

# INNOVATIVE AND EFFICIENT TOUCH SOLUTIONS



# INNOVATION

SPECIAL



# „THE RESULT OF A NEW PARTNERSHIP.“

With both headquarters located only a stone throw away from each other, Hoffmann + Krippner and OKW Gehäuse GmbH have formed a partnership. By combining our expertise, we can now offer our customers added value. Standardized touch systems in plastic enclosures by OKW are the first addition to our portfolio.

The challenge for this first joined product was to design a gradual, modular touch system, starting with the touch sensor (PCAP, also PCT – projected capacitive touch) and ending in a complete unit with screen, board and enclosure. Today we can present five OKW enclosure versions equipped with a standardized touch system by Hoffmann + Krippner in sizes 4.3", 7" and 10.4".



## STANDARDIZED TOUCH SYSTEM SOLUTIONS

A complete, modular system consists of at least the following components and processing steps:

- Front glass with printed frame (printing process done on the back)
- Bonding of touch sensor with front glass (optical bonding)
- PCAP evaluation / controller
- Commercially available displays / display controller
- Enclosure with mounting options and openings for various outputs
- Furthermore, some models provide unused space inside of the enclosure for additional boards / components

These standardized touch solutions can be easily customized according to requirements and respective application environments. The custom printing of the front glass offers additional flexibility. Along with the color design of the enclosure and control

of the color display, the corporate identity of our customers can be implemented.

A key technology as part of the production capabilities at Hoffmann + Krippner is "optical bonding" – where the gap between PCAP film and front glass is filled in with liquid adhesive. This ensures optimum function of the PCAP system. Software installation and programming of touch functions can be performed by the customer or by an H+K technician.

Touch screen already touch our lives in many areas. The touch principle became widely known due to smartphones and tablets. Professional solutions are becoming more popular for industrial applications such as medical technology, automation and many more. Efficient touch systems by Hoffmann + Krippner, a specialist in custom and complex input systems, provide solutions for a wide variety of applications.



Image description left: front glass, touch sensor, controller, display and enclosure



INTERFACE TERMINAL – ergonomically slanted operating surface by 20°

### Elegant appearance

Various enclosures out of the OKW product portfolio currently in use are suited for wall, desk or mobile applications. In combination with the integrated operating unit, they provide a functional and individual solution. SYNERGY serves as a noble device on a desk or wall – a harmonious combination of aluminum and plastic. The high-quality appearance and absence of visible screw heads on the surface make it an eye catcher. A small embedded PC with 4.3" touch display was integrated into the rectangular enclosure (length 200mm, width 100mm, height 40mm), thus making it ideally suited as a monitoring unit, informing the user of unauthorized entries, open windows and doors and passing the information on to the system. For precise operation and control, this unit can be equipped with a rotary knob and touch potentiometer. An embedded Linux operating system allows for software development with QT Quick Open Source Software.

### Large display area

The wall / desk enclosure INTERFACE-TERMINAL has a large operating and display area. Data can be entered comfortably using a 10.4" touch display (enclosure size L). Displays have an optimum location and operating data can be captured quickly and securely. The optical bonding especially ensures an optimal function of the PCAP touch solution. In case the display is bonded as well, the user experiences a clear and brilliant image, even with unfavorable lighting conditions. A special adhesive technology fills the air gap between display and touch screen, significantly reducing light reflections.

Possible applications for both enclosures:

In combination with the integrated display, they can be used for monitoring of rooms and outdoor facilities via video cameras. In case of irregularities, one system would automatically lock (or unlock), the second device could assume the role of a video intercom system if coupled with a doorbell.



capacitive touch display by Hoffmann + Krippner



the individually configurable operating unit SYNERGY E200



CARRYTEC – mounting on tripod / support arm systems possible, e.g. for machine control, medical technology, etc.

### Easy to carry

The product range of individually configurable operating units also includes two mobile enclosures, especially suited for larger user interfaces. The CARRYTEC in sizes M and L can be carried easily with a built-in handle, ensuring safe and effortless operation. The dimensions for the size M model are 270 x 247 x 91 mm, dimensions for size L model are 348 x 303 x 117 mm (L x W x H). Thus, touch surfaces in various sizes and function can be implemented, making the application possibilities virtually unlimited. With the touch unit integrated into the CARRYTEC including the separate function keys, the device could also be controlled manually.

### Two partners for an optimal solution

All standard enclosures by OKW Gehäusesysteme offer an attractive appearance and high level of protection for integrated

electronics. Due to the timeless designs, the enclosures can be implemented in all areas of daily life applications. Thanks to the individually configurable operating units by Hoffmann + Krippner the touch features allow excellent operation. The 4.3" TFT displays by H+K are supplied with a 450 MHz processor and Embedded Linux. The 7" and 10" systems are controlled with an ARM Cortex-A9, i.MX 6, scalable for various performance classes

The examples shown are just a small portion of the diverse possibilities. A network system that automatically regulates, measures, controls and reacts would be possible for application areas such as facilities engineering, medical and laboratory equipment, mechanical engineering, plant manufacturing and air conditioning. With the combined strengths and years of experience, the two partner companies ensure optimally efficient customer solutions.

**CARRYTEC** – operating unit with integrated carrying handle. SizeM: 10.4" / 26cm, size L: 13.4" / 34cm, PCAP, Cortex A9, i.Mx 6.





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Hoffmann + Krippner is a leading manufacturer of custom membrane switches and complex control units in Europe. Our portfolio of manufacturing options includes simple foil keypads to complex systems with resistive and capacitive touch screens, as well as optical bonding of touch and display – exclusive manufacturing in Buchen, Germany!



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OKW Gehäusesysteme develops and markets design-oriented plastic and aluminum enclosures and tuning knobs. With numerous manufacturing and finishing techniques such as mechanical processing, varnish, print, and EMC coating, standard units can be designed according to customer requirements.



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