



TAME THE POWER /

ANGEL

TAME THE POWER



- Do you want a reliable way to provide your team with the proper support for their everyday work?
- Do you want to be able to quickly and reliably get help for your team in emergency situations?
- Do you have a bad feeling when it comes to potentially dangerous lone work and you want to make this safer?
- Do you want a reliable system that captures incident details that can be used to identify and implement appropriate training measures for your team?

The assistant in emergency situations: ANGEL detects electrical accidents and falls, and automatically summons assistance - the all-round companion when working in situations with potentially hazardous electrical voltages.

The unbeatable trio offers numerous advantages

The three components include a clever Genius together with a smart textile shirt and an intuitive app on your cell phone. They are quick to install, easy to use, and reliable in emergencies.

Rapid response to accidents when working alone

Even when working alone is permitted, it's probably a good idea for someone else to be there. The ANGEL system detects emergency situations, such as an electrical accident or a fall, and automatically summons assistance. The Genius uses optical and acoustic signals to communicate with the environment to quickly draw attention to an emergency..

Making every work situation safe

The task timer can be programmed in advance for high-risk work. It stores the last-known GPS position. If the alarm is not acknowledged after the set period of time has elapsed, an emergency call will be made automatically and the rescue chain will be activated.

Learning from emergencies

Every electrical accident and fall is recorded. You receive regular statistical analyses and anonymized data from your team, enabling you to analyze and rectify the causes of small accidents in order to avoid serious ones. This ensures that your team becomes more aware of their own safety in their everyday working environment. You learn what is normal in your business and what is not. You can learn from others and others can learn from you.

ANGEL helps you in critical work situations and can save lives. ANGEL is not a personal protective equipment within the meaning of Regulation (EU) 2016/425. However, to provide the highest levels of workplace safety, always observe the national safety standards and safety regulations. We cannot guarantee that the product will detect every emergency situation. You must not, under any circumstances, expose yourself to a higher level of risk by relying on the ANGEL system.

INTELLIGENCE THROUGH PERFECT SYNERGY

Textile-based sensors detect a current flow through the body. The Genius also detects falls through an integrated acceleration sensor. The app is connected via Bluetooth® and summons help in an emergency.

Digitalization makes possible what was inconceivable ten years ago: electronics and textiles growing together. Smart textiles ensure that information from the sensors is picked up. The Genius is the central part of the system and instantly makes emergency calls.

Individual branding

Central control unit - the Genius

Ideal holder - the cradle

Conductive materials and electrodes

Comfortable against the skin

Smartphone App
Your smartphone is connected to the Genius via Bluetooth® and displays live data. If an emergency is detected, it is used to communicate with the emergency contact and/or emergency call center.

Find more information here

Laden im App Store

JETZT BEI Google Play

Central control unit - the Genius

The Genius is the brains of the system. It clicks into the cradle and communicates with the user using optical and acoustic signals. The Genius also records the voltage drop on the body, detects falls, and notifies the emergency contact person and/or the emergency call center using the smart-phone app that is connected via Bluetooth® (see below left).

- Powerful processor for detecting emergencies
- Acoustic and optical signals
- Battery life of one day
- Light and compact
- Matches the shirt design perfectly
- Powerful magnets provide a secure grip on the upper arm

Ideal holder - the cradle

The cradle holds the Genius and is made from a flexible material. Its flexible shape allows it to fit around the upper arm.

Conductive materials and electrodes

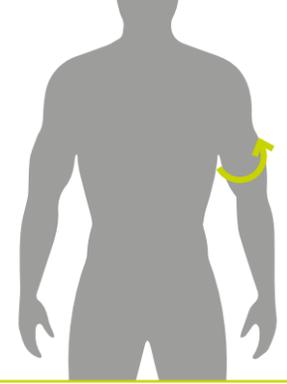
The conductive textile cable connects the sensors on the upper arms to the Genius. The voltage drop between the upper arms is measured using electrodes, from which the current level is deduced. Elastane in the cuffs provides close skin contact. Why is a perfect fit on the upper arms so important? Only then can the ANGEL system work reliably.

Individual branding

Uniform appearance guaranteed: the ANGEL shirt is available in your corporate colors and can be printed to your specifications with company logo and marketing slogans

Comfortable against the skin

The smart textile shirt is made of organic cotton, kind to the skin, durable, easy to wash, and comfortable to wear thanks to its ample cut. Attractive stitching gives the shirt a sporty look. The shirt is certified according to OEKO-TEX® STANDARD 100, bluesign®, and PIMA®.



GETTING THE SIZE RIGHT

How to determine the right size for you.

The correct measurements are essential if work apparel is to fit properly. The upper arm in particular must be measured accurately to enable reliable detection.

Step 1

Remove the measuring tape from this brochure. Let your less dominant arm hang down your side. Relax your upper arm and measure its circumference at its thickest point (the biceps). Read off the value from the lower scale, e.g., 27-34 cm.

