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04 OCT 2002

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- 1 -

10 **Housing for installing terminal blocks for
telecommunications and data engineering**

15 The innovation relates to a housing for
installing terminal blocks for telecommunications and
data engineering, having at least two parallel shaped
rods for latching on the terminal blocks and having
mounting elements for mounting the shaped rods in the
20 housing.

 A housing of this generic type has already been
disclosed by DE 197 46 117 C1. The previously known
housing is integrally molded from plastic and has
receptacles in the form of circular arcs in the top
25 housing wall, extending at right angles to the housing
rear wall, for mounting shaped rods designed as round
rods. In addition, as a receptacle for the bottom ends
of the two parallel round rods, a metal crosspiece is
screwed to raised portions of the rear wall of the
30 plastic housing. A disadvantage of this is that,
firstly, complex molds which simultaneously contain the
mounting openings in the form of circular arcs for the
round metal rods are required for producing the plastic
housing. A further disadvantage is that the metal
35 crosspiece to which the other ends of the shaped rods
are connected needs to be screwed separately to the
raised portions of the rear wall of the plastic
housing. The use of shaped rods in the form of round
rods to hold terminal blocks has additionally already



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been disclosed by DE 37 28 368 C1.

Hence, the innovation is based on the object of improving the housing of this generic type in respect of the disadvantages of previously known housings.

5 To achieve this object, the innovation provides for the housing to have two opposing metal walls and for the mounting elements for the shaped rods to be arranged in the opposing walls. This produces a housing in which the mounting elements for the shaped rods are
10 arranged directly in the opposing walls of the metal housing, which makes production of the mounting elements for the two ends of the shaped rods simple.

 In the preferred embodiment, the shaped rods are designed as round rods and the mounting elements
15 are formed from round openings in the walls and from plastic clips which can latch into the latter and take up the free ends of the round rods. These plastic clips can easily be produced as small plastic injection moldings. The round openings in the walls of the metal
20 housing can be easily produced by punching.

 In the further embodiment, the shaped rods are also round rods but with annular grooves arranged close to their free ends, the mounting elements comprising round openings matched to the internal diameter of the
25 annular grooves and comprising slots, which open into these openings and are designed to be somewhat wider than the diameter of the round rods, in the walls and clamping webs cut free from the slots. This further embodiment requires a somewhat more complicated
30 punching procedure for producing the round openings and the slots with the clamping webs in the walls of the metal housing, and additionally requires annular grooves to be formed in the free ends of the round rods.

35 Further advantageous refinements of the innovation are to be found in the features of the subclaims.

 The innovation is explained in more detail below with the aid of an illustrative embodiment, shown

- 3 -

in the drawings, of a housing for installing terminal blocks for telecommunications and data engineering. In the drawings:

- Figure 1 shows a perspective view of the housing with
5 an open housing door and mounting elements for shaped rods in the first embodiment,
Figure 2 shows an enlarged illustration of the top housing wall with mounting elements in the second embodiment, and
10 Figure 3 shows an enlarged illustration of the top housing wall with mounting elements in the third embodiment.

The housing 1 illustrated in Figure 1 comprises a rear wall 2 with side walls 3, 4 angled off at 90°
15 and top and bottom opposing walls 5, 6 which are connected to the latter and are also made of metal, and there is a free space 17 (shown hatched in Figure 1) between each of the rear edges 7 of the bottom and top walls 5, 6 and the rear wall 2. The entire housing 1 is
20 made of metal, including its rear wall 2, its side walls 3, 4 and the bottom and top opposing walls 5, 6. The side walls 3, 4 are connected to bottom and top opposing walls 5, 6 by means of seams (not shown) which are bevelled from the latter. The front side of the
25 housing 1, which can be closed by a metal door 8, also has bevelled peripheral seams 9 on the two side walls 3, 4 and the bottom and top opposing walls 5, 6. The door 8 is mounted on one side wall 3 via hinges 10.

