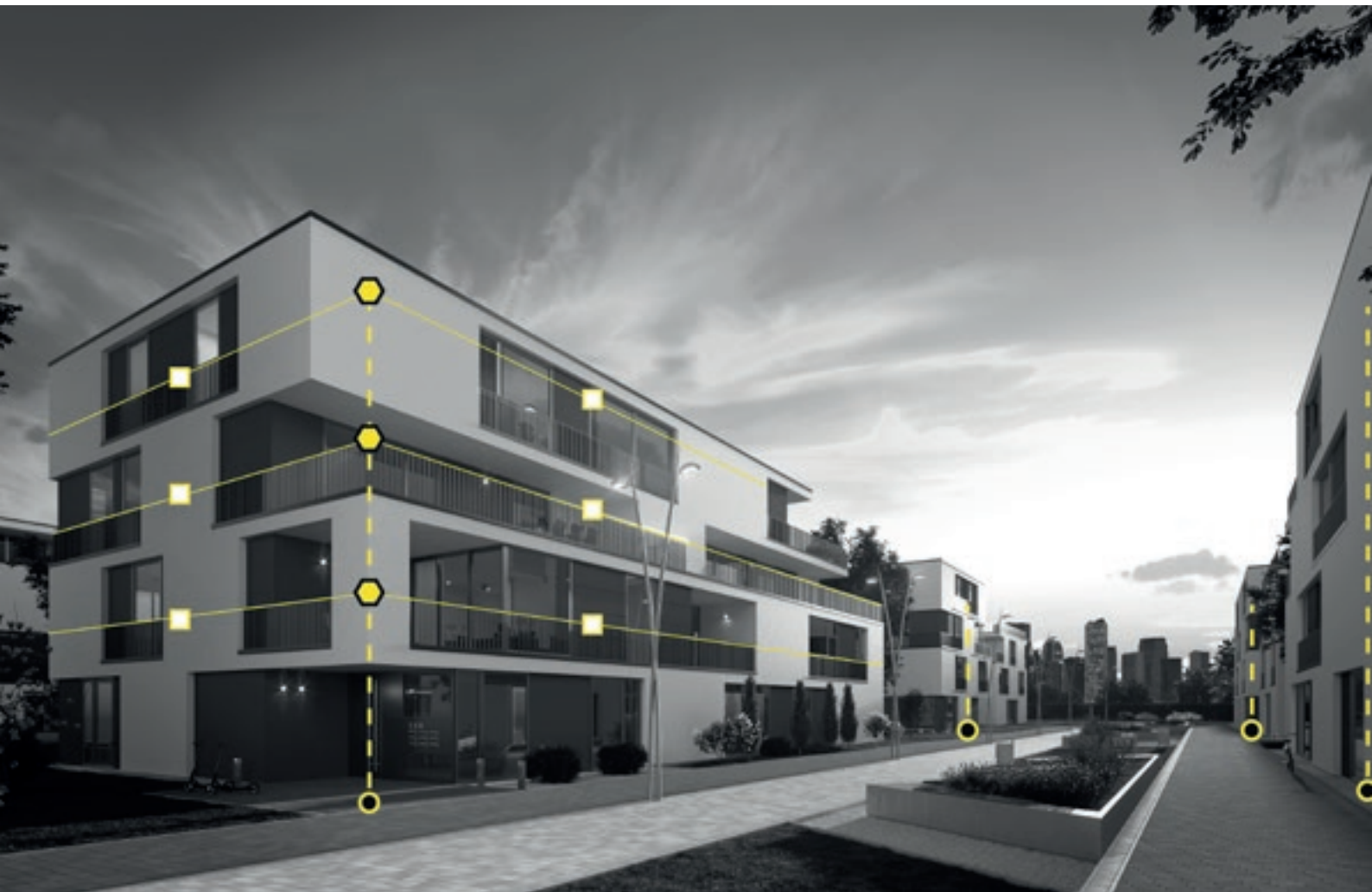


Competence brochure

Broadband expansion



Broadband expansion in buildings



Electrical Systems
www.fraenkische.com





Everything from a single source

The functional requirements of various buildings are increasing.

