

PROUD TO SERVE YOU



SOLID STATE
RELAYS



MAGNETIC
SENSORS

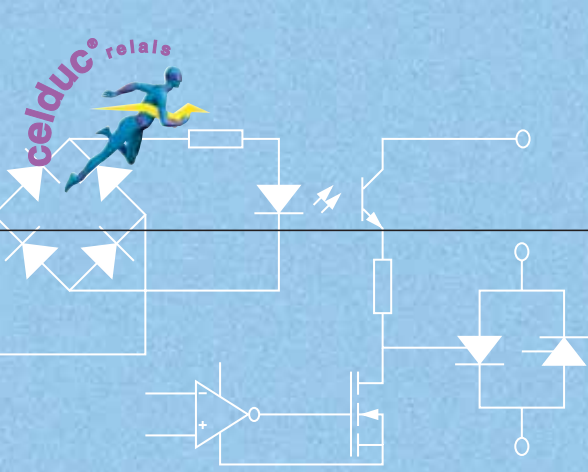


REED RELAYS
AND SWITCHES

Selection Guide



celduc[®]
r e l a i s



THAT COMPETITIVE EDGE



Dear customers

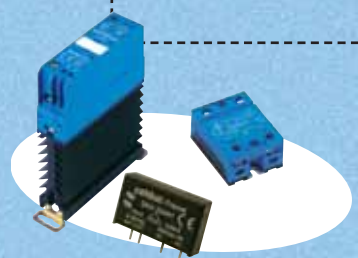
We are pleased to present the third version of our short form catalogue. The last 3 years have seen a dramatic growth in customers in a diverse range of industries, allowing us to demonstrate high quality, innovative design techniques incorporated in many of the new products shown in this catalogue.

The market for solid state relays and magnetic sensors is dedicated to specialists and our latest product **okpac®** proves that we are leaders in our field. Two years ago came the **celpac®** range, today the **okpac®** and very soon the **dual okpac®**... these innovating products are partially produced in co-operation with demanding customers who will confirm our will: to satisfy you !

celduc® relais currently exports 57 % of its production to over 50 countries, including Asia, America & Europe, all having very different demands. These demands have been met by having a wide range of products and giving the very best service to our customers.

Please be aware that if you cannot find the product you need in this catalogue, our website www.celduc-relais.com is updated with the latest products and news each month. Please do not hesitate to contact us, we will be pleased to help you.

Marc Combette
Chief Executive Officer



1 Solid State Relays

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- Scope
- Product range



2 Proximity Sensors

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- Scope
- Product range



3 Reed Relays and Switches

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- 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
Capacitors control

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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".
- The process of manufacturing of our relays complies with the ISO9001 requirements version 2000. We incorporate highly reliable components with a very high electromagnetic interference level.



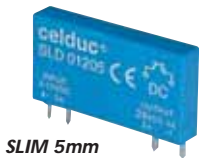
Modules

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



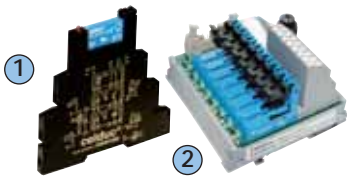
SLIM Range (miniature)



SLIM 5mm

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

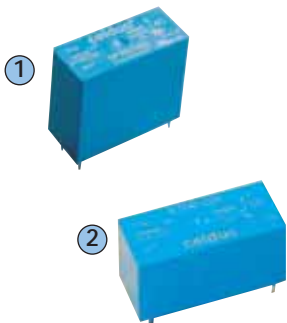
Other miniature solid state relays can be procured (SKM, SKN) : please contact us



PRODUCT REFERENCE	Specifications	Fig n°
ESD01000	SP/ST base for PCB for one relay	1
ESD08100	8 SLIM module base	2

SP-ST Range (standard)

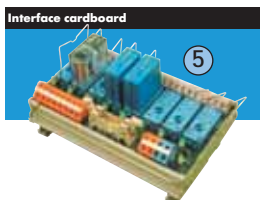
AC and DC from 1 to 5A, protection by VDR or built-in transil, come in 15,7 mm (ST Series) and 25,4 mm (SP Series).



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



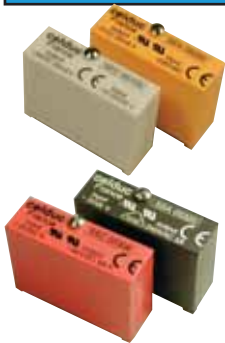
PRODUCT REFERENCE	Specifications	Fig n°
ESC05000	SP/ST base for PCB for one relay	3
ESD05000	SP/ST base for DIN rail for one relay	4
ESD08000	8 SP in line module base	5
ESD16000	16 SP in line module base	5
ESD16100	8 SP compact module base	5



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
SEA05020	180-280VAC/DC	54 kΩ	5VDC (3-8V)	NPN 25mA	AC/DC Input	44 x 15 x 33
SEA24020	180-280VAC/DC	54 kΩ	24VDC (15-30V)	NPN 25mA	AC/DC Input	
SEC05003	10-32 VDC	1 kΩ	5VDC (3-8V)	NPN 25mA	DC input	
SEC05103	10-32 VDC	1 kΩ	5VDC (3-8V)	NPN 25mA	DC quick input	
SEC24003	10-32 VDC	1 kΩ	24VDC (15-30V)	NPN 25mA	DC input	

PRODUCT REFERENCE	Switching Current	Switching Voltage	Control Voltage	Input R	Specifications	Dimensions mm
SSA05320	3A	12-280VAC	5VDC (3-8V)	220 Ω	AC output	44 x 15 x 33
SSA24320	3A	24-280VAC	24VDC (15-30V)	2200 Ω	AC output	
SSC05306	3A	3-60 VDC	5VDC (3-8V)	220 Ω	AC output	
SSC24306	3A	3-60 VDC	24VDC (15-30V)	2200 Ω	AC output	
EBS01000	DIN rail Base for input/output Module					

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.

Suffix D :
removable terminals

PRODUCT REFERENCE	Switching Current	Switching Voltage	Control Voltage	Input R	Protec.	Specifications	Dimensions mm	Fig n°
XKA20420	4A	12-275VAC	6-30VDC	1 kΩ	VDR	1 pole AC synchronous output	12,2x76,4x53	1
XKA70420	4A	12-275VAC	15-30VAC/DC	1800 Ω	VDR	1 pole AC synchronous output	17,2x76,4x53	1
XKA70440	4A	12-440VAC	15-30VAC/DC	1800 Ω	VDR	1 pole AC synchronous output	17,2x76,4x53	1
XKA90440	4A	12-440VAC	150-240VAC/DC	41 kΩ	VDR	1 pole AC synchronous output	17,2x76,4x53	1
XKD10120	1A	2-200VDC	5-30VDC	1 kΩ	diode	1 pole DC output	12,2x76,4x53	1
XKD10306	3A	2-60VDC	5-30VDC	1 kΩ	diode	1 pole DC output	12,2x76,4x53	1
XKD11306D	3A	2-60VDC	3-30VDC	600 Ω	diode	1 pole DC output	12,2x76,4x53	1
XKD70306	3A	2-60VDC	10-30VAC/DC	1800 Ω	diode	1 pole DC output	12,2x76,4x53	1
XKD90306	3A	2-60VDC	90-240VAC	41 kΩ	diode	1 pole DC output	17,2x76,4x53	1
XKH20120	10A	12-280VAC	10-32VDC	1640 Ω		1 pole AC synchronous output	25x76,4x65	3
XKM22440	4AC-51/2,5AC-53	24-460VAC	15-40VDC	2 kΩ	VDR	2 pole motor switching control	25,2x76,4x53	2
XKM23440	4AC-51/2,5AC-53	24-460VAC	12-35VDC	1 kΩ	VDR	3 pole motor switching control	47,5x76,4x53	4
XKR24440	4AC-51/2,5AC-53	24-460VAC	15-40VDC	2 kΩ	VDR	Motor change-over control	58,2x76,4x53	4

Other references available : please consult us.

XKM23 : 3 relays
XKM24 : 4 relays

SK Range

The SK range for PCB mounting is available in different models :

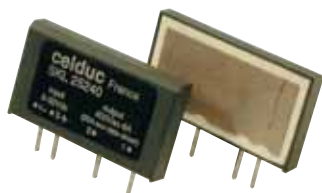
- > SKA/SKB (AC output) or SKD (DC output)
SKA up to 6A 230 or 400VAC with built-in voltage protection, ideal for solenoid or motor control
SKB up to 4A 230 or 400VAC for resistive loads

- > 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_{2t} up to 5000 A²s) with high inrush current as well as heating application. Easy to protect against short circuit with micro circuit breakers.



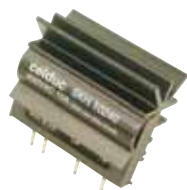
PRODUCT REFERENCE	Current	Switching Voltage	Control Voltage	Input R	LED	I _t	Protec.	Specifications	Dimensions mm
SK541100	2,5A	12-280VAC	3-30VDC	1 kΩ	no	50A ² s	RC	AC zero-cross output	43,2 x 10,2 x 25,4
SK541101	2,5A	24-280VAC	3-30VDC	1 kΩ	no	50A ² s	----	AC zero-cross output/NC	
SKA10420	4A	12-275VAC	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	
SKA11440	4A	12-460VAC	3-10VDC	220 Ω	yes	50A ² s	VDR	AC random 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	
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	



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	43,4 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	
SKL10540	27A	50A	24-600VAC	4-14VDC	440 Ω	1800A 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	

Random models on request.

5000A²s 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.

ACCESSORIES FOR SKL :

WF032000	Heatsinks for SKL L=150mm 2,6-3 K/W	1L941000	Clip for SKL on WF03/04
WF042000	Heatsinks for SKL L=100mm 3,6-3 K/W	1L942000	Clip 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	Switching 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.

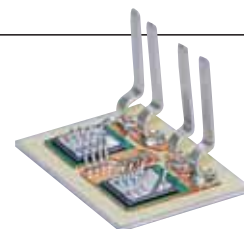


PRODUCT REFERENCE	Switching Current	Switching Voltage	Control Voltage	Input R	I _t	Dimensions mm
SHT842100	3x25A	24-280VAC	3,5-10VDC	250 Ω	260A ² s	81,28x8,26x27,69
SHT842300	3x25A	24-280VAC	10-30VDC	950 Ω	260A ² s	81,28x8,26x27,69

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 4th generation

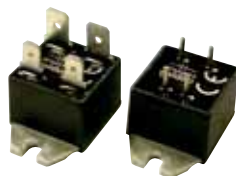
SOFTLIFE Range - "Get rid of your heatsinks!"



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

PRODUCT REFERENCE	Switching current	Switching voltage	Control voltage	I _t	Protec.	Specifications	Dimensions mm
SVX963350	30A	12-420VAC	20-30VDC	265A ² s	RC-VDR	mixed relays	44,5x61,3x45

SF Range



Miniature relays with "FASTON" terminals or PCB terminals.

PRODUCT REFERENCE	Switching current	Switching voltage	Control Voltage	R Entrée	Spécifications	Dimensions mm
SF541310	10A	12-280VAC	4-30VDC	1 kΩ	zero crossed, "FASTON" terminals	21 x 35,5 x 15
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 current.

SCF Range



To control resistive loads. "FASTON" terminals.

PRODUCT REFERENCE	Switching current	Switching voltage	Peak voltage	Control voltage	Input R	LED	I _t	Protec.	Dimensions mm
SCF42160	25A	12-280VAC	600V	4-30VDC	600 Ω	yes	312A ² s	---	21 x 35,5 x 15
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 current.

E option "large Entrax" and L option "Faston" 4,8mm on request.

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 _t	Dimensions mm
SCFL42100	25A	12-280VAC	600V	4-30VDC	1 kΩ	312A ² s	44,5 x 58,2 x 32
SCFL62100	25A	24-440VAC	1200V	5-30VDC	1 kΩ	312A ² s	44,5 x 58,2 x 32

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

SP7/SP8 Range



This new range enriches the products with FASTON terminals.

In a full plastic case, these relays can nevertheless switch up to 12 A AC51.

These relays are appropriate for any type of load thanks to high immunity components and an integrated over-voltage protection a combined with 800 Upeak power components.

