

Technical data sheet

ANGEL React Shirt System

The system supports you in your daily work and gets help when you can no longer do it. Electrical accidents, immobility, and fall accidents are recognized using integrated sensors and an intelligent algorithm in the electronics unit. The electronic unit is attached to the ANGEL shirt using a cradle. The smart shirt has electrodes incorporated into the upper arm cuffs. The individual rescue chain is informed immediately - for fast and reliable help.

Who should wear an ANGEL React Shirt System?

- All lone workers
- Alle mobile workers
- Alle persons being exposed to the danger of an electrical accident

ANGEL React Shirt Genius

Weight: 33 g

Dimensions: 72 x 42 x 13 mm

Weight of Shirt Genius starter package: 350 g

Dimensions of Shirt Genius starter package: 300 x 210 x 35 mm

Measurement input voltage range: maximum 7.40Vrms

Charging: with ADRESYS charger only

Charging current: typical 140 mA

IP protection: IP 20

Humidity: 10 - 90 % rh

Lithium-Ion-Polymer battery: 0.88 Wh

Shirt Genius operating battery runtime: 12 h typical

Working Conditions:

Operation: -10°C to 50°C

Storage: -10°C to 50°C

Storage for optimal battery lifetime: 10°C to 25°C

Charging: 0°C to 45°C

Fast Charging: 10°C to 40°C

Limitation: Not authorized for people with cardiac pacemakers

EMC standards

EN 55011 Group 1, Class B: Electromagnetic disturbance characteristics - Limits and methods of measurement

EN61326-1:2013: Electrical equipment for measurement, control and laboratory use - EMC requirements

EN300328 V2.2.2: Wideband transmission systems; Data

transmission equipment operating in the 2,4 GHz band
FCC 47 CFR Part 15: Federal Communications Commission (FCC) rules and regulations regarding unlicensed transmissions

EN62368-1:2015 + AC 2015: Audio/video, information and communication technology equipment
Part 1: Safety requirements

Contains FCC-ID: X8WBT840

Contains IC: 4100A-BT840

ANGEL React Shirt

Weight (depending on size): 170 - 260 g

Weight packed with test protocol: 190 - 280 g

Dimensions of packed shirt: 250 x 300 x 30 mm

Shirt material: 100% eco cotton

Grammage: 150 g/m²

Cuff material: 92% eco cotton, 8% Lycra®

Grammage cuffs: 155 g/m²

Fabric shrinkage due to washing: maximum 8%

Electrodes: Electrically conductive silicone

Contact points: 4 stainless steel buttons

Care

Spin cycle ≤ 1200 rpm. No industrial washing.

Durability at specified washing conditions: 50 cycles typical

Certificates of fabric: OEKO-TEX® STANDARD 100, PIMA®, ISO, bluesign®



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ANGEL React Shirt System

ANGEL React App

The ANGEL React app is the companion app for the ANGEL React Shirt Genius running on Android and iOS smartphones. Supported Operating Systems: Android from 7.1.1, from iOS 10 System requirements: Bluetooth LE (4.2 or higher), Location service (for example, GPS), Internet connection (for example, WiFi or 3G/LTE/5G).

The app needs to run permanently in the background. This increases battery usage of the phone. A permanent data connection is required for sending alarm messages and to communicate with the ANGEL React infrastructure services. Smartphone manufacturers and operating system providers can restrict usage so that the app can be hindered from usage of various services. Further details can be found in your app store (for example, detailed permissions required by the app).

Typical average data volume transferred per day is below 5 MB. Costs for data usage might arise. Text message services might be used as redundant data path for alarm messages. Additional costs for alert messages might arise.

Infrastructure

Multi-redundant data infrastructure in European

Geolocations: 2

redundant alarm paths from phone to emergency center: ≥ 2

Emergency Center certifications: VdS 3138-1:2013-12,

VdS 3138-2:2014-06, DIN EN 50518-1:2014-10,

DIN EN 50518-2:2014-10, DIN EN 50518-3:2014-10.

Not redundant server for user registration. Registration is obligatory to use service.

Charger

Weight: 50 g

Connection: USB-C male

Supply voltage: +4V to +5.5V

Current continuous: 250 mA

Standby current when Shirt Genius is full: 35 mA

Standby current when no Shirt Genius attached: 550 MA

Working Conditions:

Operation: 0 °C to 50 °C

Storage: -10 °C to 50 °C

Power Supply

Device is third party and potentially subject to change.

Weight: 26 g

Connection: Euro male Type C, USB-A female

Voltage range: 100 - 240Vrms/50 - 60 Hz

Input current: maximum 300 mArms

Output current: maximum 1 ADC

Protection level: IP 20

Protection class: II