#### KEL-FG-A

# Flange enclosures for cable entry





**♣HL3** EN 45545-2

UV)-



Slit grommets

#### Product description

The cable entry frames KEL-FG-A are suited for installation, sealing and strain relief of cables with connectors and conduits at an angle of 90° to the cabinet, enclosure or machine wall. For routing cables and conduits up to 35 mm in diameter. The KEL-FG-A frame matches exactly the cut-out dimensions for 24-pin standard industrial connectors. A flat rubber gasket is included in the shipment.

#### Advantages & benefits

- Installation at an angle of 90° to the wall
- Mechanical protection of cable directly at the place of entry
- Protection against water spray and drips
- Warranty on pre-terminated cables remains
- Strain relief according to EN 62444
- High stability, vibration resistant

#### Specifications

Material Polyamide (PA)

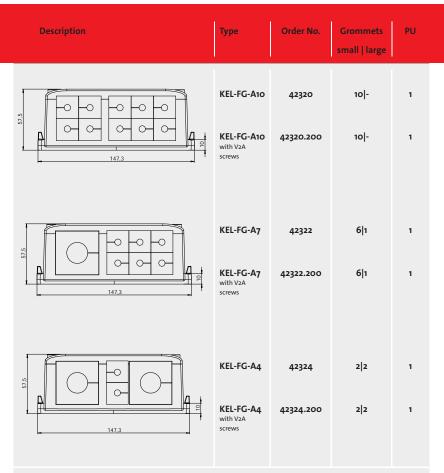
Flame class UL94-Vo, self-extinguishing IP rating IP54, with gasket and correct

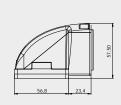
selection of the cable grommets

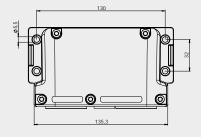
Temperature -40°C to +140°C (static)
Properties Halogen-free, silicone-free
Cut-out dimensions 36 × 112 mm, Page 192 - 193

#### Accessories

Cable grommets 44 - 48
KEL-SNAP Mounting frames 36 - 37
KEL-EMC Cable collectors 122 - 124







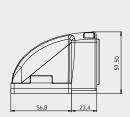


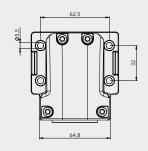




Slit grommets

Туре	Order No.	Grommets small   large	PU	Description
KEL-FG-B4	42330	4 -	1	915
KEL-FG-B4 with V2A screws	42330.200	4 -	1	79.8
KEL-FG-B1	42332	- 1	1	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
KEL-FG-B1 with V2A screws	42332.200	- 1	1	79,8







#### Product description

The cable entry frames KEL-FG-B are suited for installation, sealing and strain relief of cables with connectors and conduits at an angle of 90° to the cabinet, enclosure or machine wall. For routing cables and conduits up to 35 mm in diameter. A flat rubber gasket is included in the shipment.

#### Advantages & benefits

- Installation at an angle of 90° to the wall
- Mechanical protection of cable directly at the place of entry
- Protection against water spray and drips
- Warranty on pre-terminated cables remains
- Space saving shape
- Strain relief according to EN 62444
- High stability, vibration resistant

### Specifications

Material Polyamide (PA)

Flame class UL94-Vo, self-extinguishing IP rating IP54, with gasket and correct

selection of the cable grommets

Temperature - 40°C to + 140°C (static) **Properties** Halogen-free, silicone-free Cut-out dimensions 46 × 36 mm, Page 192 - 193

#### Accessories

Cable grommets KEL-EMC Cable collectors 122 - 124

#### IP54

# **ÆHL3** EN 45545-2



- **ECOL** 

RoH:

Made in Germany

#### **KEL-FG-E**

# Flange enclosures for cable entry







Slit grommets

#### Product description

The cable entry frames KEL-FG-E are suited for installation, sealing and strain relief of cables with connectors and conduits at an angle of 90° to the cabinet, enclosure or machine wall. For routing cables and conduits up to 17 mm in diameter.

The KEL-FG-E version is particularly suited for flat connectors. The small frame is ideal for applications with limited space. A flat rubber gasket is included in the shipment.

