

celduc[®] r e l a i s



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Selection Guide

THAT COMPETITIVE EDGE

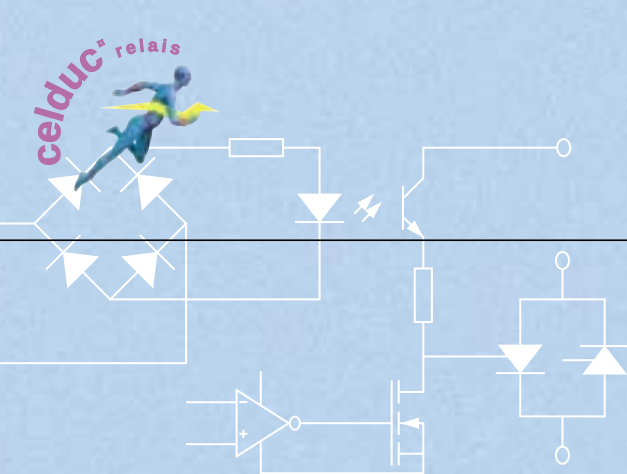
PROUD TO SERVE YOU.



SOLID STATE
RELAYS

MAGNETIC
SENSORS

REED RELAYS
AND SWITCHES



THAT COMPETITIVE EDGE



Word of Introduction

Dear Customers, dear Readers,
Here is the new issue of our "Selection guide" catalogue that we believe will be clearer, easier and more complete. This is also the opportunity to confirm again our goals, our will and our passion :

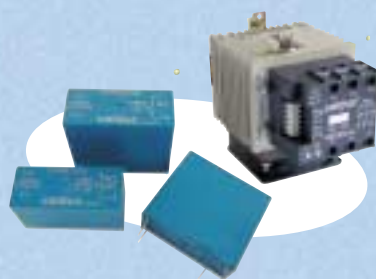
Keep our customers satisfied !!

This "selection guide" catalogue is a picture of the products that are available to date. As a matter of fact, we are convinced that innovation only will help us to remain your favourite supplier, and this is why more than 10 new products complete each month our 3 product lines : Solid State Relays, magnetic sensors and Reed products.

Therefore it may happen that some products can not be found in this catalogue. In this case we invite you to visit our website at www.celduc.com updated every month.

If you haven't been successful, feel free to contact **celduc®** relais, our team will try to fully answers your question.

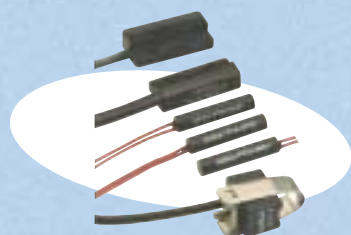
Marc Combette
Managing Director



1 Solid State Relays

P.1 -> P.18

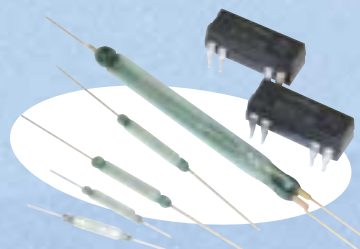
- Scope
- Selection Criteria
- Product Range



2 Proximity Sensors

P.19 -> P.24

- Scope
- Product Range



3 Reed Relays and Switches

P.25 -> P.26

- Scope
- Product Range



All our technical data-sheets are available in our website :
www.celduc.com

Solid state relays

Scope

Heating

Plasturgy
Furnaces
Power supply distribution systems
Air conditioning
Textile
Home heating
Infrared heating
Drying
Thermoforming
Etc...

Motor starting

Pumps
Compressors
Plasturgy (see above)
Conveyors
Fans
Etc...

Lighting

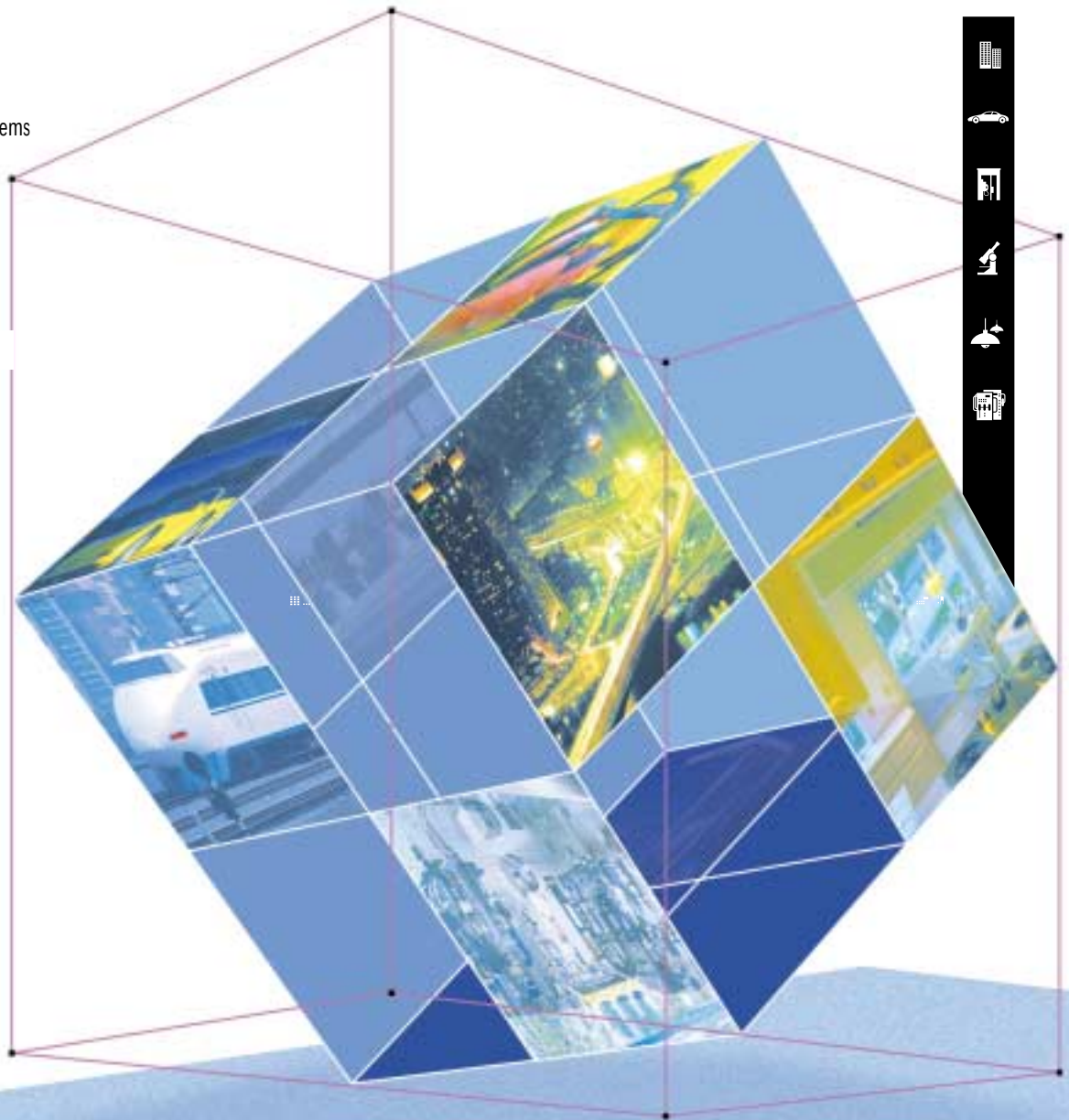
Public Lighting
Cinema
theatre lamps
Airport runway lamps
Road lighting
Etc...

Control

PLC interface
Heating element control
Solenoid valves
Contactor Coils
Optocoupling of sensors

Miscellaneous

Transformer starting
Power factor corrector
Uninterrupted power supplies
Energy source switching



STANDARDS

- The solid-state relays and contactors made by **celduc**® are manufactured in compliance with major international standards :
IEC 947-4-2 for motor control
IEC 947-4-3 for the other loads
- **American et Canadian (UL, CSA, cUL)**
- **European** : EN 60950/VDE0805
pr EN 61810xx

Our products also meet the major European directive regarding the CE marking.

- Some of our products fulfil the requirements according to DIN EN60601-1 (VDE 0750) for medical applications and also the requirements for explosive atmospheres ATEX "EX".
- Our extensive range of relays ranging from 1 to 125A complies with the ISO9001 requirements and quality requirements and incorporates highly reliable components with a very high electromagnetic interference level.



Selection

by

Applications

Function	ON/OFF RELAY									
Number de poles	1 Pole Single phase			1 Pole EMC Optimised (low electromagnetic emission-low RFI)		2 Poles two phase		3 Poles three phase		
Type of mounting	PCB	Rail DIN	Screw	Rail DIN	Screw	Rail DIN	Screw	PCB	Rail DIN	Screw
HEATING ELEMENTS										
AC-51	SKA/SKB SN8 SKL/SKH	XKA/XKH SIL/SIM SWM	SC8/SC9 SIC/SIR SV8	SOL XKX	SVX SCFL	SWB SIB XKM	SCB	SCT SHT	SWT	SCT/SGT SVT
INCANDESCENT LAMPS AND INFRARED LAMPS										
AC-55b	SKA/SKB SN8 SKL/SKH	XKA/XKH SIL/SIM SWM	SC8/SC9 SIC/SIR SV8	SOL XKX	SVX SCFL	SWB SIB	SCB		SWT	SGT SVT
DISCHARGE LAMPS										
AC-55a	SKA/SKL SN8 SKH	XKA/XKH SIL/SIM SWM	SC8 SV8			SIB	SCB			
MOTORS										
AC-53	SKA/SKL SN8 SKH	SWM SIL/SIM XKH	SC7	SOL XKX	SVX SCFL	SIB	SCB	SCT SHT	SWT	SCT/SGT SVT
SOLENOIDS										
AC-14 / AC-15	STN/STA/SPA SN8/SLA SKA/SKB/SSA	STN/STA/SPA XKA/XKH/SSA	SC7/SC8 SF							
DC-13	STN/STD/SPD SLD SLD/SKD/SSC	STN/STD/SPD XKD/SSC	SCC SGC							
INDICATORS										
AC-55b	STN/STA/SPA SN8/SLA SKA/SKB/SSA	STN/STA/SPA XKA/XKH/SSA	SC7/SC8 SF							
DC-6	STN/STD/SPD SLD SLD/SKD/SSC	STN/STD/SPD XKD/SSC	SCC/SGC							
CONTACTORS										
AC-14<72VA	STN/STA/SPA SN8/SLA SKA/SKB/SSA	STN/STA/SPA XKA/XKH/SSA	SC7/SC8 SF							
AC-15>72VA	STA/SPA/SPA/SPA SN8/SLA SSA/SKL/SKH	STA/SPA XKA/XKH/SSA	SC7/SC8 SF							
DC-13	STN/STD/SPD SLD SLD/SKD/SSC	STN/STD/SPD XKD/SSC	SCC/SGC SGD							
DC-14	STN/STD/SPD SLD SLD/SKD/SSC	STN/STD/SPD XKD/SSC	SCC/SGC SGD							
PLC INPUTS/OUTPUTS										
AC input	SEA	SEA								
DC input	SEC	SEC	SF							
AC output	STN/STA/SPA SLA SKA/SKB/SSA	STN/STA/SPA XKA/XKH/SSA				XKM			XKM	
DC output	STN/STD/SPD SLD SLD/SKD/SSC	STN/STD/SPD XKD/SSC								
TRANSFORMERS										
AC-56a	SKA/SKL SKH		SC7 SCP			SIB7	SCB			SVT
CAPACITORS										
AC-56b	SKL SKH	SIL-SIM SWM	SC8 SV8			SIB	SCB			SVT
OTHERS										
->UPS			SC7			SIB7	SCB			SVT
->AIRPORTS			SAS							
->Alarms			SG2							
->Signaling lights		FLASHING	ST3 ST6							

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Modules

**100 % compatible
with electromechanical
relays**

- > PCB or socket mount
- > Pin to pin compatible with electromechanical relays
- > No maintenance
- > AC and DC output
- > Withstand high inrush current
- > Integrated VDR
- > Can drive all type of loads
- > High insulation between input to output
- > Low input current
- > Low leakage current



SLIM RANGE (miniature)

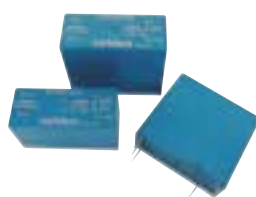


	PRODUCT REFERENCE	Switching Current	Switching Voltage	Control Voltage	Input R	Protec.	Specifications	Dimensions
AC	SLA01220	2A	12-280VAC	3-10VDC	320 Ω	RC	AC output module	28x5x15
	SLA02220	2A	12-280VAC	7-20VDC	1100 Ω	RC	AC output module	28x5x15
	SLA03220	2A	12-280VAC	18-32VDC	3 kΩ	RC	AC output module	28x5x15
DC	SLD01205	4A	0-32VDC	3-10VDC	320 Ω	Transil	DC output module	28x5x15
	SLD01210	2,5A	0-60VDC	3-10VDC	320 Ω	Transil	DC output module	28x5x15
	SLD02205	4A	0-32VDC	7-20VDC	1070 Ω	Transil	DC output module	28x5x15
	SLD02210	2,5A	0-60VDC	7-20VDC	1070 Ω	Transil	DC output module	28x5x15
	SLD03205	4A	0-32VDC	18-32VDC	3 kΩ	Transil	DC output module	28x5x15
	SLD03210	2,5A	0-60VDC	18-32VDC	3 kΩ	Transil	DC output module	28x5x15
	SLD04205	4A	0-32VDC	38-58VDC	10800 Ω	Transil	DC output module	28x5x15
	SLD04210	2,5A	0-60VDC	38-58VDC	10800 Ω	Transil	DC output module	28x5x15

Other miniature solid state relays can be procured (SKM, SKN) : please contact us

SP-ST-SL RANGE (standard)

AC and DC from 1 to 5A, protection by VDR or built-in transil, come in 15,7 mm (ST Series) and 25,4 mm (SP Series).



	PRODUCT REFERENCE	Switching Current	Switching Voltage	Control Voltage	Input R	Protec.	Specifications	Dimensions
AC	SPA07420	4A	12-275VAC	12-30VDC 15-30VAC	2100 Ω	VDR	AC output module	29x12,7x25,4
	STA07220	2A	12-275VAC	12-30VDC 15-30VAC	2100 Ω	VDR	AC output module	29x12,7x15,7
DC	SPD03505	5A	0-30VDC	12-30VDC	2100 Ω	transil	DC output module	29x12,7x25,4
	STD03205	2,5A	0-30VDC	12-30VDC	2100 Ω	transil	DC output module	29x12,7x15,7
	STD03505	5A	0-30VDC	12-30VDC	2100 Ω	transil	DC output module	29x12,7x15,7
AC/DC	STN07105	1A	0-30VAC/DC	12-30VDC 15-30VAC	2100 Ω	transil	AC/DC output module	29x12,7x15,7

4



Interface cardboard



ESD08000	8 SP in line module base	ESC05000	SP/ST base for PCB for one relay
ESD16000	16 SP in line module base	ESD05000	SP/ST base for DIN rail for one relay
ESD16100	16 SP compact module base		

Our STD03 and SPD03 modules are also available with AC input (12-30VAC/DC): STD07 and SPD07.

