# FRÄNKISCHE

# FRÄNKISCHE Electrical Systems Main Catalogue -**Cable Ducts and Cable Ducting** ENERGY QUALITY FUTURE

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DRAINAGE SYSTEMS

ELECTRICAL SYSTEMS

BUILDING TECHNOLOGY

INDUSTRIAL PRODUCTS

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# Table of contents

Abstract		4 – 11	I
Corrugated plastic conduits		12-19	)
	FFMYD-UL C coarse, FFMYD PA6, FFMYD-L, FFMYD PA12-BS, FFF	IY,	
	FFTYL-BS, FFPYL-MOD-BS, FFPYL-MOD-BS-UV		_
Corrugated plastic conduit a	ccessories	20-37	7
	Threaded plastic connectors:		
	FKC Click, FKC-B90 Click, FKC-B45 Click, FKC Click Pg, FKC-B90 C	lick Pg,	_
	FKC-B45 Click Pg, FKC-I Click, FKC-Z Click, FKC-S Click		_
	Accessories:		_
	FKC-M Click, FE-KA, FE-K, FCL, FCLC, tee/wye, FRS		_
Resealable corrugated condu	uits	38-42	2
	Co-flex PP-UV, Co-flex PP black, Co-flex PP white, Co-flex PA6		_
Resealable corrugated condu	uit accessories	43-45	5
	COS, COV, Cofix, insertion tool		_
Metal cable ducts		46-51	I
	FFMSS, FFMSS-K-FD, FFMSS-K, FFMSS-G, FFMSS-VA		_
Metal cable duct accessories		52-55	5
	FMV M, FMV-FD M, FMV-W, FMV-I, FME		_
Plastic spiral conduits		56-57	7
	FFKSS-SW, FFKSS-KW		_
Plastic spiral conduit access	ories	58	3
	FKV-SW M, FKV-KW M		_
Cable protection accessories	<b>3</b>	59-61	1
	FMH M, FRMM, FEMM, FGKM, FGMM, FDRM, FGKP, FGMP		_
Technical appendix		62-67	7
	Standards, definition of protection classes,		
	chemical properties of plastics, chemical properties of metals,		-
	classification		_

## Table of contents: corrugated plastic conduits

#### FFMYD-UL C coarse 12 Material: PA6-MOD Temperature resistance range according to UL 1696: -18°C to +105°C Colour: black Flammability: UL 94 V2 / non-flame propagating **FFMYD PA6** 13 Material: PA6 Temperature resistance range according to DIN EN 61386-23: -45 °C to +120 °C Temperature resistance range according to LV312-3: -40 °C to +120 °C, short-term temperature resistance +150 °C Colour: black, grey, opaque Flammability: UL 94 V2 / non-flame propagating FFMYD-L 14 Material: PA6 Temperature resistance range according to DIN EN 61386-23: -25°C to +120°C Temperature resistance range according to LV312-3: -40°C to +120°C, short-term temperature resistance +150 °C Flammability: UL 94 V2 / non-flame propagating **FFMYD PA12-BS** 15 Material: PA12 Temperature resistance range according to DIN EN 61386-23: -45 °C to +105 °C Temperature resistance range according to LV312-3: -40°C to +110°C, short-term temperature resistance +150 °C Colour: black Flammability: UL 94 V2 / non-flame propagating **FFHY** 16 Material: TPE Temperature resistance range according to DIN EN 61386-23: -45°C to +105°C Temperature resistance range according to LV312-3: -40°C to +150°C, short-term temperature resistance +180°C Colour: black Flammability: UL 94 HB / non-flame propagating **FFTYL-BS** 17 Material: mod. PE-LD Temperature resistance range according to DIN EN 61386-23: -45°C to +60°C Temperature resistance range according to LV312-3: -40°C to +70°C, short-term temperature resistance +90°C Flammability: UL 94 HB / non-flame propagating FFPYL-MOD-BS 18

Material: PP-MOD

Temperature resistance range according to DIN EN 61386-23: -15°C to +60°C Temperature resistance range according to LV312-3: -40°C to +135°C,

short-term temperature resistance +150 °C

Colour: black

Flammability: UL 94 HB / non-flame propagating

#### FFPYL-MOD-BS-UV

19



Material: PP-MOD

Temperature resistance range according to LV312-3: -40°C to +105°C,

short-term temperature resistance +130°C

Colour: black

Flammability: UL 94 V2 / non-flame propagating

## Table of contents: corrugated plastic conduit accessories

22-23

26 - 27

**FKC Click metric** 

FKC-B45 Click metric

Material: PA6

Material: PA6

Colour: black

Flammability: UL 94 HB

Characteristics: non-flame propagating

Colour: black, grey

Colour: black, grey

+120 °C

+120°C

Protection class: IP66/IP68

Protection class: IP66/IP68

Temperature resistance range: -40 °C to

Characteristics: non-flame propagating

Temperature resistance range: -40°C to

**FKC-B90 Click metric** 

**FKC Click Pa** 

Material: PA6

Material: PA6

Colour: black

+120°C

Colour: black, grey

Protection class: IP66

Protection class: IP66/IP68

Temperature resistance range: -40 °C to

Characteristics: non-flame propagating

Temperature resistance range: -40°C to

24-25

28

Characteristics: non-flame propagating Characteristics: non-flame propagating FKC-B45 Click Pg FKC-B90 Click Pg 29 30 Material: PA6 Material: PA6 Protection class: IP66 Protection class: IP66 Temperature resistance range: -40°C to Temperature resistance range: -40°C to +120°C +120°C Colour: black Characteristics: non-flame propagating Characteristics: non-flame propagating **FKC-I Click metric FKC-Z Click metric** 31 32 Material: PA6 Material: PA6 Protection class: IP68 Protection class: IP68 Temperature resistance range: -40°C to Temperature resistance range: -40°C to +120°C +120°C Characteristics: non-flame propagating Characteristics: non-flame propagating **FKC-M Click coupling FKC-S Click push-fit** 34 Material: PA6 Material: PA6 Protection class: IP66 Protection class: IP66/IP68 Temperature resistance range: -40°C to Temperature resistance range: -40°C to +120°C +120°C Colour: black, grey Colour: black, grey Characteristics: non-flame propagating Characteristics: non-flame propagating FE-KA FE-K 35 35 Material: TPE Material: TPE Temperature resistance range: -30°C to Temperature resistance range: -30°C to +150°C +150°C Colour: black Colour: black Characteristics: non-flame propagating Characteristics: non-flame propagating **FCL FCLC** 36 36 Material: PA66 Material: PA66 Temperature resistance range: -40°C to Temperature resistance range: -40°C to +120°C +120°C Colour: black Colour: black Characteristics: non-flame propagating Characteristics: non-flame propagating Flammability: UL 94 HB Flammability: UL 94 HB T-/Y-Snap-Lock 37 Material: PA66 Material: knives made of high-tensile Temperature resistance range: -40°C to special steel, handles made of glass fibre +120°C reinforced plastic

Diameter range: 12-25 mm

# Table of contents: resealable corrugated conduits

#### Co-flex PP-UV 39



Material: PP-MOD

Temperature resistance range according to DIN EN 61386-23: –25°C to +105°C

Temperature resistance range according to LV312-3: -40°C to +105°C,

short-term temperature resistance +130°C

Colour: black

Characteristics: non-flame propagating Flammability: UL 94 V2 / FMVSS 302

#### Co-flex PP black 40



Material: PP

Temperature resistance range according to DIN EN 61386-23: –25°C to +105°C

Temperature resistance range according to LV312-3: -40°C to +135°C,

short-term temperature resistance +150 °C

Colour: black

Characteristics: non-flame propagating Flammability: UL 94 HB / FMVSS 302 type B

#### Co-flex PP white 41



Material: PP

Temperature resistance range according to DIN EN 61386-23: –25°C to +105°C

Temperature resistance range according to LV312-3: -40°C to +135°C,

short-term temperature resistance +150 °C

Colour: white

Characteristics: non-flame propagating Flammability: UL 94 V2 / FMVSS 302 type B

#### Co-flex PA6 42



Material: PA6

Temperature resistance range according to DIN EN 61386-23: –25  $^{\circ}\text{C}$  to +150  $^{\circ}\text{C}$ 

Temperature resistance range according to LV312-3: -40°C to +120°C,

short-term temperature resistance +150 °C

Colour: black

Characteristics: non-flame propagating Flammability: UL 94 V2 / FMVSS 302

## Table of contents: resealable corrugated conduit accessories

COS 43



Material: PA66

Temperature resistance range: -40°C to +120°C

Colour: black

Characteristics: non-flame propagating Flammability: self-extinguishing

Cofix 44



Material: PA66 Protection class: IP43

Temperature resistance range: -40°C to +120°C

Colour: black

Characteristics: non-flame propagating

Flammability: UL 94 HB

COV 45



Material: PA6 Protection class: IP43

Temperature resistance range: -40°C to +120°C

Colour: black

Characteristics: non-flame propagating

Flammability: UL 94 HB

Insertion tool 45



Material: PA6 Colour: black

## Table of contents: metal cable ducts

#### FFMSS 47



Material: galvanised steel strip

Temperature resistance range: -45°C to +400°C

Compressive strength: heavy

Classification: 43574

#### FFMSS-K-FD 48

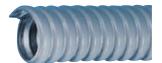


Material: galvanised steel strip / PVC-P Temperature resistance range: -25°C to +60°C

Compressive strength: heavy Characteristics: UV-resistant

Classification: 43414

#### FFMSS-K 49



Material: galvanised steel strip / PVC-P

Temperature resistance range: -25°C to +60°C

Compressive strength: heavy Characteristics: UV-resistant Classification: 43414

#### FFMSS-G 50



Material: galvanised steel strip / metal braid Temperature resistance range: -45°C to +400°C

Compressive strength: heavy

Classification: 43574

#### FFMSS-VA 51



Material: stainless steel

Temperature resistance range: -45°C to +400°C

Compressive strength: heavy

Classification: 43574

## Table of contents: metal cable duct accessories

FMV M 53



Material: nickel-plated brass Protection class: IP40

Temperature resistance range: -45°C to +400°C

FMV-FD M 53



Material: nickel-plated brass Protection class: IP67

Temperature resistance range: -45°C to +120°C

FMV-W 54



Material: nickel-plated brass Protection class: IP67

Temperature resistance range: -45°C to +120°C

FMV-I 54



Material: nickel-plated brass Protection class: IP67

Temperature resistance range: -45°C to +120°C

FME 55



Material: nickel-plated brass

Temperature resistance range: -45°C to +400°C

## Table of contents: plastic spiral conduits

#### FFKSS-SW 56



Material: PVC-P / spring steel wire

Temperature resistance range: -25°C to +60°C

Compressive strength: heavy

Colour: grey

Characteristics: non-flame propagating, UV-resistant

Classification: 42414

#### FFKSS-KW 57



Material: PVC-P / hard plastic coil

Temperature resistance range: -25°C to +60°C

Compressive strength: very light

Colour: grey

Characteristics: non-flame propagating, UV-resistant

Classification: 13414

#### FKV-SW M 58



Material: PE

Temperature resistance range: -40°C to +110°C

Colour: grey

Characteristics: non-flame propagating

#### FKV-KW M 58



Material: PVC

Temperature resistance range: -20°C to +80°C

Colour: grey

Characteristics: non-flame propagating

## Table of contents: cable protection accessories

FMH M 59 FRMM



Material: stainless steel V2A
Temperature resistance range: -45°C to
+400°C
Bore suited for:
metric threads, Pg threads

Type: reducer Material: nickel-plated brass Temperature resistance range: –45°C to +400°C Thread: metric / metric

59

60

FEMM 59



Type: expansion
Material: nickel-plated brass
Temperature resistance range: -45°C to
+400°C
Thread: metric / metric

O

**FGKM** 

Material: PA6
Temperature resistance range: -40°C to +120°C
Colour: black
Thread: metric
Characteristics: non-flame propagating

FGMM 60



Material: nickel-plated brass Temperature resistance range: -45°C to +400°C

+400°C Thread: metric FDRM 60



Colour: grey
Temperature resistance range: –45°C to
+150°C
Thread: metric

FGKP 61



Material: PA6
Temperature resistance range: -40°C to +120°C
Colour: black

Thread: Pg Characteristics: non-flame propagating FGMP 61



Material: nickel-plated brass
Temperature resistance range: -45°C to
+400°C
Thread: Pg





#### FFMYD-UL C coarse

FFMYD-UL C coarse is a flexible corrugated conduit made of modified polyamide 6 with a coarse profile. It does not contain any halogens, is non-flame propagating and available in black.

This plastic corrugated conduit is used in machine and plant engineering. Advantages are its high temperature resistance and extreme cold impact strength.

#### **Specific features:**

This flexible plastic corrugated conduit provides high abrasion protection and is characterised by its high dynamic load capacity.

#### **Characteristics:**

Resistant to: fuels, mineral oils, greases, alkaline substances and most common solvents

**Limitedly resistant to:** bases, also diluted solutions of bases **Not resistant to:** acids, halogens and oxidative compounds

#### **Technical specifications:**

- material: PA6-MOD
- temperature resistance range according to UL 1696:
  - -18°C to +105°C,
- zero halogen
- non-flame propagating
- I flammability: UL 94 V2

#### Coarse profile

Cat. no.		Type	Outside Ø	Inside	Bend radius*	Weight	Packaging
black	grey	Туре	mm	Ø mm	≥ mm	packing unit/kg	in m
282.20.017	282.20.517	17	21.1	16.1	30	3.3	50
282.20.023	282.20.523	23	28.5	22.4	40	4.9	50
282.20.029	282.20.529	29	34.7	28.3	50	6.7	50
282.20.036	282.20.536	36	42.3	35.8	65	4.0	25
282.20.048	282.20.548	48	54.5	46.7	90	5.7	25

<sup>\*</sup>Min. bend radius (neutral fibre) with a flattening of the conduit outside diameter of  $\leq 5\%$ 



#### **FFMYD PA6**



FFMYD PA6 is a flexible corrugated polyamide 6 conduit. It does not contain any halogens, is non-flame propagating and available in black, grey and opaque.

