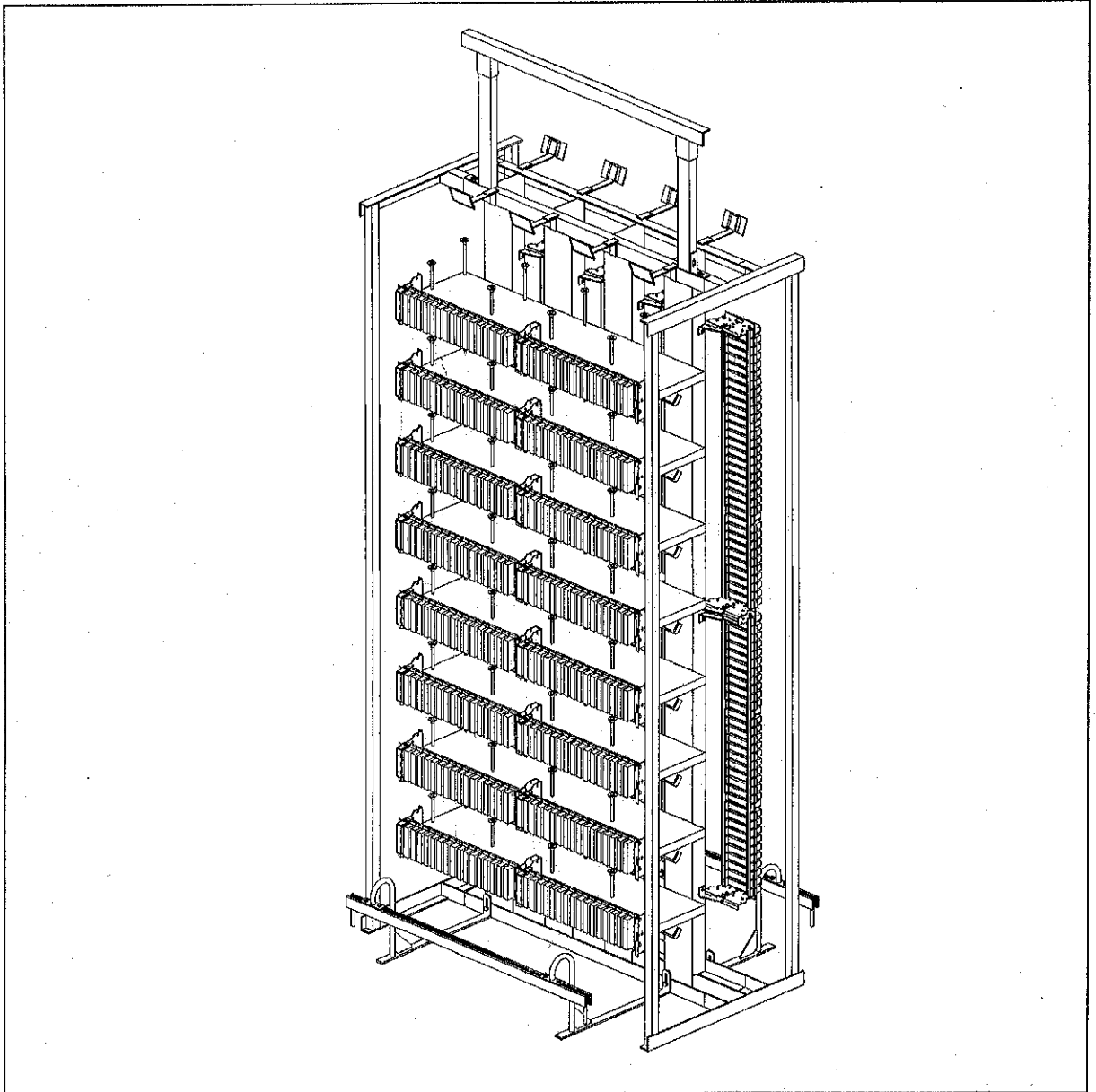
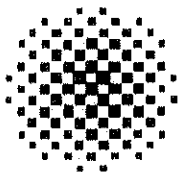


**Main
Distribution Frame
COM 80-2**

Technical Description
of Standalone
Distribution Frames
for LSA PROFIL
Mounting Frames



Standalone Distribution Frame MDF COM 80-2, 4 verticals, 2-sided



KRONE

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1 Introduction

The **MDF COM 80-2** is an optimized continuation of an already existing distributor. Improvement has been with regard to handling and the design of functional components, with the number of individual components and the cost being reduced as well. This optimization characterizes the whole distributor family **MDF COM**.

"COM" stands for:

- **Communication**
- **Compact**
- **Comfortable**

In its dimensioning the **MDF COM 80-2** is compatible with the ETSI guidelines (European Telecommunication Standard Institute).

The conventional organization of an MDF into vertical and horizontal frame sections has been retained.

The long Jumpering runs that used to arise with analog switching facilities can now be avoided, however, thanks to the use of digital switching facilities.

In computer-controlled switching systems (SPC exchanges) the pair coming from the cable network on the subscriber side (also called the line or network side of the MDF) can be jumpered to an arbitrary free port of the digital switching system (the system, exchange or equipment side of the MDF). One simply chooses the free system port lying closest to the subscriber line in the vertical section. By this means jumper runs can be kept short and the total amount of jumpering reduced.

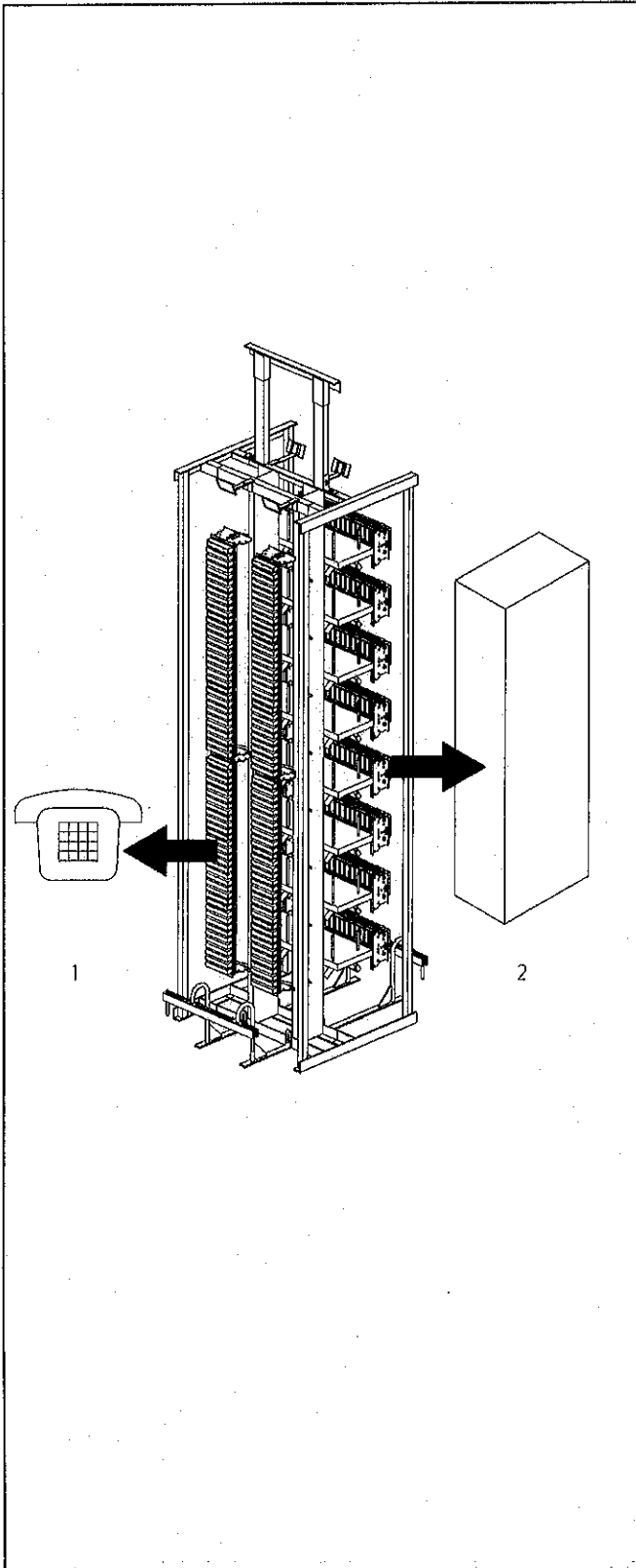
This approach has been adopted and optimized in KRONE's **MDF COM 80-2**, by means of a re-arrangement of the MDF.

The **MDF COM 80-2** still permits the jumpering of all connections. Further, the space required for installing the **MDF COM 80-2** is less than that required by conventional MDF's.

While this lowers costs, the usual functions of a conventional MDF are maintained. These include:

- **separate termination of the cables of the exchange system (system side) and the line network (subscriber side)**
- **disconnection and testing possibilities**
- **over-voltage protection**
- **unrestricted jumpering.**

-
- 1 Line side / cable network (vertical section)
 - 2 System side / switching system (horizontal section)



MDF COM 80-2

2 Functions of the MDF COM 80-2

The MDF is the interface between the cables coming in from all over the local telephone network and the exchange facilities.