Our STD and SPD modules can be developed, on request, with an output voltage of 100VDC.

Other control voltage on request.

SE-SS RANGE - Input/output modules

Optocoupled input and output modules for control interface. Plug-in relay solution.



PRODUCT REFERENCE	Input voltage	Input R	Logic voltage	Output	Specifications	Dimensions mm
INPUT MODULE	SEA05004	36-60VAC/DC	5 k Ω	5VDC (3-8V)	NPN 25mA	AC/DC Input
	SEA05010	90-140VAC/DC	20 k Ω	5VDC (3-8V)	NPN 25mA	AC/DC Input
	SEA05020	180-280VAC/DC	54 k Ω	5VDC (3-8V)	NPN 25mA	AC/DC Input
	SEA24010	90-140VAC/DC	20 k Ω	24VDC (15-30V)	NPN 25mA	AC/DC Input
	SEA24020	180-280VAC/DC	54 k Ω	24VDC (15-30V)	NPN 25mA	AC/DC Input
	SEC05003	10-32VDC	1 k Ω	5VDC (3-8V)	NPN 25mA	DC/ time delay input
	SEC05101	3-10VDC	200 Ω	5VDC (3-8V)	NPN 25mA	DC quick input
	SEC05103	10-32VDC	1 k Ω	5VDC (3-8V)	NPN 25mA	DC quick input
	SEC15003	10-32VDC	1 k Ω	15VDC (8-20V)	NPN 25mA	DC/ time delay input
	SEC15103	10-32VDC	1 k Ω	15VDC (8-20V)	NPN 25mA	DC quick input
	SEC24001	3-10VDC	200 Ω	24VDC (15-30V)	NPN 25mA	DC/ time delay input
	SEC24003	10-32VDC	1 k Ω	24VDC (15-30V)	NPN 25mA	DC/ time delay input
						ENCLOSURE COLOR
						YELLOW
						WHITE
						44 x 15 x 33

EBS01000



EBS08000

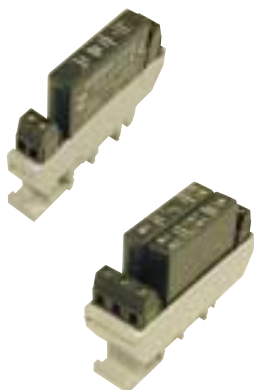


PRODUCT REFERENCE	Switching current	Switching voltage	Control voltage	Input R	Specifications	Dimensions mm
OUTPUT MODULE	SSA05320	3A	12-280VAC	5VDC (3-8V)	220 Ω	AC output
	SSA15320	3A	12-280VAC	15VDC (8-20V)	1 k Ω	AC output
	SSA24320	3A	24-280VAC	24VDC (15-30V)	2200 Ω	AC output
	SSC05120	1A	12-200VDC	5VDC (3-8V)	220 Ω	DC output
	SSC05306	3A	3-60VDC	5VDC (3-8V)	220 Ω	DC output
	SSC15306	3A	3-60VDC	15VDC (8-20V)	1 k Ω	DC output
	SSC24306	3A	3-60VDC	24VDC (15-30V)	2200 Ω	DC output
SUPPORT	EBS01000	DIN RAIL BASE for input/output Module				
	EBS08000	I/O board for 8 input/output Module				
	EBS16000	I/O board for 16 input/output Module				
	EBS24000	I/O board for 24 input/output Module				
						ENCLOSURE COLOR
						BLACK
						RED
						44 x 15 x 33

Only the most common references are given in these tables. Other products with different voltages are available : please contact us.

XK RANGE

Interface relays to control loads such as resistors, indicators, solenoids, transformers, motors, power contactor coils. These Din-rail mounted products come in AC, DC outputs and three phase motor control : 2 and 3 phase switching and rotation reverser. Fitted with LED.



PRODUCT REFERENCE	Switching current	Switching voltage	Control voltage	Input R	Protec.	Specifications	Dimensions mm
XKA20420	4A	12-275VAC	6-30VDC	1 k Ω	VDR	1 pole AC synchronous output	12,2x76,4x53
XKA70420	4A	12-275VAC	15-30VAC/DC	1800 Ω	VDR	1 pole AC synchronous output	17,2x76,4x53
XKA70440	4A	12-440VAC	15-30VAC/DC	1800 Ω	VDR	1 pole AC synchronous output	17,2x76,4x53
XKA90440	4A	12-440VAC	150-240VAC/DC	41 k Ω	VDR	1 pole AC synchronous output	17,2x76,4x53
XKD10120	1A	2-220VDC	5-30VDC	1 k Ω	diode	1 pole DC output	12,2x76,4x53
XKD10306	3A	2-60VDC	5-30VDC	1 k Ω	diode	1 pole DC output	12,2x76,4x53
XKD11306	3A	2-60VDC	3-30VDC	600 Ω	diode	1 pole DC output	12,2x76,4x53
XKD70306	3A	2-60VDC	10-30VAC/DC	1800 Ω	diode	1 pole DC output	12,2x76,4x53
XKD90306	3A	2-60VDC	90-240VAC	41 k Ω	diode	1 pole DC output	17,2x76,4x53
XKH20120	10A	12-280VAC	10-32VDC	1640 Ω		1 pole AC synchronous output	25x76,4x65
XKM22440	4AC-51/2.5AC-53	24-460VAC	15-40VDC	2 k Ω	VDR	2 pole motor switching control	25,2x76,4x53
XKM23440	4AC-51/2.5AC-53	24-460VAC	12-35VDC	1 k Ω	VDR	3 pole motor switching control	47,5x76,4x53
XKR24440	4AC-51/2.5AC-53	24-460VAC	15-40VDC	2 k Ω	VDR	Motor change-over control	58,2x76,4x53
XKX21640	16AC-51/4AC-53	12-460VAC	20-30VDC	1140 Ω	RC-VDR	AC output + bypass	22,5x76,4x45

Other references available : please consult us.

Our XKA & XKD ranges with pluggable connectors are also available on request.

SK RANGE

The SK range for PCB mount is available in 2 cases :

SKA / SKB (AC output) or SKD (DC output).

- > SKA up to 6A 230 or 400VAC with built-in voltage protection, ideal for solenoid or motor control
- > SKB up to 4A 230 or 400VAC for resistive loads
- > SKD rated 3A / 60VDC or 1A / 200VDC

SKL for AC output with a ceramic substrate that can be mounted on a heatsink (see picture). The SKL range is ranging from 16A to 75A.

- > For the power element, our SKL use TMS² technology (see the Power relay section introduction) reducing thermal stress and considerably improving life expectancy. Ideal for motor control (I^t up to 5000 A²s) with high inrush current as well as heating application. Easy to protect against short circuit with micro circuit breakers.

PRODUCT REFERENCE	Current	Switching voltage	Control voltage	Input R	LED	I ^t	Protec	Specifications	Dimensions mm
SK541100	2,5A	12-280VAC	3-30VDC	1 kΩ	no	50A ² s	RC	AC zero-cross output	43,2 x 10,2 x 25,4
SK541101	2,5A	24-280VAC	3-30VDC	1 kΩ	no	50A ² s	-	AC zero-cross output NC	
SKA10420	4A	12-275VAC	2,5-10VDC	330 Ω	no	50A ² s	VDR	AC zero-cross output	
SKA10440	4A	12-460VAC	2,5-10VDC	330 Ω	no	50A ² s	VDR	AC zero-cross output	
SKA10620	6A	12-280VAC	4-14VDC	440 Ω	no	1800A ² s	-	TMS ² ,DCB Technology	
SKA10640	6A	24-600VAC	4-14VDC	440 Ω	no	1800A ² s	-	TMS ² ,DCB Technology	
SKA11440	4A	12-460VAC	3-10VDC	220 Ω	yes	50A ² s	VDR	AC zero-cross output	
SKA20420	4A	12-275VAC	4-30VDC	1 kΩ	no	50A ² s	VDR	AC zero-cross output	
SKA20421	4A	12-275VAC	4-30VDC	1 kΩ	no	50A ² s	VDR	AC random output	
SKA20440	4A	12-460VAC	4-30VDC	1 kΩ	no	50A ² s	VDR	AC zero-cross output	
SKA20441	4A	12-460VAC	4-30VDC	1 kΩ	no	50A ² s	VDR	AC random output	
SKA20460	4A	24-600VAC	5-30VDC	1 kΩ	no	72A ² s	-	AC zero-cross output	
SKA20620	6A	12-280VAC	8-32VDC	1640 Ω	no	1800A ² s	-	TMS ² ,DCB Technology	
SKA20640	6A	24-600VAC	8-32VDC	1640 Ω	no	1800A ² s	-	TMS ² ,DCB Technology	
SKA21420	4A	12-275VAC	7-30VDC	750 Ω	yes	50A ² s	VDR	AC zero-cross output	
SKA21421	4A	12-275VAC	7-30VDC	750 Ω	yes	50A ² s	VDR	AC random output	
SKA21440	4A	12-460VAC	7-30VDC	750 Ω	yes	50A ² s	VDR	AC zero-cross output	
SKA21441	4A	12-460VAC	7-30VDC	750 Ω	yes	50A ² s	VDR	AC random output	
SKB10420	4A	12-280VAC	3-10VDC	330 Ω	no	50A ² s	-	AC zero-cross output	
SKB10440	4A	24-600VAC	3,7-10VDC	270 Ω	no	72A ² s	-	AC zero-cross output	
SKB20420	4A	12-280VAC	8-30VDC	1200 Ω	no	50A ² s	-	AC zero-cross output	
SKB20440	4A	24-600VAC	9-30VDC	1200 Ω	no	72A ² s	-	AC zero-cross output	
SKD10306	3A	2-60VDC	3-30VDC	1 kΩ	no	-	diode	DC output	
SKD10120	1A	2-220VDC	3-30VDC	1 kΩ	no	-	diode	DC output	

PRODUCT REFERENCE	max current with WF032000	Thyristor rating	Switching voltage	Control voltage	Input R	I ^t	Dimensions mm
SKL10120	16A	16A	12-280VAC	4-14VDC	440 Ω	128A ² s	43,6 x 6,3 x 24,5
SKL10220	21A	25A	12-280VAC	4-14VDC	440 Ω	312A ² s	
SKL10240	22A	25A	24-600VAC	4-14VDC	440 Ω	450A ² s	
SKL10520	27A	50A	12-280VAC	4-14VDC	440 Ω	1800A ² s	
SKL10540	27A	50A	24-600VAC	4-14VDC	440 Ω	1800A ² s	
SKL10740	30A	75A	24-600VAC	4-14VDC	440 Ω	5000A ² s	
SKL20120	16A	16A	12-280VAC	8-32VDC	1640 Ω	128A ² s	
SKL20220	21A	25A	12-280VAC	8-32VDC	1640 Ω	312A ² s	
SKL20240	22A	25A	24-600VAC	8-32VDC	1640 Ω	450A ² s	
SKL20520	27A	50A	12-280VAC	8-32VDC	1640 Ω	1800A ² s	
SKL20540	27A	50A	24-600VAC	8-32VDC	1640 Ω	1800A ² s	
SKL20740	30A	75A	24-600VAC	8-32VDC	1640 Ω	5000A ² s	

Random models on request.

PRODUCT REFERENCE	Output current	Output current with ventilation	Switching voltage	Control voltage	Input R	I ^t	Dimensions mm
SKH10120	10A@20°C	16A	12-280VAC	4-14VDC	440 Ω	128A ² s	43,6 x 22 x 35,7
SKH10240	10A@25°C	25A	24-600VAC	4-14VDC	440 Ω	450A ² s	
SKH20120	10A@20°C	16A	12-280VAC	8-32VDC	1640 Ω	128A ² s	
SKH20240	10A@25°C	25A	24-600VAC	8-32VDC	1640 Ω	450A ² s	

Other reference available : please contact us.

WF032000	Heatsink for SKL L=150mm 2,6-3 K/W	1L941000	Clips for SKL on WF03/04 (clips Max 23 Aavid Thermalloy)
WF042000	Heatsink for SKL L=100mm 3,6-4 K/W	1L942000	Clips for SKL with screw for other heatsinks

SN8 RANGE

Ultra miniature package for achieving optimum size / performance goal

- > This relay is designed for PCB board and heatsink to control heavy loads in an ultra-miniature, physically compact package.

PRODUCT REFERENCE	Current	Switching voltage	Control voltage	Input R	I ^t	Dimensions mm
SN842500	25A	24-280VAC	15-32VDC	2200 Ω	260A ² s	35,05x12,70x28,32

Other reference available : please contact us.

SHT RANGE

Three phase solid state relay in a single low profile package.

- > This relay is designed for PCB board to provide control of medium power in three phase applications.

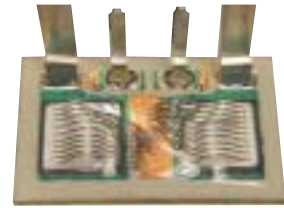
PRODUCT REFERENCE	Current	Switching voltage	Control voltage	Input R	I ^t	Dimensions mm
SHT842100	3x25A	24-280VAC	3,5-10VDC	250 Ω	260A ² s	81,28x8,26x27,69
SHT842300	3x25A	24-280VAC	10-30VDC	950 Ω	260A ² s	81,28x8,26x27,69

Other reference available : please contact us.

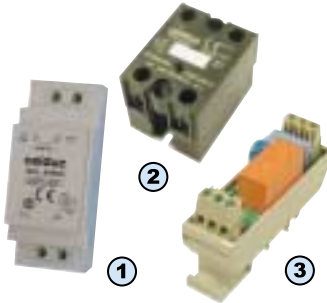
Power Relays



All our solid state relays fitted with back to back thyristors (power products : single phase, two phase, three phase) now use TMS² technology with a very high life expectancy compared to the majority of products on the market (application note on request)

TMS² Technology

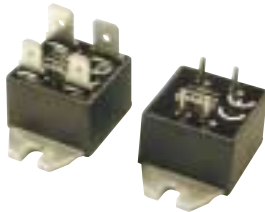
SOFTLIFE RANGE - "Get rid of your heatsinks!"



Relays combining the assets of dual technology : solid state and electromechanical. These relays are designed to switch current up to 30A without heatsink and in a very compact sizes. Relays with LED and RC and VDR protection.

PRODUCT REFERENCE	Switching current	Switching voltage	Control voltage	I ² t	Protec.	Specifications	Fig n°	Dimensions mm
SOL42950	25A	24-275VAC	195-253VAC	312A ² s	RC-VDR	domestic	1	35x58x90
SVX963350	30A	12-420VAC	20-30VDC	265A ² s	RC-VDR	mixed relays	2	44,5x61,3x45
XKX21640	16AC1/4AC3	12-460VAC	20-30VAC	72A ² s	RC-VDR	mixed, DIN rail mounted relay	3	22,5x77x45

SF RANGE



Miniature relays with "FASTON" terminals or PCB terminals.

PRODUCT REFERENCE	Switching current	Switching voltage	Control voltage	Input R	Specifications	Dimensions mm
SF441310	10A	12-280VAC	3-30VDC	1 kΩ	Random, "FASTON" terminals	21 x 35,5 x 15
SF541310	10A	12-280VAC	4-30VDC	1 kΩ	zero-crossed, "FASTON" terminals	
SF542310	10A	12-280VAC	4-30VDC	1 kΩ	zero-crossed, PCB terminals	
SF546310	20A	12-280VAC	4-30VDC	1 kΩ	zero-crossed, "FASTON" terminals	

These products should be mounted on heatsinks in order to reach nominal value.

