■ Cabinet Solutions

*Air*STREAM Compact

For small compact cabinets

LÜTZE
SYSTEMATIC TECHNOLOGY

Welcome to LÜTZE

Cable Solutions

Connectivity Solutions

Cabinet Solutions

Control Solutions

Transportation Solutions

Components and power electronics are becoming increasingly smaller and more efficient, therefore a larger of amount of components are being installed in smaller enclosure spaces. Thus, increasing the amount of heat inside the control cabinet.

LÜTZE's *Air*STREAM concept is just the answer you are after. Thanks to 'intelligent air control' and the *Air*BLOWER fan system, hotspots are prevented and an even climate is maintained in the control cabinet – achieving energy savings of up to 23%.

LÜTZE engineers have devised highly efficient instruments, software tools and intelligent accessories for designing control cabinets and thermal simulations. For instance, the *Air*TEMP thermal analysis tool can be used to detect thermal problems and overheating components in advance. This results in highly efficient control cabinet with less machine downtime and ensuring a longer service life of the electronic components.

This *Air*STREAM catalogue not only provides all necessary technical information about the individual components of the LÜTZE system, but also valuable information about the modularity, installation and wiring.

SkyBLUE

LÜTZE

Sustainability at LÜTZE:
http://www.lutze.com/skyblue/

Business Management:
Sustainable and forward-looking

„The competitiveness of our industry and of its suppliers depends quite substantially on how we succeed in developing practical results. The results that we produce together today, are our competitive advantages in the future.“
Udo LÜTZE,
Member of the Executive Committee of
the Green Carbody Innovation Alliance

The future is blue

Sustainable enterprise means thinking and planning ahead, understanding and embedding the belief that long lasting success is more important than short-term profit maximisation.

This is an attitude that has existed within LÜTZE for quite some time. Economic and environmental responsibilities complement each other well and are reflected in the sustainable management and

product policy - and from now in the *Sky*BLUE campaign.

We manufacture our products in a resourceful and energy-conscious manner. We use long lasting, environmentally-friendly materials. And our products, in turn, help our customers save energy and resources.
Good for everyone: for us, for the environment, for our customers a win-win-win situation.

Goods with real value

The value of a product or a solution from LÜTZE is determined by its sustainable qualities as well. Every innovation is only as successful in the future if it has a long-term positive effect. Therefore, we provide long lasting as well as highly efficient components.
We are incorporating the necessary knowledge and manufacturing competence in numerous joint projects with the objective of improving energy efficiency and

sustainable technologies and industries. Thus, LÜTZE provides answers and demonstrates how to handle resources responsibly, with our environment and our future in mind.

Innovations-Allianz
Green Carbody Technologies

DQS
ISO 14001

BLUECOMPETENCE
Alliance Member
Partner of the Engineering Industry
Sustainability Initiative

RoHS

*Air*STREAM Compact
Ideal for small enclosures and control cabinets

*Air*STREAM Compact is used in smaller, compact cabinets with low depth. Thanks to the flexible design, AirSTREAM Compact offers increased space in the control cabinet and significant time savings during installation, modification and wiring.

Differences to the classic *Air*STREAM system
The rail profiles on the *Air*STREAM Compact are not assembeled with brak-kets but with stand off supports. These are available in various lengths to accomodate different application depth requirements. Wiring is conveniently installed from the front. Stand off supports and wiring combs are used for wire management and wires are routed horizontally across the back of the rails and vertically along the sides.

Easy mounting of larger components
The mounting of surface mount components can be achieved by utilizing our various adapter rails. Additionally some mounting rails have an integrated gliding nut channel that accommodates surface mount components.

The advantages at a glance:

