



JW WINCO®
A Ganter Company

Highlights

Aluminum Profiles



Standard Parts. **Winco.**

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i-Modular System

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The publication of this catalog renders all previous editions invalid. All editions meet the best available technology during printing. We reserve the right to make technical modifications or modifications resulting from an error as well as the right to remove individual items from the product range. The products of this catalog were developed as standard parts with the aim of covering the widest possible spectrum of requirements. We shall not assume any responsibility or liability for special applications with extraordinary requirements on our products. Our design department will gladly answer questions on certain product features, such as missing tolerances, dimensions, and stability. We will deliver based on our terms and conditions of payment and delivery. Download is available at www.jwwinco.com. J.W. Winco, Inc. has all rights to the catalog. Reproduction, including excerpts, is prohibited.

Aluminum Profiles



**GN 10i
Aluminum Profiles**
with Open Slots
on All Sides,
Profile Type Light
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**GN 10i
Aluminum Profiles**
with Open Slots
on All Sides,
Profile Type Heavy
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**GN 11i
Aluminum Profiles**
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T-Nuts



**GN 50i
T-Nuts**
Steel / Stainless Steel
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Connectors



**GN 20i
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Steel
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**GN 22i
Universal Connectors**
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**GN 23i
Automatic Connectors**
Steel,
Right-Angled Connection
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**GN 23i
Automatic Connectors**
Steel,
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**GN 23i
Automatic Connectors**
Steel,
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Angle Brackets



**GN 30i
Angle Brackets**
Zinc Die-Cast
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**GN 30i
Angle Brackets**
Zinc Die-Cast,
with Fastening Set
and Cover Cap
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Angle Brackets

continued



GN 32i
Angle Connectors
Aluminum,
Corner Installation
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GN 32i
Angle Connectors
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Installation
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Joints



GN 41i
Rotating Angle
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GN 42i
Rotating Angle
Zinc Die-Cast
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Cover Caps



GN 60i
Cover Caps
Plastic
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Cover Profiles



GN 70i
Cover and Edging Profiles
Plastic
Page 29



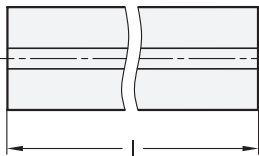
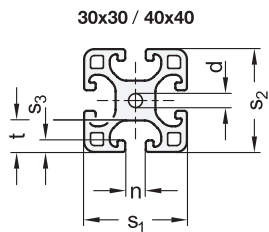
GN 71i
Cover and Edging Profiles
Aluminum
Page 30

Base Plates

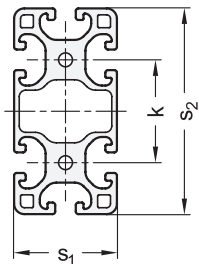


GN 80i
Support / Base Plates
Zinc Die-Cast
Page 31

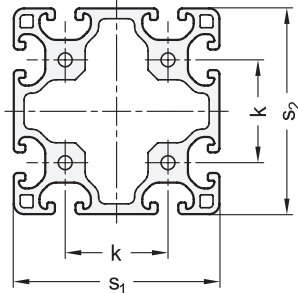
Metric



30x60 / 40x80



60x60 / 80x80



4 Profile type
L Light

Metric table

Dimensions in: millimeters / inches											
1 s ₁		2 s ₂	3 n	6 Length l +1.5mm in meters	7 Bundle Pieces	d	k	s ₃	t	Grid size	
Finish N	Finish S										
30 1.18	-	30 1.18	6 0.24	2	4	5 0.20	-	3 0.12	9.8 0.38	30 1.18	
30 1.18	-	60 2.36	6 0.24	2	2	5 0.20	30 1.18	3 0.12	9.8 0.38	30 1.18	
40 1.57	40 1.57	40 1.57	8 0.31	2	4	6.8 0.27	-	4.5 0.18	12.3 0.48	40 1.57	
40 1.57	40 1.57	80 3.15	8 0.31	2	2	6.8 0.27	40 1.57	4.5 0.18	12.3 0.48	40 1.57	
60 2.36	-	60 2.36	6 0.24	2	1	5 0.20	30 1.18	3 0.12	9.8 0.38	30 1.18	
80 3.15	-	80 3.15	8 0.31	2	1	6.8 0.27	40 1.57	4.5 0.18	12.3 0.48	40 1.57	

Specification

Aluminum

Anodized finish, natural color

N

Anodized finish, black

S

RoHS

Technical Information

Page

Technical Data

7

Accessory

GN 50i T-Nuts	8
GN 60i Cover Caps	28
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GN 80i Support / Base Plates	31

Aluminum profiles GN 10i are produced by extrusion molding. They can be used, for example, to easily construct protective enclosures, workplace equipment or jigs.

Aluminum profiles in combination with the removable and reusable accessories form a flexible modular system. Attachments can be fastened to either the slots or the end faces via the holes.

The profile type light is typically used for small loads or for weight-optimized constructions.

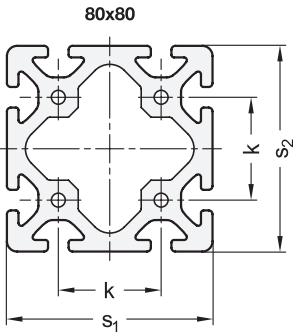
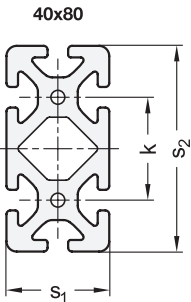
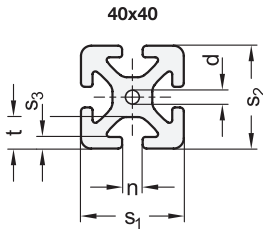
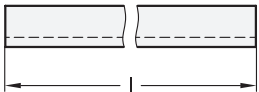
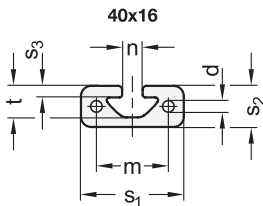
Aluminum profiles are supplied in bundles. The table shows the quantity included in each bundle.

How to order

1 Profile width s ₁
2 Profile height s ₂
3 Slot width n
4 Profile type
5 Finish
6 Length l (in meters)
7 Bundle

GN 10i-60 60 6 L-N-2-1

Metric



4 Profile type
S Heavy

Metric table

1	2	3	6	7	Dimensions in: millimeters / inches						
s₁	s₂	n	Length l in meters	Bundle Pieces	d	k	m	s₃	t	Grid size	
40 1.57	16 0.63	8 0.31	2	4	5 0.20	-	28 1.10	4.5 0.18	12.3 0.48	40 1.57	
40 1.57	40 1.57	8 0.31	2	4	6.8 0.27	-	-	4.5 0.18	12.3 0.48	40 1.57	
40 1.57	80 3.15	8 0.31	2	2	6.8 0.27	40 1.57	-	4.5 0.18	12.3 0.48	40 1.57	
80 3.15	80 3.15	8 0.31	2	1	6.8 0.27	40 1.57	-	4.5 0.18	12.3 0.48	40 1.57	

Specification

Aluminum

Anodized finish, natural color

5

N

RoHS

Accessory

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GN 60i Cover Caps	28
GN 70i Cover and Edging Profiles	29
GN 71i Cover Profiles	30
GN 80i Support / Base Plates	31

Aluminum profiles GN 10i are produced by extrusion molding. They can be used, for example, to easily construct protective enclosures, workplace equipment or jigs.

Aluminum profiles in combination with the removable and reusable accessories form a flexible modular system. Attachments can be fastened to either the slots or the end faces via the holes.

Aluminum profiles are supplied in bundles. The table shows the quantity included in each bundle.

Technical Information

Page

Technical Data

7

How to order

1	Profile width s₁
2	Profile height s₂
3	Slot width n
4	Profile type
5	Finish
6	Length l (in meters)
7	Bundle

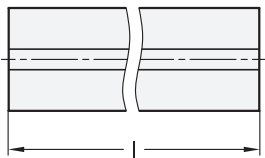
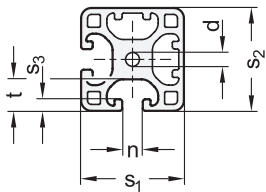
GN 10i-4080 8 S-N-2-2

Metric



4 Profile type

N Light,
2 sides closed,
offset by 90°



Metric table

1	2	3	6	7	Dimensions in: millimeters / inches			
s₁	s₂	n	Length l +1.5mm in meters	Bundle Pieces	d	s₃	t	Grid size
40 1.57	40 1.57	8 0.31	2	4	6.8 0.27	4.5 0.18	12.3 0.48	40 1.57

Specification

Aluminum

Anodized finish, natural color

RoHS

5

N

Aluminum profiles GN 11i with partially closed slots are produced by extrusion molding. They can be used, for example, to easily construct protective enclosures, workplace equipment or partition walls, when an attractive appearance is required.

Aluminum profiles in combination with the removable and reusable accessories form a flexible modular system. Attachments can be fastened to either the slots or the end faces via the holes.

The closed profile sides facilitate cleaning. The profile type light is typically used for small loads or for weight-optimized constructions.

Aluminum profiles are supplied in bundles. The table shows the quantity included in each bundle.

Technical Information	Page
Technical Data	7
Accessory	
GN 50i T-Nuts	8
GN 60i Cover Caps	28
GN 70i Cover and Edging Profiles	29
GN 71i Cover Profiles	30
GN 80i Support / Base Plates	31

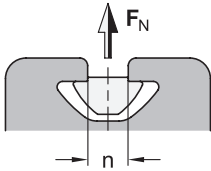
How to order	1	Profile width s₁
	2	Profile height s₂
	3	Slot width n
	4	Profile type
	5	Finish
	6	Length l (in meters)
	7	Bundle
GN 11i-4040 8 N-N-2-4		

Mechanical Data (in Extrusion Direction)

- Material: Al Mg Si 0.5 F25 (EN AW – 6063)
- Delivery condition: Artificially aged
- Anodized coating: E6EV1 (natural color), layer thickness: 10 µm
- Dimensional deviations as per DIN EN 12020-2
- Tensile strength R_m min. 245 N/mm²
- Yield point $R_{p0.2}$ min. 195 N/mm²
- Density 2.7 kg/dm³
- Linear expansion coefficient 23.6×10^{-6} 1/k
- Modulus of elasticity $E \approx 70,000$ N/mm²
- Hardness $\approx 75HB -2.5/187.5$

Permissible Tensile Load on the Slot

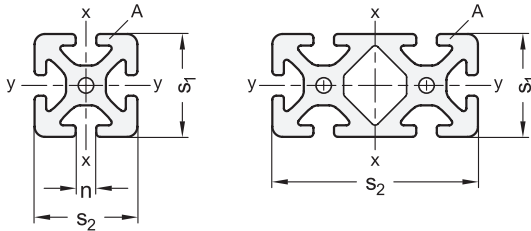
Dimensions in: millimeters / inches



n	Grid size	Profile type	F _N *		
			With T-nuts GN 50b		
			Type N	Type V	Type S
6 0.24	30 1.18	light	674 lbf 3000 N	674 lbf 3000 N	-
8 0.31	40 1.57	light	1686 lbf 7500 N	1236 lbf 5500 N	-
8 0.31	40 1.57	heavy	3372 lbf 15000 N	3372 lbf 15000 N	4271 lbf 19000 N

* Depending on the thread size of the T-nut

Cross-Section Properties



W_x, W_y = Axial resistance torque against bending
 I_x, I_y = 2nd moment of area against bending
 I_t = 2nd moment of area against torsion
 A = Cross-section area
 m = Length-related mass

GN 10i Profile type light

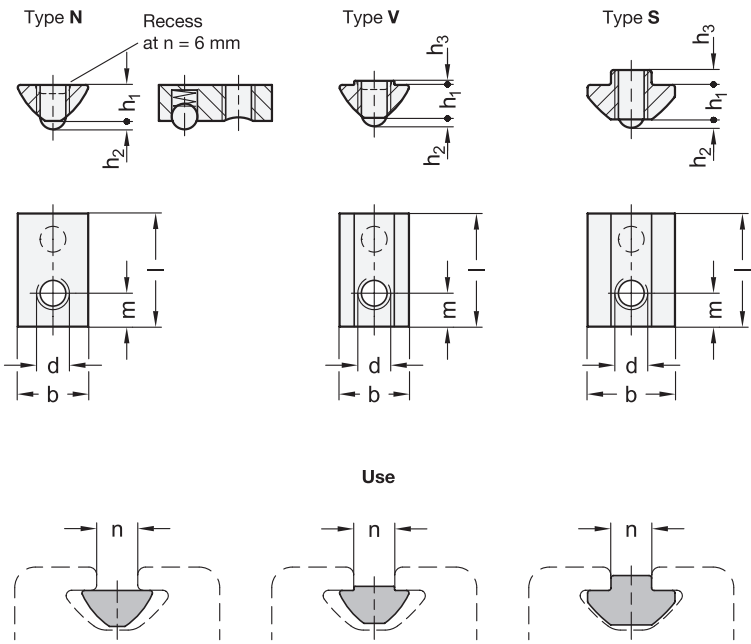
s ₁	s ₂	n	Grid size	Bending axis x-x		Bending axis y-y		I _t in cm ⁴	A in cm ²	m ≈ in kg/m
				I _x in cm ⁴	W _x in cm ³	I _y in cm ⁴	W _y in cm ³			
30 1.18	30 1.18	6 0.24	30 1.18	2.9	1.94	2.9	1.94	0.3	3.43	0.93
30 1.18	60 2.36	6 0.24	30 1.18	21.2	7.07	5.54	3.69	3.18	6.13	1.65
60 2.36	60 2.36	6 0.24	30 1.18	39.5	13.2	39.5	13.2	21.5	10.0	2.7
40 1.57	40 1.57	8 0.31	40 1.57	9.1	4.55	9.1	4.55	1.36	6.47	1.75
40 1.57	80 3.15	8 0.31	40 1.57	70.2	17.6	16.8	8.45	9.94	11.3	3.08
80 3.15	80 3.15	8 0.31	40 1.57	130.1	33.2	130.1	33.2	80.8	19.3	5.17

GN 10i Profile type heavy

s ₁	s ₂	n	Grid size	Bending axis x-x		Bending axis y-y		I _t in cm ⁴	A in cm ²	m ≈ in kg/m
				I _x in cm ⁴	W _x in cm ³	I _y in cm ⁴	W _y in cm ³			
40 1.57	16 0.62	8 0.31	40 1.57	1.06	1.25	6.75	3.37	0.97	4.15	1.12
40 1.57	40 1.57	8 0.31	40 1.57	13.9	6.95	13.9	6.95	1.88	9.05	2.45
40 1.57	80 3.15	8 0.31	40 1.57	101.0	25.2	26.7	13.4	18.8	16.5	4.51
80 3.15	80 3.15	8 0.31	40 1.57	187.8	46.9	187.8	46.9	128.4	26.7	7.2

GN 11i Profile type light

s ₁	s ₂	n	Grid size	Bending axis x-x		Bending axis y-y		I _t in cm ⁴	A in cm ²	m ≈ in kg/m
				I _x in cm ⁴	W _x in cm ³	I _y in cm ⁴	W _y in cm ³			
40 1.57	40 1.57	8 0.31	40 1.57	9.63	4.96	9.63	4.96	5.41	6.79	1.83



Metric



3 Type

- N** Without anti-twist protection
- V** With anti-twist protection
- S** Heavy

Specification

Steel

Zinc plated, blue passivated finish

SZ

Stainless steel

Plain finish

NB

RoHS

4

T-nuts GN 50i fasten attachments and accessories in the slot of aluminum profiles.

The spring-loaded ball secures the T-nut against unwanted slipping within the slot, making installation easier.

T-nuts of types N and V can be swiveled into the slot at any position.

see also...

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GN 10i Aluminum Profiles (Profile Type Heavy)	5
GN 11i Aluminum Profiles (with Partially Closed Slots)	6

Technical Information

Assembly Instruction	7
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How to order


GN 50i-8M6-V-SZ

1	Slot width n
2	Thread d
3	Type
4	Material / Finish

Metric table

1

2

Dimensions in: millimeters / inches

Type N															
n	d					Stainless steel					b ≈	h ₁ ≈	h ₂ ≈	Length l	m ≈
	Steel														
5 0.20	M 3	M 4	M 5	-	-	M 4	M 5	-	-	-	8 0.31	4 0.16	0.8 0.03	11.5 0.45	4 0.16
6 0.24	M 3	M 4	M 5	M 6	-	-	-	-	-	-	11 0.43	6 0.24	0.9 0.04	17 0.67	5 0.20
8 0.31	M 4	M 5	M 6	M 8	-	M 4	M 5	M 6	M 8	-	14 0.55	7 0.28	1.6 0.06	23 0.91	7 0.28

1

2

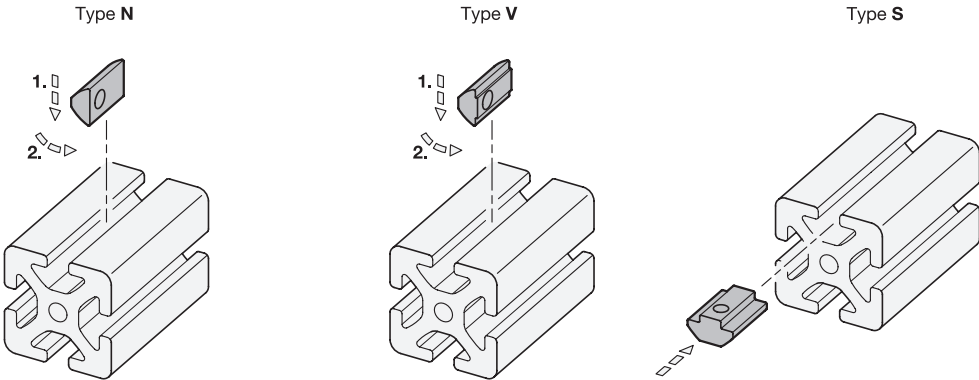
Type V																
n	d					Stainless steel					b ≈	h ₁ ≈	h ₂ ≈	h ₃ ≈	Length l	m ≈
	Steel															
5 0.20	M 3	M 4	M 5	-	-	-	-	-	-	-	8 0.31	4 0.16	0.8 0.03	0.7 0.03	11.5 0.45	4 0.16
6 0.24	M 3	M 4	M 5	M 6	-	M 5	M 6	-	-	-	11 0.43	6 0.24	0.9 0.04	0.5 0.02	17 0.67	5 0.20
8 0.31	M 3	M 4	M 5	M 6	M 8	-	-	-	-	-	14 0.55	7 0.28	1.6 0.06	0.9 0.04	23 0.91	7 0.28

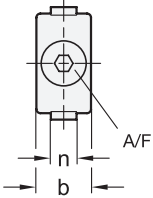
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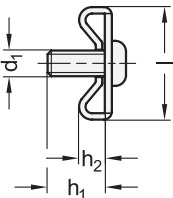
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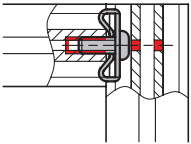
Type S																
n	d					Stainless steel					b ≈	h ₁ ≈	h ₂ ≈	h ₃ ≈	Length l	m ≈
	Steel															
8 0.31	M 4	M 5	M 6	M 8	-	-	-	-	-	-	18 0.71	7 0.28	1.6 0.06	2.8 0.11	23 0.91	7 0.28

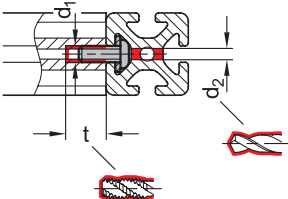
Assembly Instruction













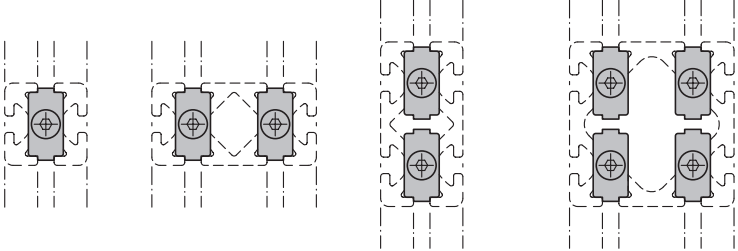


2 Type

D Doubled

3 Coding

C With screw



Use



Metric table

15

5

Dimensions in: millimeters / inches

n	Bundle Pieces	b	d ₁	d ₂	h ₁ ≈	h ₂ ≈	Length l ≈	A/F	t	Tightening torque in Nm
6 0.24	4	13 0.51	M 6	5.5 0.22	12 0.47	7.5 0.30	28.5 1.12	4	15 0.59	10
8 0.31	4	17 0.67	M 8	7 0.28	18 0.71	10 0.39	35 1.38	5	18 0.71	25

