

Magnetic proximity sensors

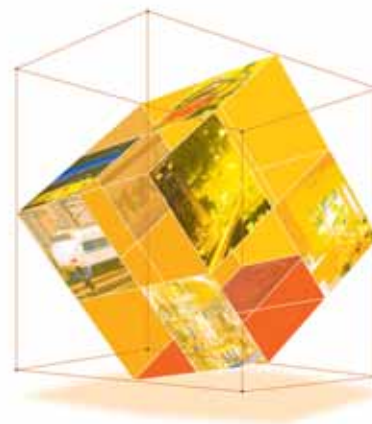
We are the experts ! !!!

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

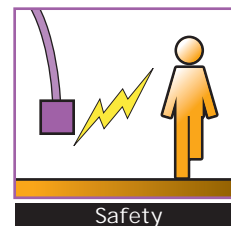
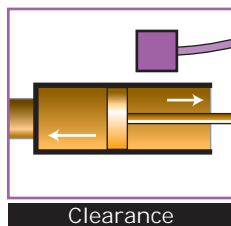
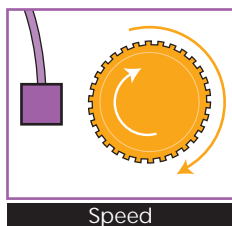
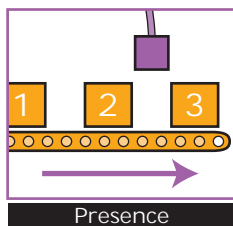
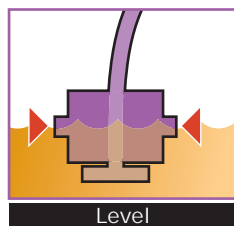
We can even design the ideal product for your applications !

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

Contact type :

- NO -> Normaly Open
- NC -> Normaly Closed

Other lengths of cable or wire possible for signifiant quantities.

Home

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

Specific applications

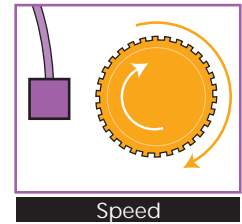
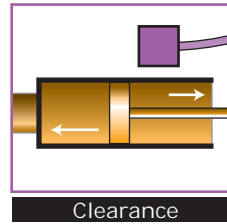
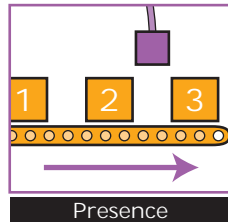
- ATEX (explosive atmospheres)

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

Electronical sensors

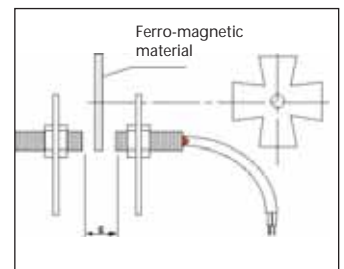
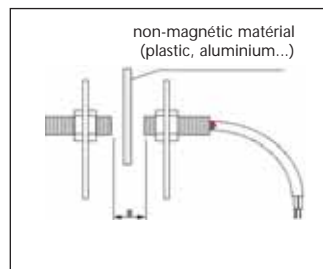
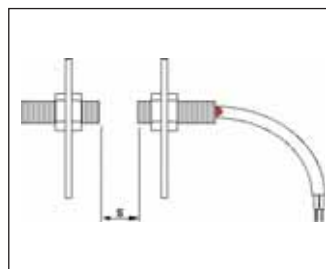


celduc® relais offers two ranges of electronical sensors :

- > Hall effect sensors.
- > Gear tooth sensor.