PRODUCT REFERENCE	Switching current	Switching voltage	Peak voltage	Control voltage	Input R	I _t	Specifications	Dimensions mm
SP752120	12A	12-280VAC	800V	3-32VDC	1 kΩ	340A ² s	random	38x66,8x22
SP852120	12A	12-280VAC	800V	4-32VDC	1 kΩ	340A ² s	zero-cross	38x66,8x22

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

okpac® Solid state relays

Innovation, Performance & Design !

- > **Innovations :**
- > Screw connection up to 50mm²
- > Removable control terminals
- > Removable IP20
- > Versatile, easy and quick connections
- > Same screwdriver for outputs and inputs
- > Tightening on metal baseplate not on plastic
- > SSR, mains and load status
- > Less potting resin : environmentally friendly
- > 25 to 30% lighter than the SC range
- > **Performance :**
- > Designed for all types of loads
- > Current from 12 to 125A
- > TMS² technology 4th generation with very long life time expectancy
- > Output voltage from 24 to 690 VAC (600V-1200V-1600V peak)
- > Very low zero-cross level
- > Large and regulated AC and DC input voltage
- > Control status LED
- > Very high immunity according IEC/EN61000-4-4 (bursts) and IEC/EN61000-4-5 (spikes) : 4KV with no change of state
- > EMC compatible for industrial environment
- > UL/cUL, VDE (EN60950), IEC/EN60947-4-3, CE marking
- > Itsm up to 2000A and I²t up to 24000A²s allowing loads with high inrush current
- > Protection against circuit breaker

S07 Range

Typical applications : Motors (AC-53), inductive loads and phase angle control applications.
Voltage protection on input (transil) and output (RC and VDR)



PRODUCT REFERENCE	Switching current	Switching voltage	Peak voltage	Control voltage	Control current	I ² t	Dimensions mm
S0745090	50A	12-275VAC	600V	3-32VDC	Ic <13mA	2500A ² s	45 x 58,5 x 30
S0747090	75A	12-275VAC	600V	3-32VDC	Ic <13mA	7200A ² s	
S0763090	35A	24-510VAC	1200V	3,5-32VDC	Ic <13mA	1250A ² s	
S0765090	50A	24-510VAC	1200V	3,5-32VDC	Ic <13mA	2500A ² s	
S0767090	75A	24-510VAC	1200V	3,5-32VDC	Ic <13mA	7200A ² s	
S0768090	95A	24-510VAC	1200V	3,5-32VDC	Ic <13mA	14400A ² s	
S0769090	125A	24-510VAC	1200V	3,5-32VDC	Ic <13mA	24000A ² s	

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

S08 Range

Designed for most types of loads

- > Zero cross with low zero-cross level (<12)
- > Voltage protection on input (transil) with very high immunity according to IEC/EN61000-4-4
- > IP20 protection
- > Control current < 13mA for all the voltage range at any operating temperature
- > Control status LED



PRODUCT REFERENCE	Switching current	Switching voltage	Peak voltage	Control voltage	Control current	I ² t	Dimensions mm
S0842074	25A	12-275VAC	600V	3-32VDC	Ic <13mA	600A ² s	45 x 58,5 x 30
S0842974	25A	12-275VAC	600V	20-265VAC/DC	Ic <10mA	600A ² s	
S0843070	35A	12-275VAC	600V	3-32VDC	Ic <13mA	1250A ² s	
S0843970	35A	12-275VAC	600V	20-265VAC/DC	Ic <10mA	1250A ² s	
S0845070	50A	12-275VAC	600V	3-32VDC	Ic <13mA	2500A ² s	
S0847070	75A	12-275VAC	600V	3-32VDC	Ic <13mA	7200A ² s	
S0848070	95A	12-275VAC	600V	3-32VDC	Ic <13mA	14400A ² s	
S0849070	125A	12-275VAC	600V	3-32VDC	Ic <13mA	24000A ² s	
S0863070	35A	24-510VAC	1200V	3,5-32VDC	Ic <13mA	1250A ² s	
S0863970	35A	24-510VAC	1200V	20-265VAC/DC	Ic <10mA	1250A ² s	
S0865070	50A	24-510VAC	1200V	3,5-32VDC	Ic <13mA	2500A ² s	
S0865970	50A	24-510VAC	1200V	20-265VAC/DC	Ic <10mA	2500A ² s	
S0867070	75A	24-510VAC	1200V	3,5-32VDC	Ic <13mA	7200A ² s	
S0867970	75A	24-510VAC	1200V	20-265VAC/DC	Ic <10mA	7200A ² s	
S0868070	95A	24-510VAC	1200V	3,5-32VDC	Ic <13mA	14400A ² s	
S0868970	95A	24-510VAC	1200V	20-265VAC/DC	Ic <10mA	14400A ² s	
S0869070	125A	24-510VAC	1200V	3,5-32VDC	Ic <13mA	24000A ² s	
S0869970	125A	24-510VAC	1200V	20-265VAC/DC	Ic <10mA	24000A ² s	

HIGH VOLTAGE RELAY

S0885060	50A	24-690VAC	1600V	3,5-32VDC	Ic <12mA	2500A ² s
S0887060	75A	24-690VAC	1600V	3,5-32VDC	Ic <12mA	7200A ² s
S0888060	95A	24-690VAC	1600V	3,5-32VDC	Ic <12mA	14400A ² s
S0889060	125A	24-690VAC	1600V	3,5-32VDC	Ic <12mA	24000A ² s

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

S09 Range with regulated input

Typical applications : Resistive loads (AC-51)

- > Zero cross
- > Control status LED
- > IP20 protection flaps only on request



PRODUCT REFERENCE	Switching current	Switching voltage	Peak voltage	Control voltage	Control current	Pt	Dimensions mm
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S09 range with regulated control current.

S0941460	12A	12-280VAC	600V	3-32VDC	Ic<13mA	128A ² s	45 x 58,5 x 30
S0942460	25A	12-280VAC	600V	3-32VDC	Ic<13mA	600A ² s	
S0943460	35A	12-280VAC	600V	3-32VDC	Ic<13mA	1250A ² s	
S0945460	50A	12-280VAC	600V	3-32VDC	Ic<13mA	2500A ² s	
S0963460	35A	24-600VAC	1200V	3,5-32VDC	Ic<13mA	1250A ² s	
S0965460	50A	24-600VAC	1200V	3,5-32VDC	Ic<13mA	2500A ² s	
S0967460	75A	24-600VAC	1200V	3,5-32VDC	Ic<13mA	7200A ² s	

PRODUCT REFERENCE	Switching current	Switching voltage	Peak voltage	Control voltage	Control current	Pt	Dimensions mm
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S09 range with simplified input.

S0942560	25A	12-280VAC	600V	7-30VDC	Ic<30mA	600A ² s	45 x 58,5 x 30
S0963560	35A	24-600VAC	1200V	8-30VDC	Ic<30mA	1250A ² s	
S0965560	50A	24-600VAC	1200V	8-30VDC	Ic<30mA	2500A ² s	
S0967560	75A	24-600VAC	1200V	8-30VDC	Ic<30mA	7200A ² s	

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

SOR Range

With removable input connector - Spring terminals :

Designed for most types of loads.



- > Zero cross with low zero-cross level (<12V)
- > Voltage protection on input (transil) and output (VDR) with very high immunity according to IEC/EN61000-4-4 and IEC/EN61000-4-5
- > IP20 protection
- > Control current <13mA for all the voltage range at any operating temperature
- > Control status LED
- > Double inputs

PRODUCT REFERENCE	Switching current	Switching voltage	Peak voltage	Control voltage	Control current	Pt	Dimensions mm
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SOR842074	25A	12-275VAC	600V	3-32VDC	Ic<13mA	600A ² s	45 x 58,5 x 30
SOR863070	35A	24-510VAC	1200V	3,5-32VDC	Ic<13mA	1250A ² s	
SOR865070	50A	24-510VAC	1200V	3,5-32VDC	Ic<13mA	2500A ² s	
SOR867070	75A	24-510VAC	1200V	3,5-32VDC	Ic<13mA	7200A ² s	

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

... we also have a celpac® range
with system diagnostics (see page 11)



SC Range

SC7 Range with random or instant switching, integrating a snubber (RC) is especially designed for motor and transformer control.

SC8 Range with zero-cross switching, integrating a snubber (RC), is recommended for all types of applications.

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



SC7-SC8-SC9.



PCB mounting on request

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	
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	
SC841110	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	
SC842810	25A	12-280VAC	600V	17-80VAC/DC	3 kΩ	312A ² s	
SC844110	40A	12-280VAC	600V	4-30VDC	1 kΩ	612A ² s	
SC844910	40A	12-280VAC	600V	90-240VAC/DC	30 kΩ	612A ² s	
SC862110	25A	24-520VAC	1200V	5-30VDC	1 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	
SC869910	125A	24-520VAC	1200V	90-240VAC/DC	30 kΩ	20000A ² s	
SC941110	12A	12-280VAC	600V	4-30VDC	1 kΩ	72A ² s	
SC941160	12A	12-280VAC	600V	4-30VDC	600 Ω	72A ² s	
SC942110	25A	12-280VAC	600V	4-30VDC	1 kΩ	312A ² s	
SC942120	25A	12-275VAC	600V	4-30VDC	1 kΩ	312A ² s	
SC942160	25A	12-280VAC	600V	4-30VDC	600 Ω	312A ² s	
SC942900	25A	12-280VAC	600V	90-240VAC/DC	30 kΩ	312A ² s	
SC944110	40A	12-280VAC	600V	4-30VDC	1 kΩ	612A ² s	
SC944160	40A	12-280VAC	600V	4-30VDC	600 Ω	612A ² s	
SC945160	50A	12-280VAC	600V	4-30VDC	600 Ω	1500A ² s	
SC945900	50A	12-280VAC	600V	90-240VAC/DC	30 kΩ	1500A ² s	
SC947160	75A	12-280VAC	600V	4-30VDC	600 Ω	5000A ² s	
SC948100	95A	12-280VAC	600V	4-30VDC	1 kΩ	11000A ² s	
SC961160	12A	24-600VAC	1200V	5-30VDC	600 Ω	72A ² s	
SC962110	25A	24-600VAC	1200V	5-30VDC	1 kΩ	265A ² s	
SC962114	25A	24-600VAC	1200V	5-30VDC	1 kΩ	265A ² s	
SC962160	25A	24-600VAC	1200V	5-30VDC	600 Ω	265A ² s	
SC962800	25A	24-600VAC	1200V	17-80VAC/DC	3 kΩ	265A ² s	
SC962960	25A	24-600VAC	1200V	90-240VAC/DC	30 kΩ	265A ² s	
SC965100	50A	24-600VAC	1200V	5-30VDC	1 kΩ	1500A ² s	
SC965160	50A	24-600VAC	1200V	5-30VDC	600 Ω	1500A ² s	
SC967100	75A	24-600VAC	1200V	5-30VDC	1 kΩ	5000A ² s	
SC967160	75A	24-600VAC	1200V	5-30VDC	600 Ω	5000A ² s	

These products should be mounted on heatsinks in order to reach nominal current.
Protective cover and heatsink : see accessories.

POWER SSRs with diagnostics

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

Diagnostic description :

Control	Control LED	Mains	Load	SSR	Status LED	Output status
0	○	Yes	OK	OK	●	closed
1	●	Yes	OK	OK	●	closed
0	○	No	OK	OK	○	open
1	●	No	OK	OK	○	open
0	○	Yes	---	OK	○	open
0	○	Yes	OK	short-circuit	○	open
1	●	Yes	---	OK	○	open
1	●	Yes	Ok	short-circuit	○	open



SILD

PRODUCT REFERENCE	Switching Current	Switching Voltage	Peak Voltage	Control Voltage	Current Control	I ² t	Dimensions mm
SILD845160	32A	70-280VAC	600V	3-32VDC	I _c <10mA	1500A ² s	22,5 x 80 x 116
SILD865170	32A	150-510VAC	1200V	3,5-32VDC	I _c <10mA	1500A ² s	
SILD867170	35A	150-510VAC	1200V	3,5-32VDC	I _c <10mA	5000A ² s	



SOD

PRODUCT REFERENCE	Switching Current	Switching Voltage	Peak Voltage	Control Voltage	Input R	I ² t	Dimensions mm
SOD843180	35A	70-275VAC	600V	4-30VDC	1 kΩ	1250A ² s	45 x58,5 x 33,6
SOD845180	50A	70-275VAC	600V	4-30VDC	1 kΩ	2500A ² s	
SOD865180	50A	150-510VAC	1200V	5-30VDC	1 kΩ	2500A ² s	
SOD867180	75A	150-510VAC	1200V	5-30VDC	1 kΩ	7200A ² s	

The SOD products should be mounted on heatsinks in order to reach nominal current.