#### Advantages & benefits

- Installation at an angle of 90° to the wall
- Mechanical protection of cable directly at the place of entry
- Protection against water spray and drips
- Warranty on pre-terminated cables remains
- Space saving shape
- Optimal for D-Sub connectors
- Strain relief according to EN 62444
- High stability, vibration resistant

### Specifications

Material Polyamide (PA)

Flame class UL94-Vo, self-extinguishing IP rating IP54, with gasket and correct

selection of the cable grommets

Temperature - 40°C to + 140°C (static)
Properties Halogen-free, silicone-free

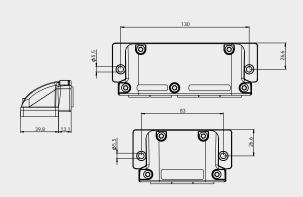
Cut-out dimensions E3: 65 × 24 mm

E5: 112 × 24 mm

#### Accessories

Cable grommets 44 - 48 KEL-EMC Cable collectors 122 - 124

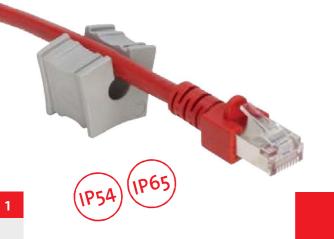




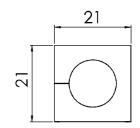
UV)



# KT Grommets, small, single







10

10

10

10

10

10

10

10

10

10

10

10

10

10

10

10

10

10

10

10

approx. 8 × 4 mm

Telephone cable

Data cable RJ12

Data cable

RJ10 / RJ45

Cable grommets KT small are used with the following cable entry frames:

KEL-U/KEL-ER/KEL (8 - 34) | KVT (38 - 42)

The model range KT small is designed for cable diameters from 2 to 17 mm.

#### Assembly note

When installing the grommets, the flat side should be facing the middle of the frame. This allows the flat sides of adjacent grommets to match up and provide a secure seal.

#### Specifications KT grey

Material Elastomer

Flame class UL94-Vo, self-extinguishing IP rating KT round, single: up to IP65

(in combination with KEL-ER frame)

KT special/blank: IP54

NEMA type rating up to NEMA type 4X (acc. to UL 50E)

Temperature - 40°C to+ 90°C (static) **Properties** Halogen-free, silicone-free

#### ■ Specifications KT black

Material Elastomer Flame class UL94-HB

IP rating KT round, single: up to IP65

(in combination with KEL-ER frame)

KT special/blank: IP54

NEMA type rating up to NEMA type 4X (acc. to UL 50E)

Temperature - 30°C to + 90°C (static) **Properties** Higher chemical resistance

#### Accessories

ST Plugs



KT oval

KT S1

KT tele1

KT tele2

39930

39931

39929

41257

**41258** 

KT tele

KT tele1

KT tele2

\*Only valid for grey product types

#### icotek

# Grommets, small, multi





(IP54)
(1754)

Туре	Order No	Order No black	Clamping range	PU		Description
KT 2 2	□ 39935	■ 39936	2× Ø 2 mm	10		
KT 2 3	39939	39940	2× Ø 3 mm	10	00	KT 2 ×
KT 2 4	<b>39906</b>	■ 39907	2× Ø 4 mm	10		
KT 2 5	<u>41200</u>	39904	2× Ø 5 mm	10		
KT 2 6	<u>41201</u>	■ 39905	2× Ø 6 mm	10		
KT 2 7	<b>41202</b>	39916	2× Ø 7 mm	10		
KT 2 8	39917	■ 39918	2× Ø 8 mm	10		
					60	KT 4 ×
KT 4 2	39937	■ 39938	4× Ø 2 mm	10		
KT 4 3	39914	■ 39915	4× Ø 3 mm	10		
KT 4 4	39909	39911	4× Ø 4 mm	10		
KT 4 5	39908	■ 39910	4× Ø 5 mm	10		
KT 4 6	□ 39932	■ 39933	4× ø 6 mm	10		
						KT ASI2 rl
					1	
KT-ASI	39902	■ 39903	1 ASI-cable	10		
KT-ASI2 rl	39922	■ 39924	2 ASI-cables	10		
KT-ASI2 II	39921	■ 39923	2 ASI-cables	10		
						KT ASI2 II
*Only valid for						

#### Product description

Cable grommets KT small are used with the following cable entry frames:

KEL-U/KEL-ER/KEL (8 - 34) | KVT (38 - 42)

The model range KT small is designed for cable diameters from 2 to 17 mm.

#### Assembly note

When installing the grommet, the smooth side of the grommet faces the middle of the cable entry frame.

