Kitconnect

Construction kit for measuring adapters

on the assembly board

August 2025

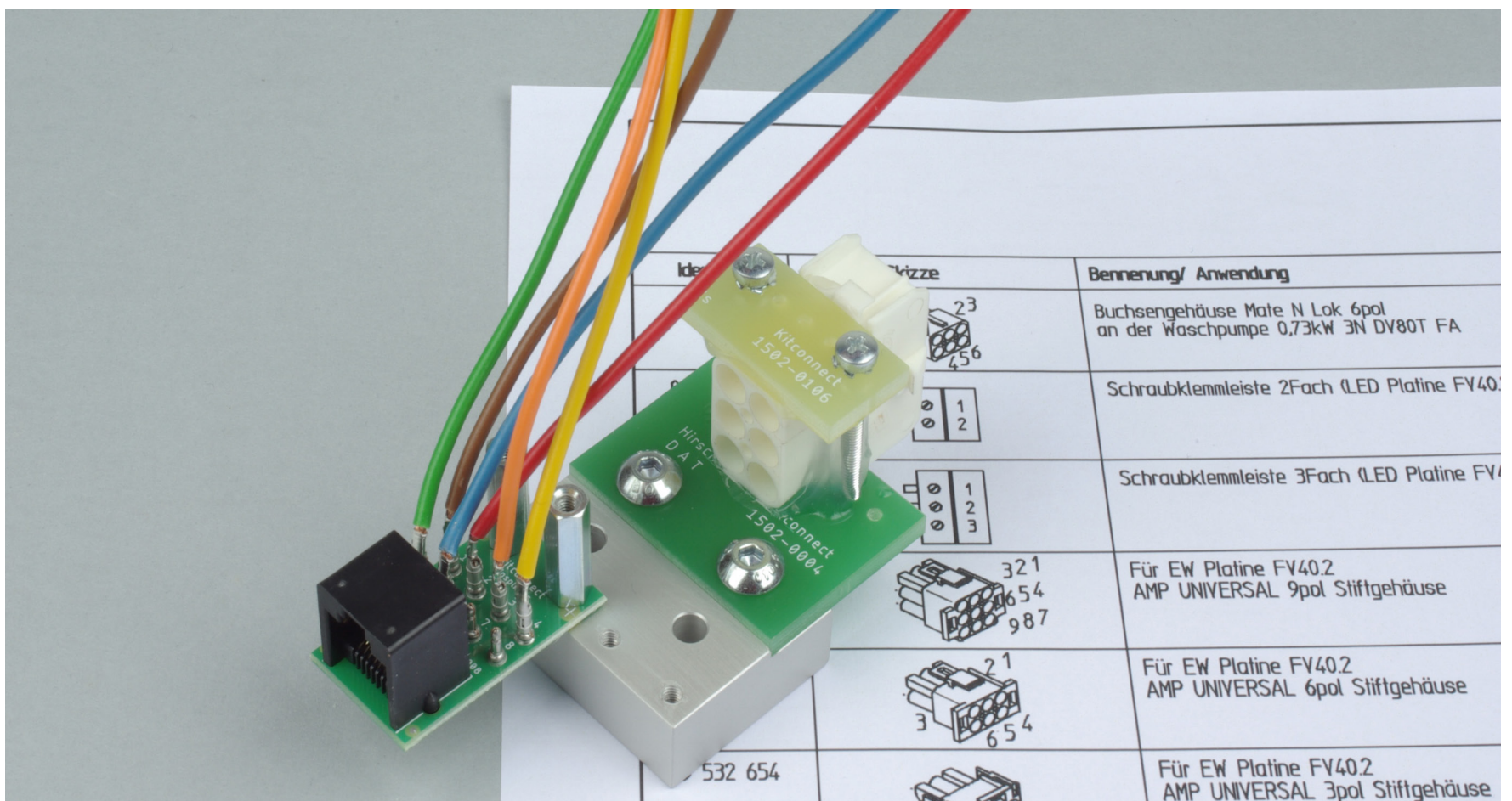# Kitconnect for Wire Harness Production

Kitconnect is a modular system that allows you to quickly assemble measurement adapters for the connectors and cable ends of a wire harness. Kitconnect significantly reduces the time required to set up a cable routing board. Ensuring correct wiring with measurement technology in production is no longer hindered by time constraints.

Guide elements for determining the laying routes of a wire harness are available in a wide range of assortments, for example in the laying board accessories from Panduit or with Quick-Build from Panduit. The situation is different when it comes to setting up the measuring adapters for the measurement technology of a assembly assistance system, such as for the Kabelassistent W 12.

Here Kitconnect provides, for the first time, a rational solution.

With a manageable number of standard parts, you can quickly assemble a plug-ready measurement adapter with a counterpart plug. This saves you the trouble of searching for individual fastening and connection solutions and you save time for laying out measurement cables or connecting delicate connectors to the measurement technology.

Even after the end of the product life cycle, the recyclability of the individual parts of your measurement adapters is a major advancement. Base rails and pin splitters can be reused as often as needed for new assembly boards.

Measuring Adapter Kitconnect – the Speed System

At Kitconnect, the four basic tasks of a measuring adapter are clearly divided among four components.

Fastening the mating connector
This task is performed by the mounting plate. It is stable and inexpensive. We offer it pre-punched in various widths.

Connection of the mating connector
For this task, we offer ready-made assortments of pigtails in two different cross-sections. As in the resistance color code, the pigtails are numbered consecutively, thus always providing a quick overview of the pin numbers.
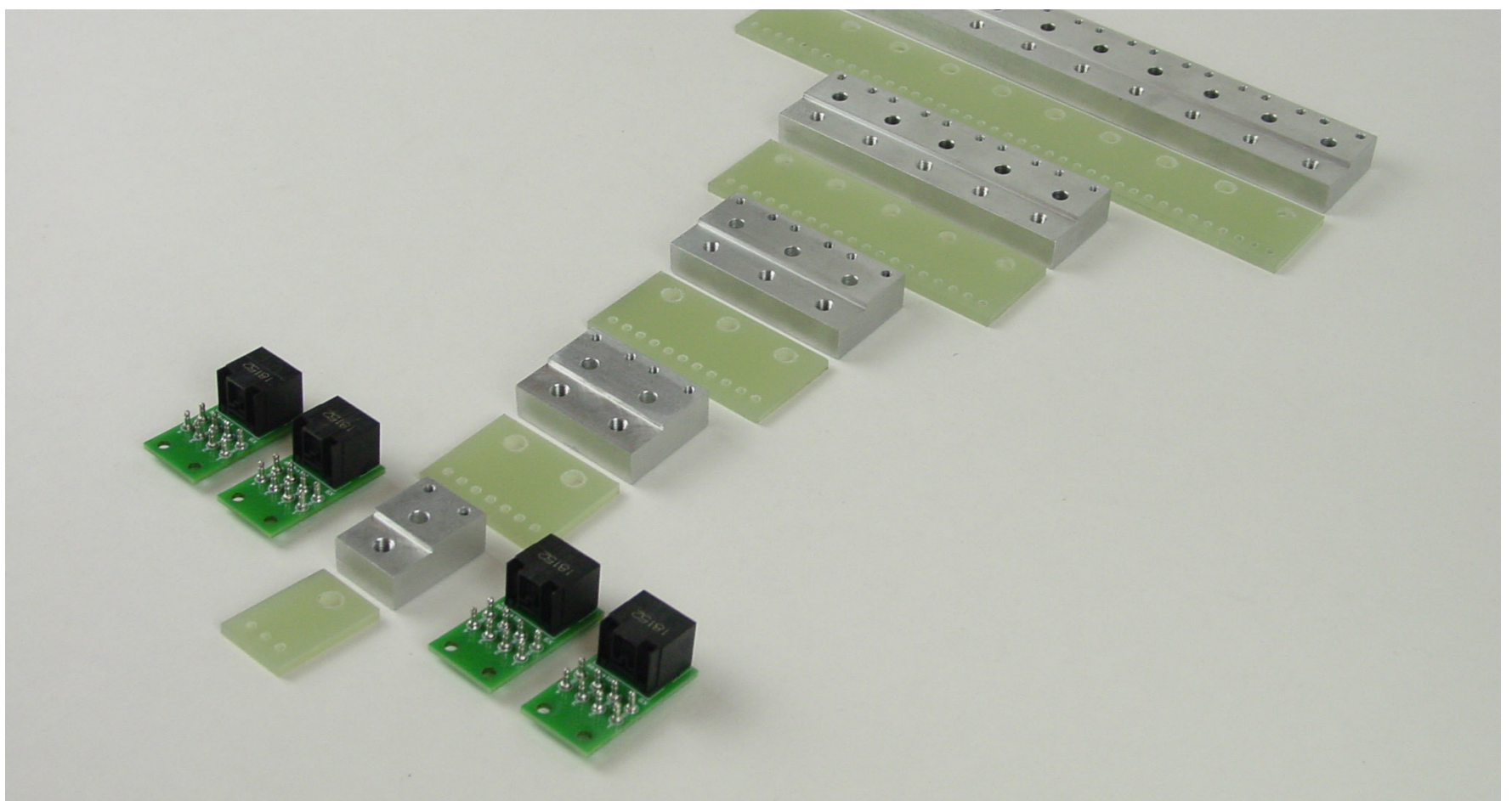
Connection to measurement technology
For this purpose, we have developed the pin splitter and the counting system for free measurement channels.
The connection with an RJ-45 socket enables cabling with one of the fastest connectors to assemble.