Slide nut channel with *Air*STREAM stamp

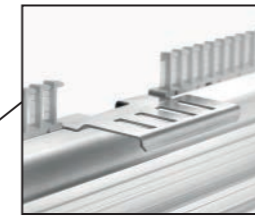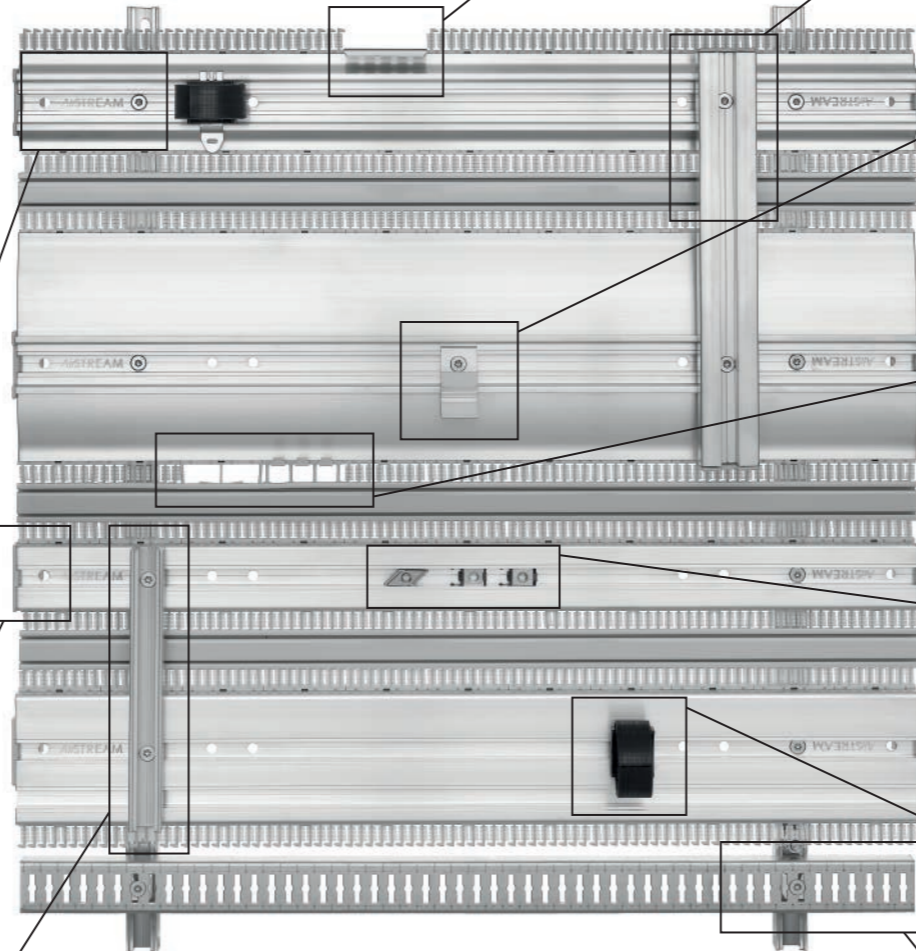Slide nut channels simplify mounting and swapping of components.

Edge protection for rails (KHS)

All rail profiles are supplied with matching edge protection. This protects the cable jackets when wiring.
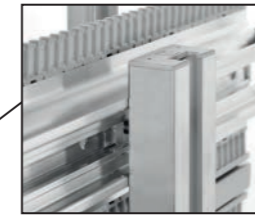
Mounting rails (RG 20)
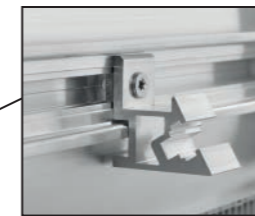
Can be used as a support rail or as a adapter rail.

EMC accessories

The EMC shielding accessory is used in lieu of a wiring comb to secure shielded cables.

Adapter rails (RG 35)

Adapter rails include edge protectors to eliminate sharp edges for safe wiring.

Angle adapter

For angling of components for improved wiring access.

Wiring comb options

Combs can be simply removed and replaced by using a flat head screwdriver. A variety of comb sizes is available.

Slide nut channels

All rails are equipped with a slide nut channel to guarantee easy swapping of components. There are different slide nuts available for various rails.

Hook and Loop Adapter

For securing cables and wires on the mounting profile surface when required.

EMC rail

The EMC rail serves as a support for shielded cables.

Screw size options for stand off supports

Item number of supports	Length of supports CST in mm	Screw, M6 flat head, Torx, item number	Screw length in mm
332936	18	332993	30
332901	23	332971	35
332930	30	332970	40
332925	35	332994	45
345601	40	332995	50
332937	45	332996	55
332958	50	332965	60
332932	58	332997	70
332956	70	332998	80