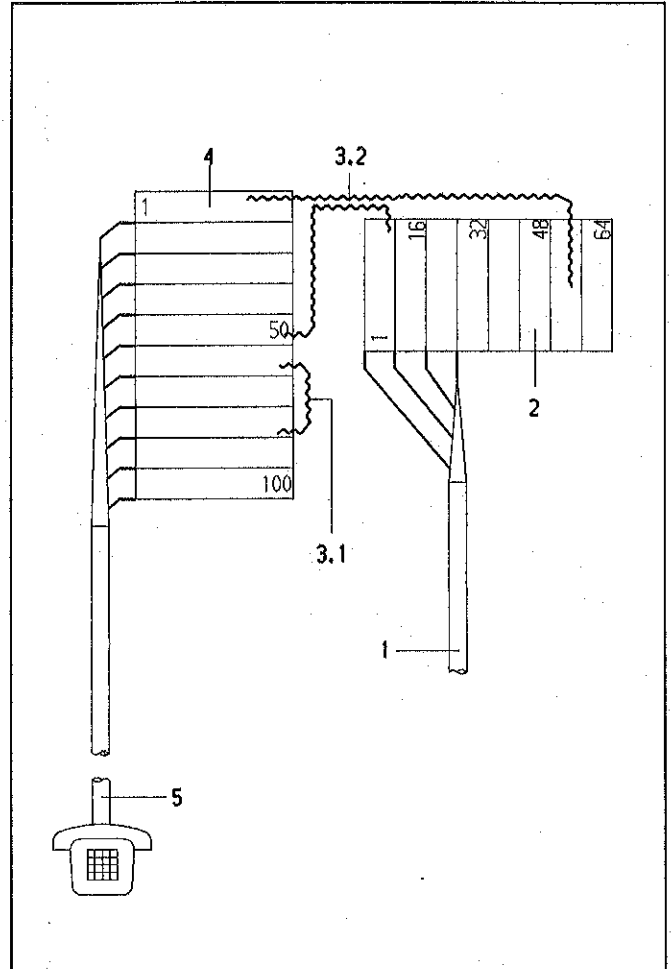
In the **MDF COM 80-2** the system and subscriber sides are located as in conventional MDF's in the horizontal and vertical sections of the frame, respectively.

Connections between the LSA PROFIL modules of the vertical section (subscriber side) and the LSA PROFIL modules of the horizontal section (exchange side) are established by means of jumper wires.

In addition to its sheer interface function, the **MDF COM 80-2** also fulfils other functions.

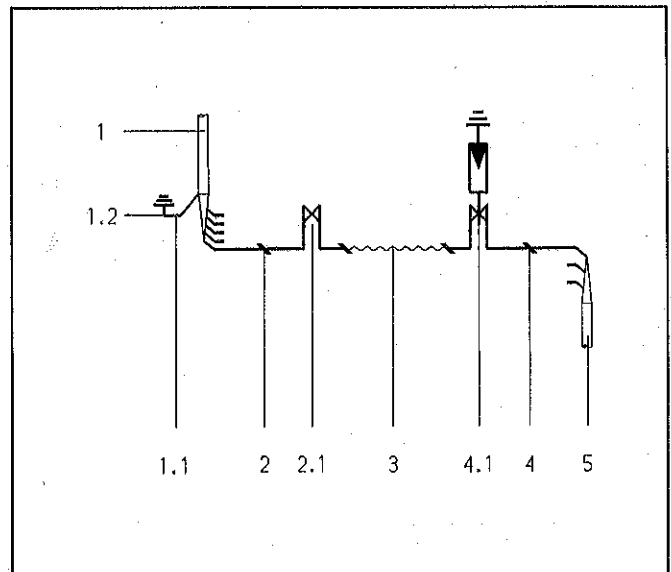
For example, the switching system or the cable network can be tested by isolating individual connections from the switching system by means of disconnection plugs or by connecting them to a testing device.

Further, overvoltage and/or overcurrent protection modules can be integrated into the system in order to limit the damage as much as possible in the event of an electrical disturbance.



Functions of the MDF COM 80-2

- 1 System cable (to the exchange system)
- 1.1 Cable screen
- 1.2 Earth (PCM, for example, if required)
- 2 Connection of the system cable (LSA PROFIL module 2/8)
- 2.1 Testing or disconnection
- 3 Jumper wires (connection subscriber \leftrightarrow system)
- 3.1 Jumper-wire guides, vertical
- 3.2 Jumper-wire guides, horizontal
- 4 Connection of the line cable (LSA PROFIL module 2/10)
- 4.1 Protection module with earth
- 5 Line cable (to subscriber)



Current path in the MDF

3 Conception and Design of the MDF COM 80-2

The **MDF COM 80-2** has been designed to satisfy both current and future needs.

The size of the distributor can be adapted to current requirements and can be planned in anticipation of future changes.

In addition, the **MDF COM 80-2** is compatible with ETSI standards (European Telecommunication Standard Institute).

The main components of the **MDF COM 80-2** are:

- 1 Frame COM 80
- 1.1 Vertical unit
- 1.2 Horizontal unit
- 2 Identification plate holder
- 3 Fixed profile frame F10 (vertical section)
- 4 Fixed profile frame F8 (horizontal section)
- 5 Jumper-wire guides (vertical section)
- 6 Jumper-wire guides (horizontal section)
- 7 Cable-fixing bar
- 8 Ceiling fixing kit

The design of the **MDF COM 80-2** with structured jumper-wire routing makes access to the system and subscriber cables possible at any time.

In addition, the employment of the LSA PROFIL technology supports ease of handling of the connection units.

All the models of the **MDF COM 80-2** are based upon the following two basic units:

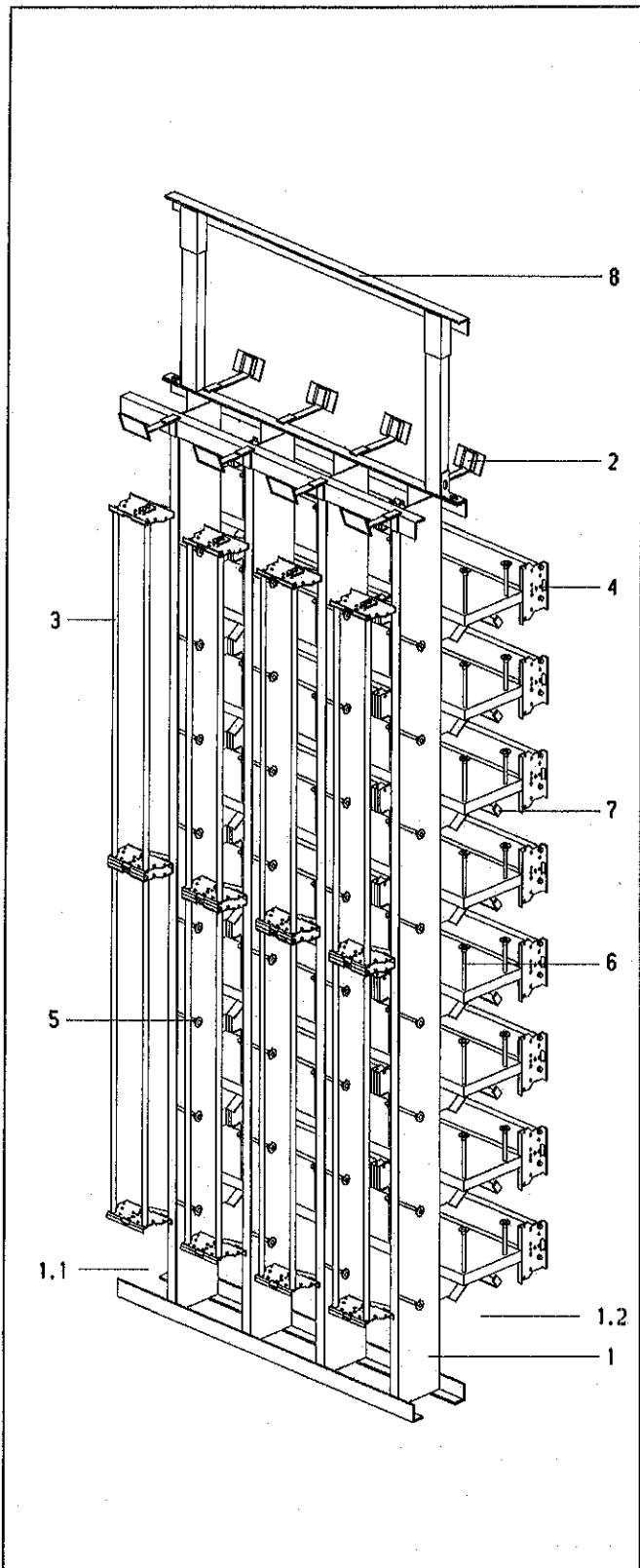
MDF COM 80-2, 2 verticals, 2-sided

Order No.: 6971 1 024-00

MDF COM 80-2, 4 verticals, 2 sided

Order No.: 6971 1 025-00

The distributor can be expanded by various accessories from the MDF COM program.



Components of the MDF COM 80-2

Please note:

The **MDF COM 80-2** can only be set up as a standalone, two-sided distributor.

Further information about MDF accessories is contained in the Mounting Instructions included with the **MDF COM 80-2**.

- 3.1 Basic frame COM 80-2
- 3.2 Ceiling fixing kit

3.1 Basic frame COM 80

The basic frame COM 80 is the supporting structure of the **MDF COM 80-2**.

It consists of:

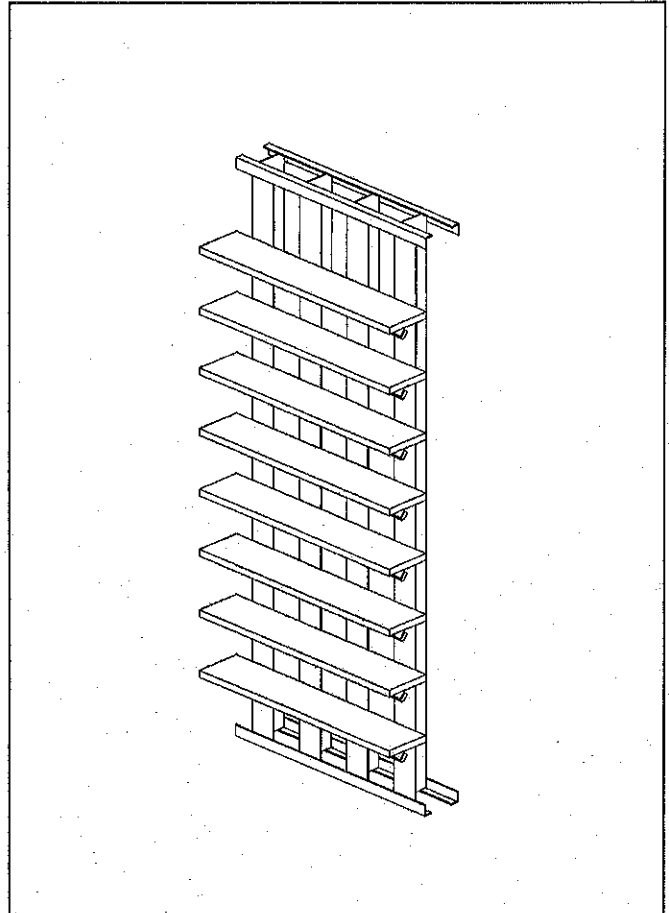
- L-plates
- Angle Irons
- Supporting brackets
- Jumper-wire shelves
- Cable-fixing bars
- Fixing materials

The supplied fixing material is used to set up the two-sided, standalone distributor, which is then screwed to a solid bare floor.