Fastening the measuring adapter
This task is performed by the sturdy base rail made of anodized aluminum. Screwed directly onto the assembly board or onto a spacer support, it will hold the measuring adapter firmly in place even during the production of many thousands of wire harnesses.
The holes also fit the mounting bases of the Panduit Quick-Build System. The holes also fit the mounting bases of the Panduit Quick-Build System.
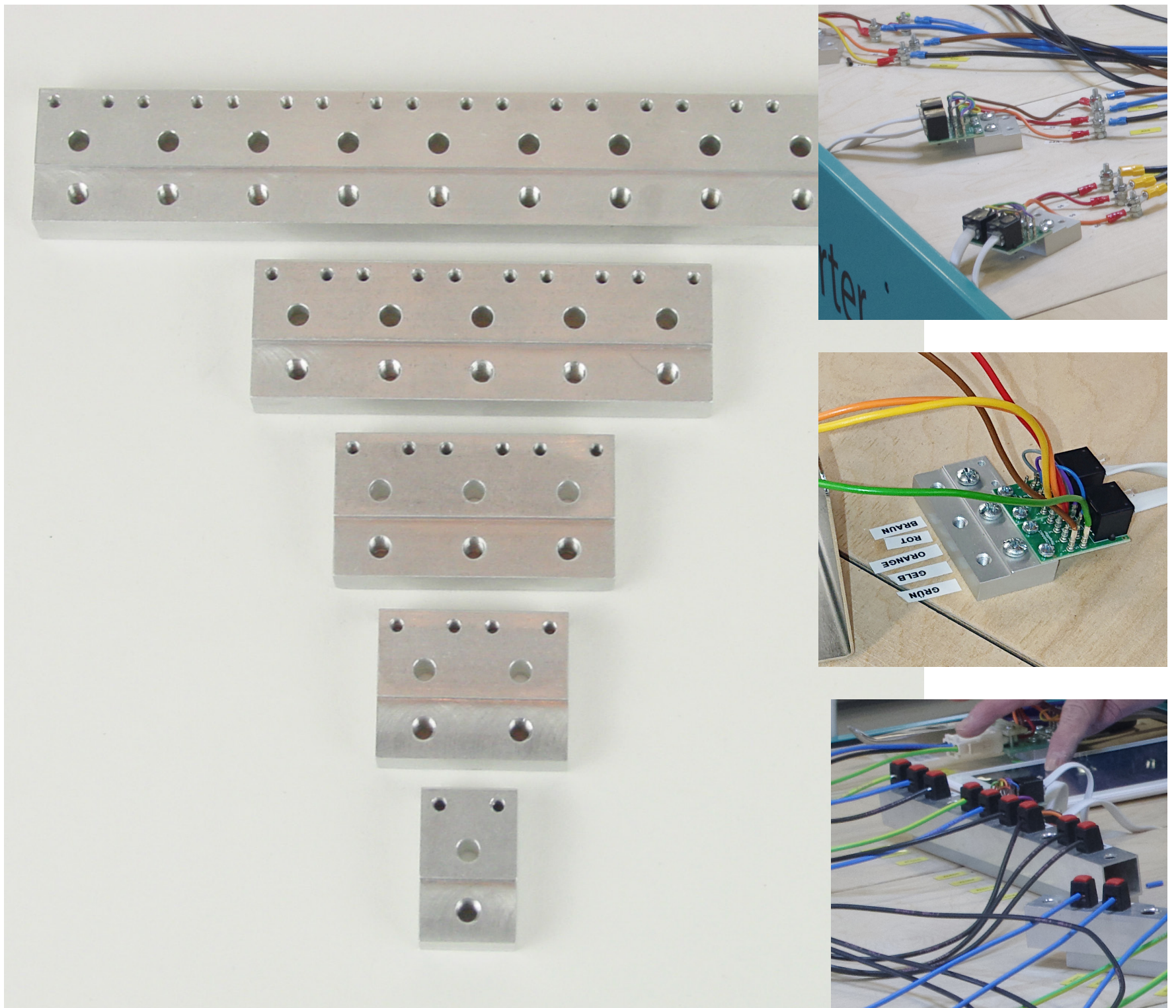
Base Rails

The base rail is the solid foundation of the measuring adapter. You screw the mounting plates and pin splitters onto it. The mounting plates are securely and positively fastened thanks to the shoulder and the screws with M5 threads. Even after many years of daily production, they can easily withstand the high loads that arise when clamping or plugging in cable ends with large cross-sections.

The holes for attaching the base rails are 4.6 mm in diameter and spaced 20 mm apart. You can screw the base rails directly onto wooden panels or onto mounting bases from the Panduit Quick-Build system.