This plastic corrugated conduit is used in machine and plant engineering. Advantages are its high-temperature resistance and cold impact strength in extreme temperatures.

#### Specific features:

This flexible plastic corrugated conduit provides high abrasion protection and is characterised by its high dynamic load capacity.

#### **Characteristics:**

**Resistant to:** fuels, mineral oils, greases, alkaline substances and most common solvents

**Limitedly resistant to:** bases, also diluted solutions of bases **Not resistant to:** acids, halogens and oxidative compounds

#### **Technical specifications:**

- material: polyamide 6 (PA6)
- temperature resistance range according to DIN EN 61386-23: -45°C to +120°C
- temperature resistance range according to LV312-3: -40°C to +120°C, shortterm temperature resistance up to +150°C
- zero halogen
- non-flame propagating
- flammability:UL 94 V2 / FMVSS 302self-extinguishing

Cat. no.		Туре	Outside	Inside	Bend radius *	Weight packing	Packag- ing	
black	grey	opaque	Туре	Ø mm	Ø mm	≥ mm	unit/kg	in m
400.007.00	402.007.00		7.5	10.0	6.6	11	0.9	50
400.010.00	402.010.00	401.010.00	10	12.8	9.8	15	1.3	50
400,012.00	402.012.00	401.012.00	12	15.7	12.3	20	1.7	50
400.017.00	402.017.00	401.017.00	17	21.1	16.6	30	2.8	50
400.023.00	402.023.00	401.023.00	23	28.4	23.1	40	4.5	50
400.029.00	402.029.00	401.029.00	29	34.5	28.9	50	3.1	25
400.037.00	402.037.00		37	42.2	34.0	65	4.3	25
400.050.00	402.050.00		50	53.8	45.6	90	5.6	25

<sup>\*</sup>Min. bend radius (neutral fibre) with a flattening of the conduit outside diameter of  $\leq$  5 %



#### FFMYD-L



FFMYD-L is a flexible corrugated polyamide 6 conduit. It does not contain any halogens, is non-flame propagating and available in black.

This plastic corrugated conduit is used in machine and plant engineering. Advantages are its high-temperature resistance and cold impact strength in extreme temperatures.

#### Specific features:

This flexible plastic corrugated conduit provides high abrasion protection and is characterised by its high dynamic load capacity.

#### Characteristics:

Resistant to: fuels, mineral oils, greases, alkaline substances and most common solvents

**Limitedly resistant to:** bases, also diluted solutions of bases **Not resistant to:** acids, halogens and oxidative compounds

#### Technical specifications:

- material: polyamide 6 (PA6)
- temperature resistance range according to DIN EN 61386-23: -25°C to +120°C
- temperature resistance range according to LV312-3: -40°C to +120°C, shortterm temperature resistance up to +150°C
- zero halogen
- non-flame propagating
- flammability: UL 94 V2 / FMVSS 302 self-extinguishing

Cat. no.	Type 0	Outside	Inside	Bend radius *	Weight packing	Packaging
black	Туре	Ømm	Ø mm	≥ mm	unit/kg	in m
400.007.08	7.5	10.0	6.8	11	0.7	50
400.010.08	10	12.8	10.0	15	0.9	50
400.012.08	12	15.7	12.5	20	1.2	50
400.017.08	17	21.1	16.8	30	2.0	50
400.023.08	23	28.4	23.4	40	3.2	50
400.029.08	29	34.5	29.2	50	2.1	25
400.037.08	37	41.8	34.0	65	3.0	25
400.050.08	50	53.8	46.0	90	4.0	25

<sup>\*</sup>Min. bend radius (neutral fibre) with a flattening of the conduit outside diameter of  $\leq$  5 %



#### FFMYD PA12-BS



FFMYD PA12-BS is a flexible corrugated polyamide 12 conduit. It is non-flame propagating and available in black.

This plastic corrugated conduit is used in machine and plant engineering, and in robotics and automation. Advantages are its high-temperature resistance and cold impact strength in extreme temperatures.

#### **Specific features:**

This flexible plastic corrugated conduit provides high abrasion protection and is characterised by its very high dynamic load capacity.

#### **Characteristics:**

**Resistant to:** fuels, mineral oils, greases, alkaline substances and most common solvents

**Limitedly resistant to**: bases, also diluted solutions of bases **Not resistant to**: acids, halogens and oxidative compounds

#### **Technical specifications:**

- material: PA12
- temperature resistance range according to DIN EN 61386-23:
  - -45°C to +105°C
- temperature resistance range according to LV312-3: -40°C to +110°C, shortterm temperature resistance up to +150°C
- non-flame propagating
- flammability: UL 94 V2 / FMVSS 302 self-extinguishing

Cat. no.	Туре	Outside Ø mm	Inside Ø mm	Bend radius * ≥ mm	Weight packing unit/kg	Packaging in m	
420.010.00	10	12.8	9.8	15	1.10	50	
420.012.00	12	15.7	12.3	20	1.50	50	
420.017.00	17	21.1	16.6	30	2.50	50	
420.023.00	23	28.4	23.1	40	4.05	50	
420.029.00	29	34.5	28.9	50	2.85	25	
420.037.00	37	42.2	34.0	65	3.85	25	

<sup>\*</sup>Min. bend radius (neutral fibre) with a flattening of the conduit outside diameter of  $\leq 5\,$  %



#### **FFHY**



FFHY is a highly flexible corrugated thermoplastic elastomer (TPE) conduit. It does not contain any halogens, is non-flame propagating and available in black.

This plastic corrugated conduit is used in machine and plant engineering, and to protect hydraulic lines. Advantages are its high temperature resistance and cold impact strength in extreme temperatures.

#### **Specific features:**

This highly flexible plastic corrugated conduit provides good abrasion protection and is characterised by its high dynamic load capacity.

#### Characteristics:

**Resistant to:** fuels, hydraulic fluid and aromatic compounds **Limitedly resistant to:** weak acids and bases, amines and glycols over +70 °C

**Not resistant to:** concentrated sulfuric acid, chlorinated hydrocarbons, phenols

#### **Technical specifications:**

- material: thermoplastic elastomer (TPE)
- temperature resistance range according to DIN EN 61386-23: -45°C to +105°C
- temperature resistance
   range according to LV312-3:
   -30°C to +150°C,
   short-term temperature
   resistance up to +180°C
- zero halogen
- non-flame propagating
- flammability: meets the requirements of UL 94 HB / FMVSS 302

Cat. no.	T	Outside	Inside	Bend	Weight	Packaging in m  100 50 50 50 50 50 50	
black	Туре	Ø mm	Ø mm	radius* ≥ mm	packing unit/kg	in m	
461.004.00	4.5	7.2	4.4	10	1.1	100	
461.007.00	7.5	10.0	6.5	20	1.0	50	
461.008.00	8.5	11.5	8.2	20	1.1	50	
461.010.00	10	12.9	9.9	25	1.8	50	
461.012.00	12	15.6	11.5	25	2.1	50	
461.013.00	13	16.0	12.5	30	2.3	50	
461.017.00	17	21.0	16.4	35	3.5	50	
461.023.00	23	28.1	23.4	45	5.0	50	
461.029.00	29	33.8	28.9	55	3.4	25	
461.037.00	37	41.6	34.1	65	4.4	25	

<sup>\*</sup>Min. bend radius (neutral fibre) with a flattening of the conduit outside diameter of  $\leq 5\%$ 



#### **FFTYL-BS**



FFTYL-BS is a flexible corrugated conduit made of modified low-density polyethylene (PE-LD). It is non-flame propagating and available in black.

This corrugated conduit is used in control panel engineering and in light machine and equipment installations. An advantage is its cold impact strength in extreme temperatures.

#### Specific features:

This flexible plastic corrugated conduit is characterised by its good dynamic load capacity.

#### **Characteristics:**

Resistant to: acids, bases, inorganic salts, water and greases Limitedly resistant to: alcohols, esters, ketones and mineral oils Not resistant to: fuels, oxidising and aromatic compounds

#### **Technical specifications:**

- material: PE-LD, modified
- temperature resistance range according to DIN EN 61386-23: –45°C to +60°C
- temperature resistance range according to LV312-3: -40°C to +70°C, shortterm temperature resistance up to +90°C
- non-flame propagating
- flammability: UL 94 HB / FMVSS 302; self-extinguishing

Cat. no.	Туре	Outside	Inside	Bend radius *	Weight	Packaging	
black	туре	Ømm	Ømm	≥ mm	packing unit/kg	in m	
323.007.00	7.5	9.9	6.5	12	0.9	50	
323.010.00	10	12.7	9.8	15	1.1	50	
323.012.00	12	15.6	11.6	18	2.0	50	
323.017.00	17	20.8	16.3	30	2.8	50	
323.023.00	23	27.9	22.9	45	5.2	50	
323.029.00	29	34.0	28.9	55	2.8	25	
323.037.00	37	41.5	33.7	75	3.6	25	
323.050.00	50	53.3	47.1	100	5.4	25	

<sup>\*</sup>Min. bend radius (neutral fibre) with a flattening of the conduit outside diameter of  $\leq$  5 %



#### FFPYL-MOD-BS



FFPYL-MOD-BS is a flexible corrugated conduit made of modified PP. It is non-flame propagating and available in black.

This plastic corrugated conduit is used in machine and plant engineering. An advantage is its cold impact strength in extreme temperatures.

#### **Specific features:**

This flexible plastic corrugated conduit provides good abrasion protection and is characterised by its high dynamic load capacity.

#### Characteristics:

Resistant to: acids, bases, inorganic salts, fuels, mineral oils,

greases and most common solvents

Limitedly resistant to: ether

Not resistant to: halogenated, oxidising and aromatic

compounds

#### **Technical specifications:**

- material: modified PP
- temperature resistance range according to DIN EN 61386-23: –15°C to +60°C
- temperature resistance range according to LV312-3: -40°C to +135°C, shortterm temperature resistance up to +150°C
- non-flame propagating
- flammability: UL 94 HB / FMVSS 302 type B

Cat. no.	Turno	Outside	Inside	Bend	Weight	Packaging
black	Туре	Ø mm	Ø mm	radius* ≥ mm	packing unit/kg	in m
366.007.00	7.5	9.9	6.9	16	0.6	50
366.010.00	10	12.6	10.1	20	0.8	50
366.012.00	12	15.6	12.0	25	1.2	50
366.017.00	17	21.0	16.8	35	1.9	50
366.023.00	23	28.0	23.7	45	2.2	50
366.029.00	29	33.9	29.3	55	1.7	25
366.037.00	37	41.6	35.8	60	3.1	25
366.050.00	50	53.2	45.2	120	3.3	25

<sup>\*</sup>Min. bend radius (neutral fibre) with a flattening of the conduit outside diameter of  $\leq$  5 %



#### FFPYL-MOD-BS-UV



FFPYL-MOD-BS-UV is a flexible corrugated conduit made of modified PP. It is non-flame propagating and available in black.

This plastic corrugated conduit is used in the solar and photovoltaic industry, and in general outdoor applications. An advantage is its cold impact strength in extreme temperatures.

#### **Specific features:**

This flexible plastic corrugated conduit provides good abrasion protection and is characterised by its high dynamic load capacity. UV-resistant for up to 10 years.

#### **Characteristics:**

Resistant to: acids, bases, inorganic salts, fuels, mineral oils,

greases and most common solvents

Limitedly resistant to: ether

Not resistant to: halogenated, oxidising and aromatic

compounds

#### **Technical specifications:**

- material: modified PP
- temperature resistance range according to DIN EN 61386-23: –15°C to +60°C
- temperature resistance range according to LV312-3: -40°C to +135°C, shortterm temperature resistance up to +150°C
- non-flame propagating
- flammability: UL 94 HB / FMVSS 302 type B
- UV-resistant

Cat. no.	IVNE	Outside	Inside	Bend radius *	Weight	Packaging	
black		Ø mm	Ø mm	≥ mm	packing unit/kg	in m	
390.012.00	12	15.6	12.0	25	1.2	50	
390.017.00	17	21.0	16.8	35	1.9	50	
390.023.00	23	28.0	23.7	45	2.2	50	
390.029.00	29	33.9	29.3	55	1.7	25	
390.037.00	37	41.6	35.8	60	3.1	25	
390.050.00	50	53.2	45.2	120	3.3	25	

<sup>\*</sup>Min. bend radius (neutral fibre) with a flattening of the conduit outside diameter of  $\leq 5\,$  %





#### ... conduit installation today – it's as easy as that:

#### Seize the benefits of FKC Click threaded connectors:

- easy and quick to plug and unplug
- click lock mechanism ensures reliable connections
- protection against unintended conduit releases
- excellent haptics
- compact design
- small quantity packaging
- sealing reliability under dynamic conditions

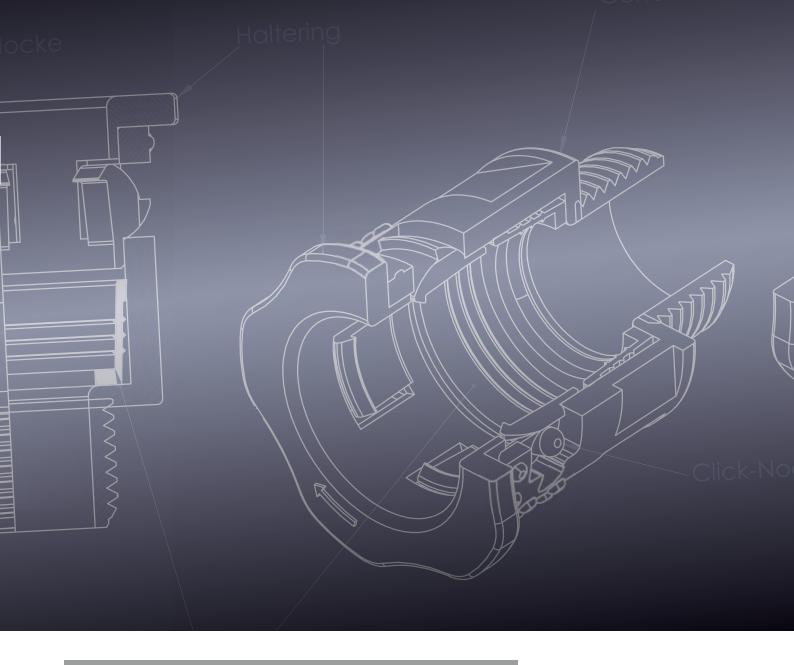


Conduit installation – it's as easy as that! The innovative click technology of the new FKC Click only requires one action. This allows pipes and conduits to be connected easily also in narrow spaces.

