

How to integrate display and operating solutions in electronics housings

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How to integrate display and operating solutions in electronics housings

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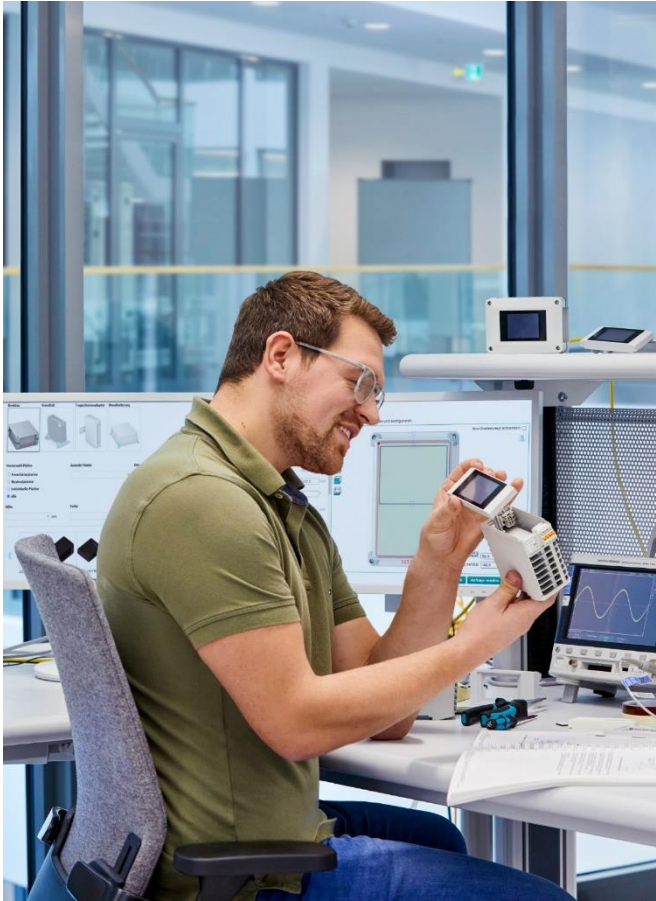
Displays everywhere



How to integrate display and operating solutions in electronics housings?

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Reasons for the initiation from a market perspective



Decentralized visualization

Security-related information

Normative requirement

Avoid unauthorized access

Changing operators no extra device required

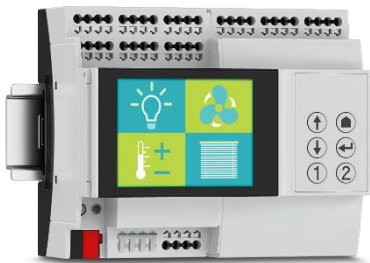
Reasons for Devices with display - portfoliomangement



An extra device is required for reading

No control and display

Price ~ 200€



control and display at the device

extra device is not required in several cases

Price ~ 400€

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Initial situation – common challenges for display integration



No latching or bracket for the display

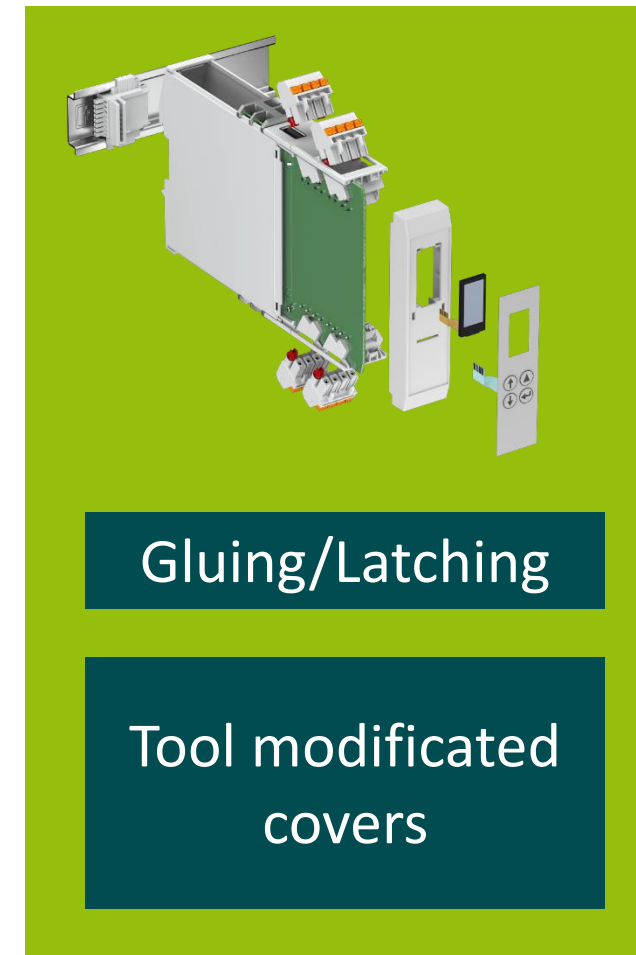
Normal covers don't have a flattened surface for keypad