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 ² t	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 the 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 : (see page 13) or our SVTA / SWTA range (see page 17).

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

celpac® Range

- > 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.
- > It's value between 312 and 5000A'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 dismantling on DIN rail or direct mounting on panel.
- > SILD model with diagnostic (see page 9) : 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.



Single Phase SIL 22,5 mm



Single Phase SIM 45 mm

PRODUCT REFERENCE	Switching current	Switching voltage	Peak voltage	Control Voltage	Control Current	It	Specifications	Dimensions mm
SIL765170	32A	24-510VAC	1200V	3,5-32VDC	Ic<10mA	1500A ² s	random	22,5x80x116
SIL842170	25A	12-275VAC	600V	3-32VDC	Ic<10mA	312A ² s	zero-cross	22,5x80x116
SIL842770	25A	12-275VAC	600V	17-60VAC/DC	Ic<10mA	312A ² s	zero-cross	22,5x80x116
SIL842970	25A	12-275VAC	600V	150-240VAC/DC	Ic<10mA	312A ² s	zero-cross	22,5x80x116
SIL863170	25A	24-510VAC	1200V	3,5-32VDC	Ic<10mA	1250A ² s	zero-cross	22,5x80x116
SIL865170	32A	24-510VAC	1200V	3,5-32VDC	Ic<10mA	1500A ² s	zero-cross	22,5x80x116
SIL865770	32A	24-510VAC	1200V	17-60VAC/DC	Ic<10mA	1500A ² s	zero-cross	22,5x80x116
SIL865970	32A	24-510VAC	1200V	150-240VAC/DC	Ic<10mA	1500A ² s	zero-cross	22,5x80x116
SIL867170	35A	24-510VAC	1200V	3,5-32VDC	Ic<10mA	5000A ² s	zero-cross	22,5x80x116

SIM765170	40A	24-510VAC	1200V	3,5-32VDC	Ic<10mA	1500A ² s	random	45x80x116
SIM865170	40A	24-510VAC	1200V	3,5-32VDC	Ic<10mA	1500A ² s	zero-cross	45x80x116
SIM865770	40A	24-510VAC	1200V	17-60VAC/DC	Ic<10mA	1500A ² s	zero-cross	45x80x116
SIM865970	40A	24-510VAC	1200V	150-240VAC/DC	Ic<10mA	1500A ² s	zero-cross	45x80x116
SIM867170	45A	24-510VAC	1200V	3,5-32VDC	Ic<10mA	5000A ² s	zero-cross	45x80x116

We also have a celpac® range with status of the SSR and the load and solid state contactors celpac® two and three phase.



Power SSR with diagnostic SILD (see page 9)



two phase SIB (see page 11)



three phase SIT (see page 12)

SIC/SIR/SIP Range

PRODUCT REFERENCE	Switching voltage	Switching current	Thyristor rating	It	Control current	Commutation	Dimensions mm	Fig n°
SHOULD BE MOUNTED ON HEATSINK								
SIC841160	12-280VAC	12A	12A	72A ² s	4-30VDC	zero-cross	22,4 x 80 x 31	1
SIC842160	12-280VAC	25A	25A	288A ² s	4-30VDC	zero-cross	22,4 x 80 x 31	1
SIC862500	24-600VAC	25A	25A	312A ² s	8-30VDC	zero-cross	22,4 x 80 x 37	2
SIC865560	24-600VAC	32A	50A	1500A ² s	8-30VDC	zero-cross	22,4 x 80 x 37	3

SIR841500	12-280VAC	12A	12A	72A ² s	7-30VDC	zero-cross	22,4 x 80 x 33	4
SIR842500	12-280VAC	16A	25A	310A ² s	7-30VDC	zero-cross	22,4 x 80 x 33	4

SIP787100	24-690VAC	90A	90A	5000A ² s	4-30VDC	random	22,4 x 80 x 29,4	5
SIP867100	24-600VAC	75A	75A	5000A ² s	5-30VDC	zero-cross	22,4 x 80 x 29,4	5

READY TO USE

SIR85216WJ	12-440VAC	16A	20A	312A ² s	4-30VDC	zero-cross	22,5 x 80 x 99	6
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① Screw terminals



② Screw terminals



③ Screw terminals



④ Spring terminals



⑤ Screw contact



⑥ Spring terminals

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	1500A ² s	random / 2 controls	44,8 x 58,5 x 27	1
SCB564310	2x40A	24-510VAC	1200V	5-30VDC	1 kΩ	610A ² s	zero-cross / 2 controls		3
SCB865300	2x50A	24-600VAC	1200V	10-30VDC	1400 Ω	1500A ² s	zero-cross / 1 control		4
SCB865600	2x50A	24-600VAC	1200V	10-30VDC	1800 Ω	1500A ² s	zero-cross / 2 controls		5
SCB665300	2x50A	24-600VAC	1200V	8-35VDC	1800 Ω	1500A ² s	zero-cross / 1 control		2
SCB765200	2x50A	24-600VAC	1200V	5-30VDC	1 kΩ	1500A ² s	random / 2 controls		5
SCB867300	2x75A	24-600VAC	1200V	10-30VDC	1400 Ω	5000A ² s	zero-cross / 1 control		4
SCB867600	2x75A	24-600VAC	1200V	10-30VDC	1800 Ω	5000A ² s	zero-cross / 2 controls		5
SCB941300	2x12A	12-280VAC	600V	8-30VDC	1000 Ω	72A ² s	zero-cross / 1 control		4
SCB941600	2x12A	12-280VAC	600V	8-30VDC	1 kΩ	72A ² s	zero-cross / 2 controls		5
SCB942600	2x25A	12-280VAC	600V	8-30VDC	1 kΩ	288A ² s	zero-cross / 2 controls		5
SCB962600	2x25A	24-600VAC	1200V	8-30VDC	1 kΩ	265A ² s	zero-cross / 2 controls		5
SCB965300	2x50A	24-600VAC	1200V	8-30VDC	1 kΩ	1500A ² s	zero-cross / 1 control		4
SCB965600	2x50A	24-600VAC	1200V	8-30VDC	1 kΩ	1500A ² s	zero-cross / 2 controls		4

Protection Cover : see accessories (1K470000).

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



1



2



3



4



5

Dual okpac® Range

New 2 phase relays in okpac® IP20 housing. Removable connector for control allowing many wiring possibilities eg. FASTONS, springs, screw and so on (please consult us).

PRODUCT REFERENCE	Switching current	Switching voltage	Peak voltage	Control voltage	Input R	I _t	Specifications	Dimensions mm	Fig n°
SOB542460	2x25A	12-280VAC	600V	3-32DC	I _c <13mA	600A ² s	zero-cross	45 x 58,5 x 27	1
SOB942660	2x25A	24-280VAC	600V	10-30DC	1200 Ω	600A ² s	zero-cross		1
SOB963660	2x35A	24-600VAC	1200V	10-30DC	1200 Ω	1250A ² s	zero-cross		2
SOB965660	2x50A	24-600VAC	1200V	10-30DC	1200 Ω	2500A ² s	zero-cross		2
SOB865660	2x50A	24-600VAC	1200V	8-30DC	1200 Ω	2500A ² s	zero cross / all loads		2
SOB765660	2x50A	24-600VAC	1200V	8-30DC	1200 Ω	2500A ² s	random / all loads		2

On request : 1600V peak version, 75A version, overvoltage protection option available.

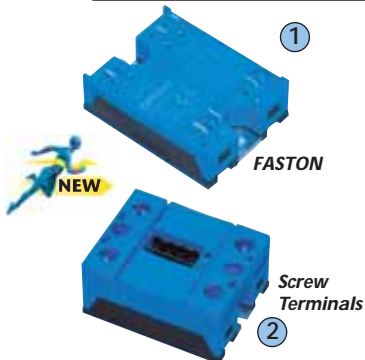
celpac® Range

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

PRODUCT REFERENCE	Switching current	Switching voltage	Peak voltage	Control voltage	Input R	I _t	Specifications	Dimensions mm
SIB865170	2x22A	24-510VAC	1200V	3,5-32VDC	I _c <10mA	1500A ² s	zero-cross	45 x 80 x 116
SIB865970	2x22A	24-510VAC	1200V	150-240VAC/DC	I _c <10mA	1500A ² s	zero-cross	
SIB765170	2x22A	24-510VAC	1200V	3,5-32VDC	I _c <10mA	1500A ² s	random	
SIB867170	2x25A	24-510VAC	1200V	3,5-32VDC	I _c <10mA	5000A ² s	zero-cross	



Two phase SIB 45 mm



1

FASTON

Screw Terminals

2

Three phase relays

SCT Range



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

PRODUCT REFERENCE	Switching Current	Switching voltage	Peak Voltage	Control Voltage	Input R	I _t	Specifications	Dimensions mm
SCT32110	3x10A	12-440VAC	800V	4-30VDC	330 Ω	72A ² s	zero-cross	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 current.

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	Switching voltage	Peak Voltage	Control Voltage	Input R	I _t	Specifications	Dimensions mm
SGT962360	3x25A	24-600VAC	1200V	8.5-30VDC	620 Ω	265A ² s	zero-cross optimised for resistive loads	100 x 73,5 x 39,5
SGT965360	3x50A	24-600VAC	1200V	8.5-30VDC	620 Ω	1500A ² s		
SGT967360	3x75A	24-600VAC	1200V	8.5-30VDC	620 Ω	5000A ² s		
SGT965960	3x50A	24-600VAC	1200V	90-240VAC	21 kΩ	1500A ² s		
* SGT965960E	3x50A	24-600VAC	1200V	90-240VAC	21 kΩ	1500A ² s		
* SGT965360E	3x50A	24-600VAC	1200V	8.5-30VDC	620 Ω	1500A ² s		

* : 40mm Available in 47,6mm (E suffix)

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

SVT Range



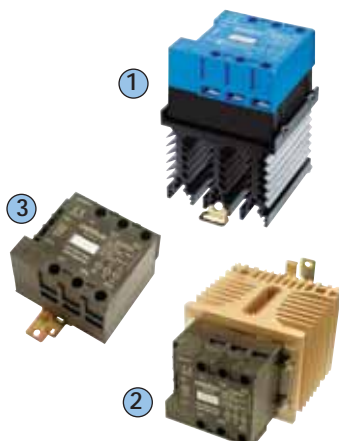
Three phase IP20 protection range to control resistive loads (AC-51) or for motor control (AC-53). Please consult us for other loads. These relays have LED.

PRODUCT REFERENCE	Switching Current AC-51	Current AC-53	Switching voltage	Thyristor rating	Control Voltage	Input R	I _t	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			
* SVT864394E	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			
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	3x125A	3x32A	24-520VAC	125A	8.5-30VDC	620 Ω	20000A ² s	RC-VDR			
SVT869994	3x125A	3x32A	24-520VAC	125A	90-240VAC	21 kΩ	20000A ² s	RC-VDR			
* SVT965360	3x50A	---	24-600VAC	50A	8.5-30VDC	620 Ω	1500A ² s	---			zero-cross optimised for resistive loads
* SVT965460E	3x50A	---	24-600VAC	50A	4-32VDC	i<25mA	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	---			
* SVT965960E	3x50A	---	24-600VAC	50A	90-240VAC	21 kΩ	1500A ² s	---			
SVT967360	3x75A	---	24-600VAC	75A	8.5-30VDC	620 Ω	5000A ² s	---			

* : 40mm Available in 47,6mm (E suffix)

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

SWT/SIT Range - Solid state contactors



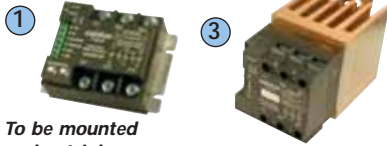
Three phase contactor with heatsink and DIN rail mounting. Fitted with a LED and RC and VDR network protection designed to control resistive loads (AC-51) or for motor control (AC-53).