The reliable connection that is established by the click lock mechanism can be released easily but still offers effective protection against unintended conduit releases.

The UL approval applies to all IP68 threaded connectors of sizes 17–48.





### ... now available in many different designs

#### Reliable conduit connections thanks to FKC Click:

- different colour clamps available for protection classes
- compressive and impact strength
- min. temperature resistance range: -40°C to +120°C
- resistant to: fuels, mineral oils, greases, alkaline substances

FRÄNKISCHE products have been developed and optimised with practical requirements in mind. This is why FKC Click threaded connectors are available in various designs.

This allows easy and quick installation under various conditions. The plug connectors are available in various designs as straight and 90° and 45° connectors.









DIN EN 60529 Protection class IP66<sup>1)</sup>

#### **FKC Click metric IP66**

FKC Click metric IP66 is a straight polyamide 6 threaded click connector with metric male thread. It provides IP66 protection, does not contain any halogens, is non-flame propagating and available in black and grey.

This threaded connector is used for corrugated plastic conduits. Advantages are quick and easy push-fit assembly and disassembly of corrugated plastic conduits.

#### **Specific features:**

The click lock mechanism protects against unintended conduit releases.

#### Characteristics:

Resistant to: fuels, mineral oils, greases, alkaline substances and most common solvents

**Limitedly resistant to:** bases, also diluted solutions of bases **Not resistant to:** acids, halogens and oxidative compounds

#### **Technical specifications:**

- material: polyamide 6 (PA6)
- temperature resistance range: -40°C to +120°C, short-term temperature resistance up to +140°C
- zero halogen
- non-flame propagating
- flammability: UL 94 V2

Cat. no.		Туре	Thread m x1.5	Inside Ø mm	Out- side Ø	Thread length mm	Total length mm	Total Width mm	Total Height mm	Ss mm	Pack- aging in pcs.
black	grey				mm						
285.10.007	285.10.507	7.5	12	7.3	17.1	11.5	35.0	17.1	17.1	16	4
285.10.010	285.10.510	10	16	10.2	19.9	11.5	35.8	19.9	19.9	18	4
285.10.012	285.10.512	12	16	12.0	22.9	11.5	38.0	22.9	22.9	21	10
285.10.112	285.10.612	12	20	13.4	22.9	11.5	37.4	25.0	25.0	21	10
285.10.017	285.10.517	17	20	15.3	29.5	11.5	42.3	29.5	29.5	27	10
285.10.117	285.10.617	17	25	18.4	29.5	13.0	43.8	29.5	29.5	27	10
285.10.023	285.10.523	23	25	20.6	36.8	13.0	44.9	36.8	36.8	34	10
285.10.123	285.10.623	23	32	23.7	36.8	14.0	45.9	36.8	36.8	34	10
285.10.029	285.10.529	29	32	26.4	43.0	14.0	48.7	43.0	43.0	40	4
285.10.129	285.10.629	29	40	31.6	43.0	14.0	48.7	48.7	48.7	40	4
285.10.036	285.10.536	36 / 37	40	34.0	51.4	14.0	50.7	51.4	51.4	48	4
285.10.136	285.10.636	36 / 37	50	36.3	51.4	15.0	51.7	55.3	55.3	48	4
285.10.048	285.10.548	48 / 50	50	43.6	63.2	15.0	50.7	63.2	63.2	60	4
285.10.148	285.10.648	48 / 50	63	48.0	63.2	15.0	50.7	69.4	69.4	60	4





DIN EN 60529 Protection class IP68<sup>1)</sup>

UL 1696 C File: F178449 US

#### **FKC Click metric IP68**

FKC Click metric IP68 is a straight polyamide 6 threaded click connector with metric male thread. It provides IP68 protection, does not contain any halogens, is non-flame propagating and available in black and grey.

This threaded connector is used for corrugated plastic conduits. Advantages are quick and easy push-fit assembly and disassembly of corrugated plastic conduits.

#### Specific features:

The click lock mechanism protects against unintended conduit releases.

#### **Characteristics:**

Resistant to: fuels, mineral oils, greases, alkaline substances

and most common solvents

**Limitedly resistant to:** bases, also diluted solutions of bases **Not resistant to:** acids, halogens and oxidative compounds

#### **Technical specifications:**

- material: polyamide 6 (PA6)
- temperature resistance range: -40°C to +120°C, short-term temperature resistance up to +140°C
- zero halogen
- non-flame propagating
- flammability: UL 94 V2

Cat. no.		Туре	Thread m x1.5	Inside Ø mm	Out- side Ø mm	Thread length mm	Total length mm	Total Width mm	Total Height mm	Ss mm	Pack- aging in pcs.
black	grey										
285.11.007	285.11.507	7.5	12	7.3	17.1	11.5	35.0	17.1	17.1	16	4
285.11.010	285.11.510	10	16	10.2	19.9	11.5	35.8	19.9	19.9	18	4
285.11.012	285.11.512	12	16	12.0	22.9	11.5	38.0	22.9	22.9	21	4
285.11.112	285.11.612	12	20	13.4	22.9	11.5	37.4	25.0	25.0	21	4
285.11.017*	285.11.517*	17	20	15.3	29.5	11.5	42.3	29.5	29.5	27	4
285.11.117*	285.11.617*	17	25	18.4	29.5	13.0	43.8	29.5	29.5	27	4
285.11.023*	285.11.523*	23	25	20.6	36.8	13.0	44.9	36.8	36.8	34	4
285.11.123*	285.11.623*	23	32	23.7	36.8	14.0	45.9	36.8	36.8	34	4
285.11.129*	285.11.629*	29	40	31.6	43.0	14.0	48.7	48.7	48.7	40	4
285.11.136*	285.11.636*	36 / 37	50	36.3	51.4	15.0	51.7	55.3	55.3	48	4
285.11.148*	285.11.648*	48 / 50	63	48.0	63.2	15.0	50.7	69.4	69.4	60	4

<sup>\*</sup>UL 1696





DIN EN 60529 Protection class IP66<sup>1)</sup>

#### FKC-B90 Click metric IP66

FKC-B90 Click metric IP66 is a 90° polyamide 6 click elbow with metric male thread. It provides IP66 protection, does not contain any halogens, is non-flame propagating and available in black and grey.

This threaded connector is used for corrugated plastic conduits. Advantages are quick and easy push-fit assembly and disassembly of corrugated plastic conduits.

#### **Specific features:**

The click lock mechanism protects against unintended conduit releases.

#### **Characteristics:**

Resistant to: fuels, mineral oils, greases, alkaline substances and most common solvents

**Limitedly resistant to:** bases, also diluted solutions of bases **Not resistant to:** acids, halogens and oxidative compounds

#### **Technical specifications:**

- material: polyamide 6 (PA6)
- temperature resistance range: -40°C to +120°C, short-term temperature resistance up to +140°C
- zero halogen
- non-flame propagating
- flammability: UL 94 V2

Cat. no.		Туре	Thread m x1.5	Inside Ø mm	Out- side Ø	Thread length mm	Total length mm	Total Width mm	Total Height mm	Ss mm	Pack- aging in pcs.
black	grey				mm						
285.20.007	285.20.507	7.5	12	7.3	17.1	10.0	40.1	40.1	17.1	16	4
285.20.010	285.20.510	10	16	10.0	19.9	11.5	43.7	43.3	19.9	18	4
285.20.012	285.20.512	12	16	12.3	22.9	11.5	51.3	42.8	25.0	21	10
285.20.112	285.20.612	12	20	15.3	22.9	11.5	50.4	42.8	25.0	21	10
285.20.017	285.20.517	17	20	15.3	29.5	13.0	59.8	51.4	29.5	27	10
285.20.117	285.20.617	17	25	20.3	29.5	13.0	59.8	51.4	29.5	27	10
285.20.023	285.20.523	23	25	20.3	36.8	14.0	68.1	59.1	36.8	34	10
285.20.123	285.20.623	23	32	20.3	36.8	14.0	68.7	59.6	36.8	34	10
285.20.029	285.20.529	29	32	26.0	43.0	14.0	80.4	66.0	49.0	40	4
285.20.129	285.20.629	29	40	26.0	43.0	14.0	80.4	66.0	49.0	40	4
285.20.036	285.20.536	36 / 37	40	34.0	51.8	15.0	88.9	80.9	56.0	48	4
285.20.136	285.20.636	36 / 37	50	34.0	51.8	16.0	88.9	80.9	56.0	48	4
285.20.048	285.20.548	48 / 50	50	42.5	63.2	15.0	105.2	90.2	70.0	60	4
285.20.148	285.20.648	48 / 50	63	42.5	63.2	15.0	105.2	90.2	70.0	60	4





DIN EN 60529 Protection class IP68<sup>1)</sup>

UL 1696 C 178449 US

#### FKC-B90 Click metric IP68

FKC-B90 Click metric IP68 is a 90° polyamide 6 click elbow with metric male thread. It provides IP68 protection, does not contain any halogens, is non-flame propagating and available in black and grey.

This threaded connector is used for corrugated plastic conduits. Advantages are quick and easy push-fit assembly and disassembly of corrugated plastic conduits.

#### Specific features:

The click lock mechanism protects against unintended conduit releases.

#### **Characteristics:**

Resistant to: fuels, mineral oils, greases, alkaline substances

and most common solvents

**Limitedly resistant to:** bases, also diluted solutions of bases **Not resistant to:** acids, halogens and oxidative compounds

#### **Technical specifications:**

- material: polyamide 6 (PA6)
- temperature resistance range: -40°C to +120°C, short-term temperature resistance up to +140°C
- zero halogen
- non-flame propagating
- flammability: UL 94 V2

Cat. no.		Туре	Thread m x1.5	Inside Ø mm	Out- side Ø mm	Thread length mm	Total length mm	Total Width mm	Total Height mm	Ss mm	Pack- aging in pcs.
black	grey										
285.21.007	285.21.507	7.5	12	7.3	17.1	10.0	40.1	40.1	17.1	16	4
285.21.010	285.21.510	10	16	10.0	19.9	11.5	43.7	43.3	19.9	18	4
285.21.012	285.21.512	12	16	12.3	22.9	11.5	51.3	42.8	25.0	21	4
285.21.112	285.21.612	12	20	12.3	22.9	11.5	50.4	42.8	25.0	21	4
285.21.017*	285.21.517*	17	20	15.3	29.5	13.0	59.8	51.4	29.5	27	4
285.21.117*	285.21.617*	17	25	17.0	29.5	13.0	59.8	51.4	29.5	27	4
285.21.023*	285.21.523*	23	25	20.3	36.8	14.0	68.1	59.1	36.8	34	4
285.21.123*	285.21.623*	23	32	20.3	36.8	14.0	68.1	59.6	36.8	34	4
285.21.129*	285.21.629*	29	40	26.0	43.0	14.0	80.4	66.0	49.0	40	4
285.21.136*	285.21.636*	36 / 37	50	34.0	51.8	15.0	88.9	80.9	56.0	48	4
285.21.148*	285.21.648*	48 / 50	63	42.5	63.2	15.0	105.2	90.2	70.0	60	4

<sup>\*</sup>UL 1696





DIN EN 60529 Protection class IP66<sup>1)</sup>

#### FKC-B45 Click metric IP66

FKC-B45 Click metric IP66 is a 45° polyamide 6 click elbow with metric male thread. It provides IP66 protection, does not contain any halogens, is non-flame propagating and available in black and grey.

This threaded connector is used for corrugated plastic conduits. Advantages are quick and easy push-fit assembly and disassembly of corrugated plastic conduits.

#### **Specific features:**

The click lock mechanism protects against unintended conduit releases.