Because the 20 mm wide base rails only have one mounting screw, they also have a spring pin on the underside to prevent them from twisting.
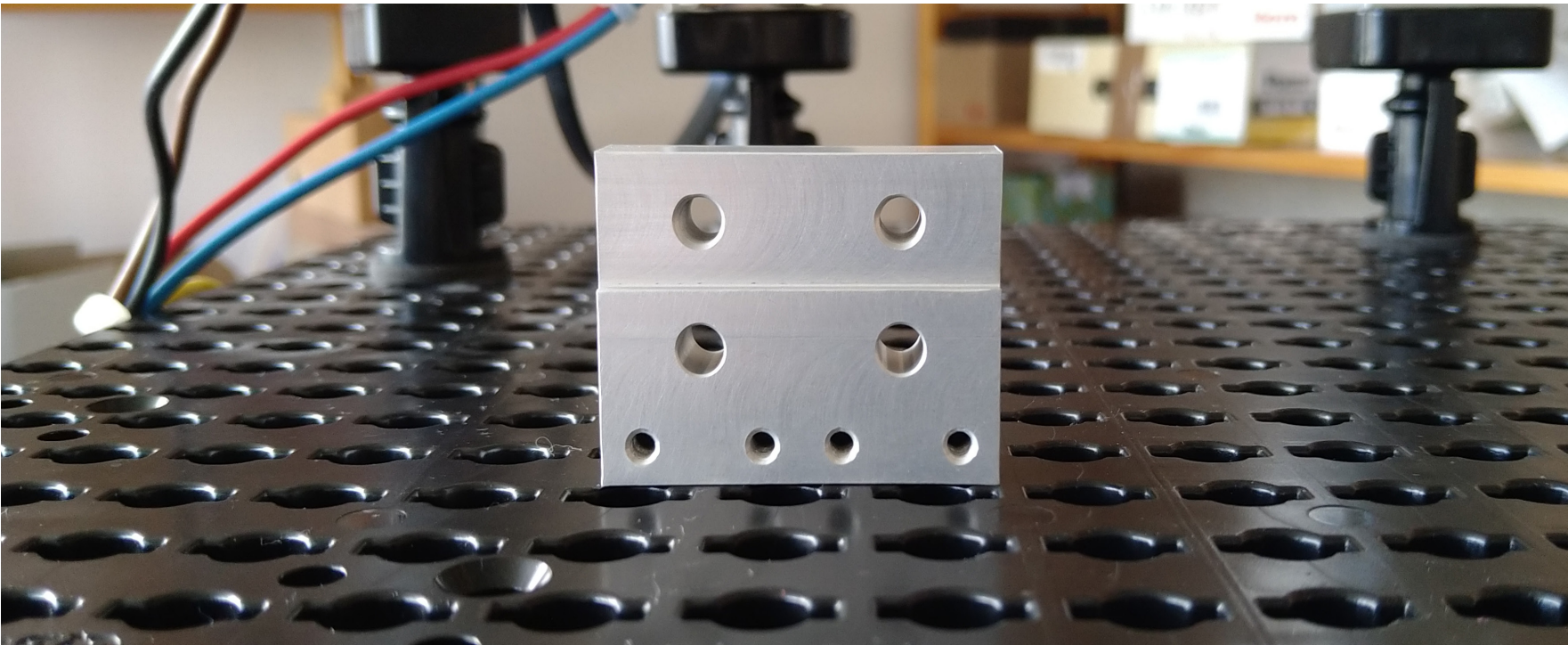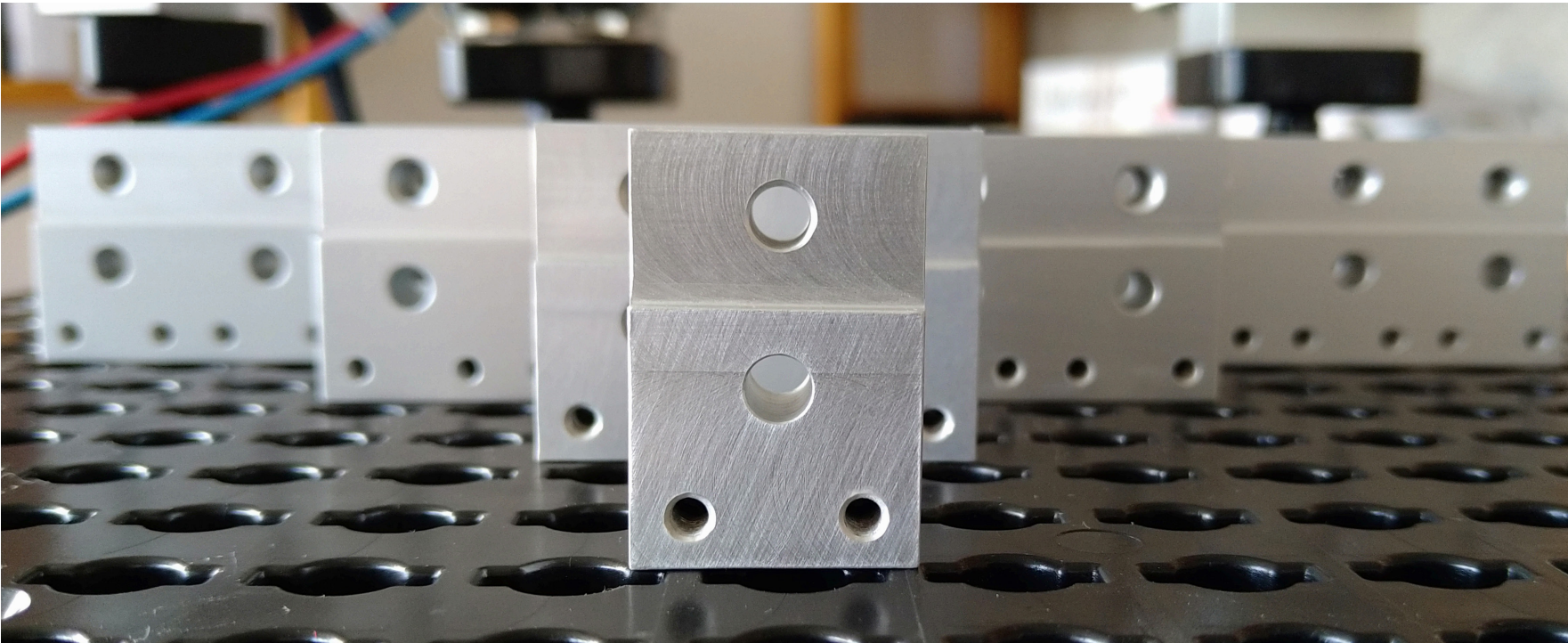
Base Rail Kits

Base rail kits, anodized aluminum, with screws for attaching the mounting plate and for attaching the base rails to Panduit Quick-Build and wooden panels

