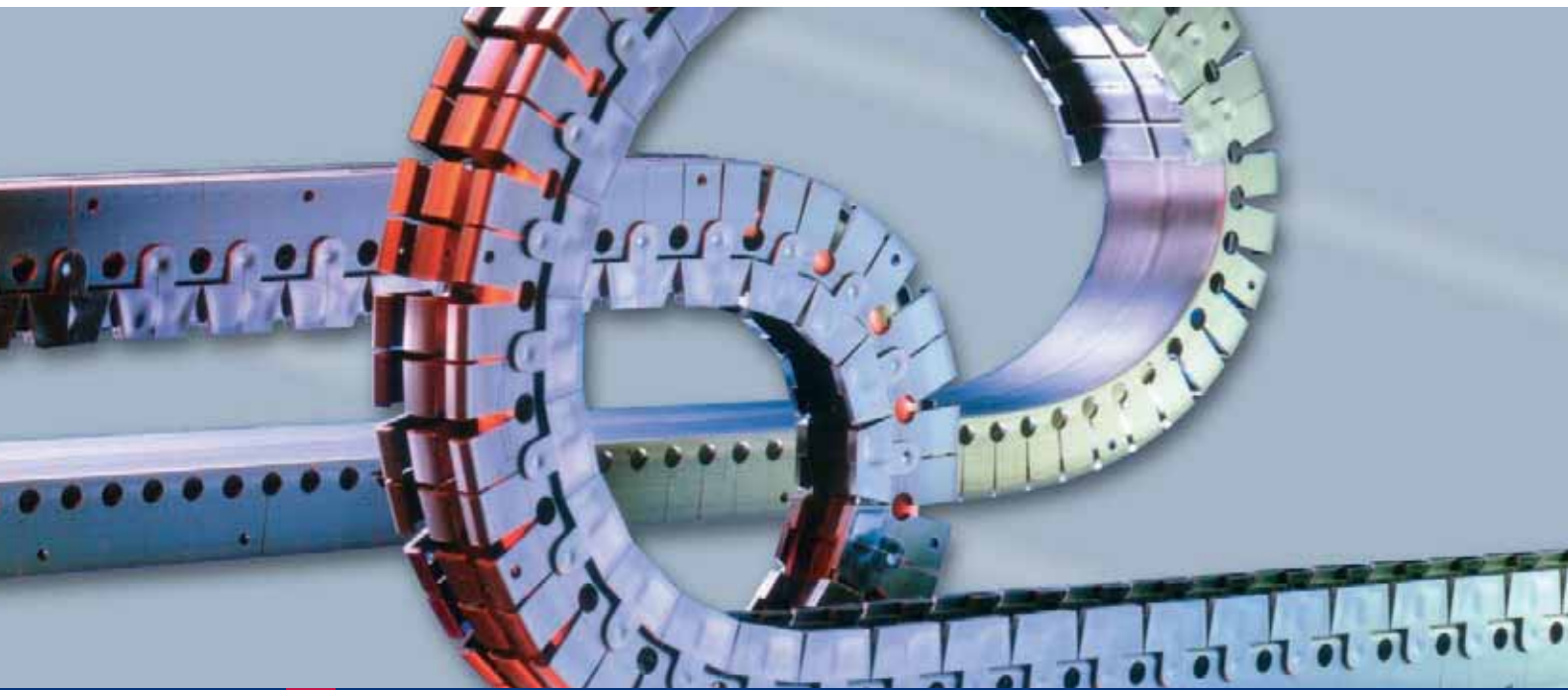
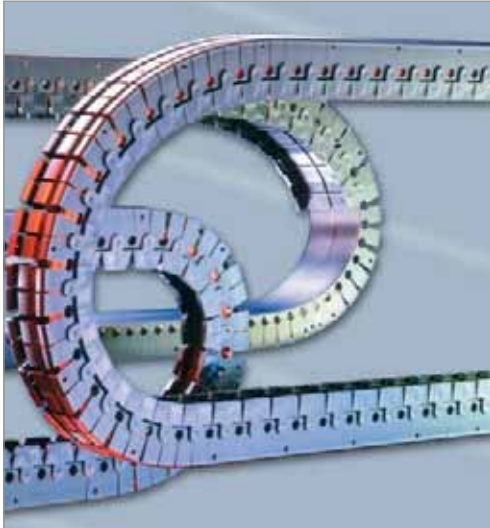