Compact frame assembly example

RG020, 380180
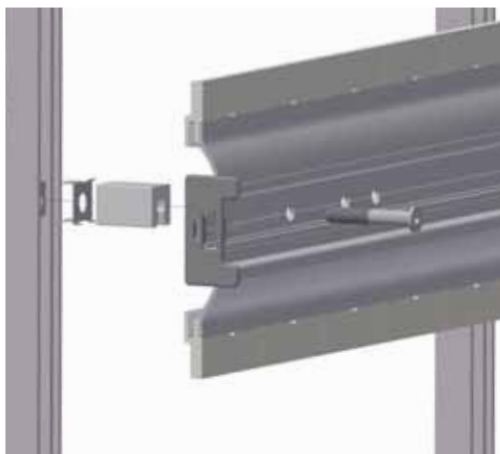
EMV 346813
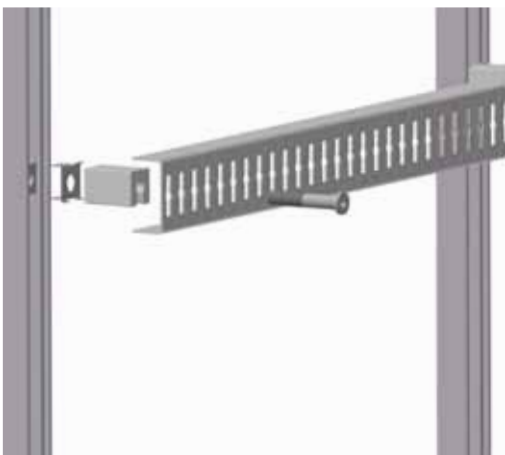
Notes

Modular

*Air*STREAM and *Air*STREAM-Compact

HS Rail set, 10 rail variant

Properties
• The rail set contains 10 rails including edge protection, combs and boreholes.

Technical data

Material	Aluminum
Surface	bright

Part-No.		Type	Module type	Rail height mm	Rail length mm	PU piece
380100R0156	A*	HS040 0550	HS040	40	550	10
380100R0220	A*	HS040 0750	HS040	40	750	10
380101R0156	A*	HS060 0550	HS060	60	550	10
380101R0220	A*	HS060 0750	HS060	60	750	10
380102R0156	A*	HS080 0550	HS080	80	550	10
380102R0220	A*	HS080 0750	HS080	80	750	10
380103R0156	A*	HS100 0550	HS100	100	550	10
380103R0220	A*	HS100 0750	HS100	100	750	10
380104R0156	A*	HS120 0550	HS120	120	550	10
380104R0220	A*	HS120 0750	HS120	120	750	10
380105R0156	A*	HS140 0550	HS140	140	550	10
380105R0220	A*	HS140 0750	HS140	140	750	10
380106R0156	A*	HS160 0550	HS160	160	550	10

HA Rail set, 10 rail variant

Properties
• The rail set contains 10 rails including edge protection, combs and boreholes.

Technical data

Material	Aluminum
Surface	bright

Part-No.		Type	Module type	Rail height mm	Rail length mm	PU piece
380140R0156	A*	HA140 0550	HA140	140	550	10
380140R0220	A*	HA140 0750	HA140	140	750	10
380141R0156	A*	HA160 0550	HA160	160	550	10
380141R0220	A*	HA160 0750	HA160	160	750	10

* **S** Article from stock
A Available with a lead time
R Available on request

Modular

*Air*STREAM and *Air*STREAM-Compact

MS Rail set, 10 rail variant

Properties
• The rail set contains 10 rails including edge protection, combs and boreholes.

Technical data

Material	Aluminum
Surface	bright

Part-No.		Type	Module type	Rail height mm	Rail length mm	PU piece
380120R0156	A*	MS040 0550	MS040	40	550	10
380122R0156	A*	MS080 0550	MS080	80	550	10
380122R0220	A*	MS080 0750	MS080	80	750	10
380123R0156	A*	MS100 0550	MS100	100	550	10
380123R0220	A*	MS100 0750	MS100	100	750	10
380124R0156	A*	MS120 0550	MS120	120	550	10
380124R0220	A*	MS120 0750	MS120	120	750	10
380127R0156	A*	MS180 0550	MS180	180	550	10
380127R0220	A*	MS180 0750	MS180	180	750	10

MA Rail set, 10 rail variant

Properties
• The rail set contains 10 rails including edge protection, combs and boreholes.

Technical data

Material	Aluminum
Surface	bright

Part-No.		Type	Module type	Rail height mm	Rail length mm	PU piece
380160R0156	A*	MA080 0550	MA080	80	550	10
380160R0220	A*	MA080 0750	MA080	80	750	10

* S   Article from stock
  A   Available with a lead time
  R   Available on request

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Mounting Accessories

Adapter rail module

RG020

Properties
- Adapter rail is used as side support for AirSTREAM-Compact and for vertical mounting of components.