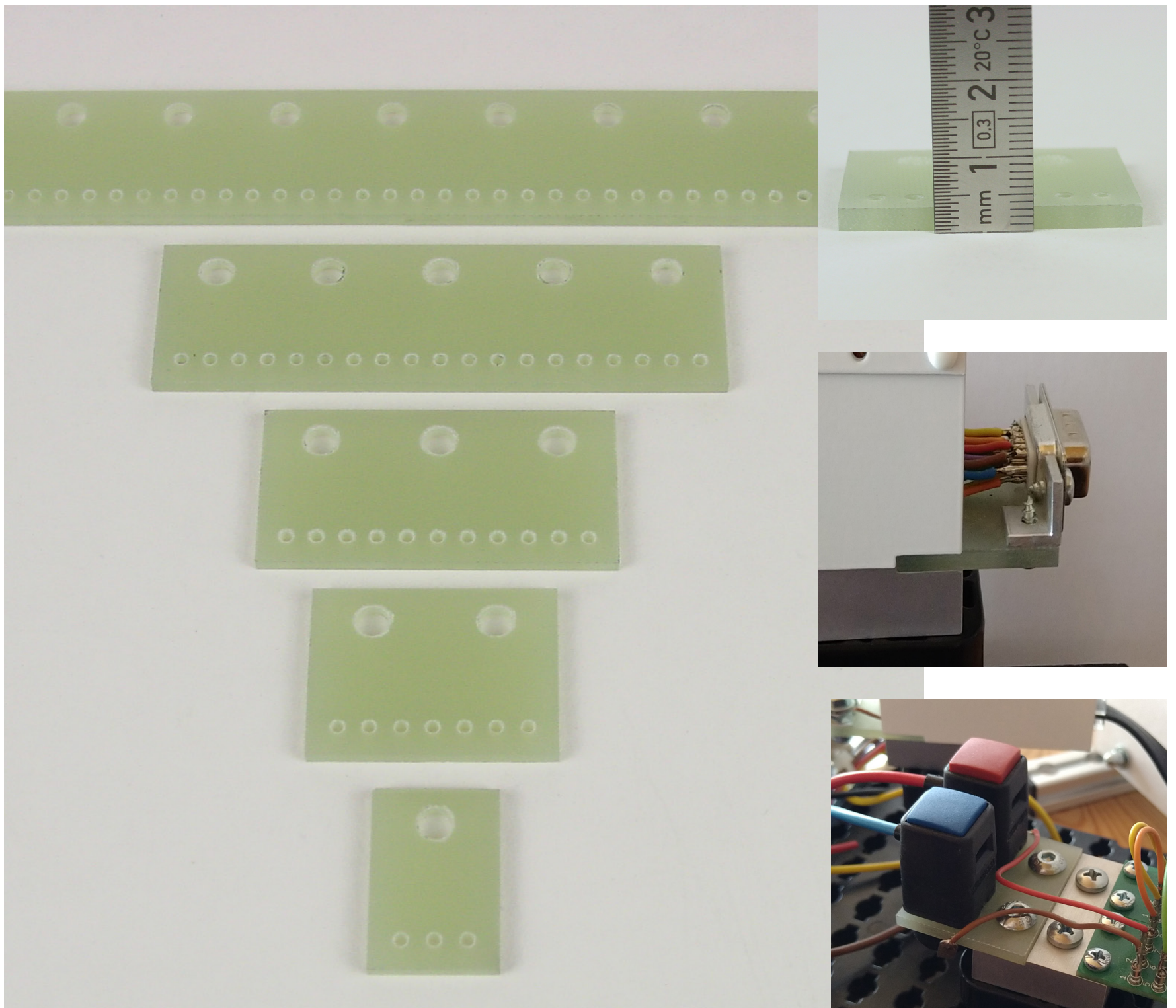| Item	Length	Spring Pin	Screw for mounting plate	Screw on Quick-Build	Screw on wooden plate
1501-0002	20 mm	1	1	1	1
1501-0004	40 mm	0	2	2	2
1501-0006	60 mm	0	3	2	2
1501-0010	100 mm	0	5	2	2
1501-0020	200 mm	0	10	3	3

Mounting Plates

You can attach the connection points to the mounting plate. These can be housings for mating connectors, device terminals for open cable ends, bare plug contacts, screws for ring terminals, and much more. The 3 mm thick GRP absorbs even the strongest forces that your employees have to exert, for example, when pinning large contacts or opening large device terminals.

The stable mounting saves time because the connector housings are fixed so securely that employees do not need to use their hands to hold the adapter or mating connector in place when plugging it in.
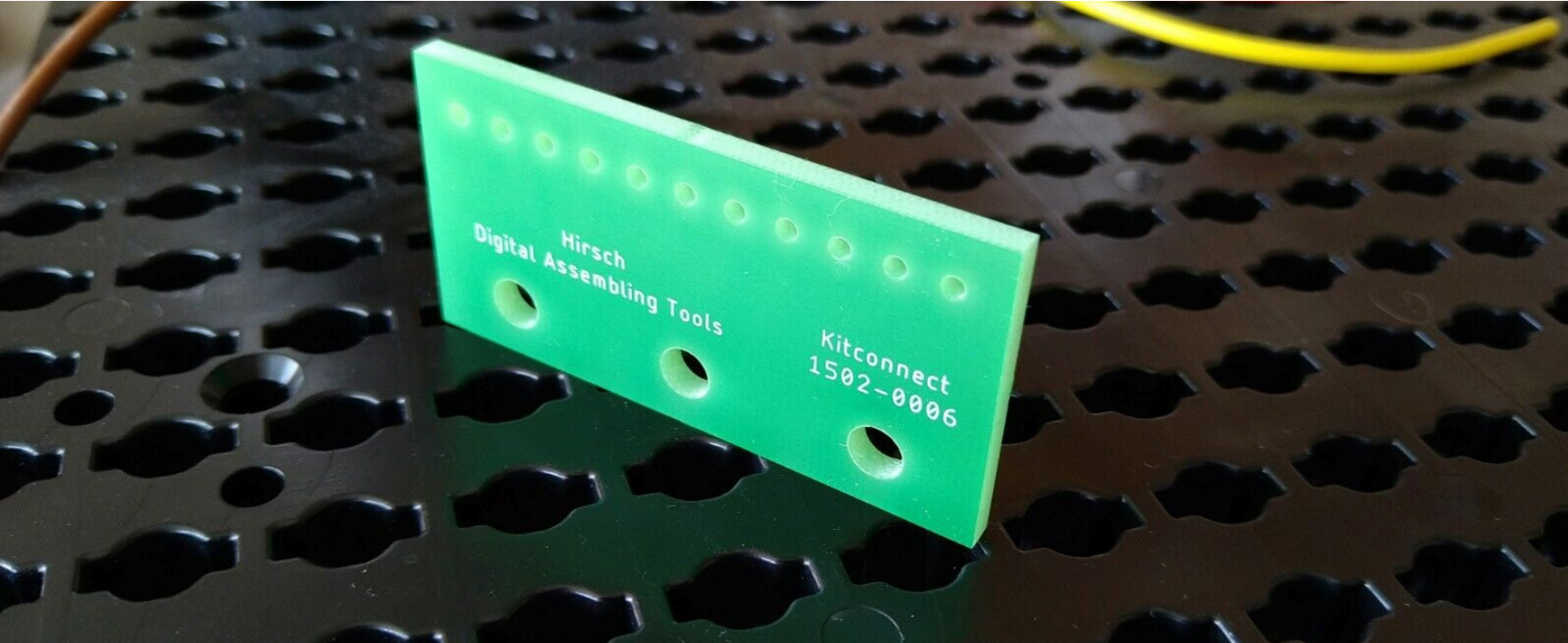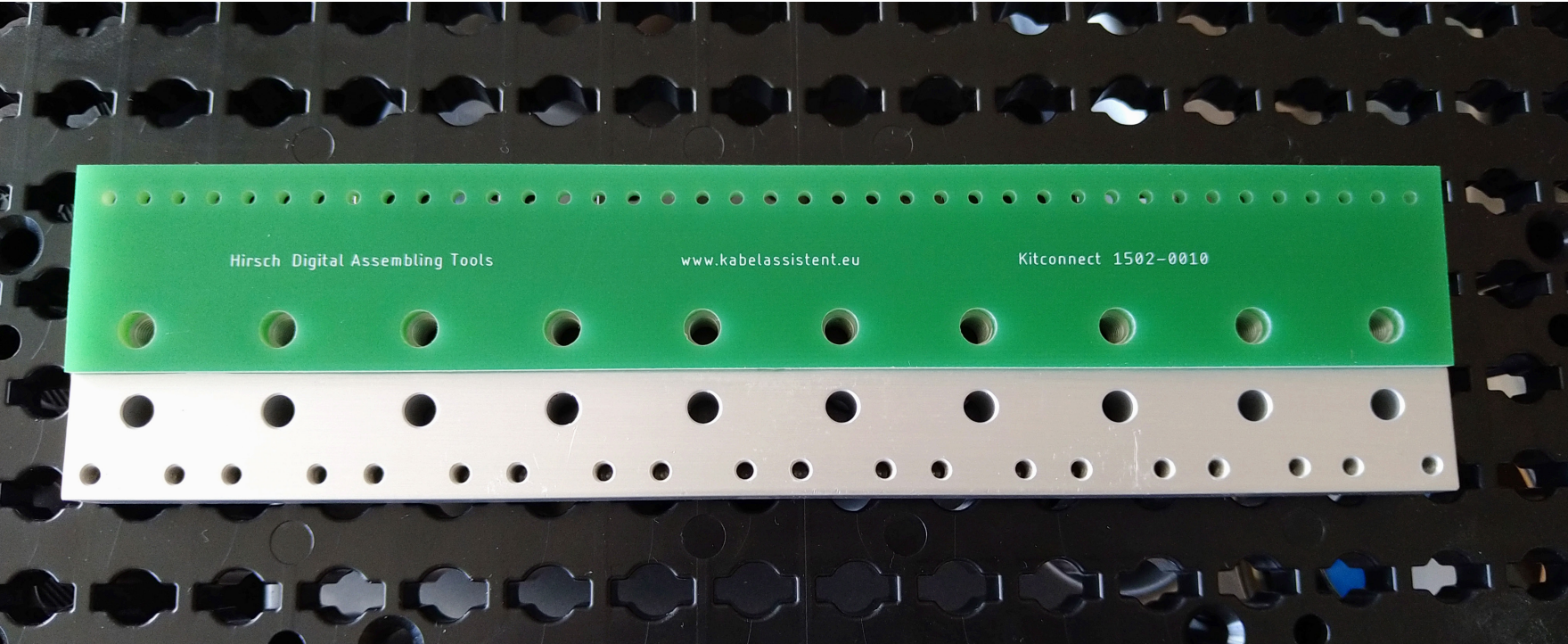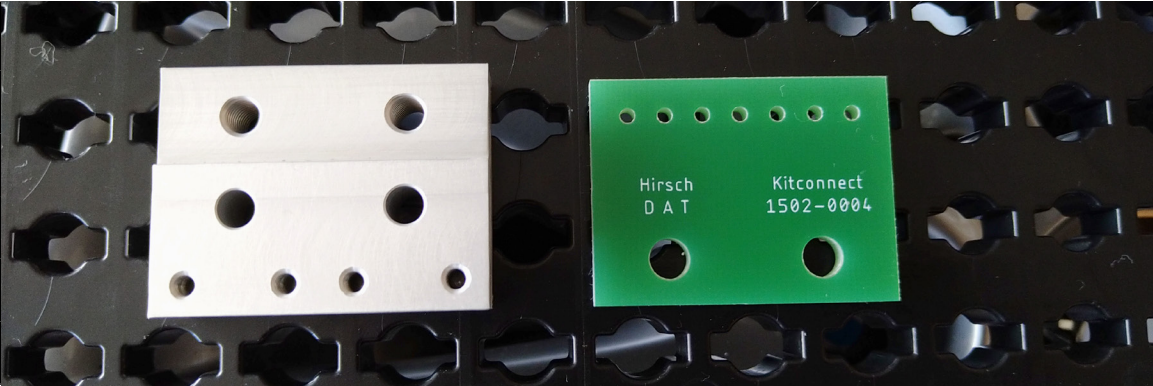
Mounting plates are available in lengths of 20 mm, 40 mm, 60 mm, 100 mm, and 200 mm. Depending on the task, you can choose a base rail that is shorter or longer than the mounting plate.

