The new SNAP buckle flat 25 electrified combines the innovative FIDLOCK fasteners with electronics for your future-oriented products.

The buckle is capable of detecting whether it is open or closed and shows the desired colour. The built-in digital LED can be controlled independently of the buckle's state (open or closed), and it can shine in the whole RGB colour spectrum. The output signal is also digital (0V/5V) and shows the state of the buckle. The SNAP buckle flat 25 electrified is generally waterproof and available in two basic circuit layouts - Closed Closed (CC) and Closed Open (CO) - the latter being suitable for safety applications. The logo carrier is made of a special translucent black plastic. It features a discreet look if not lit up, but it transmits light when lit from behind. The buckle doesn't transfer current from one side to the other. It is designed as a digital switch, not as a physical one.

Sectors: Mobility, workwear, apparel, smart clothes, bags, safety applications (e.g. airbags)

Article information

The basic article number is F8043 - an individual offer is required to determine the cable lengths and configurations.

We offer the following delivery variants for the product: complete / male and female part separated / buckle and cable end separated if a plug is used / everything separated.

Customization

The cable length is fully customizable, and cable end tinning is available. Additionally, we offer custom lengths of cable ends without cable sheathing. Customers can choose between a simple cable or a waterproof plug. The logo plate (logo carrier) can feature custom prints or moulded logos.
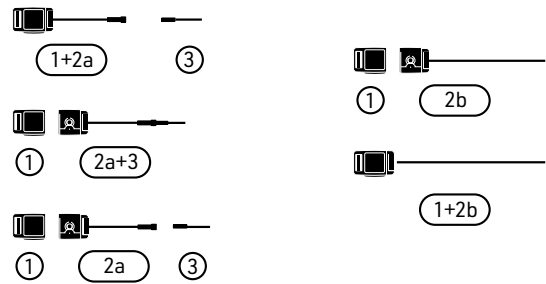
Individual parts for individual transport logistics:

All parts to one location:

It's possible to send all four parts to separate locations. You can also combine the parts:

① 2a ③
2b
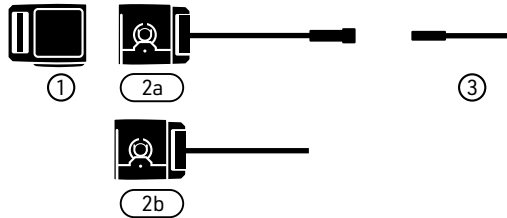
Examples for combinations:

1+2a ③
① 2a+3
① 2a ③

① 2b
1+2b

Buckle properties

Materials: PA66GF, PC (Not compliant with Fidlock RSL)

Storage & Operation Temperature:

-20°C ~ +60°C (95% humidity)

Static breaking load: 380N
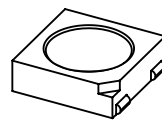
Webbing width: 25mm

Colour: black

REACH, RoHS

LED – WS2812B

> Manufacturer: Worldsemi (link to product http://www.world-semi.com/Certifications/WS2812B.html)

> Easy to use (also for beginners) with libraries from Adafruit (Adafruit NeoPixel Library (https://github.com/adafruit/Adafruit_NeoPixel) or fastled.io (http://fastled.io/))

> Input voltage: +3,5V ~ +5,3V DC

> Operation current (for each LED): 12mA
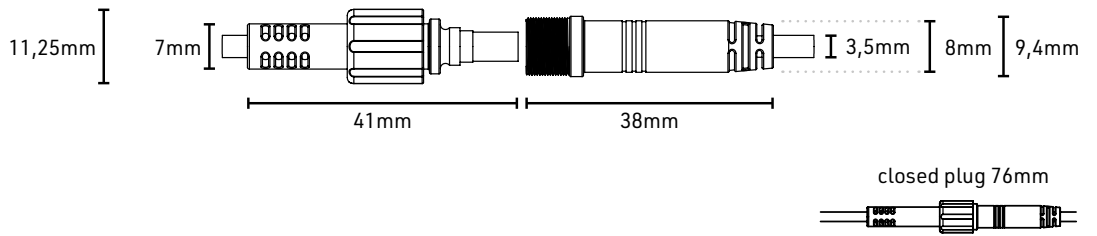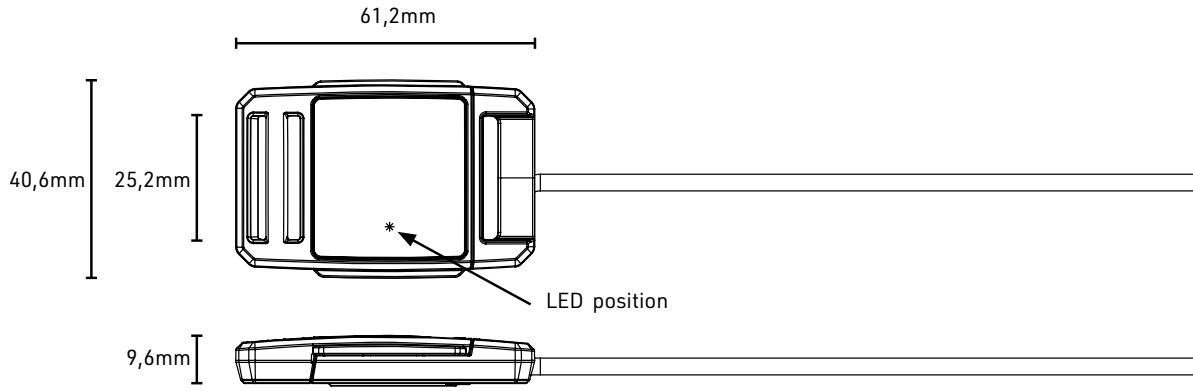
> Wave lengths: red (621nm), green (520nm), blue (471nm)
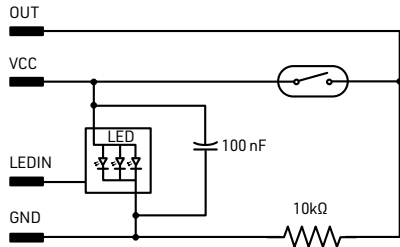
Reed Switch - MKA10110