#### Characteristics:

Resistant to: fuels, mineral oils, greases, alkaline substances and most common solvents

**Limitedly resistant to:** bases, also diluted solutions of bases **Not resistant to:** acids, halogens and oxidative compounds

#### Technical specifications:

- material: polyamide 6 (PA6)
- temperature resistance range: -40°C to +120°C, short-term temperature resistance up to +140°C
- zero halogen
- non-flame propagating
- flammability: UL 94 V2

Cat. no.		Туре	Thread m x1.5	Inside Ø mm	Out- side Ø	Thread length mm	Total length mm	Total Width mm	Total Height mm	Ss mm	Pack- aging in pcs.
black	grey				mm						
285.25.007	285.25.507	7.5	12	7.3	17.1	11.8	42.9	29.2	17.1	16	4
285.25.010	285.25.510	10	16	11.5	19.9	11.5	46.0	32.7	19.9	18	4
285.25.012	285.25.512	12	16	12.0	22.9	11.5	48.7	32.8	22.9	21	4
285.25.017	285.25.517	17	20	15.3	29.5	13.5	59.3	40.2	29.5	27	4
285.25.117	285.25.617	17	25	17.0	29.5	13.5	61.0	42.1	29.5	27	4
285.25.023	285.25.523	23	25	20.3	36.8	13.0	64.1	46.6	36.8	34	4
285.25.123	285.25.623	23	32	20.3	36.8	14.0	67.6	50.0	36.8	34	4
285.25.129	285.25.629	29	40	26.0	43.0	14.0	75.8	56.5	49.0	40	4
285.25.136	285.25.636	36 / 37	50	34.0	55.8	15.0	84.4	69.3	55.8	48	4
285.25.148	285.25.648	48 / 50	63	43.0	63.2	15.0	97.1	80.7	69.6	60	4





**DIN EN 60529** Protection class IP681)



#### FKC-B45 Click metric IP68

FKC-B45 Click metric IP68 is a 45° polyamide 6 click elbow with metric male thread. It provides IP68 protection, does not contain any halogens, is non-flame propagating and available in black and grey.

This threaded connector is used for corrugated plastic conduits. Advantages are quick and easy push-fit assembly and disassembly of corrugated plastic conduits.

#### Specific features:

The click lock mechanism protects against unintended conduit releases.

#### **Characteristics:**

Resistant to: fuels, mineral oils, greases, alkaline substances and most common solvents

Limitedly resistant to: bases, also diluted solutions of bases Not resistant to: acids, halogens and oxidative compounds

#### **Technical specifications:**

- material: polyamide 6 (PA6)
- temperature resistance range: -40°C to +120°C, short-term temperature resistance up to +140°C
- zero halogen
- non-flame propagating
- flammability: UL 94 V2

Cat. no.		Туре	Thread m x1.5	Inside Ø mm	side Ø	Thread length mm	Total length mm	Total Width mm	Total Height mm	Ss mm	Pack- aging in pcs.
black	grey				mm						
285.26.007	285.26.507	7.5	12	7.3	17.1	11.8	42.9	29.2	17.1	16	4
285.26.010	285.26.510	10	16	11.5	19.9	11.5	46.0	32.7	19.9	18	4
285.26.012	285.26.512	12	16	12.0	22.9	11.5	48.7	32.8	22.9	21	4
285.26.017*	285.26.517*	17	20	15.3	29.5	13.5	59.3	40.2	29.5	27	4
285.26.117*	285.26.617*	17	25	17.0	29.5	13.5	61.0	42.1	29.5	27	4
285.26.023*	285.26.523*	23	25	20.3	36.8	13.0	64.1	46.6	36.8	34	4
285.26.123*	285.26.623*	23	32	20.3	36.8	14.0	67.6	50.0	36.8	34	4
285.26.129*	285.26.629*	29	40	26.0	43.0	14.0	75.8	56.5	49.0	40	4
285.26.136*	285.26.636*	36 / 37	50	34.0	51.8	15.0	84.4	69.3	55.8	48	4
285.26.148*	285.26.648*	48 / 50	63	43.0	63.2	15.0	97.1	80.7	69.6	60	4

<sup>\*</sup>UL 1696





DIN EN 60529 Protection class IP66<sup>1)</sup>

## FKC Click Pg IP66

FKC Click Pg IP66 is a straight polyamide 6 threaded click connector with Pg male thread. It provides IP66 protection, does not contain any halogens, is non-flame propagating and available in black.

This threaded connector is used for corrugated plastic conduits. Advantages are quick and easy push-fit assembly and disassembly of corrugated plastic conduits.

#### **Specific features:**

The click lock mechanism protects against unintended conduit releases.

#### **Characteristics:**

Resistant to: fuels, mineral oils, greases, alkaline substances and most common solvents

**Limitedly resistant to:** bases, also diluted solutions of bases **Not resistant to:** acids, halogens and oxidative compounds

#### Technical specifications:

- material: polyamide 6 (PA6)
- temperature resistance range: -40°C to +120°C, short-term temperature resistance up to +140°C
- zero halogen
- non-flame propagating
- flammability: UL 94 V2

Cat. no.	Туре	Thread Pg	Inside Ø mm	Out- side Ø mm	Thread length mm	Total length mm	Total Width mm	Total Height mm	Ss mm	Pack- aging in pcs.
285.60.007	7.5	7	7.3	17.1	11.5	35.0	17.1	17.1	16	4
285.60.010	10	9	10.0	19.9	11.5	35.8	19.9	19.9	18	4
285.60.012	12	11	12.3	22.9	11.5	37.4	25.0	25.0	21	10
285.60.017	17	16	17.0	29.5	13.0	43.8	29.5	29.5	27	10
285.60.023	23	21	23.7	36.8	13.0	44.9	36.8	36.8	34	10
285.60.029	29	29	30.6	43.0	14.0	45.9	43.0	43.0	40	4
285.60.036	36 / 37	36	36.3	51.4	15.2	48.4	52.8	52.8	48	4
285.60.048	48 / 50	48	48.0	63.2	15.2	50.7	64.5	64.5	60	4





DIN EN 60529 Protection class IP66<sup>1)</sup>

#### FKC-B90 Click Pg IP66

FKC-B90 Click Pg IP66 is a 90° polyamide 6 click elbow with Pg male thread. It provides IP66 protection, does not contain any halogens, is non-flame propagating and available in black.

This threaded connector is used for corrugated plastic conduits. Advantages are quick and easy push-fit assembly and disassembly of corrugated plastic conduits.

#### **Specific features:**

The click lock mechanism protects against unintended conduit releases.

#### **Characteristics:**

**Resistant to:** fuels, mineral oils, greases, alkaline substances and most common solvents

**Limitedly resistant to:** bases, also diluted solutions of bases **Not resistant to:** acids, halogens and oxidative compounds

#### **Technical specifications:**

- material: polyamide 6 (PA6)
- temperature resistance range: -40°C to +120°C, short-term temperature resistance up to +140°C
- zero halogen
- non-flame propagating
- flammability: UL 94 V2

Cat. no.	Туре	Thread Pg	Inside Ø mm	Out- side Ø mm	Thread length mm		Total Width mm	Total Height mm	Ss mm	Pack- aging in pcs.
285.70.007	7.5	7	7.3	17.1	10.0	40.1	40.1	17.1	16	4
285.70.010	10	9	10.0	19.9	11.5	43.7	43.3	19.9	18	4
285.70.012	12	11	14.3	22.9	11.5	51.3	42.8	25.0	21	4
285.70.017	17	16	17.0	29.5	13.0	59.8	51.2	29.5	27	4
285.70.023	23	21	20.3	36.8	13.0	68.2	58.6	36.8	34	4
285.70.029	29	29	26.0	43.0	14.0	80.4	66.0	49.0	40	4
285.70.036	36 / 37	36	34.0	51.8	16.0	88.9	80.9	56.0	48	4
285 70 048	48 / 50	48	42 5	63.2	15.0	105.2	94.0	70.0	60	4





DIN EN 60529 Protection class IP66<sup>1)</sup>

#### FKC-B45 Click Pg IP66

FKC-B45 Click Pg IP66 is a 45° polyamide 6 click elbow with Pg male thread. It provides IP66 protection, does not contain any halogens, is non-flame propagating and available in black.

This threaded connector is used for corrugated plastic conduits. Advantages are quick and easy push-fit assembly and disassembly of corrugated plastic conduits.

#### Specific features:

The click lock mechanism protects against unintended conduit releases.

#### **Characteristics:**

Resistant to: fuels, mineral oils, greases, alkaline substances and most common solvents

**Limitedly resistant to:** bases, also diluted solutions of bases **Not resistant to:** acids, halogens and oxidative compounds

#### **Technical specifications:**

- material: polyamide 6 (PA6)
- temperature resistance range: -40°C to +120°C, short-term temperature resistance up to +140°C
- zero halogen
- non-flame propagating
- flammability: UL 94 V2

Cat. no.	Туре	Thread Pg	Inside Ø mm	Out- side Ø mm	Thread length mm	Total length mm	Total Width mm	Total Height mm		Pack- aging in pcs.
285.75.007	7.5	7	7.3	17.1	11.5	43.1	29.4	17.1	16	4
285.75.010	10	9	11.5	19.9	11.5	45.6	32.2	19.9	18	4
285.75.012	12	11	12.3	22.9	11.5	50.2	33.7	22.9	21	4
285.75.017	17	16	16.6	29.5	13.0	60.1	41.3	29.5	27	4
285.75.023	23	21	20.3	36.8	14.0	65.5	48.0	36.8	34	4
285.75.029	29	29	26.0	43.0	15.0	75.8	56.6	49.0	40	4
285.75.036	36 / 37	36	34.0	51.8	15.0	84.4	69.9	56.0	48	4
285.75.048	48 / 50	48	43.0	63.2	15.0	97.1	80.0	69.6	60	4





DIN EN 60529 Protection class IP68<sup>1)</sup>

UL 1696



#### **FKC-I Click metric IP68**

FKC-I Click metric IP68 is a polyamide 6 threaded click connector with metric female thread. It provides IP68 protection, does not contain any halogens, is non-flame propagating and available in black.

This threaded connector is used for corrugated plastic conduits. Advantages are quick and easy push-fit assembly and disassembly of corrugated plastic conduits.

#### Specific features:

The click lock mechanism protects against unintended conduit releases.

#### **Characteristics:**

Resistant to: fuels, mineral oils, greases, alkaline substances

and most common solvents

**Limitedly resistant to:** bases, also diluted solutions of bases **Not resistant to:** acids, halogens and oxidative compounds

#### **Technical specifications:**

- material: polyamide 6 (PA6)
- temperature resistance range: -40°C to +120°C, short-term temperature resistance up to +140°C
- zero halogen
- non-flame propagating
- flammability: UL 94 V2

Cat. no.	Туре	Thread m x1.5	Inside Ø mm	Out- side Ø mm	Thread length mm		Total Width mm	Total Height mm	Ss mm	Pack- aging in pcs.
285.41.010	10	16	10.0	19.9	11.5	36.3	19.9	19.9	18	4
285.41.012	12	20	12.5	22.9	11.5	38.0	22.9	22.9	21	4
285.41.017*	17	25	17.0	29.5	13.0	43.8	29.5	29.5	27	4
285.41.023*	23	32	23.3	36.8	14.0	45.4	36.8	36.8	34	4
285.41.029*	29	40	30.3	43.0	14.0	45.9	43.0	43.0	40	4
285.41.036*	36 / 37	50	36.3	54.6	15.0	47.4	54.6	54.6	48	4
285.41.048*	48 / 50	63	48.0	65.7	15.0	50.7	65.7	65.7	60	4

<sup>\*</sup>UL 1696



DIN EN 60529 Protection class IP68<sup>1)</sup>

UL 1696



#### **FKC-Z Click metric IP68**

FKC-Z Click metric IP68 is a polyamide 6 threaded click connector with metric male thread and strain relief. It provides IP68 protection, does not contain any halogens, is non-flame propagating and available in black.

This threaded connector is used for corrugated plastic conduits. Advantages are quick and easy push-fit assembly and disassembly of corrugated plastic conduits.

#### **Specific features:**

The click lock mechanism protects against unintended conduit releases. Additional strain relief for wires and cables.

#### Characteristics:

**Resistant to:** fuels, mineral oils, greases, alkaline substances and most common solvents

**Limitedly resistant to:** bases, also diluted solutions of bases **Not resistant to:** acids, halogens and oxidative compounds

#### **Technical specifications:**

- material: polyamide 6 (PA6)
- temperature resistance range: -40°C to +120°C, short-term temperature resistance up to +140°C
- zero halogen
- non-flame propagating
- flammability: UL 94 V2

Cat. no.	Туре	Thread m x1.5	For cables Ø mm	Inside Ø mm	Outside Ø mm	Thread length mm	Ss1 mm	Pack- aging in pcs.
285.46.010	10	12	3.0 – 6.5	6.8	19.9	8.0	15.0	4
285.46.012	12	16	5.0 – 10.0	10.7	23.4	10.0	22.0	4
285.46.017*	17	20	10.0 – 14.0	14.4	29.5	10.0	27.0	4
285.46.023*	23	25	13.0-18.0	18.3	36.8	10.0	33.0	4
285.46.029*	29	32	18.0-25.0	25.5	45.0	16.0	42.0	4
285.46.036*	36 / 37	40	22.0-32.0	33.0	58.0	18.0	53.0	4
285.46.048*	48 / 50	63	30.0-38.0	45.2	71.5	18.0	60.0	4

<sup>\*</sup>UL 1696





DIN EN 60529 Protection class IP66<sup>1)</sup>

#### **FKC-S Click plug connector IP66**

FKC-S Click plug connector IP66 is a straight polyamide 6 click plug connector, including O-ring. It provides IP66 protection, does not contain any halogens, is non-flame propagating and available in black and grey.

This plug connector is used for corrugated plastic conduits. Advantages are quick and easy push-fit assembly and disassembly of corrugated plastic conduits.

#### Specific features:

The click lock mechanism protects against unintended conduit releases. Suited for wall thicknesses of 1 – 2.5 mm.