The housing 1 is used for installing terminal
30 blocks (not shown) for telecommunications and data engineering which can be latched onto two parallel shaped rods in the form of round rods 11, the round rods 11 being mounted in the housing 1 using mounting elements 12. To this end, the two opposing bottom and
35 top metal walls 5, 6 of the housing 1 have round openings 13 as mounting elements 12, formed in the bottom and top opposing walls 5, 6 close to the rear edge 7 at a distance corresponding to the length of the terminal blocks (not shown) to be latched on. To fix

- 4 -

the round rods 11, which are of hollow design in the illustrative embodiment, plastic clips 14 are used which comprise a head 15 and a shaft 16 which is inserted from the outside through the round opening 13 into the interior of the hollow round rod 11, the circular head 15 coming to bear on the outside of the respective bottom or top wall 5, 6. The shaft 16 of the plastic clip 14 is hexagonal in the embodiment and is designed such that said clip can be latched inside the round rod 11. The external diameter of the head 15 of the plastic clip 14 is larger than the diameter of the round opening 13.

In one embodiment (not shown), the plastic clips 14 can also be designed such that their shaft surrounds a solid round rod on the outside.

In the second embodiment, shown in Figure 2, the shaped rods are also round rods 21 and the mounting elements 22 comprise round openings 23 in the walls 5, 6, comprise slots 24, which open into these openings and are designed to be somewhat wider than the diameter of the openings 23, in the walls 5, 6 and clamping webs 25 cut free from the slots. In addition, close to the free ends of the round rods 21, annular grooves 27 are formed whose internal diameter corresponds to the diameter of the round openings 23. For assembly, the free ends 26 of the round rods 21 engage through the slots 24, whose width is somewhat larger than the diameter of the round rods 21, and their annular grooves 27 are pushed into the round openings 23, the clamping webs 25 pressing onto the free ends 26 of the round rods 21.

In the third embodiment, shown in Figure 3, the clamping webs 25 are pushed into the interior of the housing 1, and their free ends 28 engage in the annular grooves 27 in the round rods 21, which are latched into the openings 23.

LIST OF REFERENCE NUMERALS

1	Housing
2	Rear wall
3	Side wall
4	Side wall
5	Bottom wall
6	Top wall
7	Rear edge
8	Door
9	Seam
10	Hinge
11	Round rod
12	Mounting element
13	Opening
14	Plastic clip
15	Head
16	Shaft
17	Free space
21	Round rod
22	Mounting element
23	Opening
24	Slot
25	Clamping web
26	Free end
27	Annular groove
28	Free end

CLAIMS

1. A housing arranged to install and enclose terminal blocks for telecommunications and data engineering, having at least two parallel shaped rods for latching on the terminal blocks and having mounting elements arranged to mount the shaped rods in the housing, wherein the housing (1) has two external opposing metal walls (5,6) and wherein the mounting elements (12) for the shaped rods are arranged in the opposing walls (5,6).
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2. The housing as claimed in claim 1, wherein the shaped rods are designed as round rods (11) and the mounting elements (12) are formed from round openings (13) in the walls (3, 4) and from plastic clips (14) which can latch inside or outside the round rods (11) and take up the free ends thereof.
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3. The housing as claimed in claim 1, wherein the shaped rods are round rods (21) with annular grooves (27) arranged close to their free ends (26), and wherein the mounting elements (22) comprise round openings (23) matched to the internal diameter of the annular grooves (27) and comprise slots (24), which open into these openings and are designed to be somewhat wider than the diameter of the round rods (21), in the walls (5, 6) and clamping webs (25) cut free from the slots (24).
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4. The housing as claimed in claim 3, wherein the annular grooves (27) in the round rods (21) engage in the round openings (23) and the clamping webs (25) press onto the free ends (28) of the round rods (21).
- 5 5. The housing as claimed in claim 3, wherein the annular grooves (27) in the round rods (21) engage in the round openings (23) and the free ends (28) of the clamping webs (25) engage resiliently in the annular grooves (27).