152
 E-mail: info@conpart.hu | www.conpart.hu
- ICELAND**
 Samey HF
 Lyngás 13 | 210 Gardabær
 Tel. (+354) 510 5200 | Fax: (+354) 510 5201
 E-mail: samey@samey.is | www.samey.is
- INDIA**
 Santron Systems India
 301-302, Vikas Surya Plaza | Commercial Complex,
 Block-CU | Pitam Park, Delhi-110034
 Tel. (+91) 9811282933
 E-mail: info@santronindia.in | www.santronindia.in
- IRELAND**
 Automation Direct Ltd.
 10 Dunsoghly Park | Rathoath Rd | Dublin 11
 Tel. (+00353) 01 8142974 | Fax: (+00353) 01 8645184
 E-mail: info@switchingdevices.eu | www.switchingdevices.eu
- ITALY**
 MasAutomazione S.r.l.
 Via G. Galilei, 20 | 20090 Segrate (MI)
 Tel. (+39) 0226922090 | Fax: (+39) 022135420
 E-mail: info@masautomazione.it | www.masautomazione.it
- MEXICO**
 AESYESA
 Cerro del Mirador 1302 | 66058 Escobedo, NL
 Tel. (+52) 018189012331 | Fax: (+52) 018147375253
 E-mail: info@aesyesa.com | http://www.aesyesa.com
- NEW ZEALAND**
 Electropar Limited
 PO. Box 58623 | 35 Lady Ruby Drive, East Tamaki
 Tel. (+64) 92742000 | Fax: (+64) 92742001
 E-mail: mail@electropar.co.nz | www.electropar.co.nz
- NIGERIA**
 Passant Technical Services
 NO. 6 KAREEM BANKOLE STREET, OFF CANDOS ROAD
 BARLUMA-IPAJA | LAGOS
 Tel. (+234) 8028424702 | Fax: (+234) 1-6602914
 E-mail: passanttech@gmail.com | www.passanttech.com
- NORWAY**
 OEM Automatic AS
 Bjørnstjerne Bjørnsons gate 110
 3044 Drammen
 Tel: 32 21 05 05 | Fax: 32 21 05 01
 Mail post@oem.no | www.oem.no
- PAKISTAN**
 A.R. Sultan Ahmed & Co.
 9- Quetta Walla Building | M.A. Jinnah Road | Karachi 74000
 Tel. (+92) 21 3 2410747 | Fax: (+92) 21 3 2418140
 E-mail: dattary18@gmail.com
- POLAND & UKRAINE**
 CONTEC Sp. z o.o.
 ul. Lipowa 21 | 63-052 Komorniki
 Tel. (+48) 618108350 | Fax: (+48) 618108445
 E-mail: contec@contec.net.pl | www.contec.net.pl
- SOUTH AMERICA EXCL. MEXICO**
 Produtos Electronicos Metalax Ltda
 Rua Jose Rataelli, 221
 São Paulo - SP - Brasil | CEP 04763-280
 Tel. (+55) (11) 5683 5700
 E-mail: metalax@metalax.com.br | www.metalax.com.br
- SPAIN**
 Star Automation S.L.
 C/ Gran Ribera 11 B, 3º. Congost
 08520 Les Franqueses del Valles, Barcelona
 Tel. (+34) 938403217 | Fax: (+34) 938464101
 E-mail: info@starautomation.es | www.starautomation.es
- SWEDEN**
 TR Electronic Sweden AB
 Enesbybergsvägen 10 B | 182 36 DANDERYD
 Tel. (+46) 8 756 72 20 | Fax: (+46) 8 756 76 80
 E-mail: info@telectronic.se | www.telectronic.se
- SWITZERLAND**
 Bachofen AG
 Ackerstrasse 42 | 8610 Uster
 Tel. (+41) 448441111 | Fax: (+41) 448441233
 E-mail: ag@bachofen.ch | www.bachofen.ch
- TAIWAN**
 Chinguan Enterprise Co. Ltd
 8F, No 936, Sec4 Win-Sin | Rd 406 Taichung R.O.C.
 Tel. (+886) 4 22336838 | Fax: (+886) 4 22336836
 E-mail: info@chinguan.com.tw | www.chinguan.com.tw
- THE NETHERLANDS (INCLUDING LUXEMBURG)**
 forTop automation & energycontrol BV
 Oeverlandenweg 2a | 7944 HZ Meppel
 Tel. (+31) 522 466688 | Fax: (+31) 522 466699
 E-mail: info@ftop.nl | www.ftop.nl
- TURKEY**
 Bosgem Otomasyon
 Mehmet Akif Mah. Emir Sok. | No:29 D:3 34775
 Ümraniye - İst.
 Tel. (+90) 216 466 14 40 | Fax: (+90) 216 466 14 41
 E-mail: info@bosgem.com | www.bosgem.com
- USA**
 EMS Controls Inc.
 1324 Mineo Drive | Punta Gorda | FL 33950 Florida
 Tel. (801) 9414210238 | Fax: (801) 305456317
 E-mail: info@switchingdevices.com | www.emscontrols.com

Duelco A/S - Aalborg Duelco A/S - Sønderborg Tel. +45 7010 1007 | Fax: +45 7010 1008
 Systemvej 8 Mommarkvej 5 www.duelco.dk | www.duelco-safety.com
 DK-9200 Aalborg SV DK-6400 Sønderborg info@duelco.dk