This is connected with the desire for flexible and future-proof installations. This makes planning and electrical installations of network infrastructures for broadband expansion more and more complex and comprehensive.

FRÄNKISCHE is well aware of that!

A perfectly matched complete system from a single source guarantees quick and easy installation in buildings. Be it bends, couplings, or end plugs – all components have been designed to perfectly match each other and can be interconnected just like in a modular system.



- Professional advice – if necessary also on site
- Comprehensive documentation with extensive information – from tender texts to installation videos
- Faster troubleshooting thanks to technical consulting
- Fibre net micro conduits in different types and demand-oriented coil sizes starting from 250 m
- Comprehensive assortment case with Fibre net accessories at hand for compact, easy, and safe transport
- Availability from stock

— INFO —





Broadband expansion of the future

Working from home, smart home applications, TV, talking on the phone, and surfing:

The internet is an inherent part of our lives.

Powerful broadband connections are in more demand than ever.

In order to accelerate the expansion of highspeed glass fibre networks throughout Germany, the German Government has published a handout regarding the Telecommunications Act.

Legal requirements

- The European Directive 2014/61/EU describes the installation of a highspeed-ready physical, passive network infrastructure in new buildings and extensive renovations
- **Electrical conduits and micro conduits are passive network infrastructure components**
- Far-sighted planning, e.g., by including conduits or micro conduits, reduces costs for the later expansion of a highspeed network

Our solution

In order to support the work of planners and installers, the German Federal Ministry of Transport's handout describes the implementation of the network infrastructure in new buildings. With the products Fibre net and FFKu-Smart net, FRÄNKISCHE offers solutions for the recommended physical, passive network infrastructures.



FFKu-Smart net

- FFKu-Smart net is a pliable corrugated plastic conduit featuring optimum insertion characteristics for copper data lines or also for the FFKu-Fibre net M micro conduit
- The conduit features an edge-free inside for superior insertion characteristics and is recommended by network operators



FFKu-Fibre net M

- FFKu-Fibre net M is a micro conduit and combines durability and optimal blow-in properties thanks to inside grooving
- FFKu-Fibre net M can be installed in existing conduits, e.g., in FFKu-Smart net

Network infrastructure for data cables

Network level 3 (access network)

The access network ends at the house interconnection point.