#### ■ Specifications KT grey

Material Elastomer

Flame class UL94-Vo, self-extinguishing IP rating KT round, multi: IP54

KT special, multi: IP54

NEMA type rating NEMA type 12 (acc. to UL 50E) - 40°C to+ 90°C (static) Temperature **Properties** Halogen-free, silicone-free

#### Specifications KT black

Material Elastomer Flame class UL94-HB

IP rating KT round, multi: IP54

KT special, multi: IP54

NEMA type rating NEMA type 12 (acc. to UL 50E) Temperature - 30°C to + 90°C (static) Properties Higher chemical resistance

#### Accessories

ST Plugs

#### icotek

# KT Grommets, large





Cable grommets KT large accept a wide range of cable diameters from 16 to 35 mm. They are used with the following cable entry frames:

KEL-U/KEL-ER/KEL (8 - 34) | KVT (38 - 42)

ATG adapter grommets provide the possibility to hold a small KT grommet to reduce the clamping range down to 2 mm.

#### ■ Specifications KT grey

Material Elastomer

Flame class UL94-Vo, self-extinguishing IP rating KT round, single: up to IP65

(in combination with KEL-ER frame)

ATG/BTG: IP54

NEMA type rating up to NEMA type 4X (acc. to UL 50E)

- 40°C to+ 90°C (static) Temperature **Properties** Halogen-free, silicone-free

### ■ Specifications KT black

Material Elastomer Flame class UL94-HB

IP rating KT round, single: up to IP65

(in combination with KEL-ER frame)

ATG/BTG: IP54

NEMA type rating up to NEMA type 4X (acc. to UL 50E)

Temperature - 30°C to + 90°C (static) **Properties** Higher chemical resistance





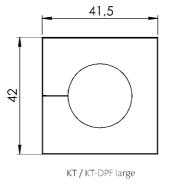


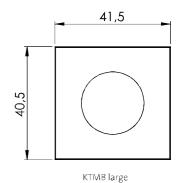




ECOLAB ROHS Compliant Germany







Description	Туре	Order No.	Order No. black	Clamping range	PU
		grey	DIACK		
ATG	ATG	<b>41253</b>	<b>4</b> 1353	Adapter grommet	10
BTG	втс	<b>41252</b>	<b>4</b> 1352	Blank grommet or 5 - 20 mm	10
	KT 16	<b>41216</b>	<b>41316</b>	16 - 17 mm	10
	KT 17	41217	<b>41317</b>	17 - 18 mm	10
KT round	KT 18	<b>41218</b>	<b>4</b> 1318	18 - 19 mm	10
	KT 19	<b>41219</b>	<b>4</b> 1319	19 - 20 mm	10
	KT 20	<b>41220</b>	<b>41320</b>	20 - 21 mm	10
	KT 21	41221	41321	21 - 22 mm	10
	KT 22	<b>41222</b>	<b>4</b> 1322	22 - 23 mm	10
	KT 23	<b>41223</b>	<b>4</b> 1323	23 - 24 mm	10
	KT 24	<b>41224</b>	<b>41324</b>	24 - 25 mm	10
	KT 25	<b>4122</b> 5	<b>41325</b>	25 - 26 mm	10
	KT 26	<b>41226</b>	<b>4</b> 1326	26 - 27 mm	10
	KT 27	<b>41227</b>	<b>41327</b>	27 - 28 mm	10
	KT 28	<b>41228</b>	<b>41328</b>	28 - 29 mm	10
	KT 29	<b>41229</b>	<b>4</b> 1329	29 - 30 mm	10
	KT 30	<b>41230</b>	<b>41330</b>	30 - 31 mm	10
	KT 31	<b>41231</b>	<b>4</b> 1331	31 - 32 mm	10
	KT 32	<b>41232</b>	<b>4</b> 1332	32 - 33 mm	10
	KT 33	<b>41233</b>	<b>4</b> 1333	33 - 34 mm	10
	KT 34	<b>41234</b>	<b>4</b> 1334	34 - 35 mm	10
*Only valid for grey product types					

















Туре	Order No.	Size KT	Clamping range	PU	Description
KT-DPF-A	☐ 41260 <b>■</b> 41360	KT small	3 - 12 mm	10	KT-DPF-A
KT-DPF-B	☐ 41261 <b>■</b> 41361	KT large	4 - 18 mm	10	
KT-DPF-C	☐ 41262 ■ 41362	KT large	14 - 26 mm	10	KT-DPF-C
ктмв-а	41432	KT small	2.5 - 6.5 mm	10	
ктмв-в	41434	KT small	4 - 7.5 mm	10	KTMB-D
ктмв-с	41436	KT small	6.5 - 10 mm	10	
KTMB-D	41438	KT small	9.5 - 13 mm	10	
КТМВ-Е	41440	KT small	13 - 16 mm	10	
ктмв-с	41460	KT large	13 - 18 mm	10	Cross section KTMB
ктмв-н	41465	KT large	18 - 23 mm	10	
КТМВ-І	41470	KT large	23 - 28 mm	10	
KTMB-J	41475	KT large	28 - 33 mm	10	KTMB-I
ктмв-к	41480	KT large	2× 13 - 18 mm	10	KTMB-K
*Only valid for	r grey product t	ypes			