Foil Cable not usable for DIN Rail Enclosures

No space for gluing display



Different ways for integration



Cut-outs for Display with frame



No tooling costs

No gluing

No tools needed

Individual colours



Extra tool for frame

No flat surface

Milling process

Cut-out with step for thickness $>3\text{mm}$



No tooling costs

Flat surface

No tools needed

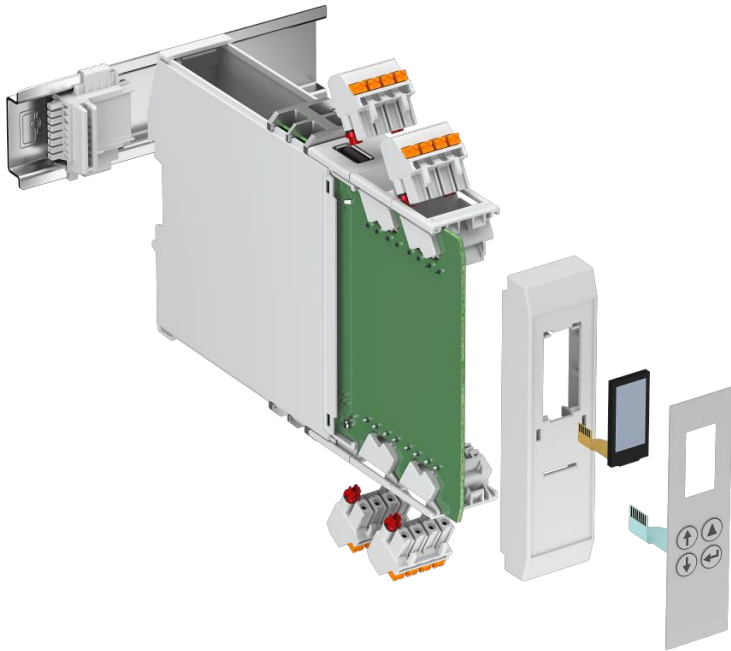


Extra mounting

Material thickness
 $>3\text{mm}$

Milling process

Tool modified covers



Flat surface

Easy (de-)mount of display

Parts out of tool

No milling needed



