

Strain relief devices

For optimum placement
with dynamic use of cables



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Strain relief devices

KABELSCHLEPP® strain reliefs were developed especially for use in cable carriers. We offer the best solution for each of many different areas of application. The type of strain

relief to be selected depends on cable type, length of the cable carrier and installation position.



LineFix® clamps page 878

- » Optimized foot geometry for secure seating in the C-profile.
- » For one cable and two or three cables stacked.
- » For C-profiles with 11 mm slot width.



Strain relief combs page 882

- » Higher fixing force than single-sided strain relief comb.
- » Uniform force transmission in push and pull direction.



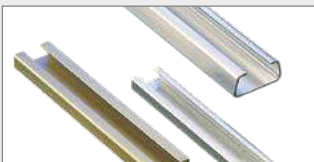
SZL strain reliefs page 884

- » Gentle on the cables through large contact area with the cables.
- » Simple mounting without tools.



Block clamps page 885

- » For strain relief of hoses.



Assembly profiles page 886

- » Assembly profiles for strain relief elements

MT
seriesXLT
seriesROBOTRAX®
System

FLATVEYOR®

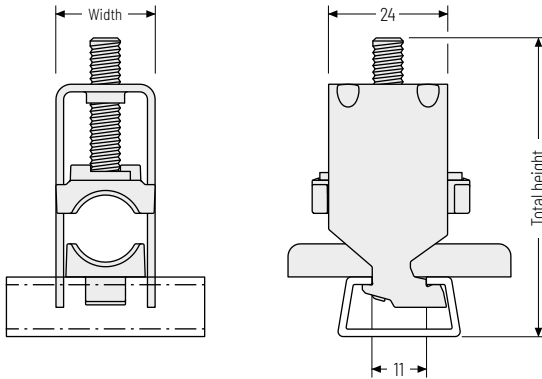
CLEANVEYOR®


LS/LSX
seriesS/SX
seriesS/SX-Tubes
series

Accessories

TRAXLINE®

- » For C-profiles with 11 mm slot width.
- » For one, two or three cables stacked.
- » Optimized foot geometry for secure seating in the C-profile.
- » High grade corrosion protection of the coated housing body through cathodic dip coating (CDC).
- » Pan design with support ribs for secure fixing of the cables.
- » Rounded design of the pan elements, gentle on the cables.
- » Also available in **stainless steel (ER 1S)**.



 The data for the total height are guide values.

The actual height depends on the cable diameter and the cable structure, among other things.

Pan design with optimized geometry.

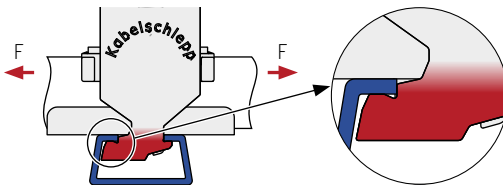
The curved support ribs fix the cables very gently and reliably.



Secure seating and easy assembly

In practical operation, tensile forces occur in both cable directions. Clamps therefore have to transmit high tensile forces in the respective direction.

In contrast to standard commercial clamps, the LineFix® foot geometry ensures transmission of extremely high tensile forces equally in both directions. The catch fixes the foot securely in the C-profile when it is bolted on, preventing the crossbar from tipping out during load application, regardless of the direction of forces or installation.

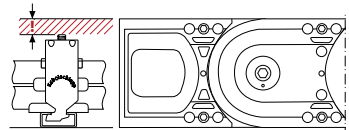


Easy installation even in tight packaging spaces through headless screw with hexagon socket.






Observe minimum height

For cable carriers with upper run gliding on the lower run, the system height of the strain relief must not be higher than the chain link height!