SCF RANGE



To control resistive loads. "FASTON" terminals.

PRODUCT REFERENCE	Switching current	Switching voltage	Peak voltage	Control voltage	Input R	LED	I ² t	Protec.	Dimensions mm
SCF42160	25A	12-280VAC	600V	4-30VDC	600 Ω	yes	312A ² s	-	44,5 x 58,2 x 27
SCF42324	25A	12-280VAC	600V	12-30VDC	1 kΩ	no	312A ² s	VDR	
SCF62160	25A	24-600VAC	1200V	5-30VDC	600 Ω	yes	265A ² s	-	

Other references (corresponding to the SC9 range) are available : please contact us.

These products should be mounted on heatsinks in order to reach nominal value.

SCFL RANGE EMC optimised (low electromagnetic emission - low RFI)

This relay is designed for use in applications where low electromagnetic emission is essential : household and electrical appliances, information technology and medical equipments. In compliance with EN 50081-1 Generic Emission Standards for Residential and meets CISPR 22 requirements.

PRODUCT REFERENCE	Switching current	Switching voltage	Peak voltage	Control voltage	Input R	I ² t	Dimensions mm
SCFL42100	25A	12-280VAC	600V	4-30VDC	1 k.	312A ² s	44,5x58,2x32

These products should be mounted on heatsinks in order to reach nominal value.



SC7 RANGE

The SC7 range with random or instant switching, integrating a snubber (RC) is especially designed for motor and transformer control. This range is also suitable (with closing times < 50 microseconds) for quick switching for uninterrupted power supplies (UPS, etc).



PRODUCT REFERENCE	Switching current	Switching voltage	Peak voltage	Control voltage	Input R	I ² t	Dimensions mm
SC741110	12A	12-280VAC	600V	3-30VDC	1 kΩ	72A ² s	44,5 x 58,2 x 27
SC742110	25A	12-280VAC	600V	3-30VDC	1 kΩ	312A ² s	
SC744110	40A	12-280VAC	600V	3-30VDC	1 kΩ	612A ² s	
SC745100	50A	12-280VAC	600V	3-30VDC	1 kΩ	1500A ² s	
SC747100	75A	12-280VAC	600V	3-30VDC	1 kΩ	5000A ² s	
SC762110	25A	24-520VAC	1200V	4-30VDC	1 kΩ	265A ² s	
SC764110	50A	24-520VAC	1200V	4-30VDC	1 kΩ	1500A ² s	
SC764910	50A	24-520VAC	1200V	90-240VAC/DC	30 kΩ	1500A ² s	
SC767110	75A	24-520VAC	1200V	4-30VDC	1 kΩ	5000A ² s	
SC768110	95A	24-520VAC	1200V	4-30VDC	1 kΩ	11000A ² s	
SC769110	125A	24-520VAC	1200V	4-30VDC	1 kΩ	20000A ² s	

Other reference (AC control...) are available. All our products can be made with 1600V peak : please contact us.
These products should be mounted on heatsink in order to reach nominal value.

SC8 RANGE

The SC8 range with zero-cross switching, integrating a snubber (RC), is recommended for all types of applications. The sc8xxxx products with 1600V peak are especially designed for capacity control : power factor corrector.



Protective cover and heatsinks : see accessories

PRODUCT REFERENCE	Switching current	Switching voltage	Peak voltage	Control voltage	Input R	I ² t	Dimensions mm
* SC800010	25A	24-520VAC	1200V	5-30VDC	1 kΩ	265A ² s	44,5 x 58,2 x 27
SC841110	12A	12-280VAC	600V	4-30VDC	1 kΩ	72A ² s	
SC841114	12A	12-280VAC	600V	4-30VDC	1 kΩ	72A ² s	
SC841810	12A	12-280VAC	600V	17-80VAC/DC	3 kΩ	72A ² s	
SC841910	12A	12-280VAC	600V	90-240VAC/DC	30 kΩ	72A ² s	
SC842110	25A	12-280VAC	600V	4-30VDC	1 kΩ	312A ² s	
SC842114	25A	12-280VAC	600V	4-30VDC	1 kΩ	312A ² s	
SC842810	25A	12-280VAC	600V	17-80VAC/DC	3 kΩ	312A ² s	
SC842910	25A	12-280VAC	600V	90-240VAC/DC	30 kΩ	312A ² s	
SC844110	40A	12-280VAC	600V	4-30VDC	1 kΩ	612A ² s	
SC844810	40A	12-280VAC	600V	17-80VAC/DC	3 kΩ	612A ² s	
SC844910	40A	12-280VAC	600V	90-240VAC/DC	30 kΩ	612A ² s	
SC861110	12A	24-520VAC	1200V	5-30VDC	1 kΩ	72A ² s	
SC862110	25A	24-520VAC	1200V	5-30VDC	1 kΩ	265A ² s	
SC862810	25A	24-520VAC	1200V	17-80VAC/DC	3 kΩ	265A ² s	
SC862910	25A	24-520VAC	1200V	90-240VAC/DC	30 kΩ	265A ² s	
SC864110	50A	24-520VAC	1200V	5-30VDC	1 kΩ	1500A ² s	
SC864810	50A	24-520VAC	1200V	17-80VAC/DC	3 kΩ	1500A ² s	
SC864910	50A	24-520VAC	1200V	90-240VAC/DC	30 kΩ	1500A ² s	
SC867110	75A	24-520VAC	1200V	5-30VDC	1 kΩ	5000A ² s	
SC867910	75A	24-520VAC	1200V	90-240VAC/DC	30 kΩ	5000A ² s	
SC868110	95A	24-520VAC	1200V	5-30VDC	1 kΩ	11000A ² s	
SC868910	95A	24-520VAC	1200V	90-240VAC/DC	30 kΩ	11000A ² s	
SC869110	125A	24-520VAC	1200V	5-30VDC	1 kΩ	20000A ² s	
SC869810	125A	24-520VAC	1200V	17-80VAC/DC	3 kΩ	20000A ² s	
SC869910	125A	24-520VAC	1200V	90-240VAC/DC	30 kΩ	20000A ² s	
SC885100	50A	24-690VAC	1600V	7-30VDC	1 kΩ	1500A ² s	
SC887100	75A	24-690VAC	1600V	7-30VDC	1 kΩ	5000A ² s	
SC888100	95A	24-690VAC	1600V	7-30VDC	1 kΩ	11000A ² s	
SC889100	125A	24-690VAC	1600V	7-30VDC	1 kΩ	20000A ² s	

* For PCB mounting.

other references (built-in VDR, LED...) can be made to minimum quantity.

These products should be mounted on heatsink in order to reach nominal value.

Some of our references fulfil the requirements according to DIN EN60601-1 (VDE 0750) for medical applications.

SC9 RANGE

The SC9 series with zero-cross switching is optimized for resistive load control (heating application)



Protective cover and heatsinks : see accessories

PRODUCT REFERENCE	Switching current	Switching voltage	Peak voltage	Control voltage	Input R	LED	I _t	Protec.	Dimensions mm
SC941110	12A	12-280VAC	600V	4-30VDC	1 kΩ	no	72A ² s		44,5 x 58,2 x 27
SC941160	12A	12-280VAC	600V	4-30VDC	600 Ω	yes	72A ² s		
SC942110	25A	12-280VAC	600V	4-30VDC	1 kΩ	no	312A ² s		
SC942120	25A	12-275VAC	600V	4-30VDC	1 kΩ	no	312A ² s	VDR	
SC942160	25A	12-280VAC	600V	4-30VDC	600 Ω	yes	312A ² s		
SC942900	25A	12-280VAC	600V	90-240VAC/DC	30 kΩ	no	312A ² s		
SC942920	25A	12-275VAC	600V	90-240VAC/DC	30 kΩ	no	312A ² s	VDR	
SC944110	40A	12-280VAC	600V	4-30VDC	1 kΩ	no	612A ² s		
SC944160	40A	12-280VAC	600V	4-30VDC	600 Ω	yes	612A ² s		
SC945060	50A	12-280VAC	600V	3-32VDC	600 Ω	Led	1500A ² s		
SC945100	50A	12-280VAC	600V	4-30VDC	1 kΩ	no	1500A ² s		
SC945160	50A	12-280VAC	600V	4-30VDC	600 Ω	yes	1500A ² s		
SC945900	50A	12-280VAC	600V	90-240VAC/DC	30 kΩ	no	1500A ² s		
SC947100	75A	12-280VAC	600V	4-30VDC	1 kΩ	no	5000A ² s		
SC947160	75A	12-280VAC	600V	4-30VDC	600 Ω	yes	5000A ² s		
SC947900	75A	12-280VAC	600V	90-240VAC/DC	30 kΩ	no	5000A ² s		
SC948100	95A	12-280VAC	600V	4-30VDC	1 kΩ	no	11000A ² s		
SC949100	125A	12-280VAC	600V	4-30VDC	1 kΩ	no	20000A ² s		
SC961110	12A	24-600VAC	1200V	5-30VDC	1 kΩ	no	72A ² s		
SC961160	12A	24-600VAC	1200V	5-30VDC	600 Ω	yes	72A ² s		
SC962110	25A	24-600VAC	1200V	5-30VDC	1 kΩ	no	265A ² s		
SC962114	25A	24-600VAC	1200V	5-30VAC	1 kΩ	no	265A ² s		
SC962160	25A	24-600VAC	1200V	5-30VDC	600 Ω	yes	265A ² s		
SC962800	25A	24-600VAC	1200V	17-80VAC/DC	3 kΩ	no	265A ² s		
SC962960	25A	24-600VAC	1200V	90-240VAC/DC	30 kΩ	yes	265A ² s		
SC965100	50A	24-600VAC	1200V	5-30VDC	1 kΩ	no	1500A ² s		
SC965160	50A	24-600VAC	1200V	5-30VDC	600 Ω	yes	1500A ² s		
SC967100	75A	24-600VAC	1200V	5-30VDC	1 kΩ	no	5000A ² s		
SC967160	75A	24-600VAC	1200V	5-30VDC	600 Ω	yes	5000A ² s		

All the products come in 800V peak (SC95xxxx).

This SC9 range can be made with a self-protection device in the event of high energy overvoltage : please contact us.

These products should be mounted on heatsink in order to reach nominal value.

SIC/SIR RANGE

New Solid State Relay compact size pitch 22,5mm.

SIR model with spring terminals.

-> These relays are designed for power application where we want to save space and time with modern terminals.

PRODUCT REFERENCE	Switching current	Switching voltage	Peak voltage	Control voltage	Input R	LED	I _t	Protec.	Dimensions mm
SIC841500	12A	12-280VAC	600V	7-30VDC	1 kΩ	no	72A ² s		22,5x80x31
SIC864520	32A	24-600VAC	1200V	7-30VDC	1 kΩ	no	610A ² s	VDR	22,5x80x37
SIC865560	32A	24-600VAC	1200V	7-30VDC	1 kΩ	yes	1500A ² s		22,5x80x37
SIR841500	12A	12-280VAC	600V	7-30VDC	1 kΩ	no	72A ² s		22,5x80x33
SIR842500	(16A)25A	12-280VAC	600V	7-30VDC	1 kΩ	no	312A ² s		22,5x80x33

Other references available : please contact us.

These products should be mounted on heatsink in order to reach nominal value.



Spring terminals : easy to connect !

POWER SSRs with diagnostic

Status of the SSR and the load without external power supply. This range is patented. Status output can be chained.

Fault condition alarms:

- Line or load open
- Short circuit output

PRODUCT REFERENCE	Switching current	Switching voltage	Peak voltage	Control voltage	Input R	I ^{pt}	Dimensions mm
SCD845110	50A	70-280VAC	600V	7-32VDC	1 kΩ	1500A ² s	45,5x58,2x35
SCD847110	75A	70-280VAC	600V	7-32VDC	1 kΩ	5000A ² s	45,5x58,2x35
SCD865110	50A	150-510VAC	1200V	8-32VDC	1 kΩ	1500A ² s	45,5x58,2x35
SCD867110	75A	150-510VAC	1200V	8-32VDC	1 kΩ	5000A ² s	45,5x58,2x35
SILD845160	25A	70-280VAC	600V	3-32VDC	I _c <10mA	1500A ² s	22,5x80x116
SILD865170	25A	150-510VAC	1200V	3,5-32VDC	I _c <10mA	1500A ² s	22,5x80x116
SILD867170	35A	150-510VAC	1200V	3,5-32VDC	I _c <10mA	5000A ² s	22,5x80x116

The SCD products should be mounted on heatsink in order to reach nominal value.

SCP RANGE - Transformer starting

The SCP relays are designed for the start-up of transformer primary circuits and all saturated inductance coil loads preventing magnetising current peaks (application note on request)

PRODUCT REFERENCE	Switching current	Switching voltage	Peak voltage	Control voltage	Input R	I ^{pt}	Specifications	Dimensions mm
SCP49110	40A*	180-280VAC	600V	4-30VDC	1 kΩ	610A ² s	peak starting	44,5x58,2x27
SCP69110	40A*	300-480VAC	1200V	4-30VDC	1 kΩ	610A ² s		

*See application note on data sheet.

These products can be procured with high rating current on request.

For the start-up of three phase transformers, use our new range of SOFTSTARTERS SMCW or our SVTA / SWTA range : please consult us.

These products should be mounted on heatsink in order to reach nominal value.

SV8 RANGE

Synchronous single phase relays, all options : LED, IP20, RC, VDR terminal protection, identification tag, cage terminals.

PRODUCT REFERENCE	Switching current	Switching voltage	Peak voltage	Control voltage	Input R	LED	I ^{pt}	Protec.	Dimensions mm
SV841394	12A	12-275VAC	600V	10-32VDC	1250 Ω	yes	72A ² s	RC-VDR	44,5 x 61,3 x 45
SV841994	12A	12-275VAC	600V	150-240VAC	21 kΩ	yes	72A ² s	RC-VDR	
SV842170	25A	12-275VAC	600V	4-30VDC	600 Ω	yes	288A ² s	VDR	
SV844394	45A	12-275VAC	600V	10-32VDC	1250 Ω	yes	1500A ² s	RC-VDR	
SV844994	45A	12-275VAC	600V	150-240VAC	21 kΩ	yes	1500A ² s	RC-VDR	
SV845170	50A	12-275VAC	600V	4-30VDC	600 Ω	yes	1500A ² s	VDR	
SV861394	12A	24-500VAC	1200V	10-32VDC	1250 Ω	yes	72A ² s	RC-VDR	
SV861994	12A	24-500VAC	1200V	150-240VAC	21 kΩ	yes	72A ² s	RC-VDR	
SV865160	50A	24-600VAC	1200V	5-30VAC	600 Ω	yes	1500A ² s	no	
SV865394	50A	24-500VAC	1200V	10-32VDC	1250 Ω	yes	1500A ² s	RC-VDR	
SV865994	50A	24-500VAC	1200V	150-240VAC	21 kΩ	yes	1500A ² s	RC-VDR	
SV867130	75A	24-500VAC	1200V	5-30VDC	1 kΩ	no	5000A ² s	Transil	
SV867170	50A	24-500VAC	1200V	5-30VDC	600 Ω	yes	5000A ² s	VDR	
SV867160	75A	24-600VAC	1200V	5-30VDC	600 Ω	yes	5000A ² s	Led	
SV867470	75A	24-510VAC	1200V	3,5-32VDC		no	5000A ² s	Led + VDR	

The whole SC range can be made in SV size (other controls, currents, random, etc) : please contact us.