Cable carriers with extruded plastic profile bars

PROfile®



PROfile® – Cable carriers of extruded plastic profile bars



- Optimal for short travel lengths and high travel speeds
- Low vibration and quiet operation
- Very long service life
- Tested over several million cycles
- Clean-room compatibility owing to low-wear construction and the concomitant minimal particle emission
- Fast cable laying simply by pressing the cables in – no threading through is necessary
- Standard modules for cable diameters from 6 mm to 30 mm
- Special modules for ribbon cables from 44 mm to 65 mm in width
- Special module for cable diameter up to 5 mm and ribbon cables up to 14 mm in width



Less expense – lower costs thanks to simple cable laying

Even pre-assembled cables can simply be inserted.
For you this means lower costs.

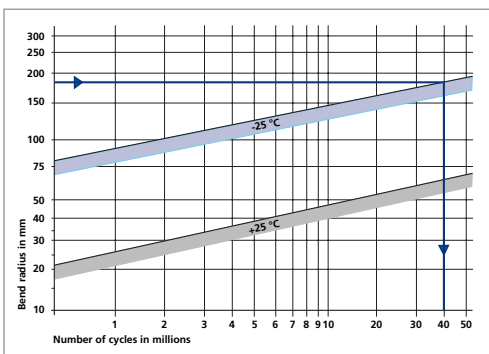
The basic construction

The **PROfile**® cable carrier system consists of extruded profile bars. By means of a special process, they become able to bend in one direction and form an almost perfectly round circular shape.

Since there are no hinges, the system is very durable and quiet. Operation is almost vibration-free.

If there is not sufficient space in one module for laying the cables, several modules can be combined into a system.

Plastic end connectors of plastic are available for fastening.



The life of the **PROfile**® system is primarily influenced by the ambient temperature and the bend radius.

The diagram shows the extremely long life of **PROfile**® systems.

Example:

At a temperature of -25 °C and a bend radius of 175 mm, the **PROfile**® system can achieve about 40 million cycles.

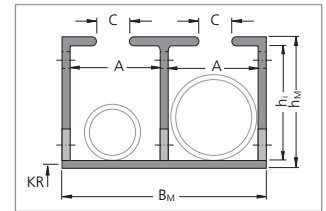
Please ask us about the values for maximum travel length, speed and acceleration.

PROfile® – standard modules

Dimensions and module weights

Dimensions in mm

Module	h_i	h_M	B_M	A	C	Cable-Ø		Intrinsic module weight
						min.	max.	
EM-1212	34	40	32	12	4	6	11	0.303 kg/m
EM-1717	34	40	42	17	4	8	16	0.353 kg/m
EM-2222	34	40	52	22	7	14	21	0.430 kg/m
EM-2727	34	40	62	27	10	17	26	0.475 kg/m
EM-3232	34	40	72	32	15	20	30	0.521 kg/m

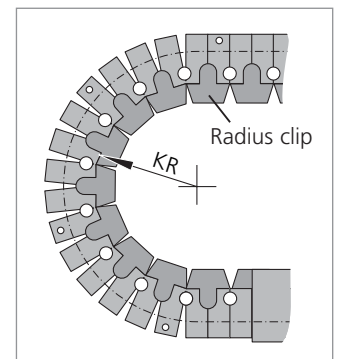


Bend radius and pitch

The minimal bend radius of the extrusion profile bars is determined by their intrinsic rigidity. **PROfile®** Standard modules can be fitted with radius clips to limit the minimum bend radius (see table).

In individual modules, the radius clips are placed across the entire length of the module; in module combinations, only on the outer modules.