A supplied kit is used to fix the frame to the ceiling.

For mounting the MDF, L-plates and angle Irons are screwed together and fixed to the bare floor at the requisite locations in the distributor room. Then the supporting brackets for the Jumper-wire shelves. The Jumper-wire shelves themselves and the cable-fixing bars for the horizontal levels are installed.

This is followed by installation of the fixed profile frames, the parts serving to guide the horizontal and vertical jumper-wires, as well as the vertical identification and the cable-fixing components, etc., into the basic frame.

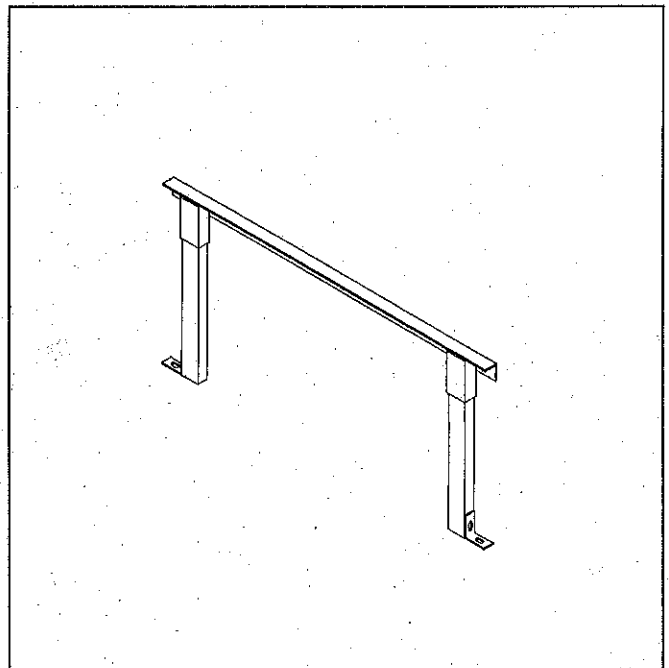


3.2 Ceiling fixing kit

A kit for fixing the distributor to a solid, adequately supportive ceiling is supplied with the **MDF COM 80-2**.

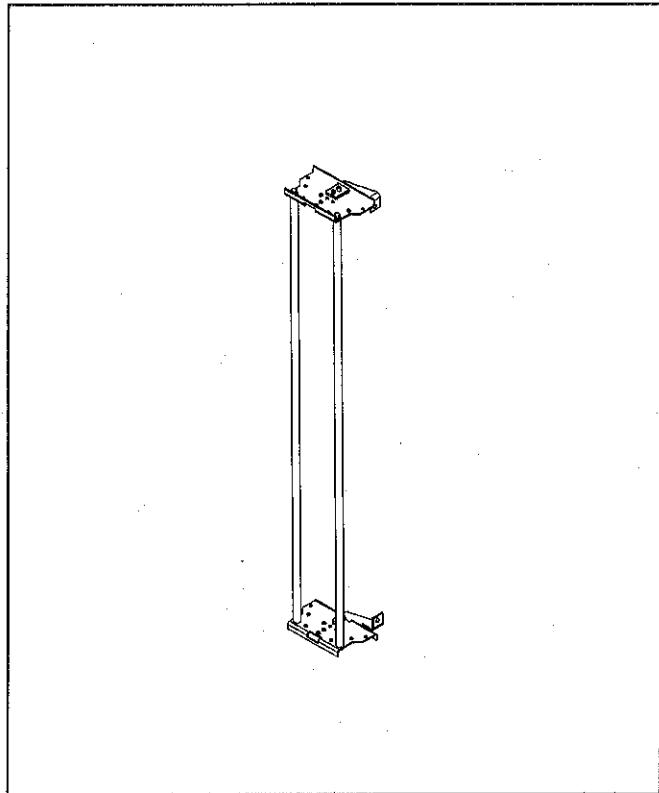
The adjustable tubular steel construction permits a height adjustment up to a maximum of 3220 mm.

The ceiling adjustment tubes are screwed with angle brackets to one of the upper angle Irons of the frame. The long square steel tubes are then cut to the length required for the height of the room and are connected with the ceiling bar by means of the short steel tubes.



3.3 Fixed profile frame F10

3.4 Fixed profile frame F8



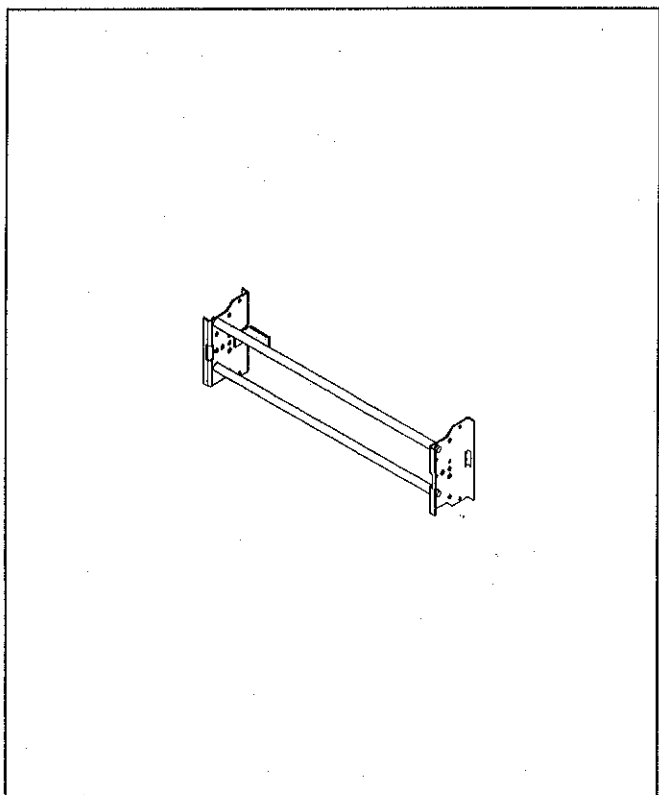
3.3 Fixed profile frame F10

The fixed profile frame F10 for LSA-PROFIL modules is usually set up in the horizontal section (line or subscriber side) of the distributor. Various types of LSA PROFIL modules can be snapped onto it (see KRONE catalogue), with the usual component being the LSA PROFIL module 2/10 for 10 pairs.

The maximum capacity of the fixed profile frame F10, given the normal subscriber cable, is 300 pairs (30 LSA PROFIL modules with 10 pairs each and 3 LSA PROFIL label holders 2/10).

The freely accessible cable area behind the fixed profile frame F10 permits an easy change or expansion of both the system and the subscriber cables whenever necessary.

When required, the fixed profile frame F10, which has a 95 mm distance between the profile rails, can be adapted to a fixed profile frame F8, which has a 75 mm distance between the profile rails, to accommodate LSA PROFIL modules 2/8 for 8 pairs.



3.4 Fixed profile frame F8

The fixed profile frame F8 for LSA-PROFIL modules is usually set up in the vertical section (system side) of the distributor. Various types of LSA PROFIL modules can be snapped onto it (see KRONE catalogue), with the usual component being the LSA PROFIL module 2/8 for 8 pairs.

The maximum capacity of the fixed profile frame F8, given the normal system cable, is 128 pairs (16 LSA PROFIL modules with 8 pairs each and 1 LSA PROFIL label holder 2/8).

The freely accessible cable area behind the fixed profile frame F8 permits an easy change or expansion of the system cables whenever necessary, as well as the connection of jumper-wires in the horizontal planes without fanning guides.

When required, the fixed profile frame F8, which has a 75 mm distance between the profile rails, can be adapted to a fixed profile frame F10, which has a 95 mm distance between the profile rails, to accommodate LSA PROFIL modules 2/10 for 10 pairs.

- 3.5 Cable-fixing bar, horizontal
- 3.6 Jumper-wire routing, vertical
- 3.7 Jumper-wire routing, horizontal
- 3.8 Identification label holder

3.5 Cable-fixing bar, horizontal

The cable-fixing bar, which is located below the jumper-wire shelves in the horizontal section of the **MDF COM 80-2**, is used for fixing the cable bundles of the system cable in an orderly manner, after the sheathing has been removed. The wires are then distributed onto the individual LSA PROFIL modules, where they are connected.

The galvanic surface can then be easily connected as needed for earthing or shielding employing suitable fixing materials.

If distributors are attached each other side-by-side the cable-fixing bars on every horizontal level are, in addition, screwed together.

3.6 Jumper-wire routing, vertical

The jumper-wire routing devices for the vertical section are individual jumper pins that are inserted into the L-plate and fixed with nuts.

They serve for guiding the jumper wires and for maintaining their orderly arrangement within a frame vertical. The jumper pins are designed to permit a 100% jumpering of the maximal frame vertical capacity of 600 pairs.

3.7 Jumper-wire routing, horizontal

The jumper-wire guides for the horizontal frame section consist of long and short jumper pins which are inserted into the horizontal jumper-wire shelves and fixed with nuts.