Dimensions

| Type | Designation | Material no. for one complete LineFix® | Material no. for one complete stainless steel LineFix® (ER IS) | min. cable diam. [mm] | max. cable diam. [mm] | No. of cables | Width [mm] | Total height with max. cable diam. incl. C-profile* [mm] |
|--|---------------------|--|--|-----------------------|-----------------------|---------------|------------|--|
| Single clamp | | | | | | | | |
|  | LF 12-1 | 13630 | 13731 | 6 | 12 | 1 | 16 | 55 |
| | LF 14-1 | 13631 | 13732 | 12 | 14 | 1 | 18 | 52 |
| | LF 16-1 | 13632 | 13733 | 14 | 16 | 1 | 20 | 54 |
| | LF 18-1 | 13633 | 13734 | 16 | 18 | 1 | 22 | 56 |
| | LF 20-1 | 13634 | 13735 | 18 | 20 | 1 | 24 | 59 |
| | LF 22-1 | 13635 | 13736 | 20 | 22 | 1 | 26 | 61 |
| | LF 26-1 | 13636 | 13737 | 22 | 26 | 1 | 30 | 70 |
| | LF 30-1 | 13637 | 13738 | 26 | 30 | 1 | 34 | 74 |
| | LF 34-1 | 13638 | 13739 | 30 | 34 | 1 | 38 | 78 |
| | LF 38-1 | 13639 | 13740 | 34 | 38 | 1 | 42 | 82 |
| LF 42-1 | 13640 | 13741 | 38 | 42 | 1 | 46 | 91 | |
| Double clamp | | | | | | | | |
|  | LF 12-2 | 13641 | 13742 | 6 | 12 | 2 | 16 | 73 |
| | LF 14-2 | 13642 | 13743 | 12 | 14 | 2 | 18 | 74 |
| | LF 16-2 | 13643 | 13744 | 14 | 16 | 2 | 20 | 82 |
| | LF 18-2 | 13644 | 13745 | 16 | 18 | 2 | 22 | 86 |
| | LF 20-2 | 13645 | 13746 | 18 | 20 | 2 | 24 | 91 |
| | LF 22-2 | 13646 | 13747 | 20 | 22 | 2 | 26 | 95 |
| | LF 26-2 | 13647 | 13748 | 22 | 26 | 2 | 30 | 108 |
| | LF 30-2 | 13648 | 13749 | 26 | 30 | 2 | 34 | 121 |
| | LF 34-2 | 13649 | 13750 | 30 | 34 | 2 | 38 | 129 |
| | Triple clamp | | | | | | | |
|  | LF 12-3 | 13650 | 13751 | 6 | 12 | 3 | 16 | 98 |
| | LF 14-3 | 13651 | 13752 | 12 | 14 | 3 | 18 | 98 |
| | LF 16-3 | 13652 | 13753 | 14 | 16 | 3 | 20 | 105 |
| | LF 18-3 | 13653 | 13754 | 16 | 18 | 3 | 22 | 111 |
| | LF 20-3 | 13654 | 13755 | 18 | 20 | 3 | 24 | 118 |
| | LF 22-3 | 13655 | 13756 | 20 | 22 | 3 | 26 | 130 |

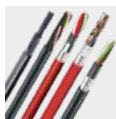
* Item no. 3934



Additional sizes on request.



Recommended tightening torque:
max. 3 Nm for electric cables suitable for cable carriers



TRAXLINE® cables for cable carriers

Hi-flex electric cables which were especially developed, optimized and tested for use in cable carriers can be found at tsubaki-kabelschlepp.com/traxline

Maximum flexibility with combinable double jaws

The standard sets of LineFix® clamps in size LF/LFX 12 offer even more flexibility and mounting options due to the extension with the new double and counter jaws. Optimized for different cable diameters and individually combinable

heights, almost all requirements can be implemented without any problems.