#### **Characteristics:**

Resistant to: fuels, mineral oils, greases, alkaline substances

and most common solvents

**Limitedly resistant to:** bases, also diluted solutions of bases **Not resistant to:** acids, halogens and oxidative compounds

#### **Technical specifications:**

- material: polyamide 6 (PA6)
- temperature resistance range: -40°C to +120°C, short-term temperature resistance up to +140°C
- zero halogen
- non-flame propagating
- flammability: UL 94 V2

Cat. no.		Туре	Inside Ø mm		Plug length mm	Total length mm	Total Width mm	Total Height mm	Bore Ø	Ss mm	Packag- ing in pcs.
black	grey										
285.50.010	285.50.510	10	10.0	19.9	14.0	38.3	18.6	18.6	15.0	18	4
285.50.012	285.50.512	12	12.3	22.9	14.0	40.5	23.5	23.5	18.0	21	4
285.50.017	285.50.517	17	17.0	29.5	14.4	44.8	26.4	26.4	22.0	27	4
285.50.023	285.50.523	23	23.3	36.8	17.1	49.0	37.0	37.0	28.0	34	4
285.50.029	285.50.529	29	30.0	43.0	18.3	50.5	45.4	45.4	37.0	40	4
285.50.036	285.50.536	36/37	36.3	51.4	19.9	53.4	53.2	53.2	47.0	48	4
285.50.048	285.50.548	48/50	45.5	63.2	14.5	50.1	54.5	54.5	50.0	60	4



DIN EN 60529 Protection class IP66<sup>1)</sup>

#### **FKC-M Click coupling IP66**

FKC-M Click coupling IP66 is a polyamide 6 click coupling to connect two corrugated plastic conduits of the same type. It provides IP66 protection, does not contain any halogens, is non-flame propagating and available in black and grey.

This coupling is used for corrugated plastic conduits. Advantages are quick and easy push-fit assembly and disassembly of corrugated plastic conduits.

#### **Characteristics:**

Resistant to: fuels, mineral oils, greases, alkaline substances and most common solvents

**Limitedly resistant to:** bases, also diluted solutions of bases **Not resistant to:** acids, halogens and oxidative compounds

#### **Technical specifications:**

- material: polyamide 6 (PA6)
- temperature resistance range: -40°C to +120°C, short-term temperature resistance up to +140°C
- zero halogen
- non-flame propagating
- flammability: UL 94 V2

#### Specific features:

The click lock mechanism protects against unintended conduit releases.

Cat. no.		Туре	Inside Ø	Outside Ø	Total length	Total Width	Total Height	Ss mm	Pack- aging
black	grey		mm	mm	mm	mm	mm		in pcs.
285.80.012	285.80.512	12	12.3	22.9	53.0	22.9	22.9	21	5
285.80.017	285.80.517	17	16.6	29.5	61.5	29.5	29.5	27	5
285.80.023	285.80.523	23	23.1	36.8	61.7	36.8	36.8	34	5
285.80.029	285.80.529	29	29.3	42.7	61.7	42.7	42.7	40	5
285.80.036	285.80.536	36/37	34.0	51.2	64.7	51.2	51.2	48	5
285.80.048	285.80.548	48/50	45.6	63.2	71.3	63.1	63.1	60	5

#### **FKC-M Click coupling IP68**



DIN EN 60529 Protection class IP68<sup>1)</sup>



FKC-M Click coupling IP68 is a polyamide 6 click coupling to connect two corrugated plastic conduits of the same type. It provides IP68 protection, does not contain any halogens, is non-flame propagating and available in black and grey.

This coupling is used for corrugated plastic conduits. Advantages are quick and easy push-fit assembly and disassembly of corrugated plastic conduits.

#### **Characteristics:**

**Resistant to:** fuels, mineral oils, greases, alkaline substances and most common solvents

**Limitedly resistant to:** bases, also diluted solutions of bases **Not resistant to:** acids, halogens and oxidative compounds

#### **Technical specifications:**

- material: polyamide 6 (PA6)
- temperature resistance range: -40°C to +120°C, short-term temperature resistance up to +140°C
- zero halogen
- non-flame propagating
- flammability: UL 94 V2

#### Specific features:

The click lock mechanism protects against unintended conduit releases.

Cat. no.		Туре	Inside Ø	Outside Ø	Total length	Total Width	Total Height	Ss mm	Pack- aging
black	grey		mm	mm	mm	mm	mm		in pcs.
285.81.012	285.81.512	12	12.3	22.9	53.0	22.9	22.9	21	5
285.81.017*	285.81.517*	17	16.6	29.5	61.5	29.5	29.5	27	5
285.81.023*	285.81.523*	23	23.1	36.8	61.7	36.8	36.8	34	5
285.81.029*	285.81.529*	29	29.3	42.7	61.7	42.7	42.7	40	5
285.81.036*	285.81.536*	36/37	34.0	51.2	64.7	51.2	51.2	48	5
285.81.048*	285.81.548*	48/50	45.6	63.2	71.3	63.2	63.2	60	5

<sup>\*</sup>UL 1696

#### FE-KA



FE-KA is a one-piece plastic end cap made of TPE to connect to cables. It does not contain any halogens, is non-flame propagating and available in black.

This end cap is used for corrugated plastic conduits. Advantages are quick and easy push-fit assembly and disassembly of corrugated plastic conduits and edge protection.

#### **Characteristics:**

**Resistant to:** fuels, hydraulic fluid and aromatic compounds **Limitedly resistant to:** weak acids and bases, amines and glycols over +70°C

**Not resistant to:** concentrated sulfuric acid, chlorinated hydrocarbons, phenols

#### **Technical specifications:**

- material: thermoplastic elastomer (TPE)
- temperature resistance range: -30°C to +150°C, short-term temperature resistance up to +180°C
- zero halogen
- non-flame propagating

Cat. no.	Туре	For cables Ø mm	Inside Ø mm	Out- side Ø mm	Total length mm	Total Width mm	Total Height mm	Pack- aging in pcs.
285.91.007	7.5	1.0 – 8.0	9.7	18.1	29.0	18.1	18.1	5
285.91.010	10	1.0 – 10.0	12.5	20.9	32.5	20.9	20.9	10
285.91.012	12	4.0 – 12.0	15.4	23.8	36.5	23.8	23.8	25
285.91.017	17	6.0 – 16.5	20.7	29.2	37.5	29.2	29.2	25
285.91.023	23	6.0 – 23.0	28.0	36.5	40.2	36.5	36.5	25
285.91.029	29	6.0 – 29.0	32.9	41.4	44.2	41.4	41.4	25
285.91.036	36/37	10.0-37.0	40.0	48.7	46.0	48.7	48.7	10
285.91.048	48/50	10.0-47.0	51.5	60.2	52.0	60.2	60.2	5

#### FE-K



FE-K is a one-piece plastic end cap made of TPE. It does not contain any halogens, is non-flame propagating and available in black and grey.

This end cap is used for corrugated plastic conduits. Advantages are quick and easy push-fit assembly and disassembly of corrugated plastic conduits and edge protection.

#### **Characteristics:**

Resistant to: fuels, hydraulic fluid and aromatic compounds Limitedly resistant to: weak acids and bases, amines and glycols over +70°C

**Not resistant to:** concentrated sulfuric acid, chlorinated hydrocarbons, phenols

#### **Technical specifications:**

- material: TPE
- temperature resistance range: -30°C to +150°C, short-term temperature resistance up to +180°C
- zero halogen
- non-flame propagating

Cat. no.		Туре	Inside Ø	Outside Ø	Total length	Total width	Total height	Pack- aging
black	grey		mm	mm	mm	mm	mm	in pcs.
285.90.007	285.90.507	7.5	6.3	12.1	20.0	12.1	12.1	5
285.90.010	285.90.510	10	9.7	14.9	20.0	14.9	14.9	10
285.90.012	285.90.512	12	12.2	17.8	20.0	17.8	17.8	25
285.90.017	285.90.517	17	16.5	23.2	21.0	23.2	23.2	25
285.90.023	285.90.523	23	22.9	31.1	21.0	31.1	31.1	25
285.90.029	285.90.529	29	28.7	36.6	22.0	36.6	36.6	25
285.90.036	285.90.536	36 / 37	33.8	45.0	24.0	45.0	45.0	10
285.90.048	285.90.548	48 / 50	45.4	56.6	25.2	56.6	56.6	5

#### **FCL**



FCL is a corrugated plastic conduit holder made of polyamide 66. It does not contain any halogens, is non-flame propagating and available in black.

This conduit holder is used for all corrugated plastic conduits. An advantage is the "limit stop" which prevents the corrugated plastic conduit from shifting.

#### **Characteristics:**

**Resistant to:** fuels, mineral oils, greases, alkaline substances and most common solvents

**Limitedly resistant to**: bases, also diluted solutions of bases **Not resistant to**: acids, halogens and oxidative compounds

#### **Technical specifications:**

- material: polyamide 66 (PA66)
- temperature resistance range: -40°C to +120°C, short-term temperature resistance up to +140°C
- zero halogen
- non-flame propagating
- flammability: UL 94 HB

Cat. no.	Туре	Total width mm	Total height mm	Total depth mm	Bore Ø mm	Packaging in pcs.
489.40.070	7.5	13.4	20.0	15.0	4.5	50
489.40.100	10	17.4	25.3	15.0	4.5	50
489.40.120	12	19.7	25.4	15.0	4.5	50
489.40.170	17	24.0	29.7	15.0	4.5	25
489.40.230	23	32.2	38.3	15.0	4.5	25
489.40.290	29	39.5	45.0	15.0	4.5	25
489.40.370	37	48.2	53.7	15.0	6.5	10
489.40.500	50	60.0	65.6	15.0	6.5	10



#### **FCLC**

FCLC is a polyamide 66 cover lid. It does not contain any halogens, is non-flame propagating and available in black.

This cover lid is used for sealing FCL corrugated plastic conduit holders. An advantage is the secure sealing of the corrugated conduit holder.

#### Characteristics:

**Resistant to:** fuels, mineral oils, greases, alkaline substances and most common solvents

Limitedly resistant to: bases, also diluted solutions of bases Not resistant to: acids, halogens and oxidative compounds

#### **Technical specifications:**

- material: polyamide 66 (PA66)
- temperature resistance range: -40°C to +120°C, short-term temperature resistance up to +140°C
- zero halogen
- non-flame propagating
- flammability: UL 94 HB

Cat. no. black	Туре	Total width mm	Total depth mm	Packaging in pcs.
489.40.071	7.5	13.4	15.0	50
489.40.101	10	18.6	15.0	50
489.40.121	12	20.8	15.0	50
489.40.171	17	24.0	15.0	25
489.40.231	23	35.8	15.0	25
489.40.291	29	40.5	15.0	25
489.40.371	37	53.2	15.0	10
489.40.501	50	60.0	15.0	10

# Corrugated plastic conduit accessories

## **Connectors**

Snap-Lock is a tee/wye connector made of polyamide 66. It does not contain any halogens, is non-flame propagating and available in black.

This tee/wye is used to connect three corrugated plastic conduits. Advantages are the reliable securing of branches and at the transition to other corrugated plastic conduits.

#### **Characteristics:**

**Resistant to:** fuels, mineral oils, greases, alkaline substances and most common solvents

**Limitedly resistant to:** bases, also diluted solutions of bases **Not resistant to:** acids, halogens and oxidative compounds

#### **Technical specifications:**

- material: polyamide 66 (PA66)
- temperature resistance range: -40°C to +120°C, short-term temperature resistance up to +140°C
- zero halogen
- non-flame propagating
- flammability: UL 94 HB

## T-Snap-Lock



Cat. no.	Туре	Name	Packaging in pcs.
492.15.070	7.5-7.5-7.5	T-Snap-Lock	100
492.17.100	10.0-7.5-7.5	T-Snap-Lock	100
492.16.101	10.0-7.5-10.0	T-Snap-Lock	100
492.16.103	10.0-10.0-7.5	T-Snap-Lock	100
492.15.100	10.0-10.0-10.0	T-Snap-Lock	100
492.16.170	17.0-7.5-17.0	T-Snap-Lock	100
492.16.172	17.0-10.0-17.0	T-Snap-Lock	100
492.16.173	17.0-17.0-7.5	T-Snap-Lock	100
492.15.170	17.0-17.0-17.0	T-Snap-Lock	100



# Y-Snap-Lock

Cat. no. black	Туре	Name	Packaging in pcs.
492.65.070	7.5-7.5-7.5	Y-Snap-Lock	100
492.65.100	10.0-10.0-10.0	Y-Snap-Lock	100





FRS is a pipe cutter with knives made of high-tensile special steel, cured in oil and tempered. The ergonomically designed handles are made of glass fibre reinforced plastic.

The cutter is used to cut plastic conduits in diameters ranging from 12 to 25 mm in exact right angles. Advantages are clean, smooth and burr-free cuts. Not suited to cut cables.

#### **Technical specifications:**

 material: knives made of high-tensile special steel, handles made of glass fibre reinforced plastic

Cat. no.	Туре	Total length mm	Weight packing unit/kg	Packaging in pcs.
259.99.025	25	185.0	0.180	1

# FRÄNKISCHE



# Co-flex

# It's as easy as that:

- two-piece conduit with "zipper system"
- retrofit protection without disconnecting
- more safety
  - for photovoltaic power plants
  - for SAT units
  - for air conditioning units
  - in the office
  - in craft, industry and trade
  - at home and in the garden
  - for vehicles and trailers

# www.fraenkische.com



## Co-flex PP-UV

Co-flex PP-UV is a resealable, slit corrugated conduit made of PP-MOD-BS-UV. It is non-flame propagating and available in black.