Mounting plates, material: GRP, thickness: 3.2 mm

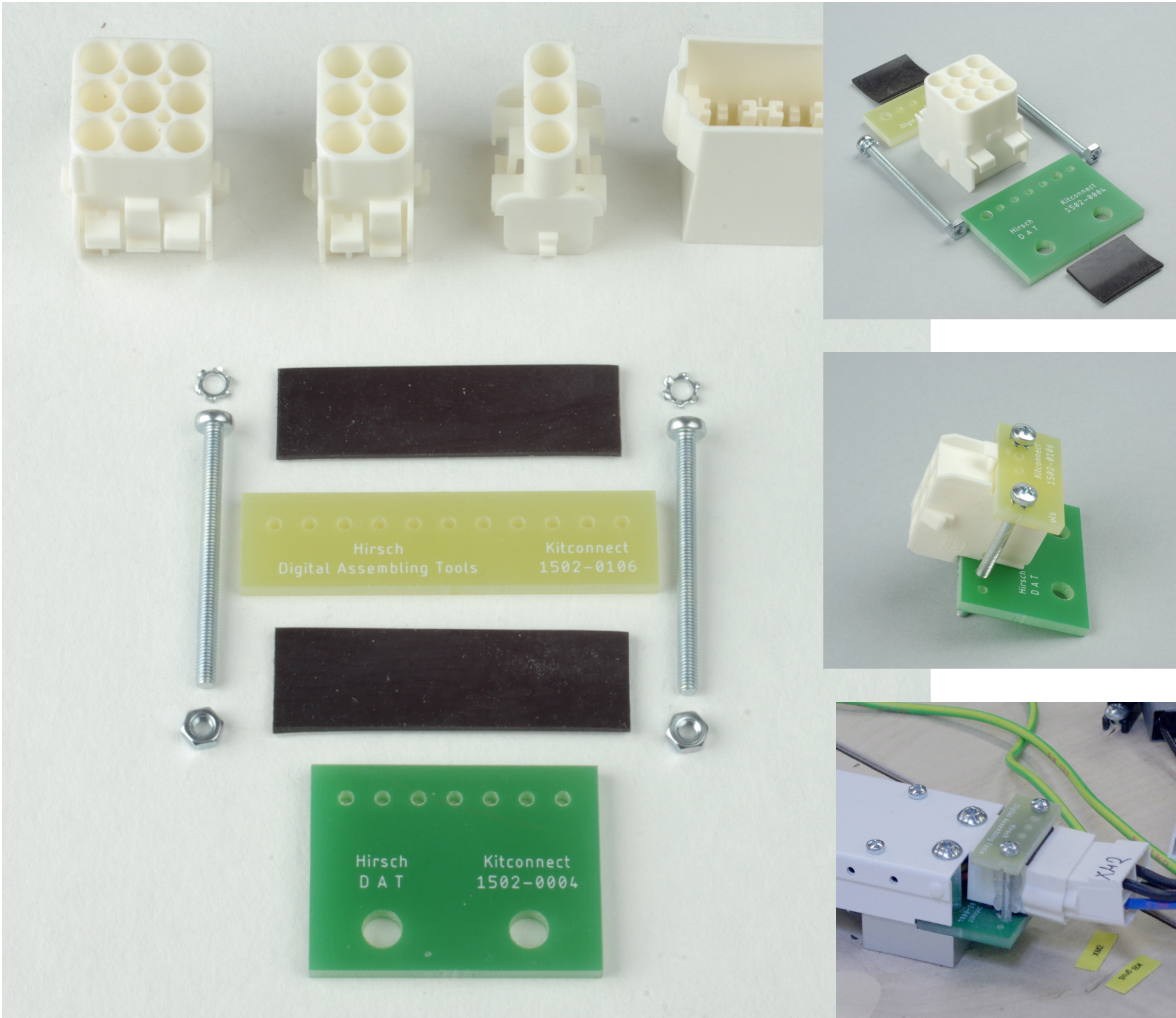| Item	Length
1502-0002	20 mm
1502-0004	40 mm
1502-0006	60 mm
1502-0010	100 mm
1502-0020	200 mm

Universal Mounting Kit

The universal mounting kit allows you to quickly attach many types of mating connectors, especially those with rectangular housings, to the mounting plate. The kit consists of a pre-punched pressure plate and two M3 clamping screws.