Double jaw
LD12 d6s12



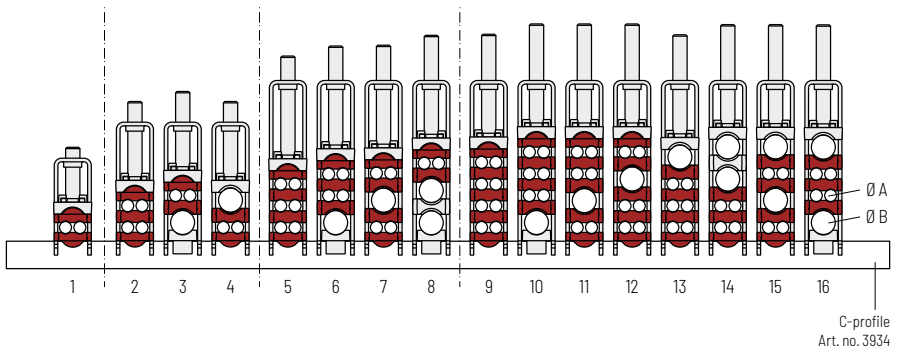
Double jaw
LD12 d6d6



Counter jaw
LG12 d6

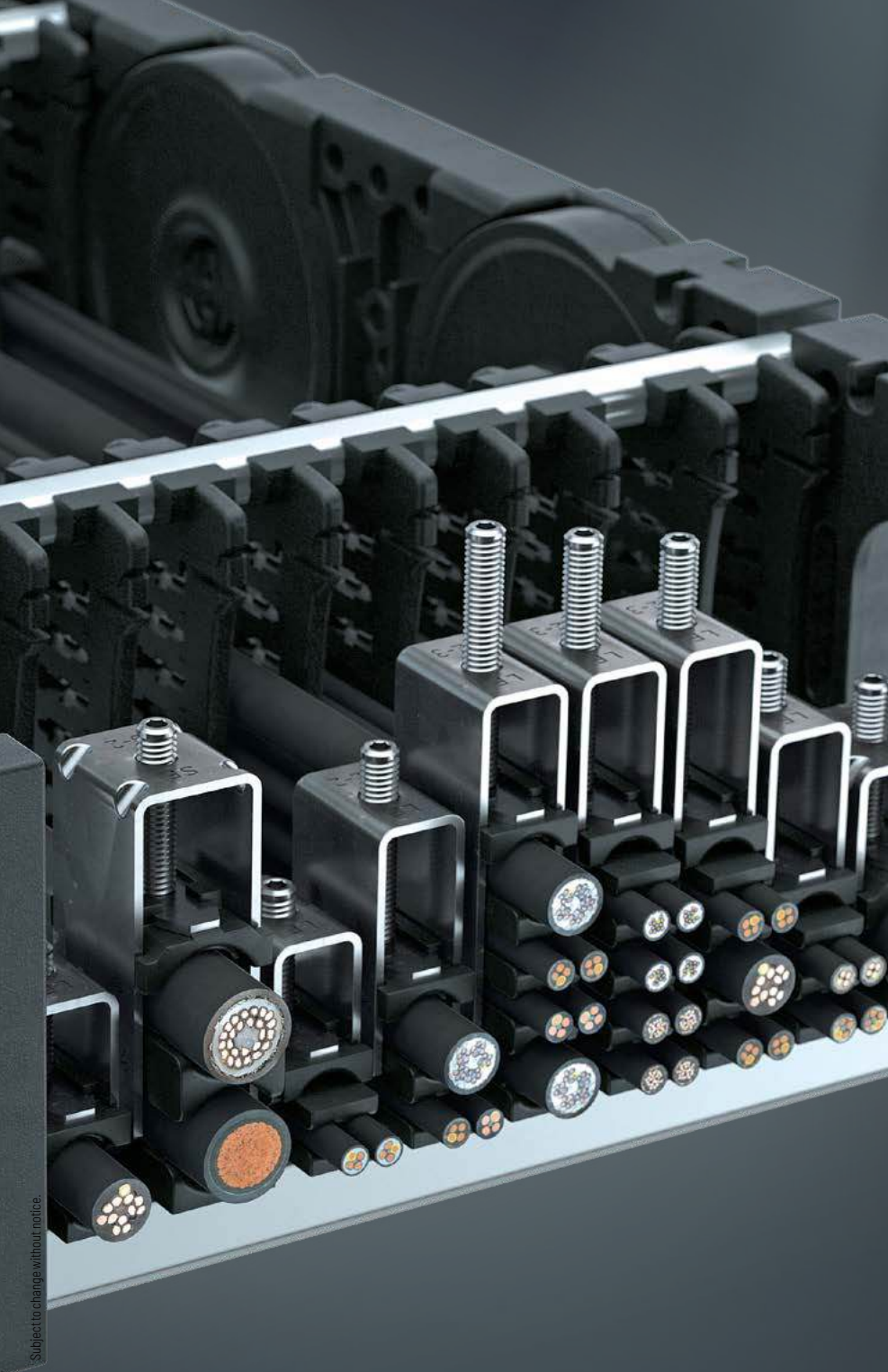


Combination possibilities | Dimensions



| | Material no. for one complete LineFix® | Material no. for one complete stainless steel LineFix® (ER IS) | Cable diam. A [mm] | cable diam. B [mm] | No. of cables | Width [mm] | Total height with max. cable diam. incl. C-profile* [mm] |
|----|--|---|--------------------------|--------------------------|------------------|---------------|---|
| 1 | 13757 | 13773 | 3-6 (2x) | - | 2 | 16 | 51 |
| 2 | 13758 | 13774 | 3-6 (4x) | - | 4 | 16 | 70 |
| 3 | 13759 | 13775 | 3-6 (2x) | 6-12 (1x) | 3 | 16 | 74 |
| 4 | 13760 | 13776 | 3-6 (2x) | 6-12 (1x) | 3 | 16 | 70 |
| 5 | 13761 | 13777 | 3-6 (6x) | - | 6 | 16 | 89 |
| 6 | 13762 | 13778 | 3-6 (4x) | 6-12 (1x) | 5 | 16 | 94 |
| 7 | 13763 | 13779 | 3-6 (4x) | 6-12 (1x) | 5 | 16 | 94 |
| 8 | 13764 | 13780 | 3-6 (2x) | 6-12 (2x) | 4 | 16 | 98 |
| 9 | 13765 | 13781 | 3-6 (8x) | - | 8 | 16 | 98 |
| 10 | 13766 | 13782 | 3-6 (6x) | 6-12 (1x) | 7 | 16 | 103 |
| 11 | 13767 | 13783 | 3-6 (6x) | 6-12 (1x) | 7 | 16 | 103 |
| 12 | 13768 | 13784 | 3-6 (6x) | 6-12 (1x) | 7 | 16 | 103 |
| 13 | 13769 | 13785 | 3-6 (6x) | 6-12 (1x) | 7 | 16 | 98 |
| 14 | 13770 | 13786 | 3-6 (4x) | 6-12 (2x) | 6 | 16 | 103 |
| 15 | 13771 | 13787 | 3-6 (4x) | 6-12 (2x) | 6 | 16 | 103 |
| 16 | 13772 | 13788 | 3-6 (4x) | 6-12 (2x) | 6 | 16 | 102 |

* Art. no. 3934



Subject to change without notice.