This corrugated conduit is intended for installation outdoors. Its main fields of application are solar collectors, SAT units and photovoltaic power plants. Advantages are its resistance to high temperatures and protection against damage from marten and rodent bites.

#### **Specific features:**

This two-piece corrugated conduit can be easily retrofitted to an existing conduit. To begin the installation open the conduit, then insert the cable in the conduit. Close slit by slipping over the outside conduit. UV-resistant for up to 10 years.

#### **Characteristics:**

Resistant to: acids, bases, inorganic salts, fuels, mineral oils,

greases and most common solvents

Limitedly resistant to: ether

Not resistant to: halogenated, oxidising and aromatic

compounds

## **Technical specifications:**

- material: modified PP
- temperature resistance range according to DIN EN 61386-23: –25°C to +105°C
- temperature resistance range according to LV312-3: -40°C to +105°C, shortterm temperature resistance up to +130°C
- non-flame propagating
- flammability: UL 94 V2 / FMVSS 302
- UV-resistant

Cat. no.	Type	Outside Ø	Inside Ø	Bend radius*	Packaging
black	Туре	mm	mm	≥ mm	m
384.006.00	6	10	6.3	40	50
384.010.00	10	13.6	8.7	70	50
384.011.00	11	16.1	11.0	80	50
384.014.00	14	18.5	12.2	95	50
384.016.00	16	21.5	16.0	100	50
384.020.00	20	25.5	19.5	130	50
384.023.00	23	31.0	24.2	155	50
384.029.00	29	35.5	27.3	160	25
384.037.00	37	41.4	31.0	205	25
384.045.00	45	54.0	42.7	190	25
384.070.00	70	79.8	66.5	375	10
384.100.00	100	102.5	87.5	500	10

Cat. no. black	Туре	Outside Ø mm	Inside Ø mm	Bend radius* ≥ mm	Packaging m
384.010.02	10	13.6	8.7	70	10
384.014.02	14	18.5	12.2	95	10
384.020.02	20	25.5	19.5	130	10
384.023.02	23	31.0	24.2	155	10
384.037.02	37	41.4	31.0	205	10
384.045.02	45	54.0	42.7	190	10

<sup>\*</sup>Min. bend radius (neutral fibre) with a flattening of the conduit outside diameter of  $\leq 5\%$ 



Please refer to pages 43 et seq. for COV or Cofix threaded connectors and accessories

## Co-flex PP black



Co-flex PP black is a resealable, slit corrugated conduit made of PP-MOD-BS. It is non-flame propagating and available in black.

This corrugated conduit is used to retrofit cables and wires in machine and plant engineering for protection, and for office and private applications. Advantages are its resistance to high temperatures and protection against damage from marten and rodent bites.

#### **Specific features:**

This two-piece corrugated conduit can be easily retrofitted to an existing conduit. To begin the installation open the conduit, then insert the cable in the conduit. Close slit by slipping over the outside conduit.

#### Characteristics:

Resistant to: acids, bases, inorganic salts, fuels, mineral oils,

greases and most common solvents

Limitedly resistant to: ether

Not resistant to: halogenated, oxidising and aromatic

compounds

#### **Technical specifications:**

- material: PP-MOD-BS
- temperature resistance range according to DIN EN 61386-23: −25°C to +105°C
- temperature resistance range according to LV312-3: -40°C to +135°C, shortterm temperature resistance up to +150°C
- non-flame propagating
- flammability: UL 94 HB / FMVSS 302 type B

Cat. no.	Туре	Outside Ø	Inside Ø	Bend radius*	Packaging
black	Туре	mm	mm	≥ mm	m
370.006.00	6	10.0	6.3	40	50
370.010.00	10	13.4	8.4	70	50
370.011.00	11	16.1	11.0	80	50
370.014.00	14	18.5	12.5	95	50
370.016.00	16	21.5	16.0	100	50
370.020.00	20	25.3	19.2	130	50
370.023.00	23	30.8	23.4	155	50
370.029.00	29	35.5	27.3	160	25
370.037.00	37	41.4	31.0	205	25
370.045.00	45	54.0	42.7	190	25
370.070.00	70	79.8	66.5	375	10
370.100.00	100	102.5	87.5	500	10

Cat. no. black	Туре	Outside Ø mm	Inside Ø mm	Bend radius* ≥ mm	Packaging m
370.010.02	10	13.4	8.4	70	10
370.014.02	14	18.5	12.5	95	10
370.020.02	20	25.3	19.2	130	10
370.023.02	23	30.8	23.4	155	10
370.037.02	37	41.4	31.0	205	10
370.045.02	45	54.0	42.7	190	10

Cat. no.	Type	Outside Ø	Inside Ø	Bend radius*	Packaging
black	1,150	mm	mm	≥mm	m
370.010.03	10	13.4	8.4	70	5
370.014.03	14	18.5	12.5	95	5
370.020.03	20	25.3	19.2	130	5
370.023.03	23	30.8	23.4	155	5
370.037.03	37	41.4	31.0	205	5
370.045.03	45	54.0	42.7	190	5

<sup>\*</sup>Min. bend radius (neutral fibre) with a flattening of the conduit outside diameter of  $\leq 5\,$  %



## **Co-flex PP white**

Co-flex PP white is a resealable, slit corrugated conduit made of PP-MOD-BS. It is non-flame propagating and available in white.

This corrugated conduit is used for audio/HIFI systems, office wiring, shipbuilding, medical instruments, such as X-ray units and tomographs, hospital beds and the furniture industry. Advantages are its resistance to high temperatures and protection against damage from marten and rodent bites.

#### **Specific features:**

This two-piece corrugated conduit can be easily retrofitted to an existing conduit. To begin the installation open the conduit, then insert the cable in the conduit. Close slit by slipping over the outside conduit.

#### **Characteristics:**

**Resistant to:** acids, bases, inorganic salts, fuels, mineral oils, greases and most common solvents

Limitedly resistant to: ether

Not resistant to: halogenated, oxidising and aromatic

compounds

#### **Technical specifications:**

- material: PP-MOD-BS
- temperature resistance range according to DIN EN 61386-23: –25°C to +105°C
- temperature resistance range according to LV312-3: -40°C to +135°C, shortterm temperature resistance up to +150°C
- non-flame propagating
- flammability: UL 94 HB / FMVSS 302 type B

Cat. no.	Turno	Outside Ø	Inside Ø	Bend radius*	Packaging
white	Туре	mm	mm	≥ mm	m
384.020.10	20	25.3	19.2	130	50

<sup>\*</sup>Min. bend radius (neutral fibre) with a flattening of the conduit outside diameter of  $\leq 5\%$ 



Please refer to pages 43 et seq. for COV or Cofix threaded connectors and accessories



# Co-flex PA6

Co-flex PA6 is a resealable, slit corrugated conduit made of polyamide 6. It is non-flame propagating, does not contain any halogens and is available in black.

This corrugated conduit is used to retrofit computers and TV racks for protection, in control panel engineering, in automobile installations and in the electrical appliances industry. Advantages are its resistance to high temperatures and protection against damage from marten and rodent bites.

#### **Specific features:**

This two-piece corrugated conduit can be easily retrofitted to an existing conduit. To begin the installation open the conduit, then insert the cable in the conduit. Close slit by slipping over the outside conduit.

#### Characteristics:

**Resistant to:** fuels, mineral oils, greases, alkaline substances and most common solvents

**Limitedly resistant to:** bases, also diluted solutions of bases **Not resistant to:** acids, halogens and oxidative compounds

#### Technical specifications:

- material: polyamide 6 (PA6)
- temperature resistance range according to DIN EN 61386-23: -45°C to +120°C
- temperature resistance range according to LV312-3: -40°C to +120°C, shortterm temperature resistance up to +150°C
- zero halogen
- non-flame propagating
- flammability: UL 94 V2/ FMVSS 302

Cat. no.	Туре	Outside Ø	Inside Ø	Bend radius*	Packaging
black	1,1700	mm	mm	≥mm	m
410.006.00	6	10.0	6.3	45	50
410.010.00	10	13.5	8.8	55	50
410.011.00	11	16.1	11.0	65	50
410.014.00	14	18.7	13.2	75	50
410.016.00	16	21.5	16.0	85	50
410.020.00	20	25.7	20.2	105	50
410.023.00	23	31.3	23.9	125	50
410.029.00	29	35.5	27.3	140	25
410.037.00	37	43.2	32.5	170	25
410.045.00	45	54.2	43.1	170	25
410.070.00	70	79.8	66.0	300	10
410.100.00	100	102.5	87.5	400	10

<sup>\*</sup>Min. bend radius (neutral fibre) with a flattening of the conduit outside diameter of  $\leq 5\%$ 



Please refer to pages 43 et seq. for COV or Cofix threaded connectors and accessories

# Resealable corrugated conduit accessories





COS is a fixing clip with an integrated polyamide 66 ledge. It does not contain any halogens, is non-flame propagating and available in black.

This fixing clip is used to secure Co-flex corrugated conduits.

#### **Characteristics:**

**Resistant to:** fuels, mineral oils, greases, alkaline substances and most common solvents

**Limitedly resistant to:** bases, also diluted solutions of bases **Not resistant to:** acids, halogens and oxidative compounds

#### **Technical specifications:**

- material: polyamide 66 (PA66)
- temperature resistance range: -40°C to +120°C, short-term temperature resistance up to +140°C
- zero halogen
- non-flame propagating
- flammability: self-extinguishing

Cat. no.	Туре	Total width mm	Total depth mm	Total height mm	Bore Ø mm	Packaging in pcs.
491.20.006	6	15.0	20.0	17.5	M3	100
491.20.100	10	18.5	20.0	21.0	M3	100
491.20.102*	10	18.5	20.0	21.0	M5	100
491.20.110	11	21.0	20.0	22.5	M3	100
491.20.140	14	24.0	20.0	25.5	M3	100
491.20.142*	14	24.0	20.0	25.5	M5	100
491.20.160	16	30.0	20.0	33.0	M5	100
491.20.162*	16	30.0	20.0	33.0	M6	100
491.20.200	20	35.0	20.0	36.0	M5	50
491.20.202*	20	35.0	20.0	36.0	M6	50
491.20.230	23	42.0	20.0	43.5	M5	50
491.20.232*	23	42.0	20.0	43.5	M6	50
491.20.290	29	48.0	20.0	48.5	M5	50
491.20.292*	29	48.0	20.0	48.5	M6	50
491.20.370	37	55.0	20.0	56.5	M6	20
491.20.450	45	67.0	20.0	68.0	M6	20
491.20.700	70	100.0	20.0	101.0	M6	10

<sup>\*</sup> new nominal diameters

# Resealable corrugated conduit accessories

## Cofix

Cofix is a two-piece threaded connector and two-piece locknut with metric thread made of polyamide 66. It does not contain any halogens, is non-flame propagating and available in black.

This two-piece threaded connector is especially used together with the two-piece nut to connect Co-flex conduits to manifolds and devices. The advantage is that the threaded connector and the locknut are two-piece.

### **Characteristics:**

Resistant to: fuels, mineral oils, greases, alkaline substances and most common solvents

Limitedly resistant to: bases, also diluted solutions of bases

Not resistant to: acids, halogens and oxidative

Cofix threaded connector

compounds

#### **Technical specifications:**

- material: polyamide 66 (PA66)
- temperature resistance range: -40°C to +120°C, short-term temperature resistance up to +140°C
- zero halogen
- non-flame propagating
- flammability: UL 94 HB



**DIN EN 60529 Protection class IP43** 

#### Cat. no. Thread m. x 1.5 Total length Packaging 491.10.102 10 16 34.0 19 100 41.0 491.10.142 14 20 27 100 491.10.202 20 25 43.0 30 50 23 32 50.5 36 50 491.10.232 491.10.372 37 40 59.0 46 25 45 50 55 25

67.5



**DIN EN 60529 Protection class IP43** 

# Cofix locknut

491.10.452

Cat. no.	Туре	Thread m. x 1.5	Total length mm	Ss mm	Packaging in pcs.
491.12.101	10	16	8	19	100
491.12.141	14	20	8	27	100
491.12.201	20	25	9	30	50
491.12.231	23	32	12	36	50
491.12.371	37	40	15	46	25
491.12.451	45	50	15	55	25

# Resealable corrugated conduit accessories



DIN EN 60529 Protection class IP43

#### COV

COV is a two-piece threaded connector and two-piece locknut with Pg thread made of polyamide 6. It does not contain any halogens, is non-flame propagating and available in black.

This two-piece threaded connector is especially used together with the two-piece nut to connect Co-flex conduits to manifolds and devices. The advantage is that the threaded connector and the locknut are two-piece.

#### **Characteristics:**

**Resistant to:** fuels, mineral oils, greases, alkaline substances and most common solvents

**Limitedly resistant to:** bases, also diluted solutions of bases **Not resistant to:** acids, halogens and oxidative compounds

#### **Technical specifications:**

- material: polyamide 6 (PA6)
- temperature resistance range: -40°C to +120°C, short-term temperature resistance up to +140°C
- zero halogen
- non-flame propagating
- flammability: UL 94 HB

Cat. no.	Туре	Thread Pg	Inside Ø mm	Total length mm	Thread length mm	Nut width mm	Packag- ing in pcs.
491.10.100	10	9	9	27	12	11	100
491.10.140	14	13.5	13	34	17	14	100
491.10.200	20	21	20	34	17	14	50
491.10.230	23	29	31	42	21	17	50
491.10.370	37	29	31	50	22	17	25

Threaded connector locknut included

## **Insertion tool**



Polyamide 6 insertion tool with handle, non-flame propagating and available in black.