These products should be mounted on heatsink in order to reach nominal voltage.

SWM RANGE - Solid state contactor

Single phase ready-to-use contactor integrating heatsink, DIN-rail mounting, IP20 terminal protection, LED, VDR, cage terminals... these products are defined with temperature rises of 50°C and permanent 8-hour operation (operating cycles = 100%) in compliance with the European standards

PRODUCT REFERENCE	Switching current	Switching voltage	Peak voltage	Control voltage	Input R	I ^{pt}	Dimensions mm	Fig n°
SWM841080	9A	12-280VAC	600V	17-60VAC/DC	1700 Ω	610A ² s	45x65x60	1
SWM841830	30A	12-280VAC	600V	10-30VDC	1250 Ω	1500A ² s	48x72x120	2
SWM862080	30A	24-510VAC	1200V	17-60VAC/DC	1700 Ω	1500A ² s	48x72x120	2
SWM864530	50A	24-500VAC	1200V	10-30VDC	1250 Ω	11000A ² s	83x90x143	3
SWM865080	50A	24-510VAC	1200V	17-60VAC/DC	1700 Ω	5000A ² s	83x90x143	3

celpac® RANGE

**INSTALL IT
FORGET IT**



- > 22,5 and 45mm Pitch.
- > Large control range : 3-32VDC with an input current <10mA whatever the rating voltage and temperature range.
AC control models available.
- > Green LED visualization on the input.
- > Very high immunity : Voltage protection on output and input : 4kV according to IEC61000-4-4 & 5.
- > Models SILD845, SIL855 and SIM855 switch ON in case of overvoltage : autoprotection on AC-51 loads only.
- > TMS² Technology with very long lifetime.
- > I² t value between 312 and 5000A² s hence protection against short-circuit on the load possible by Miniature Circuit Breakers (MCB).
Low leakage current (<1mA) and low zero cross voltage (<10V) for zero cross SSR. Turn on time for random models.
- > IP20 housing.
- > Use screw clamp terminals.
- > No tools needed for mounting and dismounting on DIN rail or direct mounting on panel.
- > Designed in conformity with EN60947-4-3 (IEC947-4-3) and EN60950 -UL-cU.
CE mark : made in France with high quality level.



Single Phase SIL 22,5 mm

PRODUCT REFERENCE	Switching current	Switching voltage	Peak voltage	Control voltage	Input R	I ² t	Protec.	Dimensions mm
SIL765170	35A (22A)	24-510VAC	1200V	3,5-32VDC	Ic<10mA	1500A ² s	Random	22,5x80x116
SIL841170	12A (12A)	12-275VAC	600V	3-32VDC	Ic<10mA	72A ² s	Zero-cross	22,5x80x116
SIL842170	25A (20A)	12-275VAC	600V	3-32VDC	Ic<10mA	312A ² s	Zero-cross	22,5x80x116
SIL842770	25A (20A)	12-275VAC	600V	17-60VAC/DC	Ic<10mA	312A ² s	Zero-cross	22,5x80x116
SIL842970	25A (20A)	12-275VAC	600V	150-240VAC/DC	Ic<10mA	312A ² s	Zero-cross	22,5x80x116
SIL855160	35A (22A)	12-480VAC	1200V	3-32VDC	Ic<10mA	1500A ² s	Zero-cross	22,5x80x116
SIL865170	35A (22A)	24-510VAC	1200V	3,5-32VDC	Ic<10mA	1500A ² s	Zero-cross	22,5x80x116
SIL865770	35A (22A)	24-510VAC	1200V	17-60VAC/DC	Ic<10mA	1500A ² s	Zero-cross	22,5x80x116
SIL865970	35A (22A)	24-510VAC	1200V	150-240VAC/DC	Ic<10mA	1500A ² s	Zero-cross	22,5x80x116
SIL867170	35A (28A)	24-510VAC	1200V	3,5-32VDC	Ic<10mA	5000A ² s	Zero-cross	22,5x80x116

* () UL and AC-51



Single Phase SIM 45 mm

SIM765170	40A (32A)	24-510VAC	1200V	3,5-32VDC	Ic<10mA	1500A ² s	Random	45X80X116
SIM855160	40A (32A)	24-510VAC	1200V	3,5-32VDC	Ic<10mA	1500A ² s	Zero-cross	45X80X116
SIM865170	40A (32A)	24-510VAC	1200V	3,5-32VDC	Ic<10mA	1500A ² s	Zero-cross	45X80X116
SIM865770	40A (32A)	24-510VAC	1200V	17-60VAC/DC	Ic<10mA	1500A ² s	Zero-cross	45X80X116
SIM865970	40A (32A)	24-510VAC	1200V	150-240VAC/DC	Ic<10mA	1500A ² s	Zero-cross	45X80X116
SIM867170	45A (35A)	24-510VAC	1200V	3,5-32VDC	Ic<10mA	5000A ² s	Zero-cross	45X80X116

Products also available in this range :

-SILD model with diagnostic (see page 10) : status of the SSR and the load.

Without external power supply. Normally closed status output. Status visualization by LED. Status output can be chained.
This range is patented.

-SIB two phase relays (see page 12) : can be used in three phase applications by switching two phases only.

Two phase relays

SCB RANGE

This two phase range provides two solid state relays in a compact standard 45 mm enclosure. They are perfectly adapted to three phase applications with breaking of two phases only.



All our SCB products are now available with LED

PRODUCT REFERENCE	Switching current	Switching voltage	Peak voltage	Control voltage	Input R	I't	Specifications	Dimensions mm	Fig n°
SCB345100	2X50A	12-280VAC	600V	4-30VDC	1 kΩ	1500A²s	random / 2 controls	44,8 x 58 x 27	1
SCB445100	2X50A	12-280VAC	600V	4-30VDC	1 kΩ	1500A²s	random / 2 controls		2
SCB564310	2X40A	24-510VAC	1200V	5-30VDC	1 kΩ	610A²s	zero-cross / 2 controls		3
SCB865300	2X50A	24-600VAC	1200V	10-30VDC	1400 Ω	1500A²s	zero-cross / 1 control		4
SCB865600	2X50A	24-600VAC	1200V	10-30VDC	1800 Ω	1500A²s	zero-cross / 2 controls		5
SCB865300	2X50A	24-600VAC	1200V	8-35VDC	1800 Ω	1500A²s	zero-cross / 2 controls		2
SCB745300	2X50A	12-280VAC	600V	10-30VDC	1400 Ω	1500A²s	random / 1 control		4
SCB765200	2X50A	24-600VAC	1200V	5-30VDC	1 kΩ	1500A²s	random / 2 controls		5
SCB867300	2X75A	24-600VAC	1200V	10-30VDC	1400 Ω	1500A²s	zero-cross / 1 control		4
SCB867600	2X75A	24-600VAC	1200V	10-30VDC	1800 Ω	5000A²s	zero-cross / 2 controls		5
SCB941300	2X12A	12-280VAC	600V	8-30VDC	1000 Ω	72A²s	zero-cross / 1 control		4
SCB941600	2X12A	12-280VAC	600V	8-30VDC	1 K Ω	72A²s	zero-cross / 2 controls		5
SCB942300	2X25A	12-280VAC	600V	8-30VDC	1000 Ω	288A²s	zero-cross / 1 control		4
SCB942600	2X25A	12-280VAC	600V	8-30VDC	1 K Ω	288A²s	zero-cross / 2 controls		5
SCB944300	2X40A	12-280VAC	600V	8-30VDC	1000 Ω	612A²s	zero-cross / 1 control		4
SCB944600	2X40A	12-280VAC	600V	8-30VDC	1 K Ω	612A²s	zero-cross / 2 controls		5
SCB945600	2X50A	12-280VAC	600V	8-30VDC	1 K Ω	1500A²s	zero-cross / 2 controls		5
SCB962600	2X25A	24-600VAC	1200V	8-30VDC	1 K Ω	265A²s	zero-cross / 2 controls		5
SCB965600	2X50A	24-600VAC	1200V	8-30VDC	1 K Ω	1500A²s	zero-cross / 2 controls		5

Protection Cover : see accessories (1K470000).

These products should be mounted on heatsink in order to reach nominal value.



①



②



③



④



⑤

celpac® RANGE

They are perfectly adapted to three phase applications with breaking of two phases only.

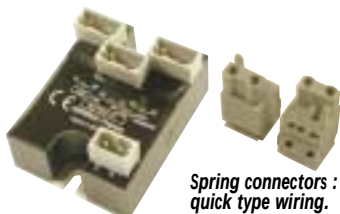


Two phase SIB 45 mm

PRODUCT REFERENCE	Switching current	Switching voltage	Peak voltage	Control voltage	Input R	I't	Specifications	Dimensions mm
SIB765170	2x25A	24-510VAC	1200V	3,5-32VDC	Ic<10mA	1500A²s	random	45 x 80 x 116
SIB865170	2x25A	24-510VAC	1200V	3,5-32VDC	Ic<10mA	1500A²s	zero-cross	
SIB865970	2x25A	24-510VAC	1200V	150-240VAC/DC	Ic<10mA	1500A²s	zero-cross	
SIB867170	2x25A	24-510VAC	1200V	3,5-32VDC	Ic<10mA	5000A²s	zero-cross	

Three phase relays

SCT RANGE



Spring connectors :
quick type wiring.

Three phase solid state relays in a single phase relay enclosure.

PRODUCT REFERENCE	Switching current	Switching voltage	Peak voltage	Control voltage	Input R	I ^{ft}	Specifications	Dimensions mm
SCT32110	3X10A	12-440VAC	800V	4-30VDC	330 Ω	72A ² s	random	44,8 x 58 x 27
SCT62110	3X10A	12-440VAC	800V	4-30VDC	330 Ω	72A ² s	zero-cross	

These products also come with PCB terminals.

These product should be mounted with heatsink in order to reach nominal value.

SGT RANGE

Standard three phase range to control resistive loads (AC-51) or for motor control (AC-53). These relays have LED



PRODUCT REFERENCE	Switching current AC-51	Current AC-53	Switching voltage	Peak voltage	Control voltage	Input R	I ^{ft}	Specifications	Dimensions mm
SGT369350A	3X40A	3X7,5A	24-520VAC	1200V	5-30VDC	270 Ω	610A ² s	random	100 x 73,5 x 39,5
SGT669350A	3X40A	3X7,5A	24-520VAC	1200V	5-30VDC	270 Ω	612A ² s		
SGT765370	3X50A	3X12A	24-520VAC	1200V	8.5-30VDC	620 Ω	1500A ² s		
SGT767370	3X75A	3X16A	24-520VAC	1200V	8.5-30VDC	620 Ω	5000A ² s		
SGT865350	3X50A	3X12A	24-520VAC	1200V	8.5-30VDC	620 Ω	1500A ² s	zero-cross	
SGT867350	3X75A	3X16A	24-520VAC	1200V	8.5-30VDC	620 Ω	5000A ² s	zero-cross optimised for resistive loads	
SGT961360	3X12A	-	24-600VAC	1200V	8.5-30VDC	620 Ω	72A ² s		
SGT962360	3X25A	-	24-600VAC	1200V	8.5-30VDC	620 Ω	265A ² s		
SGT965360	3X50A	-	24-600VAC	1200V	8.5-30VDC	620 Ω	1500A ² s		
SGT965960	3X50A	-	24-600VAC	1200V	90-240VAC	21 kΩ	1500A ² s		
SGT967360	3X75A	-	24-600VAC	1200V	8.5-30VDC	620 Ω	5000A ² s		

These product should be mounted with heatsink in order to reach nominal value.

SVT RANGE

Three phase IP20 protection range to control resistive loads (AC-51) or for motor control (AC-53). Please consult us for other loads. These relays have LED.

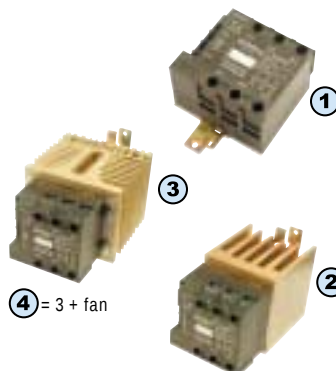


PRODUCT REFERENCE	Switching current AC-51	Current AC-53	Switching voltage	Calibre Thyristor	Control voltage	Input R	I ^{ft}	Protec.	Specifications	Dimensions mm
SVT764394	3X50A	3X12A	24-520VAC	50A	8.5-30VDC	620 Ω	1500A ² S	RC-VDR	random	100 x 76 x 56,5
SVT861394	3X12A	3X2,5A	24-520VAC	12A	8.5-30VDC	620 Ω	72A ² S	RC-VDR	zero-cross	
SVT861994	3X12A	3X2,5A	24-520VAC	12A	90-240VAC	21 kΩ	72A ² S	RC-VDR		
SVT864374	3X50A	3X12A	24-520VAC	50A	10-32VDC	580 Ω	1500A ² S	VDR		
SVT864394	3X50A	3X12A	24-520VAC	50A	8.5-30VDC	620 Ω	1500A ² S	RC-VDR		
SVT864994	3X50A	3X12A	24-520VAC	50A	90-240VAC	21 kΩ	1500A ² S	RC-VDR		
SVT867394	3X50A	3X16A	24-520VAC	75A(90A)	8.5-30VDC	620 Ω	5000A ² S	RC-VDR		
SVT867994	3X50A	3X16A	24-520VAC	75A(90A)	90-240VAC	21 kΩ	5000A ² S	RC-VDR		
SVT868394	3X50A	3X24A	24-520VAC	95A	8.5-30VDC	620 Ω	11000A ² S	RC-VDR		
SVT868994	3X50A	3X24A	24-520VAC	95A	90-240VAC	21 kΩ	11000A ² S	RC-VDR		
SVT869394	3X50A	3X32A	24-520VAC	125A	8.5-30VDC	620 Ω	20000A ² S	RC-VDR		
SVT869994	3X50A	3X32A	24-520VAC	125A	90-240VAC	21 kΩ	20000A ² S	RC-VDR		
SVT961360	3X12A	-	24-600VAC	12A	8.5-30VDC	620 Ω	72A ² S	-	zero-cross optimised for resistive loads	
SVT965360	3X50A	-	24-600VAC	50A	8.5-30VDC	620 Ω	1500A ² S	-		
SVT965760	3X50A	-	24-600VAC	50A	10-30VAC/DC	410 Ω	1500A ² S	-		
SVT965960	3X50A	-	24-600VAC	50A	90-240VAC	21 kΩ	1500A ² S	-		
SVT967360	3X75A	-	24-600VAC	75A	8.5-30VDC	620 Ω	5000A ² S	-		

These product should be mounted with heatsink in order to reach nominal value.

SWT RANGE - Solid state contactors

Three phase contactor with heatsink and DIN rail mounting. Fitted with a LED and RC and VDR network protection designed to control resistive loads (AC-51) or for motor control (AC-53).

