

## Selection table for trip rails

**Trip rail series** (here only preferable series, for other series see catalog)

- UFA** Aluminium
- ULA** Aluminum, according to DIN 69638
- UL** Aluminum, can be expanded
- UF** Cast iron, according to DIN 69638
- GF** Steel, galvanized, G-trip rail according to DIN 69638

**Slot spacing [mm]**

8

12

16

**Number of slots (max.)**

3

4

6

8

20

Series					Slot spacing [mm]			Number of slots (max.)					Page
UFA	ULA	UL	UF	GF	8	12	16	3	4	6	8	20	
●					●					●			36
	●					●				●			36
	●						●			●			36
		●				●		can be expanded					36
		●					●						36
			●		●						●		36
			●			●					●		36
			●				●				●		36
				●		●						●	39
				●			●					●	39

● Available

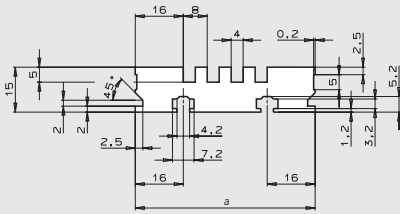
○ Available on request

## Trip rails with 8 mm, 12 mm or 16 mm spacing



**Series UFA...**  
Slot spacing 8 mm, aluminum

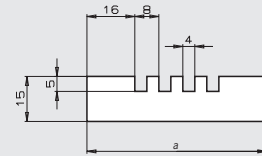
### Dimension drawing



<b>Dimension a [mm]</b>	44	52	60	68	76
<b>Number of slots</b>	2	3	4	5	6

Minimum order 2010 mm, 1 bar

**Series UF...**  
Slot spacing 8 mm, cast iron



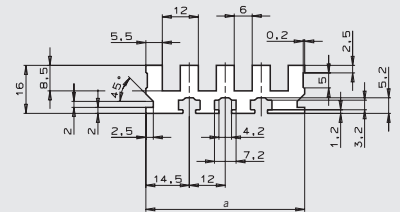
<b>Dimension a [mm]</b>	44	52	60	68	76	92
<b>Number of slots</b>	2	3	4	5	6	8
<b>Dimension a [mm]</b>	108	124	140	156	172	188
<b>Number of slots</b>	10	12	14	16	18	20

Length to suit customer requirement, max. 1000 mm  
Gray figures on request



**Series ULA...** according to DIN 69638 form A  
Slot spacing 12 mm, aluminum

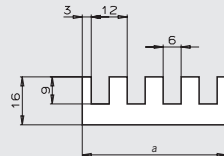
### Dimension drawing



<b>Dimension a [mm]</b>	29	41	53	65	77
<b>Number of slots</b>	2	3	4	5	6

Minimum order 2010 mm, 1 bar

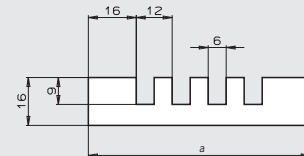
**Series UL...** can be placed in a row  
Slot spacing 12 mm, aluminum



<b>Dimension a [mm]</b>	24	36	48
<b>Number of slots</b>	2	3	4

Preferable lengths 1000, 2000, 3000 and 4000 mm (preferable lengths correspond to minimum order)

**Series UF...** according to DIN 69638 form A  
Slot spacing 12 mm, cast iron



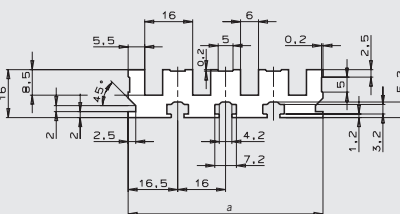
<b>Dimension a [mm]</b>	50	62	74	86	98	122
<b>Number of slots</b>	2	3	4	5	6	8
<b>Dimension a [mm]</b>	146	170	194	218		
<b>Number of slots</b>	10	12	14	16		

Length to suit customer requirement, max. 1000 mm  
Gray figures on request



**Series ULA...** according to DIN 69638 form A  
Slot spacing 16 mm, aluminum

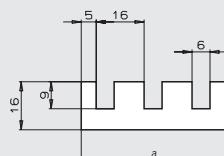
### Dimension drawing



<b>Dimension a [mm]</b>	33	49	65	97
<b>Number of slots</b>	2	3	4	6

Minimum order 2010 mm, 1 bar

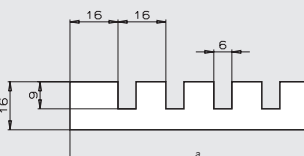
**Series UL...** can be placed in a row  
Slot spacing 16 mm, aluminum