This tool is used to insert cables in Co-flex corrugated conduits and slit corrugated plastic conduits.
Suitable for sizes ranging from 7.5 to 34 mm.

#### **Characteristics:**

Resistant to: fuels, mineral oils, greases, alkaline substances and most common solvents

Not resistant to: acids, halogens and oxidative compounds

**Limitedly resistant to:** bases, also diluted solutions of bases

Cat. no.	For conduits Ø	Packaging
black	mm	in pcs.
490.90.003	7.5 / 34	100

#### **Technical specifications:**

material: polyamide 6 (PA6)



# for increased safety and reliability

Reliable protection for wires and cables primarily in the following fields:

- heavy machinery
- system installations

Flexible, strip-wound metal cable ducts with hooked profiles that feature high temperature resistance, heavy compressive strength and cold impact strength in extreme temperatures. There is no reduction in cross-section thanks to their flexibility. Due to

abrasion protection, tensile strength and corrosion resistance, they lastingly prevent damage to cables. They protect and increase their durability by reducing wear to a minimum.









VDE 0605 DIN EN 61386-23 Classification: 43574

# **FFMSS**

FFMSS is a flexible, strip-wound metal cable duct with a hooked profile, without sealing, made of galvanised steel.

This metal cable duct is used for heavy machinery and equipment installations. Advantages are its heavy compressive strength and that there is no reduction in cross-section thanks to its flexibility.

#### **Specific features:**

This heavy duty but very flexible metal duct can be used for moving machine parts. It is also particularly suited for high-temperature environments.

## **Technical specifications:**

- material: galvanised steel strip
- temperature resistance range: -45°C to +400°C

Cat. no.	Туре	Outside Ø mm	Inside Ø mm	Bend radius* ≥ mm	Packaging m**
280.00.007	7	9.5	7.0	14	10
280.00.010	10	13.0	10.0	19	10
280.00.013	13	16.0	13.0	24	10
280.00.015	15	18.5	15.5	28	10
280.00.020	20	24.0	20.0	34	10
280.00.025	25	28.5	25.0	40	10
280.00.028	28	31.5	28.0	45	10
280.00.037	37	41.5	37.0	95	10
280.00.045	45	49.5	45.0	115	10
280.00.052	52	56.5	52.0	145	10

Cat. no.	Туре	Outside Ø mm	Inside Ø mm	Bend radius* ≥ mm	Packaging m**
280.01.007	7	9.5	7.0	14	50
280.01.010	10	13.0	10.0	19	50
280.01.013	13	16.0	13.0	24	50
280.01.015	15	18.5	15.5	28	50
280.01.020	20	24.0	20.0	34	50
280.01.025	25	28.5	25.0	40	50
280.01.028	28	31.5	28.0	45	25
280.01.037	37	41.5	37.0	95	25
280.01.045	45	49.5	45.0	115	25
280.01.052	52	56.5	52.0	145	25

<sup>\*</sup>Referring to the inside diameter of the conduit elbow

<sup>\*\*</sup>Uncoiled length



Please refer to page 53 for FMV threaded metal connectors



VDE 0605 DIN EN 61386-23 Classification: 43414

# FFMSS-K-FD

FFMSS-K-FD is a flexible strip-wound metal cable duct with a hooked profile, without sealing, made of galvanised steel with high-quality PVC sheathing and available in grey.

This metal cable duct is used for heavy machinery and equipment installations. Advantages are its heavy compressive strength, high temperature resistance and cold impact strength in extreme temperatures.

#### Specific features:

Since it is watertight, this heavy duty metal duct is recommended in particular for installations requiring liquidtightness. UV-resistant for up to 10 years.

## **Technical specifications:**

- material: galvanised steel strip/ PVC-P
- temperature resistance range: -25°C to +60°C
- UV-resistant

Cat. no. grey	Туре	Outside Ø mm	Inside Ø mm	Bend radius* ≥ mm	Packaging m
280.10.008	8	13.0	8.5	40	10
280.10.010	10	15.0	10.0	50	10
280.10.012	12	17.0	12.0	60	10
280.10.015	15	21.0	15.5	70	10
280.10.020	20	27.0	20.0	90	10
280.10.025	25	34.0	26.5	120	10
280.10.035	35	43.0	35.0	150	10
280.10.040	40	48.0	40.0	200	10
280.10.051	51	58.5	50.5	250	10

<sup>\*</sup>Referring to the inside diameter of the conduit elbow

Cat. no.	Туре	Outside Ø	Inside Ø	Bend radius*	Packaging
grey	Турс	mm	mm	≥mm	m
280.11.008	8	13.0	8.5	40	50
280.11.010	10	15.0	10.0	50	50
280.11.012	12	17.0	12.0	60	50
280.11.015	15	21.0	15.5	70	50
280.11.020	20	27.0	20.0	90	50
280.11.025	25	34.0	26.5	120	25
280.11.035	35	43.0	35.0	150	20
280.11.040	40	48.0	40.0	200	20
280.11.051	51	58.5	50.5	250	20

<sup>\*</sup>Referring to the inside diameter of the conduit elbow



Please refer to pages 53 et seq. for FMV-FD M threaded metal connectors and other connectors.



VDE 0605 DIN EN 61386-23 Classification: 43414

# FFMSS-K

FFMSS-K is a flexible strip-wound metal cable duct with a hooked profile, without sealing, made of galvanised steel with high-quality PVC sheathing and available in grey.

This metal cable duct is used for heavy machinery and equipment installations. Advantages are its heavy compressive strength, high-temperature resistance and cold impact strength in extreme temperatures.

## Specific features:

This heavy duty metal duct is flexible and can be used for moving machine parts. UV-resistant for up to 10 years.

#### **Technical specifications:**

- material: galvanised steel strip/ PVC-P
- temperature resistance range: -25°C to +60°C
- UV-resistant

Cat. no.	Туре	Outside Ø	Inside Ø	Bend radius*	Packaging
grey	1,400	mm	mm	≥ mm	m
280.20.007	7	10.0	7.0	25	10
280.20.010	10	13.5	10.0	40	10
280.20.013	13	16.5	13.0	50	10
280.20.015	15	19.0	15.5	60	10
280.20.020	20	25.0	20.0	70	10
280.20.025	25	30.0	25.0	100	10
280.20.028	28	32.5	28.0	120	10
280.20.037	37	42.5	37.0	150	10
280.20.045	45	51.0	45.0	180	10
280.20.052	52	58.0	52.0	230	10

<sup>\*</sup>Referring to the inside diameter of the conduit elbow

Cat. no. grey	Туре	Outside Ø mm	Inside Ø mm	Bend radius* ≥ mm	Packaging m
280.21.007	7	10.0	7.0	25	50
280.21.010	10	13.5	10.0	40	50
280.21.013	13	16.5	13.0	50	50
280.21.015	15	19.0	15.5	60	50
280.21.020	20	25.0	20.0	70	50
280.21.025	25	30.0	25.0	100	50
280.21.028	28	32.5	28.0	120	25
280.21.037	37	42.5	37.0	150	25
280.21.045	45	51.0	45.0	180	25
280.21.052	52	58.0	52.0	230	25

<sup>\*</sup>Referring to the inside diameter of the conduit elbow



Please refer to page 53 for FMV threaded metal connectors



VDE 0605 DIN EN 61386-23 Classification: 43574

# FFMSS-G

FFMSS-G is a flexible, strip-wound metal cable duct with a hooked profile, without sealing, made of galvanised steel with metal braiding.

This metal cable duct is used for heavy machinery and system installations. Advantages are its heavy compressive strength and that there is no reduction in cross-section thanks to its flexibility.

#### Specific features:

This heavy duty but very flexible metal duct can be used for moving machine parts. It is also particularly suited for high-temperature environments.

## **Technical specifications:**

- material: galvanised steel strip/ metal braiding
- temperature resistance range: -45°C to +250°C

Cat. no.	Туре	Outside Ø mm	Inside Ø mm	Bend radius* ≥ mm	Packaging m
280.30.008	8	13.0	8.5	30	10
280.30.010	10	14.0	10.0	40	10
280.30.012	12	16.0	12.0	50	10
280.30.015	15	20.0	15.5	60	10
280.30.020	20	26.0	20.5	65	10
280.30.025	25	31.0	25.0	70	10
280.30.035	35	42.0	35.0	150	5
280.30.040	40	47.0	40.0	170	5
280.30.051	51	57.0	50.5	200	5

<sup>\*</sup>Referring to the inside diameter of the conduit elbow

Cat. no.	Туре	Outside Ø mm	Inside Ø mm	Bend radius* ≥ mm	Packaging m
280.31.008	8	13.0	8.5	30	50
280.31.010	10	14.0	10.0	40	50
280.31.012	12	16.0	12.0	50	50
280.31.015	15	20.0	15.5	60	50
280.31.020	20	26.0	20.5	65	50
280.31.025	25	31.0	25.0	70	50
280.31.035	35	42.0	35.0	150	25
280.31.040	40	47.0	40.0	170	25
280.31.051	51	57.0	50.5	200	25

<sup>\*</sup>Referring to the inside diameter of the conduit elbow



Please refer to pages 53 et seq. for FMV-FD M threaded metal connectors and other connectors.



VDE 0605 DIN EN 61386-23 Classification: 43574

# FFMSS-VA

FFMSS-VA is a flexible, strip-wound metal cable duct with a hooked profile, without sealing, made of stainless steel V2A.

This metal cable duct is used for heavy machinery and system installations. Advantages are its heavy compressive strength and that there is no reduction in cross-section thanks to its flexibility.

#### **Specific features:**

This heavy duty but very flexible metal duct can be used for moving machine parts. It is also particularly suited for high-temperature environment.

## **Technical specifications:**

- material: stainless steel V2A / AISI 304
- temperature resistance range: -45°C to +400°C

Cat. no.	Туре	Outside Ø mm	Inside Ø mm	Bend radius* ≥ mm	Packaging m**
280.05.010	10	13.0	10.0	35	10
280.05.013	13	16.0	13.0	43	10
280.05.015	15	19.1	15.5	58	10
280.05.020	20	24.1	20.5	75	10
280.05.025	25	28.6	25.0	90	5

Cat. no.	Туре	Outside Ø mm	Inside Ø mm	Bend radius* ≥ mm	Packaging m**
280.06.010	10	13.0	10.0	35	50
280.06.013	13	16.0	13.0	43	50
280.06.015	15	19.1	15.5	58	50
280.06.020	20	24.1	20.5	75	50
280.06.025	25	28.6	25.0	90	25

<sup>\*</sup>Referring to the inside diameter of the conduit elbow



Please refer to page 53 for FMV threaded metal connectors

<sup>\*\*</sup>Uncoiled length



# ... we offer the right connection

## Perfect installation due to a broad range of accessories:

- perfect fit for all metal cable ducts
- quick and easy installation
- high degree of reliability

FRÄNKISCHE offers a broad and practical range of accessories for the professional installation of metal cable ducts. Perfect fit and easy handling allow quick and easy installation, because metal cable ducts and accessories form a perfect union and achieve highest degrees of reliability.

All metal and angled threaded connectors, including end caps, are corrosionresistant and temperature-resistant which makes them ideal accessories for metal cable ducts.







# Metal cable duct accessories



DIN EN 60529 Protection class IP40

# FMV M

FMV M is a rotatable threaded metal connector made of nickel-plated brass, with metric male thread. The threaded connector provides IP40 protection.

This threaded connector is used for FFMSS, FFMSS-VA and FFMSS-K conduits.

#### **Technical specifications:**

- material: nickel-plated brass
- temperature resistance range: -45°C to +400°C

Cat. no.	Туре	Thread m x 1.5	Inside Ø mm	Total length mm	Thread length mm	Ss 1 mm	Ss 2 mm	Packag- ing in pcs.
280.50.007	7	12	5.0	30	8	15	14	20
280.50.010	10	16	8.5	30	8	19	17	20
280.50.013	13	16	10.0	30	8	19	17	20
280.50.015	15	20	14.0	30	10	24	22	10
280.50.020	20	25	18.5	36	12	30	28	10
280.50.025	25	32	23.0	36	12	35	32	10
280.50.028	28	32	23.0	36	12	36	32	10
280.50.037	37	40	31.0	36	14	45	45	5
280.50.045	45	50	42.0	63	14	55	55	1
280.50.052	52	63	48.5	72	15	64	65	1

# FMV-FD M



DIN EN 60529 Protection class IP67

FMV-FD M is a rotatable threaded metal connector made of nickel-plated brass, with metric male thread and inside end cap. The threaded connector provides IP67 protection.

This threaded connector is used for FFMSS-K-FD and FFMSS-G metal cable ducts.

### **Technical specifications:**

- material: nickel-plated brass
- temperature resistance range: -45°C to +120°C

Cat. no.	Туре	Thread m x 1.5	Inside Ø mm	Total length mm	Thread length mm	Ss 1 mm	Ss 2 mm	Ss 3 mm	Pack- aging in pcs.
280.60.008	8	12	7.0	37	9	15	20	22	20
280.60.010	10	12	7.0	37	9	15	22	24	20
280.60.012	12	16	10.0	37	9	19	24	26	20
280.60.015	15	20	14.0	37	9	24	28	30	10
280.60.020	20	25	18.5	42	10	30	35	38	10
280.60.025	25	32	23.0	49	13	38	40	42	10
280.60.035	35	40	32.5	55	18	45	50	53	5
280.60.040	40	50	37.5	60	20	52	58	61	5
280.60.051	51	63	48.0	74	24	64	70	74	2



Please refer to page 60 for FGMM metal locknuts

# Metal cable duct accessories



DIN EN 60529 Protection class IP67

# FMV-W

FMV-W is a threaded 90° angled metal connector made of nickel-plated brass, with metric male thread and inside end cap. The threaded connector provides IP67 protection.