You can either secure the housing with the rubber strips provided or glue the clamped housing in place. We supply a two-component adhesive that adheres well to polyamide in a practical double cartridge..
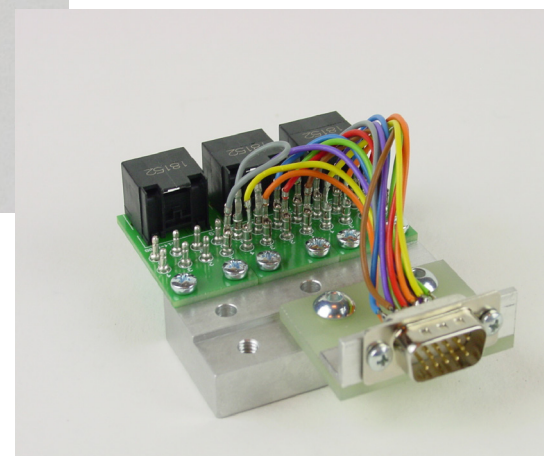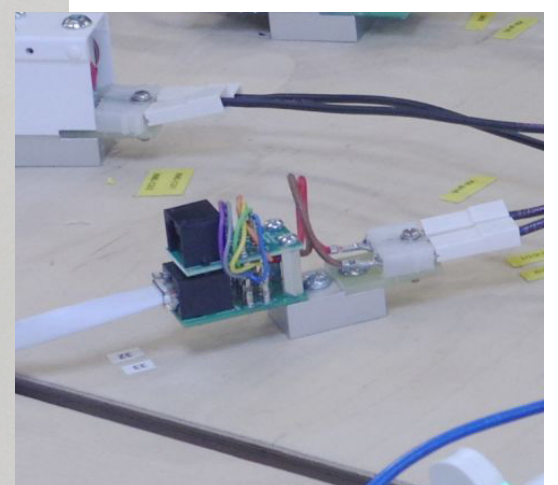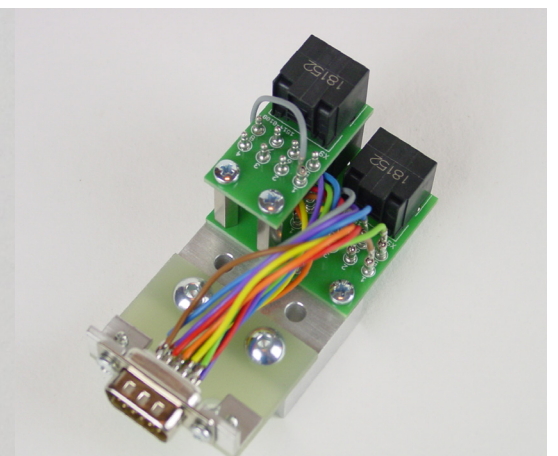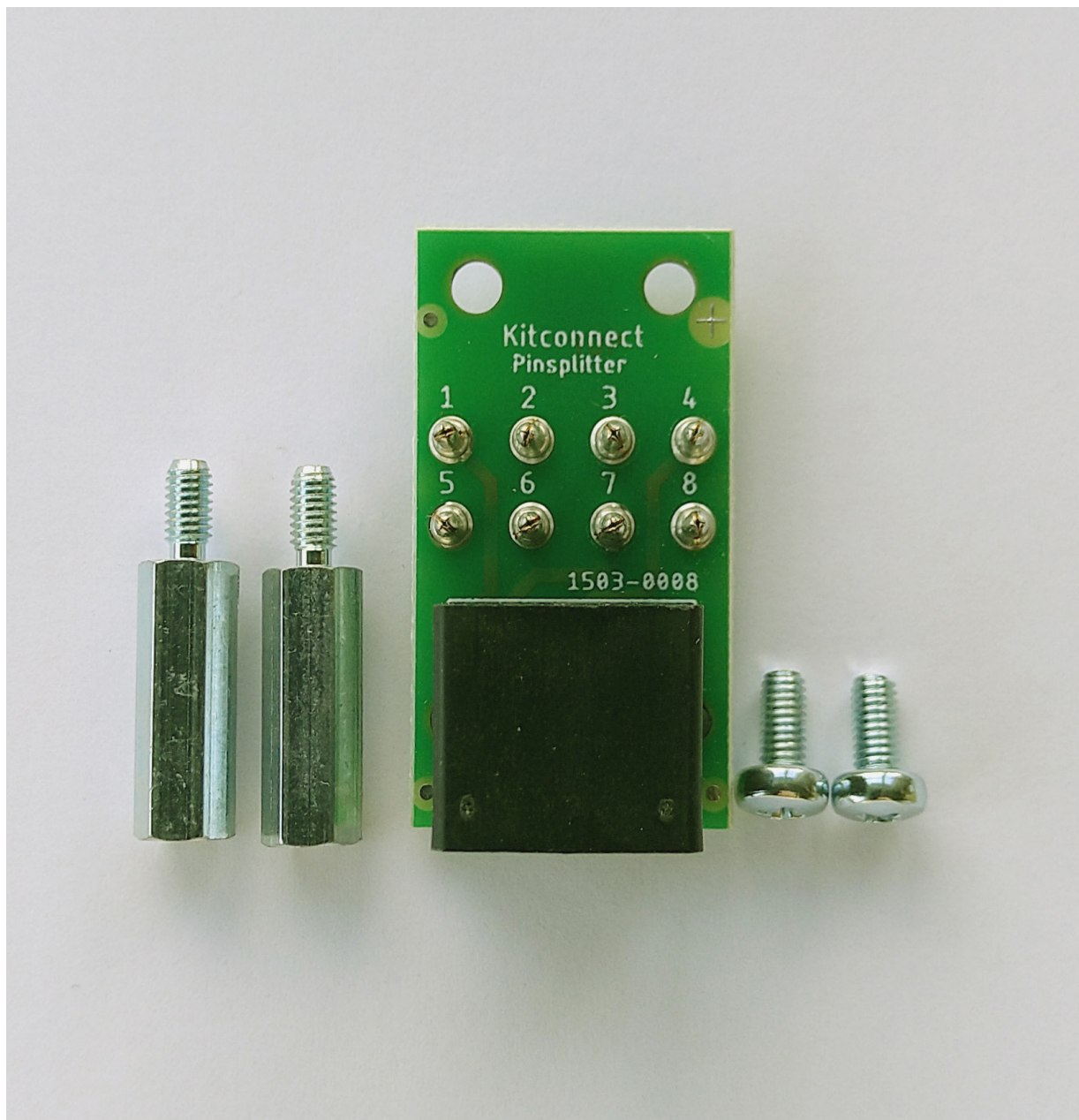

Item	Universal mounting kit
1501-0002	Universal mounting kit 60 mm

Pinsplitter

The pin splitter is a compact mini connection module that you connect to the measurement technology on one side using the RJ 45 socket. The other side has 8 contact pins that you can use to connect the measurement channels at the connection point or to route the unused measurement channels to an output socket. The width of 20 mm corresponds to the grid of the base rails.

