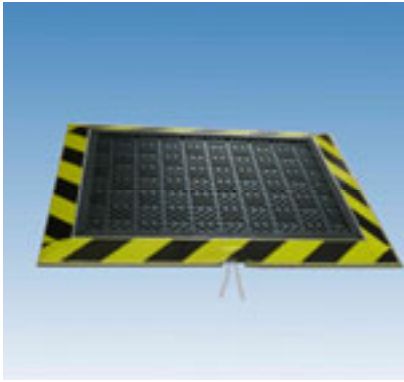


Safety Mat Systems

BIRCHER REGLOMAT
sensing the future



Pressure Sensitive Safety Mat

- 2-wire and 4-wire fail safe wiring options
- Meets or exceeds current US or CE standards
- Custom sizes and shapes available
- Multiple zone mats
- Safety Category 3 systems available, on request with BG certificate, third party approved by BIA

Safety Mat Design

Bircher Reglomat safety mats are designed pressure sensitive. Copper clad epoxy plates are encapsulated in a black polyurethane compound. Copper, the selected contact material offers superior corrosion resistance compared to commonly used safety mat contact plates.

Active Edge

The unique edge design for multiple mat systems, ensures intrusion detection across mat to mat joints without the use of joining trim – thereby reducing installation time, labor and material cost reduction.

Actuating Force

Bircher Reglomat safety mats meet the actuating force requirements defined in EN 1760-1 and ANSI/RIA 15.06. The mat or mat system shall respond to a force of 30kg or 66 lbs applied to a flat disc of diameter 80 mm or 3.125", placed anywhere on the effective sensing area.

Custom Mats

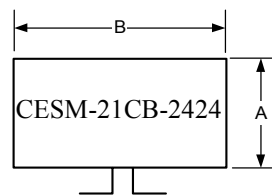
Where standard size mats do not fit, customized solutions are available. Bircher Reglomat safety mats can be manufactured in custom sizes to almost any shape with cut-outs, miters and multiple zones.



Standard Mat Sizes

These sizes are available from stock, dimensions in inch :

24x24, 24x30, 24x36, 24x42, 24x48, 24x60, 24x72, 30x30, 30x36, 30x42, 30x48, 30x60, 30x72, 36x36, 36x42, 36x48, 36x60, 36x72, 42x42, 42x48, 42x60, 42x72, 48x48, 48x60.

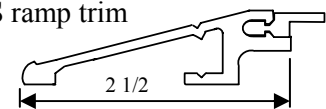


Standard size mats have two 2-conductor leads, both exiting the mat on the longer side.

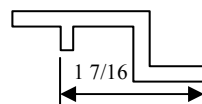
Securing Trim

Safety mats are secured to the floor to prevent stumbling hazards and easy relocation that could defeat the safety function of a mat system.

ES-S ramp trim



ES-SZ machine side trim



Bircher Reglomat mat trim is made of extruded aluminum. Black and yellow striped tape applied to the ramp trim provides an awareness barrier.



ESD-3 Safety Mat Controller

- Meets Safety Category 3 with the safety mat, on request available with BG certificate from BIA
- Fail safe wiring with only 2 wires
- DIN rail mount
- Multiple sensor inputs
- Manual, automatic or remote reset options

Controller Function

The Bircher Reglomat series of ESD controllers monitors for changes in the no-load current determined by an 8.2kOhm resistor built into, or externally connected to the sensor. This way, fail safe wiring is achieved using only 2 wires.

With power to the ESD unit, the output relays are energized and closed.

The output relays open with the sensor activated — resulting in a resistance drop towards zero Ohm, or – with a wire failure — resulting in a resistance increase towards indefinite Ohm.



Applicable Standards

When properly sized, installed and monitored, Bircher Reglomat safety mat systems will enable users to meet safeguarding requirements up to a category 3 level. Applicable standards : ANSI B11.19-1990, ANSI/RIA 15.06, EN 60204-1 and EN 954-1.

Safety Distance

Depending on the application and risk assessment, minimum safety distance requirements may apply. Guidelines pertaining to safety distance calculations can be found in ANSI B11.19-1990, ANSI/RIA 15.06-1999 and EN-999 standards.