Step 2

To choose the correct shirt size, use the following table as a guide:

Size	Chest measurement
XS	84-90 cm
S	90-96 cm
M	96-102 cm
L	102-108 cm
XL	108-114 cm
XXL	114-120 cm
3XL	120-126 cm

Step 3

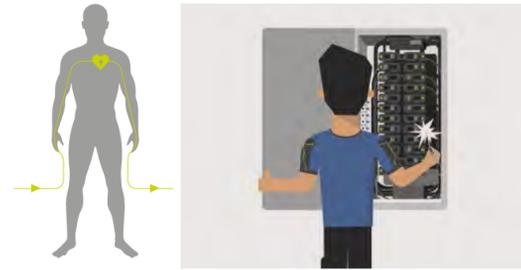
When you place your order, enter your clothes size as well as the measuring range of your bicep circumference, e.g., L27-34.



SMART ASSISTANT IN ALL SITUATIONS

Below are three typical everyday work situations that can be life-threatening. ANGEL provides quick and reliable assistance.

Find more information here



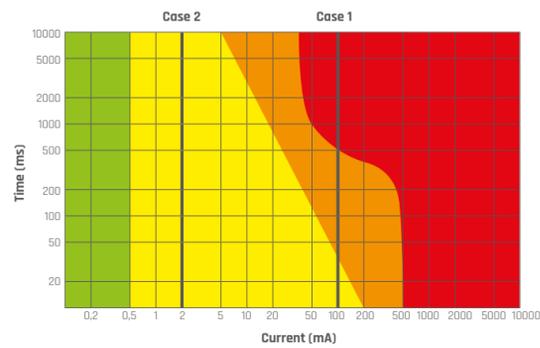
Case 1: Electrical accident hand-hand

The person is standing on a ladder and working on an open cable duct overhead. They touch a cable by mistake. The current now flows from their fingers, through their arm, their heart, and their entire body. The current flows off again through their feet and the ladder.



Case 2: Electrical accident hand-foot

The person is standing on a ladder and working on an open cable duct overhead. They touch a cable by mistake. The current now flows from their fingers, through their arm, their heart, and their entire body. The current flows off again through their feet and the ladder.



- Harmless, usually not palpable
- Low risk of injury, palpable muscular contraction, usually harmless
- Risk of injury, risk of muscle cramps
- High risk of death, risk of irreversible injury, ventricular fibrillation