The longer jumper pins are mounted in the rear area between the angle plates of the vertical frame section; they serve to lead the jumper wires from the vertical rows into the horizontal jumpering levels.

The shorter jumper pins are attached to the front edge of the jumper-wire shelves sheets to guide the jumper-wires from the horizontal jumper levels to the modules.

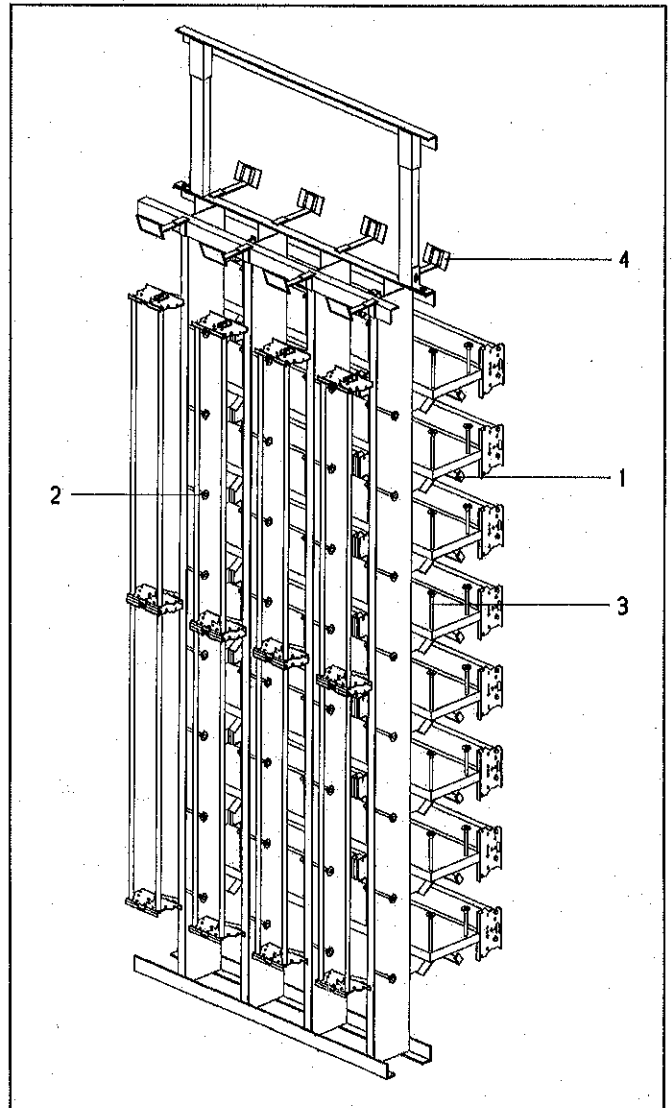
For distributors that are attached to each other an average of up to 1500 jumper wire pairs (with a diameter of 0.9 mm) can be routed onto each of the 8 horizontal levels, yielding a total of appr. 12,000 pairs.

3.8 Identification label holder

By means of the identification plate the individual verticals and bays of the **MDF COM 80-2** can be identified so that the system and line cables can be clearly assigned.

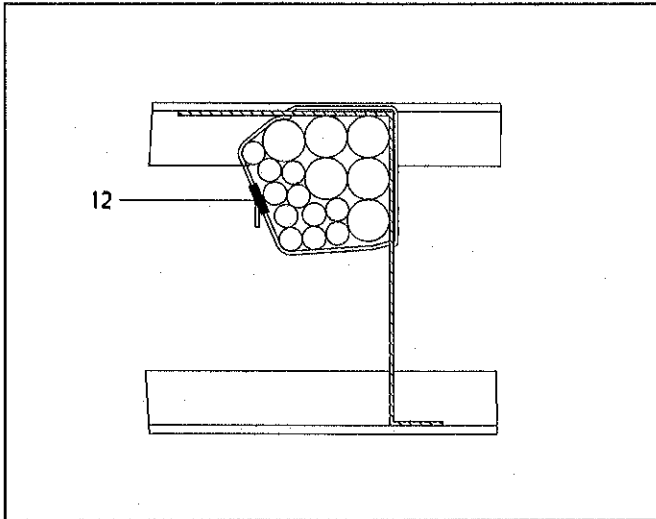
The exchangeable label can be inscribed by hand or printer.

- 1 Cable-fixing bar, horizontal
- 2 Jumper-wire guide, vertical
- 3 Jumper-wire guide, horizontal
- 4 Identification label holder



3.9 Fixing of the cables

3.10 Cable feed-in

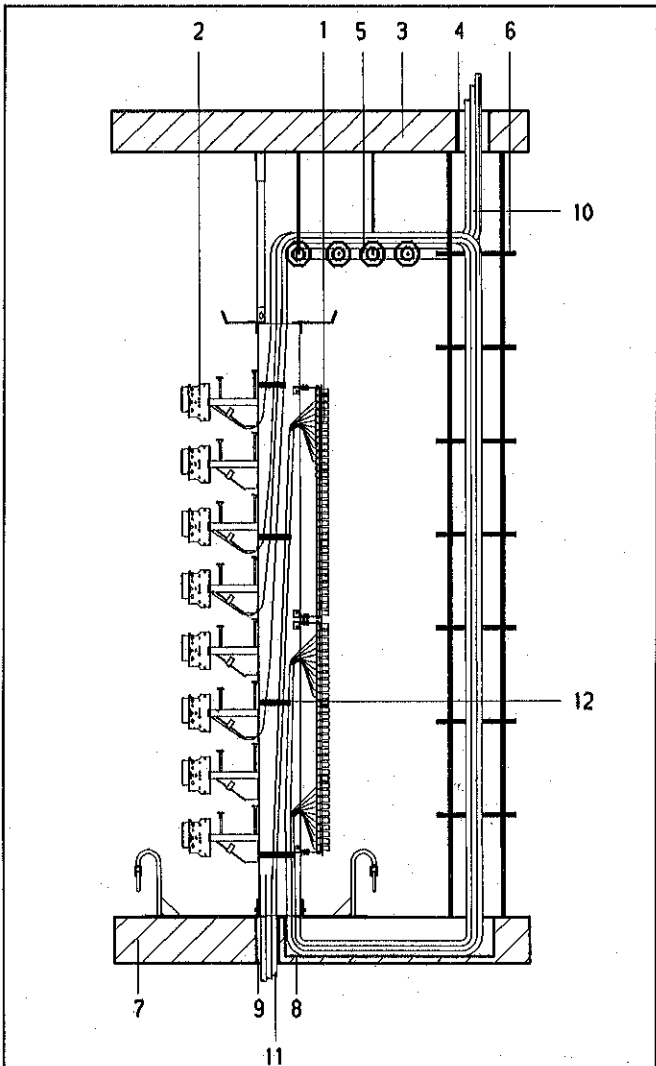


3.9 Fixing of the cables

Included among the components for the MDF COM 80-2 is a cable-fixing set, which is used for fixing the cables during installation. This facilitates fixing the cables by section.

The cable belts are passed through the L-plates as described in the installation instructions, the cables are laid into the belts and the belts drawn tight by means of the buckle. To add more cables one simply opens the buckle, lays the new cables into the belt and closes the buckle again.

There is no more time-consuming stitching of the cables together or inconvenient work with cable ties.



3.10 Cable feed-in

In the MDF COM 80-2 the cables can be fed in from above, below or from both directions.

If the cables are fed in from above certain additional measures are necessary.

A ceiling or frame cable tray must be installed or installable, to ensure a direct feed-in to the vertical or horizontal frame section that is to be equipped and which can further accommodate any excess lengths that might arise with preconfigured cables. Further, the cables must be laid in such a way that they have some slack.

The working area between the fixed profile frames of the vertical and horizontal sections is large enough to permit comfortable working.

- 1 Frame (vertical section)
- 2 Frame (horizontal section)
- 3 Ceiling
- 4 Hole through the ceiling
- 5 Ceiling cable tray and / or frame cable tray
- 6 Cable ladder
- 7 Solid floor and / or
- 8 Computer flooring or floor conduit
- 9 Hole through the floor
- 10 Cable feed-in from above
- 11 Cable feed-in from below
- 12 Cable belt

3.10.1 Cable feed-in from "below"

If the system or the line cables come from "below" the fixing levels for the cables are defined as described in the Mounting and Installation Instructions included with the **MDF COM 80-2**.