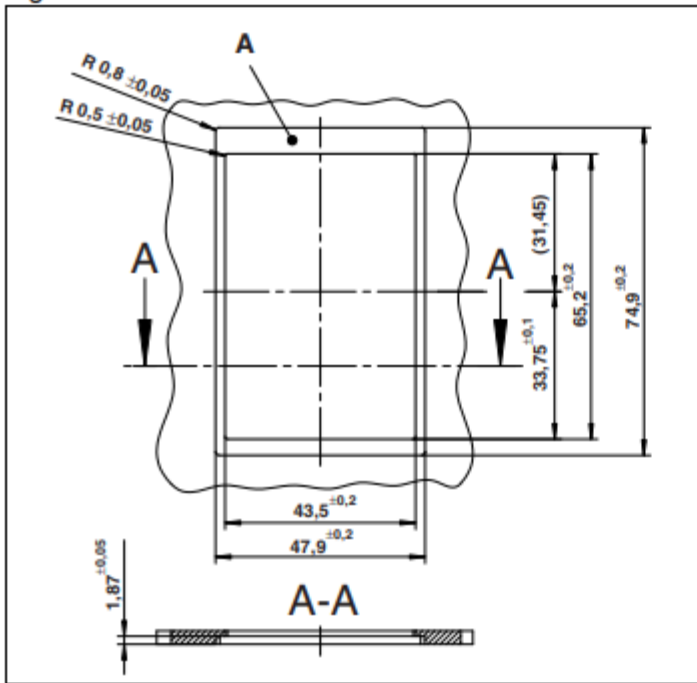
Tool costs

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Installation in any enclosures

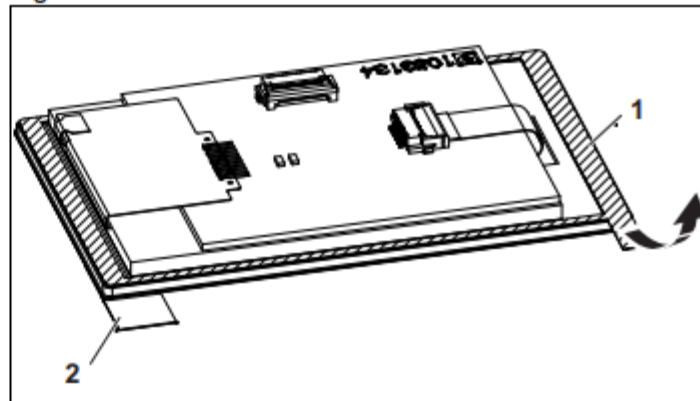
10 Installation

Figure 9 Recommended installation dimensions



Item	Description
A	Adhesive surface

Figure 10 Adhesive surface



- Remove the foil (1) from the adhesive surface. Leave the protective foil (2) on the display.
- Place the display in the mounting cutout and press on the adhesive joint.

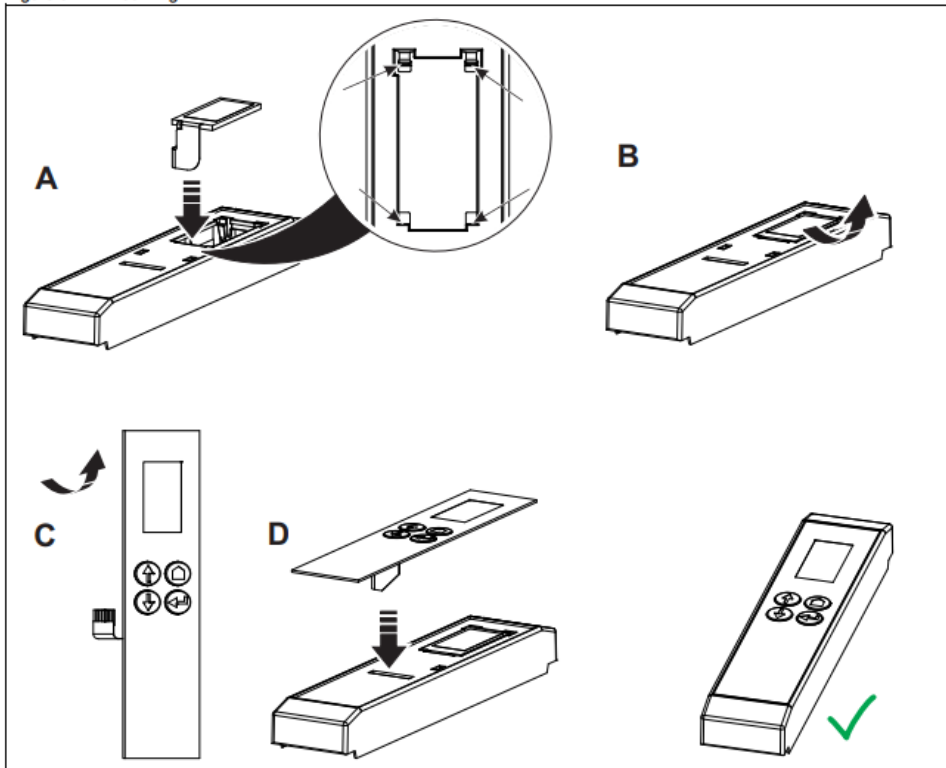
For flat integration
>3mm thickness
needed