Specification

4

Steel

Zinc plated, blue passivated finish

SZ

RoHS

Standard connectors GN 20i fasten aluminum profiles at right angles and secure them against twisting. This requires machining of both profiles. The internal thread can be cut directly into the end face profile holes. If panels are used in the slot, they must be suitably pocketed. Standard connectors are supplied in bundles. The table shows the quantity included in each bundle.

see also...	Page
GN 10i Aluminum Profiles (Profile Type Light)	4
GN 10i Aluminum Profiles (Profile Type Heavy)	5
GN 11i Aluminum Profiles (with Partially Closed Slots)	6

How to order

12345

GN 20i-8-D-C-SZ-4

1 Slot width n

2 Type

3 Coding

4 Material / Finish

5 Bundle

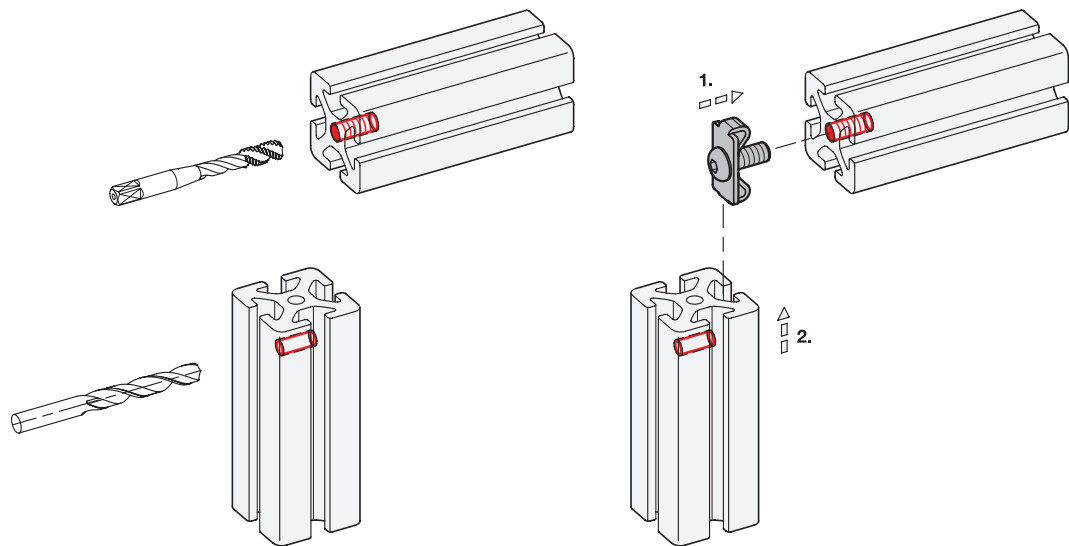
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 **WARNING:** Cancer and Reproductive Harm — www.P65Warnings.ca.gov

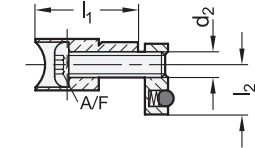
www.jwwinco.com

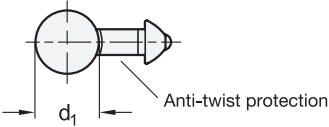
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Assembly Instructions / Profile Machining

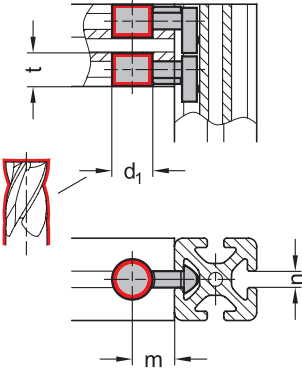








Assembly / profile machining



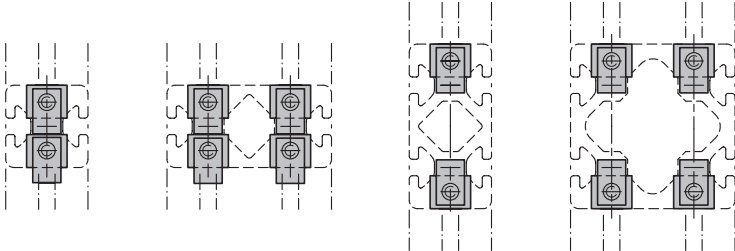
Metric



 **2 Type**
V With anti-twist protection

 **3 Coding**
C With screw and T-nut

Use



Metric table

1 6		Dimensions in: millimeters / inches							
n	Bundle Pieces	d ₁	d ₂	l ₁	l ₂	m +0.5	A/F	t +0.5	Tightening torque in Nm
6 0.24	4	16 0.63	M 6	25.5 1.00	11.5 0.45	15 0.59	4	12.7 0.50	8
8 0.31	4	20 0.79	M 8	33.5 1.32	15.5 0.61	20 0.79	5	16 0.63	25

Specification	4	5
Housing	Zinc die-cast, zinc plated	
	ZZ	
Screw / T-nut	Steel, zinc plated, blue passivated finish	
	SZ	
RoHS		
Technical Information	Page	
Assembly Instructions / Profile Machining	15	

Universal connectors GN 22i fasten aluminum profiles together at right angles and, when used in pairs, secure them against twisting. Only one profile has to be machined.

The connection can be freely positioned and slid along the slot. The anti-twist protection can be easily removed thanks to its predetermined breaking point, allowing installation at any angle relative to the profile slot. If panels are used in the slot, they must be suitably pocketed.

Universal connectors are supplied in bundles. The table shows the quantity included in each bundle.

see also...	Page
GN 10i Aluminum Profiles (Profile Type Light)	4
GN 10i Aluminum Profiles (Profile Type Heavy)	5
GN 11i Aluminum Profiles (with Partially Closed Slots)	6

How to order	1 Slot width n
	2 Type
	3 Coding
	4 Material / Finish (Housing)
	5 Material / Finish (Screw and T-nut)
	6 Bundle

1

2

3

4

5

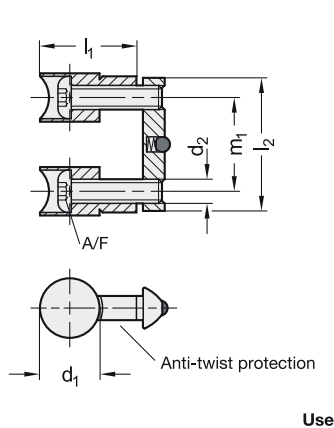
6

GN 22i-8-V-C-ZZSZ-4

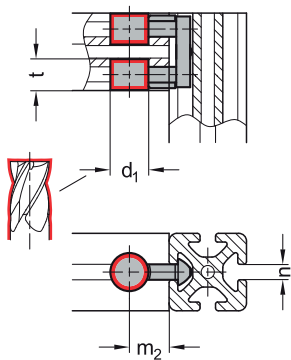
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 WARNING: Cancer and Reproductive Harm — www.P65Warnings.ca.gov

13



Assembly / profile machining



Metric

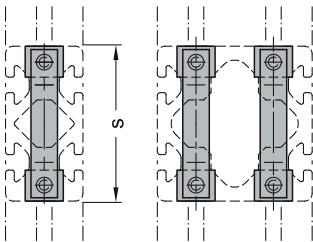
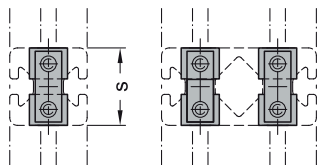


3 Type

V With anti-twist protection

4 Coding

D With 2 screws and double T-nut



Metric table

Dimensions in: millimeters / inches												
1 s	2 n	7 Bundle Pieces	d ₁	d ₂	l ₁	l ₂	m ₁	m ₂ +0.5	A/F	t +0.5	Tightening torque in Nm	
30 1.18	6 0.24	2	16 0.63	M 6	25.5 1.00	28 1.10	17 0.67	15 0.59	4	12.7 0.50	8	
40 1.57	8 0.31	2	20 0.79	M 8	33.5 1.32	36 1.42	24 0.94	20 0.79	5	16 0.63	25	
60 2.36	6 0.24	2	16 0.63	M 6	25.5 1.00	58 2.28	47 1.85	15 0.59	4	12.7 0.50	8	
80 3.15	8 0.31	2	20 0.79	M 8	33.5 1.32	76 2.99	64 2.52	20 0.79	5	16 0.63	25	

Specification

Housing

Zinc die-cast, zinc plated

ZZ

Screws / T-nut

Steel, zinc plated, blue passivated finish

SZ

RoHS

Universal connectors GN 22i fasten aluminum profiles at right angles and secure them against twisting. Only one profile has to be machined. The connection can be freely positioned and slid along the slot. If panels are used in the slot, they must be suitably pocketed. Universal connectors are supplied in bundles. The table shows the quantity included in each bundle.

see also...

Page

GN 22i Universal Connectors (with Single T-Nut)	13
GN 10i Aluminum Profiles (Profile Type Light)	4
GN 10i Aluminum Profiles (Profile Type Heavy)	5

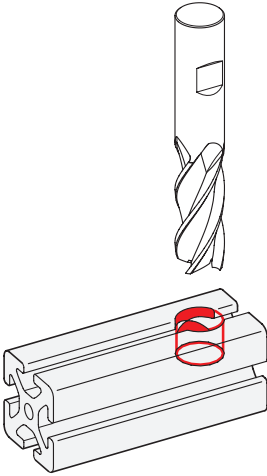
How to order

1 Profile height s
2 Slot width n
3 Type
4 Coding
5 Material / Finish (Housing)
6 Material / Finish (Screws and T-nut)
7 Bundle

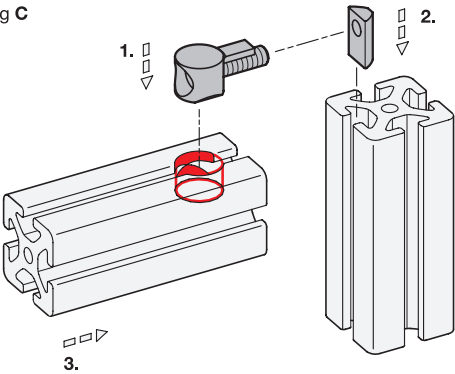
GN 22i-606-V-D-ZZSZ-2

Universal Connectors

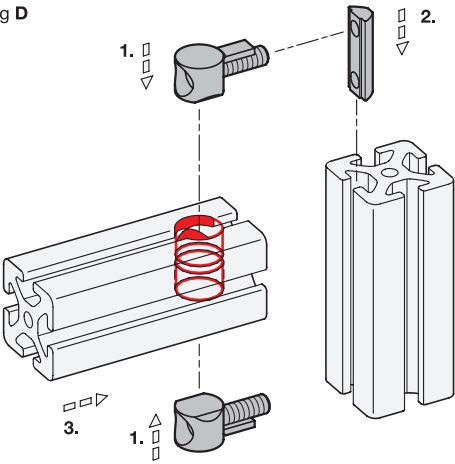
Assembly Instructions / Profile Machining GN 22i

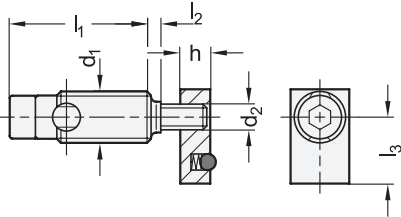


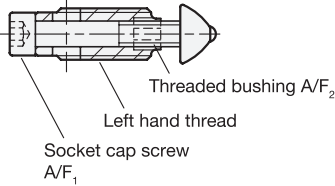
Coding C



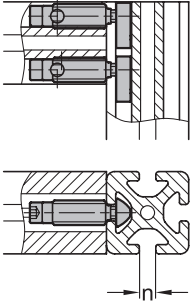
Coding D







Installation



Metric





2 Profile type

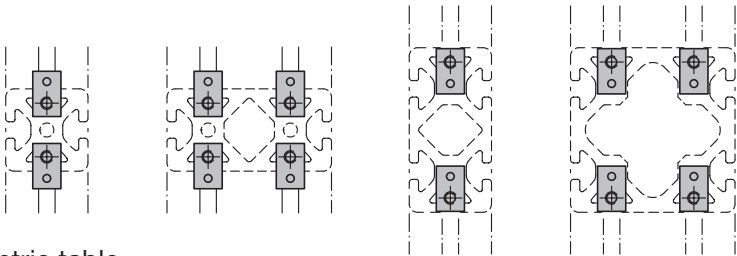
S Heavy



3 Coding

R Right-angled connection

Use



Metric table

1

5

n	Bundle Pieces	d ₁ Self-forming thread	d ₂	h	l ₁	l ₂	l ₃	A/F ₁	A/F ₂	Tightening torque in Nm
6 0.24	4	S 10	M 5	6 0.24	32 1.26	-	12 0.47	4	5	8
8 0.31	4	S 12	M 6	7 0.28	34.5 1.36	2.5 0.10	16 0.63	5	6	14

Dimensions in: millimeters / inches

Specification

4

Steel

Zinc plated, blue passivated finish

SZ

RoHS

Automatic connectors GN 23i fasten aluminum profiles together at right angles. Machining of the profile is not necessary. The connection can be freely positioned and slid along the slot.

For assembly, first insert the socket cap screw along the slot and then screw in the lightly lubricated threaded bushing. Minor burr formation is possible. Automatic connectors are used in pairs opposite each other. If panels are used in the slot, they must be suitably pocketed.

Automatic connectors are supplied in bundles. The table shows the quantity included in each bundle.

see also...	Page
GN 10i Aluminum Profiles (Profile Type Light)	4
GN 10i Aluminum Profiles (Profile Type Heavy)	5
GN 11i Aluminum Profiles (with Partially Closed Slots)	6

Technical Information	
Assembly Instructions	19

How to order

1 2 3 4 5

GN 23i- 8 S-R-SZ-4

1 Slot width n

2 Profile type

3 Coding

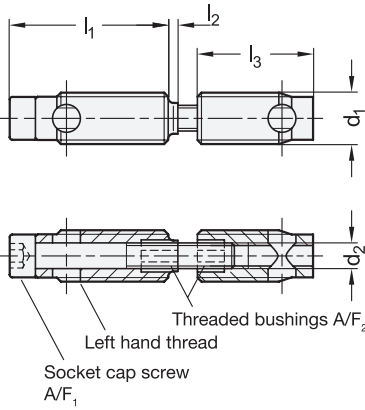
4 Material / Finish

5 Bundle

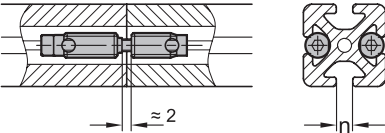
16

 **WARNING:** Cancer and Reproductive Harm — www.P65Warnings.ca.gov

www.jwwinco.com | 1-800-877-8351



Installation



Metric





2 Profile type

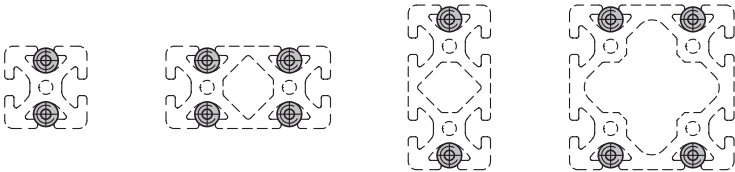
S Heavy



3 Coding

S End face connection

Use



Metric table

1

5

n	Bundle Pieces	d ₁ Self-forming thread	d ₂	l ₁	l ₂	l ₃	A/F ₁	A/F ₂	Tightening torque in Nm
6 0.24	4	S 10	M 5	32 1.26	-	27 1.06	4	5	8
8 0.31	4	S 12	M 6	34.5 1.36	2.5 0.10	30.8 1.21	5	6	14

Dimensions in: millimeters / inches

Specification

4

Steel

Zinc plated, blue passivated finish

SZ

RoHS

Automatic connectors GN 23i fasten aluminum profiles together on the end faces to extend them while securing them against twisting. Machining of the profile is not necessary.

For assembly, first insert the socket cap screw along the slot and then screw in the lightly lubricated threaded bushings. Minor burr formation is possible. Automatic connectors are used in pairs opposite each other. If panels are used in the slot, they must be suitably pocketed.

Automatic connectors are supplied in bundles. The table shows the quantity included in each bundle.

see also...	Page
GN 10i Aluminum Profiles (Profile Type Heavy)	5

Technical Information	
Assembly Instructions	19

How to order

1 2 3 4 5

GN 23i- 6 S-S-SZ-4

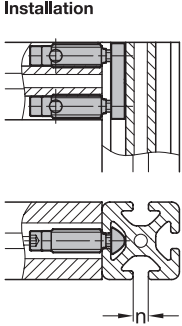
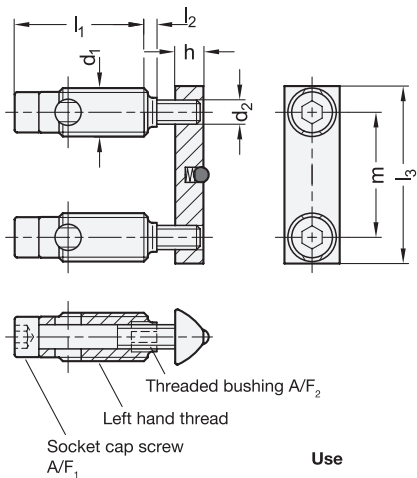
1 Slot width n

2 Profile type

3 Coding

4 Material / Finish

5 Bundle



Metric

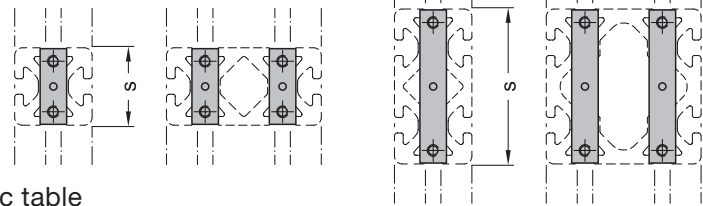


3 Profile type

S Heavy

4 Coding

D With 2 screws and double T-nut



Metric table

1	2	6	Dimensions in: millimeters / inches									
s	n	Bundle Pieces	d₁ Self-forming thread	d₂	h	l₁	l₂	l₃	m	A/F₁	A/F₂	Tightening torque in Nm
30 1.18	6 0.24	2	S 10	M 5	7 0.28	32 1.26	-	28 1.10	17 0.67	4	5	8
40 1.57	8 0.31	2	S 10	M 5	6 0.24	32 1.26	-	36 1.42	24 0.94	5	6	14
50 1.97	6 0.24	2	S 10	M 5	7 0.28	32 1.26	-	58 2.28	47 1.85	4	5	8
80 3.15	8 0.31	2	S 12	M 6	7 0.28	34.5 1.36	2.5 0.10	76 2.99	64 2.52	5	6	14

Specification

Steel

Zinc plated, blue passivated finish

RoHS

5

Automatic connectors GN 23i fasten aluminum profiles at right angles and secure them against twisting. Machining of the profile is not necessary. The connection can be freely positioned and slid along the slot. For assembly, first insert the socket cap screw along the slot and then screw in the lightly lubricated threaded bushing. Minor burr formation is possible. Automatic connectors are used in pairs opposite each other. If panels are used in the slot, they must be suitably pocketed. Automatic connectors are supplied in bundles. The table shows the quantity included in each bundle.

see also...