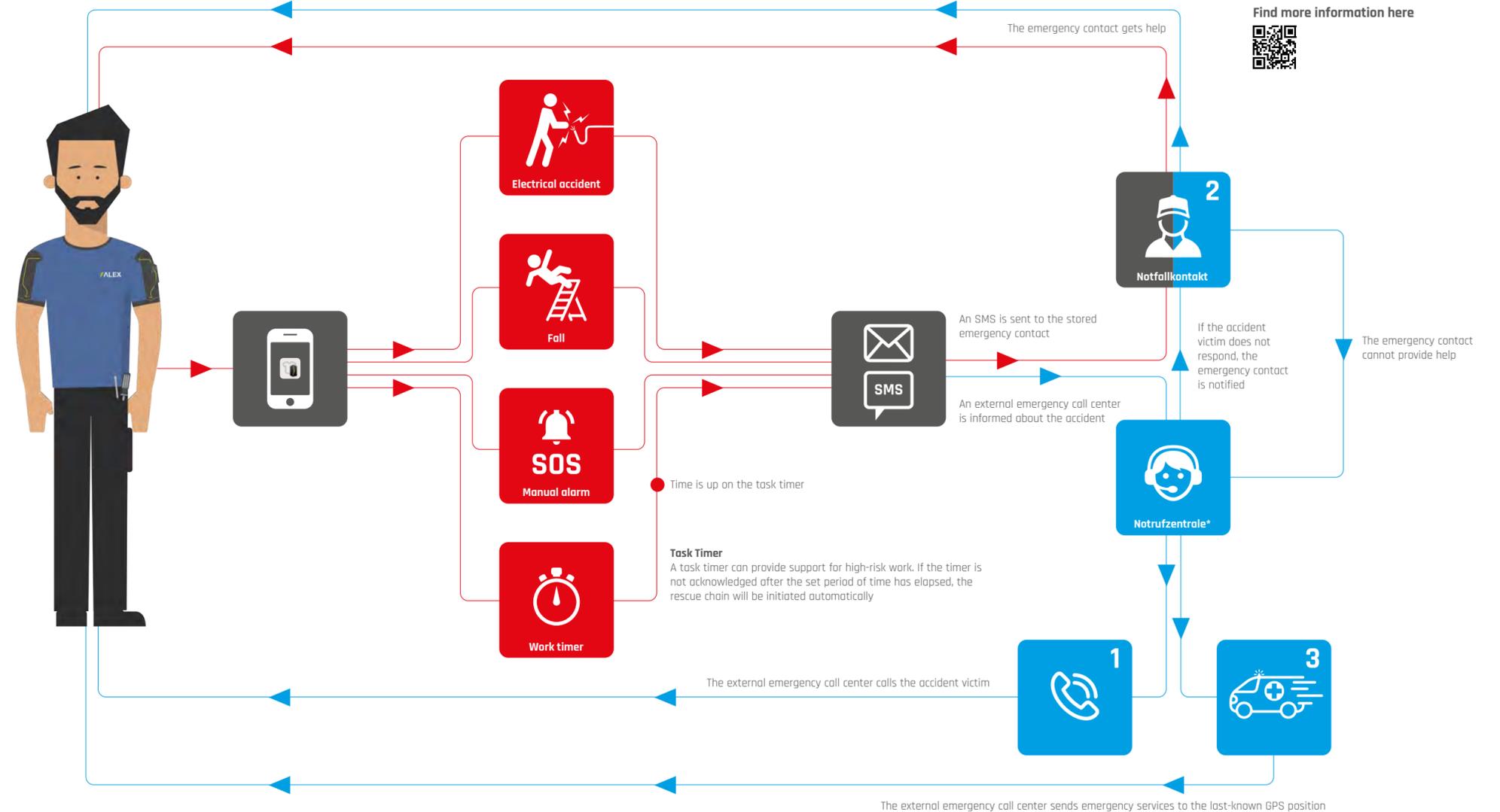
Case 3: ANGEL also detects falls

Falls also represent a common cause of accidents in day-to-day work. This is why fall detection is also integrated into the Genius. Reliable fall detection comprises three parameters: free fall from a height of min. 1 m, impact on the floor, as well as subsequent immobility that lasts min. 30 seconds. The emergency chain works in the same way as when electrical accidents are detected.



CALLS FOR HELP WHEN YOU CAN'T DO IT YOURSELF

Users are often no longer able to react properly in emergency situations. Thanks to its sophisticated and automatic emergency chain, ANGEL ensures help is on hand quickly.



Q&A

Please get in touch with us if your question is not answered below.

Can ANGEL detect every type of electrical accident?

ANGEL recognizes when current flows through the body and there is a voltage drop between the upper arms. As the circumstances behind an electric incident are many and vary, we cannot guarantee that every single one will be detected.

What is the voltage threshold from which the ANGEL system responds?

The short answer is that there isn't one, and that's just as it should be. After all, it's not the voltage that's harmful, but rather the current that flows through the body. The Genius measures the voltage drop between the upper arms and this is an indicator of the current that flows through one or both arms. Whether the voltage is high or low is therefore irrelevant. The response threshold of the Genius is typically in the single-digit milliampere range.

Is ANGEL suitable when working on live systems?

Working on live systems is subject to a special set of rules that may not be altered or reduced, even when using a smart textile shirt. You should always try to work in accordance with the five safety rules. The system is an additional safety measure if errors during work occur.

Can emergencies still be detected without cell reception?

Cell phones use either the cellular network or a direct data connection such as Wi-Fi. If neither link is available for more than 15 minutes, the cell phone will prompt you to reestablish the link. You can also set a work timer - you can activate this timer before you carry out dangerous work or before you start work in a basement without reception, for example. If you do

not stop the alarm when time is up on the timer, the rescue chain will be alerted automatically.

Does „ANGEL“ qualify as personal protective equipment in the sense of EU Regulation 2016/425?

No, ANGEL is a voluntary additional equipment and therefore not a personal protective equipment within the meaning of the EU Regulation (EU) 2016/425 of March 9, 2016 and does not replace any otherwise compulsory protective clothing or protective equipment.

Will the shirt work in the event of an arcing fault?

To provide protection in the event of arcing faults, the usual recommendation is to wear flame-retardant clothing over a cotton shirt, as man-made fabrics can melt onto the skin. We recommend that you wear your ANGEL shirt next to the skin. The wearing of flame-retardant clothing appropriate to the risk situation over the shirt is a mandatory requirement.

What happens if I jump down from the ladder?

Fall detection consists of a combination of several parameters: free fall, impact, and subsequent immobility. In the event of a significant shock, the fall sensor integrated into the Genius will start to record the fall. The fall sensor is able to prevent false alarms by analyzing falls and detecting whether it's necessary to trigger an alarm. In fact, the alarm is triggered automatically only if the person remains motionless for 30 seconds after the fall because this is then presumed to be a real emergency situation. Fall recognition is therefore not activated in every situation, such as if a person were to jump down from a ladder and then walk away.

BREAK THE RULES ... INNOVATE!

We, the ADRESYS team, are an interdisciplinary team from a variety of expert backgrounds. Our ANGEL product offers the highest levels of support for people working with hazardous electrical voltages.

Your local ANGEL sales partner