PRODUCT REFERENCE	Switching Current AC-51	Current AC-53	Switching voltage	Peak Voltage	Control Voltage	Input R	I _t	Specifications	Dimensions mm	Fig n°
SIT865390	3x22A	3x12A	24-510VAC	1200V	10-30VAC/DC	410 Ω	1500A ² s	zero-cross	90x98x122	1
SIT865570	3x22A	---	24-510VAC	1200V	10-30VDC	560 Ω	1500A ² s		90x98x122	1
SIT865990	3x22A	3x12A	24-510VAC	1200V	90-240VAC	21 kΩ	1500A ² s		90x98x122	1
SWT865080	3x50A	---	24-520VAC	1200V	10-30VAC/DC	410 Ω	5000A ² s	zero-cross	110x145x172	2
SWT862030	3x32A	3x24A	24-520VAC	1200V	10-30VAC/DC	410 Ω	11000A ² s		110x100x172	2
SWT862090	3x32A	3x24A	24-520VAC	1200V	90-240VAC	21 kΩ	11000A ² s		110x100x172	2
SWT861730	3x28A	3x16A	24-520VAC	1200V	10-30VAC/DC	410 Ω	5000A ² s		110x100x172	2
SWT861790	3x28A	3x16A	24-520VAC	1200V	90-240VAC	21 kΩ	5000A ² s		110x100x172	2
SWT860330	3x5A	3x5A	24-520VAC	1200V	10-30VAC/DC	410 Ω	265A ² s		83x76x72	3

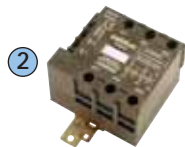
These products are defined with temperature rises of 50°C and permanent operation (operating cycle = 100%) of 8 hours in compliance with the European standards.

Motor control

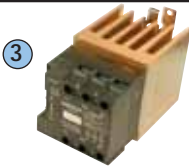
SG9 - SW9 - Reversing switches



① To be mounted on heatsink



② ready to use



③

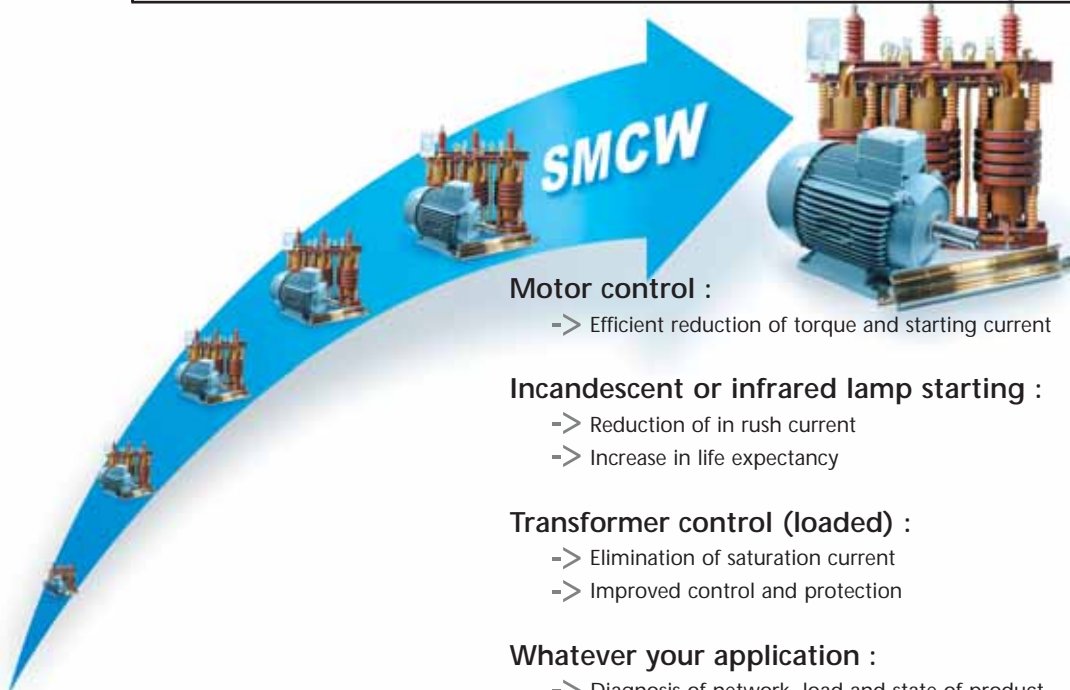
④ = 2 without DIN rail

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 ^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	24-550VAC	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

Standard Entrax : 40mm. Available in 47,6mm (E suffix) : please contact us

Soft Starter SMCV - SMCW



Motor control :

-> Efficient reduction of torque and starting current

Incandescent or infrared lamp starting :

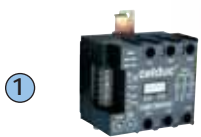
-> Reduction of in rush current
-> Increase in life expectancy

Transformer control (loaded) :

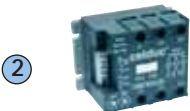
-> Elimination of saturation current
-> Improved control and protection

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



①



②



③



④



⑤

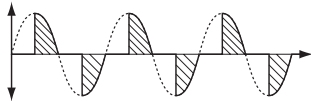
PRODUCT REFERENCE	Pmax motor 400VAC		Pmax motor 230VAC		Max. Current AC53a		Specifications	Dimensions mm	Fig n°
	Y	D	Y	D	Max.	EN60947-4-2			
SMCV6080	7,5kW	13kW	4,3kW	7,5kW	16A	11,5A	Heatsink not provided	100x76x58,5	2
SMCV6110	11kW	19kW	6,4kW	11kW	25A	15,5A			
SMCV6150	15kW	26kW	8,6kW	15kW	30A	22,5A			
SMCW6020	2,5kW	4,3kW	1,4kW	2,5kW	5,6A	4A	supplied with built-in heatsink	83x110x74	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	83x110x74	1

Common characteristics	Rang of voltage and network frequency	Control	Diagnostic output	Operating Temperature	Insulation	Max. section of wires
Values given at 40°C ambient	200-480VAC 40-65Hz	10-24VDC or 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.

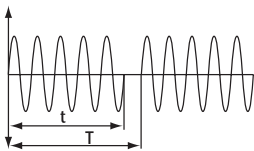


PRODUCT REFERENCE	Switching Current	Switching voltage	Control Voltage	Input R	I _t	Dimensions mm
SG441020	10A	115-265VAC	0-10VDC	400 kΩ	72A ² s	100 x 73,5x 39,5
SG444020	40A	115-265VAC	0-10VDC	400 kΩ	1500A ² s	
SG444120	40A	115-265VAC	Potentiometer	200 kΩ	1500A ² s	
SG444420	40A	115-265VAC	4-20mA	250 Ω	1500A ² s	
SG464020	40A	200-460VAC	0-10mA	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 current.

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.



PRODUCT REFERENCE	Switching Current	Switching Voltage	Control Voltage	Input R	I _t	Dimensions mm
SG541020	10A	230VAC	0-10VDC	250 Ω	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 phase, ask for our application notes. These products should be mounted on heatsink in order to reach nominal current.

Six4/S04 Range - New generation of proportional controllers

The controllers are based on a micro-processor. This range is currently being completed.

This range comes in **celpac**® housing (ready to use) or in **okpac**® housing to be mounted on a heatsink. The micro-processor Technology allows numerous fonctions :



- > Phase angle control
- > Fast burst control
- > Timers
- > Full wave pulse control
- > Soft-Starter
- > Flashing relay

First models : phase angle controllers

PRODUCT REFERENCE	Switching Voltage	Switching Current	Control Voltage	Dimensions mm
SIL465000	160-450 VAC	22A	0-10V	22,5 x 80 x 116
SIM465000	160-450 VAC	32A	0-10V	45 x 80 x 116
S0445420	90-265 VAC	50A	4-20mA	45 x 58,2 x 27
SO465420	180-450 VAC	50A	4-20mA	45 x 58,2 x 27

For other functions : please contact us.

SWG5 Range - Single phase power controllers

This range is based on the SG5 controllers. The SWG5 are fitted with heatsinks and DIN rail adapters.



Main characteristics :

- > Main voltage : 230 VAC, 50 or 60 Hz (400 VAC on request)
- > Switching power : 2 Kw and 8 Kw
- > Analogue input : 0 to 10 VDC (4-20 mA or 0 to SVDC or potentiometer on request)
- > Application : single phase heaters



PRODUCT REFERENCE	Switching power	Switching voltage	Control Voltage	Input R	Dimensions mm
SWG50210	2kW	230VAC	0-10VDC	250 kΩ	100 x 74 x 56
SWG50810	8kW	230VAC	0-10VDC	250 kΩ	100 x 110 x 96

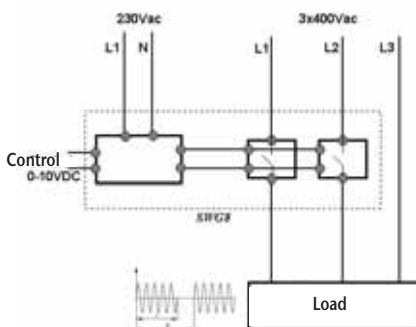
SWG8 Range - 3 phase power controllers

The SWG8 controllers consist of a control unit (0 to 10 VDC input) and a power unit adapted to three phase load. The control unit has got an analogue input isolated from the mains that can proportionally make the power vary on the load.



Main characteristics :

- > Mains voltage : 400VAC
- > Switching power : up to 80 KW
- > Analogue input : 0 to 10VDC
- > 2 phase switching
- > 3 phase heaters



PRODUCT REFERENCE	Switching power	Switching voltage	Control Voltage	Input R	Control unit dimensions mm	Power unit dimensions mm
SWG81510	15kW	400VAC	0-10VDC	250 kΩ	100x74x56	45x80x120
SWG82710	27kW					2x(83x110x130)
SWG83610	36kW					2x(110x110x154)
SWG84210	42kW					2x(110x110x154)
SWG84810	48kW					2x(110x110x154)
SWG86010	60kW					2x(110x110x154)
SWG88010	80kW					2x(110x145x154)

Range of DC relays

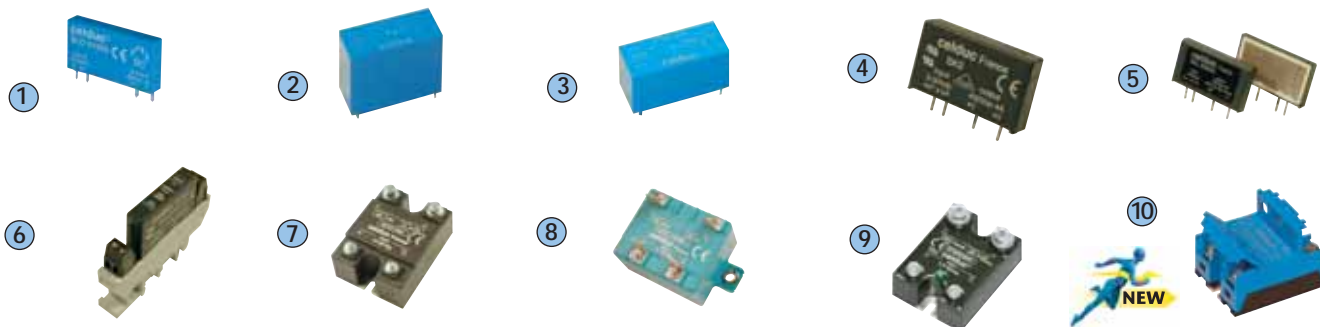
These relays are designed to switch loads on DC mains e.g solenoid valves, brakes, indicators, motors (possibly on AC mains under specific conditions). All possible technologies can be available : bipolar if low control current is needed, MOFSET for applications with high transient current is needed, MOFSET for applications with high transient currents (motors) and IGBT (on request) for high voltage applications (> 600 VDC)