Page

GN 23i Automatic Connectors (with Single T-Nut, Right-Angled Connection) 16

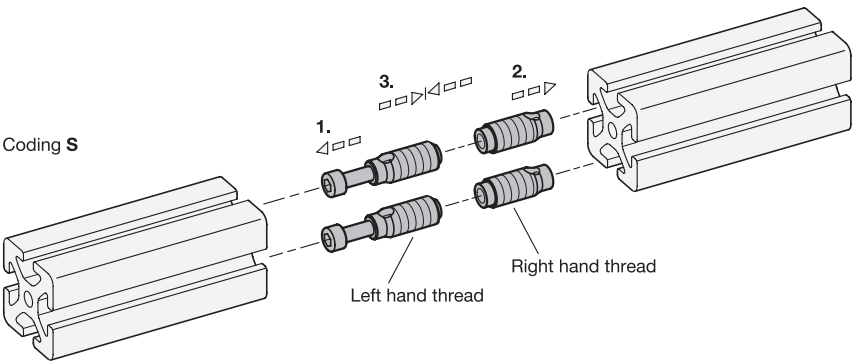
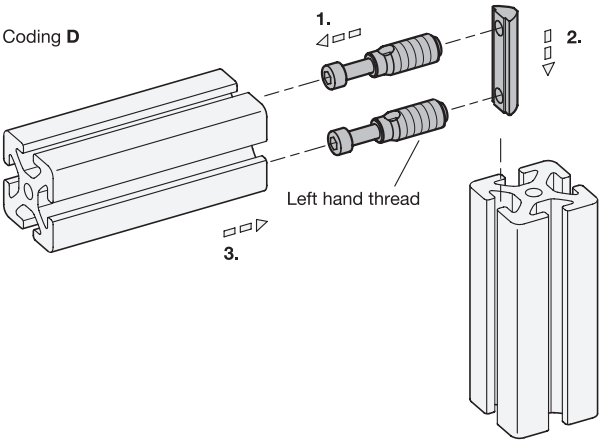
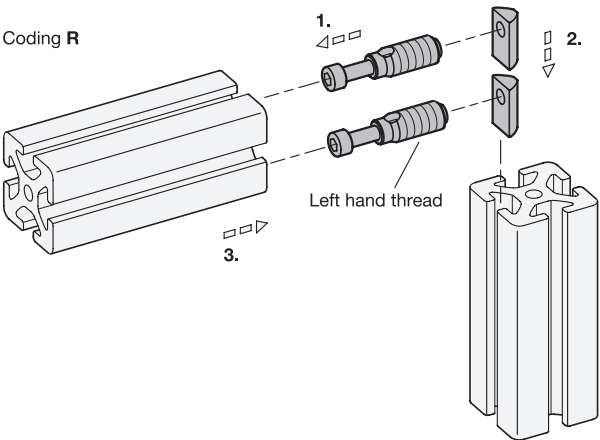
GN 23i Automatic Connectors (with Single T-Nut, End Face Connection) 17

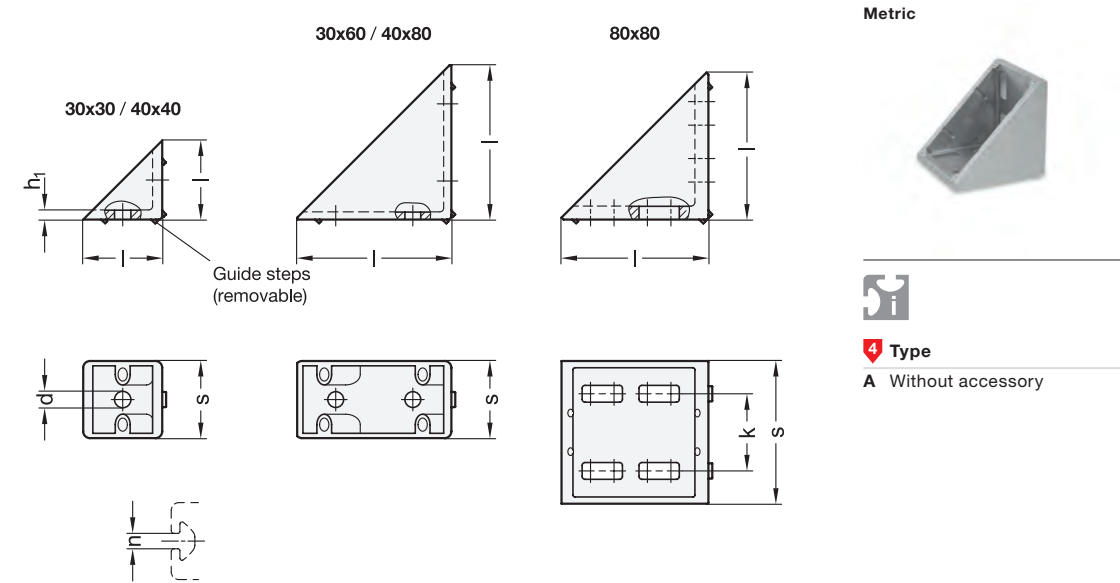
How to order	
1	Profile height s
2	Slot width n
3	Profile type
4	Coding
5	Material / Finish
6	Bundle

GN 23i-408S-D-SZ-2

Automatic Connectors

Assembly Instructions GN 23i





Metric table

1		2		3		Dimensions in: millimeters / inches	
s		Length l		n	d	h₁	k
Nominal dimension	Actual dimension	Nominal dimension	Actual dimension		For screw		
30	30	30	30	6	M 6	2.5	-
1.18	1.18	1.18	1.18	0.24		0.10	
30	30	60	60	6	M 6	3.5	-
1.18	1.18	2.36	2.36	0.24		0.14	
40	40	40	40	8	M 8	5	-
1.57	1.57	1.57	1.57	0.31		0.20	
40	40	80	80	8	M 8	5	-
1.57	1.57	3.15	3.15	0.31		0.20	
80	74	80	76	8	M 8	8	40
3.15	2.91	3.15	2.99	0.31		0.31	1.57

Specification

Zinc die-cast	ZW
Painted, white aluminum	
RoHS	
Accessory	Page
GN 50i T-Nuts	8

Angle brackets GN 30i fasten aluminum profiles to objects such as tables and panels or at right angles to each other. Machining of the profile is not necessary.

The connection can be freely positioned and slid along the slot. To fasten the angle brackets to a panel or transversely to an aluminum profile, the guide steps must be broken off.

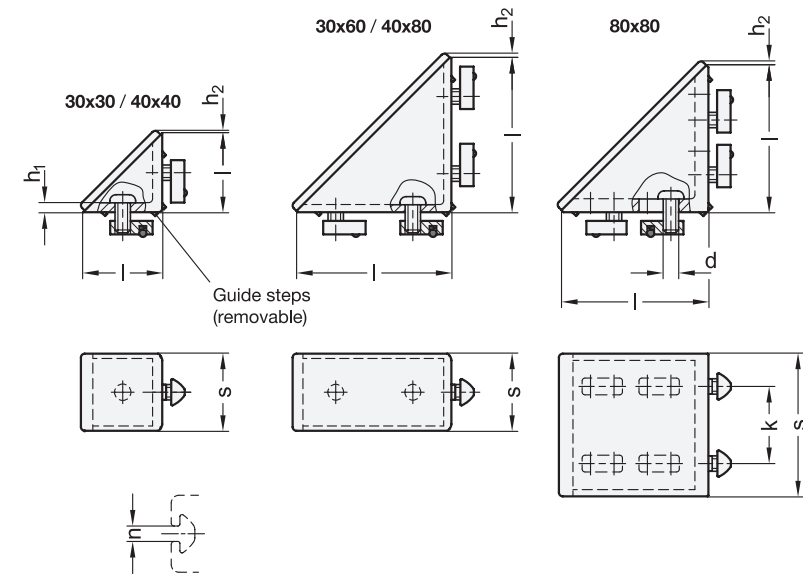
see also...	Page
GN 10i Aluminum Profiles (Profile Type Light)	4
GN 10i Aluminum Profiles (Profile Type Heavy)	5
GN 11i Aluminum Profiles (with Partially Closed Slots)	6

Technical Information

Assembly Options / Application Examples	22
---	----

How to order	1 Width s
	2 Length l
	3 Slot width n
	4 Type
	5 Finish

GN 30i-40 40 8-A-ZW



Metric



4 Type

C With fastening set and cover cap

Metric table

1		2		3		Dimensions in: millimeters / inches		
s		Length l		n	d	h₁	h₂ ≈	k
Nominal dimension	Actual dimension	Nominal dimension	Actual dimension					
30 1.18	30 1.18	30 1.18	30 1.18	6 0.24	M 6	2.5 0.10	2 0.08	-
30 1.18	30 1.18	60 2.36	60 2.36	6 0.24	M 6	3.5 0.14	2 0.08	-
40 1.57	40 1.57	40 1.57	40 1.57	8 0.31	M 8	5 0.20	2 0.08	-
40 1.57	40 1.57	80 3.15	80 3.15	8 0.31	M 8	5 0.20	2 0.08	-
80 3.15	74 2.91	80 3.15	76 2.99	8 0.31	M 8	8 0.31	7 0.28	40 1.57

Specification

Angle bracket

Zinc die-cast

Painted, white aluminum

5 6 7

ZW

Screws / T-nuts

Steel

Zinc plated, blue passivated finish

SZ

Cover cap

Plastic, Polyamide (PA)

Black

● S

RoHS

Technical Information

Page

Assembly Options / Application Examples

22

Plastic Characteristics

Handbook 2135

Angle brackets GN 30i fasten aluminum profiles to objects such as tables and panels or at right angles to each other. Machining of the profile is not necessary.

The connection can be freely positioned and slid along the slot. To fasten the angle brackets to a panel or transversely to an aluminum profile, the guide steps must be broken off.

The cover caps ensure a visually appealing appearance and simplify cleaning.

see also...

	Page
GN 10i Aluminum Profiles (Profile Type Light)	4
GN 10i Aluminum Profiles (Profile Type Heavy)	5
GN 11i Aluminum Profiles (with Partially Closed Slots)	6

How to order

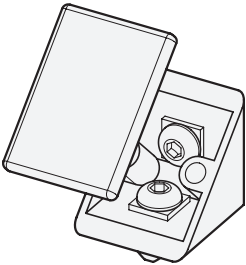
1	Width s
2	Length l
3	Slot width n
4	Type
5	Finish (Angle bracket)
6	Material (Fastening set)
7	Color of the cover cap

GN 30i- 80 80 8 -C- ZW SZ S

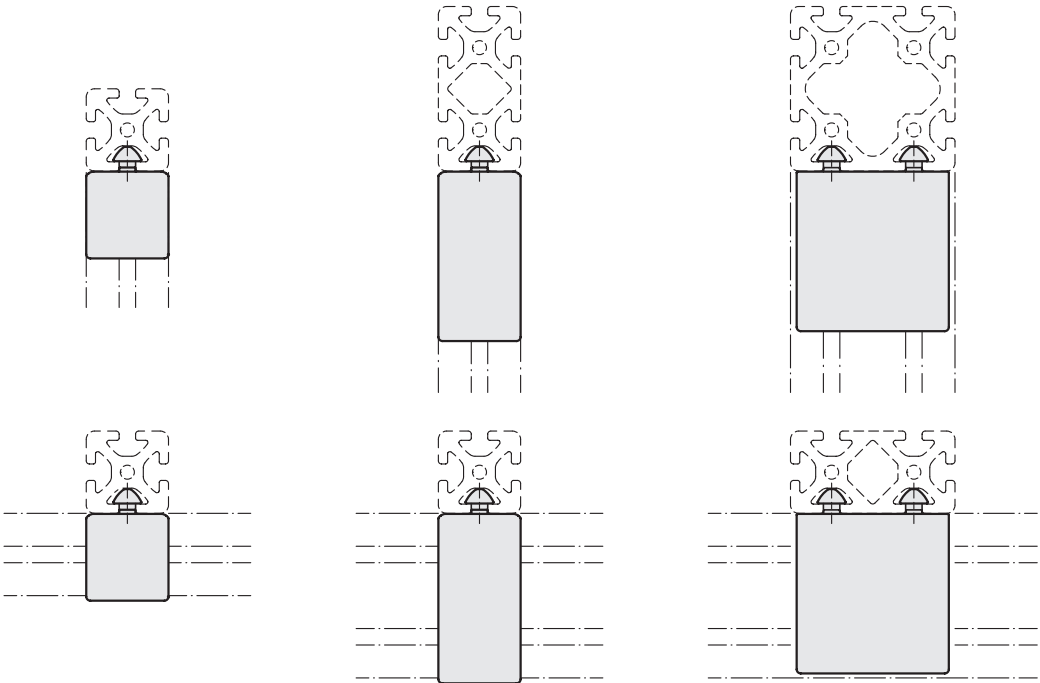
Angle Brackets

Assembly Instructions / Profile Machining GN 30i

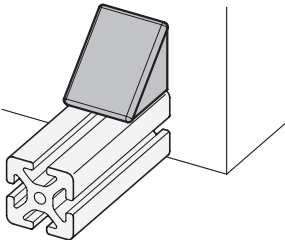
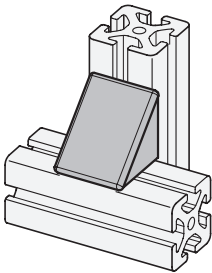
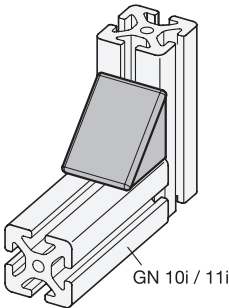
Assembly of cover cap

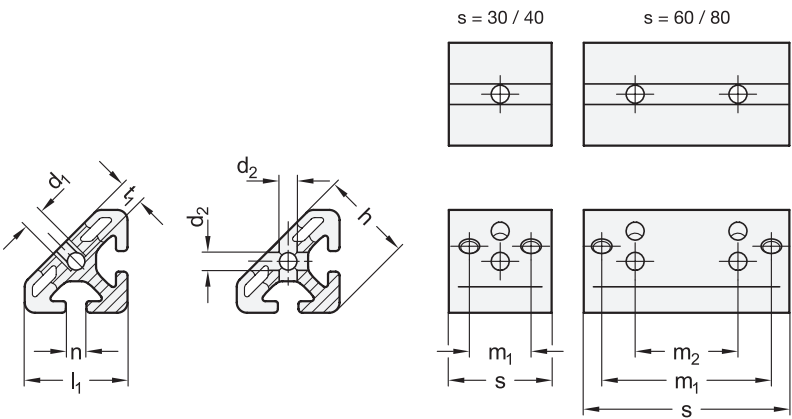


Use



Application examples





Metric



4 Profile type

S Heavy

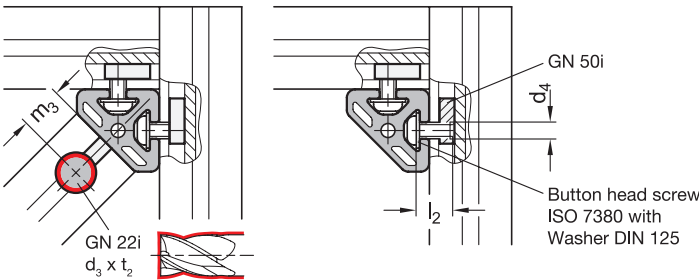
5 Identification no.

1 Corner installation

6 Type

A Without fastening set

Assembly / profile machining



Metric table

Dimensions in: millimeters / inches													
1 s	2 l ₁	3 n	d ₁	d ₂	d ₃	d ₄	h	l ₂	m ₁	m ₂	m ₃ +0.5	t ₁	t ₂ +0.5
30 1.18	30 1.18	6 0.24	M 6	5.5 0.22	16 0.63	M 6	27.4 1.08	12 0.47	17.4 0.69	-	15 0.59	6.5 0.26	12.7 0.50
40 1.57	40 1.57	8 0.31	M 8	6.5 0.26	20 0.79	M 8	36.6 1.44	16 0.63	24 0.94	-	20 0.79	14 0.55	16 0.63
60 2.36	30 1.18	6 0.24	M 6	5.5 0.22	16 0.63	M 6	27.4 1.08	12 0.47	47.4 1.87	30 1.18	15 0.59	6.5 0.26	12.7 0.50
80 3.15	40 1.57	8 0.31	M 8	6.5 0.26	20 0.79	M 8	36.6 1.44	16 0.63	64 2.52	40 1.57	20 0.79	14 0.55	16 0.63

Specification

Aluminum

Anodized finish, natural color

7

RoHS

Technical Information

Page

Assembly Instructions / Profile Machining 25

Accessory

GN 22i Universal Connectors 13

GN 50i T-Nuts 8

Angle connectors GN 32i fasten aluminum profiles together at right angles and are primarily used for creating corner braces at 45° angles.

The braces are fastened with universal connectors GN 22i, requiring their anti-twist protection to be removed. This requires the profile to be machined.

see also...

Page

GN 10i Aluminum Profiles (Profile Type Light) 4

GN 10i Aluminum Profiles (Profile Type Heavy) 5

GN 11i Aluminum Profiles (with Partially Closed Slots) 6

How to order

1 Profile width s

2 Length l₁

3 Slot width n

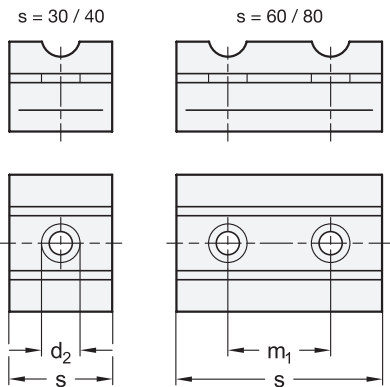
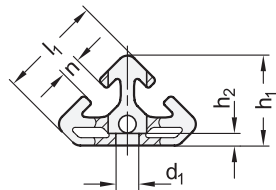
4 Profile type

5 Identification no.

6 Type

7 Finish

GN 32i-8040 8 S-1-A-N



Metric



4 Profile type

S Heavy

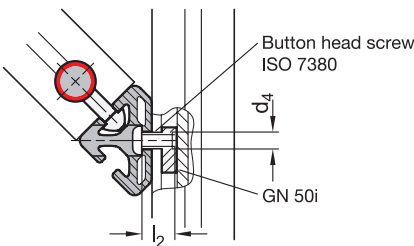
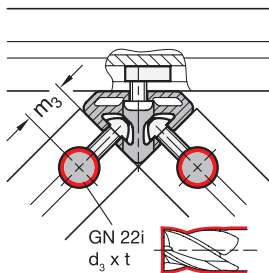
5 Identification no.

2 Single and double installation

6 Type

A Without fastening set

Assembly / profile machining



Metric table

1	2	3	Dimensions in: millimeters / inches									
s	l ₁	n	d ₁	d ₂	d ₃	d ₄	h ₁	h ₂	l ₂	m ₁	m ₃ +0.5	t +0.5
30 1.18	30 1.18	6 0.24	6.5 0.26	11 0.43	16 0.63	M 6	27.4 1.08	7.2 0.28	16 0.63	-	15 0.59	12.7 0.50
40 1.57	40 1.57	8 0.31	9 0.35	15 0.59	20 0.79	M 8	34.9 1.37	4.5 0.18	16 0.63	-	20 0.79	16 0.63
60 2.36	30 1.18	6 0.24	6.5 0.26	11 0.43	16 0.63	M 6	27.4 1.08	7.2 0.28	16 0.63	30 1.18	15 0.59	12.7 0.50
80 3.15	40 1.57	8 0.31	9 0.35	15 0.59	20 0.79	M 8	34.9 1.37	4.5 0.18	16 0.63	40 1.57	20 0.79	16 0.63

Specification

Aluminum

Anodized finish, natural color

7

N

RoHS

Technical Information

Page

Assembly Instructions / Profile Machining 25

Accessory

GN 22i Universal Connectors 13

GN 50i T-Nuts 8

Angle connectors GN 32i fasten single or double braces to aluminum profiles at an angle of 45°.

The braces are fastened with universal connectors GN 22i. This requires the profile to be machined.

see also...