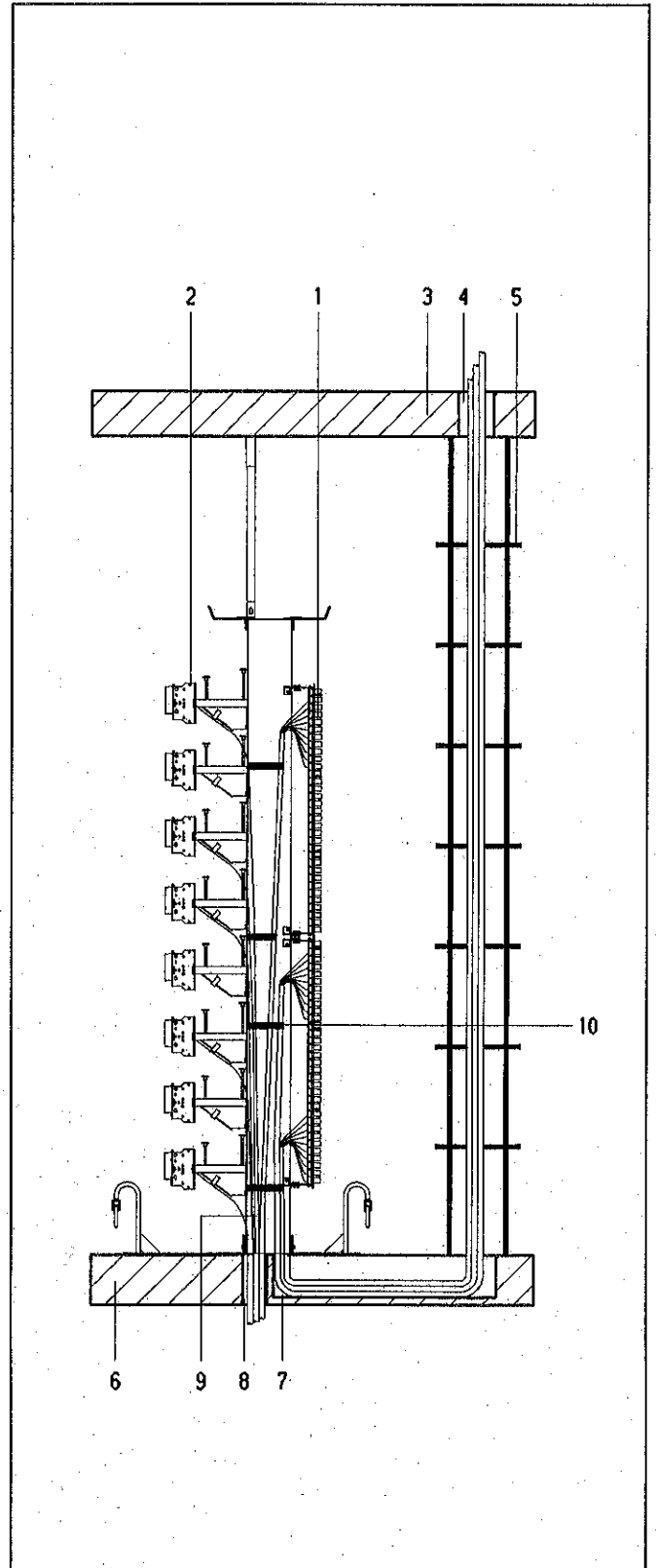
There are four fixing levels for each vertical distributor row. The cables are laid in such a way that those cables that are to reach the upper fixed profile frames in the vertical (system cables) or horizontal (line cables) frame section are led along the rear of the L-plate. The front cable routing area of the L-plate is employed for the cables being led to the lower fixed profile frames.

Holes in the floor, computer flooring or floor conduits can be used to lead in the cables from "below".

Cables that come from "above" can be led down to the floor over a cable ladder and then fed into the MDF.

Both line and system cables are guided up the vertical frame section along the left side of L-plates.

Depending on the size and type of the cables further cable belts can be attached to the **MDF COM 80-2** as required.



- 1 Frame (vertical section)
- 2 Frame (horizontal section)
- 3 Ceiling
- 4 Hole through the ceiling
- 5 Cable ladder
- 6 Solid floor
and / or
- 7 Computer flooring or floor conduit
- 8 Hole through the floor
- 9 Cable being led up the left side of the L-plate
- 10 Cable belt

3.10.2 Cable feed-in from "above"

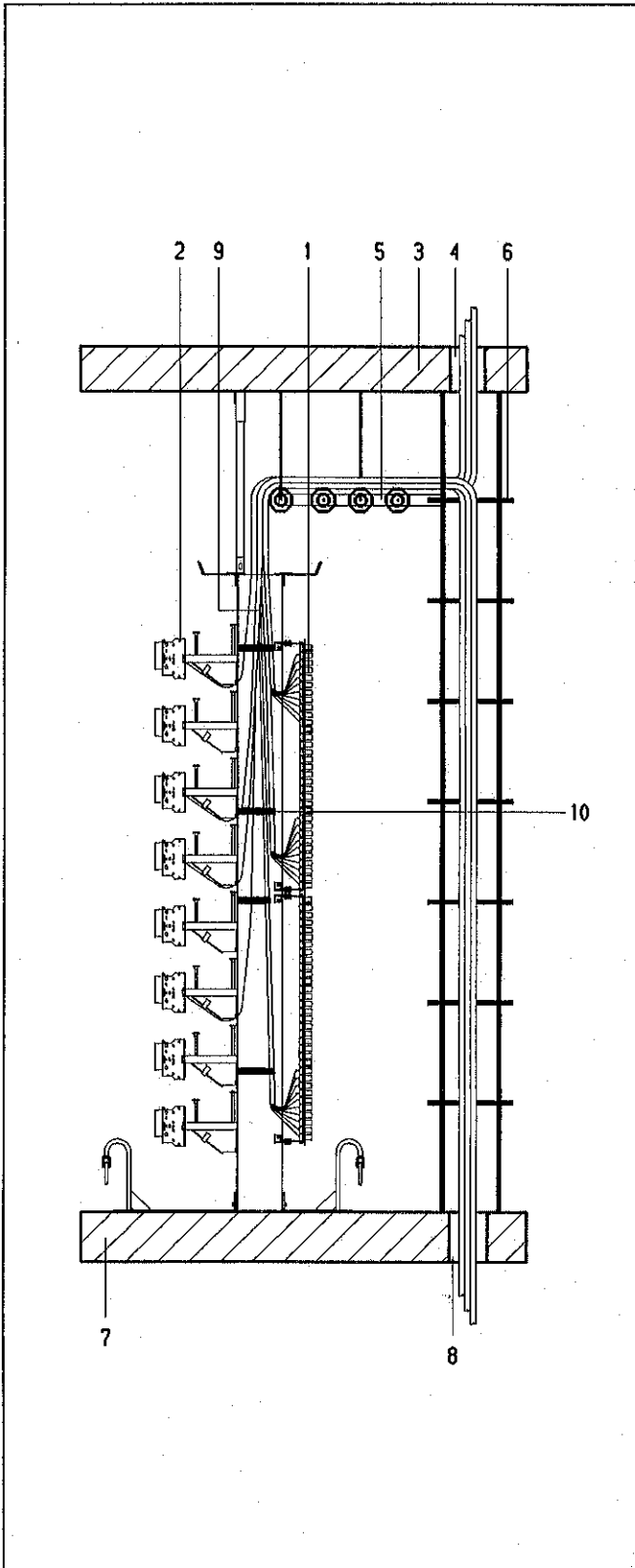
If the system or the line cables come from "above" the fixing levels for the cables are defined as described in the Included Mounting and Installation Instructions for the **MDF COM 80-2**.

There are four fixing levels for each vertical distributor row. The cables are laid in such a way that those cables that are to reach the lower fixed profile frames in the vertical (system cables) or horizontal (line cables) frame section are led along the rear of the L-plate. The front cable routing area of the L-plate is employed for the cables being led to the upper fixed profile frames.

The cable feed-in from "above" can be over holes through the ceiling or cable trays fixed to the ceiling or to the distributor frame.

Cables that come from "below" can be led upwards over a cable ladder to the ceiling or frame cable tray and from there into the distributor.

Both line and system cables are led down the vertical frame section along the left side of the L-plates. Depending on the size and type of the cables further cable belts can be attached to the **MDF COM 80-2** as required.



Please note:

If there is no ceiling cable tray an orderly feed-in of the cables can be achieved by attaching a cable tray to the ceiling supports of the **MDF COM 80-2**.

The cable tray also serves to accommodate the excess lengths of the various cables, which are sometimes necessary.

- 1 Frame (vertical section)
- 2 Frame (horizontal section)
- 3 Ceiling
- 4 Hole through the ceiling
- 5 Ceiling cable tray and/or frame cable tray
- 6 Cable ladder
- 7 Solid floor
- 8 Hole through the floor
- 9 Cable being led down the left side of the L-plate
- 10 Cable belt

4 Jumpering the MDF COM 80-2

After the line and system cables have been connected to the LSA PROFIL modules on the fixed profile frames of the vertical and horizontal frame sections, jumpering between the line and system contacts can be begun with.

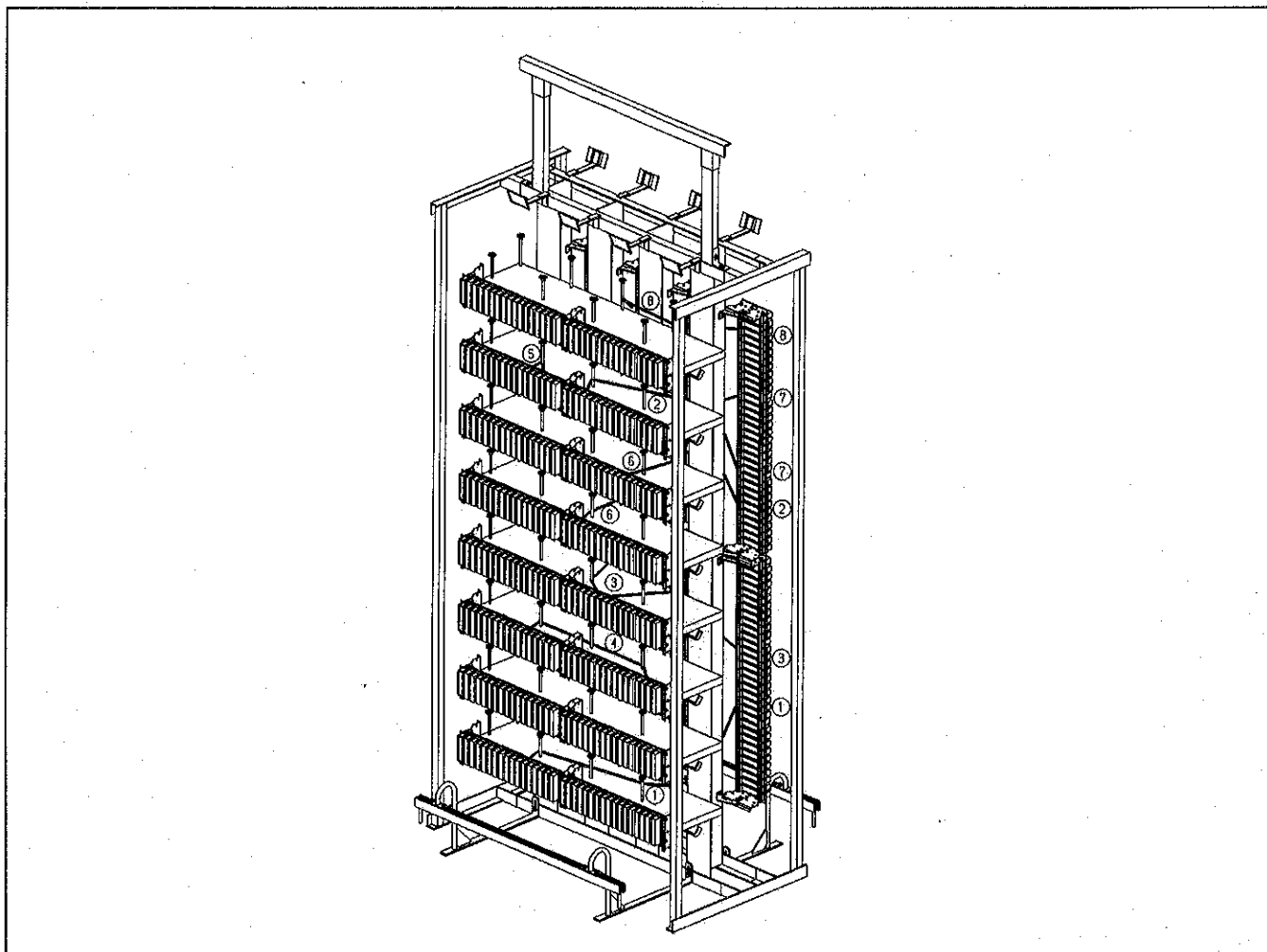
To obtain jumpering runs in the **MDF COM 80-2** that are as short as possible the assignment of call numbers should be done from a computer terminal in digital exchange systems.