PRODUCT REFERENCE	Switching Current	Switching voltage	Control Voltage	Control Current	Technology/ Protection	Dimensions mm	Fig n°
SLD01205	4A	0-32VDC	3-10VDC	5,5-27mA	MOSFET/Transil	28 x 5 x 15	1
SLD01210	2,5A	0-60VDC	3-10VDC	5,5-27mA			
SLD02205	4A	0-32VDC	7-20VDC	5,5-18mA			
SLD03205	4A	0-32VDC	18-32VDC	5,5-10,2mA			
SLD03210	2,5A	0-60VDC	18-32VDC	5,5-10,2mA			
<i>Other models up to 200 VDC on request</i>							
SPD03505	5A	0-30VDC	12-30VDC	4,1-12mA	MOSFET/Transil	29x12,7x25,4	2
STD03505	2,5A	0-30VDC	12-30VDC	4,1-12mA	MOSFET/Transil	29x12,7x15,7	3
SKD10306	3A	2-60VDC	3-30VDC	1-30mA	Bipolar/Diode	43,2x10,2x25,4	4
<i>Other models up to 200 VDC on request</i>							
SKLD11006	12A	7-36VDC	3-10VDC	6-30mA	MOSFET/Transil	43,6 x 6,3 x 24,5	5
SKLD31006	12A	7-36VDC	7-30VDC				
SKLD10510	8A	7-60VDC	3-10VDC				
SKLD30510	8A	7-60VDC	7-30VDC				
XKD10120	1A	2-220VDC	5-30VDC	1-30mA	Bipolar/Diode	12,2 x 76 ,4 x 53	6
XKD10306	3A	2-60VDC	5-30VDC	1-30mA			6
XKD11306D	3A	2-60VDC	3-30VDC	5-30mA			6
XKD70306	3A	2-60VDC	10-30VAC/DC	2-14mA			6
XKD90306	3A	2-60VDC	90-240VAC/DC	2-5,7mA			6
SCC10506	5A	2-60VDC	3-16VDC	1-30mA	Bipolar/Diode	44,5 x 58 ,2x 27	7
SCC11506	15A	2-60VDC	3-16VDC				
SCC20506	5A	2-60VDC	10-32VDC				
SCC21506	15A	2-60VDC	10-32VDC				
SCC21520	15A	2-200VDC	10-32VDC				
SGC12006	20A	2-60VDC	3-16VDC	1-30mA	Bipolar/Transil	67 x 38 x 37,5	8
SGC20420	20A	2-200VDC	3-30VDC				
SGC22006	20A	2-60VDC	10-32VDC				
SCM030200	30A	0-200VDC	4,5-32VDC	25-42mA	MOSFET/none	44,5 x 58,2 x 27	9
SCM0100200	100A	0-200VDC					
SCM040600	40A	0-600VDC					
SOM02060	20A	5-40VDC	3,5-32VDC	30-35mA	MOSFET/Transil	45 x 58,5 x 30	10
SOM04060	40A	12-43VDC			MOSFET/Transil		
SOM020100	20A	12-60VDC			MOSFET/Transil		
SOM040100	40A	12-60VDC			MOSFET/Transil		
SOM020200	20A	12-120VDC			MOSFET/VDR		
SOM040200	40A	3,5-32VDC			MOSFET/VDR		

Removable terminals ->

-> Products without integrated over-voltage protection (transil or VDR) or having only a Freewheel diode, must be fitted with an external over-voltage protection. The maximum operating voltage is then often reduced to the half of the specified maximum operating voltage.

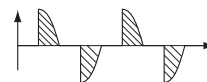
-> Other products are under development or can be developed on request = please consult us.





- > Allows control any kind of loads (except capacitive) 3 or 4 wires (neutral), delta or star wiring :
- Resistive loads for temperature control (infrared lamps, kilns, resistors, ...)
- Resistive loads for light 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. AC 51	Max current. AC 53a	Control	Dimensions mm	Fig n°
SWTA4610	7A	7A	0-10V	83x110x74	1
SWTA4620	22A	16A	0-10V	83x110x155	2
SWTA4630			0-10V		
SWTA4631	32A	25A	Potentiometer	110x110x180	3
SWTA4634			4-20mA		
SWTA4650	50A	30A	0-10V	110x141x180	4
SWTA46501 (*)					

* Fan 24 VDC

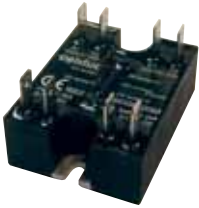
PRODUCTS TO BE MOUNTED ON A HEATSINK

PRODUCT REFERENCE	Max current. AC 51	Max current. AC 53a	Control	Dimensions mm	Fig n°
SVTA4650			0-10V	100x76x58,5	5
SVTA4651	50A	16A	Potentiometer		
SVTA4684	95A(**)	25A	4-20mA		
SVTA4690	125A(**)	30A	0-10V		
SVTA4691	125A(**)	30A	Potentiometer		
SVTA4694	125A(**)	30A	4-20mA		

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

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 ² t	Dimensions mm	Led
SCQ842000	4x25A	12-280VAC	600V	3-32VDC	I <10mA	288A ² s	44,5x58,2x27	oui
SCQ842060	4x25A	12-280VAC	600V	3-32VDC	I <10mA	288A ² s	44,5x58,2x27	non

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

Special Relays

Shunting relays



SAS Relays

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

Dry contact relays



SG241010 relay

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

Flashing relays



ST Relay

ST645000: flashing 1/2Hz 230VAC
15A.
ST647000: flashing 1/2Hz 230VAC
25A.
ST323000: flashing 1/2Hz 30-60VDC
10A.

In addition to the very large range of solid state relays, **celduc**[®] design specific products according to the customers specifications or adapt products to the customers needs if prices and volumes can justify such developments.

Please do not hesitate to consult us.



4 SKL
Relays on PCB



This device using SSRs controls AC motors in hazardous area. Control by pushbutton with embedded magnet actuating Reed swiches.



Solid state contactor for 3 phase motor.
Dry contact control
Spring terminals

celduc[®] relais is the specialist of typical customers applications.

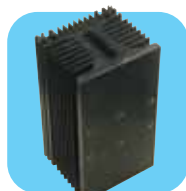
Heatsinks

The R_{th} values are given for a temperature of 50°C in calm air.
Other dimensions available on request.

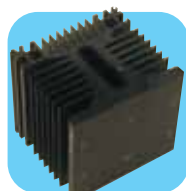
PRODUCT REFERENCE	Thermal characteristics	Specifications	Dimensions mm	Relay type	Fig n°
WF031100	0,3K/W	ventilated for DIN rail or screw	110x120x145	SO, SC, SV, SG, SGT, SVT	1
WF050000	0,55K/W	DIN rail adaptor as option	110x100x200	SO, SC, SV, SG, SGT, SVT	2
WF070000	0,75K/W	DIN rail adaptor as option	110x100x100	SO, SC, SV, SG, SGT, SVT	3
WF115100	0,9K/W	for DIN rail or screw	110x100x90	SO, SC, SV, SG, SGT, SVT	4
WF131100	1,1K/W	for DIN rail or screw	83x90x90	SO, SC, SV	5
WF121000	1,2K/W	for DIN rail or screw	100x40x100	SO, SC, SV, SG, SGT, SVT	6
WF210000	2,1K/W	DIN rail adaptor as option	96x41x55	SO, SC, SV	7
WF262100	2,2K/W	for DIN rail or screw	48x60x72	SO, SC, SV	8
WF151200	2,2K/W	for DIN rail or screw	45x73x80	SO, SC, SV	9
WF108110	1,1K/W	for DIN rail or screw	89,8x81x98,02	SO, SC, SV, SO	10



1



2



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4



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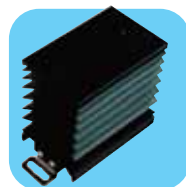
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9



10

Accessories

PROTECTION COVERS

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

KITS

1LK00100	mounting on SC-SF-SV8/heatsink or SC-SV8/1LD12020
1LK00200	mounting on SC-SF-SV9/heatsink or 1LD00500
1LK00300	mounting on heatsink/1LD00400 or SC-SV8/1LD00000
1LK00500	mounting of 1 flap on SO9 relays output, flap included
1LK00600	mounting of 2 flaps on SO9 relays output, flap included
1LK00700	high current terminal set (wiring cross section from 25 to 50mm ²)

RELAY/HEATSINK THERMAL SEALS

5TH15000	Thermal grease for 30 relays SG/SVT ou 60 relays SC/SV8
5TH21000	Thermal precut film for SC/SV
5TH23000	thermal pads

SYMMETRICAL DIN RAIL ADAPTATORS

1LD00400	DIN rail adaptor for WF21/07/05
1LD00500	DIN rail adaptor for SG/SVT/SV969300
1LD12020	DIN rail adaptor for SC/SV8/SO montage vertical

MOUNTING + HEATSINK + DIN ADAPTATOR OPTION

1LWD1202	mounting of SC/SV/SO sur 1LD12020 + 1LD12020
-----------------	--

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

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

Applications 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.
- Application of three phase diagnostic.

Magnetic proximity sensors

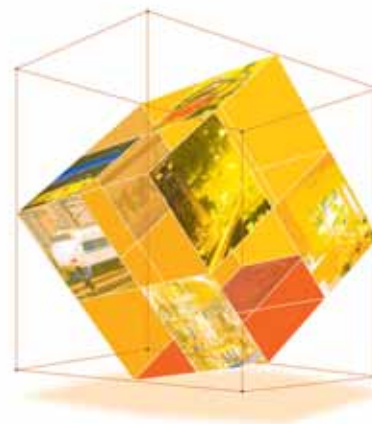
We are the experts ! !!!

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

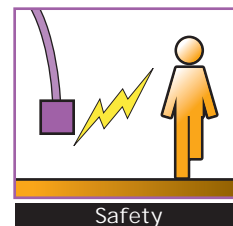
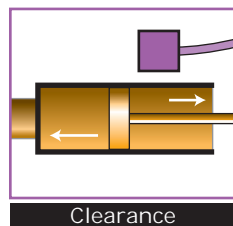
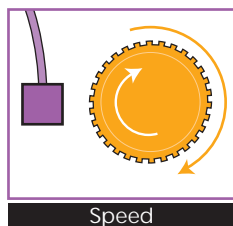
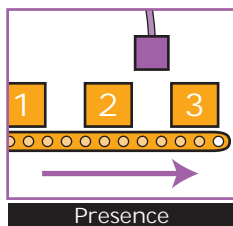
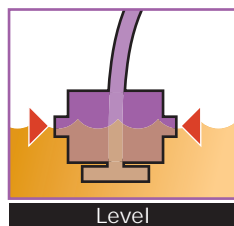
We can even design the ideal product for your applications !

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



Contents

Industry

- Counting
- Cylinder positions
- Machine safety
- Advertising panel
- Actuator position
- Liquide level
- Speed control

Aircraft, space and army

- Fuel/oil level.
- Camera shutter control
- Sensors and actuators for Airbus

Home

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

Specific applications

- ATEX (explosive atmospheres)

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Contact type :

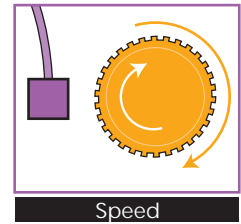
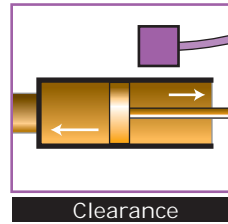
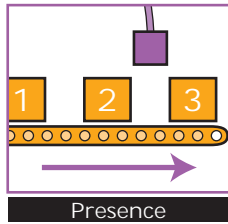
- NO -> Normally Open
- NC -> Normally Closed

Other lengths of cable or wire possible for signifiant 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.