Module	Bend radii KR mm				
EM-1212	75	100	150	200	250
EM-1717	75	100	150	200	250
EM-2222	75	100	150	200	250
EM-2727	–	100	150	200	250
EM-3232	–	100	150	200	250

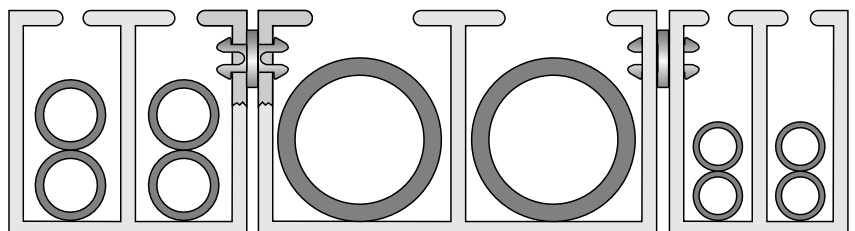


Pitch $t = 20$ mm

Module combinations



PROfile® Standard modules can be combined with one another as required. For this purpose, the module side walls are connected by joining rivets.



$$B_G = \sum B_M + [(n_M - 1) \times 3] \quad [\text{mm}]$$

Total width of the module combinations B_G

B_M = Width of the module (see table above)

n_M = Number of modules

L_k = Length of the module (see page 18)

$$n_N = (n_M - 1) \times L_k \quad [\text{m}] \times 10$$

Number of joining rivets n_N

EM-1212, EM-1717, EM-2222, EM-2727 and EM-3232

The module length taken up by the connecting element is 50 mm.

Technical drawing of a mechanical part, likely a bracket or support, showing dimensions and a cross-section view. The main view is a perspective drawing of a U-shaped component. The dimensions are as follows:

- Overall width: 75
- Inner width: 51.5
- Overall height: 48
- Inner height: 48
- Bottom flange width: 48
- Bottom flange thickness: 16.1
- Top flange thickness: 6.6 (labeled as $\phi 6.6$)
- Overall depth: Y

A cross-section view is shown on the right, indicating the internal structure and the thickness of the bottom flange (16.1).

The diagram shows a closed-loop cable assembly. At the top right, a grey rectangular block labeled "Driver" is connected to the cable. It has two labels: "MA (Standard)" pointing to the top and "MI" pointing to the bottom. At the bottom right, another grey rectangular block labeled "Fixed point" is connected to the cable. It has two labels: "FI" pointing to the top and "FA (Standard)" pointing to the bottom. The cable itself is a grey strip with a series of white circular connectors along its length, forming a U-shape between the driver and the fixed point.

A – Threaded joint, outside

For modules EM-S15, EM-S45.20 and EM-S45 as well as EM-S67 and QM-45.23, no connecting elements are required. These can be screwed on directly at the driver and the fixed point.

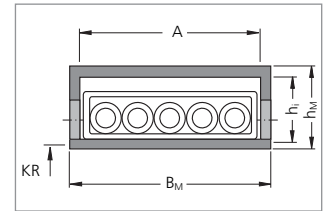
PROfile® – special modules

Enclosed special module with small dimensions

EM-S15

Dimensions in mm

Module	h_i	h_M	B_M	A	Cable width max.	Intrinsic module weight
EM-S15	6	7.5	17.5	15	14	0.024 kg/m

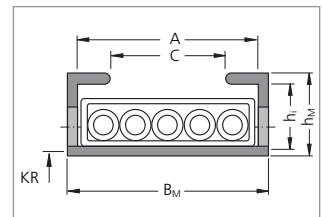
Pitch $t = 6.75$ mm


Open special module for ribbon cables

Special module open on the outside

Dimensions in mm

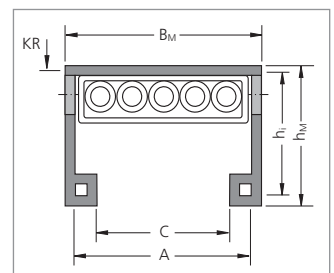
Module	h_i	h_M	B_M	A	C	Cable width max.	Intrinsic module weight
EM-S43.20	20	23.5	48	43	28	42	0.153 kg/m
EM-S45.20	20	23.5	49	45	33	44	0.135 kg/m
EM-S45.16.5	16.5	20	49	45	33	44	0.130 kg/m
EM-S67.11	11	15	72	67	50	65	0.174 kg/m

Pitch $t = 13.5$ mm


Special module open on the inside

Dimensions in mm

Module	h_i	h_M	B_M	A	C	Cable width max.	Intrinsic module weight
QM-45.23	23.5	38	50	45	30	44	0.320

Pitch $t = 15$ mm


With all **PROfile®** special modules, no module combinations are possible
No connection elements are required; the modules can be screwed on directly to the driver and the fixed point.