GN 10i Aluminum Profiles (Profile Type Light) 4

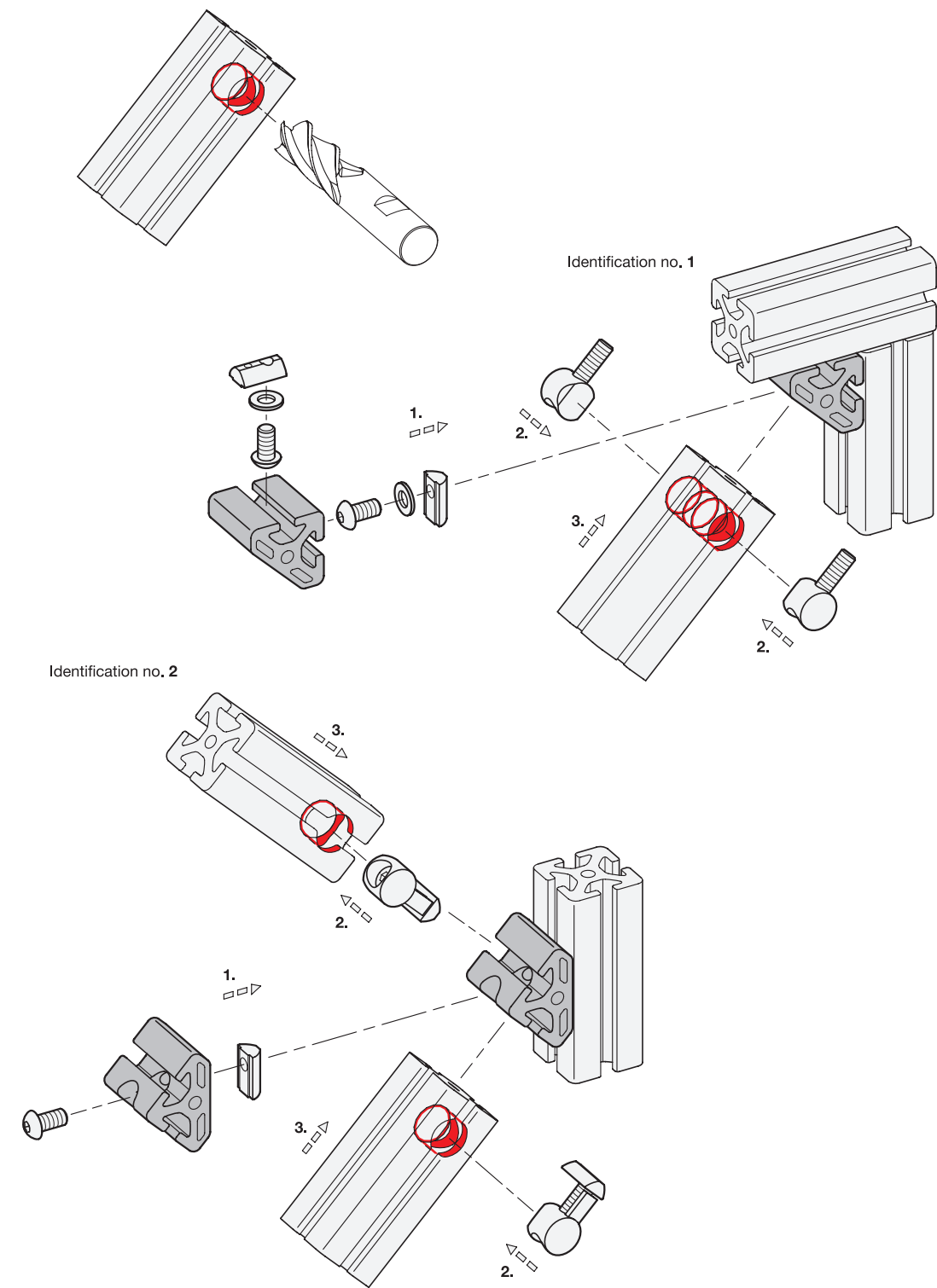
GN 10i Aluminum Profiles (Profile Type Heavy) 5

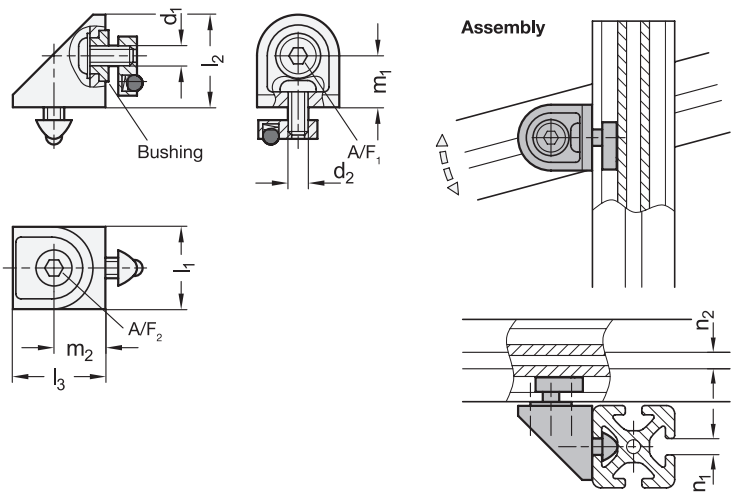
GN 11i Aluminum Profiles (with Partially Closed Slots) 6

How to order	1 Profile width s
	2 Length l ₁
	3 Slot width n
	4 Profile type
	5 Identification no.
	6 Type
	7 Finish
GN 32i-3030 6 S-2-A-N	

Angle Connectors

Assembly Instructions / Profile Machining GN 32i





Metric



4 Type

C With fastening set

Metric table

1	2	3	Dimensions in: millimeters / inches							
l₁	n₁	n₂	d₁	d₂	l₂	l₃	m₁	m₂	A/F₁	A/F₂
24 0.94	6 0.24	6 0.24	M 6	M 6	27 1.06	27 1.06	15 0.59	15 0.59	4	4
32 1.26	8 0.31	8 0.31	M 8	M 8	36 1.42	36 1.42	20 0.79	20 0.79	5	5

Specification

Housing

Zinc die-cast

Painted, white aluminum

ZW

Fastening set

Screws / T-nuts / Bushing

Steel, zinc plated, blue passivated finish

SZ

RoHS

Rotating angle brackets GN 41i connect two intersecting aluminum profiles, rotatably mounted via a bushing. Machining of the profile is not necessary.

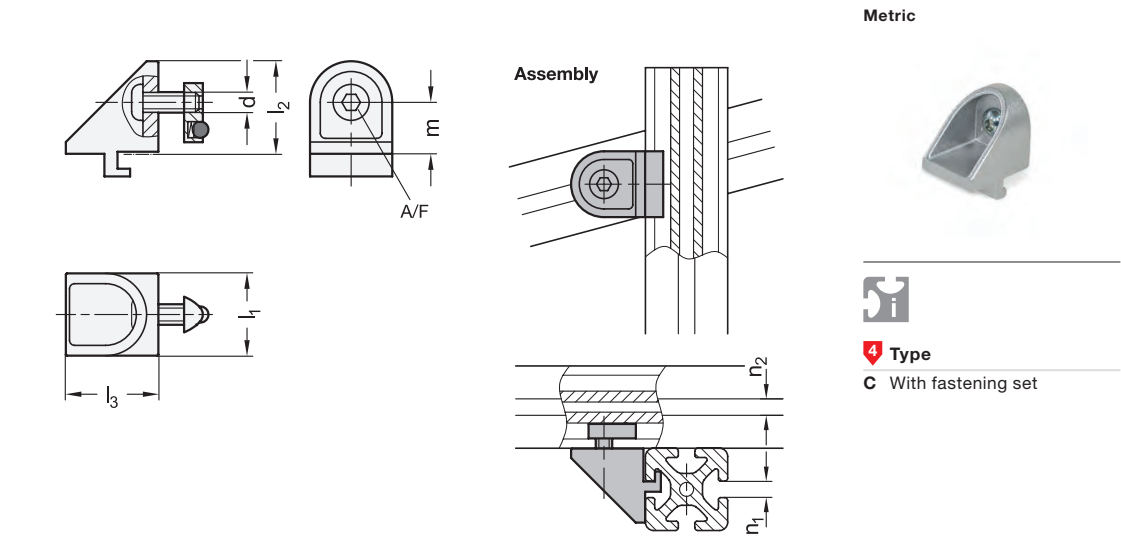
see also...

	Page
GN 10i Aluminum Profiles (Profile Type Light)	4
GN 10i Aluminum Profiles (Profile Type Heavy)	5
GN 11i Aluminum Profiles (with Partially Closed Slots)	6

How to order

1	Length l ₁
2	Slot width n ₁
3	Slot width n ₂
4	Type
5	Finish (Housing)
6	Material / Finish (Fastening set)

GN 41i-32 8-C-ZWSZ



Metric table

Dimensions in: millimeters / inches							
1 l ₁	2 n ₁	3 n ₂	d	l ₂	l ₃	m	A/F
24 0.94	6 0.24	6 0.24	M 6	27 1.06	27 1.06	15 0.59	4
32 1.26	8 0.31	8 0.31	M 8	36 1.42	36 1.42	20 0.79	5

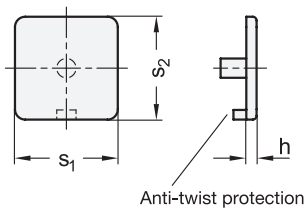
Specification	5	6
Housing		
Zinc die-cast		
Painted, white aluminum	ZW	
Fastening set		
Screw / T-nut		
Steel, zinc plated, blue passivated finish	SZ	
RoHS		

Rotating angle brackets GN 42i connect two crossed profiles at an any angle. Machining of the profile is not necessary. Loosening the screw simultaneously adjusts the angle and position along the grooves.

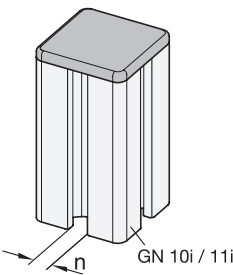
see also...	Page
GN 10i Aluminum Profiles (Profile Type Light)	4
GN 10i Aluminum Profiles (Profile Type Heavy)	5
GN 11i Aluminum Profiles (with Partially Closed Slots)	6

How to order	1 Length l ₁
	2 Slot width n ₁
	3 Slot width n ₂
	4 Type
	5 Finish (Housing)
	6 Material / Finish (Fastening set)
GN 42i-32 8 8-C-ZWSZ	

Metric



Application example



4 Type
P Press-on type

Metric table

1	2	3	Dimensions in: millimeters / inches	
s₁	s₂	n	h ≈	Grid size
30 1.18	30 1.18	6 0.24	3 0.12	30 1.18
30 1.18	60 2.36	6 0.24	3 0.12	30 1.18
40 1.57	16 0.63	8 0.31	4 0.16	40 1.57
40 1.57	40 1.57	8 0.31	4 0.16	40 1.57
40 1.57	80 3.15	8 0.31	4 0.16	40 1.57
60 2.36	60 2.36	6 0.24	3 0.12	30 1.18
80 3.15	80 3.15	8 0.31	4 0.16	40 1.57

Specification

Plastic, Polyamide (PA)

Black

RoHS

5

● KS

Cover caps GN 60i make a visually appealing closure for the end faces of aluminum profiles, protecting against injuries from sharp cut edges and preventing the ingress of dust and dirt. They can be fitted without machining the profile.

see also...	Page
GN 10i Aluminum Profiles (Profile Type Light)	4
GN 10i Aluminum Profiles (Profile Type Heavy)	5
GN 11i Aluminum Profiles (with Partially Closed Slots)	6

Technical Information
Plastic Characteristics
Handbook 2135

How to order

GN60i-40808-P-KS

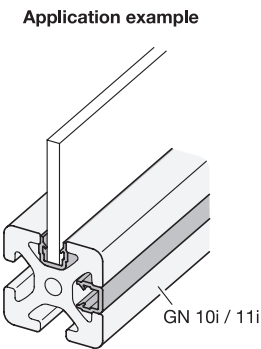
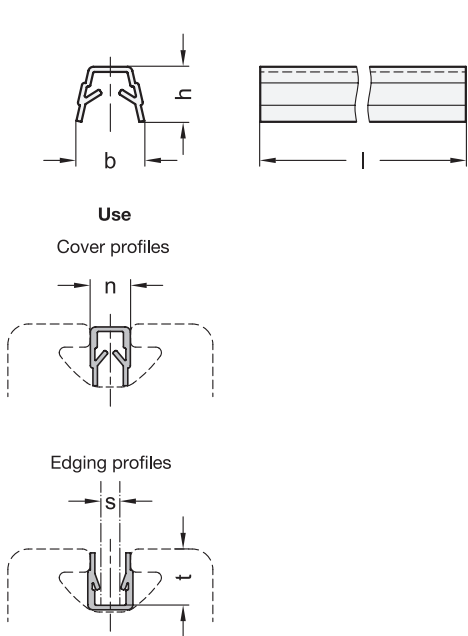
1 Width s_1

2 Width s_2

3 Slot width n

4 Type

5 Color



Metric table

Dimensions in: millimeters / inches						
1 n	3 Length l in meters	4 Bundle Pieces	b ≈	h ≈	s Clamping range	t
6 0.24	2	4	10 0.39	9 0.35	2 - 3.5	8 0.31
8 0.31	2	4	13 0.51	10.5 0.41	4 - 6	10.5 0.41

Specification

Plastic, Polypropylen (PP)

- Black
- Natural

- KS
- KN

RoHS

Cover and edging profiles GN 70i are inserted into the slot of aluminum profiles.

When used as a cover profile, they are installed with the closed side facing out. This way, they protect the slot from dust and dirt, cover the cables and hoses in the slot and make for a visually appealing appearance.

When used as an edging profile, they are installed with the open side facing out. This allows for panel elements such as panes of glass or PMMA to be fixed directly into the groove.

Cover and edging profiles are supplied in bundles. The table shows the quantity included in each bundle.

see also...	Page
GN 10i Aluminum Profiles (Profile Type Light)	4
GN 10i Aluminum Profiles (Profile Type Heavy)	5
GN 11i Aluminum Profiles (with Partially Closed Slots)	6

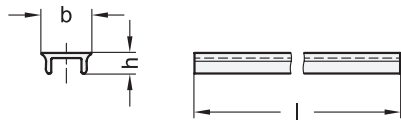
Technical Information

Plastic Characteristics Handbook 2135

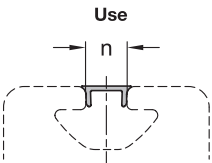
How to order	1 Slot width n
2 Color	2
3 Length l	3
4 Bundle	4

GN 70i-8-KS-2-4

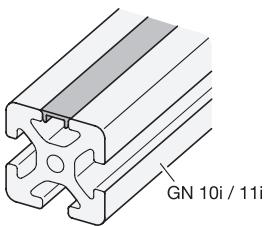
Metric



Use



Application example





Metric table

Dimensions in: millimeters / inches				
1 n	3 Length l in meters	4 Bundle Pieces	b ≈	h ≈
8 0.31	2	4	9.7 0.38	4 0.16

Specification

Aluminum

Anodized finish, natural color

RoHS

2

AN

Cover profiles GN 71i are produced by extrusion molding and are inserted into the slot of aluminum profiles

They protect the slot from dust and dirt, cover the cables and hoses in the slot and make for a visually appealing appearance.

Cover profiles are supplied in bundles. The table shows the quantity included in each bundle.

see also...	Page
GN 10i Aluminum Profiles (Profile Type Light)	4
GN 10i Aluminum Profiles (Profile Type Heavy)	5
GN 11i Aluminum Profiles (with Partially Closed Slots)	6

How to order

1

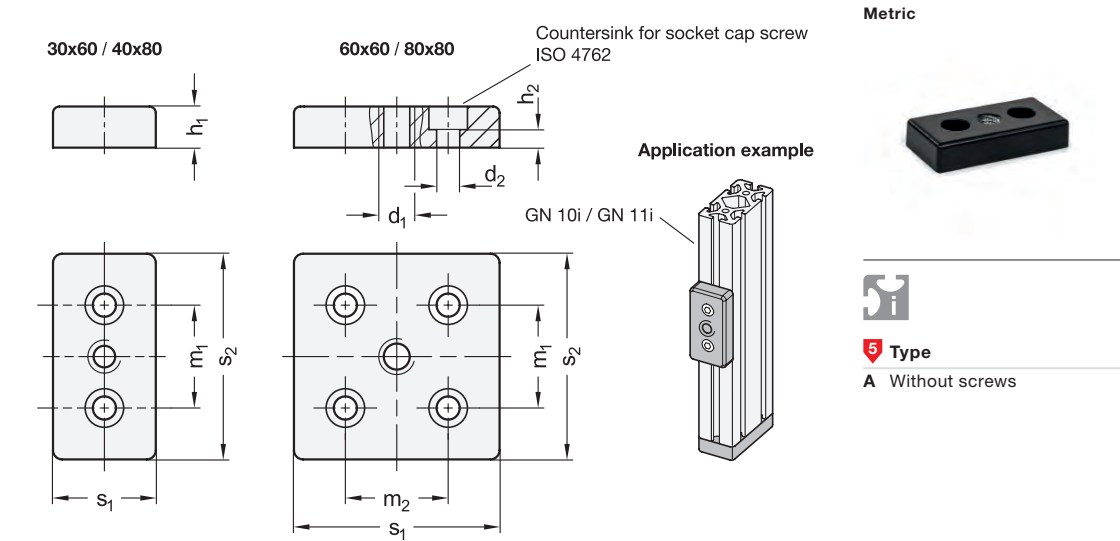
2

3

4

GN 71i-8-AN-2-4

1	Slot width n
2	Finish
3	Length l
4	Bundle



Metric table

Dimensions in: millimeters / inches										
1 s ₁	2 s ₂	3 n	4 d ₁		d ₂ For screw	h ₁	h ₂	m ₁	m ₂	Grid size
30 1.18	60 2.36	6 0.24	M 8	M 10	M 6	12 0.47	5 0.20	30 1.18	-	30 1.18
40 1.57	80 3.15	8 0.31	M 10	M 12	M 8	16 0.63	6.5 0.26	40 1.57	-	40 1.57
60 2.36	60 2.36	6 0.24	M 10	M 12	M 6	12 0.47	5 0.20	30 1.18	30 1.18	30 1.18
80 3.15	80 3.15	8 0.31	M 12	M 16	M 8	16 0.63	6.5 0.26	40 1.57	40 1.57	40 1.57

Specification	6
Zinc die-cast	
Black	ZS
RoHS	

Support / base plates GN 80i affix attachments such as leveling feet or castors to aluminum profiles. They are installed in the profile holes on the end faces using suitably tapped threaded holes or thread-forming screws. Transport and base plates can also be fastened lengthwise in the profile slot.

see also...	Page
GN 10i Aluminum Profiles (Profile Type Light)	4
GN 10i Aluminum Profiles (Profile Type Heavy)	5
GN 11i Aluminum Profiles (with Partially Closed Slots)	6
Accessory	
GN 50i T-Nuts	8

How to order	
1	Width s ₁
2	Length s ₂
3	Slot width n
4	Thread d ₁
5	Type
6	Material / Color

GN 80i- 40 80 8 M10-A-ZS

Aluminum Profiles



**GN 10b
Aluminum Profiles**
with Open Slots
on All Sides,
Profile Type Light
[Page 34](#)



**GN 10b
Aluminum Profiles**
with Open Slots
on All Sides,
Profile Type Heavy
[Page 35](#)



**GN 11b
Aluminum Profiles**
with Partially
Closed Slots,
Profile Type Light
[Page 36](#)

T-Nuts



**GN 50b
T-Nuts**
Steel
[Page 38](#)



**GN 51b
T-Slot Nuts**
Steel / Stainless Steel
[Page 40](#)



**GN 52b
T-Slot Bolts**
Steel / Stainless Steel
[Page 41](#)



**GN 53b
Collar Nuts**
Steel
[Page 42](#)

Connectors



**GN 21b
Central Screws**
Steel
[Page 44](#)



**GN 23b
Automatic Connectors**
Steel,
Right-Angled Connection
[Page 46](#)



**GN 23b
Automatic Connectors**
Steel,
End Face Connection
[Page 47](#)



**GN 25b
Quick Release
Connectors**
Steel,
Asymmetrical
Mounting Stud
[Page 49](#)



**GN 25b
Quick Release
Connectors**
Steel,
Symmetrical
Mounting Stud
[Page 50](#)



**GN 26b
Bolt Connectors**
Steel
[Page 52](#)

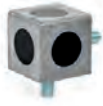
Angle Brackets



**GN 30b
Angle Brackets**
Aluminum
Page 54



**GN 30b
Angle Brackets**
Aluminum,
with Fastening Set
and Cover Cap
Page 55



**GN 33b
Cube Connectors**
Aluminum
Page 57

Joints



**GN 41b
Rotating Angle**
Aluminum
Page 58

Cover Caps

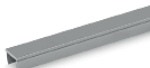


**GN 60b
Cover Caps**
Plastic
Page 59

Cover Profiles



**GN 70b
Cover and
Edging Profiles**
Plastic
Page 60

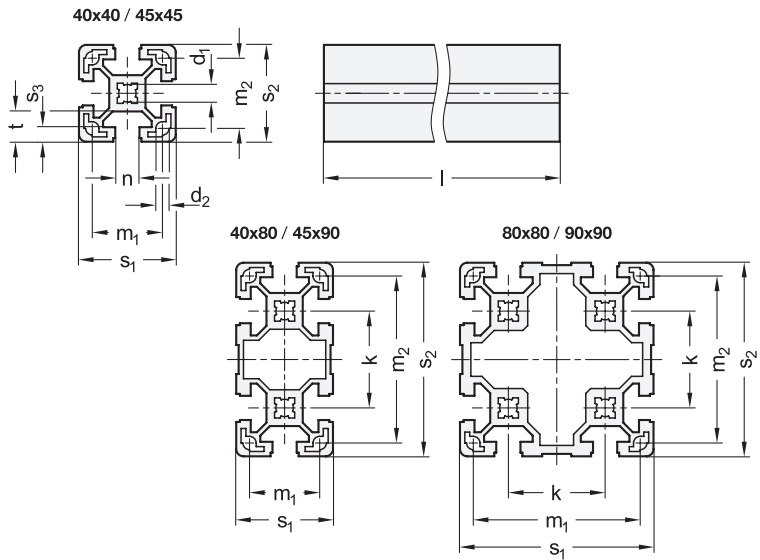


**GN 71b
Cover and
Edging Profiles**
Aluminum
Page 61

Base Plates



**GN 80b
Support / Base Plates**
Zinc Die-Cast
Page 62



Metric



Profile type
L Light

Metric table

Dimensions in: millimeters / inches													
1 s ₁	2 s ₂	3 n	6 Length l +1.5mm in meters	7 Bundle Pieces	d ₁	d ₂ *	k	m ₁	m ₂	s ₃	t	Grid size	
40 1.57	40 1.57	10 0.39	2	4	10 0.39	5.5 0.22	-	29 1.14	29 1.14	6 0.24	12.5 0.49	40 1.57	
40 1.57	80 3.15	10 0.39	2	2	10 0.39	5.5 0.22	40 1.57	29 1.14	69 2.72	6 0.24	12.5 0.49	40 1.57	
45 1.77	45 1.77	10 0.39	2	4	10 0.39	-	-	-	-	6 0.24	14.5 0.57	45 1.77	
45 1.77	90 3.54	10 0.39	2	2	10 0.39	-	45 1.77	-	-	6 0.24	14.5 0.57	45 1.77	
80 3.15	80 3.15	10 0.39	2	1	10 0.39	5.5 0.22	40 1.57	69 2.72	69 2.72	6 0.24	12.5 0.49	40 1.57	
90 3.54	90 3.54	10 0.39	2	1	10 0.39	-	45 1.77	-	-	6 0.24	13 0.51	45 1.77	

* Bores on grid size = 40 only

Specification

Aluminum

Anodized finish, natural color

N

RoHS

Accessory

Page

GN 50b T-Nuts

38

GN 51b T-Slot Nuts

40

GN 52b T-Slot Bolts

41

GN 60b Cover Caps

59

GN 70b Cover and Edging Profiles

60

GN 71b Cover Profiles

61

GN 80b Support / Base Plates

62

Aluminum profiles GN 10b are produced by extrusion molding. They can be used, for example, to easily construct protective enclosures, workplace equipment or jigs.