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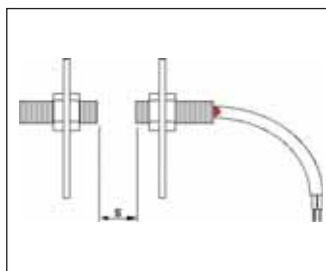
Plastic

③

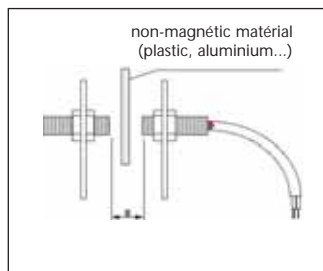


Stainless Steel

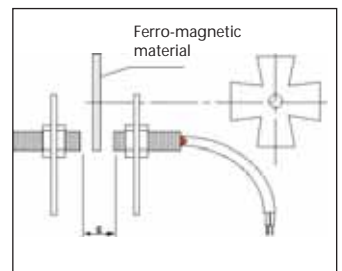
PRODUCT REFERENCE	Contact type	Cable length	Closing distance	Max switching voltage	Max switching current	Temperature rating	Dimensions mm	Associated coded magnet	Fig n°
PLE13320	Hall effect NPN	cable : 2m	top 8 mm	5-24VAC	25mA	-25°C / +70°C	32x15x6,8	P6250000	1
PLE14320	Hall effect NPN	cable : 2m	side 8 mm	5-24VAC	25mA	-25°C / +70°C	32x15x6,8	P6250000	1
PTE11320	Hall effect PNP	cable : 2m	19 mm	6-48VAC	0,4A	-25°C / +70°C	M12x33	PT810000	2
PTE11321	Hall effect NPN	cable : 2m	19 mm	6-48VAC	0,4A	-25°C / +70°C	M12x33	PT810000	2
PTE21320	Gear tooth PNP	cable : 2m	1,5 mm	6-48VAC	0,4A	-25°C / +70°C	M12x33		2
PTE21321	Gear tooth NPN	cable : 2m	1,5 mm	6-48VAC	0,4A	-25°C / +70°C	M12x33		2
PTE31320	Hall effect PNP	cable : 2m	17mm	6-48VDC	0,4A	-25°C / +70°C	M12x33	PT810000	3
PTE31321	Hall effect NPN	cable : 2m	17mm	6-48VDC	0,4A	-25°C / +70°C	M12x33	PT810000	3
PTE41320	Gear tooth PNP	cable : 2m	1,5mm	6-48VDC	0,4A	-25°C / +70°C	M12x33		3
PTE41321	Gear tooth NPN	cable : 2m	1,5mm	6-48VDC	0,4A	-25°C / +70°C	M12x33		3



Direct detection



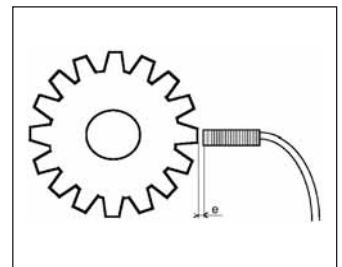
Detection through non-magnetic material



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

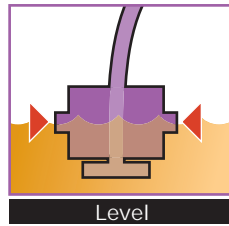
Applications :

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



Gear tooth sensor

Level Sensors

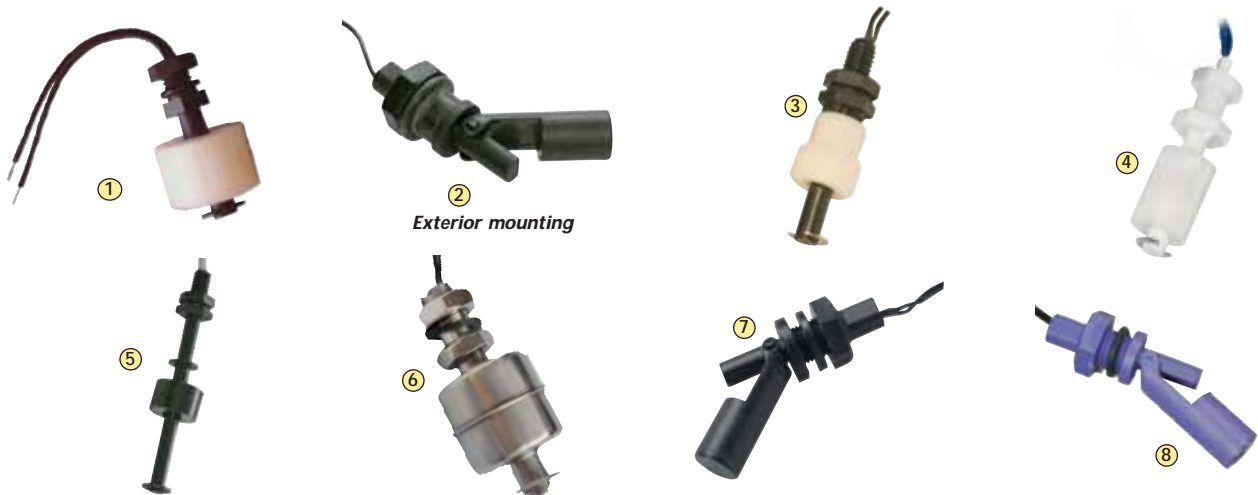


celduc® relais offers a large range of standard or specific level and flow sensors using Reed switches. Our sensors are available in plastic, brass or stainless steel housing, making it possible to use them with various chemical substances and/or operating temperatures.

With some sensors, it is possible to invert function by reversing the float or using the sensor upside down. Please see the data sheets for more details.

For specific applications (e.g. potentiometric scale, special level sensors) do not hesitate to contact us : products can be developed on request.

PRODUCT REFERENCE	Contact type	Connection type	Cable length	Material Housing	Material Float	Max. switching power	Max switching voltage	Max switching current	Temperature rating	Dimensions mm	Fig n°
PTFO1070	1NO	2 wires	70 mm	Polyamide	Polypropylen	10VA	100VDC	0,5A	0/ +70°C	ø 25x42	1
PTFA0100	1NO	2 wires + connector	175 mm	Polyamide 30% glass fiber	Polyamide 30% glass fiber	10VA	200VDC	0,5A	0/ +70°C	ø 22x90	2
PTFA1015	1NO	Cable	1,5 m	Polyamide	Polypropylen	10VA	10VDC	0,5A	0/ +70°C	ø 22,5x90	3
PTFA1103	1NO	2 wires	300 mm	Polypropylen	Polypropylen	10VA	100VDC	0,5A	-10/ +80°C	ø 18x44	4
PTFA1210	1NO + 1NC	Cable : 3 wires	300 mm	Polyamide	Polyurethane	10VA	100VDC	0,5A	-10/ +85°C	ø 25x90	5
PTFA2015	1NO	2 wires	1,5 m	Stainless steel	Stainless steel	10VA	100VDC	0,5A	0/ +100°C	ø 28x60	6
PTFA2115	1NO	2 wires	1,5 m	Stainless steel	Stainless steel	50VA	300VAC/DC	0,5A	0/ +100°C	ø 28x60	6
PTFA3015	1NO	2 wires	1,5 m	Polyamide 30% glass fiber	Polyamide 30% glass fiber	10VA	200VDC	0,5A	0/ +70°C	ø 24x90	7
PTFA3115	1NO	2 wires	1,5 m	polyamide 30% glass fiber	polyamide 30% glass fiber	50VA	300VAC/DC	0,5A	0/ +70°C	ø 24x90	7
PTFA3215	1NO	2 wires	1,5 m	Polypropylen	Polypropylen	10VA	200 VDC	0,5A	-10/ +100°C	ø 24x90	8
PTFA3315	1NO	2 wires	1,5 m	Polypropylen	Polypropylen	50VA	300VAC/DC	0,5A	-30/ +60°C	ø 24x90	8



Exterior mounting

2 levels : up and down

ATEX sensors



New ATEX directive
ATEX 94/9/CE

Ineris : CE 0080

Groupe II other than mines susceptible to fire damp

Types of devices : 1 for zone 0 (continuous risk)
2 en zone 1 (intermittent risk)

Gas : G or Dust : D

Protection "m" for zone 1 and "i" for zone 0

Temperature class : T6 (85°C) or T3 (200°C)

PRODUCT REFERENCE	Contact type	Temperature groupe	Max. switching power	Max switching voltage	Max switching current	Temperature rating	Dimensions mm	Fig n°
PLA1xx5Ex	1NO	T6	10 W - 12 VA	60 VDC	0,4A	- 40 to + 80°C	32x15x6,8	1
PLB1xx5Ex	1NC	T6	10 W - 12 VA	60 VDC	0,4A	- 40 to + 80°C	32x15x6,8	1
PLC1xx5Ex	change-over	T6	3 VA	60 VDC	0,25A	- 40 to + 80°C	32x15x6,8	1
PTC1xx5Ex	change-over	T6	3 VA	60 VDC	0,25A	- 40 to + 80°C	ø 6x30	2
PTA1xx5Ex	1NO	T6	10 W - 12 VA	60 VDC	0,4A	- 40 to + 80°C	ø 6x30	2
PTB1xx5Ex	1NC	T6	3 VA	60 VDC	0,25A	- 40 to + 80°C	ø 6x30	2
PTA6xx5Ex	1NO	T4/T6 or T3/T6*	10 W - 12 VA	60 VDC	0,4A	- 40 to + 200°C	ø 6x41	3
PTA9xx5Ex	1NO	T4/T6 or T3/T6*	10 W - 12 VA	60 VDC	0,4A	- 20 to + 200°C	M10	4
PFA2125Ex	1NO	T6	10 W - 12 VA	60 VDC	0,4A	- 40 to + 80°C	ø 28x60	5
PFA3125Ex	1NO	T6	10 W - 12 VA	60 VDC	0,4A	- 40 to + 80°C	ø 28x90	6
PSS5905Ex	10 + 1C	T4	3 VA	60 VDC	0,1A	- 25 to + 85°C	51x16	7
PSS7905Ex	20	T4	3 VA	60 VDC	0,1A	- 25 to + 85°C	51x16	7

* See data-sheet



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Brass

④

Brass



⑤

Stainless steel 316L



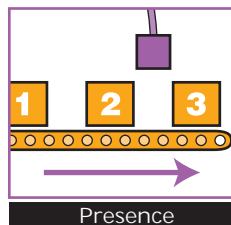
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Polypropylen

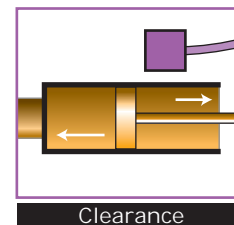


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Sensors for layout on PCB



Presence



Clearance

Reed switch proximity sensors in plastic housing, for PCB mounting with no risk of damage.

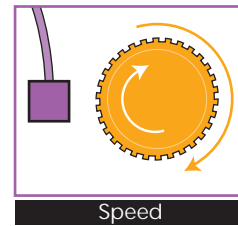
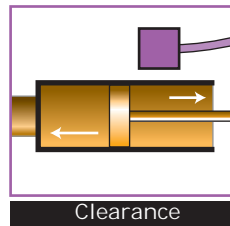
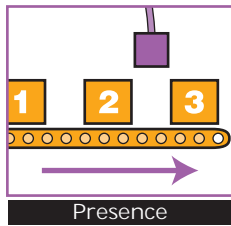


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PRODUCT REFERENCE	Contact type	Max. switching power	Max. switching voltage	Max. switching current	Closing distance	Temperature rating	Dimensions mm	Fig n°
PHA01200	NO	12VA	100 VDC	0,4A	with U6250000 : 18 mm	- 40 to + 100°C	23x4,2x3,6	1
PHA11200	NO	12VA	100 VDC	0,4A	with U6250000 : 17 mm	- 40 to + 100°C	23x4,2x3,6	1
PHC10010	change-over	NC : 3VA / NO : 8VA	100 VDC	0,25A	with U6250000 : 17 mm	- 40 to + 100°C	23x4,2x3,6	2
PHC13700	change-over	NC : 3VA / NO : 8VA	100 VDC	0,25A	with U6250000 : 11 mm	- 40 to + 100°C	23x4,2x3,6	2

Screw sensors



General use screw sensors for industry and household use :

- > Rabbet sensors
- > Doors opening
- > Protection cover presence
- > House hold appliances