<b>Dimension a [mm]</b>	32	48
<b>Number of slots</b>	2	3

Preferable lengths 1000, 2000, 3000 and 4000 mm (preferable lengths correspond to minimum order)

**Series UF...** according to DIN 69638 form A  
Slot spacing 16 mm, cast iron



<b>Dimension a [mm]</b>	54	70	86	102	118	150
<b>Number of slots</b>	2	3	4	5	6	8
<b>Dimension a [mm]</b>	182	214				
<b>Number of slots</b>	10	12				

Length to suit customer requirement, max. 1000 mm  
Gray figures on request

### Ordering code

U    -  -

Series

Number of slots (see tables)

Slot spacing (8, 12 or 16 mm)

Length [mm] (note minimum order/preferable length)

## Trip dogs for trip rails with 8 mm, 12 mm or 16 mm spacing

Type of actuation mechanical

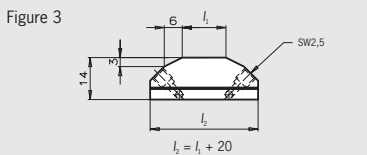
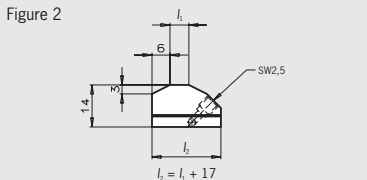
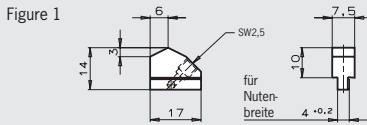
Type of actuation inductive

**Series U8...**  
for 8 mm slot spacing, hardened, ground steel

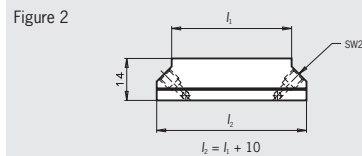
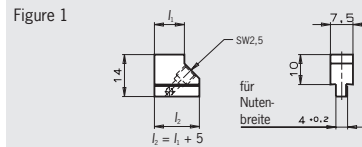
**Series UX8...**  
for 8 mm slot spacing, black painted steel



### Dimension drawing



$l_1$	Figure
0	1
4	2
6,3	2
10	3
16	3
20	3
25	3
40	3
63	3
100	3



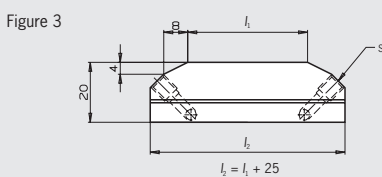
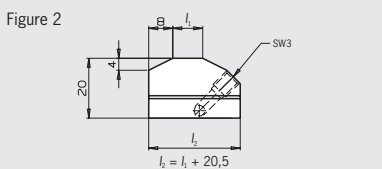
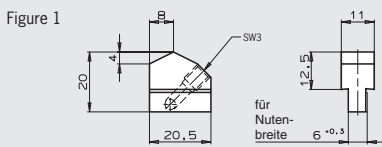
$l_1$	Figure
6	1
10	1
16	1
25	2
40	2
63	2
100	2

**Series U1216...** according to DIN 69639 form UA/UB  
for 12 or 16 mm slot spacing, hardened, ground steel

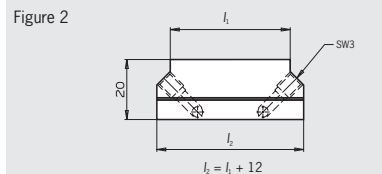
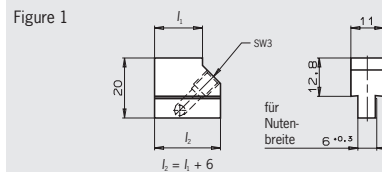
**Series UX1216...**  
for 12 or 16 mm slot spacing, black painted steel



### Dimension drawing



$l_1$	Figure	DIN/form
0	1	UA
4	2	UA
6,3	2	-
10	2	UA
16	3	UB
25	3	UB
40	3	UB
63	3	UB
100	3	UB
125	3	-