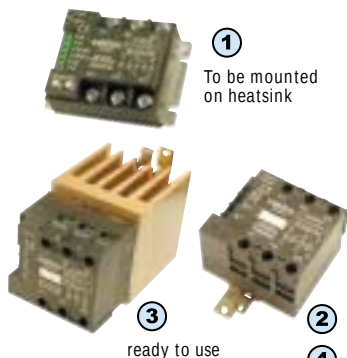


PRODUCT REFERENCE	Switching current AC-51	Current AC-53	Switching voltage	Peak voltage	Control voltage	Input R	I ^{ft}	Specifications	Dimensions mm	Fig n°
SWT860330	3X5A	3X5A	24-520VAC	1200V	10-30VAC/DC	410 Ω	265A ² s	zero-cross	83x76x72	1
SWT860390	3X5A	3X5A	24-520VAC	1200V	90-240VAC	21 kΩ	265A ² s		83x76x72	1
SWT861230	3X22A	3X12A	24-520VAC	1200V	10-30VAC/DC	410 Ω	1500A ² s		83x90x155	2
SWT861290	3X22A	3X12A	24-520VAC	1200V	90-240VAC	21 kΩ	1500A ² s		83x90x155	2
SWT861730	3X28A	3X16A	24-520VAC	1200V	10-30VAC/DC	410 Ω	5000A ² s		110x90x172	3
SWT861790	3X28A	3X16A	24-520VAC	1200V	90-240VAC	21 kΩ	5000A ² s		110x90x172	3
SWT862030	3X32A	3X24A	24-520VAC	1200V	10-30VAC/DC	410 Ω	11000A ² s		110x90x172	3
SWT862090	3X32A	3X24A	24-520VAC	1200V	90-240VAC	21 kΩ	11000A ² s		110x145x172	3
SWT865080	3X50A	-	24-520VAC	1200V	10-30VAC/DC	410 Ω	5000A ² s		83x90x155	4

These products are defined with temperature rises of 50°C and permanent operation (operating cycle = 100%) of 8 hours in compliance with the European standards.

Motor control

SG9 - SW9 - Reversing switches



①
To be mounted
on heatsink

③
ready to use

④ = SG969300 in SV IP20 enclosure

This relay is used to reverse the rotational direction of a motor.
The SW9 series is ready to use with heatsink and DIN rail mounting integrated.
They all come with LED and protection against simultaneous controls.

PRODUCT REFERENCE	Switching current AC-53	Switching voltage	Control voltage	I ² t	Protec.	Specifications	Dimensions mm	Fig n°
SG969100	3X6,6A	24-520VAC	10-30VDC	612A ² s	reversing + time delay	3 phase switching	100x73,5x39,5	1
SG969300	3X8,5A	24-520VAC	12-30VDC	1500A ² s		2 phase switching	100x73,5x39,5	1
SV969300	3X8,5A	24-520VAC	12-30VDC	1500A ² s		2 phase switching IP20 enclosure	100x76x56,5	4
SV969500	3X16A	24-550VAC	12-30VDC	5000A ² s		2 phase switching IP20 enclosure	100x76x56,5	4
SW960330	3X4,5A	24-520VAC	12-30VDC	1500A ² s		2 phase switching	100x76x72	2
SW961230	3X8,5A	24-520VAC	12-30VDC	1500A ² s		2 phase switching	83x90x155	3

SOFT STARTER SMCV - SMCW

Make the most of all its advantages !



Motor control :

- > Efficient reduction of torque and starting current

Incandescent or infrared lamp starting :

- > Reduction of inrush current
- > Increase in life expectancy

Transformer control (loaded) :

- > Elimination of saturation current
- > Improved control and protection

Whatever your application :

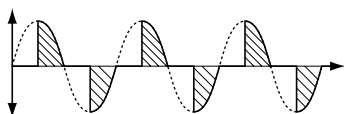
- > Diagnosis of network, load and state of product
- > Better balance of and less interference on starters (full control of the 3 phases!)
- > Simple use facilitating implementation and adjustments
- > As compact as an electronic contactor

PRODUCT REFERENCE	Pmax motor 400VAC		Pmax motor 230VAC		Max. Current AC53a		Specifications	Dimensions mm	Fig n°
	Y	D	Y	D	Max.	EN60947-4-2			
SMCV6080	7,5kW	13kW	4,3kW	7,5kW	16A	11,5A	Heatsink not provided	100x76x58,5	2
SMCV6110	11kW	19kW	6,4kW	11kW	25A	15,5A			
SMCV6150	15kW	26kW	8,6kW	15kW	30A	22,5A			
SMCW6020	2,5kW	4,3kW	1,4kW	2,5kW	5,6A	4A	Supplied with built-in heatsink	83x100x74	1
SMCW6080	7,5kW	13kW	4,3kW	7,5kW	16A	11,5A		83x110x155	3
SMCW6110	11kW	19kW	6,4kW	11kW	25A	15,5A		110x110x180	4
SMCW6150	15kW	26kW	8,6kW	15kW	30A	22,5A		110x141x180	5
SMCW6151	15kW	26kW	8,6kW	15kW	30A(AC53b)	22,5A(AC53b)	Ext. bypass required	83x100x74	1
Common characteristics	Range of voltage and network frequency		Control		Diagnostic output		Operating Temp rature	Insulation	Max section of wires
Values given at 40°C ambient	200-480VAC 40-65Hz		10-24VDC ou contact		0-24V 1A AC/DC		-40 - +100°C	4kV	E=2,5mm ² S=10mm ²

The star assembly (Y) corresponds to in-line wired starter.
The delta assembly (D) corresponds to the starter wired in the triangle coupling of the motor.
Each channel is wired in series with a winding of the motor.

SG4 RANGE - Phase angle controller

This relay is designed to proportionally vary the switching moment on a sinusoidal mains at an analog output thereby varying the RMS voltage at the terminals of the load. Applications : light dimmer, heating regulation single phase variable speed control (vibrating feeders, etc). Model with LED and RC and VDR network



PRODUCT REFERENCE	Switching current	Switching voltage	Control voltage	Input R	I ² t	Dimensions mm
SG441020	10A	115-265VAC	0-10VDC	400 kΩ	72A ² s	100 x 73,5 x 39,5
SG444020	40A	115-265VAC	0-10VDC	400 kΩ	1500A ² s	
SG444120	40A	115-265VAC	Potentiometer	200 kΩ	1500A ² s	
SG444420	40A	115-265VAC	4-20mA	250 Ω	1500A ² s	
SG464020	40A	200-460VAC	0-10VDC	400 kΩ	1500A ² s	
SG464120	40A	200-460VAC	Potentiometer	200 kΩ	1500A ² s	
SG464420	40A	200-460VAC	4-20mA	250 Ω	1500A ² s	
SG468020	70A	200-460VAC	0-10VDC	400 kΩ	5000A ² s	
SG468120	70A	200-460VAC	Potentiometer	200 kΩ	5000A ² s	
SG468420	70A	200-460VAC	4-20mA	250 Ω	5000A ² s	
SG469020	110A	200-460VAC	0-10VDC	400 kΩ	20000A ² s	
SG469120	110A	200-460VAC	Potentiometer	200 kΩ	20000A ² s	
SG469420	110A	200-460VAC	4-20mA	250 Ω	20000A ² s	

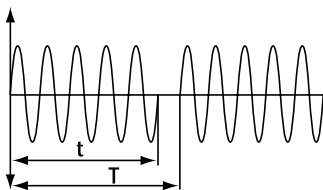
These products should be mounted on heatsink in order to reach nominal value.

SG5 RANGE - Full wave pulse controller

This relay has an analog input isolated from the mains to proportionally vary the cyclic operating ratio of a load (t/T). Control and mains are synchronous and output only has full periods. Models with LED and RC and VDR network protection.

These series of relays is suitable for many characteristics:

- Main voltage: 230VAC or 400VAC (50 ou 60Hz)
- Load current 10A, 40A
- Analog input 0 à 10V, 4 à 20mA, 0 à 5V or potentiometric (3rd terminal available).



PRODUCT REFERENCE	Switching current	Switching voltage	Control voltage	Input R	I ² t	Dimensions mm
SG541020	10A	230VAC	0-10VDC	250 kΩ	72A ² s	100 x 73,5 x 39,5
SG541120	10A	230VAC	Potentiometer	1 MΩ	72A ² s	
SG541420	10A	230VAC	4-20mA	350 Ω	72A ² s	
SG544020	40A	230VAC	0-10VDC	350 Ω	610A ² s	
SG544120	40A	230VAC	Potentiometer	1 MΩ	610A ² s	
SG564020	40A	400VAC	0-10V	250 kΩ	610A ² s	
SG564120	40A	400VAC	Potentiometer	1 MΩ	610A ² s	
SG564420	40A	400VAC	4-20mA	350 Ω	610A ² s	

For higher power ratings and three phases, ask for our application notes.

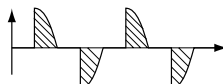
These products should be mounted on heatsink in order to reach nominal value.

Power under control!



- > Allows controlling any kind of loads (except capacitive) 3 or 4 wires (neutral), delta or star connection :
 - Resistive loads for temperature control (infrared lamps, kilns, resistors, ...)
 - Resistive loads for lighting control (bulbs, halogen, UV, scenes, ...)
 - Loads including a transformer, a coil or a rectifier for voltage control (power supplies, high voltage generators, ...)
 - Motors for voltage speed control (Possibility to reduce the speed depending on the type of motor and machine, motor fans, ...)
- > Six thyristor proportional phase angle controller (Three phase positive and negative cycle control) : Balanced currents, less harmonics, ...
- > Softstart and softstop ramps (Increases the lifetime expectancy of the assembly)
- > Diagnostic functions
- > Compact housing

SVTA - SWTA RANGE



READY TO USE - VALUES GIVEN AT 25°C AMBIENT

PRODUCT REFERENCE	Max. current AC51	Max. current AC53a	Control	Dimensions mm	Fig n ₁
SWTA4610	7A	7A	0-10V	83x110x74	1
SWTA4620	22A	16A	0-10V	83x110x155	2
SWTA4630	32A	25A	0-10V	110x110x180	3
SWTA4631			Potentiometer		
SWTA4634	50A	30A	4-20mA	110x141x180	4
SWTA4650			0-10V		
SWTA46501 (*)			0-10V		

* Fan 24 VDC.

PRODUCTS TO BE MOUNTED ON A HEATSINK

PRODUCT REFERENCE	Max. current AC511	Max. current AC53a	Control	Dimensions mm
SVTA4650	50A	16A	0-10V	100x76x58,5
SVTA4651			Potentiometer	
SVTA4684	95A(**)	25A	4-20mA	100x76x58,5
SVTA4690	125A(**)	30A	0-10V	100x76x58,5
SVTA4694			4-20mA	

** Max. wire size = 10mm² : double wires or use special adaptors for current > 50A.
Please refer to the mounting instructions.

SCC, SGC, SGD RANGE... DC Relays

This range of relays is designed to switch loads on DC networks such as solenoids, brakes, indicators... under voltages from 2 to 200 VDC with currents from 6 to 60A. 2 types of connections : screw on "FASTON" terminals.

PRODUCT REFERENCE	Switching current	Switching voltage	Control voltage	Input R	Specifications	Dimensions mm	Fig n°
SCC10506	5A	2-60VDC	3-16VDC	470 Ω	bipolar transistor DC output	44,5x58,2x27	①
SCC11506	15A	2-60VDC	3-16VDC	470 Ω			
SCC20506	5A	2-60VDC	10-32VDC	2200 Ω		67x38x37,5	②
SCC21506	15A	2-60VDC	10-32VDC	2200 Ω			
SCC21520	15A	2-200VDC	10-32VDC	2200 Ω		MOS transistor output	73x100x27
SGC12006	20A	2-60VDC	3-16VDC	470 Ω			
SGC20420	20A	2-200VDC	3-30VDC	1 kΩ			
SGC22006	20A	2-60VDC	10-32VDC	2200 Ω			
SGD15100	30A	10-32VDC	3-32VDC	1500 Ω			
SGD17100	60A	10-32VDC	3-32VDC	1500 Ω			
SGD25100	30A	18-60VDC	3-32VDC	1500 Ω			
SGD27100	60A	18-60VDC	3-32VDC	1500 Ω			



Other DC relays under development : with MOSFET and IGBT 's technologies :

Output: 50 VDC → 150 A
 100 VDC → 100 A
 200 VDC → 100 A
 600 VDC → 20 A

→ Please contact us

FOUR-LEG SOLID STATE RELAYS

4 single phase SSRs in a SC case - save place in control panels (width 45 mm).

PRODUCT REFERENCE	Switching current	Switching voltage	Peak voltage	Control voltage	Input R	I't	Dimensions mm	Led
SCQ842000	4x25A	12-280VAC	600V	3-32VDC	I ≤ 10mA	288A²s	44,5x58,2x27	no
SCQ842060	4x25A	12-280VAC	600V	3-32VDC	I ≤ 10mA	288A²s	44,5x58,2x27	yes

These products should be mounted on heatsink in order to reach nominal value.

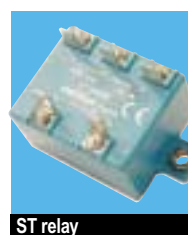
SPECIAL RELAYS



SAS relays
 Airport beacon relay.
 If a lamp fails, the relays short circuit this lamp.
 Different configurations available.



SG241010 relay
 230VAC mains.
 12A output voltage.
 Control by PLA type insulated contact
 Typical applications : heating breaking, etc



ST relay
 ST645000: flashing 1/2Hz 230VAC 10A.
 ST647000: flashing 1/2Hz 230VAC 25A.
 ST323000: flashing 1/2Hz 30-60VDC 10A.

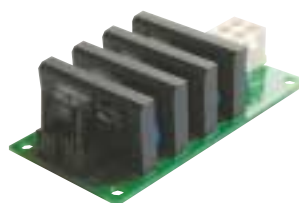


ECD05000 module
 Current detection module 0,5A. to 16A, 50-60Hz.
 Alarm output 30VDC 10ma.

celduc® relais is the specialist of typical customers applications.



4 SKLS
 5000 A² S on DIN Rail adaptators.



4 SKL
 on compact card.



This device using SSRs controls AC motors in hazardous area. Control by push-buttons with embedded magnet actuating Reed switches.