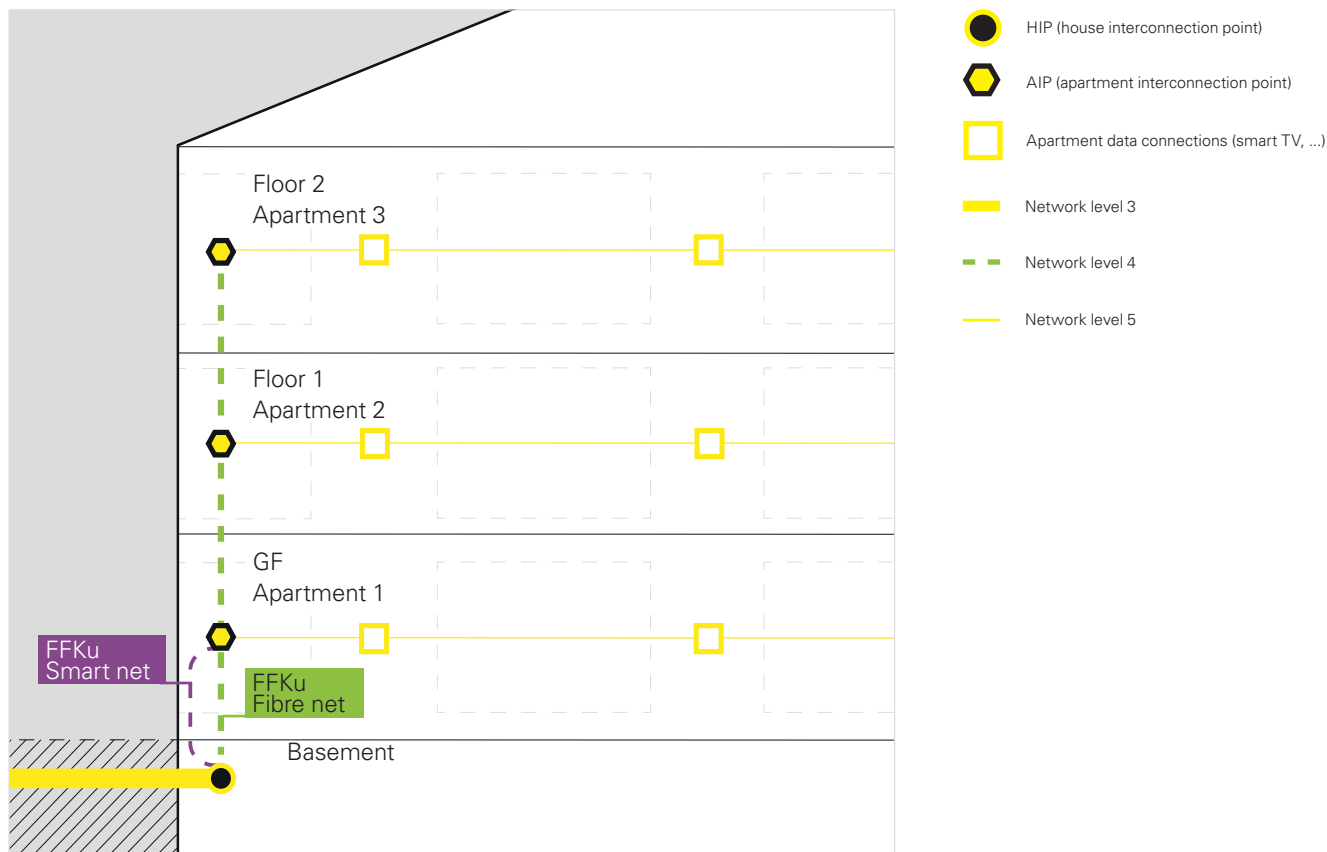
Network level 4 (house network)

The Telecommunications Act and the associated handout govern the house network. The handout describes the structure for network level 4. FRÄNKISCHE offers micro conduits and electrical conduits both for glass fibre and copper solutions (example: FFKu-Fibre net M and FFKu-Smart net) for this purpose.

Network level 5 (apartment network)

The apartment network serves the data outlets in the apartment. This is where many Wi-Fi devices are located. However, for the best possible performance, smart TV, video game console, and desktop computer should have a LAN connection. Using a conduit system, a sustainable passive network infrastructure can be built, for instance, with FFKu-Smart net.

Network levels 3–5



Installation sets for fibre-optic connection

Handy coils and assortment cases for FRÄNKISCHE's Fibre net system

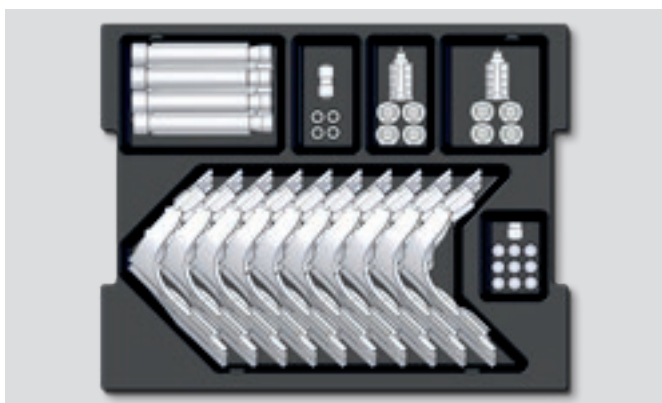


FRÄNKISCHE offers the new micro conduit in a 250-metre coil, especially for small- and medium-sized projects. It is supplied in a handy, resealable box and can be handled easily also by single installers.



The high-quality L-BOXX 102 in FRÄNKISCHE design includes all the accessories that electricians need to the Fibre net micro conduit system on the construction site.

With the new assortment cases, FRÄNKISCHE supports electricians in the broadband expansion: The well thought-out starter sets include the complete range of accessories for the fibre optic infrastructure.