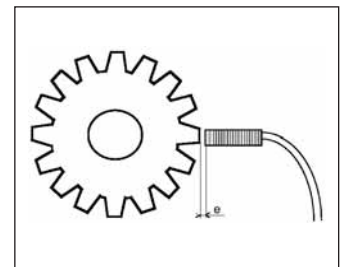


PRODUCT REFERENCE	Contact type	Cable length	Closing distance	Max switching voltage	Max switching current	Temperature rating	Dimensions mm	Associated coded magnet	Fig n°
PLE13320	Hall effect NPN	cable : 2m	top 8 mm	5-24VAC	25mA	-25°C / +70°C	32x15x6,8	P6250000	1
PLE14320	Hall effect NPN	cable : 2m	side 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

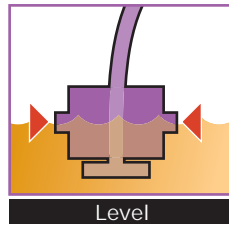


Applications :

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



Level Sensors

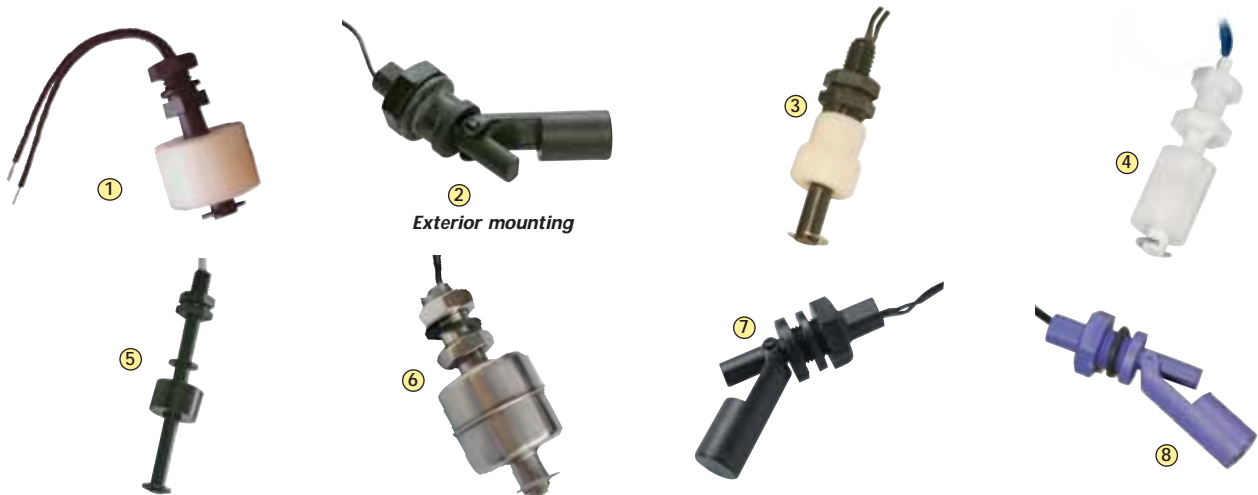


celduc® relais offers a large range of standard or specific level and flow sensors using Reed switches. Our sensors are available in plastic, brass or stainless steel housing, making it possible to use them with various chemical substances and/or operating temperatures.

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 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

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Brass



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Stainless steel 316L



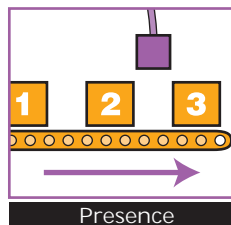
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Polypropylen

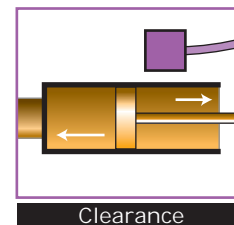


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Sensors for layout on PCB



Presence



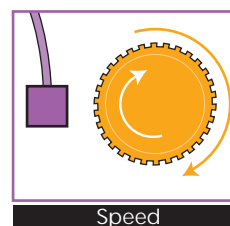
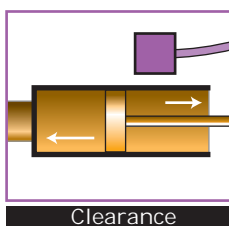
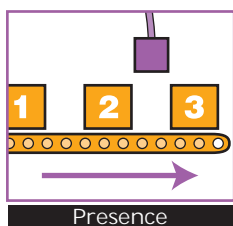
Clearance