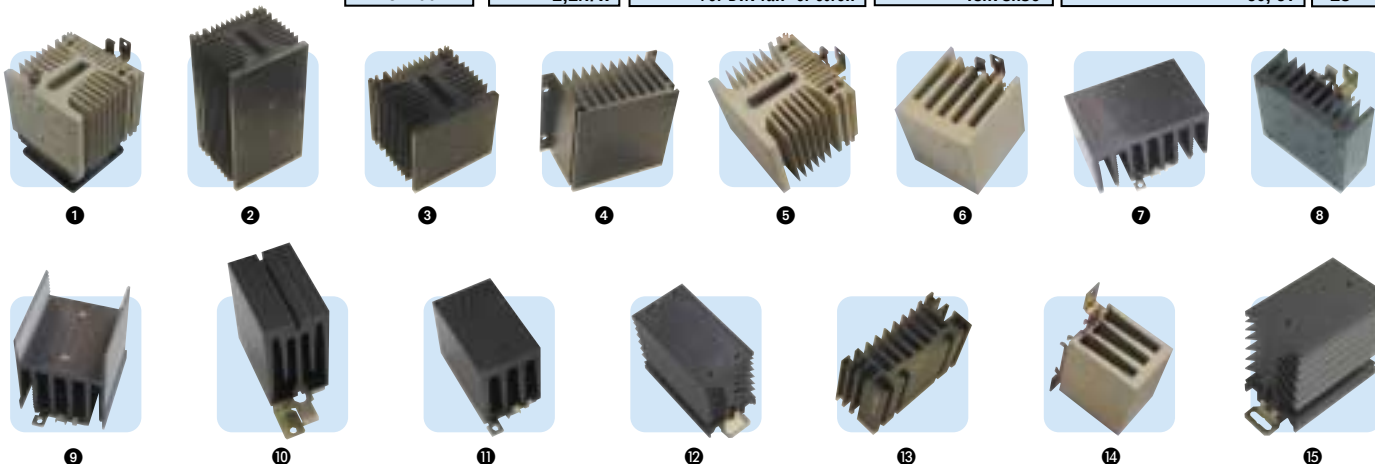
HEATSINKS

WF 23/27 ► see 1LWD.

* The Rth value are given for a temperature of 50°C in calm air

** Other dimensions available on request

PRODUCT REFERENCE	Thermal characteristics	Specifications	Dimensions mm	Relay type	Fig n°
WF031100 *	0,3K/W	ventilated for DIN rail or screw	110x120x145	SC,SV, SG, SGT, SVT	1
WF050000	0,55K/W	DIN rail adaptor as option	110x100x200	SC,SV, SG, SGT, SVT	2
WF070000	0,75K/W	DIN rail adaptor as option	110x100x100	SC,SV, SG, SGT, SVT	3
WF092000	0,9K/W	to be screwed	120x75x120	SC,SV, SG, SGT, SVT	4
WF115100	0,9K/W	For DIN rail or screw	110x100x90	SC,SV, SG, SGT, SVT	5
WF131100	1,1K/W	For DIN rail or screw	83x90x90	SC, SV	6
WF120100	1,2K/W	For DIN rail or screw	112x60x80	SC,SV, SG, SGT, SVT	7
WF121000	1,2K/W	For DIN rail or screw	100x40x100	SC,SV, SG, SGT, SVT	8
WF129100	1,3K/W	For DIN rail or screw	74x91x77	SC, SV	9
WF141100	1,5K/W	For DIN rail or screw	45x84x65	SC, SV	10
WF191100	1,95K/W	For DIN rail or screw	48x65x80	SC, SV	11
WF152100	2,4K/W	For DIN rail or screw	45x73x70	SC, SV	12
WF210000**	2,1K/W	DIN rail adaptor as option	96x41x55	SC, SV	13
WF262100	2,2K/W	For DIN rail or screw	48x60x72	SC, SV	14
WF151200	2,2K/W	For DIN rail or screw	45x73x80	SC, SV	15



Accessories



PROTECTION COVERS

1K199000	ON SGT/SG9/SMC relays
1K460000	on SC relays (except SCB et SC 125A)
1K470000	assembling on all SC/SCB relays

SCREW KIT

1LK00100	mounting on SC-SF-SV8/heatsink or SC-SV8/1LD12020
1LK00200	mounting on SG-SVT-SV9/heatsink or 1LD00500
1LK00300	mounting on heatsink/1LD00400 or SC-SV8/1LD00000

RELAY/HEATSINK THERMAL SEALS

5TH15000	Thermal grease for 30 relays SG/SVT ou 60 relays SC/SV8
5TH21000	Thermal precut film for SC/SV



SYMMETRICAL DIN RAIL ADAPTATORS

1LD00000	DIN rail adaptor for SC/SV8 horizontal mounting
1LD00400	DIN rail adaptor for WF21/16/13/07/05
1LD00500	DIN rail adaptor for SG/SVT/SV969300
1LD12020	DIN rail adaptor for SC/SV8 montage vertical

MOUNTING + HEATSINK + DIN ADAPTATOR OPTION

1LW23100	SC/SV mounting on WF23 + WF23100 + 1LD12020
1LW27100	SC/SV mounting on WF27 + WF27100 + 1LD12020
1LWD1202	SC/SV mounting on 1LD12020

MOUNTING OPTION ONLY IF QUANTITY>10 (SCREW KIT INCLUDED)

1LW00000	mounting of relay on heatsink
1LWD0000	mounting of heatsink on DIN rail adaptor

APPLICATION NOTES

→ Application notes on request : a certain number of application notes are available to celduc® customers

- Principle of solid state relays.
- Life expectancy of solid state relays: TMS² technology.
- Short circuit protection of solid state relays : fuses and circuit breakers.
- Application of solid state relays.
- Solid state relays on resistive loads (heating application).
- Three phase motor.
- Transformer control.
- Incandescent lamp control.
- Discharge lamp control.
- Refrigerated unit control.
- Categories of use of solid state relays.
- Solid state relays in emergency power supplies (UPS).
- Solid state relays on capacitive loads : power factor corrector (PFC) application.
- SCB relays in injection presses.
- Application of SKL et SKH relays.
- Softstart and reversing relays.
- Softstart relays in transformer control.
- Softstart relays in incandescent and infrared lamp control.
- Etc....

Magnetic proximity sensors

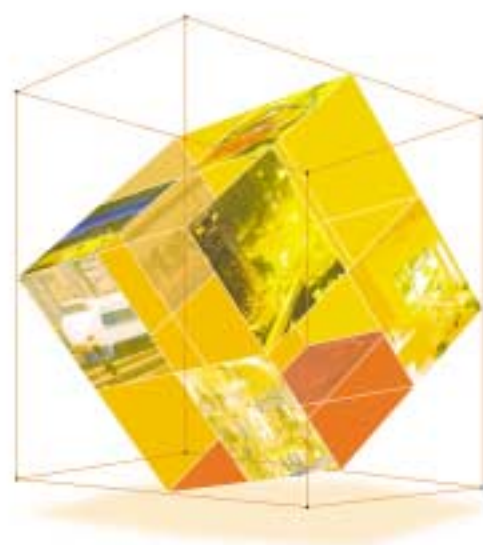
We are the experts ! !!!

If you look for a sensor for position, passage, presence, level or speed, we must have it in our range of magnetic sensors.

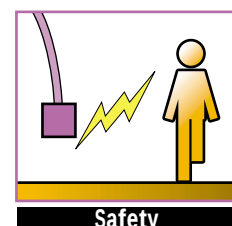
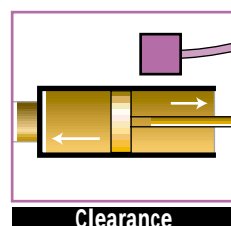
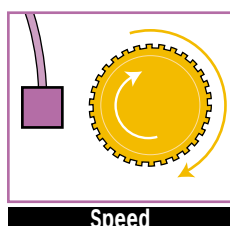
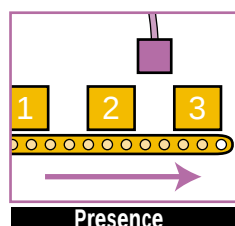
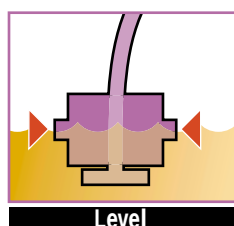
We can even design the ideal product for your applications !

At celduc® relais, we are eager to offer the best products for your application, thanks to our 30-year experience in the key technologies that we use in our products :

- Reed switch, a dry contact in a sealed glass bulb providing insulation at the same time. A simple, reliable and low cost solution.
- Electronic cell, based on either magneto-resistance or Hall effect, necessary for higher performance, particularly in frequency .



Scope



Industry

Counting
Cylinder positions
Machine safety
Advertising panel

Home

Burglar alarm
Camera shutter control window position (blinds)
Lifts
Alarms
Big and small household goods

Aircraft, space and army

Fuel/oil level.
camera shutter control

Specific applications

ATEX (explosive atmospheres)

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Contact type :

NO -> Normaly Open

NC -> Normaly Closed

Other lengths of cable or wire possible for significant quantities



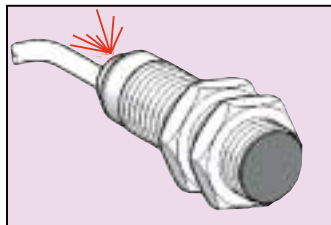
All our technical data-sheets are available in our website :
www.celduc.com

ELECTRONICAL SENSORS

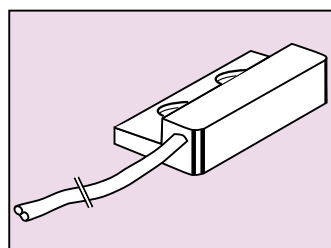


celduc[®] relais offers two ranges of electronical sensors :

- > HALL effect sensors.
- > Gear Tooth Sensor.



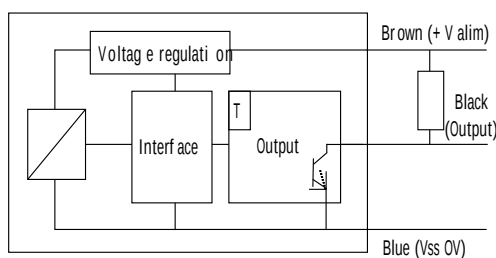
PTE
(for front detection)



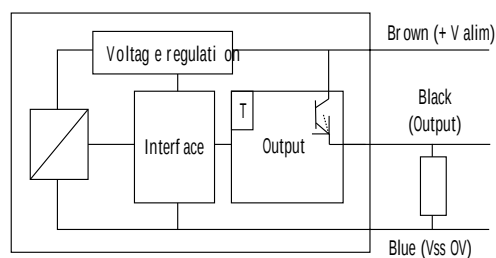
PLE
(for side detection)

Technical characteristics :

- 5-24VDC or 6-48VDC power supply with internal voltage clamping and reverse voltage protection.
- Low side or High side output.
- 25mA or 0.4A output current with overload short-circuit protection and thermal shutdown.
- Adjustable Internal delay (option on request).
- High Speed Operation > 10kHz.
- Insensible to shocks and vibrations.
- Designed in conformity with IEC/EN60947-5-2



NPN

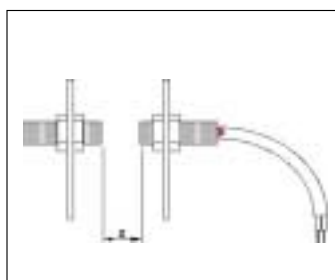


PNP

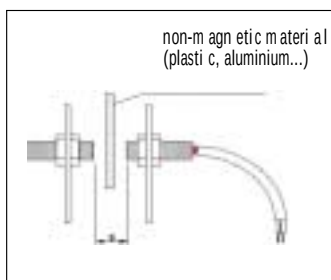
PRODUCT REFERENCE	Contact type	Connection type	Cable lenght	Closing distance	Max switching voltage	Max switching current	Dimensions L x l x h	Associated coded magnet
PLE13320*	Hall effect NPN	Cable	2 m	8 mm	5-24VDC	25mA	32x15x6,8	P6250000
PLE14320**	Hall effect NPN	Cable	2 m	8 mm	5-24VDC	25mA	32x15x6,8	
PTE11320	Hall effect PNP	Cable	2 m	19 mm	6-48VDC	0,4A	M12x33	PT810000
PTE11321	Hall effect PNP	Cable	2 m	19 mm	6-48VDC	0,4A	M12x33	
PTE21320	Gear tooth PNP	Cable	2 m	1,5 mm	6-48VDC	0,4A	M12x33	
PTE21321	Gear tooth NPN	Cable	2 m	1,5 mm	6-48VDC	0,4A	M12x33	

* Front detection

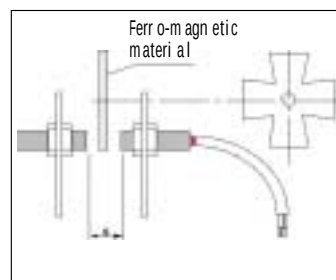
** Side detection



Direct detection



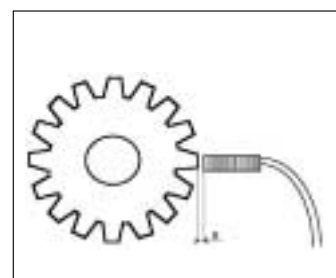
Detection through non-magnetic material



Detection of ferro-magnetic (counting,...)

Applications :

- Industry
- Lift
- Speed sensors
- Household electronical appliances
- Tractors
- ...

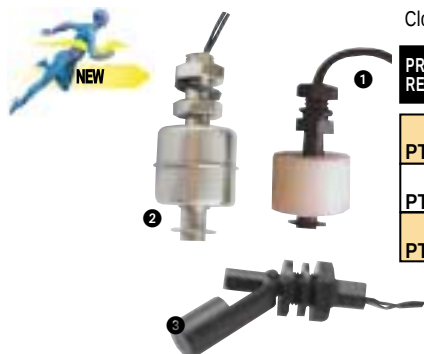


Gear tooth sensor

LEVEL SENSORS - PTF RANGE

Closed : float at the top - Open : float at the bottom

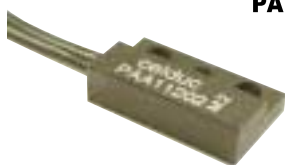
Closed : float at the bottom - Open : float at the top



PRODUCT REFERENCE	Contact type	Connection type	Cable length	Material Housing	Float	Max. switching power	Max. switching voltage	Max. switching current	Dimensions mm	Fig n°
PTF01070	1NO	2 wires	70 mm	PA66 Plastic	Polypro	10VA	100VDC	0,5A	ø25 x 42	1
PTFA2015	1NO	2 wires	1,5 m	stainless steel Plastic	stainless steel	10VA	200VDC	0,4A	ø28 x 60	2
PTFA3015	1NO	2 wires	1,5 m	PE Plastic	PE Plastic	10VA	200VDC	0,4A	ø28 x 90	3

SCREW SENSORS

PA



PRODUCT REFERENCE	Contact type	Connection type	Cable length	Closing distance*	Max. switching power	Max. switching voltage	Max. switching current	Dimensions mm
PAA10060**	1NO	2 wires	680 mm	16 mm	12VA	100VDC	0,4A	23x14x6
PAA11202	1NO	2 wires	275 mm	16 mm	12VA	100VDC	0,4A	
PAA11205	1NO	2 wires	500 mm	16 mm	12VA	100VDC	0,4A	
PAC10010	reversing switch	3 wires + HE14 connector	70 mm	12 mm ***	NF 3VA NO 8VA	100VDC	0,25A	

* With P6250000 magnet.