Aluminum profiles in combination with the removable and reusable accessories form a flexible modular system. Attachments can be fastened to either the slots or the end faces via the holes.

The profile type light is typically used for small loads or for weight-optimized constructions.

Aluminum profiles are supplied in bundles. The table shows the quantity included in each bundle.

Technical Information

Page

Technical Data

37

How to order

1 Profile width s₁

2 Profile height s₂

3 Slot width n

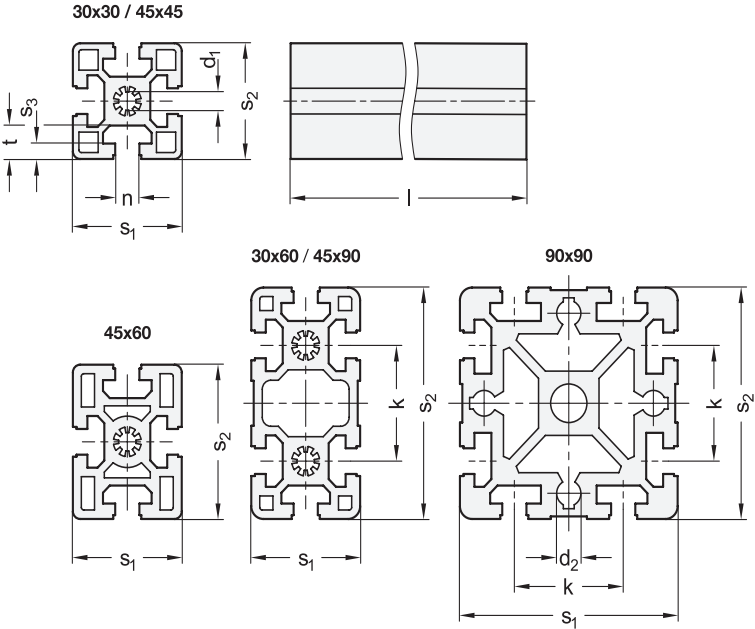
4 Profile type

5 Finish

6 Length l (in meters)

7 Bundle

GN 10b-45 45 10 L-N-2-4



Metric



4 Profile type
S Heavy

Metric table

Dimensions in: millimeters / inches											
1 s ₁	2 s ₂	3 n	6 Length l +1.5mm in meters	7 Bundle Pieces	d ₁	d ₂	k	s ₃	t	Grid size	
30 1.18	30 1.18	8 0.31	2	4	7.3 0.29	-	-	2.2 0.09	9 0.35	30 1.18	30 1.18
30 1.18	60 2.36	8 0.31	2	2	7.3 0.29	-	30 1.18	2.2 0.09	9 0.35	30 1.18	30 1.18
45 1.77	45 1.77	10 0.39	2	4	10 0.39	-	-	6 0.24	12.5 0.49	45 1.77	45 1.77
45 1.77	60 2.36	10 0.39	2	2	10 0.39	-	-	6 0.24	12.5 0.49	45 1.77	45 1.77
45 1.77	90 3.54	10 0.39	2	2	10 0.39	-	45 1.77	6 0.24	12.5 0.49	45 1.77	45 1.77
90 3.54	90 3.54	10 0.39	2	1	15 0.59	10 0.39	45 1.77	6 0.24	12.5 0.49	45 1.77	45 1.77

Specification

Aluminum

Anodized finish, natural color

N

RoHS

Accessory

Page

GN 50b T-Nuts	38
GN 51b T-Slot Nuts	40
GN 52b T-Slot Bolts	41
GN 60b Cover Caps	59
GN 70b Cover and Edging Profiles	60
GN 71b Cover Profiles	61
GN 80b Support / Base Plates	62

Aluminum profiles GN 10b are produced by extrusion molding. They can be used, for example, to easily construct protective enclosures, workplace equipment or jigs.

Aluminum profiles in combination with the removable and reusable accessories form a flexible modular system. Attachments can be fastened to either the slots or the end faces via the holes.

Aluminum profiles are supplied in bundles. The table shows the quantity included in each bundle.

Technical Information

Page

Technical Data

37

How to order

1 Profile width s ₁
2 Profile height s ₂
3 Slot width n
4 Profile type
5 Finish
6 Length l (in meters)
7 Bundle

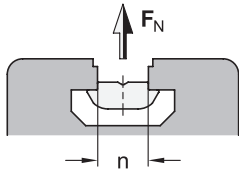
GN 10b-45 90 10S-N-3-2

Mechanical Data (in Extrusion Direction)

- Material: Al Mg Si 0.5 F25 (EN AW – 6063)
- Delivery condition: Artificially aged
- Anodized coating: E6EV1 (natural color), layer thickness: 10 µm
- Dimensional deviations as per DIN EN 12020-2
- Tensile strength R_m min. 245 N/mm²
- Yield point $R_{p0.2}$ min. 195 N/mm²
- Density 2.7 kg/dm³
- Linear expansion coefficient $23,6 \times 10^{-6}$ 1/k
- Modulus of elasticity $E \approx 70,000$ N/mm²
- Hardness $\approx 75HB -2.5/187.5$

Permissible Tensile Load on the Slot

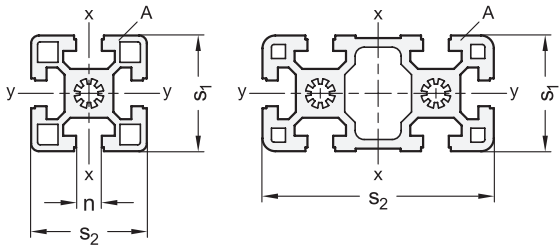
Dimensions in: millimeters / inches



n	Grid size	Profile type	F_N^*			
			With T-nuts GN 50b		With T-slot nuts GN 51b	With T-slot bolts GN 52b
			Type V / F	Type S		
8 0.31	30 1.18	heavy	562 lbf 2500 N	1349 lbf 6000 N	674 lbf 3000 N	787 lbf 3500 N
10 0.39	40 1.57	light	1686 lbf 7500 N	-	1236 lbf 5500 N	2023 lbf 9000 N
10 0.39	45 1.77	light	1686 lbf 7500 N	-	1236 lbf 5500 N	2023 lbf 9000 N
10 0.39	45 1.77	heavy	1911 lbf 8500 N	3934 lbf 17500 N	1686 lbf 7500 N	2023 lbf 9000 N

* Depending on the thread size of the T-nut / T-slot nut / T-slot bolt

Cross-Section Properties

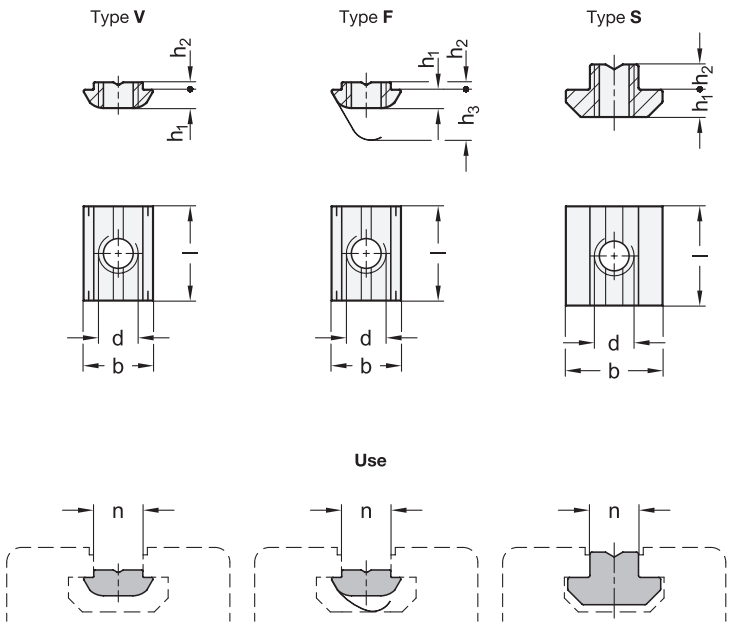


- W_x, W_y = Axial resistance torque against bending
- I_x, I_y = 2nd moment of area against bending
- A = Cross-section area
- m = Length-related mass

GN 10b Profile type light									
s ₁	s ₂	n	Grid size	Bending axis x-x		Bending axis y-y		A in cm ²	m ≈ in kg/m
				I_x in cm ⁴	W_x in cm ³	I_y in cm ⁴	W_y in cm ³		
40 1.57	40 1.57	10 0.39	40 1.57	9.06	4.53	9.06	4.53	5.61	1.51
40 1.57	80 3.15	10 0.39	40 1.57	63.2	15.8	17.2	8.61	9.86	2.67
45 1.77	45 1.77	10 0.39	45 1.77	11.7	4.89	11.7	4.89	5.73	1.55
45 1.77	90 3.54	10 0.39	45 1.77	81.8	18.2	23.5	10.5	11.3	3.05
80 3.15	80 3.15	10 0.39	40 1.57	132.6	33.2	132.6	33.2	18.5	4.98
90 3.54	90 3.54	10 0.39	45 1.77	210.5	46.8	210.5	46.8	23.5	6.34

GN 10b Profile type heavy									
s ₁	s ₂	n	Grid size	Bending axis x-x		Bending axis y-y		A in cm ²	m ≈ in kg/m
				I_x in cm ⁴	W_x in cm ³	I_y in cm ⁴	W_y in cm ³		
30 1.18	30 1.18	8 0.31	30 1.18	2.77	1.85	2.77	1.85	3.14	0.85
30 1.18	60 2.36	8 0.31	30 1.18	5.09	3.39	19.7	6.55	5.53	1.49
45 1.77	45 1.77	10 0.39	45 1.77	13.9	6.91	13.9	6.91	7.5	2.03
45 1.77	60 2.36	10 0.39	45 1.77	37.6	12.5	22.7	10.1	11.1	3.01
45 1.77	90 3.54	10 0.39	45 1.77	124.1	27.6	32.3	14.3	15.2	4.12
90 3.54	90 3.54	10 0.39	45 1.77	302.0	67.1	302.0	67.1	38.9	10.5

GN 11b Profile type light									
s ₁	s ₂	n	Grid size	Bending axis x-x		Bending axis y-y		A in cm ²	m ≈ in kg/m
				I_x in cm ⁴	W_x in cm ³	I_y in cm ⁴	W_y in cm ³		
45 1.77	45 1.77	10 0.39	45 1.77	11.82	5.11	11.82	5.11	6.08	1.64



Metric



3 Type

- V** With anti-twist protection
- F** With anti-twist protection, with spring
- S** Heavy

Metric table

Dimensions in: millimeters / inches

Type V								
n	d				b	h ₁	h ₂	Length l
8 0.31	M 4	M 5	M 6	M 8	11.6 0.46	3.8 0.15	1 0.04	16 0.63
10 0.39	M 4	M 5	M 6	M 8	14 0.55	3.8 0.15	1.5 0.06	20 0.79

1

2

Type F

n	d				b	h ₁	h ₂	h ₃ ≈	Length l
8 0.31	M 4	M 5	M 6	M 8	11.6 0.46	3.8 0.15	1 0.04	8 0.31	16 0.63
10 0.39	M 4	M 5	M 6	M 8	14 0.55	3.8 0.15	1.5 0.06	12 0.47	20 0.79

Type S								
n	d				b	h ₁	h ₂	Length l
6 0.24	M 4	M 5	M 6	-	9.6 0.38	3 0.12	1 0.04	10 0.39
8 0.31	M 4	M 5	M 6	M 8	15.8 0.62	4 0.16	2 0.08	16 0.63
10 0.39	M 4	M 5	M 6	M 8	19.5 0.77	5.5 0.22	5 0.20	20 0.79

Specification

Steel
Zinc plated, blue passivated finish
RoHS

4

SZ

T-nuts GN 50b fasten attachments and accessories in the slot of aluminum profiles.

The spring of type F secures the T-nut against unwanted slipping in the groove, making installation easier.

T-nuts of types V and F can be swiveled into the slot at any position.

see also...

Page

GN 10b Aluminum Profiles (Profile Type Light) 34

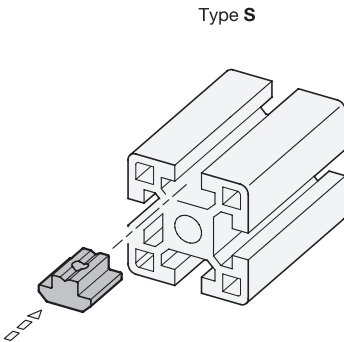
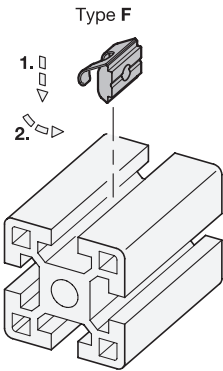
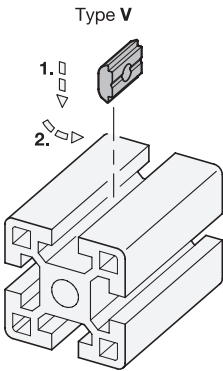
GN 10b Aluminum Profiles (Profile Type Heavy) 35

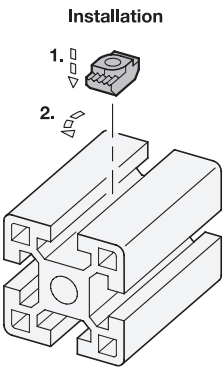
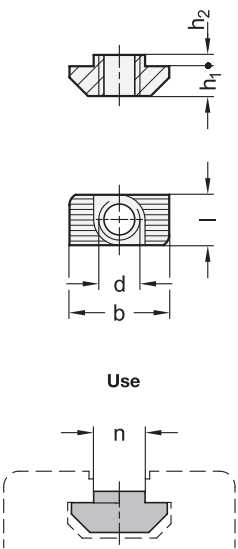
How to order	
1	Slot width n
2	Thread d
3	Type
4	Material / Finish

GN 50b-10M8-V-SZ



Assembly Instruction





Metric



- 3

Type
- N

 Without increased torque
- B

 With increased torque

Metric table

1		2		Dimensions in: millimeters / inches							
n	d							b	h ₁	h ₂	Length l
	Steel				Stainless steel						
6 0.24	M 4	-	-	-	M 4	-	11.5 0.45	3 0.12	1 0.04	5.9 0.23	
8 0.31	M 4	M 5	M 6	-	M 6	-	16.5 0.65	4.5 0.18	1.5 0.06	8 0.31	
10 0.39	M 4	M 5	M 6	M 8	M 6	M 8	19.4 0.76	5.7 0.22	3 0.12	9.8 0.39	

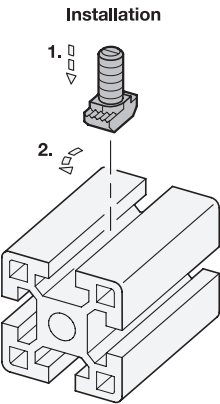
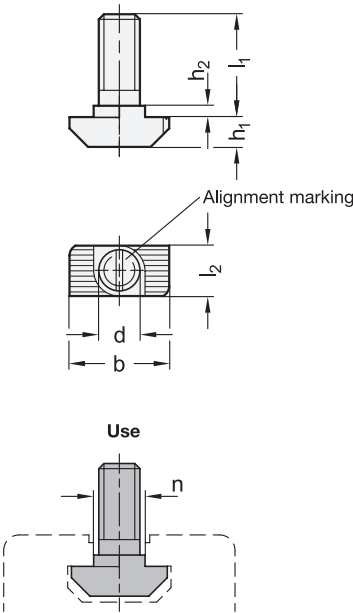
Specification	4
Steel	SZ
Zinc plated, blue passivated finish	
Stainless steel	NB
Plain finish	
RoHS	

T-slot nuts GN 51b fasten attachments and accessories in the slot of aluminum profiles. They are inserted into the slot of the aluminum profile at any position and affixed by a 90° turn.

With type B, the increased torque in the nut thread ensures that the required 90° turn during installation or removal of the bolt is always reliably transmitted and the T-slot nut is aligned crosswise or lengthwise to the slot. The connection is conductive.

see also...	Page
GN 10b Aluminum Profiles (Profile Type Light)	34
GN 10b Aluminum Profiles (Profile Type Heavy)	35

How to order	1 Slot width n
GN 51b-10M8-B-SZ	2 Thread d
	3 Type
	4 Material / Finish



Metric



Metric table

1	2	3	Dimensions in: millimeters / inches													
n	d	l ₁											b	h ₁	h ₂	l ₂
		Steel							Stainless steel							
8 0.31	M 6	16 0.63	20 0.79	25 0.98	30 1.18	40 1.57	60 2.36	20 0.79	25 0.98	30 1.18	40 1.57	60 2.36	16 0.63	4.5 0.18	1.5 0.06	8 0.31
8 0.31	M 8	20 0.79	25 0.98	30 1.18	-	-	-	-	-	-	-	-	16 0.63	4.5 0.18	1.5 0.06	8 0.31
10 0.39	M 6	16 0.63	20 0.79	25 0.98	30 1.18	40 1.57	60 2.36	20 0.79	25 0.98	30 1.18	40 1.57	60 2.36	19.5 0.77	5.5 0.22	4 0.16	8.5 0.33
10 0.39	M 8	20 0.79	25 0.98	30 1.18	40 1.57	60 2.36	-	20 0.79	25 0.98	30 1.18	40 1.57	60 2.36	19.5 0.77	5.5 0.22	4 0.16	8.5 0.33

Dimensions in: millimeters / inches

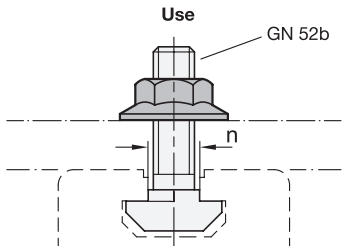
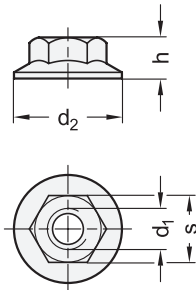
Specification	4
Steel	SZ
Zinc plated, blue passivated finish	
Stainless steel	NB
Plain finish	
RoHS	

T-slot bolts GN 52b fasten attachments and accessories in the slot of aluminum profiles. They are inserted into the slot of the aluminum profile at any position and affixed by a 90° turn. The connection is conductive.

see also...	Page
GN 10b Aluminum Profiles (Profile Type Light)	34
GN 10b Aluminum Profiles (Profile Type Heavy)	35
Accessory	
GN 53b Collar Nuts	42

How to order 1 2 3 4 GN 52b-10 M8 30-SZ	1 Slot width n
	2 Thread d
	3 Length l ₁
	4 Material / Finish

Metric



Metric table

Dimensions in: millimeters / inches				
1 n	2 d ₁	d ₂ ≈	h	s
8 0.31	M 6	14 0.55	6 0.24	10 0.39
10 0.39	M 8	21 0.83	8 0.31	13 0.51

Specification

Steel

Zinc plated, blue passivated finish

RoHS

3

SZ

Collar nuts GN 53b fasten attachments and accessories in the slot of aluminum profiles, generally in combination with T-slot bolts GN 52b. The collar makes a washer unnecessary.

see also...	Page
GN 10b Aluminum Profiles (Profile Type Light)	34
GN 10b Aluminum Profiles (Profile Type Heavy)	35
Accessory	
GN 52b T-Slot Bolts	41