## KT-DPF | KTMB

Grommets, multi-range



#### Product description

The KT-DPF / KTMB grommets accept a wide range of cable diameters. A great benefit when the exact cable diameter is not known in advance. The KTMB grommets are not split and therefore only usable for cables without connectors. Cutting of KT-DPF grommets: Cable diameter less 20%.

#### ■ Specifications grey

Material Elastomer

Flame class UL94-Vo, self-extinguishing

IP rating IP54

NEMA type rating NEMA type 12 (acc. to UL 50E) Temperature - 40°C to+ 90°C (static) **Properties** Halogen-free, silicone-free

#### Specifications black

Material Elastomer Flame class UL94-HB IP rating IP54

NEMA type rating NEMA type 12 (acc. to UL 50E) Temperature - 30°C to + 90°C (static)

**Properties** Higher chemical resistance

#### KMS Cable template

The correct size of the KT grommets can easily be determined by using the stainless steel cable template.

- Determining the diameter of the cable using the cable template
- Selecting the KT grommets according to the data on the cable template

Order No. 39800



#### DT

### Membrane cable grommets





ECOLAB Compliant Compliant Germany

ÆHL3

**PN**us IP54

### Product description

The DT cable grommets are designed for cables without preassembled connectors. A large number of cables can be routed utilising minimal space.

DT grommets are designed to fit in KT large grommet spaces of the following products:

KEL-U/KEL-ER/KEL (8 - 34) | KVT (38 - 42)

The DT grommets are also perfectly suitable for the assembly of subsequently terminated cable harnesses.

#### Advantages & benefits

- Combination of routing pre-terminated cables and cables without connectors with one cable entry frame
- Enables sub-assembly of cable harnesses
- High cable density

#### Specifications

Material Elastomer

Flame class **UL94-Vo, self-extinguishing** 

IP rating IP54

NEMA type rating NEMA type 12 (acc. to UL 50E)
Temperature -40°C to +90°C (static)
Properties Halogen-free, silicone-free

#### Accessories

ST-B Plugs 76

Description	Туре	Order No.	PU	
41.5	DT 1	41500	12× max. 6.5 mm 2× max. 12.2 mm	10
0000 0000 0000	DT 2	41510	16× max. 7.1 mm	10
41.5 900 900 900 900 900 900 900 90	DT 3	41520	4× max. 6.5 mm 3× max. 9.5 mm 3× max. 11.3 mm	10
41,5	DT 4	41530	9× max. 9.5 mm	10











Туре	Order No.	Diameter D	Length L	PU	Description
ST 2	42909	2 mm	25 mm	25	D <u></u>
ST 3	42901	3 mm	25 mm	25	
ST 4	42908	4 mm	25 mm	25	L
ST 5	42906	5 mm	25 mm	25	
ST 6	42903	6 mm	25 mm	25	
ST 7	42905	7 mm	25 mm	25	
ST 8	42899	8 mm	20 mm	25	
ST 9	42897	9 mm	20 mm	25	
ST 10	42895	10 mm	20 mm	25	
ST 11	42893	11 mm	20 mm	25	
ST 12	42891	12 mm	20 mm	25	
ST 13	42889	13 mm	20 mm	25	
ST 14	42887	14 mm	20 mm	25	
ST 15	42885	15 mm	20 mm	25	
ST 16	42883	16 mm	20 mm	25	
ST 17	42881	17 mm	20 mm	25	
ST ASI	42877	-	25 mm	25	

Plug for KEL threaded

bushings

99142

10 mm

4 mm

### Product description

Plugs are used to close either KT or QT grommets which are not equipped with cables. IP ratings of the grommets remain.

Perfect for applications where cables have been removed or might be routed at a later stage.

#### Advantages & benefits

Sealing unused cable grommets

### Specifications

Material Polyamide (PA), white Flame class UL94-Vo, self-extinguishing IP rating IP rating of grommets remains NEMA type rating NEMA type 12 (acc. to UL 50E) - 40°C to + 120°C Temperature

Properties Halogen-free, silicone-free

### Compatible with

KT Cable grommets 44 - 46 QT Cable grommets 56

100