MT series

XLT series

ROBOTRAX® System

FLATVEYOR®

CLEANVEYOR®

LS/LSX series

S/SX series

S/SX-Tubes series

Accessories

TRAXLINE®

For separate strain relief or fastening of cables outside of the cable carrier – suitable for all cable carriers.

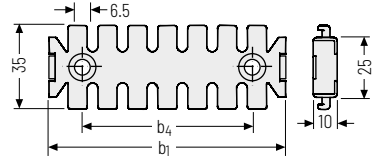
The strain relief combs are equipped with teeth on both sides. This allows secure fixing of each cable with two cable ties.

- » Secure fixing with two or four cable ties
- » Higher fixing force than single-sided strain relief combs
- » Uniform force transmission in push and pull direction
- » Minimized movement of cables and hoses



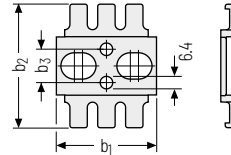
Strain relief comb with C-profile connections

| Mat. no. | b ₁ [mm] | b ₄ [mm] | No. of teeth |
|----------|---------------------|---------------------|--------------|
| 53654 | 49 | 21 | 2 x 3 |
| 53655 | 74 | 46 | 2 x 5 |
| 53656 | 99 | 71 | 2 x 7 |
| 53657 | 124 | 96 | 2 x 9 |
| 53658 | 149 | 121 | 2 x 11 |
| 53659 | 174 | 146 | 2 x 13 |
| 76550 | 54 | 21 | 2 x 3 |
| 76551 | 79 | 46 | 2 x 5 |
| 76552 | 104 | 71 | 2 x 7 |
| 76553 | 129 | 96 | 2 x 9 |
| 76554 | 154 | 121 | 2 x 11 |
| 76555 | 179 | 146 | 2 x 13 |

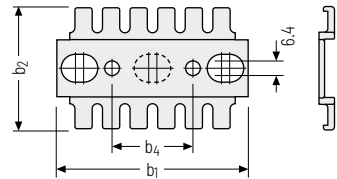


Strain relief comb

| Mat. no. | b ₁ [mm] | b ₂ [mm] | b ₄ [mm] | No. of teeth |
|----------|---------------------|---------------------|---------------------|--------------|
| 53983 | 43,2 | 53 | 14 | 2 x 3 |
| 53684 | 60,0 | 53 | 14 | 2 x 4 |
| 57350 | 61,0 | 70 | 20 | 2 x 4 |