This procedure has the following advantages:

- improvement in transmission values
- better overview of arrangement
- ease of handling because of short jumper runs
- reduction in labour and material costs

Jumper-wire routing in the MDF COM 80-2 between the vertical section (V) and the horizontal section (H)

- 1 from (H) upwards to (V)
→ any level / any vertical
- 2 from (H) downwards to (V)
→ any level / any vertical
- 3 from (H) directly to (V)
→ the same or neighbouring verticals
- 4 from (H) to (H)
→ within one level / different verticals
- 5 from (H) to (H)
→ within one level / the same vertical
- 6 from (H) to (H)
→ different levels / different verticals
- 7 from (V) to (V)
→ within one vertical
- 8 from (V) to (V)
→ different verticals



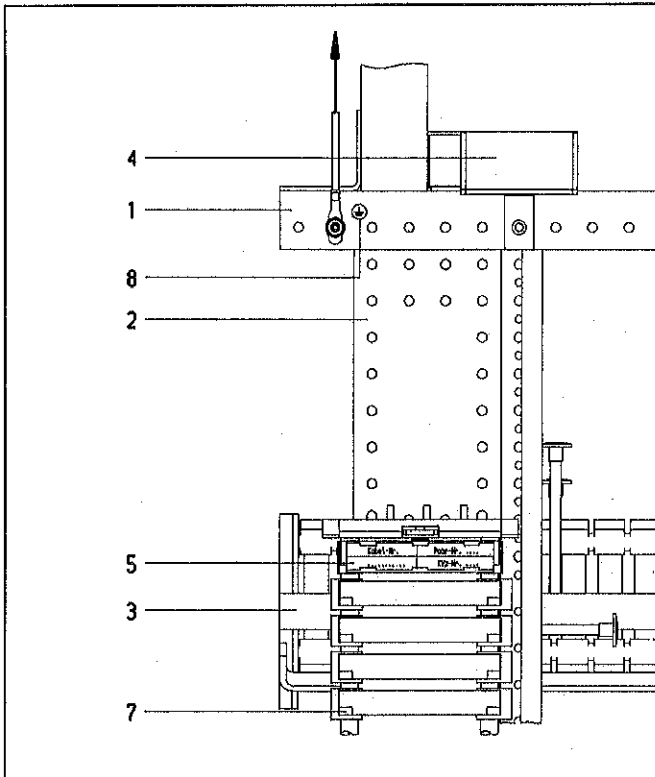
5 Labelling and Identification in the MDF COM 80-2

Identification plates with exchangeable inscription strips are mounted on the upper angle irons of the **MDF COM 80-2** for identifying the verticals and bays of the vertical and horizontal sections.

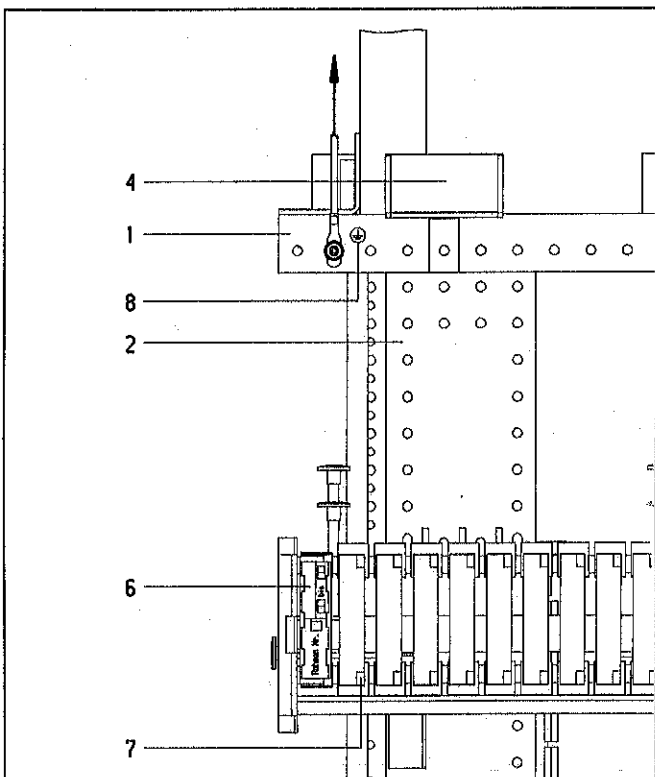
The inscription strips can be inscribed by hand or by printer.

Further accessories for identification of the **MDF COM 80-2** and the LSA PROFIL modules are available as part of the LSA PLUS program (see the KRONE catalogue). These include the LSA PROFIL label holders 2/8 and 2/10, the hinged label holders 2/8 and 2/10, as well as number flag sets, cover strips and coloured identification caps.

The connection point for the earth conductors (Functional and Protective Earth, **FPE** connection point) on the upper angle iron is identified by means of an adhesive label supplied with the **MDF COM 80-2**.



MDF COM 80-2, line connections (vertical section)



MDF COM 80-2, system connections (horizontal section)

- 1 Angle Iron
- 2 L-plate (vertical section)
- 3 Jumper plate
- 4 Identification label
- 5 LSA PROFIL identification label 2/10
- 6 LSA PROFIL identification label 2/8
- 7 Set of number flags (grey, red, green), 1 to 0, 10 to 100
- 8 Adhesive label for FPE earth conductor connection point

6 Earthing and Shielding in the MDF COM 80-2

The purpose of earthing is to ensure that all metal parts of the **MDF COM 80-2** can be touched without risk, with the earth resistance for leading off overvoltage and overcurrent impulses being as low as possible.

The guidelines of the individual cable and wire producers, as well as the various requirements of the manufacturers of the exchange equipment, have to be taken into consideration when necessary shielding of cables and wires is carried out.

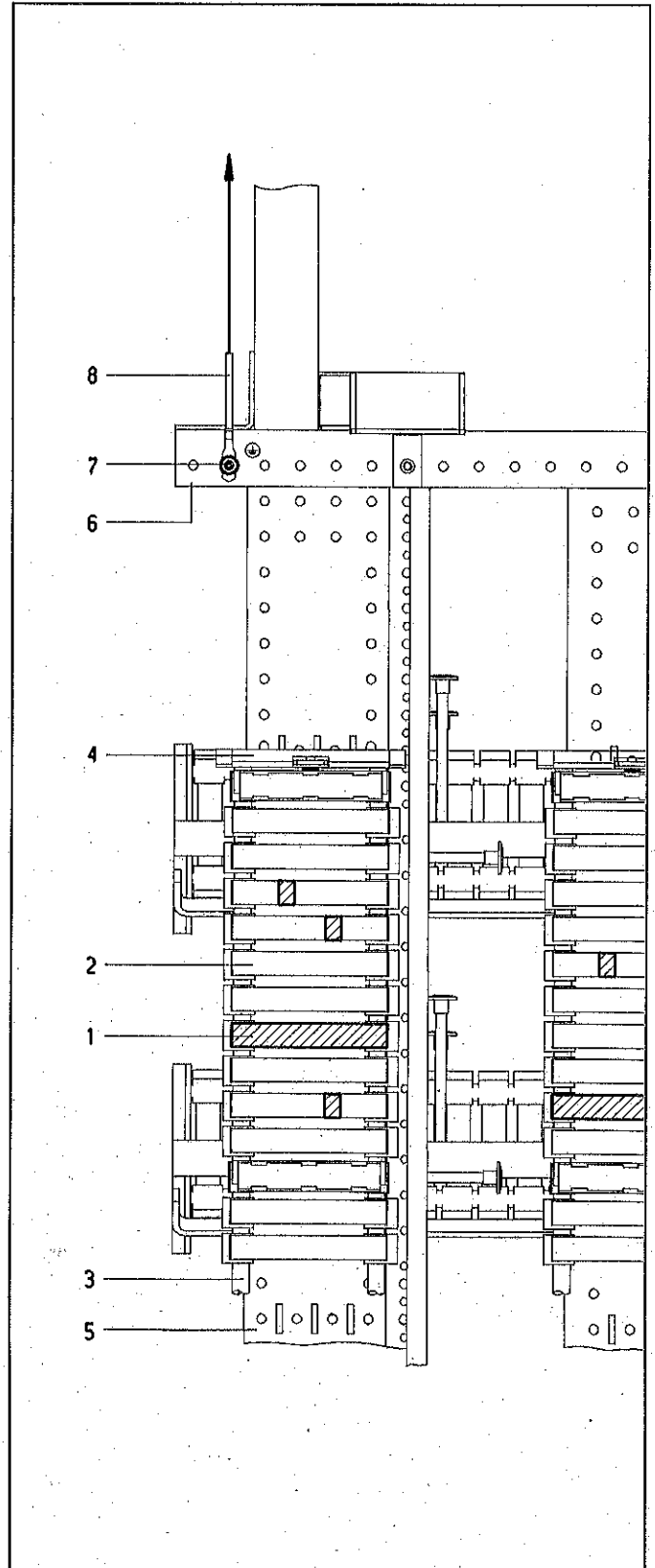
The protective element on the LSA PROFIL module is contacted electrically throughout the distributor over the earth bus bar, the earth contact clips on the profile rails, the holders of the fixed profile frame, the L-plate, the angle irons, and then over the FPE line to the earth loop or the earth bus bar.