Technical data

Material	Aluminum
Surface	bright
Rail width	20 mm
Rail height	15 mm

Part-No.		Type	Length mm	PU piece
380180.2000	**A***	RG 020	2000	1

Mounting Accessories

Module mounting

Sliding nut cage

Properties
- The sliding nut cage keeps the sliding nuts in their respective positions, even in vertical applications.

Technical data

Material	POM 9021M
Surface	smooth
Color	grey

Part-No.		Type	PU piece
331023.0100	S*	GMK	100

Sliding nut

Properties
- Sliding nuts for use in the sliding nut channel of the *Air*STREAM rail modules. GL M6 is used to attach the RG rails.

Technical data

Material	Steel
Surface	bright galvanised Punched edges bare/natural
Width	13.0 mm
Depth	13.0 mm
Height	4.0 mm

Part-No.		Type	PU piece
330940.0100	S*	GL M3	100
330941.0100	S*	GL M4	100
330942.0100	S*	GL M5	100
330943.0100	S*	GL M6	100
330944.0100	S*	GL M8	100

Rotatable sliding nut

Properties
- For retroactive installation.
  Sliding nut can be swiveled thanks to the trapezoidal shape and does not need to be fixed laterally in the duct.

Technical data

Material	Steel
Surface	galvanised
Width	13.0 mm
Depth	5.0 mm
Height	10.0 mm

Part-No.		Type	PU piece
380276.0010	S*	EGL M5	10
380277.0010	S*	EGL M6	10

* S Article from stock
A Available with a lead time
R Available on request

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Mounting Accessories

Module mounting

T-Nut

Properties
- Special sliding T-nut for use on the RG035 rail and MS/MA rails.
  Guarantees a continuous surface to mounting of components. The gap in the sliding nut channel is closed by the hat contour.

Technical data

Material	Aluminum
Surface	bright
	electrically conductive
Width	13.0 mm
Depth	13.0 mm
Height	6.0 mm

Part-No.		Type	PU piece
380270.0100	**S***	T-Nut M4	100
380271.0100	**S***	T-Nut M5	100
380272.0100	**S***	T-Nut M6	100
380273.0100	**S***	T-Nut M8	100

Fastening set

Properties
- Mounting kit for attaching an RG rail to a module.

Technical data

Material	Steel
Surface	galvanised

Part-No.		Type	PU piece
332969.0001	**S***	BSRG M6 HS/HA	1
332964.0001	**S***	BSRG M6 MS/MA	1

Grounding kit

Properties
- Grounding kit

Technical data

Material	Steel
Surface	galvanised

Part-No.		Type	PU piece
331816	**S***	ES 6	1

Mounting Accessories

Module mounting

KSS Angle adapter

Properties
- For affixing components, e.g. hat profiles, at an angle of 30° vertically. KSS can be attached to hat profiles or assembly webs in the sliding nut channel. There is a sliding nut channel for affixing the components.

Technical data

Material	Aluminum
Surface	bright
Width	22.0 mm
Depth	40.0 mm
Height	40.0 mm

Part-No.		Type	PU piece
330926.0010	S*	KSS 40x40x22	10

Bracket
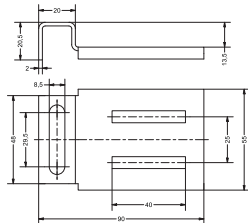
Properties
- For securing into an AE/AX enclosure.

Technical data

Material	Sheet steel
Surface	chromated

Part-No.		Type	PU piece
332916	S*	ADWS-C	1

Holder side supports
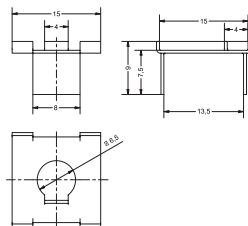
Properties
- Used to hold standoff in place and prevents standoff from sliding. For easy installation of rails to the side supports.

Technical data

Material	Sheet steel
Surface	galvanised
Color	silver

Part-No.		Type	PU piece
332918	S*	CSMK	100

* S   Article from stock
  A   Available with a lead time
  R   Available on request

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Mounting Accessories

Module mounting

Side supports

Properties
• Component as base (DIN rail height).