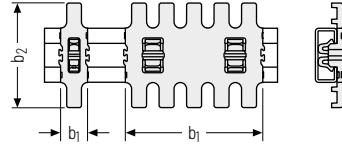
| Mat. no. | b ₁ [mm] | b ₂ [mm] | b ₄ [mm] | No. of teeth |
|----------|---------------------|---------------------|---------------------|--------------|
| 53984 | 63,2 | 53 | 15,2 | 2 x 4 |
| 53985 | 83,2 | 53 | 35,2 | 2 x 6 |
| 53986 | 108,2 | 53 | 60,2 | 2 x 8 |
| 53685 | 85,0 | 53 | 25,0 | 2 x 6 |
| 53686 | 110,0 | 53 | 50,0 | 2 x 8 |
| 53687 | 135,0 | 53 | 75,0 | 2 x 10 |
| 53688 | 160,0 | 53 | 100,0 | 2 x 12 |
| 57351 | 86,0 | 70 | 20,0 | 2 x 6 |
| 57352 | 111,0 | 70 | 40,0 | 2 x 8 |
| 57354 | 136,0 | 70 | 65,0 | 2 x 10 |
| 57355 | 161,0 | 70 | 90,0 | 2 x 12 |
| 57356 | 186,0 | 70 | 115,0 | 2 x 14 |
| 57357 | 211,0 | 70 | 140,0 | 2 x 16 |
| 57358 | 236,0 | 70 | 165,0 | 2 x 18 |
| 57359 | 261,0 | 70 | 190,0 | 2 x 20 |



Variable strain relief comb for C-profiles

The variable strain relief combs can be combined with each other as desired in the 1-fold and 5-fold versions and clipped into the C-profiles #3931, #3934, #3935 and 3936 (see page 886).

| Mat. no. | b ₁ [mm] | b ₂ [mm] | No. of teeth |
|----------|---------------------|---------------------|--------------|
| 3950 | 12,5 | 48 | 2 x 1 |
| 3951 | 62,5 | 48 | 2 x 5 |



MT series

XLT series

ROBOTRAX®
System

FLATVEVOR®

CLEANVEVOR®

LS/LSX series

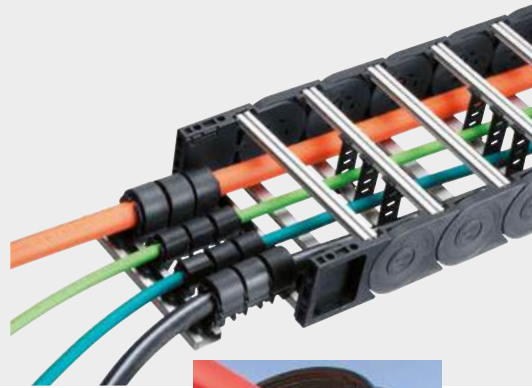
S/SX series

S/SX-Tubes series

Accessories

TRAXLINE®

- » Cost-effective
- » Assembly - easy, fast and without tools
- » Large-area surrounding of the cables
- » Low height
- » Without screws and cable ties
- » Contact force defined by spring tension bracket
- » Suitable for standard commercial profile rails
- » Protected against vibrations
- » Long service life for dynamic applications
- » Also usable as strain relief in control cabinets



MT series

XLT series

ROBOTRAX® System

FLATVEYOR®

CLEANVEYOR®

LS/LSX series

S/SX series

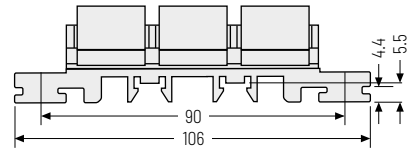
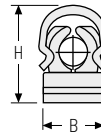
S/SX-Tubes series

Accessories

TRAXLINE®

Available sizes

| Type | Mat. no. | for cable Ø [mm] | Width Bat | | Height H [mm] |
|--------|----------|------------------|------------|------------|---------------|
| | | | Ø min [mm] | Ø max [mm] | |
| SZL 8 | 24989 | > 5.0 - 8.0 | 16 | 16 | 28 |
| SZL 10 | 24990 | > 8.0 - 10.5 | 20 | 20 | 30 |
| SZL 14 | 24991 | > 10.5 - 14.5 | 23 | 26 | 35 |
| SZL 18 | 24992 | > 14.5 - 18.0 | 25 | 32 | 40 |
| SZL 22 | 24993 | > 18.0 - 22.0 | 30 | 36 | 44 |
| SZL 27 | 24994 | > 22.0 - 27.0 | 34 | 39 | 50 |
| SZL 32 | 24995 | > 27.0 - 32.0 | 39 | 44 | 56 |