FPE connection points (for M8 screws) in the **MDF COM 80-2** are provided for on all the upper and lower angle irons. They allow for the connection of FPE conductors with a minimum **copper diameter of 50 mm²**.

The **contact resistance** in the **MDF COM 80-2** of $\leq 0.5 \Omega$ is maintained over the following contacts:

Protective element	⇒	Earth bus bar
Earth bus bar	⇒	Earth contact clip
Earth contact clip	⇒	Profile rail
Profile rail	⇒	Profile holder
Profile holder	⇒	L-plate
L-plate	⇒	Angle Iron
Angle Iron	⇒	FPE connection point
FPE connection point	⇒	FPE line
FPE line	⇒	Earth loop

- 1 Protective element
- 2 LSA PROFIL module with earth bus bar and earth contact clips
- 3 Profile rail
- 4 Profile holder
- 5 Angle Iron
- 6 L-plate
- 7 FPE connection point with identification label
- 8 FPE line (min. 50 mm²) to earth loop or to earth bus bar



7 Changeover of the Exchange System with the MDF COM 80-2

Replacing the exchange system and the existing MDF

During the changeover from an existing exchange system to a new one, in particular when the changeover is from an analog to a digital exchange system, the old system must remain functional until the new switching exchange has been set up, the new **MDF COM 80-2** has been mounted and its LSA PROFIL system components have been installed and tested. Only then can the switchover to the new system be made and it be turned on.

Both the "old" and the "new" exchange systems are required during the changeover period in order to maintain system functionality. This is true as well for the MDF.

Procedure during the changeover

The space-saving **MDF COM 80-2** is set up next to the existing MDF, in an available space or immediately in the area of the new digital exchange system, with the latter being preferable because of the short cable runs required.

First, the system cables from the new digital exchange are led to the new **MDF COM 80-2**. They are connected to the LSA PROFIL modules in the horizontal section of the **MDF COM 80-2** and the individual connections are tested.

Further, the line cables of the old MDF must be transferred over to the vertical section of the new **MDF COM 80-2** by means of a T-splice. Here, too, the connections at the LSA PROFIL modules are tested afterwards.

The whole changeover can be done without interruption, if one follows the steps described below.

Changeover from the old MDF to the new MDF COM 80-2

A First, a new line cable (**L**) from the multiple joint box (**MJB**), where it is spliced in parallel, is fed to the vertical section of new **MDF COM 80-2** and connected to the LSA PROFIL disconnection modules.

B Then the new system cables (**S**) of the new exchange system are fed to the LSA PROFIL modules in the horizontal section of the **MDF COM 80-2** and connected.

C The disconnection adapters (**D**) are then inserted into the LSA PROFIL modules of the line section (**L**).

D Jumpering (**J**) the new **MDF COM 80-2** can then be carried out without difficulties, with the new exchange system still being disconnected from the line side (**L**) by the 10-pair disconnection adapters (**D**).

Only after the system connections have been tested are the 10-pair disconnection adapters (**D**) removed.

E In the following step a connection is established between the old system contacts (**S**) and the line side (**L**) of the new **MDF COM 80-2** by means of disconnection adapters (**D**).

This can be achieved by transferring the old jumper-wires or laying new ones (**J**). The disconnection adapters (**D**) are simply removed later on, to effect the system changeover and switch off the old exchange system.

F The parallel connection of the line cables (**L**) enables one to disconnect the jumper-wires (**J**) and the line cables (**L**) in the old MDF after the system changeover, insofar as they have not been transferred.

This is achieved by removal of the jumper-wires (**J**) and disconnection of the old line cables (**L**), which had been connected in parallel, in the multiple joint box (**MJB**).

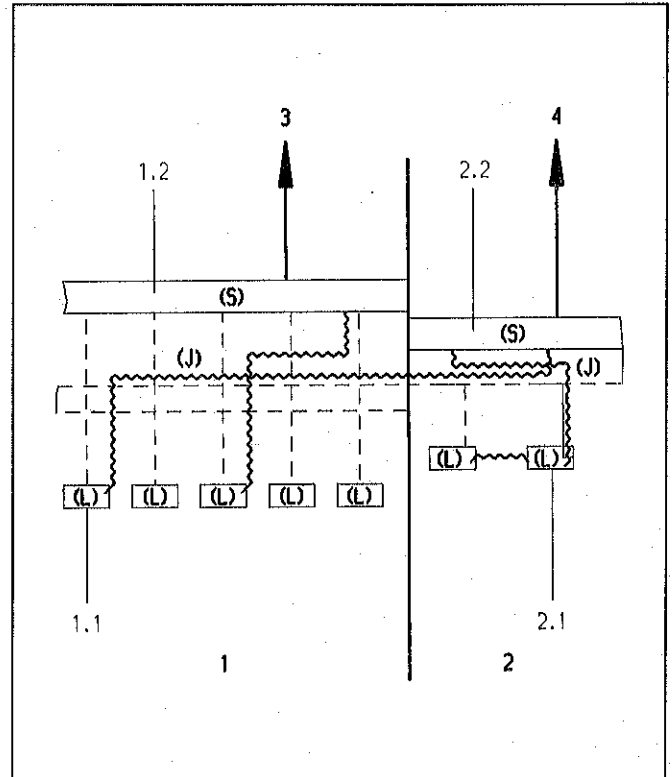
The switch from the old to the new system results from removal of the 10-pair disconnection adapters (**D**) from the vertical section of the newly installed **MDF COM 80-2**.

Dismantling of the old exchange facilities and expansion possibilities of the MDF COM 80-2

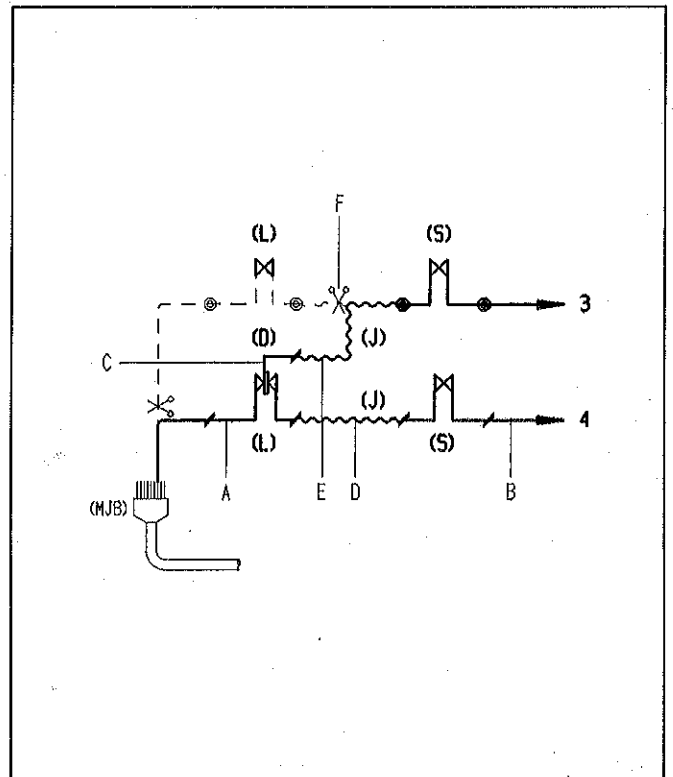
The old exchange is now completely isolated and can be dismantled, together with the old MDF. The disconnection adapters which were necessary for the system changeover can be used again for a future changeover.

After the old MDF has been dismantled, the space that has become free can be used to expand the new **MDF COM 80-2**.

Where and how one begins here has to be well planned out. **KRONE** will be glad to be of help in answering any questions that might arise in this regard.