$l_1$	Figure
10	1
16	1
25	2
40	2
63	2
100	2
125	2

Ordering code

**U**       -

Series

Length  $l_1$

## Special trip dogs for trip rails with 12 mm or 16 mm spacing

### Type of actuation mechanical

- ▶ Safety dog
- ▶ Fine adjustment dog
- ▶ Fine adjustment dog with micrometer

#### Safety dog UZ

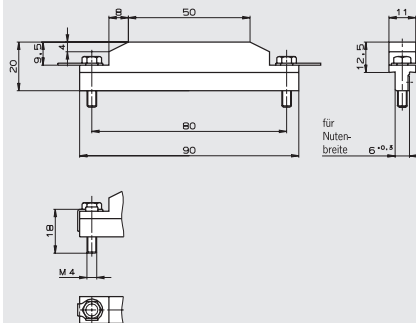
For limit switches with safety function the safety dog must be positively mounted

#### Fine adjustment dog UE

The fine adjustment dog UE1216-4 can be mounted in all U-trip rails with 12 or 16 mm slot spacing. The fine adjustment is made using a self-locking hexagon socket head screw

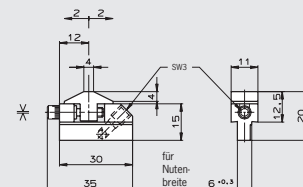
**Safety dog UZ** for 12/16 mm slot spacing, hardened, ground steel

#### Dimension drawing UZ1216-50



**Fine adjustment dog UE** 12/16 mm for slot spacing, hardened, ground steel

#### Dimension drawing UE1216-4



Adjustment range [mm]	4
Graduation $\Delta$ [mm]	0.02

#### Fine adjustment dog with micrometer

The fine adjustment dog UEN1216/UEG1216 can be mounted in all U-trip rails with 12 or 16 mm slot spacing. After clamping the micrometer UEG1216, the fine adjustment dog UEN1216 can be moved to the required dimension by turning the micrometer screw.

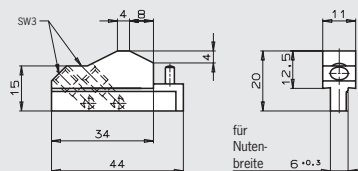
The fine adjustment dog is clamped after adjustment as required.

The micrometer can be removed from the trip rail for further use after undoing the clamping screw, or it can be left in the trip rail.

The micrometer UEG1216 must be used for adjusting fine adjustment dogs UEN1216.

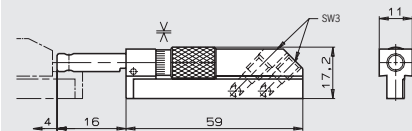
**Fine adjustment dog** for 12/16 mm slot spacing, hardened, ground steel

#### Dimension drawing UEN1216



**Micrometer** for fine adjustment dog UEN1216, mat, chromium-plated steel

#### Dimension drawing UEG1216



Adjustment range [mm]	4
Graduation $\Delta$ [mm]	0.02

### Ordering table

Designation	Use	Order No. / Item
<b>Safety dog UZ</b>	For trip rails ULA/UL/UF 12 or 16 mm	<b>022 734</b> UZ1216-50
<b>Fine adjustment dog UE</b>	For trip rails ULA/UL/UF 12 or 16 mm	<b>013 340</b> UE1216-4
<b>Micrometer UEG</b>	For fine adjustment dog UEN1216	<b>013 338</b> UEG1216
<b>Fine adjustment dog UEN</b>	For micrometer UEG1216 For trip rails ULA/UL/UF 12 or 16 mm	<b>013 339</b> UEN1216

## G-trip rails with 12 mm or 16 mm spacing

**G-trip rails GF...** according to DIN 69638 form C, fully assembled, galvanized steel

**G-trip rail GFE.../GFR...** according to DIN 69638 form C, kit for self-assembly, galvanized steel

Number of slots	Slot spacing C [mm]			
	12 mm		16 mm	
	a	b	a	b
1	18	0	26	0
2	30	12	42	16
3	42	24	58	32
4	54	36	74	48
5	66	48	90	64
6	78	60	106	80
8	102	84	138	112
10	126	108	170	144
12	150	132	202	176
14	174	156	234	208
16	198	180	266	240
18	222	204	298	272
20	246	228	330	304

End piece pairs GFE...

Guide tubes GFR...