Technical data

Material	Aluminum
Surface	bright
	electrically conductive

Part-No.	Type		Length mm	PU piece
332936.0100	S*	CST 18	18	100
332901.0100	S*	CST 23	23	100
332930.0100	S*	CST 30	30	100
332925.0100	S*	CST 35	35	100
345601.0100	S*	CST 40	40	100
332937.0100	S*	CST 45	45	100
332958.0100	S*	CST 50	50	100
332932.0100	S*	CST 58	58	100
332956.0100	S*	CST 70	70	100

Bolt

Properties
• The flat screw head disappears into the base of the slot of the RG rails and therefore does not obstruct the sliding nuts above in the sliding nut channel.

Technical data

Material	Steel
Surface	galvanised

Part-No.	Type		Length mm	PU piece
332964.0100	S*	M6 x 10	10	100
332968.0100	S*	M6 x 12	12	100
332969.0100	S*	M6 x 16	16	100
332963.0100	S*	M6 x 20	20	100
332992.0100	S*	M6 x 25	25	100
332993.0100	S*	M6 x 30	30	100
332971.0100	S*	M6 x 35	35	100
332970.0100	S*	M6 x 40	40	100
332994.0100	S*	M6 x 45	45	100
332995.0100	S*	M6 x 50	50	100
332996.0100	S*	M6 x 55	55	100
332965.0100	S*	M6 x 60	60	100
332997.0100	S*	M6 x 70	70	100
332998.0100	S*	M6 x 80	80	100

Wiring Accessories

Wiring strips

Wiring comb with 8 cavities for larger wire cross-sections up to 10 mm^2

Properties
- Standard comb which is attached to all rail modules ex-works. Comb for secure wiring of cables from 0.75 mm^2 to 10 mm^2.
  This optional comb can be simply replaced by the standard 50 mm grid.

Technical data

Material	PA 6.6
Surface	smooth
Halogen free according to	VDE 0472-815
Flammability rating	UL 94 V0

Part-No.		Type		PU piece
380244.0100	S*	K050-8-SH 0,75mm²-6mm²	Comb 8 cavities	100

Wiring comb with 10 cavities for larger wire cross-sections up to 4 mm^2

Properties
- Optional comb with 10 cavities for secure wiring of cables up to 4 mm^2.
  This optional comb can be simply replaced by the standard 50 mm grid.

Technical data

Material	PA 6.6
Surface	smooth
Halogen free according to	VDE 0472-815
Flammability rating	UL 94 V0

Part-No.		Type		PU piece
380242.0100	S*	K050-10	Comb 10 cavities	100

Wiring comb with 3 cavities for larger wire cross-sections up to 16 mm^2

Properties
- Optional comb with 3 cavities for wiring of larger cables up to 16 mm^2.
  This optional comb can be simply replaced by the standard 50 mm grid.

Technical data

Material	PA 6.6
Surface	smooth
Halogen free according to	VDE 0472-815
Flammability rating	UL 94 V0

Part-No.		Type		PU piece
380241.0010	S*	K050-3	Comb 3 cavities	10
380241.0100	S*	K050-3	Comb 3 cavities	100

* S Article from stock
  A Available with a lead time
  R Available on request

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Wiring Accessories

Wiring strips

Wiring comb with 2 cavities

Properties
• Optional comb with 2 chambers for 18 x 1 mm^2. For use with parts, e.g. control units, that are connected with many individual wires.
This optional comb can be simply replaced by the standard 50 mm grid.

Technical data

Material	PA 6.6
Surface	smooth
Halogen free according to	VDE 0472-815
Flammability rating	UL 94 V0

Part-No.		Type		PU piece
380245.0010	S*	K050-2	Comb 2 cavities	10
380245.0100	S*	K050-2	Comb 2 cavities	100
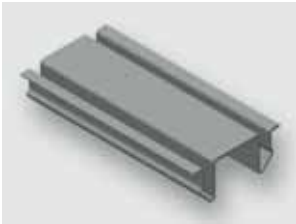
Comb cover

Properties
• Comb cover for closing the spaces between the comb profiles.

Technical data

Material	PC+ABS (halogen-free)
Surface	smooth
Halogen free according to	VDE 0472-815
Flammability rating	UL 94 HB
Length	2000 mm
for frame width	2000 mm

Part-No.		Type	PU piece
380800.2000	S*	KD040	10
380810.2000	S*	KD050	10
380820.2000	S*	KD060	10
380840.2000	S*	KD080	10
380860.2000	S*	KD100	10
380880.2000	S*	KD120	10

Wiring Accessories

Wire management

Edge protection for HS/HA modules

Properties
- Edge protection for the DIN rails to prevent injury on the sharp edges of the hat profiles. Sliding nuts can be fed in through the recess in the edge protector.
  As standard, the rail modules are equipped with edge protectors.