How to order

1

2

3

GN 53b-10 M8-SZ

1	Slot width n
2	Thread d ₁
3	Material / Finish

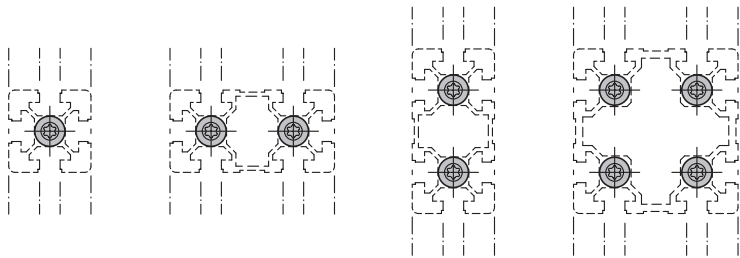


Metric

Assembly / profile machining



Use



Metric table

1	2	3						Dimensions in: millimeters / inches
n	d ₁ Self-forming thread	l ₁	d ₂ ≈	d ₃	l ₂ ≈	A/F	Tightening torque in Nm	
8 0.31	S 8	25 0.98	16 0.63	7.8 0.31	4.5 0.18	T40	25	
10 0.39	S 12	30 1.18	19 0.75	9.8 0.39	6 0.24	T50	35	

Specification

Steel
Zinc plated, blue passivated finish

RoHS

5

SZ

Central screws GN 21b connect aluminum profiles at right angles. Only one profile has to be machined. The thread in the end face profile hole is formed by the central screw itself. The self-forming thread should be lubricated to simplify assembly.

see also...	Page
GN 10b Aluminum Profiles (Profile Type Light)	34
GN 10b Aluminum Profiles (Profile Type Heavy)	35

How to order

1

2

3

4

5

GN 21b- 8 S825-A-SZ

1 Slot width n

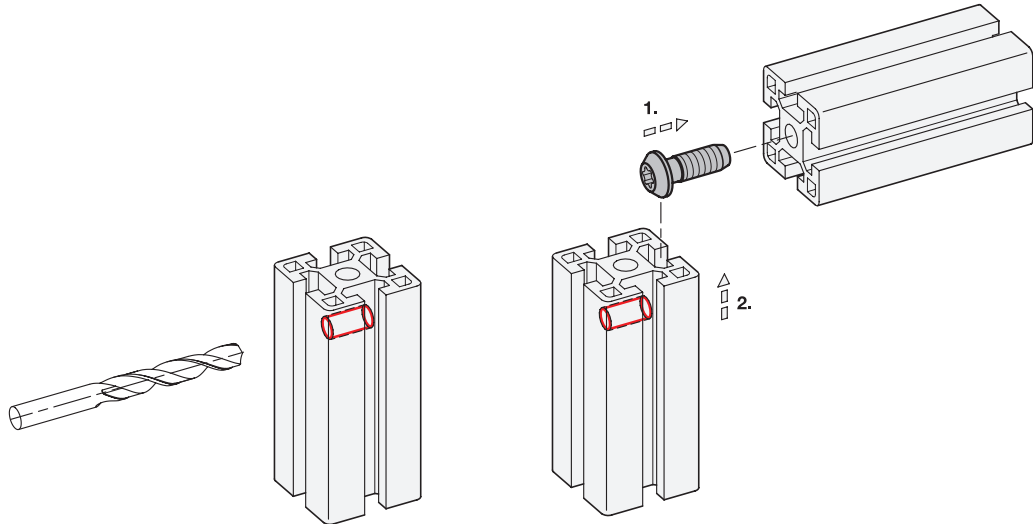
2 Thread d₁

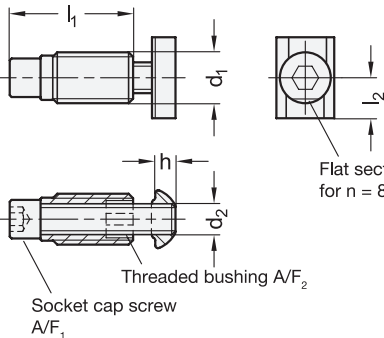
3 Length l₁

4 Type

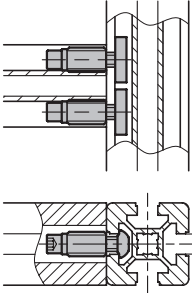
5 Material / Finish

Assembly Instructions / Profile Machining



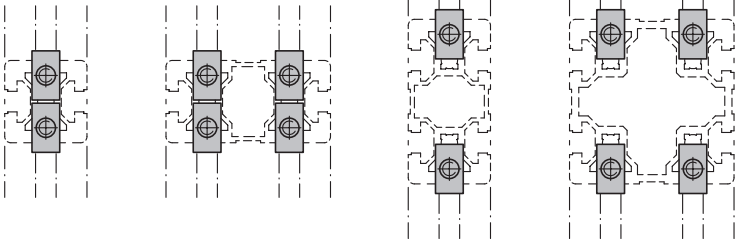


Installation



Metric





Use

- 
- 2

Profile type

L Light

S Heavy
- 3

Coding

R Right-angled connection

Metric table

1		5		Dimensions in: millimeters / inches						
n		Bundle	d1	d2		h	l1	l2	A/F1	A/F2
Profile type L Profile type S		Pieces	Self - forming thread							
			Profile type L Profile type S							
-	8	4	-	S 11	M 6	3.8	32	8	5	T40
	0.31					0.15	1.26	0.31		
10*	10	4	S 13	S 12	M 8	3.8	34	9.5	6	T50
	0.39					0.15	1.34	0.37		

* For aluminum profiles with grid size 40, profile type light, the connectors for profile type heavy must be used.

Specification

Steel

Zinc plated, blue passivated finish

RoHS

4

SZ

Automatic connectors GN 23b fasten aluminum profiles together at right angles. Machining of the profile is not necessary. The connection can be freely positioned and slid along the slot.

For assembly, first insert the socket cap screw along the slot and then screw in the lightly lubricated threaded bushing. Minor burr formation is possible. Automatic connectors are used in pairs opposite each other. If panels are used in the slot, they must be suitably pocketed.

Automatic connectors are supplied in bundles. The table shows the quantity included in each bundle.

see also...	Page
GN 10b Aluminum Profiles (with Open Slots on All Sides)	34
GN 10b Aluminum Profiles (Profile Type Heavy)	35
GN 11b Aluminum Profiles	36

Technical Information	
Assembly Instructions	48

How to order

1

2

3

4

5

GN 23b-8S-R-SZ-4

1

Slot width n

2

Profile type

3

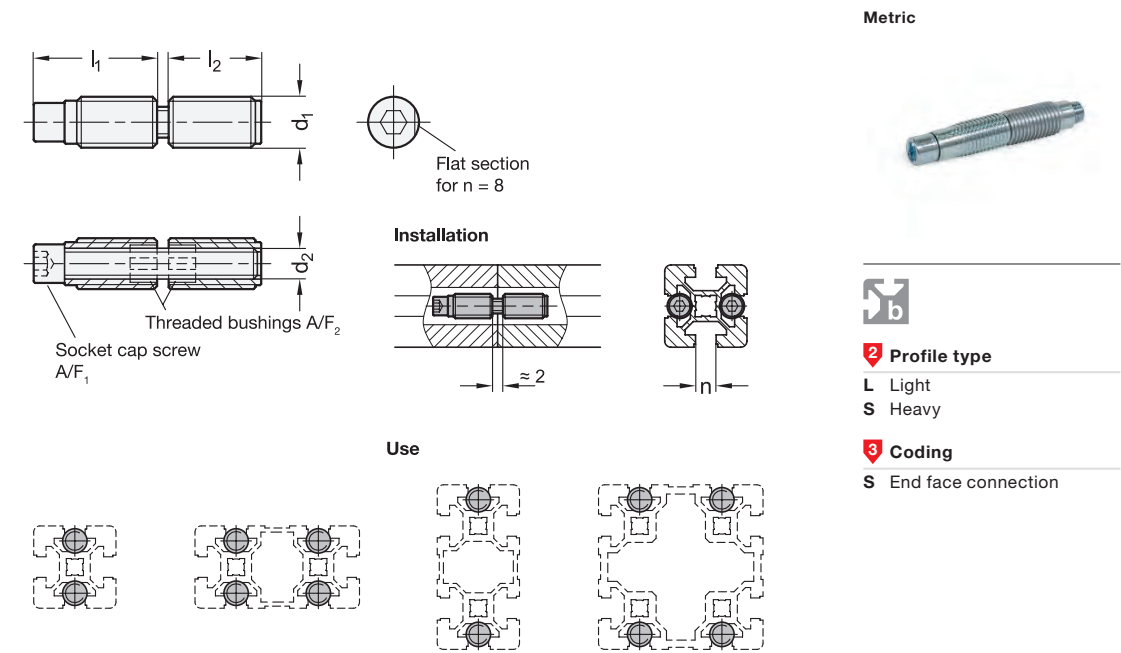
Coding

4

Material / Finish

5

Bundle



Metric table

1

5

n		Bundle Pieces	d ₁ Self-forming thread		d ₂	l ₁	l ₂	A/F ₁	A/F ₂
Profile type L	Profile type S		Profile type L	Profile type S					
-	8 0.31	4	-	S 11	M 6	32 1.26	26 1.02	5	T40
10*	10 0.39	4	S 13	S 12	M 8	36 1.42	26 1.02	6	T50

Dimensions in: millimeters / inches

* For aluminum profiles with grid size 40, profile type light, the connectors for profile type heavy must be used.

Specification

4

Steel	SZ
Zinc plated, blue passivated finish	
RoHS	

Automatic connectors GN 23b fasten aluminum profiles together on the end faces to extend them while securing them against twisting. Machining of the profile is not necessary.

For assembly, first insert the socket cap screw along the slot and then screw in the lightly lubricated threaded bushings. Minor burr formation is possible. Automatic connectors are used in pairs opposite each other. If panels are used in the slot, they must be suitably pocketed.

Automatic connectors are supplied in bundles. The table shows the quantity included in each bundle.

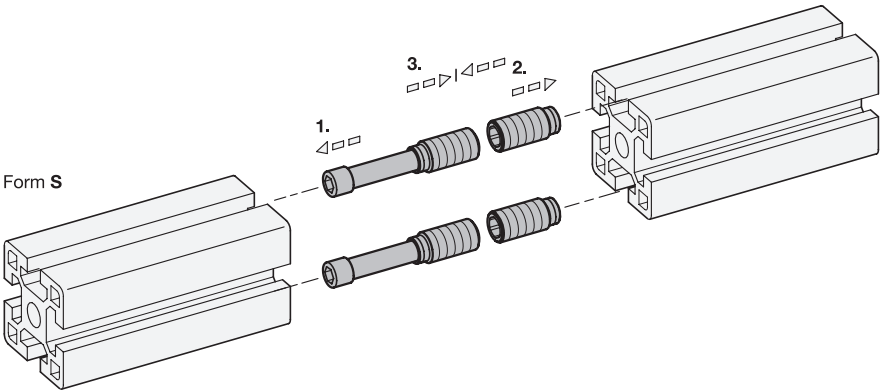
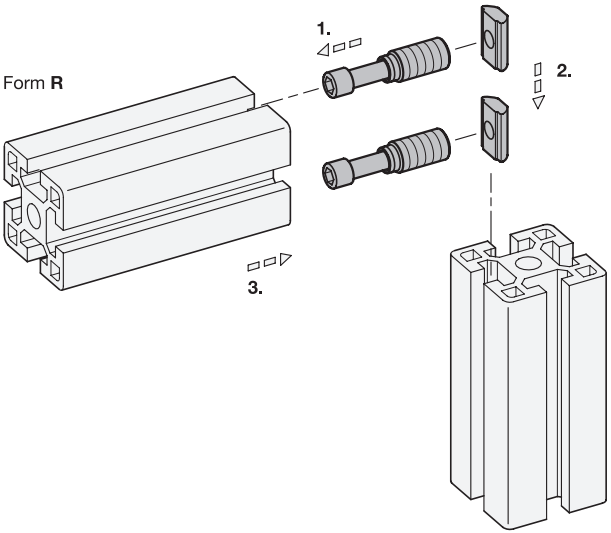
see also...	Page
GN 10b Aluminum Profiles (with Open Slots on All Sides)	34
GN 10b Aluminum Profiles (Profile Type Heavy)	35
GN 11b Aluminum Profiles	36

Technical Information	
Assembly Instructions	48

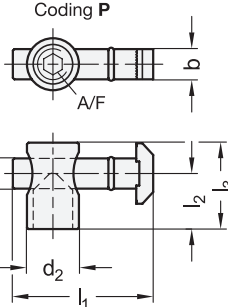
How to order 12345 GN 23b-8 S-S-SZ-4	1 Slot width n
	2 Profile type
	3 Coding
	4 Material / Finish
	5 Bundle

Automatic Connectors

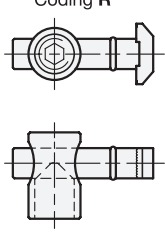
Assembly Instructions GN 23b



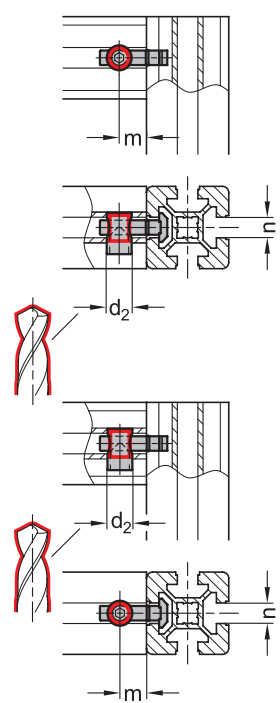
Coding P



Coding R



Assembly / profile machining



Metric





2 Type

A Asymmetrical mounting stud

3 Coding

P Parallel T-nut
R Right-angle T-nut

Metric table

1

5

n	Bundle Pieces	b	d ₁	d ₂	l ₁ ≈	l ₂ ≈	l ₃	m	A/F	Tightening torque in Nm
8 0.31	4	8 0.31	6.8 0.27	11 0.43	33 1.30	14.2 0.56	20 0.79	18 0.71	4	12
10 0.39	4	10 0.39	9.8 0.39	17 0.67	45.5 1.79	18.4 0.72	28 1.10	22.5 0.89	6	25

Dimensions in: millimeters / inches

Specification

Steel, zinc plated, blue passivated finish

RoHS

4

SZ

Quick release connectors GN 25b fasten aluminum profiles together at right angles. Only one profile has to be machined. The connection can be freely positioned and slid along the slot. The internal hex used for clamping is situated for especially easy access. If panels are used, they must be suitably pocketed depending on the type, coding and installation orientation. Quick release connectors are supplied in bundles. The table shows the quantity included in each bundle.

see also...	Page
GN 10b Aluminum Profiles (Profile Type Light)	34
GN 10b Aluminum Profiles (Profile Type Heavy)	35

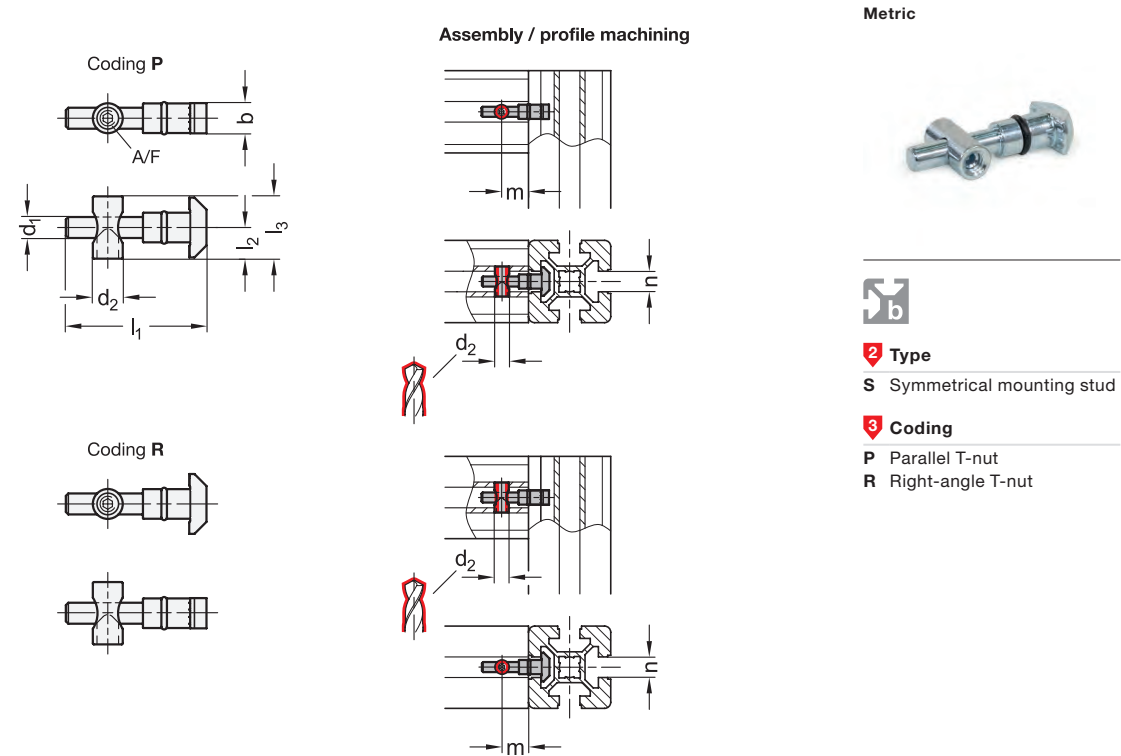
Technical Information	
Assembly Instructions / Profile Machining	51

How to order

1 2 3 4 5

GN 25b-10-A-P-SZ-4

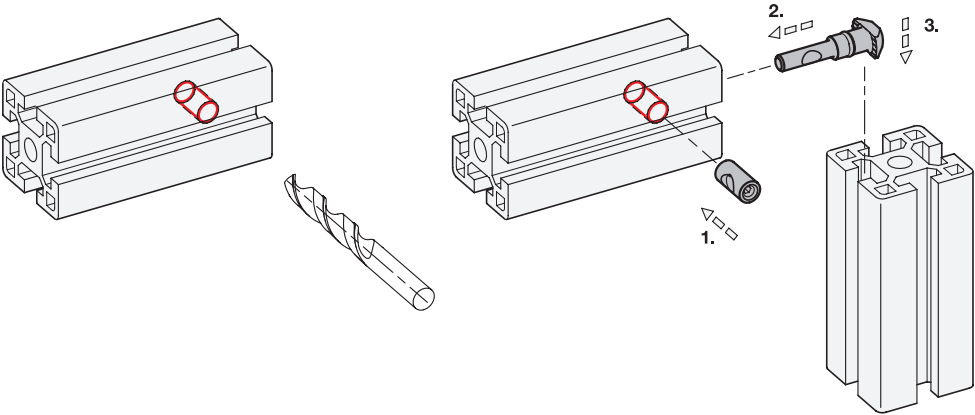
1	Slot width n
2	Type
3	Coding
4	Material / Finish
5	Bundle



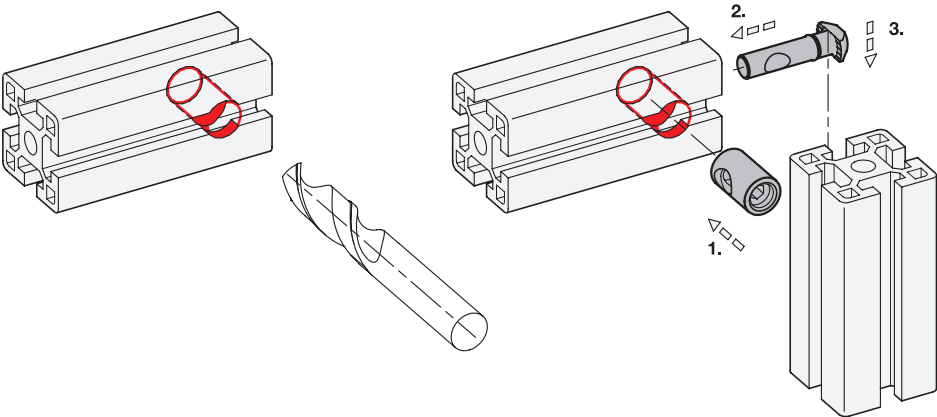
Quick Release Connectors

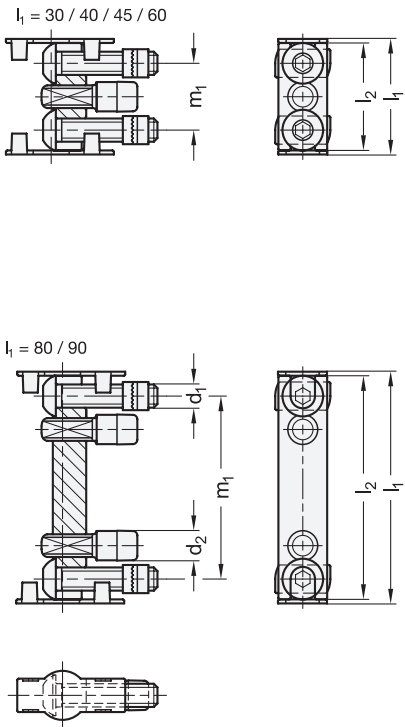
Assembly Instructions / Profile Machining GN 25b Technical Instructions