Slot spacing [mm]	Slot spacing [mm]	
	12 mm	16 mm
a	6	10

Preferable lengths 1000, 1500 and 2000 mm

For assembly instructions see page 43

## G-trip rail, fully assembled

**Ordering code** **G-trip rail GF...** G F   -   -      

Series \_\_\_\_\_

Number of slots (see table) \_\_\_\_\_

Slot spacing (12 or 16 mm) \_\_\_\_\_

Length l \* [mm] (note maximum length) \_\_\_\_\_

## Kit for self-assembly

**Ordering code** **Guide tubes GFR...** G F R   -      

**End piece pairs GFE...** G F E   -    

Series \_\_\_\_\_

Number of slots (see table) \_\_\_\_\_

Slot spacing (12 or 16 mm) \_\_\_\_\_

Length l \* [mm] (note preferable length) \_\_\_\_\_

\* For lengths over 600 mm, support brackets are required (see page 42)

## Trip dogs for G-trip rails with 12 mm or 16 mm spacing

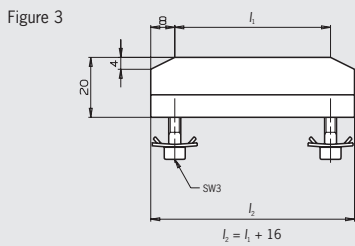
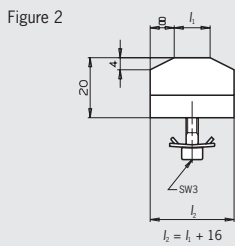
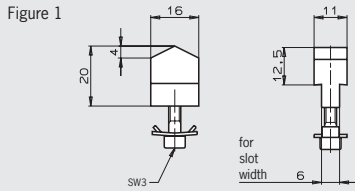
### Type of actuation mechanical

### Type of actuation inductive

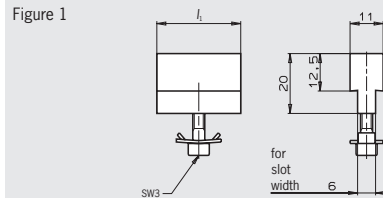
**Series G1216....** according to DIN 69639 form G for G-trip rails GF, hardened, ground steel

**Series GX1216...** for G-trip rails GF, black painted steel

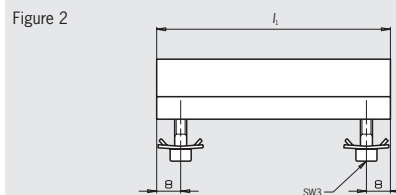
#### Dimension drawing



$l_1$	Figure	DIN/form
0	1	G
4	2	G
10	2	G
16	2	G
25	2	G
40	2	G
63	3	G
100	3	G



$l_1$	Figure
10	1
16	1
25	1
40	1
63	2
100	2



#### Ordering code

G						-				
---	--	--	--	--	--	---	--	--	--	--

Series

Length  $l_1$

## Special trip dogs for G-trip rails with 12 mm or 16 mm spacing

- ▶ **Fine adjustment dog**
- ▶ **Fine adjustment dog with micrometer**

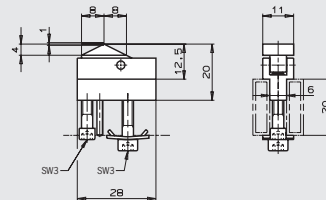
### Fine adjustment dog

The fine adjustment dog GE1216-0 can be mounted in the G-trip rails with 12 or 16 mm slot spacing. The fine adjustment is made using a self-locking hexagon socket head screw.

### Type of actuation mechanical

**Fine adjustment dog** for G-trip rails GF, hardened, ground steel

#### Dimension drawing GE1216-0



Adjustment range [mm] 1

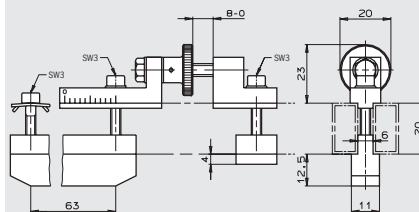
### Type of actuation inductive

### Fine adjustment dog with micrometer

The fine adjustment dog GEN1216-63/GEX1216-40 can be mounted in the G-trip rails with 12 or 16 mm slot spacing. The fine adjustment is made using a knurled screw.