The scope of delivery includes both screws and spacer bolts. If you screw the pin splitter to the base rail using the spacer bolts, you can screw another pin splitter or a cover over it. Thanks to the 20 mm grid and the spacer bolts, you can screw pin splitters onto a base rail in any arrangement and in large numbers.
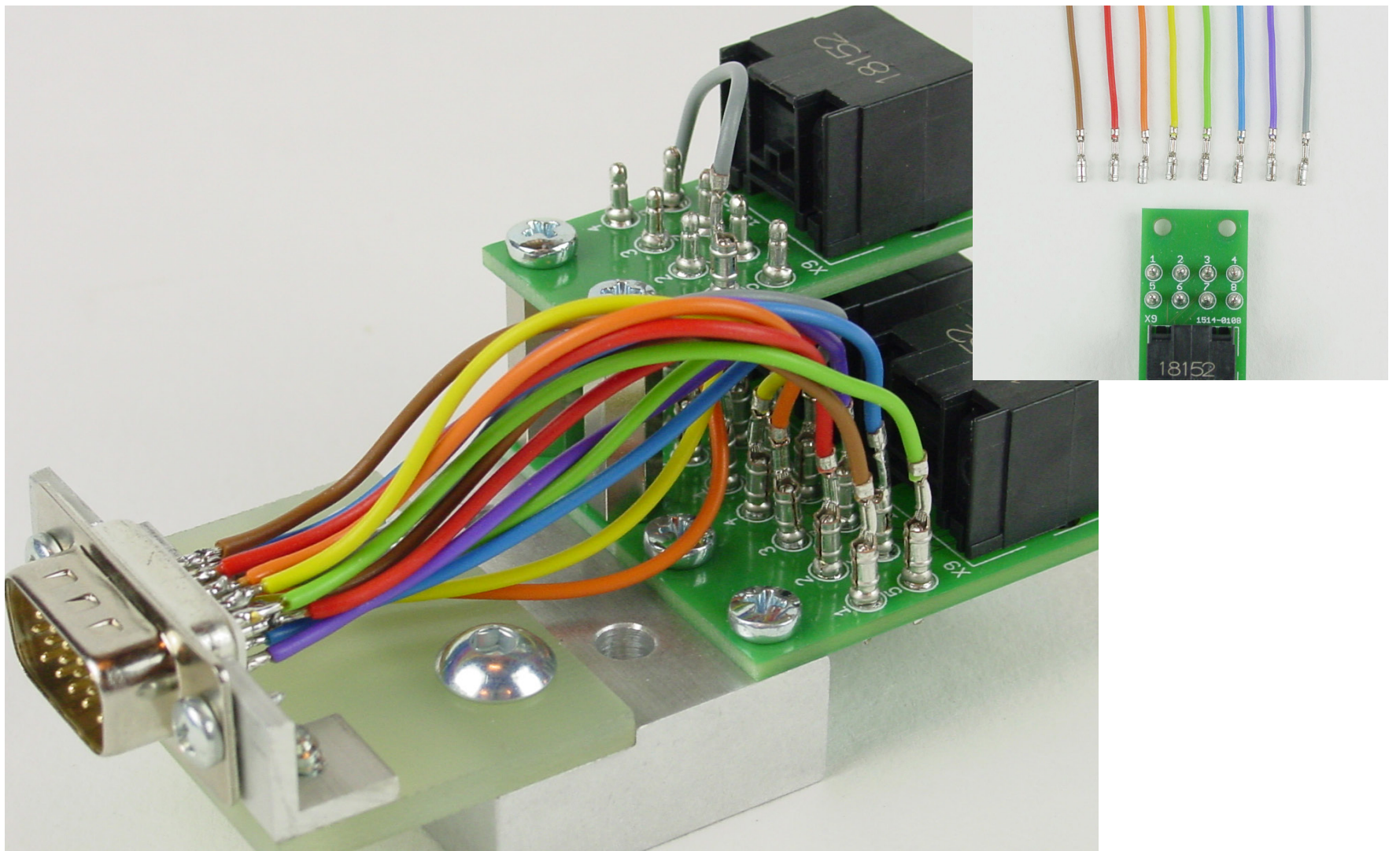

Item	8-pin pin splitter
1503-0008	RJ 45 input, single pin output, 8-pin, 2 spacer bolts, 2 screws.

Pigtails

Pigtails are prefabricated connection strands. They have a plug sleeve on one side for the contact pins on the pin splitter and an open end on the other side. All you need to do is crimp the contacts of the mating connectors or connect another suitable connection point.

We supply the pigtails in the colors brown, red, orange, yellow, green, blue, purple, and gray. In line with the color code numbers used for resistors, the colors allow you to keep track of pin numbers and measurement channel numbers.

The easiest way to establish the connection to the mating connector is to match the colors of the pigtails to the pin numbers on the pin splitter. The colors are the same as the color codes on resistors.
If you connect the contacts of the mating connector according to their pin numbers in this figure-eight sequence, you can see at a glance which

pin number is wired to which measurement channel. In addition, you can connect the mating connector to the pin splitter without errors and in a minimum amount of time.
This is particularly practical if you need to reassemble a measurement adapter from a mating connector that has been in storage for a long time.

For crimping contacts of various sizes, we supply pigtails with cross-sections of 0.25 sqmm and 0.75 sqmm.

Pigtailsätze, einseitig Steckhülse für Pinsplitter, Länge 110mm

Item	Cross-section	Number	Color
1505-0802	0.25 sq mm	8	8 colors
1505-1012	0.25 sq mm	10	brown
1505-1022	0.25 sq mm	10	red
1505-1032	0.25 sq mm	10	orange
1505-1042	0.25 sq mm	10	yellow
1505-1052	0.25 sq mm	10	green
1505-1062	0.25 sq mm	10	blue
1505-1072	0.25 sq mm	10	purple
1505-1082	0.25 sq mm	10	gray
1505-0807	0.75 sq mm	8	8 colors
1505-1017	0.75 sq mm	10	brown
1505-1027	0.75 sq mm	10	red
1505-1037	0.75 sq mm	10	orange
1505-1047	0.75 sq mm	10	yellow
1505-1057	0.75 sq mm	10	green
1505-1067	0.75 sq mm	10	blue
1505-1077	0.75 sq mm	10	purple
1505-1087	0.75 sq mm	10	gray

1		brown
2		red
3		orange
4		yellow
5		green
6		blue
7		purple
8		gray

Patch Connectors

The patch connectors allow you to route unused measurement channels from the 8-pin connector to an output pin splitter. The first unused measurement channel is always connected to pin 1 of the output connector. This means that the remaining measurement channels are available again from pin 1 for the next adapter. We supply the patch connectors in the colors red, orange, yellow, green, blue, purple, and gray.

Connector, double-sided plug sleeves for pin splitters, length 60 mm

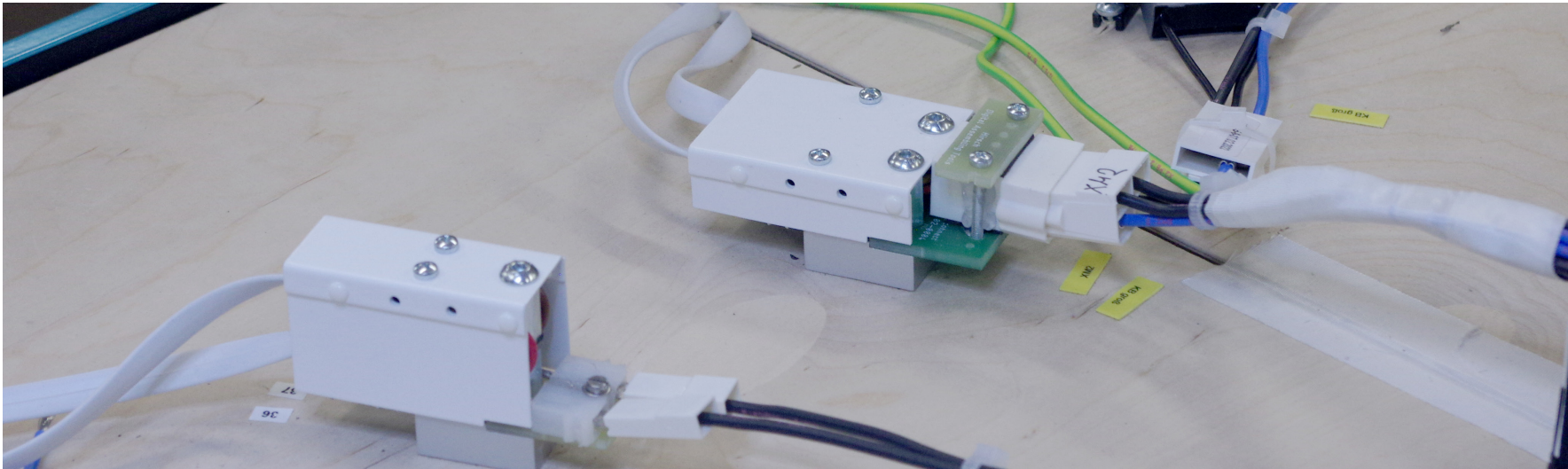| Item	Cross-section	Number	Color
1504-0700	0.25 sq mm	7	7 colors
1504-1020	0.25 sq mm	10	red
1504-1030	0.25 sq mm	10	orange
1504-1040	0.25 sq mm	10	yellow
1504-1050	0.25 sq mm	10	green
1504-1060	0.25 sq mm	10	blue
1504-1070	0.25 sq mm	10	purple
1504-1080	0.25 sq mm	10	gray