The new installation set for type 7 of FRÄNKISCHE's Fibre net system, together with the FFKu-Fibre net micro conduit, equips ten residential units with high-quality network infrastructure.

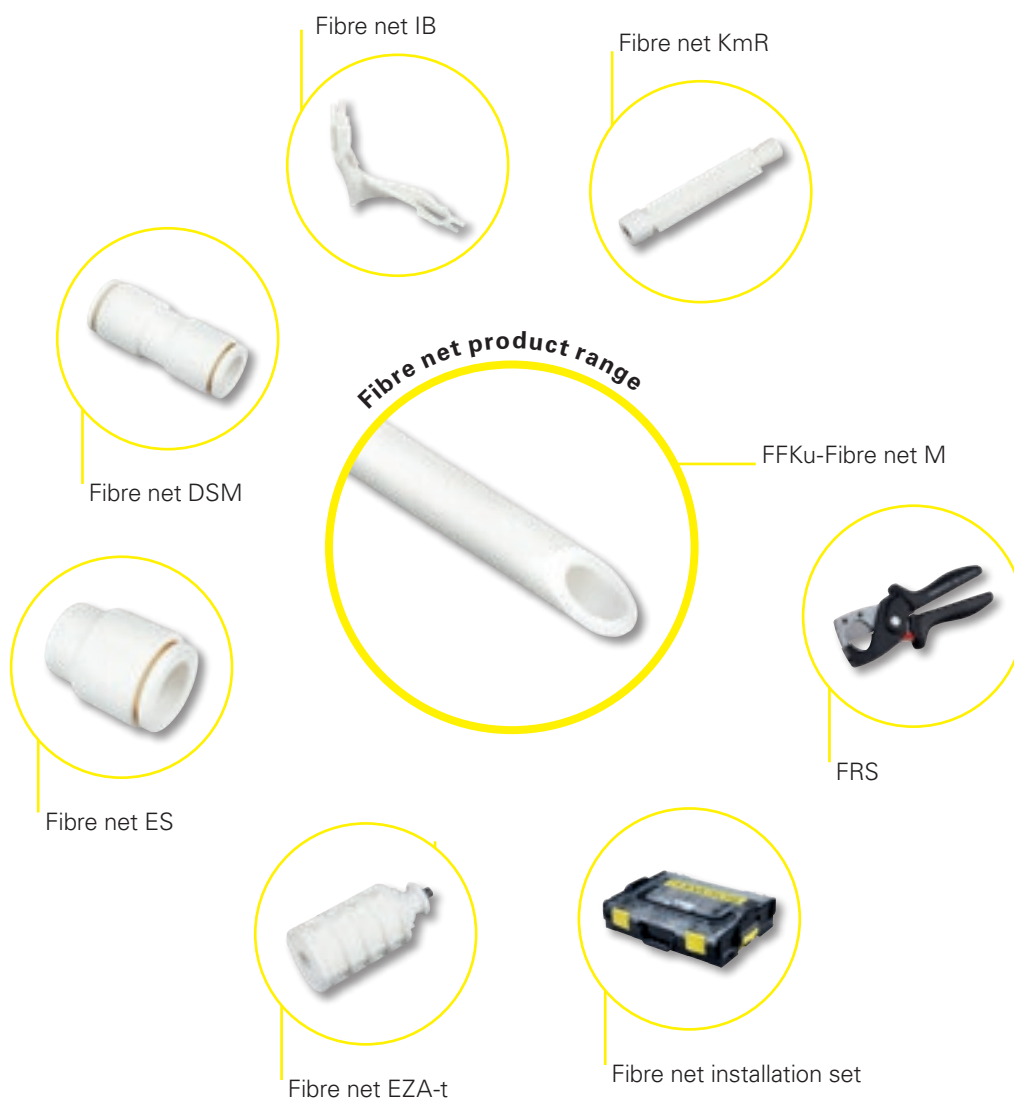


The new assortment case for type 10 of FRÄNKISCHE's Fibre net system is suitable for construction sites with up to 20 residential units. An FRS pipe cutter made of high-strength special steel is included as a free accessory.