**Fine adjustment dog** with micrometer for trip rails GF, hardened, ground steel

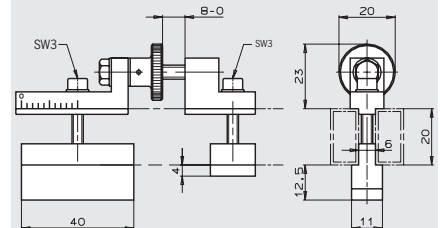
#### Dimension drawing GEN 1216-63



Adjustment range [mm] 8

**Fine adjustment dog** for micrometer for trip rails GF, black painted steel

#### Dimension drawing GEX1216-40



Adjustment range [mm] 8

### Ordering table

Designation	Type of actuation	Use	Order No. / Item
<b>Fine adjustment dog</b>	Mechanical	For G-trip rails GF 12 or 16 mm	<b>010 493</b> GE1216-0
<b>Fine adjustment dog with Micrometer</b>	Mechanical	For G-trip rails GF 12 or 16 mm	<b>024 563</b> GEN1216-63
	Non-contact	For G-trip rails GF 12 or 16 mm	<b>001 601</b> GEX1216-40

## Accessories

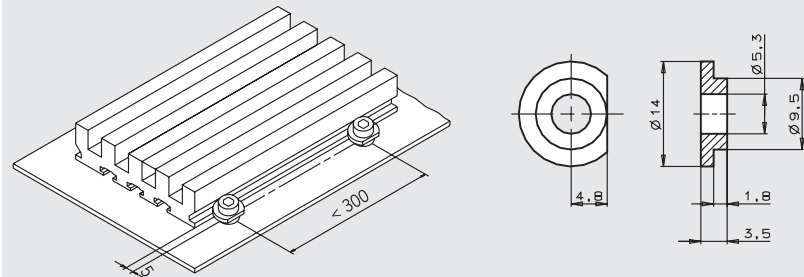
- ▶ Clamping piece
- ▶ Support brackets

### Clamping piece

The trip rails ULA and UFA made of aluminum are preferably fastened to the body of the machine using special clamping pieces.

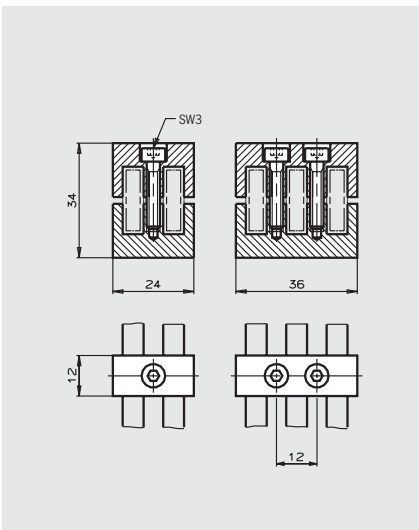
### Clamping piece for trip rails ULA/UFA

#### Dimension drawing

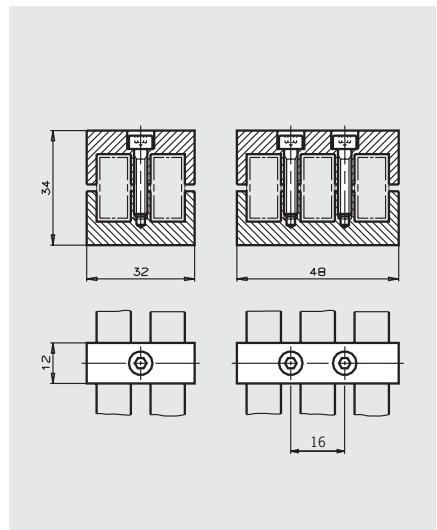


**Support brackets, can be placed in a row**  
For the G-trip rails GFE/GFR kit, support brackets must be used from a length of 600 mm.

### Support brackets slot spacing 12 mm for G-trip rail GFE/GFR



### Support brackets slot spacing 16 mm for G-trip rail GFE/GFR



## Ordering table

Designation	Use	Slot spacing [mm]	Number of guide tubes	Order No. / Item
Clamping piece	For trip rails ULA/UFA	-		<b>025 519</b> Clamping piece
Support brackets	For G-trip rails GFE/GFR	12 mm	2	<b>027 459</b> ZW02-12
			3	<b>027 460</b> ZW03-12
		16 mm	2	<b>027 461</b> ZW02-16
			3	<b>027 462</b> ZW03-16



## Installation notes

### Trip rail system-G kit for self-assembly

A kit comprises two end pieces, the pressure segments and the related number of guide tubes.

All parts are protected against corrosion by a special surface treatment.

The kit enables the user to assemble trip rails of the required length (from 600 mm special support brackets are required) of up to 2000 mm. For this purpose the guide tubes are cut to the required length and bolted together to form a trip rail with the aid of the end pieces (see example).