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Integration of Display and Keypad

10 Mounting the display and membrane keypad

Figure 9 Mounting

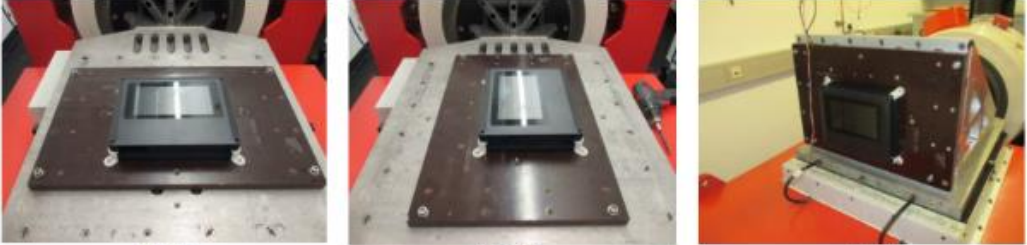


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Display Integration – Vibration & shock test

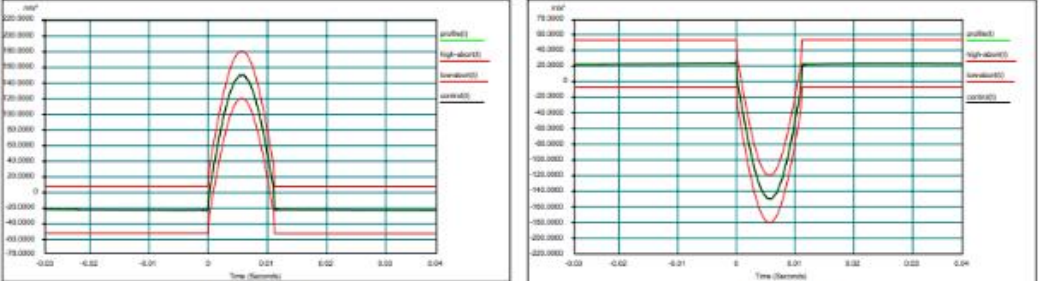
File name	PB_24161_Vibration UCS 237-195 with display_00_EN
Product designation	UCS 237-195-F.. with display
Number of samples	1
Fixing tape	TESA 4965
Test	Vibration- and shocktest
Test specification	DIN EN 60068-2-6:2008-10
Reason for the test	It should be checked if the tape holds the display in position during vibration.
Result	Test passed

Test set-up



x-axis y-axis z-axis

Shock impulse



positive direction negative direction

Result

The passed

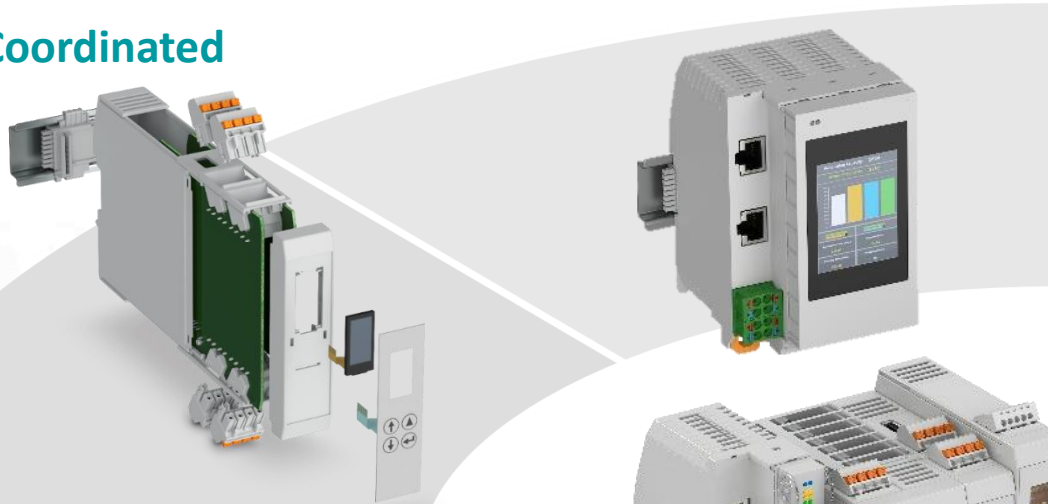
7" Raspberry Pi Touchdisplay in Universal Case System