** Faston terminals.

*** With U4200000 magnet.

PL



PRODUCT REFERENCE	Contact type	Connection type	Cable length	Closing distance**	Max. switching power	Max. switching voltage	Max. switching current	Dimensions mm
PLA10130	1NO	cable	13 mm	12 mm	12VA	250VDC	0,25A	32x15x6,8
PLA11208	1NO	cable	800 mm	16 mm	12VA	250VDC	0,4A	
PLA12430	1NO	cable	3 m	12 mm	12VA	250VDC	0,4A	
PLA13701	1NO	cable	100 mm	10 mm	12VA	250VDC	0,4A	
PLA13715	1NO	cable	1,5 m	10 mm	12VA	250VDC	0,4A	
PLA13725	1NO	cable	2,5 m	10 mm	12VA	250VDC	0,4A	
PLA13750	1NO	cable	5 m	10 mm	12VA	250VDC	0,4A	
PLA13780	1NO	cable	8 m	10 mm	12VA	250VDC	0,4A	

PLM

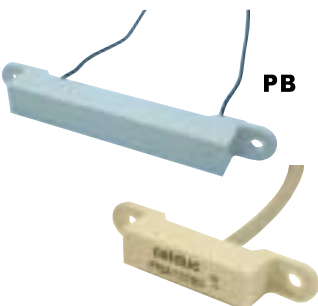


PLB10060	1NC	cable	3 m	12 mm	12VA	250VDC	0,4A	32x15x6,8
PLB13730	1NC	cable	3 m	10 mm	12VA	250VDC	0,4A	
PLB16701	1NC	cable	100 mm	10 mm	12VA	250VDC	0,4A	
PLC10030	reversing	cable	3 m	12 mm	NC 3VA/NO 8VA	100VDC	0,25A	32x15x6,8
PLC10040	reversing	cable	1,5 m	14 mm	NC 3VA/NO 8VA	100VDC	0,25A	
PLC13701	reversing	3 cables	100 mm	10 mm	NC 3VA/NO 8VA	100VDC	0,25A	
PLMA0130**	1NO	1 shielded cable	3 m	50 mm	50W	250VAC	0,5A	Aluminium 88x38x12

* With P6250000 magnet.

** sensor + magnet .

PB



PRODUCT REFERENCE	Contact type	Connection type	Cable length	Closing distance**	Max. switching power	Max. switching voltage	Max. switching current	Dimensions mm
PB158S00	1NO	2 wires	80 mm	4 mm	100VA	250VAC	3A	86x8,5x12,5
PB195T00	1NO	2 wires	80 mm	7 mm	50VA	250VAC	1A	
PB285T00	1NC	2 wires	80 mm	6 mm	50VA	250VAC	1A	
PB367G00	1NC	2 wires	180 mm	6 mm	16VA	250VDC	0,5A	51x8,5x11,5
PB390G00	1NO	2 wires	80 mm	13 mm	16VA	250VDC	0,5A	
PBA10010	1NO+loop	cable	8 m	13 mm	12VA	250VDC	0,4A	
PBA13725	1NO	cable	2,5 m	13 mm	12VA	250VDC	0,4A	
PBA13740	1NO	cable	4 m	13 mm	12VA	250VDC	0,4A	
PBA13780	1NO	cable	8 m	13 mm	12VA	250VDC	0,4A	

* With associated magnet: P4160000 except for PB367G00 sensor P4159000 magnet.

SENSORS for layout on PCB

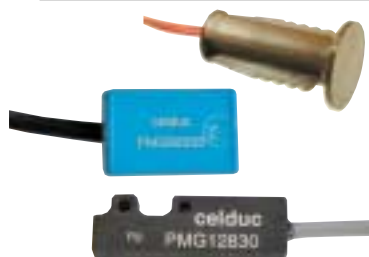
PH



PRODUCT REFERENCE	Contact type	Closing distance**	Max. switching power	Max. switching voltage	Max. switching current	Dimensions mm
PHA01200	1NO	18 mm	12VA	100VDC	0,4A	23x4,2x3,6
PHA11200	1NO	17 mm	12VA	100VDC	0,4A	
PHC10010	reversing switch	17 mm	NC 3VA/NO 8VA	100VDC	0,25A	
PHC13700	reversing switch	11 mm	NC 3VA/NO 8VA	100VDC	0,25A	

* With P6250000 magnet.

PMG RANGE



PRODUCT REFERENCE	Contact type	Connection type	Cable length	Closing distance	Max. switching power	Max. switching voltage	Max. switching current	Specifications	Dimensions mm
PMG90010	1NO	cable	10m	(1)10 mm	10VA	250VDC	0,4A	plastic tube	Ø 12x32
PMG92291	1NO	2 wires	200 mm	(2)12 mm	12VA	100Vcc	0,4A	plastic tube	Ø 18,5x32,5
PMG92334	2NO	cable + RJ11	4,5 mm	11 mm	10VA	250VDC	0,4A	clips	33x21x9,5
PMG12830	2NO	cable	3 m	(3)16 mm	12VA	100Vcc	0,4A	PSA enclosure	51x16x7

(1) With UR102540 magnet. (2) With PMG92280 magnet. (3) With P6250000 magnet.

Sensors with high level of switching



PRODUCT REFERENCE	Contact type	Connection type	Cable length	Closing distance*	Max. switching power	Max. switching voltage	Max. switching current	Dimensions mm
PSA60010	1NO	2 wires	300 mm	12 mm	800W	24-440VAC	3A	51x16x7
PSA60015	1NO	cable	1,5 m	12 mm	800W	24-440VAC	3A	
PSA60020	1NO	2 wires	3 m	12 mm	800W	6-440VAC	3A	

* With P6250000 magnet.

Tubular SENSOR



PRODUCT REFERENCE	Contact type	Connection type	Cable length	Closing distance	Max. switching power	Max. switching voltage	Max. switching current	Dimensions mm
PTA10440	1NO	2 wires + cosses	500 mm		12VA	100VDC	0,4A	plastic tube Ø 6x30
PTA11235	1NO	cable	3,5 m	15 mm	12VA	100VDC	0,4A	
PTA12401	1NO	2 wires	100 mm	14 mm	12VA	100VDC	0,4A	
PTA13701	1NO	2 wires	100 mm	10 mm	12VA	100VDC	0,4A	
PTA13715	1NO	2 wires	1,5 m	10 mm	12VA	100VDC	0,4A	
PTA13730	1NO	cable	3 m	10 mm	12VA	100VDC	0,4A	
PTB13702	1NC	2 wires	200 mm	10 mm	3VA	100VDC	0,25A	
PTC12301	reversing switch	3 wires	100 mm	14 mm	NC 3VA/NO 8VA	100VDC	0,25A	
PTC13730	reversing switch	cable	3 m	10 mm	NC 3VA/NO 8VA	100VDC	0,25A	plastic tube Ø 6x25,4
PTA50010	1NO	2 wires	100 mm	14 mm	10VA	100VDC	0,4A	
PTI11220	1NO	cable	2 m	8 mm	10VA	100VDC	0,4A	threaded plastic tube M8 X 31
PTI21220	1 NO + Led	Cable	2 m	17 mm	10VA	100VDC	0,3A	threaded plastic tube M12 X 33
PTPA0100*	1NO	connector	-	12 mm	10VA	200VDC	0,5A	plastic tube Ø 11 X 28
PTPA0230*	1NO	2 wires	3 m	30 mm	10VA	200VDC	-	plastic tube Ø 23 X 27
PTA90010	1NO	cable	10 m	16 mm	12VA	100VDC	0,4A	Threaded brass tube M10
PTA90020	1NO+LED	cable	10m	15 mm	0,3VA	24VDC	0,01A	
PTA90130	1NO	cable	3 m	16 mm	12VA	100VDC	0,4A	

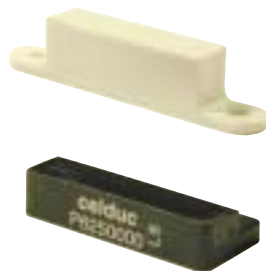
* Sensor + magnet.

All the closing distances are given with the magnet associated and in non-magnetic environment.

CONTROL MAGNETS

-> Coated magnets.

-> Bare magnets



PRODUCT REFERENCE	Adapted to sensor	Bare magnet dimension	Dimensions mm
P3150000	PA, PH, PL, PT	Ø 3x15mm	32x15x6,8
P6250000		Ø 6x25mm	32x15x6,8
P4200000		Ø 4x20mm	32x15x6,8
P4159000	PB	Ø 3x15mm	51x8,5x11,5
P4160000		Ø 5x25mm	51x8,5x11,5
PA320000	PA	Ø 3x20mm	23x14x6
PMG92290	PMG92291	Ø 6x25mm	Ø 18,5x28



PRODUCT REFERENCE	Mati re	Dimensions mm
U2710000	Alnico	Ø 2,7x10
U3150000		Ø 3x15
U4200000		Ø 4x20
U6250000		Ø 6x25
U8300000		Ø 8x30
U8350000	Ferrite	Ø 8x35
UF181538		18x15x3,8
UF127738		12x7,7x3,8
UF777760		7,7x7,7x6
UF207760	NdFeBo	20,5x7,7x6
UR102540		Ø 10x4
UR304000		Ø 3x4
UR502000		Ø 5x2
UR508000	rare earth	Ø 5x8
UR604010		Ø 6x4
UR801000	NdFeBo	Ø 8x10

SAFETY SENSORS



→ The **PXS** or **PSS** type products are sensors designed to control the opening of protective devices, machine casings and access doors. Associated with their respective coded magnet and a controller module, they are capable of monitoring 1 or more "O" contacts (break, closed with a magnet) and/or 1 or more "C" contacts (make, closed with a magnet). They meet the "CE" directives and European regulations relating to machine conformity as per the standards EN60204 - EN1088 - En 954 and be covered by the categories 1 to 4 of these standards according to the associated module (CETIM certificate).

Safety functions performed thanks to :

- **Tamper-proof:** the sensor, associated with its coded magnet, reduces the possibility of tampering ; a standard magnet cannot actuate the sensor .
- **Redundancy:** the components are redundant. If part of the sensor fails, the redundant circuit continues to operate.
- **Unbalance:** associated with a controller module which checks the unbalance of the signals from the sensor, the first fault is signaled if the switches are not actuated in the right order

Magnetic safety sensors represent an alternative to mechanical position switches in the following cases :

- Mechanical clearance required to overcome alignment or vibration problems,
- Compulsory complete sealing: industrial, food and mechanical environments,
- Longer lifetime and reliability.

→ Different switch combinations (with or without display) mean that all the recommendations of the EN 954-1 standard can be achieved. All our switches include fusible resistor type protection and the use of flame retardant materials in the event of short-circuit.

Please, contact us for all specific cases. We can advise users and examine the most suitable solution.



Reference	Contacts	Led option	Cable lenght (m)	Current limiting resistor	Switching power
PXS10350	2 O + 1 C	no	5	-	3VA - 100VDC - 100mA
PXS59010	O + C	no	10	10 Ω	3VA - 100VDC - 100mA
PXS59150	O + C	yes	5	10 Ω	3VA - 100VDC - 100mA
PXS70150	2 O + 1 C	yes	5	10 Ω	3VA - 100VDC - 100mA
PXS79010*	2 O	no	10	10 Ω	3VA - 100VDC - 100mA
PXS79020*	2 O	no	2	10 Ω	3VA - 100VDC - 100mA
PXS79110*	2 O	yes	10	10 Ω	3VA - 100VDC - 100mA
PXS79120*	2 O	yes	2	10 Ω	3VA - 100VDC - 100mA
PXS79150*	2 O	yes	5	10 Ω	3VA - 100VDC - 100mA
PSS59050	O + C	no	5	10 Ω	3VA - 100VDC - 100mA
PSS59150	O + C	yes	5	10 Ω	3VA - 100VDC - 100mA
PSS79050	2 O	no	5	10 Ω	3VA - 100VDC - 100mA
PSS79150	2 O	yes	5	10 Ω	3VA - 100VDC - 100mA
PSA60010	1 O solid state	no	0,35	-	500 VA - 24 to 440VAC - 0,01 à 3A
PSA60020	1 O solid state	no	3	-	500 VA - 6 to 440VAC - 0,01 à 3A
Magnet reference	Contact type				
P2000100	Magnet for PXS				
P3000100	Magnet for PSS				
P6250000	Magnet for PSA				

* In the PXS range, the 2C + O sensors are also available.

Contact type

- O → Normally open and closed with magnet
C → Normally closed and open with magnet

DOOR SENSORS FOR LIFTS



PRODUCT REFERENCE	Contact type	Connection type	Cable length	Closing distance	Max. switching power	Max. switching voltage	Max. switching current	Dimensions mm
PMG12802	Bistable	Cable	2 m	7<D<25*	60VA	230VDC	0,3A	80x20x20
PMG12921	1NO	Cable	7 m	27mm**	100VA	230VDC	3A	M14x75
PMG12930	Bistable	Cable	7,3 m	7<D<40**	60VA	230VDC	0,3A	80x30x30
PMG13051	1 NC	Cable	6,5 m	27mm**	30VA	230VDC	0,5A	M14x75
PMG13110	1 NO	Cable	7 m	9,5mm***	30VA	230VDC	1A	80x20x15

* With UF252060 magnet
 ** With UP302010 magnet
 ***With ø 22x11 magnet

SPECIAL CUSTOMER PRODUCTS

There are numerous special customer applications in all sectors of activity. Consult us.

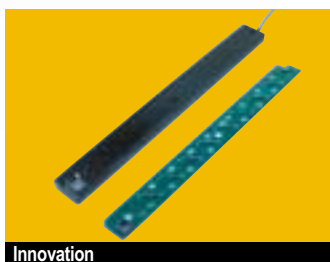
celduc®

Expertise in specific sensors



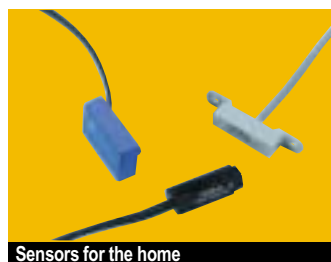
Electronic sensors

Speed sensor integrated into ball bearing : speed counter, kilometers, etc.



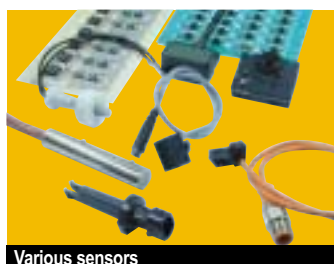
Innovation

- Potentiometric scale (levels)
- Postal sorting (filling racks)



Sensors for the home

Position sensors with dry or impendent sheet contacts : washing machine, iron...
 Opening and closing sensor for doors and windows (alarm, energy saving, lighting...)



Various sensors

- Reed Technology
- 2 and 3-wire magnetoresistance
- Short-circuit self protection
- Electronic sensors
- Hall effect sensors
- Temperature
- White products



Automotive

- Level sensors : water, brake fluid for ABS system, presence of water in diesel
- Position sensors : control, closing of doors, sun roof...
- Safety sensors : burglars, Airbag... For various engines.



ATEX (Atmosph res Explosives)



Reed relays and switches

SCOPE

Detection

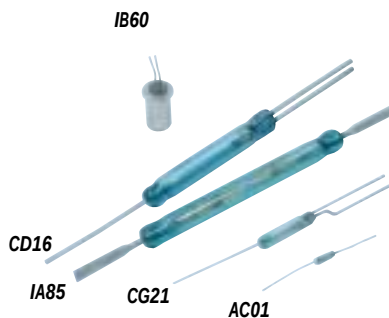
Clearance, position, level, presence

Switching

Telecom, tester, measurement

Reed SWITCHES and MERCURY TILT SWITCHES

Detecting a clearance, a position, a level in extrem environments without mechanical link between the moving parts and without maintenance, such is the daily challenge of the Reed contact submitted to a magnetic field in industrial sectors as varied as money, space, control, telecom...