Type S

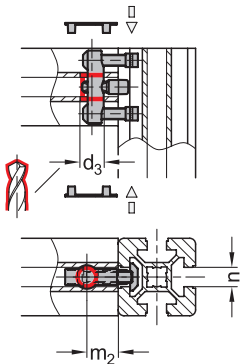


Type A





Assembly / profile machining



Metric



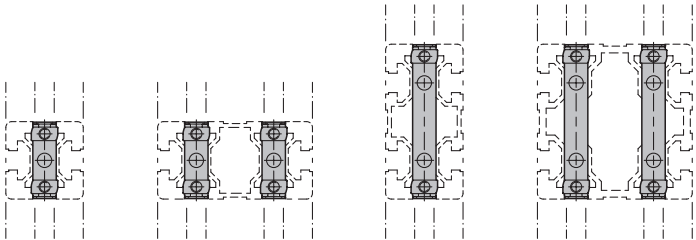
3 Type

N Nut without increased torque

4 Coding

C With fastening set

Use



Specification

Connector / Screws / T-slot nuts

Steel **SZ**
Zinc plated, blue passivated finish

Cover caps

Plastic, Polyamide (PA)
Black **S**

Guide pins

Plastic
Black

RoHS

Technical Information

Plastic Characteristics Handbook 2135

Bolt connectors GN 26b fasten aluminum profiles at right angles and secure them against twisting. Only one profile has to be machined. The connection can be freely positioned and slid along the slot. It is suitable for absorbing high loads, including torsional loads in particular. The cover caps ensure a visually appealing appearance. If panels are used, they must be suitably pocketed.

see also...	Page
GN 10b Aluminum Profiles (Profile Type Light)	34
GN 10b Aluminum Profiles (Profile Type Heavy)	35

How to order	1 Length l_1
	2 Slot width n
	3 Type
	4 Coding
	5 Material / Finish
	6 Color of the cover cap

GN 26b-90 10-N-C-SZS

Metric table

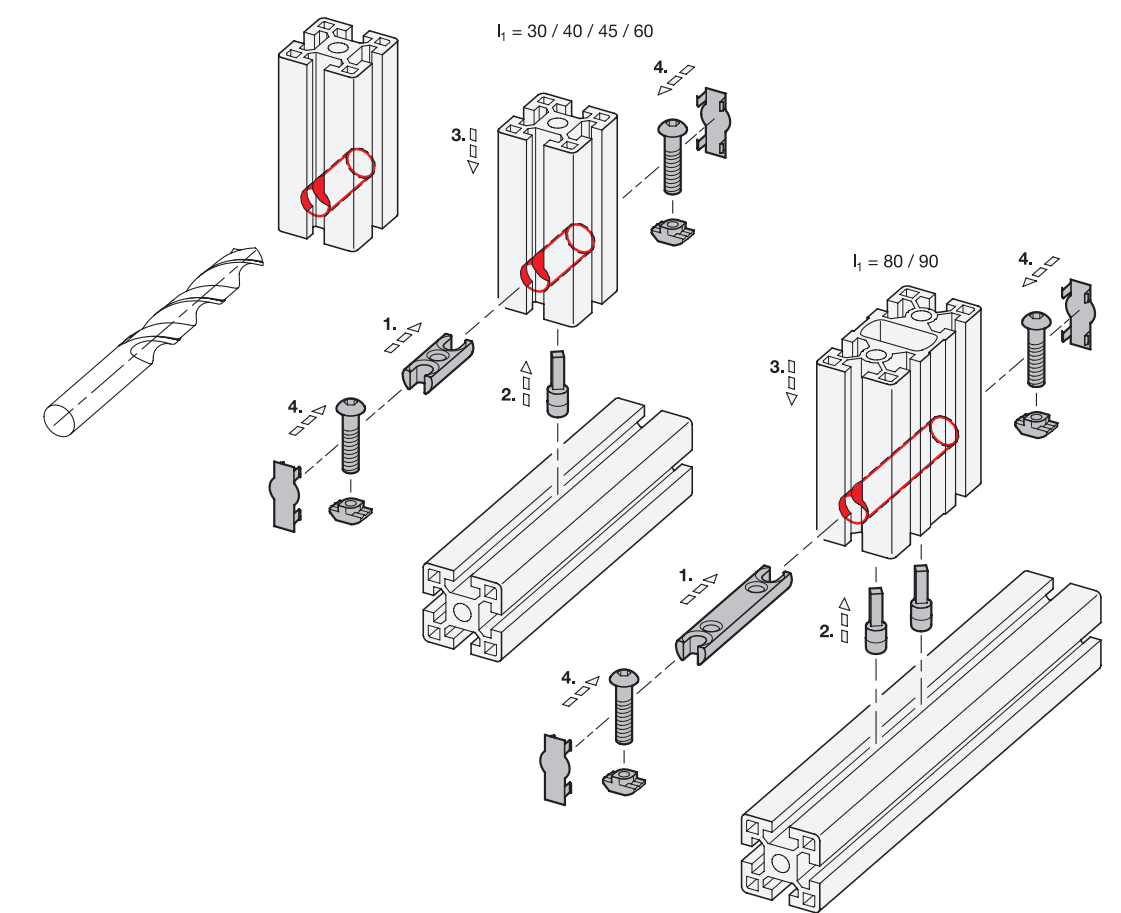
1

2

Dimensions in: millimeters / inches

l_1 Nominal size	n	d_1	d_2	d_3	$l_2 \approx$	m_1	m_2	Tightening torque in Nm
30 1.18	8 0.31	M 5	7.3 0.29	11 0.43	29 1.14	18 0.71	18 0.71	6
40 1.57	10 0.39	M 8	10 0.39	17 0.67	37 1.46	23 0.91	22.5 0.89	25
45 1.77	10 0.39	M 8	10 0.39	17 0.67	42 1.65	28 1.10	22.5 0.89	25
60 2.36	10 0.39	M 8	10 0.39	17 0.67	57 2.24	43 1.69	22.5 0.89	25
80 3.15	10 0.39	M 8	10 0.39	17 0.67	77 3.03	63 2.48	22.5 0.89	25
90 3.54	10 0.39	M 8	10 0.39	17 0.67	87 3.43	73 2.87	22.5 0.89	25

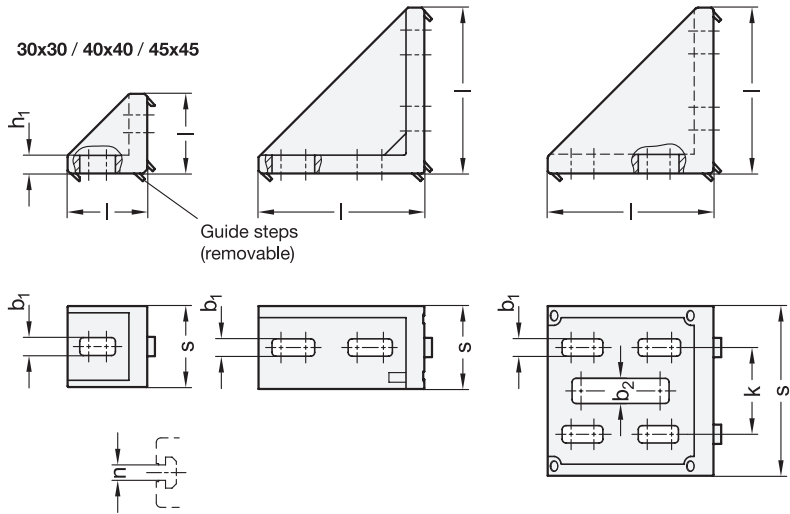
Assembly Instructions / Profile Machining



Metric

30x60 / 40x80 / 45x90

60x60 / 80x80 / 90x90



4 Type

A Without accessory

Metric table

1		2		3		Dimensions in: millimeters / inches			
s		Length l		n	b₁	b₂*	h₁	k	
Nominal dimension	Actual dimension	Nominal dimension	Actual dimension		For screw	For screw			
30 1.18	28 1.10	30 1.18	27 1.06	8 0.31	M 6	-	5.5 0.22	-	
30 1.18	28 1.10	60 2.36	57 2.24	8** 0.31	M 6	-	6 0.24	-	
40 1.57	38 1.50	40 1.57	36 1.42	10 0.39	M 8	-	5.5 0.22	-	
40 1.57	36 1.42	80 3.15	80 3.15	10** 0.39	M 8	-	9 0.35	-	
45 1.77	42 1.65	45 1.77	41 1.61	10 0.39	M 8	-	9 0.35	-	
45 1.77	42 1.65	90 3.54	87 3.43	10** 0.39	M 8	-	9.5 0.37	-	
60 2.36	56 2.20	60 2.36	57 2.24	8** 0.31	M 6	M 8	6 0.24	30 1.18	
80 3.15	74 2.91	80 3.15	76 2.99	10** 0.39	M 8	-	8 0.31	40 1.57	
90 3.54	88 3.46	90 3.54	86 3.39	10** 0.39	M 8	-	9.5 0.37	45 1.77	

* Slotted holes only on 60608 ** Additional guide steps for further slot widths

Specification

Aluminum

- Painted, white aluminum
- Plain finish

AW
AB

RoHS

Accessory

Page

GN 50b T-Nuts	38
GN 51b T-Slot Nuts	40
GN 52b T-Slot Bolts	41
GN 53b Collar Nuts	42

Angle brackets GN 30b fasten aluminum profiles to objects such as tables and panels or at right angles to each other. Machining of the profile is not necessary.

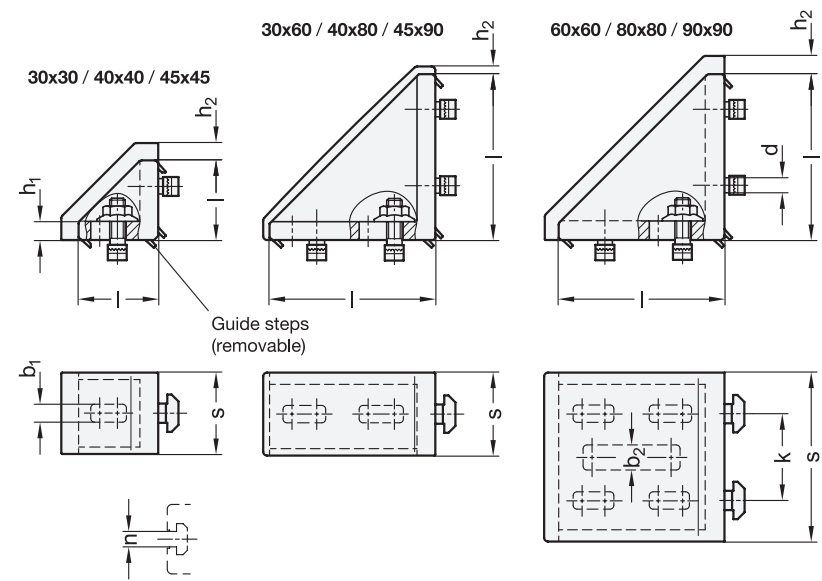
The connection can be freely positioned and slid along the slot. To fasten the angle brackets to a panel or transversely to an aluminum profile, the guide steps must be broken off.

see also...	Page
GN 10b Aluminum Profiles (Profile Type Light)	34
GN 10b Aluminum Profiles (Profile Type Heavy)	35

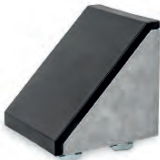
Technical Information

Assembly Options / Application Examples	56
---	----

How to order	1 Width s
	2 Length l
	3 Slot width n
	4 Type
	5 Finish
GN 30b-3030 8-A-AW	



Metric



4 Type

C With fastening set and cover cap

Metric table

1		2		3		Dimensions in: millimeters / inches					
s		Length l		n	b₁	b₂*	d	h₁	h₂ ≈	k	
Nominal dimension	Actual dimension	Nominal dimension	Actual dimension		For screw	For screw					
30 1.18	28 1.10	30 1.18	27 1.06	8 0.31	M 6	-	M 6	5.5 0.22	6 0.24	-	
30 1.18	28 1.10	60 2.36	57 2.24	8** 0.31	M 6	-	M 6	6 0.24	3.5 0.14	-	
40 1.57	38 1.50	40 1.57	36 1.42	10 0.39	M 8	-	M 8	5.5 0.22	6 0.24	-	
40 1.57	36 1.42	80 3.15	80 3.15	10** 0.39	M 8	-	M 8	9 0.35	3.5 0.14	-	
45 1.77	42 1.65	45 1.77	41 1.61	10 0.39	M 8	-	M 8	9 0.35	6 0.24	-	
45 1.77	42 1.65	90 3.54	87 3.43	10** 0.39	M 8	-	M 8	9.5 0.37	3.5 0.14	-	
60 2.36	56 2.20	60 2.36	57 2.24	8** 0.31	M 6	M 8	M 6	6 0.24	6.5 0.26	30 1.18	
80 3.15	74 2.91	80 3.15	76 2.99	10** 0.39	M 8	-	M 8	8 0.31	6.5 0.26	40 1.57	
90 3.54	88 3.46	90 3.54	86 3.39	10** 0.39	M 8	-	M 8	9.5 0.37	6.5 0.26	45 1.77	

* Slotted holes only on 60608 ** Additional guide steps for further slot widths

Specification

Angle bracket

Aluminum

- Painted, white aluminum
- Plain finish

AW
AB

Fastening set

- for n = 8
T-slot nut / Socket cap screw
- for n = 10
T-slot bolt / Collar nut
- Steel, zinc plated
- Blue / yellow passivated finish

SZ

Cover cap

Plastic, Polyamide (PA)
Black

● **S**

RoHS

Technical Information

Page

Assembly Options / Application Examples 56
Plastic Characteristics Handbook 2135

Angle brackets GN 30b fasten aluminum profiles to objects such as tables and panels or at right angles to each other. Machining of the profile is not necessary.

The connection can be freely positioned and slid along the slot. To fasten the angle brackets to a panel or transversely to an aluminum profile, the guide steps must be broken off.

The cover caps ensure a visually appealing appearance and simplify cleaning.

see also...

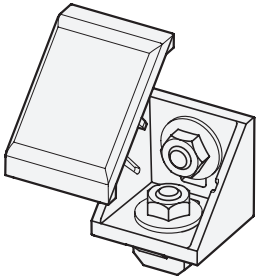
	Page
GN 10b Aluminum Profiles (Profile Type Light)	34
GN 10b Aluminum Profiles (Profile Type Heavy)	35

How to order

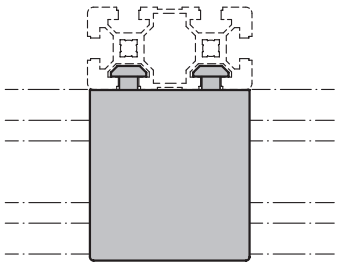
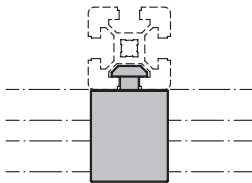
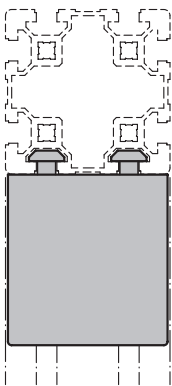
1	Width s
2	Length l
3	Slot width n
4	Type
5	Finish (Angle bracket)
6	Material (Fastening set)
7	Color of the cover cap

GN30b-808010-C-AWSZS

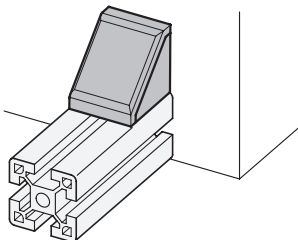
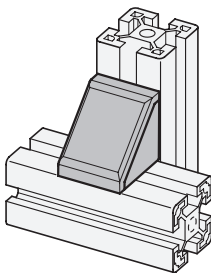
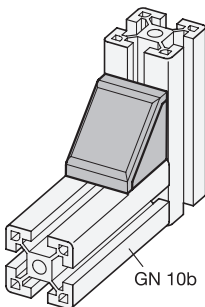
Assembly of cover cap

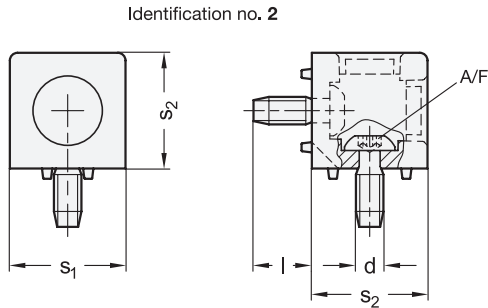


Use

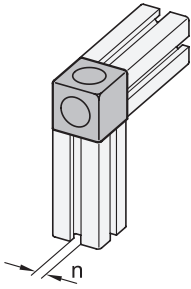


Application examples





Application examples

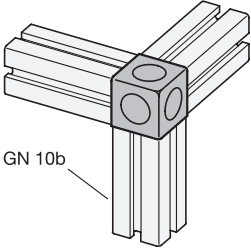
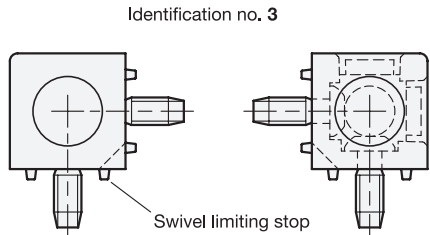


Metric



- 4 Identification no.**
- 2 Connecting 2 profiles
 - 3 Connecting 3 profiles

- 5 Type**
- C With fastening set



Metric table

1	2	3				Dimensions in: millimeters / inches
s ₁	s ₂	n	d Self-forming thread	Length l ≈	A/F	Tightening torque in Nm
30 1.18	30 1.18	8 0.31	S 8	21 0.83	5	25
45 1.77	45 1.77	10 0.39	S 12	24 0.94	T50	35

Specification

Housing

Aluminum, plain finish **AB**

Screws

Steel, zinc plated, blue passivated finish **SZ**

Cover caps

Plastic, Polyamide (PA)
Black

● **S**

RoHS

Cube connectors GN 33b fasten two or three aluminum profiles together on their end faces, at right angles and with anti-twist protection. Machining of the profile is not necessary.

The self-forming thread of the screws should be lubricated to facilitate assembly. The end faces of the aluminum profiles are covered by the cube connectors, which ensures a visually appealing appearance.

If panels are used in the slot, they must be given a suitable corner chamfer.

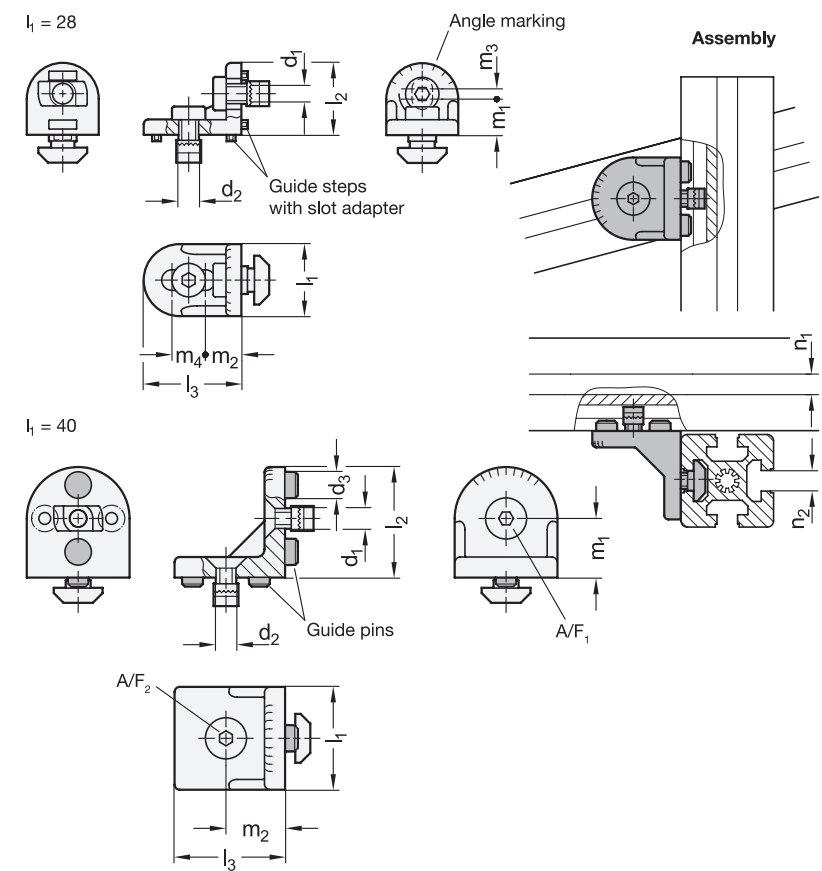
see also...	Page
GN 10b Aluminum Profiles (Profile Type Light)	34
GN 10b Aluminum Profiles (Profile Type Heavy)	35

Technical Information

Plastic Characteristics Handbook 2135

How to order	
1	Width s ₁
2	Height s ₂
3	Slot width n
4	Identification no.
5	Type
6	Finish (Housing)
7	Material / Finish (Screws)
8	Color of the cover cap

GN 33b-454510-2-C-ABSZ S



Metric



4 Type
C With fastening set

Metric table

Dimensions in: millimeters / inches														
1	2	3												
l_1	n_1	n_2	d_1	d_2	d_3	l_2	l_3	m_1	m_2	m_3	m_4	A/F_1	A/F_2	Grid size
28 1.10	10 0.39	10 0.39	M 8	M 8	-	28 1.10	38 1.50	14.5 0.57	14.5 0.57	3.5 0.14	13 0.51	5	5	40 / 45
40 1.57	10 0.39	10 0.39	M 8	M 8	10 0.39	42.5 1.67	42.5 1.67	22.5 0.89	22.5 0.89	-	-	5	5	45

Specification

Housing

Aluminum
Painted, white aluminum **AW**

Fastening set

Screws and T-slot nuts
Steel, zinc plated, blue passivated finish **SZ**

Slot adapter for $l_1 = 28\text{mm}$
Plastic

Guide pin for $l_1 = 40\text{mm}$
Plastic

RoHS

Rotating angle brackets GN 41b connect two crossed aluminum profiles at an any angle. Machining of the profile is not necessary. Depending on the installation situation for the rotating angle bracket, it may be necessary to break off the guide steps or leave out the guide pins.

see also...