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What is important for a device manufacturer

One-Stop Shopping

Coordinated



Individual

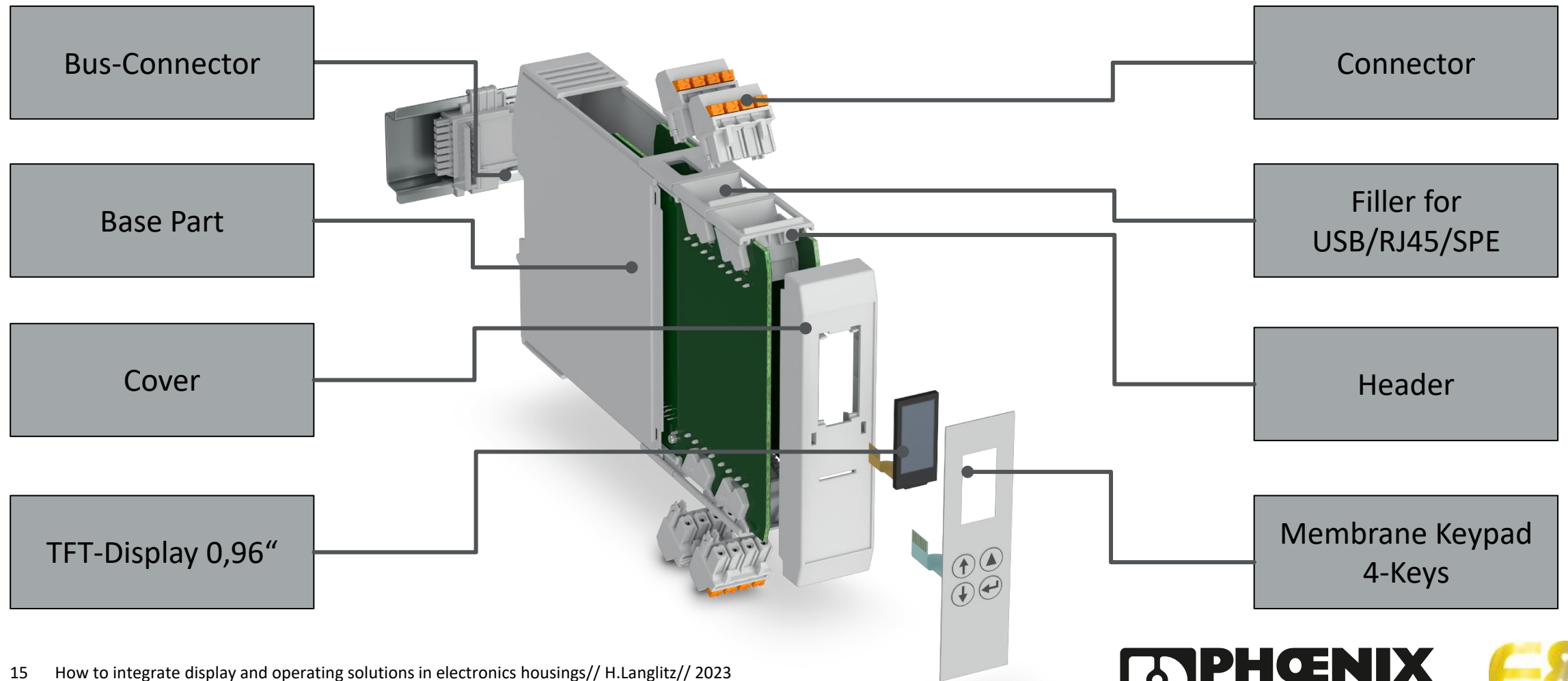


Digital Services



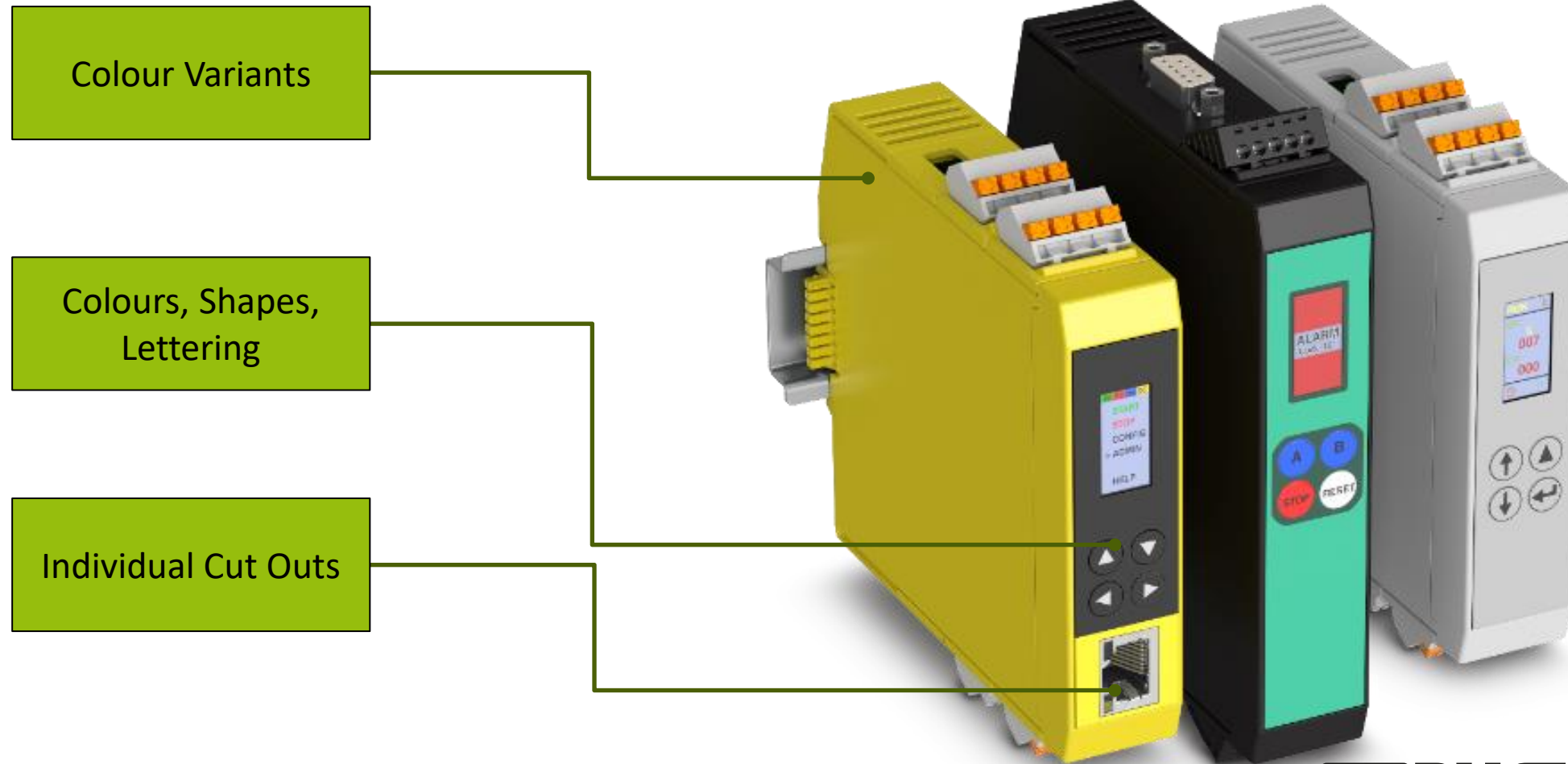
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One Stop Shopping