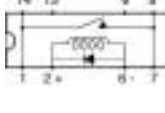
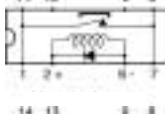
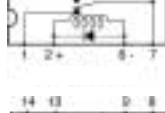
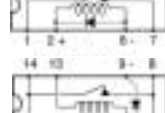
Sensitivity to be specified at the order

PRODUCT REFERENCE	Contact type	Max. switching voltage	Max. switching current	Max. switching power	standard sensitivity range	Glass length
AC01	1NO	30VDC	0,01A	0,25VA	5-20ATf	6mm
AC03		100VDC	0,5A	12VA	10-35ATf	10mm
AC05		100VDC	0,5A	12VA	10-35ATf	14mm
AC11		24VDC	0,1A	1VA	15-30ATf	10mm
AD22		250VDC	1,3A	80VA	40-105ATf	52mm
AI01		200VDC	0,5A	10VA	15-35ATf	14mm
AJ21		100VDC	0,5A	10VA	10-35ATf	14mm
IA21		100VDC	0,4A	12VA	10-30ATf	15mm
IA23		250VDC	0,5A	20VA	15-35ATf	21mm
IA83		250VDC	1A	50VA	35-72ATf	53,4mm
IA85		250Veff	3A	100VA	72-110ATf	53,4mm
CD16		500VDC	1,5A	50VA	50-80ATf	39,7mm
CD20		220VDC	1A	60VA	70-90ATf	52mm
CG21	Change-over switch	100VDC	0,25A	NF 3W/NO 8W	10-30ATf	14,5mm
CG21V		100VDC	0,25A	NF 3W/NO 8W	10-30ATf	14,5mm, "with bending"
IB600099	Tilt switch	240VDC	0,4A	60VA	-	mercury switch

Reed RELAYS in DIP enclosure



The most popular and the most industrial of the range. It offers all contact combinations. It is designed to switch inputs of telephony levels or PLC, signals from sensors or safety components.

Internal scheme top view	PRODUCT REFERENCE	Contact type	Characteristics of the bulb			Characteristics of the coil		Specifications	Dimensions mm
			Max. switching voltage	Max. switching current	Max. switching power	Voltage rating	R. coil at 20°C		
	D31A3100	1NO	100VDC	0,5A	10VA	5VDC	500 Ω	-	19,1 x 6,6 x 6,4
	D31A3110		100VDC	0,5A	10VA	5VDC	500 Ω	diode	
	D31A5100		100VDC	0,5A	10VA	12VDC	1 kΩ	-	
	D31A5110		100VDC	0,5A	10VA	12VDC	1 kΩ	diode	
	D31A6110		100VDC	0,5A	10VA	15VDC	2150 Ω	diode	
	D31A7100		100VDC	0,5A	10VA	24VDC	2150 Ω	-	
	D31A7110		100VDC	0,5A	10VA	24VDC	2150 Ω	diode	
	D31B3110	1NC	100VDC	0,5A	10VA	5VDC	500 Ω	diode	19,1 x 6,6 x 6,4
	D31B5110		100VDC	0,5A	10VA	12VDC	1 kΩ	diode	
	D31C2100	Change-over switch	100VDC	0,25A	3VA	5VDC	200 Ω	-	19,1 x 6,6 x 6,4
	D31C2110		100VDC	0,25A	3VA	5VDC	200 Ω	diode	
	D31C5100		100VDC	0,25A	3VA	12VDC	500 Ω	-	
	D31C5110		100VDC	0,25A	3VA	12VDC	500 Ω	diode	
	D31C7100		100VDC	0,25A	3VA	24VDC	2150 Ω	-	
	D31C7110		100VDC	0,25A	3VA	24VDC	2150 Ω	diode	
	D32A2100	2NO	100VDC	0,5A	10VA	5VDC	125 Ω	-	19,1 x 6,6 x 6,4
	D32A2110		100VDC	0,5A	10VA	5VDC	125 Ω	diode	
	D32A5100		100VDC	0,5A	10VA	12VDC	500 Ω	-	
	D71A2100	1NO	100VDC	0,5A	10VA	5VDC	380 Ω	-	19,1 x 6,6 x 5,5
	D71A2110		100VDC	0,5A	10VA	5VDC	380 Ω	diode	
	D71A5100		100VDC	0,5A	10VA	12VDC	530 Ω	-	

Reed RELAYS in SIP enclosure



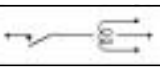
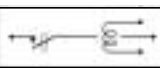
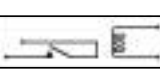
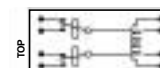
Relays for high density component circuits : alarms, testers, industrial control.

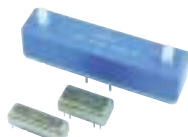
Internal scheme top view	PRODUCT REFERENCE	Contact type	Characteristics of the bulb			Characteristics of the coil		Specifications	Dimensions mm
			Max. switching voltage	Max. switching current	Max. switching power	Voltage rating	Coil Resistance		
	D41A3100L	1NO	100VDC	0,5A	10VA	5VDC	500 Ω	-	19 x (5 or 6) x 7,5
	D41A3110L		100VDC	0,5A	10VA	5VDC	500 Ω	diode	

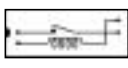
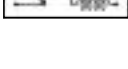
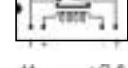
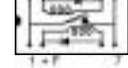
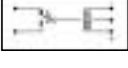
Reed F and R RELAY RANGE

Relays with ferro-magnetic shielding for telecom type applications

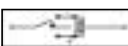


Internal scheme top view	PRODUCT REFERENCE	Contact type	Characteristics of the bulb			Characteristics of the coil		Specifications	Dimensions mm
			Max. switching voltage	Max. switching current	Max. switching power	Voltage rating	R. coil at 20°C		
	F51A2100	1NO	250VDC	0,4A	14VA	5VDC	345 Ω	comes in coated version réf. F81	30 x 9,5 x 10
	F51A5100		250VDC	0,4A	14VA	12VDC	2145 Ω		
	F51A7100		250VDC	0,4A	14VA	24VDC	7845 Ω		
	F81A2500	1NO mercury	500VDC	1A	50VA	5VDC	140 Ω	Position vertically	30 x 9,5 x 10
	F81A5500		500VDC	1A	50VA	12VDC	1000 kΩ		
	F81A7500		500VDC	1A	50VA	24VDC	2300 Ω		
	F61A2100	1NO	250VDC	0,4A	14VA	5VDC	345 Ω	Coil/contact insulation 4KV	31 x 9,5 x 11
	F61A5100		250VDC	0,4A	14VA	12VDC	2145 Ω		
	F61A7100		250VDC	0,4A	14VA	24VDC	7845 Ω		
	F72C2500	mercury wetted Change-over switch	500VDC	1A	50VA	5VDC	75 Ω	Position vertically	30 x 16,5 x 11
	F72C5500		500VDC	1A	50VA	12VDC	350 Ω		
	F72C7500		500VDC	1A	50VA	24VDC	1350 Ω		



Internal scheme top view	PRODUCT REFERENCE	Contact type	Characteristics of the bulb			Characteristics of the coil		Specifications	Dimensions mm
			Max. switching voltage	Max. switching current	Max. switching power	Voltage rating	R. coil at 20°C		
	R0292B00	1NO	100VDC	0,4A	12VA	4VDC	250 Ω	-	23 x 7,5 x 6,7
	R0293B08		100VDC	0,4A	12VA	5VDC	450 Ω		
	R0294B08		100VDC	0,4A	12VA	12VDC	1600 Ω		
	R0295B08		100VDC	0,4A	12VA	24VDC	2800 Ω		
	R0550B08	1NO	100VDC	0,4A	12VA	4VDC	500 Ω	DIL layout	20,2 x 10,1 x 7,2
	R0551B08		100VDC	0,4A	12VA	5VDC	500 Ω		
	R0552B08		100VDC	0,4A	12VA	12VDC	1000 kΩ		
	R0553B08		100VDC	0,4A	12VA	24VDC	2150 Ω		
	R0250W00	Change-over switch	100VDC	0,25A	3VA	4VDC	75 Ω	-	23 x 7,5 x 6,7
	R0251W00		100VDC	0,25A	3VA	6VDC	150 Ω		
	R0252W00		100VDC	0,25A	3VA	12VDC	500 Ω		
	R0253W00		100VDC	0,25A	3VA	24VDC	1800 Ω		
	R0115S06	1NO	250Veff	3A	100VA	6VDC	250 Ω	step 5,08	65 x 15,5 x 16
	R0116S06		250Veff	3A	100VA	12VDC	1000 kΩ		
	R0117S06		250Veff	3A	100VA	24VDC	4 kΩ		
	R0542B08	1NF	100VDC	0,4A	12VA	4VDC	200 Ω	DIL layout	20,2 x 10,1 x 7,2
	R0543B08		100VDC	0,4A	12VA	5VDC	200 Ω		
	R0544B08		100VDC	0,4A	12VA	12VDC	500 Ω		
	R0546B00		100VDC	0,4A	12VA	24VDC	2150 Ω		
	R0585B01	1NO bistable 2 coils	100VDC	0,2A	5VA	5VDC	2x500 Ω	diode	20,2 x 10,1 x 10
	R0582B01		100VDC	0,2A	5VA	12VDC	2x1500 Ω		
	R0861P12	mercury wetted Change-over switch	500VDC	2A	100VA	5VDC	335 Ω	position vertically	40,8 x 14,2 x 10,4
	R0760P00		500VDC	2A	100VA	12VDC	680 Ω		
	R0761P00		500VDC	2A	100VA	24VDC	2650 Ω		
	R0866P00	2 mercury wetted Change-over switch	500VDC	2A	100VA	5VDC	125 Ω	position vertically possible C.O.T.	40,8 x 19,8 x 10,4
	R0720P00		500VDC	2A	100VA	12VDC	355 Ω		
	R0721P00		500VDC	2A	100VA	24VDC	800Ω		

HIGH VOLTAGE RELAYS

	R1380L00	1NO	7500VDC	0,2A	50VA	6VDC	75 Ω	High voltage relays	65 x 15,2 x 16,9
	R1329L00		7500VDC	0,2A	50VA	12VDC	300 Ω		
	R1343L00		7500VDC	0,2A	50VA	24VDC	1200 Ω		

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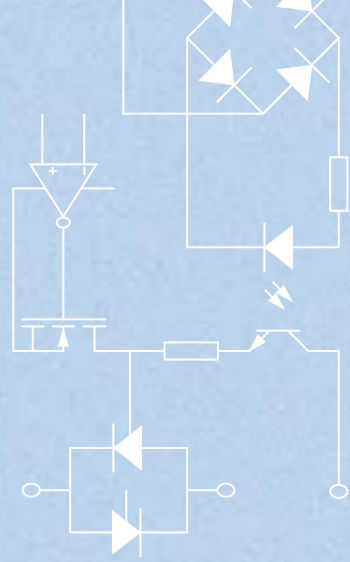
Groupe celduc[®]

40 years of innovation :

celduc[®], a specialist in power techniques and electronics, can call upon many years of practical experience and is fully focused on serving its market and customers the world over. **celduc[®]** dates back to 1960 when the company was founded by Michel GUICHARD. Today it is split into two separate trading companies, **celduc[®] transfo** & **celduc[®] relais** to channel and focus its expertise into two separate market sectors.

celduc[®] relais is now structured into three strategic business units each with its own dedicated R&D and marketing teams. The three market sectors are solid state relays, magnetic proximity sensors and reed switches. By focusing on these separate areas, the company has pursued innovations that have enabled it to gain an unrivalled and long-standing reputation.

The Saint-Etienne-based **celduc[®]** group is a key factor in the prosperity of the Rhône-Alpes region and with over 50 % of its turn over exported, it is established as a truly international company . Well established in Europe, the company has an increasing stature in the USA and in ASIA.



celduc[®] relais products :



-> **Solid state relays** (commonly known as SSR) represent 50% of the turn over of **celduc[®] relais**. These innovative and highly efficient components are used to control all types of loads used in many industries. The three major application areas are industrial heating and temperature control, motor control and/or public lighting control. Every day new applications calling for reliability, no noise and long life expectancies make use of our highly innovative solid state relays that provide the small but vital "extra" when compared to our competitor's products.



-> **Magnetic proximity sensors** : Used for monitoring or controlling levels, clearances, movement, position and as a tachometer to record speed of rotation, the sky is the limit for these versatile sensors. These sensors are used by both the general public and the major industrial organisations such as the automotive, aircraft and telecommunication industries. They are also used extensively in all automation applications of the manufacturing sector.



-> **"Reed" switches** : our Reed switches are used in combination with magnetic proximity sensors and reed relays and have proved to be an out-and-out winner over the past 50 years. The range meets the demands of an increasing number of new applications thanks to their ease of operation, price, compact size and reliability.



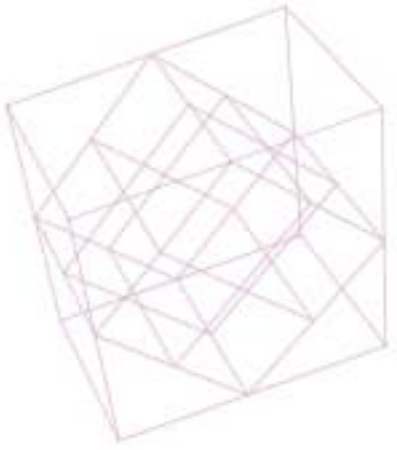
Know-How :

Being a specialist in this field, **celduc[®] relais** not only manufactures one of the most comprehensive ranges of solid state relays available from any manufacturer but the company has also developed the very latest in terms of production equipment ensuring efficient manufacture to the highest standards. These products and resources keep the name of **celduc[®] relais** at the forefront as one of the biggest name in the industry. We have provided the solution to countless applications in homes, planes, satellites, plastic injection presses, motors, modems and many other applications.

Quality ISO9001 :

ISO9002 ratified since 1993, **celduc[®] relais** also boasts the year 2002 version of ISO 9001 accreditation. It is by stringent application of and adherence to the rules of this standard that ensures total control of our production and research programmes. Being tuned to and building products that meet the specific requirements of our customers is the "raison d'être" of **celduc[®] relais**.

celduc[®] relais also boasts the year 2002 version of the ISO9001 accreditation



Facing the Competition...

Today's electronics market is truly global and to remain at the top we have to face aggressive multi-national competition from many countries including the USA, Taiwan, Mexico, Malta and China. Not only has **celduc® relais** taken up this challenge with great enthusiasm, but the company has succeeded in turn the obvious difficulty of fighting against the cost of labour from the above countries into a benefit for all our customers

Strongly motivated personnel working with efficiency and flexibility have managed to succeed in more than 30 countries



"PUSH THE LIMITS"

THAT COMPETITIVE EDGE



■ The **celduc® relais** team is prepared and committed to rise to all the challenges that we face. We are a team that is continually pushing back the boundaries in terms of quality of products and levels of service to our customers. We are now ready to serve you.

celduc® relais



THAT COMPETITIVE EDGE

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GERMANY
GREAT BRITAIN
GREECE
HUNGARY
ITALY
LUXENBURG
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NETHERLANDS
POLAND
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