Mat Specification

Material	Polyurethane Compound
Color	Black
Weight	approx 4 lbs/sq. ft 20 kg/m ²
Oper. Temp.	32°F to 125°F 0°C to 50°C
Design	normally open contact
Voltage	max. 24 volt, 0.5A
Lead Wires	AWG 20 with win PVC cover
Actuating Force	< 30kg / 66lbs as required by EN 1760-1 and ANSI/RIA 15.06 typical force is 10-23 lbs

Controller Specification

Isolation	IP 30 (IEC529)
Supply Volt.	24ACDC, 115VAC, 240VAC
Sensor Inp.	2 sensor input each monitors 5 m ² / 54sq.feet
Oper. Temp.	0°F to 125°F -15°C to 50°C
Safety Outp.	2 outputs rated at 2A/250VAC
Diagnostics	1 output rated at 1A/30VAC
LED's (4)	operation/safety stop/sensor error/ system error
Reaction time	< 50 ms from mat actuation to change of state of the output relay

Order Information

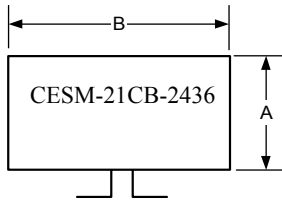
codes. Contact the customer service for additional information on stand-alone mats, mats with built-in resistor or other custom made designs.

Multiple Mat Systems

A layout drawing should accompany inquiries and orders.

Standard Size Mats

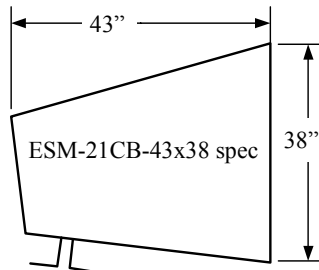
Order code for the below shown mat is CESM-21CB-2436:



CESM-21 standard size mat with two 12 ft long 2-conductor leads, located in the middle of the long (B) side
CB black color with CB pattern topsurface
2436 A=24" width by B=36" length

Custom Mats

Custom size or shape mats are usually manufactured with two 2-conductor leads, located at least 2" from a corner, and only on sides that will not be joined against another mat. Drawings are required to avoid dimensional and lead wire location errors.



Custom Mat Trim

Part # Description
ES-S10 10ft uncut ramp trim
ES-S ramp trim, shipped pre-cut to fit mats, requires layout drawing
ES-SZ10 10ft uncut machine side ramp trim
ES-SZ machine side ramp trim shipped pre-cut to fit mats, requires layout drawing

Standard Mat Ramp Trim

The Part# for ES-S ramp trim kits for a standard size mat is ES-S followed by the dimension. For example ES-S2436.

Accessories

Part # Description
ES-Tape yellow/black awareness tape
ES-WID 8.2kOhm Resistor
ES-CON cable connector kit
ES-EC extension cable

Safety Mat Controller

* 24 /115 Volt versions in stock

ESD3 version	Reset Options		Aux. & Diagnostic Relay		
	automatic	remote	system operative	sensor actuated	wire failure or no voltage
03	X		closed	closed	open
04*	X		closed	open	open
05		X	closed	closed	open
06*		X	closed	open	open
08	X		open	closed	closed
09		X	open	closed	closed
03C	X		open	open	closed
05C		X	open	open	closed
Safety Output Relay			closed	open	open

ORDER Example ESD3 - 04 - 24VACDC
 versions see table above _____ supply voltage

Bircher America, offers a complete line of presence and motion sensing devices, sensing edges as well bumpers and delivers most Safety Mats, also custom made, within days.

With our Intersection Cross-Traffic System (ICS) we also offer a state of the art product to increase plant safety in connection with forklift traffic.

For detailed information please visit us in the internet under www.bircheramerica.com

BIRCHER REGLOMAT
 sensing the future

Bircher America Inc.

909 E. Oakton Street, Elk Grove Village, IL 60007
 Tel. 800-252-1272 or 847-952-3730, fax 847-952-2005
sales@bircheramerica.com / www.bircheramerica.com