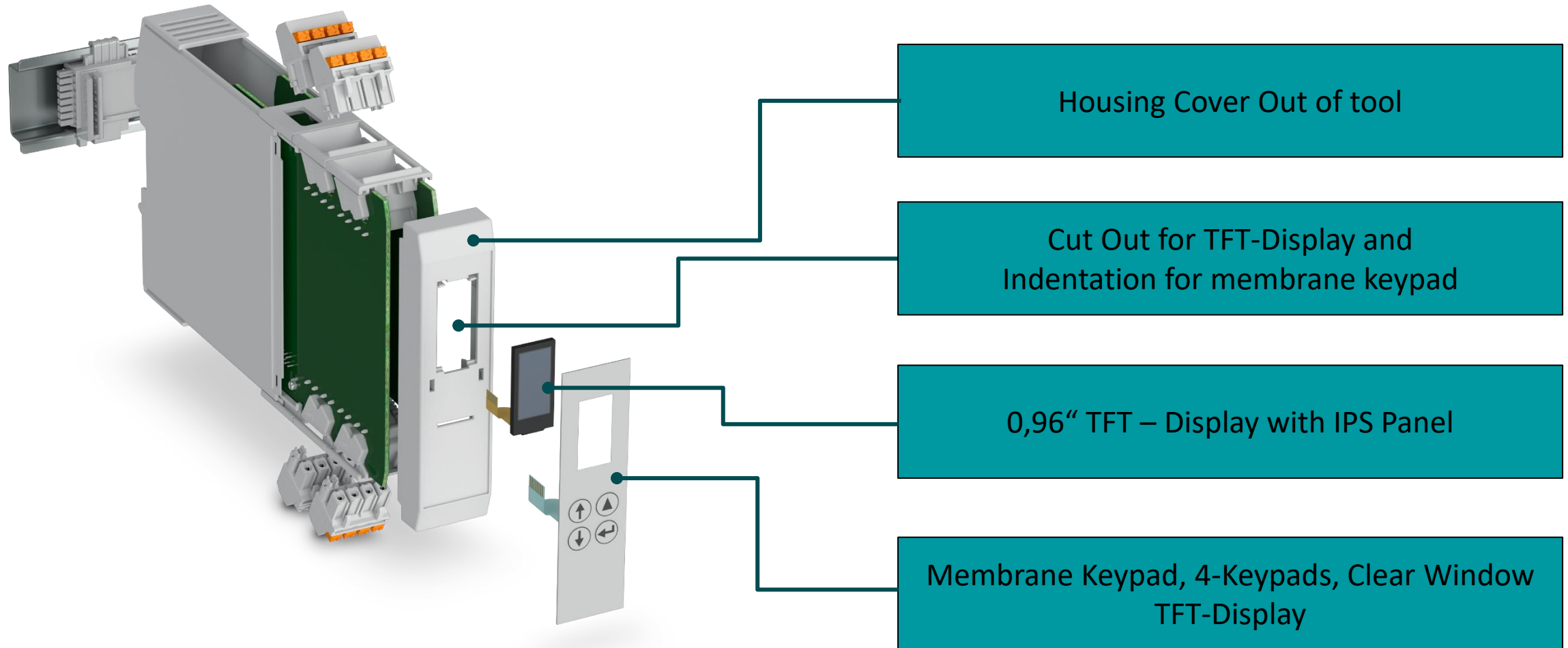
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Individualization



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Coordinated with each other



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Our purpose

“We enable the development of complex electronic devices for cabinet and field”

This allows the customer to focus on the electronics and software required for the individual application

Housing Systems

Enclosures incl.
displays, connectors,
lightguides etc.

Individualization

Service for cut outs,
color variants and
design elements

Consultancy and services

Thermal simulation, individual
parts and complete solution

Know-How

Decades of professional exper
industrial components



Cost efficiency

Invest for tooling already
done



Functional aspect

Functional and
professional solution



Quick responsiveness

Standardized
components and
fast delivery



Thank You!

Visit us @ stand
7D046



26 T/M 28
SEPTEMBER '23
JAARBEURS UTRECHT