Cover

To prevent employees from being distracted by the adapter's pigtails and patch connectors during laying work, close the adapter with a cover. The covers are made of powder-coated sheet steel. They are an ideal adhesive surface for magnetic labels. The covers consist of two separate parts: the top part and a set of side parts. The top parts are available in widths for one, two, or three pin splitters.

The side parts are available in heights for one, two, or three pin splitters stacked on top of each other.

The side panels can be attached without tools by pressing in two expansion rivets on each side. This allows you to assemble covers for any arrangement of pin splitters in no time at all using just a few parts.

We also supply one-piece covers for two pin splitters side by side or two pin splitters one above the other.

All cover parts come with the spacer bolts and washers you need for screw mounting.

Cover, matt white sheet steel

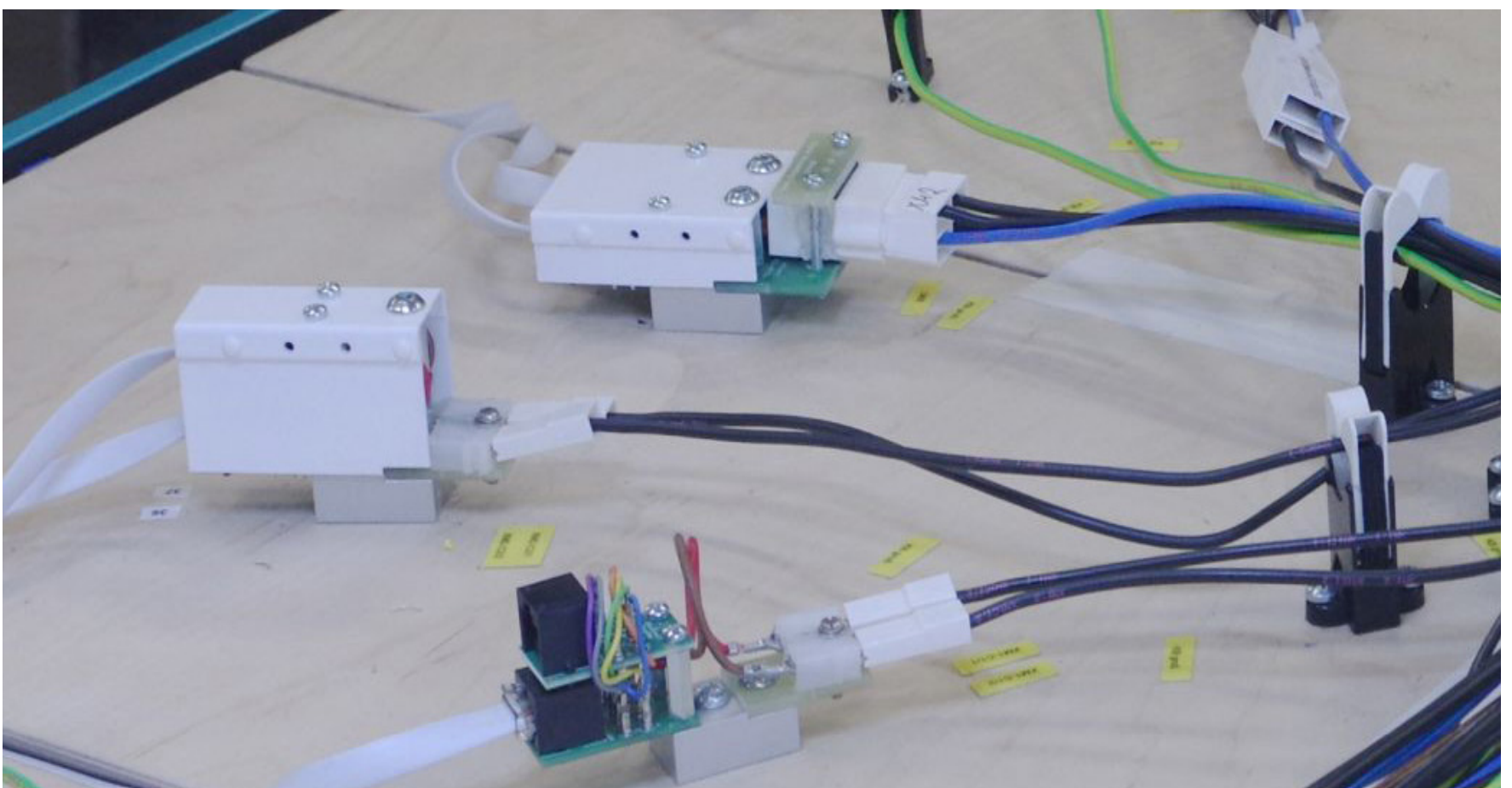| Item	Cover
1522-0012	Cover 1 x 2, width 20 mm, height 35 mm, suitable for two pin splitters stacked on top of each other
1522-0021	Cover 2 x 1, width 40 mm, height 17.5 mm, suitable for two pin splitters side by side
1522-0001	Side panel, 1-story, height 16.5 mm for one floor Pin splitter
1522-0002	Side panel, 2-tier, height 34 mm, for two tiers Pin splitter
1522-0003	Side panel, 3-tier, height 51.5 mm for three tiers of pin splitters
1522-0010	Upper cover 1, width 20 mm, suitable for a pin splitter
1522-0020	Upper cover 2, width 40 mm, suitable for two pin splitters
1522-0030	Upper cover 3, width 60 mm, suitable for three pin splitters

Construction Kit for measuring adapters on the assembly board

By using standardized individual parts, you benefit from high recyclability. If you no longer need an adapter, you can disassemble it in minutes. Base rails, pin splitters, patch connectors, and the cover parts can be reused for building new adapters.

What remains is the mounting plate with the glued or screwed mating connector, the crimped pigtails, and possibly the appropriately cut universal mounting kit. These leftovers can be stored with minimal space requirements. If you unexpectedly need the mating connector again, you can quickly reassemble it into an adapter.

For initial trials with Kitkonnect, we offer a small starter kit consisting of two 20 mm base rails and two 40 mm base rails with all the parts needed to build four small adapters. There is a combined starter kit with a selection of Panduit parts plus a selection of Kitconnect parts. If you want to lay simple wire harnesses without measuring, we offer a pure Quick-Build and laying board accessory starter kit consisting of Panduit parts. Its contents correspond to the Panduit starter kit, but without grid plates.

Contents

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