PRODUCT REFERENCE	Contact type	Connection type	Cable length	Max. switching power	Max. switching voltage	Max. switching current	Closing distance	Temperature rating	Dimensions mm	Fig n°
PAA10060	NO	2wires/Faston	680mm	12VA	100VDC	0,4A	16mm with P6250000	- 40 to + 85°C	23x14x6	1
PAA11202	NO	2 wires	275mm	12VA	100VDC	0,4A	15mm with P6250000	- 40 to + 100°C	23x14x6	1
PAB10020	NC	2 wires + connector HE14	160mm	3VA	100VDC	0,25A		- 40 to + 100°C	23x14x6	1
PAC10010	change-over	3 wires + connector HE14	70mm	NC : 3VA NO : 8VA	100VDC	0,25A	12mm with U4200000	- 40 to + 100°C	23x14x6	1
PLA10160	NO	2 wires	360mm	12VA	100VDC	0,4A	19mm with P6250000	- 40 to + 100°C	32x15x6,8	2
PLA11208	NO	cable	800mm	12VA	250VDC	0,4A	16mm with P6250000	- 40 to + 100°C	32x15x6,8	2
PLA12430	NO	cable	3m	12VA	250VDC	0,4A	12mm with P6250000	- 40 to + 100°C	32x15x6,8	2
PLA13701	NO	cable	100mm	12VA	250VDC	0,4A	10mm with P6250000	- 40 to + 100°C	32x15x6,8	2
PLA13715	NO	cable	1,5m	12VA	250VDC	0,4A	10mm with P6250000	- 40 to + 100°C	32x15x6,8	2
PLA13725	NO	cable	2,5m	12VA	250VDC	0,4A	10mm with P6250000	- 40 to + 100°C	32x15x6,8	2
PLA13750	NO	cable	5m	12VA	250VDC	0,4A	10mm with P6250000	- 40 to + 100°C	32x15x6,8	2
PLA13780	NO	cable	8m	12VA	250VDC	0,4A	10mm with P6250000	- 40 to + 100°C	32x15x6,8	2
PLB10060	NC	cable	3m	12VA	250VDC	0,4A	12mm (provided magnet)	- 40 to + 100°C	32x15x6,8	2
PLB16701	NC	cable	100mm	12VA	250VDC	0,4A	4mm (provided magnet)	- 40 to + 100°C	32x15x6,8	2
PLC10040	change-over	cable	1,5m	NC : 3VA NO : 8VA	100VDC	0,25A	14mm with P6250000	- 40 to + 100°C	32x15x6,8	2
PLC13701	change-over	3 wires	100mm	NC : 3VA NO : 8VA	100VDC	0,25A	10mm with P6250000	- 40 to + 100°C	32x15x6,8	2
PLC13780	change-over	cable	8m	NC : 3VA NO : 8VA	100VDC	0,25A	10mm with P6250000	- 40 to + 100°C	32x15x6,8	2
PLMA0100	NO	1 shielded cable	900mm	50VA	350VDC	0,5A	35/45 mm (provided magnet)	- 40 to + 85°C	88x38x12	3
PB158S00	NO	2 wires	80mm	100VA	250VAC	3A	4mm with P4160000	- 40 to + 100°C	86x8,5x12,5	4
PB195T00	NO	2 wires	80mm	50VA	250VAC	1A	7mm with P4160000	- 40 to + 100°C	86x8,5x12,5	4
PB285T00	NC	2 wires	80mm	50VA	250VAC	1A	6mm with P4160000	- 40 to + 100°C	86x8,5x12,5	4
PB390G00	NO	2 wires	80mm	16VA	250VDC	0,5A	13mm with P4160000	- 40 to + 100°C	51x8,5x11,5	5
PBA13725	NO	cable	2,5m	12VA	250VDC	0,4A	13mm with P4160000	- 40 to + 100°C	51x8,5x11,5	5
PBA13740	NO	cable	4m	12VA	250VDC	0,4A	13mm with P4160000	- 40 to + 100°C	51x8,5x11,5	5
PBA13780	NO	cable	8m	12VA	250VDC	0,4A	13mm with P4160000	- 40 to + 100°C	51x8,5x11,5	5
PB367G00	NC	2 wires	80mm	16VA	250VDC	0,5A	6mm with P4159000	- 40 to + 100°C	51x8,5x11,5	5
* PMG12481	NO	1 NO + loop	5m	12VA	250VDC	0,5A	17mm with P6250000	-25 to + 85°C	32x15x6,8	6

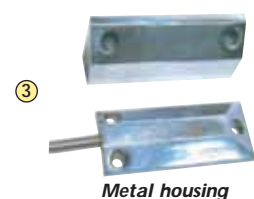
*Exists with a 8m-cable, with a PBA housing under the ref PBA10010 (see page 5)



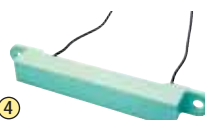
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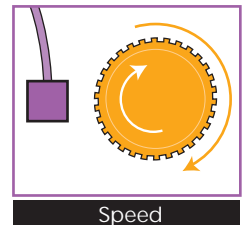
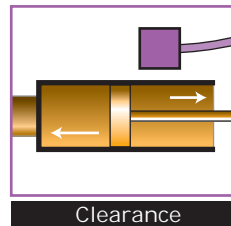
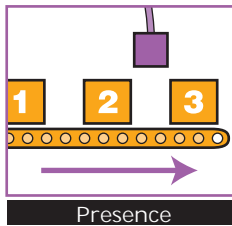


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Tubular sensors



General use tubular sensors for industry and household use :

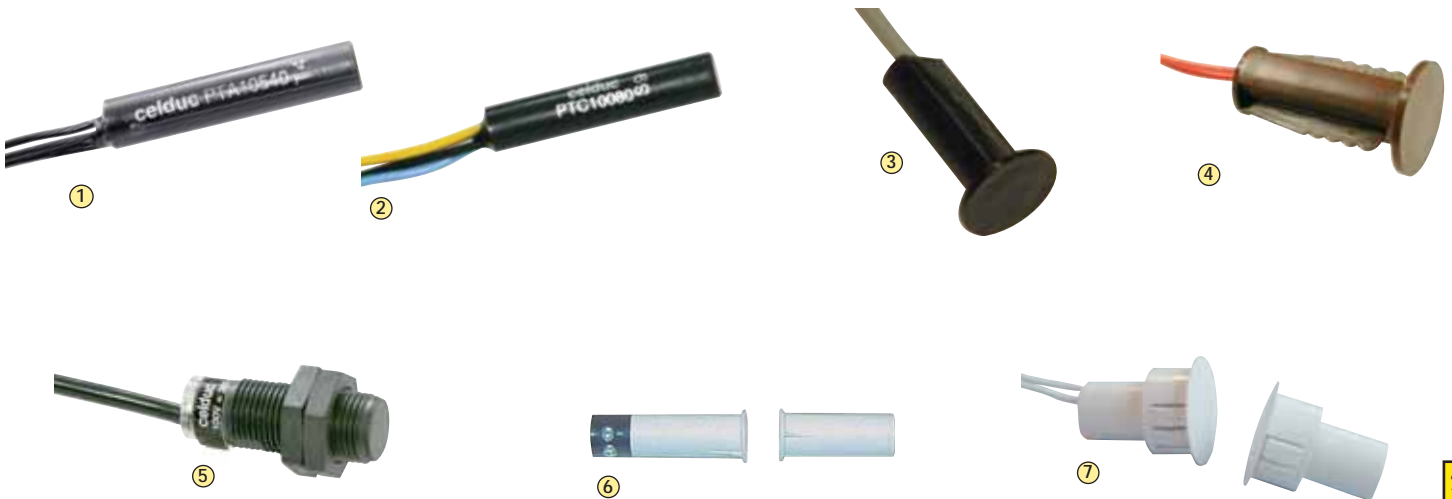
- > Rabbet sensors
- > Doors opening
- > Protection cover presence
- > Household appliances

PRODUCT REFERENCE	Contact type	Max. switching power	Max. switching voltage	Max. switching current	Connection Length	Closing distance	Temperature rating	Dimensions mm	Fig n°
PTA10440	NO	12VA	100VDC	0,4A	2 wires : 500mm		- 40 to + 85°C	ø 6x30	1
PTA10540	NO	12VA	100VDC	0,4A	3 wires + connector : 395mm		- 40 to + 85°C	ø 6x30	1
PTA11235	NO	12VA	100VDC	0,4A	cable : 3,5m	15mm	- 40 to + 85°C	ø 6x30	1
PTA12401	NO	12VA	100VDC	0,4A	2 wires : 100mm	14mm	- 40 to + 85°C	ø 6x30	1
PTA13715	NO	12VA	100VDC	0,4A	2 wires : 1,5m	10mm	- 40 to + 85°C	ø 6x30	1
PTA13730	NO	12VA	100VDC	0,4A	2 wires : 3m	10mm	- 40 to + 85°C	ø 6x30	1
PTA50010	NO	12VA	100VDC	0,4A	2 wires : 100mm	18mm	- 40 to + 85°C	ø 6x30	1
PTB13702	NC	3VA	100VDC	0,25A	2 wires : 200mm	14mm	- 40 to + 85°C	ø 6x30	1
PTC12301	change-over	NC : 3VA/NO : 8VA	250VDC	0,25A	3 wires : 100mm	14mm	- 40 to + 85°C	ø 6x30	1
PTC12310	change-over	NC : 3VA/NO : 8VA	100VDC	0,25A	3 wires : 1m	10mm	- 40 to + 85°C	ø 6x30	2
PTC13730	change-over	NC : 3VA/NO : 8VA	100VDC	0,25A	cable : 3 m	*10mm	- 40 to + 85°C	ø 6x30	2
PMG90010	1NO	10VA	100VDC	0,4A	cable : 10 m	**12mm	- 40 to + 125°C	ø 12x32	3
PMG92291	1NO	12VA	100VDC	0,4A	2 wires : 200mm	8mm	- 40 to + 100°C	ø 18,5x32,5	4
PTI11220	1NO	10VA	100VDC	0,4A	cable : 2m	17mm	- 25 to + 70°C	M8x31	5
PTI21220	1NO	10VA	100VDC	0,3A	cable : 2m	12mm	- 25 to + 70°C	M12x33	5
PTPA0100	1NO	12VA	100VDC	0,5A	connector	12mm	- 40 to + 85°C	ø 11x28	6
PTPA0230	1NO	12VA	100VDC	0,5A	2 wires : 3m	30mm	- 40 to + 85°C	ø 23x27	7
PTPB0010	1NC	12VA	100VDC	0,5A	2 wires : 80 mm + FASTON	10mm	- 40 to + 85°C	ø 23x28	7

All the closing distances are given with the magnet P6250000 unless otherwise stated.

* With UR102540

** With PMG92280



PMG Range

Sensors for :

- > Detection of the lift position
- > Doors opening control



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PRODUCT REFERENCE	Contact type	Max. switching power	Max. switching voltage	Max. switching current	Cable length	Closing distance	Temperature rating	Dimensions mm	Fig n°
PMG12802	NO + bistable	60VA	230VDC	0,3A	2m	7<D<25mm with magnet UF252060	- 25 to + 85°C	65x15x16	1
PMG12921	NO	100VA	230VDC	3A	7m	27mm with magnet UP302010	- 25 to + 85°C	M14x75	2
PMG12930	NO + bistable	60VA	230VDC	1A	7,3m	7<D<40mm with magnet UP302010	- 25 to + 85°C	80x30x30	3
PMG13051	NC	30VA	230VDC	0,5A	6,5m	27mm with magnet UP302010	- 25 to + 85°C	M14x75	4
PMG13110	NO	30VA	230VDC	1A	7m	9,5mm with magnet UF221105	- 25 to + 85°C	80x20x15	5



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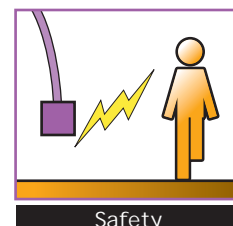
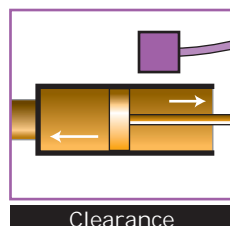
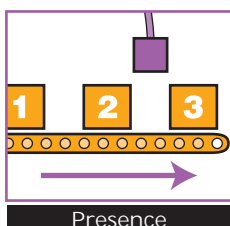


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High power switching sensors



These sensors allow controlling loads up to 3A.



PRODUCT REFERENCE	Contact type	Max. switching power	Max. switching voltage	Max. switching current	Cable length	Closing distance	Temperature rating	Dimensions mm
PSA60010	NO	500VA	24-440 VAC	3A	2 wires : 350 mm	12 mm with magnet P6250000	-40 to + 85°C	51x16x7
PSA60015	NO	500VA	24-440 VAC	3A	cable : 1,5 m	13 mm with magnet P6250000	-40 to + 85°C	51x16x7

The PSA60010 sensors is classified category 1 according to the EN954 for safety applications.

Safety sensors



The PXS or PSS type products are 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).