Fibre net – unique solutions for the future

The Fibre net system allows a future-oriented and resilient physical, passive network infrastructure for different planning dimensions, which is also suited for retrofitting fibre-optic lines:



- the system features superior blow-in performance because: fibre-optic lines are installed best by blowing-in! The glass fibre floats through the conduit on an air cushion.
- The 250-m FFKu-Fibre net M coil is the ideal unit of length for smaller and medium-sized projects. Packed in a convenient box, the coil can be transported by one single installer, for instance, also through narrow and steep staircases.
- The range of products covers all common project sizes
- The metre markings on the micro conduit allow easy cutting and measuring of conduit lengths without requiring measuring devices
- The system is suited for many different types of installation (concealed, in conduits, on cable routes, etc.)
- Our solutions cover both the situation of immediate commissioning and reliable sealing for later uses. It, therefore, guarantees the operational reliability of the installed network infrastructure even after years.



Overview of products

FFKu®-Fibre net M

Classification code

33222

- Micro conduit for blowing-in fibre-optic lines
- Superior blow-in performance thanks to inside grooving
- With metre marking
- Material: PE
- Medium compressive and impact strength
- Temperature range from -5 °C to +90 °C



EN 61386-22

Cat. no.	Type	Outside Ø [mm]	Inside Ø [mm]	Coil content [m]	Coil weight [kg]	Pallet content [m]	Bend radius ≥ [mm]	Wall thickness [mm]	Recommended cable Ø [mm]	Colour
26520007	7 x 1.5	7	4	250	12.0	4500	70	1.5	2.3	white
26520507	7 x 1.5	7	4	500	21.0	3000	70	1.5	2.3	
26520707	7 x 1.5	7	4	1250	51.0	2500	70	1.5	2.3	
26520510	10 x 2.0	10	6	500	40.0	1,000	100	2.0	4.0	
26520412	12 x 2.0	12	8	350	36.0	700	120	2.0	6.2	
26520014	14 x 2.0	14	10	250	32.0	500	140	2.0	8.0	

Fibre net installation set



- Broadband expansion fibre-optic installation
- Fully comprehensive range of products: everything always at hand
- Compact, simple and easy transportation
- Accessories at hand and refillable
- Contents protected against loss and damage
- Suitable for network levels 4 and 5
- L-BOXX 102 transparent FRÄNKISCHE
- Compatible with Sortimo van rackings

Cat. no.	Type	DSM coupling [pcs.]	ES end plug [pcs.]	KmR marking [pcs.]	IB bend [pcs.]	EZA-sealing [pcs.]	FRS pipe cutter [pcs.]	PU [pcs.]	PU weight [kg]
26540007	7	5	10	10	20	5x 0.8 - 2.5 5x 2.0 - 4.0	—	1	3.5
26540010	10	5	20	20	—	5x 1.8 - 3.5 5x 3.0 - 5.0 5x 5.0 - 6.5	1	1	3.7

Fibre net DSM



- Coupling
- Halogen-free
- Gastight and watertight
- Material: PA
- To connect micro conduits
- For FFKu-Fibre net

Cat. no.	Type	Outside Ø [mm]	Length [mm]	For conduits Ø [mm]	PU [pcs.]	PU weight [kg]	Colour
26550007	7	13	32	7	25	0.1	white
26550010	10	18	42	10	25	0.3	
26550012	12	22	46	12	25	0.5	
26550014	14	24	47	14	25	0.6	

Fibre net ES



- End plug
- Sealing of unused micro conduits
- Halogen-free
- Gastight and watertight
- Material: PA
- Protection against dirt
- For FFKu-Fibre net

Cat. no.	Type	Outside Ø* [mm]	Length [mm]	For conduits Ø [mm]	PU [pcs.]	PU weight [kg]	Colour
26570007	7	13	17	7	25	0.1	white
26570010	10	18	22	10	25	0.2	
26570012	12	21	25	12	25	0.3	
26570014	14	23	25	14	25	0.3	

Fibre net KmR



- Label with pipe plug
- Sealing of unused micro conduits
- Halogen-free
- Gastight and watertight
- Material: PA
- Labelling of micro conduit routes
- Large labelling space
- For FFKu-Fibre net