Fixing options



1. Clipped into a C-profile



2. Clipped onto a DIN rail



3. Inserted into two C-profiles



4. Directly bolted on

Installation of the SZL strain relief



Block clamps | Overview

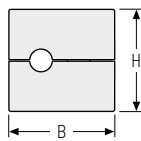
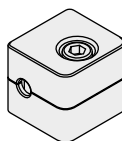
- » For strain relief of hoses
- » With clamping screw(s) and support rail nut
- » Hoses and cables
- » For C-rails with slot widths of 11 mm and 16 mm



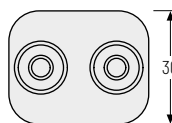
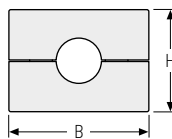
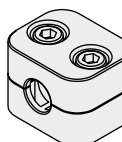
Available sizes

| Type | Mat. no. | for diameter [mm] | Width B [mm] | Height H [mm] |
|---------|----------|-------------------|--------------|---------------|
| BS 0.06 | 16701 | 6-7 | 28 | 27 |
| BS 0.07 | 16702 | 7-8 | 28 | 27 |
| BS 0.08 | 16703 | 8-9 | 28 | 27 |
| BS 0.09 | 16704 | 9-10 | 28 | 27 |
| BS 0.10 | 16705 | 10-12 | 28 | 27 |
| BS 1.06 | 16706 | 6-7 | 37 | 27 |
| BS 1.07 | 16707 | 7-8 | 37 | 27 |
| BS 1.08 | 16708 | 8-9 | 37 | 27 |
| BS 1.09 | 16709 | 9-10 | 37 | 27 |
| BS 1.10 | 16710 | 10-11 | 37 | 27 |
| BS 1.12 | 16711 | 12-14 | 37 | 27 |
| BS 2.14 | 16712 | 14-16 | 42 | 33 |
| BS 2.16 | 16713 | 16-18 | 42 | 33 |
| BS 2.18 | 16714 | 18-20 | 42 | 33 |
| BS 3.20 | 16715 | 20-22 | 50 | 36 |
| BS 3.22 | 16716 | 22-23 | 50 | 36 |
| BS 3.23 | 16717 | 23-25 | 50 | 36 |
| BS 3.25 | 16718 | 25-27 | 50 | 36 |
| BS 3.27 | 16719 | 27-30 | 59 | 42 |
| BS 3.30 | 16721 | 30-34 | 59 | 42 |
| BS 4.32 | 16722 | 32-34 | 59 | 42 |
| BS 4.34 | 16723 | 34-36 | 71 | 56 |
| BS 4.35 | 16724 | 35-37 | 71 | 56 |
| BS 4.38 | 16725 | 38-40 | 71 | 56 |
| BS 4.40 | 16726 | 40-42 | 71 | 56 |
| BS 4.42 | 16727 | 42-44 | 71 | 56 |
| BS 5.45 | 16728 | 45-48 | 86 | 66 |
| BS 5.48 | 16729 | 48-51 | 86 | 66 |
| BS 5.51 | 16731 | 51-54 | 86 | 66 |

Type BS 0



Type BS 1 - BS 5

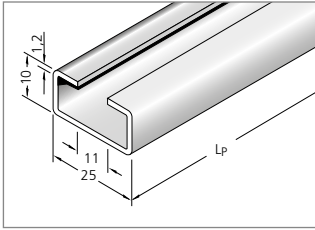


Suitable for **C profiles** with **11 mm** slot (Article no. 3931, 3934, 3935, 3936) as well as for **C-profiles** with **16 mm** slot (Article no. 3932, 3938, 3939)

- » Assembly profiles for strain relief elements - for all commercially available clamps
- » Length in 1 mm grid available



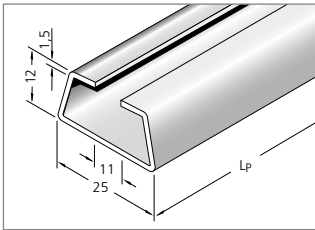
C-profile 25 x 10 mm



Suitable for all LineFix® clamps
(slot width 11 mm),
 LineFix® types see page 878.

| | |
|--|--------------------|
| Material | Article no. |
| Galvanized steel | 3931 |
| Attach profile with cheese-head screws M6 - DIN 6912 | |