> Manufacturer: MKA

> Operation current 500mA

> Power 10W

Drawing

61,2mm

40,6mm | 25,2mm

LED position

9,6mm

11,25mm | 7mm | 3,5mm | 8mm | 9,4mm

41mm | 38mm

closed plug 76mm

Buckle Closed Closed (CC)

When the buckle is closed, the circuit is closed (5V, high)

OUT

VCC

LED

100 nF

LEDIN

GND

10kΩ

Without the magnet for the reed switch, the circuit is normally open (no) – pull-up resistor setup

Buckle Closed Open (CO)

When the buckle is closed, the circuit is open (0V, low) – suitable **for safety applications**

OUT

VCC

1kΩ

LED

100 nF

LEDIN

GND
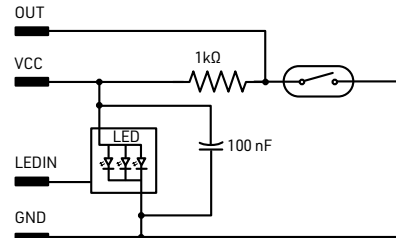
Without the magnet for the reed switch, the circuit is normally closed (nc) – pull-down resistor setup

Cable properties

AWG size: 28

Resistance: ~ 0,223 Ω/m at 20°C, 68°F

Minimum bending radius: ~25mm

Materials: copper, TPE , nylon

Colour: black

RoHS, halogen free

Cable pinout

OUT	→	yellow
VCC	→	red
LEDIN	→	white
GND	→	black

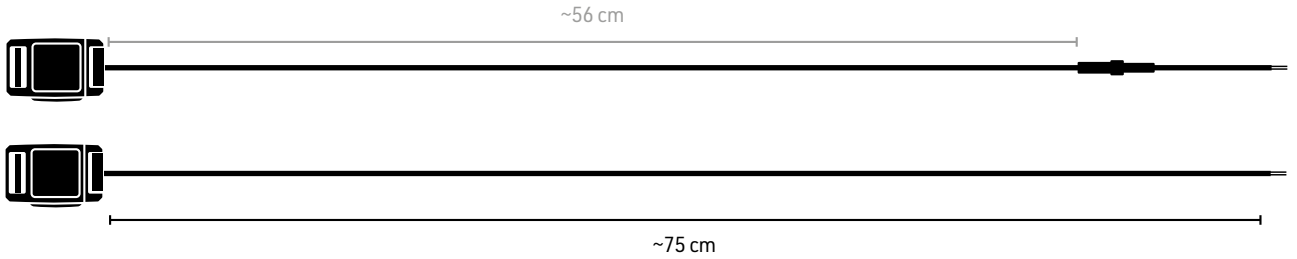### Samples and in stock products

The CO variant in the lenght of 75cm with and without a connector is on stock available. The connector is a waterproof connector that can be securely connected through a nut.

MOQ: Catalog orders
100pcs

SNAP Buckle flat 25 electrified – 75cm

Available in CO version with and without connector. (CC version ready for production)

~56 cm

~75 cm

ARTICLE NUMBERS

F8043-003301 (BLK)   CO & connector

F8043-003101 (BLK)   CO & no connector

Ready for production

Three different cable lengths with a connector, in two different basic circuit layouts, CC and CO, are ready for production.

MOQ: Ready for production
1000pcs

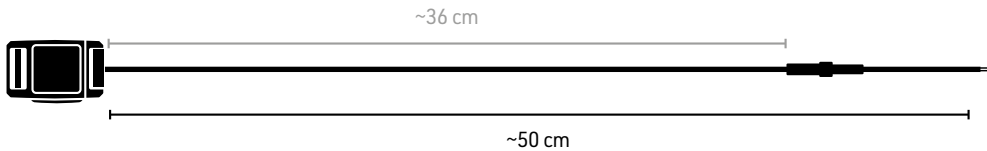### SNAP Buckle flat 25 electrified – 75cm

Available in CC version with connector.

ARTICLE NUMBER

F8043-001301 (BLK)   CC & connector

SNAP Buckle flat 25 electrified – 50cm

Available in CC & CO version with connector.
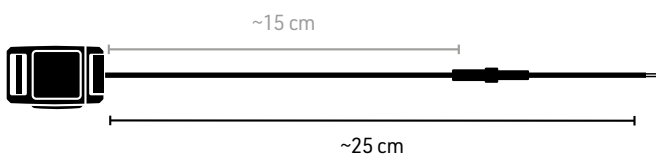
~36 cm

~50 cm

ARTICLE NUMBERS

F8043-006301 (BLK)   CC & connector

F8043-005301 (BLK)   CO & connector

SNAP Buckle flat 25 electrified – 25cm

Available in CC & CO version with connector.

~15 cm

~25 cm

ARTICLE NUMBERS

F8043-007301 (BLK)   CC & connector

F8043-004301 (BLK)   CO & connector

Note: Cable assembly tolerances

2% of length (min. ±0,2mm)

closed plug 76mm