Cat. no.	Type	Outside Ø* [mm]	Length [mm]	For conduits Ø [mm]	PU [pcs.]	PU weight [kg]	Colour
26571007	7	20	122	7	25	0.5	white
26571010	10	20	122	10	25	0.5	
26571012	12	20	122	12	25	0.5	
26571014	14	23	122	14	25	0.5	

Fibre net IB



- Installation bend for micro conduits
- Installation aid for mounting in bends
- Ideal bend radius for blowing-in
- Halogen-free
- Material: PA
- For FFKu-Fibre net
- Prevents kinks and deformations
- Can be joined together

Cat. no.	Type	Length [mm]	Width [mm]	Height [mm]	For conduits Ø [mm]	PU [pcs.]	PU weight [kg]	Colour
26560007	7	110	75	125	7	25	0.6	white

Fibre net EZA-t



- Two-piece single strand sealing
- Sealing of micro conduits in use
- Halogen-free
- Material: PA
- Matches the fibre-optic line used
- For FFKu-Fibre net

Cat. no.	Type	Outside Ø* [mm]	Length [mm]	Cable sealing range [mm]	For conduits Ø [mm]	PU [pcs.]	PU weight [kg]	Colour
26572007	7	21	43	0.8–2.5	7	25	0.2	white
26572507	7	21	43	2.0–4.0	7	25	0.2	
26572410	10	27	43	1.8–3.5	10	25	0.4	
26572610	10	27	43	3.0–5.0	10	25	0.4	
26572710	10	27	43	5.0–6.5	10	25	0.4	
26572612	12	28	43	3.0–5.0	12	25	0.5	
26572712	12	28	43	5.0–6.5	12	25	0.5	
26572614	14	28	43	3.0–5.0	14	25	0.5	
26572714	14	28	43	5.0–6.5	14	25	0.5	
26572814	14	28	43	6.5–8.0	14	25	0.5	

FFKu®-Smart net

Classification code **33522**



- Installation in concrete, in voids, under screed or concealed
- Edgeless
- Ideal for all types of data cables
- Material: PE
- Medium compressive and impact strength
- Temperature range from -45 °C to +90 °C

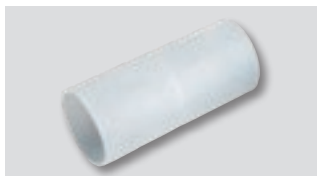


EN 61386-22

Cat. no.	Type	Outside Ø [mm]	Inside Ø [mm]	Coil content [m]	Coil weight [kg]	Pallet content [m]	Bend radius ≥ [mm]	Colour
25230025	25	25.0	17.0	50	5.5	400	160	blue-purple

Production-related dimensional tolerances for outside Ø according to DIN EN 60423

SMSKu-EZF



- High tensile strength plastic push-fit coupling
- Concrete-tight
- Material: PE
- For all corrugated conduits

Cat. no.	Type	Length [mm]	Width [mm]	Height [mm]	PU [pcs.]	PU weight [kg]	Colour
25950025	25	63.1	28.1	28.1	50	0.44	transparent

FWVS-E



- Airtight and smoketight plug
- Membrane to insert wires and cables
- Material: TPE
- For all corrugated conduits

Cat. no.	Type	Length [mm]	Width [mm]	Packing unit [pcs.]	PU weight [kg]	Colour
25975025	25	22	18	50	0.11	grey

E-Lock



- Threaded plastic connector
- Halogen-free, UV-resistant, IP66
- Material: PA6
- For all corrugated conduits

Cat. no.	Type	Length [mm]	Width [mm]	Height [mm]	Male thread [mm]	PU [pcs.]	PU weight [kg]	Colour
25958025	25	44	35	35	25x1.5	25	0.4	black

FRS



- Pipe cutter made of high-tensile special steel
- Clean and burr-free cut
- Fibre glass reinforced plastic handles
- For cutting 7-25 mm conduits

Cat. no.	Type	Length [mm]	Width [mm]	Height [mm]	PU [pcs.]	PU weight [kg]	Colour
25999025	25	192	83	27	1	0.18	black



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