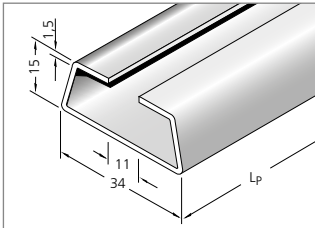
C-profile 25 x 12 mm



Suitable for all LineFix® clamps
(slot width 11 mm),
 LineFix® types see page 878.

| | |
|--|--------------------|
| Material | Article no. |
| Galvanized steel | 3934 |
| Attach profile with cheese-head screws M6 - DIN 6912 | |

C-profile 34 x 15 mm



Suitable for all LineFix® clamps
(slot width 11 mm),
 LineFix® types see page 878.

| | |
|--|--------------------|
| Material | Article no. |
| Galvanized steel | 3935 |
| Stainless steel (ER 1S) | 3936 |
| Attach profile with cheese-head screws M6 - DIN 6912 | |

MT series

XLT series

ROBOTRAX® System

FLATVEYOR®

CLEANVEYOR®

LS/SX series

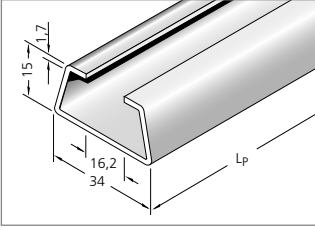
S/SX series

S/SX-Tubes series

Accessories

TRAXLINE®


C-profile 34 x 15 mm

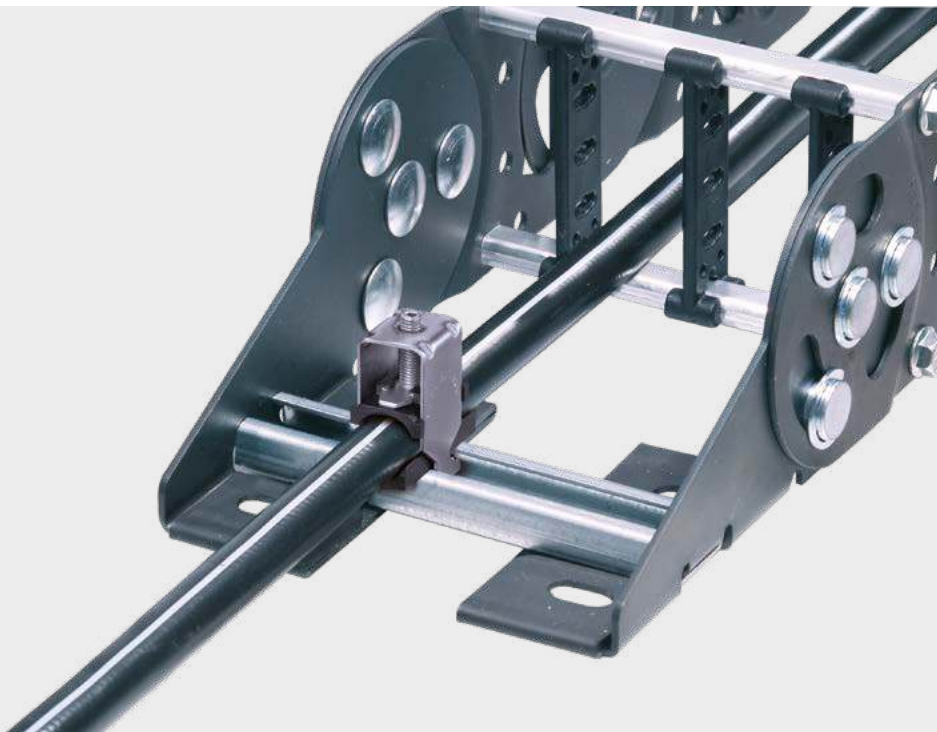


Suitable for all standard clamps
(slot width 16 - 17 mm),

Material **Article no.**
 Steel 3932

Attach profile with cheese-head screws M10 - DIN 6912

 The selection of the suitable C-profile depends on the connecting element.



Subject to change without notice.

| | |
|-------------------|-------------|
| TRAXLINE® | Accessories |
| S/SX-Tubes series | |
| S/SX series | |
| LS/LSX series | |
| CLEANVEYOR® | |
| FLATVEYOR® | |
| ROBOTRAX® System | |
| XLT series | |
| MT series | |