PRODUCT REFERENCE	Contact type	Current limiting resistor	Max. switching power	Max. switching voltage	Max. switching current	Cable length	Closing distance	Magnet reference	LED option	Temperature rating	Fig n°
PXS79010	2 O	10 Ω	3VA	100VDC	100mA	cable : 10m	8mm	P2000100	no	- 25 to + 85°C	1
PXS79020	2 O	10 Ω	3VA	100VDC	100mA	cable : 2m	8mm	P2000100	no	- 25 to + 85°C	1
PXS79150	2 O	10 Ω	3VA	100VDC	100mA	cable : 5m	8mm	P2000100	yes	- 25 to + 85°C	1
PXS59010	0+C	10 Ω	3VA	100VDC	100mA	cable : 10m	8mm	P2000100	no	- 25 to + 85°C	1
PXS59150	0+C	10 Ω	3VA	100VDC	100mA	cable : 5m	8mm	P2000100	yes	- 25 to + 85°C	1
PXS10350	2 O + 1C	---	3VA	100VDC	100mA	cable : 5m	8mm	P2000100	no	- 25 to + 85°C	1
PXS70150	2 O + 1C	10 Ω	3VA	100VDC	100mA	cable : 5m	8mm	P2000100	yes	- 25 to + 85°C	1
PSS79050	2 O	10 Ω	3VA	100VDC	100mA	cable : 5m	5mm	P3000100	no	- 25 to + 85°C	2
PSS79150	2 O	10 Ω	3VA	100VDC	100mA	cable : 5m	5mm	P3000100	yes	- 25 to + 85°C	2
PSS59050	0+C	10 Ω	3VA	100VDC	100mA	cable : 5m	5mm	P3000100	no	- 25 to + 85°C	2
PSS59150	0+C	10 Ω	3VA	100VDC	100mA	cable : 5m	5mm	P3000100	yes	- 25 to + 85°C	2
PSA60010	1 O solid state	---	500VA	24-440VAC	3A	2wires : 350mm	12mm	P6250000	no	- 40 to + 85°C	3
PSA60020	1 O solid state	---	500VA	6-440VAC	3A	2 wires : 3m	12mm	P6250000	no	- 40 to + 85°C	3



*Terminals version on request
M8 or M12 depends on the model : see data sheet*



Control Magnets

Range of standard permanent magnets used as actuators of our magnetic sensors.
Other models are available according to your application : please contact us.

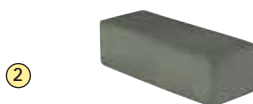
-> Coated magnets

PRODUCT REFERENCE	For sensors...	Bare magnet dimension	Dimensions mm	fig n°
P3150000	PA, PH, PL, PT	ø 3x15mm	32x15x6,8	1
P4200000	PA, PH, PL, PT	ø 4x20mm	32x15x6,8	1
P6250000	PA, PH, PL, PT	ø 6x25mm	32x15x6,8	1
P4159000	PB or PLA	ø 3x15mm	51,8x8,5x11,5	2
P4160000	PB or PLA	ø 5x25mm	51,8x8,5x11,5	2
PA320000	PA	ø 3x20mm	23x15x6	3
PMG92280	PMG92291	ø 6x25mm	ø 18,5x28mm	4



-> Bare magnets

PRODUCT REFERENCE	Material	Dimensions mm	Fig n°
U3150000	Alnico5	ø 3x15mm	1
U4200000	Alnico5	ø 4x20mm	1
U6250000	Alnico5	ø 6x25mm	1
U8300000	Alnico5	ø 8x30mm	1
U8350000	Alnico5	ø 8x35mm	1
UB104000	Alnico5	ø 10x40mm	1
UF181538	Ferrite	18x15x3,8	2
UF127738	Ferrite	12x7,7x3,8	2
UF777760	Ferrite	7,7x7,7x6	2
UF207760	Ferrite	20,5x7,7x6	2
UF221105	Ferrite	ø 22x11x5	3
UF341605	Ferrite	ø 34 x16x5	3
UR102540	Rare earth	ø 10x4x2,5mm	4
UR144061	Rare earth	ø 14x6x4mm	4
UR304000	Rare earth	ø 3x4mm	5
UR502000	Rare earth	ø 5x2mm	5
UR508000	Rare earth	ø 5x8mm	5
UR604010	Rare earth	ø 6x4mm	5
UR801000	Rare earth	ø 8x10mm	5



Special Customer Products

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

Expertise in specific sensors



Aeronautics



Medical



Swimming pool



Automobile



Household appliances



Reed switches and mercury tilt switches



Detection

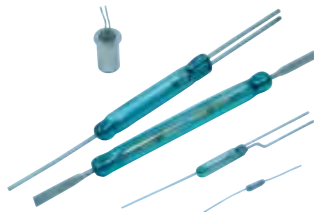
Clearance, position, level, presence

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 various as money, space, control, telecom...



Sensitivity to be specified in the order

PRODUCT REFERENCE	Contact type	Max. switching voltage	Max. switching current	Max. switching power	Standard sensivity range	Cable length
AC01	1NO	30VDC	0,01A	0,25VA	5-20AT	6mm
AC03		100VDC	0,5A	12VA	10-35AT	10mm
AC05		100VDC	0,5A	12VA	10-35AT	14mm
AJ21		100VDC	0,4A	10VA	10-35AT	14 mm
AV10		7500VDC	0,2A	50VA	80-130AT	53,4 mm
AD22		250VDC	1,3A	80VA	40-105AT	52mm
AD81		250VDC	3A	120W	70-100AT	50mm
AI02		200VDC	0,5A	10W	15-30AT	10mm
AI43		200VDC	0,5A	10W	15-30AT	15mm
AI44		200VDC	2A	30W	15-35AT	20,5mm
CD29		250VAC	1A	25W	50-90AT	d 34,3mm
CD30		500VAC	3A	100VA	60-100AT	34,3mm
CG21		100VDC	0,25A	NC 3W/NO 8W	15-35AT	14,5mm
CG21V	100VDC	0,25A	NC 3W/NO 8W	15-35AT	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	100VDC	0,25A	3VA	5VDC		200 Ω	---
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			
		D32A3100	2NO		100VDC	0,5A	10VA	5VDC	200 Ω	---	19,1 x 6,6 x 6,4
	D32A3110	100VDC		0,5A	10VA	5VDC	200 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	R. coil at 20°C		
	D41A3100L	1NO	100VDC	0,5A	10VA	5VDC	500 Ω	---	19 x (5 au 6) x 7,5
	D41A3110L		100VDC	0,5A	10VA	5VDC	500 Ω	diode	

High voltage relay

Dielectric strenght between contacts > 10KVDC and 14VDC between coil and contact.



PRODUCT REFERENCE	Contact type	Max. switching voltage	Max. switching current	Max. switching power	Voltage rating	R. coil at 20°C	Specifications	Dimensions mm
R1380L00	1NO	7500VDC	0,2A	50VA	6VDC	75 Ω	high voltage relay	65 x 15,2 x 16,9
R1329L00		7500VDC	0,2A	50VA	12VDC	300 Ω		
R1343L00		7500VDC	0,2A	50VA	24VDC	1200 Ω		
R1402L13	1NC	5000VDC	0,2A	50VA	12VDC	300 Ω		
R1446L13		5000VDC	0,2A	50VA	24VDC	1200 Ω		

These relays can be mounted on PCB or screwed on a base plate.

Reed D and R Relay Range

Relays with ferro-magnetoc shieldinf 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 ref. F81Ax100	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	30 x 9,5 x 11
	F61A5100		250VDC	0,4A	14VA	12VDC	2145 Ω		
	F61A7100		250VDC	0,4A	14VA	24VDC	7845 Ω		
	F72C2500	2 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	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	1NC	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		
	R0544B00		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	800 Ω		

45 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 60 % 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 60% 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.



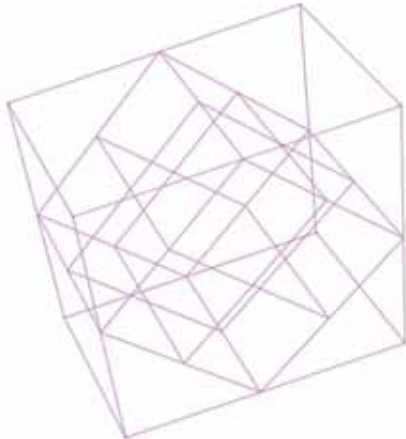
Know-How :

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".





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

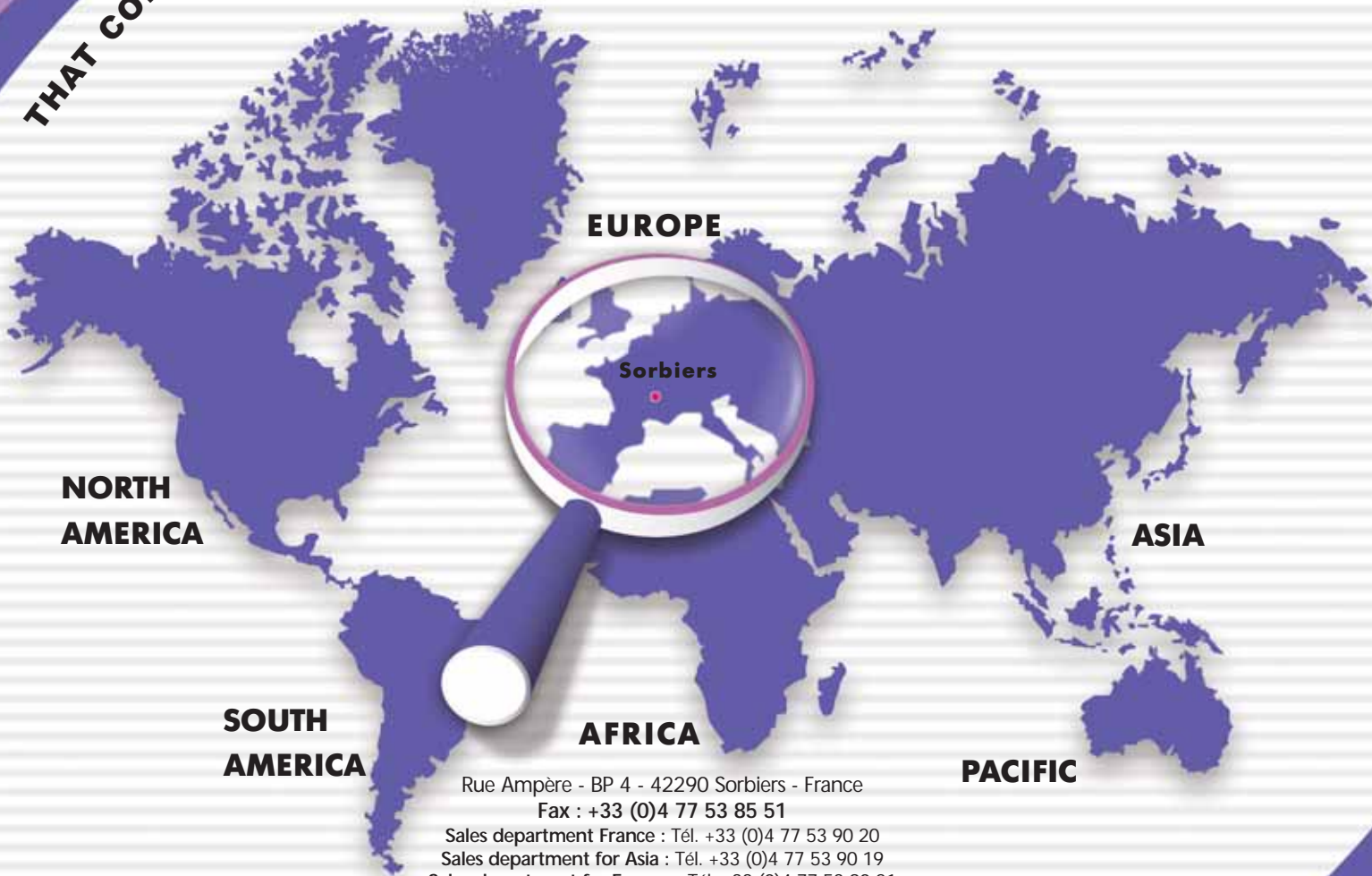


■ The celduc® relais team is prepared and committed to rise to all the challenges that we face. We are a team that is continually pushing back the boundaries in terms of quality of products and levels of service to our customers. We are now ready to serve you.



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THAT COMPETITIVE EDGE



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