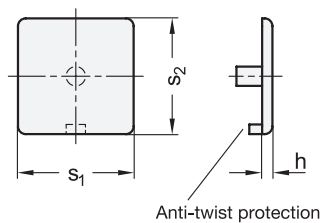
	Page
GN 10b Aluminum Profiles (Profile Type Light)	34
GN 10b Aluminum Profiles (Profile Type Heavy)	35

How to order

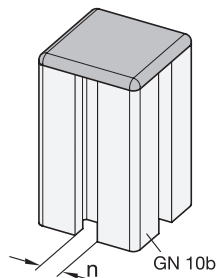
1	Length l_1
2	Slot width n_1
3	Slot width n_2
4	Type
5	Finish (Housing)
6	Material / Finish (Fastening set)

GN 41b-401010-C-AWSZ

Metric



Application example



4 Type

P Press-on type

Metric table

1	2	3	Dimensions in: millimeters / inches	
s ₁	s ₂	n	h ≈	Grid size
30 1.18	30 1.18	8 0.31	3 0.12	30 1.18
30 1.18	60 2.36	8 0.31	3 0.12	30 1.18
40 1.57	40 1.57	10 0.39	4 0.16	40 1.57
40 1.57	80 3.15	10 0.39	4 0.16	40 1.57
45 1.77	45 1.77	10 0.39	4 0.16	45 1.77
45 1.77	60 2.36	10 0.39	4 0.16	45 1.77
45 1.77	90 3.54	10 0.39	4 0.16	45 1.77
80 3.15	80 3.15	10 0.39	4 0.16	40 1.57
90* 3.54	90 3.54	10 0.39	4 0.16	45 1.77

* Only compatible with profile type L

Specification

Plastic, Polyamide (PA)

Black

RoHS

5 KS

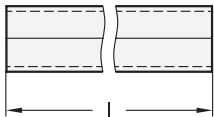
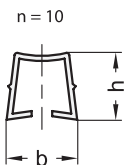
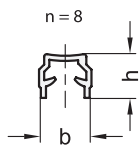
Cover caps GN 60b make a visually appealing closure for the end faces of aluminum profiles, protecting against injuries from sharp cut edges and preventing the ingress of dust and dirt. They can be fitted without machining the profile.

see also...	Page
GN 10b Aluminum Profiles (Profile Type Light)	34
GN 10b Aluminum Profiles (Profile Type Heavy)	35

Technical Information

Plastic Characteristics Handbook 2135

How to order	1 Width s ₁
	2 Width s ₂
	3 Slot width n
	4 Type
	5 Color
GN 60b-459010-P-KS	



Metric

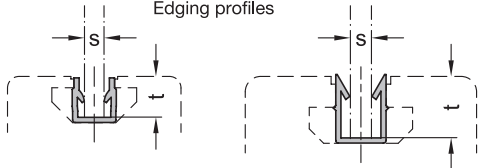


Use

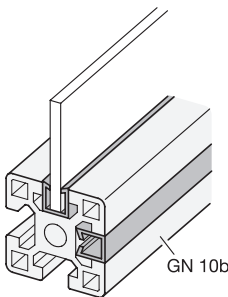
Cover profiles



Edging profiles



Application example



Metric table

Dimensions in: millimeters / inches						
1 n	3 Length l in meters	4 Bundle Pieces	b ≈	h ≈	s Clamping range min. ... max.	t
8 0.31	2	4	10 0.39	8.5 0.33	4 ... 6	8 0.31
10 0.39	2	4	14 0.55	13 0.51	4 ... 6	11.5* 0.45

* 13.5 for aluminum profile 10b-454510L + 10b-459010L

Specification

Plastic, Polypropylene (PP)

Black

● KS

RoHS

Cover and edging profiles GN 70b are inserted into the slot of aluminum profiles.

When used as a cover profile, they are installed with the closed side facing out. This way, they protect the slot from dust and dirt, cover the cables and hoses in the slot and make for a visually appealing appearance.

When used as an edging profile, they are installed with the open side facing out. This allows for panel elements such as panes of glass or PMMA to be fixed directly into the groove.

Cover and edging profiles are supplied in bundles. The table shows the quantity included in each bundle.

see also...	Page
GN 10b Aluminum Profiles (Profile Type Light)	34
GN 10b Aluminum Profiles (Profile Type Heavy)	35

Technical Information

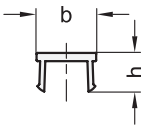
Plastic Characteristics

Handbook 2135

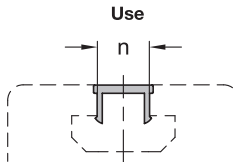
How to order	
1 Slot width n	
2 Color	
3 Length l	
4 Bundle	

GN 70b-10-KS-2-4

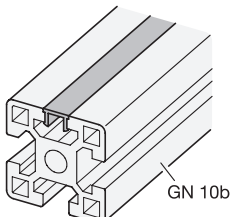
Metric



Use



Application example



GN 10b



Metric table

Dimensions in: millimeters / inches				
¹ n	³ Length l in meters	⁴ Bundle Pieces	b ≈	h ≈
10 0.39	2	4	11.6 0.46	7.5 0.30

Specification	²
Aluminum	
Anodized finish, natural color	AN
RoHS	

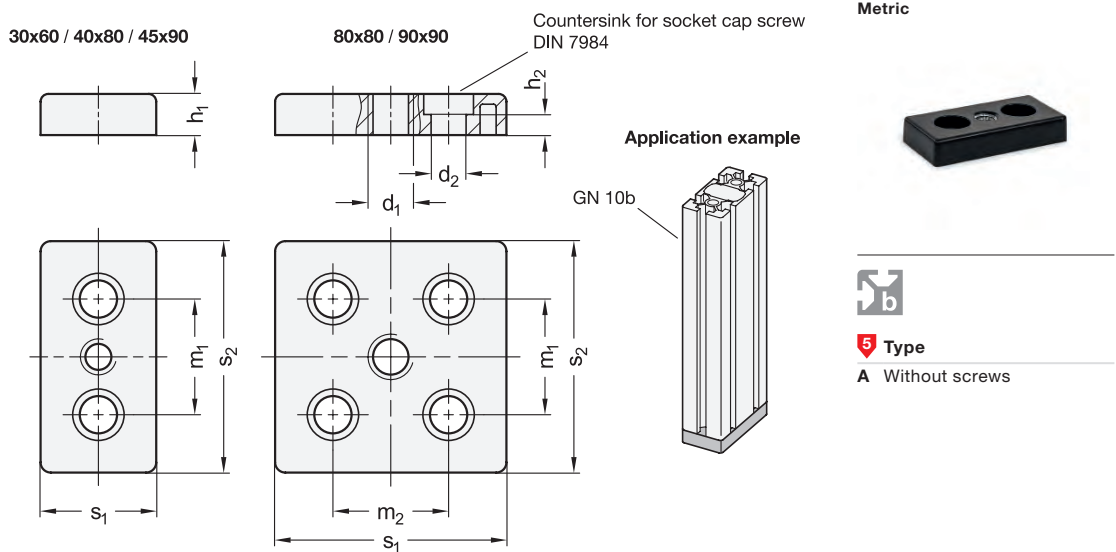
Cover profiles GN 71b are produced by extrusion molding and are inserted into the slot of aluminum profiles.

They protect the slot from dust and dirt, cover the cables and hoses in the slot and make for a visually appealing appearance.

Cover profiles are supplied in bundles. The table shows the quantity included in each bundle.

see also...	Page
GN 10b Aluminum Profiles (Profile Type Light)	34
GN 10b Aluminum Profiles (Profile Type Heavy)	35

How to order	
¹ ² ³ ⁴	
GN 71b-10-AN-2-4	
	¹ Slot width n
	² Finish
	³ Length l
	⁴ Bundle



Metric table

1	2	3	4	Dimensions in: millimeters / inches						
s ₁	s ₂	n	d ₁		d ₂ For screw	h ₁	h ₂	m ₁	m ₂	Grid size
30 1.18	60 2.36	8 0.31	M 10	M 12	M 8 / S 8	12 0.47	3.2 0.13	30 1.18	-	30 1.18
40 1.57	80 3.15	10 0.39	M 10	M 12	M 12 / S 12	16 0.63	8 0.31	40 1.57	-	40 1.57
45 1.77	90 3.54	10 0.39	M 12	M 14	M 12 / S 12	16 0.63	8 0.31	45 1.77	-	45 1.77
80 3.15	80 3.15	10 0.39	M 12	M 16	M 12 / S 12	16 0.63	8 0.31	40 1.57	40 1.57	40 1.57
90* 3.54	90 3.54	10 0.39	M 16	M 20	M 12 / S 12	16 0.63	8 0.31	45 1.77	45 1.77	45 1.77

* Only compatible with profile type L

Specification

Zinc die-cast

Black

RoHS

6

ZS

Support / base plates GN 80b affix attachments such as leveling feet or castors to aluminum profiles.

They are installed in the profile holes on the end faces using suitably tapped threaded holes or thread-forming screws.

see also...

Page

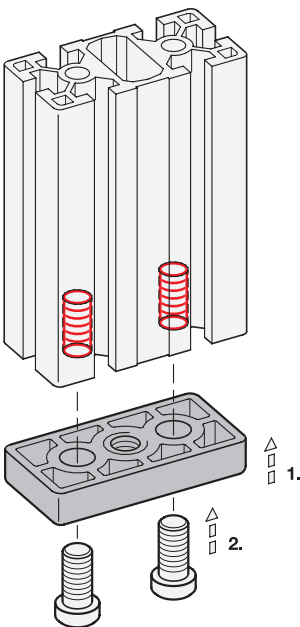
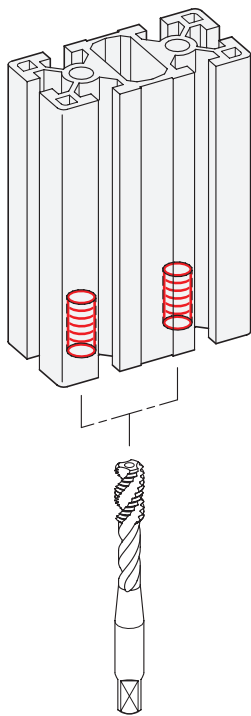
GN 10b Aluminum Profiles (Profile Type Light)	34
GN 10b Aluminum Profiles (Profile Type Heavy)	35

Accessory

GN 21b Central Screws	44
------------------------------	----

How to order  GN 80b-45 90 10M12-A-ZS	1	Width s_1
	2	Length s_2
	3	Slot width n
	4	Thread d_1
	5	Type
	6	Material / Color

Assembly Instructions / Profile Machining





GN 565.1
Cabinet U-Handles
Aluminum



GN 565.2
Angled
Cabinet U-Handles
Aluminum



GN 426.4
Cabinet U-Handles
Aluminum



EN 630.1
Off-Set Open
Cabinet U-Handles
Plastic



EN 528
Cabinet U-Handles
Plastic



GN 728
Cabinet U-Handles
Aluminum Die-Cast



SS Stainless Steel
GN 728.5
Cabinet U-Handles
Stainless Steel
Precision Casting



EN 628
Bridge Handles
Plastic



EN 629
Cabinet U-Handles
Plastic,
with Cover Cap



EN 629.1
Cabinet U-Handles
Plastic



GN 181
Mounting Plate Sets
for Cabinet U-Handles
GN 425 / GN 425.1 / GN 426
GN 426.1 / GN 565 / GN 565.5



GN 333.1
Tubular Handles
Aluminum



GN 333
Tubular Handles
Aluminum



SS Stainless Steel
GN 667
Tubular Handles
Aluminum /
Stainless Steel



GN 334.1
Oval Tubular Handles
Aluminum



GN 335
Oval Tubular Handles
Aluminum



EN 630
Off-Set Enclosed
Safety U-Handles
Plastic



GN 412
Indexing Plungers
Zinc Die-Cast,
with Mounting Flange



GN 416
Indexing Plungers
Zinc Die-Cast,
with Mounting Flange



GN 416.1
Locators
Zinc Die-Cast



SS Stainless Steel

GN 417.1
Locators
Zinc Die-Cast /
Stainless Steel



SS Stainless Steel

GN 417
Indexing Plungers
Zinc Die-Cast /
Stainless Steel,
with Pull Ring



SS Stainless Steel

GN 417
Indexing Plungers
Zinc Die-Cast /
Stainless Steel,
with Knob



SS Stainless Steel

GN 722.6
Indexing Plungers
Steel / Stainless Steel



GN 412.1
Mounting Blocks
Zinc Di-Cast



GN 612.2
Cam Action
Indexing Plungers
Steel



GN 612.9
Cam Action
Indexing Plungers
Zinc Die-Cast



SS Stainless Steel

GN 722.3
Spring Latches
Steel / Stainless Steel



SS Stainless Steel

GN 3492
Mounting Blocks
Stainless Steel



EN 449.1
Snap Door Latches
Plastic,
with Cover



EN 449.4
Snap Latches
Plastic,
with Gripping Tray



GN 936
Slam Latches
Zinc Die-Cast



SS Stainless Steel

GN 4490
Ball Catches
Zinc Die-Cast,
Stainless Steel



GN 938
Hinges
Zinc Die-Cast



EN 239.3
Hinges
Plastic



EN 239.7
Hinges
Plastic



GN 139.2
Hinges
Zinc Die-Cast



GN 2295
Triple Hinge Leafs
Aluminium



GN 2295
Triple Hinge Leafs
Aluminium,
Vertically Elongated



GN 2291
Hinge Leafs
Aluminium



EN 159
Hinges
Plastic



EN 159.1
Hinges
Plastic



GN 161
Hinges
Zinc Die-Cast



SS Stainless Steel
GN 127
Hinges
Zinc Die-Cast /
Stainless Steel



EN 236
Hinges
Plastic



EN 151.4
Hinges
Plastic



GN 2292
Hinges
Aluminum



GN 2294
Hinges
Aluminum



GN 139.1
Hinges with Integrated
Safety Switch
Zinc Die Casting



GN 139.3
Mounting Plates
Steel,
for Hinges
GN 139.1 / GN 139.2



GN 139.4
Mounting Plates
Zinc Die-Cast,
for Hinges
GN 139.1 / GN 139.2



EN 239.6
Hinges with Integrated
Safety Switch
Plastic



EN 239.8
Mounting Plates
Plastic,
for Hinges
EN 239.6 / EN 239.7



EN 239.4
Hinges with
Integrated Switch
Plastic



SS Stainless Steel
GN 145
Flanged
Connector Clamps
Aluminum /
Stainless Steel



SS Stainless Steel
GN 162.3
Base Plate
Connector Clamps
Aluminum /
Stainless Steel



GN 231
Tube Supports
Aluminum



SS Stainless Steel
GN 271
Swivel Clamp
Connector Bases
Aluminum /
Stainless Steel



SS Stainless Steel
GN 281
Swivel Clamp
Connector Joints
Aluminum /
Stainless Steel



GN 271.4
Sensor Holder
Aluminum



GN 473
Base Plate
Mounting Clamps
Aluminum



EN 175
Base Plate
Mounting Clamps
Plastic



GN 477
Mounting Clamps
Aluminum



GN 480
Flanged Bolts
Steel



EN 561
Mounting Angle Brackets
Plastic



GN 967
Connecting Brackets
Steel Sheet Metal



GN 3490
Threaded Flanges
Steel Precision Casting



GN 939
Panel Support Clamps
Zinc Die-Cast



GN 938.1
T-Nuts
Zinc Die-Cast,
for Hinges GN 938 and
Panel Support Clamps
GN 939



EN 649
Panel Support Clamps
Plastic



GN 4470
Magnetic Catches
NdFeB,
Zinc Die-Cast



GN 56
Retaining Magnets
NdFeB,
Plastic

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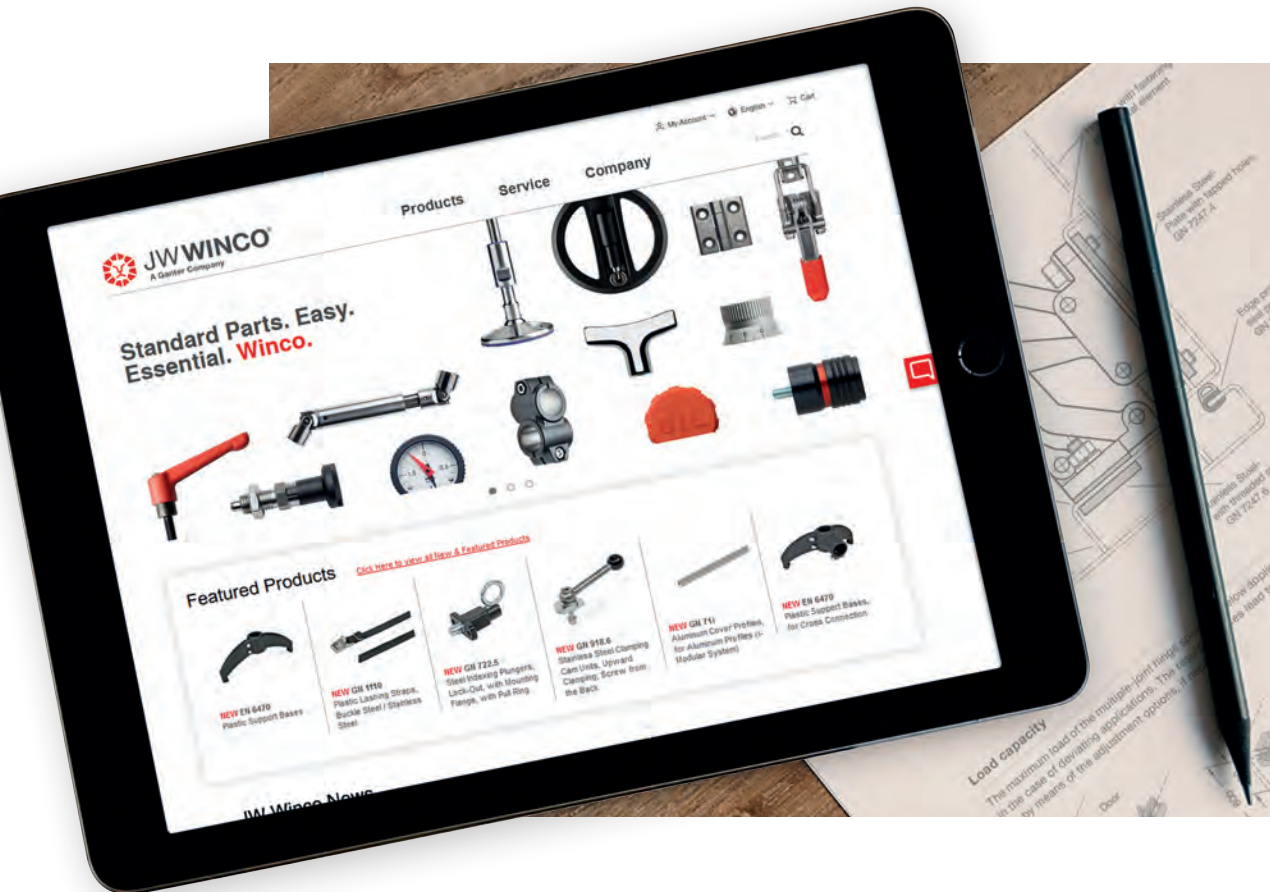
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