Technical data

Material	PA 6.6
Surface	smooth
Halogen free according to	VDE 0472-815
Flammability rating	UL 94 V0

Part-No.		Type		PU piece
380090.0010	S*	KHS-040-200 Set	Edge protection for HS/HA modules	10

Edge protection for MS/MA modules

Properties
- Edge protection for the assembly rails to prevent injury on the sharp edges. Sliding nuts can be fed in through the recess in the edge protector.
  As standard, the rail modules are equipped with edge protectors.

Technical data

Material	PA 6.6
Surface	smooth
Halogen free according to	VDE 0472-815
Flammability rating	UL 94 V0

Part-No.		Type		PU piece
380091.0010	S*	KMS-060-200 Set	Edge protection for MS/MA modules	10

Edge protection for RG 035

Properties
- Edge protection of the RG 035 (manoeuvring webs) to prevent injuries on cables or contact with any potential sharp edges when wiring. Sliding nuts can be inserted through the recess in the edge protector.

Technical data

Material	PA 6.6
Surface	smooth
Halogen free according to	VDE 0472-815
Flammability rating	UL 94 V0
Width	35.0 mm
Depth	10.0 mm
Height	20.0 mm

Part-No.		Type		PU piece
380093.0010	S*	KHS 035 200 RG	Edge protection for RG 035	10
380093.0100	S*	KHS 035 200 RG	Edge protection for RG 035	100

* **S** Article from stock
A Available with a lead time
R Available on request

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Wiring Accessories

Wire management

Hook and loop adapter for *Air*STREAM profile
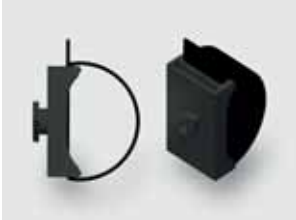
Properties
- To fix the cables to RG 035/VPSym and MS/MA profiles.
  One or several cables can be fixed.
  Depending on the attachment, cables can be laid vertically or horizontally.

Technical data

Material	Plastic
Flammability rating	UL 94 V0
Color	black
Approvals	UL

Part-No.	Type	PU piece
380250.0010 **S***	KBS MS/MA/RG035/VPSym	10

Hook and loop adapter for DIN rail
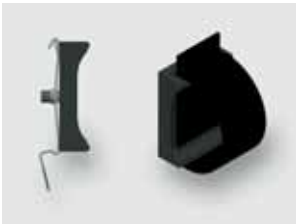
Properties
- To fix cables on hat rails.
  One or several cables can be fixed.

Technical data

Material	Plastic
Flammability rating	UL 94 V0
Color	black
Approvals	UL

Part-No.	Type	PU piece
380251.0010 **S***	KBS Hutschienenadapter	10

EMC Accessories

EMC Snap-on element

EMC Snap-on element
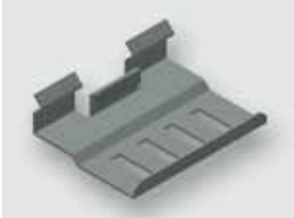
Properties
- For securing shielded cables. The EMC click is positioned instead of a comb profile. Spring-mounted shield clamps or shield clamps can be used to affix the cables.

Technical data

Material	Stainless steel
Surface	bright – stainless
Width	50.0 mm
Depth	16.0 mm
Height	39.0 mm

Part-No.		Type	PU piece
380258.0010	S*	EMV Rastelement AirSTREAM	10

EMC shield rail
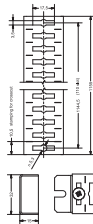
Properties
- For securing shielded cables.

Technical data

Surface	galvanised Punched edges bare/bright galvanised
Color	bright

Part-No.		Type	PU piece
346813.2005	S*	EMVS 04-55813	1

Part number index

Cable Solutions
High flexing cables for industrial applications

Connectivity Solutions
Industrial Ethernet, assembled cables,
Actuator Sensor Interface, connectors and
suppression technology

Cabinet Solutions
*Air*STREAM complete system for thermally
optimized and space-saving cabinet wiring

Control Solutions
Industrial Power Supplies and electronic current
control for Industrial Internet of Things. Infrastructure
for industrial networks, signal converter, relays and
modular electronics housing

Transportation Solutions
Solutions for the demanding Railway Sector,
for example control technology,
Interface solutions and signalling

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