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



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

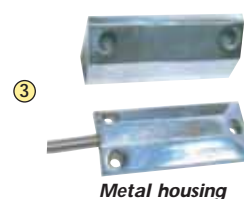
*Exists with a 8m-cable, with a PBA housing under the ref PBA10010 (see page 5)



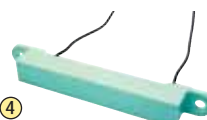
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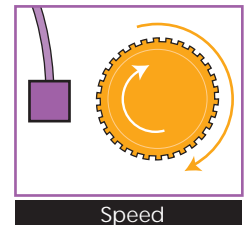
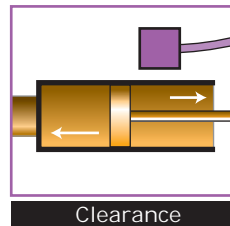
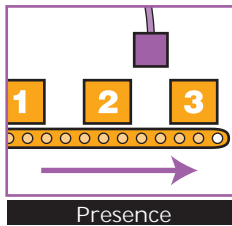


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Tubular sensors



General use tubular sensors for industry and household use :

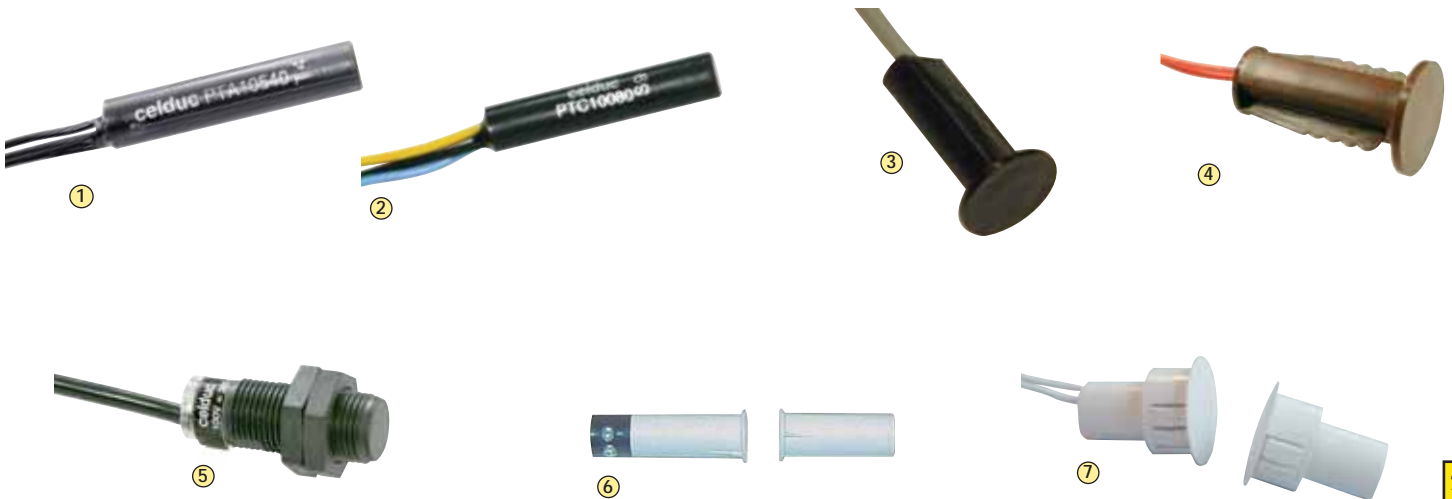
- > Rabbet sensors
- > Doors opening
- > Protection cover presence
- > Household appliances

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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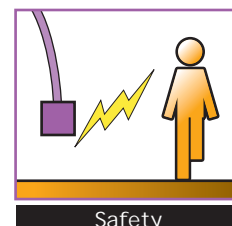
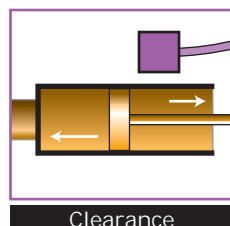
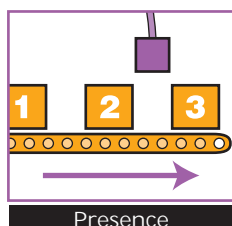


④



⑤

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