Schematic of changeover from old MDF to new



Schematic of changeover of the lines

- 1 MDF "OLD"
- 1.1 Line (L) / vertical section
- 1.2 System (S) / horizontal section
- 2 MDF "NEW" ⇒ ⇒ ⇒ **MDF COM 80-2**
- 2.1 Line (L) / vertical section
- 2.2 System (S) / horizontal section
- 3 Exchange system "OLD" (e.g., analog)
- 4 Exchange system "NEW" (e.g., digital)

8 Technical Data

8.1 Technical data of the MDF COM 80-2

8.1.1 Operating conditions

8.1.2 MDF components

8.1.3 MDF design variants

8.1.4 MDF dimensions

8.1.1 Operating conditions				
Environmental conditions for stationary use, weatherproofed according to		DIN EN 60721 Section 3-3		
Climatic conditions <ul style="list-style-type: none"> - Lower temperature limit - Upper temperature limit - Humidity limit - Air movement - Permissible radiant heat 		3K5 / 3Z2 / 3Z4 Condensation acceptable Use of heating facilities in the area of the MDF is acceptable	- 5 °C + 45 °C 95 % rel. humidity 5 m/s	
Chemically active substances <ul style="list-style-type: none"> - Marine salt - Sulfur dioxide - Hydrogen sulfide - Chlorine - Hydrogen chloride - Hydrogen fluoride - Ammonia - Ozone - Nitrogen compounds 		3C2 (limits) Emergence of salt mist	1.00 mg/m ³ 0.50 mg/m ³ 0.30 mg/m ³ 0.50 mg/m ³ 0.03 mg/m ³ 3.00 mg/m ³ 0.10 mg/m ³ 0.10 mg/m ³	
Mechanically active substances <ul style="list-style-type: none"> - Sand in air - Dust - Dust 		3S3 Air-borne Precipitation	300 mg/m ³ 0.40 mg/m ³ 15 mg/m ² h	
8.1.2 MDF components				
<ul style="list-style-type: none"> - Frame (basic frame, vertical and horizontal sections) - Fixed profile frames - Frame accessories - Cable fixing material - Jumper-wire routing 		Angle irons, L-plates, supporting brackets, jumper-wire shelves F10 (vertical section) F8 (horizontal section) Identification plates Cable-fixing bars, cable belts Jumper pins (short and long), caps for jumper pins		
8.1.3 MDF design variants				
Number of vertical rows Number of horizontal levels <ul style="list-style-type: none"> - Single-sided wall-floor distributor - Single-sided standalone distributor - Two-sided standalone distributor 			2 or 4 8 no no yes	
8.1.4 MDF dimensions				
<ul style="list-style-type: none"> - Height - Width - Depth - Distance between rows - Distance between levels 		Including bottom height adjustment up to 50 mm 2 verticals 4 verticals Incl. add-on pieces and accessories, w/o kick bar Vertical section Horizontal section	2200 450 900 600 225 225	mm mm mm mm mm mm

- 8.1.5 Fixed profile frames
- 8.1.6 Connection capacity and density
- 8.1.7 Mechanical data of the MDF
- 8.1.8 Protective earthing
- 8.1.9 Environmental compatibility

8.1.5	Fixed profile frames			
	Fixed profile frame F10 <ul style="list-style-type: none"> - Basic elements - Spacing between two profile rails - Suitable modules - Number of modules - Height - Width - Depth 	Profile holders, fixing brackets, profile rails Adaptable to 75 mm LSA PROFIL 2/10 LSA PROFIL 2/8-95 LSA PROFIL 2/6x3 Module spacing: 25 mm Without modules Without modules Without modules	 95 33 850 133 102	 mm pieces mm mm mm
8.1.6	Connection capacity and density			
	Connection capacity (vertical section) <ul style="list-style-type: none"> - Per fixed profile frame F10 - Per vertical row - Per MDF Connection capacity (horizontal section) <ul style="list-style-type: none"> - Per fixed profile frame F8 - Per horizontal level - Per MDF (8 horizontals) Connection density of the MDF COM 80-2	Line side MDF with 2 verticals MDF with 4 verticals System side MDF with 2 verticals MDF with 4 verticals MDF with 2 verticals MDF with 4 verticals	 300 600 1200 2400 128 128 256 1024 2048 1454	 pairs pairs pairs pairs pairs pairs pairs pairs pairs pairs/m ²
8.1.7	Mechanical data of the MDF			
	Materials and surfaces <ul style="list-style-type: none"> - Steel - Stainless steel - Aluminium - Plastics 	Painted gray, similar to RAL 7032, or galvanized Self-extinguishing		
8.1.8	Protective earthing			
	<ul style="list-style-type: none"> - Functional and protective — earth conductors (FPE connection point) - Type of protection - Contact resistance between protective plug and FPE connection point 	M8 standard parts, copper cross-section DIN VDE 0470	 ≥ 50 IP 00 ≤ 0.5	 mm ² Ω
8.1.9	Environmental compatibility			
	The materials used satisfy all relevant current standards and legal guidelines			

8.2 Technical data of the LSA PROFIL modules

8.2.1 Mechanical data

8.2.2 Electrical data

8.2.3 Transmission data

8.2.1	Mechanical data			
<ul style="list-style-type: none"> - LSA PROFIL Series 2 modules, with KRONE-LSA-PLUS contacts for wires with plastic insulation, with solid or multi-stranded, tinned copper conductors, for IDC contacts in accordance with: - Number of wires contactable per slot - Conductor diameter <ul style="list-style-type: none"> - On contacting with one wire - On contacting with two wires - Outer diameter - Number of reterminations - Materials <ul style="list-style-type: none"> - Plastic parts - Contact springs 	DIN 41 611-C-EL-CL Wires have to have the same diameter AWG 26 up to AWG 20 AWG 26 up to AWG 22 PVC and PE insulation, untwisted PBT, self-extinguishing oxygen index Spec. brass, silver-coated, → in the contact area	2 up to 0.80 up to 0.65 up to 1.50 > 27 > 0.50 > 5	wires mm mm mm mm mm x % µm µm	
8.2.2	Electrical data			
Exposure to a constant climate <ul style="list-style-type: none"> - Insulation resistance - Dielectric strength - Surge voltage strength - Surge current strength - Contact resistance - Total resistance 	4 days at With waveform: 1.2/50 s With waveform: 8/20 s Typical value appr. → guaranteed Incl. disconnection points	40 (104) 93 > 5 x 10 > 2 > 3.6 > 10 1 < 2.5 < 10	°C (°F) % rel. humidity MΩ kV kV kA mΩ mΩ mΩ	
8.2.3	Transmission data			
<ul style="list-style-type: none"> - Capacitive coupling between adjacent pairs with asymmetric arrangement - Transmission speeds - Crosstalk attenuation - Insertion loss 	W/o additional measures, connection blocks are suitable for digital transmission up to: PCM 30 In addition to their applicability for voice frequencies and ISDN applications, the modules can also be used for all transmission speeds over unshielded and shielded two- and four-wire stranded cables, e.g. for ETHERNET and TOKENRING . Values in accordance with test standard EIA/TIA PN2948, Points 4.1 - 4.3 for the following interfaces: <ul style="list-style-type: none"> - Patch cord connection to the plug - Plug to module - Module to cable 	< 1 2.046	pF MBit	

9 Accessories

The **MDF COM 80-2** can be outfitted with a large variety of accessories. Divided up into relevant groups they can be classified as belonging to the distributor or to the switching components.

Accessories for the MDF COM 80-2

- Kit for termination of MDF
- Klick-bar kit
- Klick-bar termination kit
- Screen and cable fixing element

LSA PROFIL switching elements and accessories for the MDF COM 80-2

- LSA PROFIL disconnection module 2/8 (8-pair)
- LSA PROFIL disconnection module 2/8-95 (8-pair)
- LSA PROFIL disconnection module 2/10 (10-pair)
- LSA PROFIL disconnection module 2/6x3 (6abc)

- LSA PROFIL switching module 2/8 (8-pair)
- LSA PROFIL switching module 2/8-95 (8-pair)
- LSA PROFIL switching module 2/10 (10-pair)
- LSA PROFIL switching module 2/6x3 (6abc)

- LSA PROFIL connection module 2/8 (8-pair)
- LSA PROFIL connection module 2/10 (10-pair)

- LSA PROFIL label holder 2/8
- LSA PROFIL label holder 2/10

LSA-PLUS accessories for MDF COM 80-2

- Insertion tool / Assembly tool
- Mounting aids
- Hinged label holder 2/8
- Hinged label holder 2/10
- Disconnection plugs (in various colours)
- Dummy plugs (in various colours)
- Marking caps for 1 pair (in various colours)
- Cover strips for 2/8 (in various colours)
- Cover strips for 2/10 (in various colours)
- Switchover adapter
- Test adapter
- Cable connection testing device
- Overvoltage protection (in various versions)

Please note:

Additional MDF and switching components can be found in the KRONE catalogue or the MDF Mounting Instructions.

10 Advantages offered by the MDF COM 80-2

- 10.1 Technical advantages
- 10.2 Economic advantages

10.1 Technical advantages

- **Space-saving set-up**
A higher connection density results from the compact design as well as from the improved organization of the cable runs and the reduction in length of the jumper runs between the vertical and horizontal sections.
- **ETSI guideline compliance**
The **MDF COM 80-2** dimensions are compatible with ETSI guidelines.
- **Compact, clear assembly without over-miniaturization of the connection technology**
- **Reduction of space required for setting up the MDF**
This reduction does not result in any restrictions during installation, jumpering or operation.
- **Ease of handling**
All necessary work on the distributor can be carried out by one person.
- **Simple assembly**
The distributor frame can be set up with a minimum of assembly work.
- **Optimal adaptability to available space**
The compact design permits an unproblematic adaption to existing space.
- **Modular design**
The **MDF COM 80-2** is assembled out of components in several successive stages.
- **Future-oriented design**
Optical fibre distributors and coaxial technology adapted in design and dimensions can be integrated at any time into the **MDF COM 80-2**.
- **Good transmission properties**
Short jumper runs due to the employment of digital switching technology and the compact design of the **MDF COM 80-2** result in improved transmission properties.

- **Use of the LSA PROFIL connection technology offers the following advantages:**

- ⇒ Moderate price
- ⇒ Low material costs
- ⇒ Easy handling
- ⇒ Short training period
- ⇒ Universal employability
- ⇒ Quick, secure and reliable connections
- ⇒ The greatest contact reliability

- **The following points also offer technical advantages:**

- ⇒ Compact design of the **MDF COM 80-2**
- ⇒ The distributor frame can be extended to accommodate additional line cables
- ⇒ System cables are only installed as needed
- ⇒ The small depth of the **MDF COM 80-2** allows it to be set up alongside exchange and transmission frames

10.2 Economic advantages

- ⇒ Moderate acquisition costs
- ⇒ Low mounting costs
- ⇒ Low installation costs
- ⇒ Reduced operating costs

Exclusion of liability

KRONE GmbH shall not be liable for any damage caused by misuse of the product and/or any use other than described herein.

Disposal advice

Please take special note of any regulations regarding the disposal of materials.

Duplication of these mounting instructions is only allowed with the permission of KRONE GmbH.

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Subject to change