This threaded connector is used for FFMSS-K-FD and FFMSS-G metal cable ducts.

#### **Technical specifications:**

- material: nickel-plated brass
- temperature resistance range: -45°C to +120°C

Cat. no.	Туре	Thread m x 1.5	Out- side Ø mm	Inside Ø mm	Total length mm	Thread length mm	Ss 1 mm	Ss 2 mm	Ss 3 mm	Pack- aging in pcs.
280.75.008	8	12	13	8.5	44	11	22	22	22	20
280.75.010	10	12	15	10.0	44	11	22	24	22	20
280.75.012	12	16	17	12.0	46	12	26	26	26	10
280.75.015	15	20	21	15.5	50	12	28	30	28	10
280.75.020	20	25	27	20.0	62	13	35	38	35	5
280.75.025	25	32	34	26.5	73	16	42	42	42	2

## FMV-I



DIN EN 60529 Protection class IP67

FMV-I is a threaded metal connector made of nickel-plated brass, with metric female thread. The threaded connector provides IP67 protection.

This threaded connector is used for FFMSS-K-FD and FFMSS-G metal cable ducts.

## **Technical specifications:**

- material: nickel-plated brass
- temperature resistance range: -45°C to +120°C

Cat. no.	Туре	Thread m x 1.5	Outside Ø mm	Inside Ø mm	Thread length mm	Ss 1 mm	Ss 2 mm	Packag- ing in pcs.
280.80.010	10	16	15.0	10.0	9	22	24	20
280.80.012	12	16	17.0	12.0	9	24	26	20
280.80.015	15	20	21.0	15.5	10	28	30	20
280.80.020	20	25	27.0	20.0	12	36	38	10
280.80.025	25	32	34.0	26.5	12	40	42	10
280.80.035	35	40	43.0	35.0	12	50	53	5
280.80.040	40	50	48.0	40.0	13	58	61	5
280.80.051	51	63	58.5	50.5	20	70	74	2



Please refer to page 60 for FGMM metal locknuts

# Metal cable duct accessories





FME is a metal end cap made of nickel-plated brass.

This end cap is used for all metal cable ducts with equal inside diameter. The advantage is edge protection.

## **Technical specifications:**

- material: nickel-plated brass
- temperature resistance range: -45°C to +400°C

Cat. no.	Туре	Inside Ø mm	Outside Ø mm	For cables Ø mm	Packaging in pcs.
280.90.008	8	8.3	16.0	6.9	1
280.90.010	10	9.6	18.0	8.4	1
280.90.012	12	11.7	19.0	10.4	1
280.90.013	13	12.7	22.0	11.3	1
280.90.015	15	15.0	23.0	13.7	1
280.90.020	20	19.8	29.5	18.2	1
280.90.025	25	24.7	34.5	23.0	1
280.90.027	27	26.3	37.0	24.5	1
280.90.035	35	34.8	44.7	32.9	1
280.90.040	40	39.9	51.5	37.6	1

# Plastic spiral conduits



# FFKSS-SW

FFKSS-SW is a grey, flexible plastic spiral conduit. The sheathing is made of PVC-P with a spring made of plastic-coated spring steel wire.

This plastic spiral conduit is used for control panel engineering, control cabinets, engineering and robotics. Advantages are its heavy compressive strength and cold impact strength in extreme temperatures.

## **Specific features:**

UV-resistant for up to 10 years.

# Technical specifications:

- material: PVC-P / spring steel wire
- temperature resistance range: -25°C to +60°C
- non-flame propagating
- UV-resistant

Cat. no. grey	Туре	Outside Ø mm	Inside Ø mm	Bend radius* ≥ mm	Packaging m
281.20.007	7	10	7.0	10	10
281.20.009	9	14	10	14	10
281.20.011	11	17	13	17	10
281.20.016	16	21	16	21	10
281.20.021	21	27	21	27	10
281.20.029	29	36	30	36	10
281.20.036	36	45	38	45	10
281.20.048	48	56	48	56	10

Cat. no.	Туре	Outside Ø mm	Inside Ø mm	Bend radius* ≥ mm	Packaging m
281.21.007	7	10	7.0	10	50
281.21.009	9	14	10	14	50
281.21.011	11	17	13	17	50
281.21.016	16	21	16	21	50
281.21.021	21	27	21	27	50
281.21.029	29	36	30	36	25
281.21.036	36	45	38	45	25
281.21.048	48	56	48	56	25

<sup>\*</sup>Referring to the inside diameter of the conduit elbow



Please refer to page 58 for FKV-SW M threaded conduit connectors

# Plastic spiral conduits



# **FFKSS-KW**

FFKSS-KW is a grey, flexible plastic spiral conduit. The sheathing is made of PVC-P with an integrated hard plastic coil made of PVC-U.

This plastic spiral conduit is used for all machine and equipment installations to which watertightness and insulation are important. An advantage is its cold impact strength in extreme temperatures.

## Specific features:

UV-resistant for up to 10 years.

#### **Technical specifications:**

- material: PVC-P / hard plastic coil
- temperature resistance range: -25°C to +60°C
- non-flame propagating
- UV-resistant

Cat. no.	Туре	Outside Ø mm	Inside Ø mm	Bend radius* ≥ mm	Packaging m
281.10.008	8	12.0	8.0	18	10
281.10.010	10	14.7	10.0	20	10
281.10.012	12	16.4	12.0	26	10
281.10.015	15	20.7	15.5	30	10
281.10.020	20	24.7	20.0	38	10
281.10.025	25	30.6	25.0	45	10
281.10.032	32	38.0	32.0	52	10
281.10.040	40	46.4	40.0	72	10
281.10.050	50	57.5	50.0	110	10

<sup>\*</sup>Referring to the inside diameter of the conduit elbow



Please refer to page 58 for FKV-KW M threaded conduit connectors

# Plastic spiral conduit accessories

# FKV-SW M



FKV-SW M is a threaded PE connector with rotatable male thread made of nickel-plated brass. It provides IP54 protection and is non-flame propagating.

This threaded connector is used for FFKSS-SW plastic spiral conduits.

#### **Technical specifications:**

material: PE

■ temperature resistance range: -40°C to +110°C

non-flame propagating

DIN EN 60529 Protection class IP54

Cat. no.	Туре	Thread m x 1.5	Outside Ø mm	Inside Ø mm	Total length mm	Thread Length mm	Ss mm	Packag- ing in pcs.
281.60.009	9	16	21.1	8.3	34.0	6.0	19	50
281.60.011	11	20	26.7	10.4	35.3	6.0	24	50
281.60.016	16	25	33.5	13.5	41.0	7.5	30	25
281.60.021	21	32	40.0	18.8	45.2	8.0	36	25
281.60.029	29	40	51.3	26.5	47.5	8.0	46	25
281.60.036	36	50	61.3	35.1	50.2	9.5	55	25
281.60.048	48	63	76.8	45.4	64.5	11.5	68	10

# FKV-KW M



FKV-KW M is a threaded PVC connector with integrated inside end cap and rotatable thread. The threaded connector provides IP67 protection and is non-flame propagating; locknut included.

This threaded connector is used for FFKSS-KW plastic spiral conduits.

#### **Technical specifications:**

- material: PVC
- temperature resistance range: -20°C to +80°C
- non-flame propagating

DIN EN 60529 Protection class IP67

Cat. no.	Туре	Thread m x 1.5	Out- side Ø mm	Inside Ø mm	Total length mm	Thread length mm	Ss 1 mm	Ss 2 mm	Packag- ing in pcs.
281.50.010	10	12	25.0	8	47	10.0	22	22	20
281.50.012	12	16	27.0	10	48	10.0	24	24	20
281.50.015	15	20	32.5	13	55	12.5	29	27	20
281.50.020	20	25	37.5	18	57	12.5	33	33	10
281.50.025	25	32	48.5	23	67	16	40	43	10
281.50.032	32	40	57.0	30	71	16.5	48	50	10
281.50.040	40	50	63.5	38	77	17.5	58	60	5
281.50.050	50	63	76.5	48	80	18.0	70	70	2



Please refer to page 60 for FGMM metal locknuts

# Cable protection accessories

# FMH M

 $\ensuremath{\mathsf{FMH}}$  is a metal conduit holder made of stainless steel V2A with through hole.

This metal conduit holder is used to connect metric threaded connectors and Pg connectors to components.

### **Technical specifications:**

- material: stainless steel V2A
- temperature resistance range: -45°C to +400°C

Cat. no.	Туре	Total depth mm	Total height mm	Total width mm	Wall thickness mm	Hole spacing mm	Packag- ing in pcs.
289 71 012	M12-Pg7	20	37	50	1.25	40	25
289 71 016	M16-Pg9	20	37	50	1.25	40	25
289 71 020	M20-Pg11	20	37	50	1.25	40	25
289 71 025	M25-Pg16	20	47	60	1.25	50	25
289 71 032	M32-Pg21	20	57	70	1.25	60	25
289 71 040	M40-Pg29	20	67	80	1.25	70	10
289 71 050	M50-Pg36	20	79	90	1.25	80	10
289 71 063	M63-Pg48	20	83	90	1.25	80	10

# **Metal reduction / expansion**

FRMM / FEMM is a metal reduction / expansion made of nickel-plated brass, with metric female and male thread. This reduction / expansion is used for all threaded connectors with metric male threads.

## **Technical specifications:**

- material: nickel-plated brass
- temperature resistance range: -45°C to +400°C



FRMM

FRMM Cat. no.	Туре	Thread outside m. x 1.5	Thread inside m. x 1.5	Total length mm	Thread length outside mm	Thread length inside mm	Packag- ing in pcs.
280.91.012	12/16	12	16	19	7	7	50
280.91.016	16/20	16	20	19	7	7	50
280.91.020	20/25	20	25	20	7	7	50
280.91.025	25/32	25	32	21.5	8	8	20
280.91.032	32/40	32	40	22	8.5	8.5	20
280.91.040	40/50	40	50	23	8.5	8.5	10
280.91.050	50/63	50	63	25	9.5	9.5	5



FEMM

FEMM Cat. no.	Туре	Thread outside m. x 1.5	Thread inside m. x 1.5	Total length mm	Thread length outside mm	Thread length inside mm	Packag- ing in pcs.
280.92.012	16/12	16	12	10	7	10	50
280.92.016	20/16	20	16	10	7	10	50
280.92.020	25/20	25	20	11.5	8	11.5	20
280.92.025	32/25	32	25	12.5	8.5	12.5	20
280.92.032	40/32	40	32	12.5	8.5	12.5	10
280.92.040	50/40	50	40	14.5	9.5	14.5	5
280.92.050	63/50	63	50	17.5	10.5	17.5	5

# Cable protection accessories



# **FGKM**

FGKM is a polyamide 6 locknut with metric thread. It does not contain any halogens, is non-flame propagating and available in black.

This locknut is used for all threaded connections and reductions with metric threads.

#### **Technical specifications:**

- material: polyamide 6 (PA6)
- temperature resistance range: -40°C to +120°C, short-term temperature resistance up to +150°C
- zero halogen
- non-flame propagating

Cat. no.	Turno	Thread	Ss	Packaging
black	Туре	m x 1.5	mm	in pcs.
288.20.016	16	16	22	100
288.20.020	20	20	26	100
288.20.025	25	25	32	50
288.20.032	32	32	40	50
288.20.040	40	40	50	25
288.20.050	50	50	60	25
288.20.063	63	63	74	25

# **FGMM**



FGMM is a metal locknut made of nickel-plated brass, with metric thread.

This locknut is used for all threaded connections and reductions with metric threads.

#### **Technical specifications:**

- material: nickel-plated brass
- temperature resistance range: -45°C to +400°C

Cat. no.	Туре	Thread m x 1.5	Ss mm	Packaging in pcs.
288.10.016	16	16	19	100
288.10.020	20	20	24	100
288.10.025	25	25	30	50
288.10.032	32	32	36	50
288.10.040	40	40	46	25
288.10.050	50	50	59	25
288.10.063	63	63	70	10

# **FDRM**



FDRM is a grey sealing ring for metric threads.

This sealing ring is used for all threaded connections and reductions with metric threads.

#### **Technical specifications:**

■ temperature resistance range: -45°C to +150°C

Cat. no.	Туре	Thread	Packaging
grey	Туре	m x 1.5	in pcs.
288.90.016	16	16	100
288.90.020	20	20	100
288.90.025	25	25	50
288.90.032	32	32	50
288.90.040	40	40	20
288.90.050	50	50	20
288.90.063	63	63	10

# Cable protection accessories



# **FGKP**

FGKP is a polyamide 6 locknut with Pg thread. It does not contain any halogens, is non-flame propagating and available in black.

This locknut is used for all threaded connections and reductions with Pg threads.

## **Technical specifications:**

- material: polyamide 6 (PA6)
- temperature resistance range: -40°C to +120°C, short-term temperature resistance up to +150°C
- zero halogen
- non-flame propagating

Cat. no. black	Туре	Thread Pg	Ss mm	Packaging in pcs.
288.25.007	7	7	19	100
288.25.009	9	9	22	100
288.25.011	11	11	24	100
288.25.013	13.5	13.5	27	100
288.25.016	16	16	30	50
288.25.021	21	21	36	50
288.25.029	29	29	46	25
288.25.036	36	36	60	25
288.25.048	48	48	70	25

# **FGMP**



FGMP is a metal locknut made of nickel-plated brass, with Pg thread.

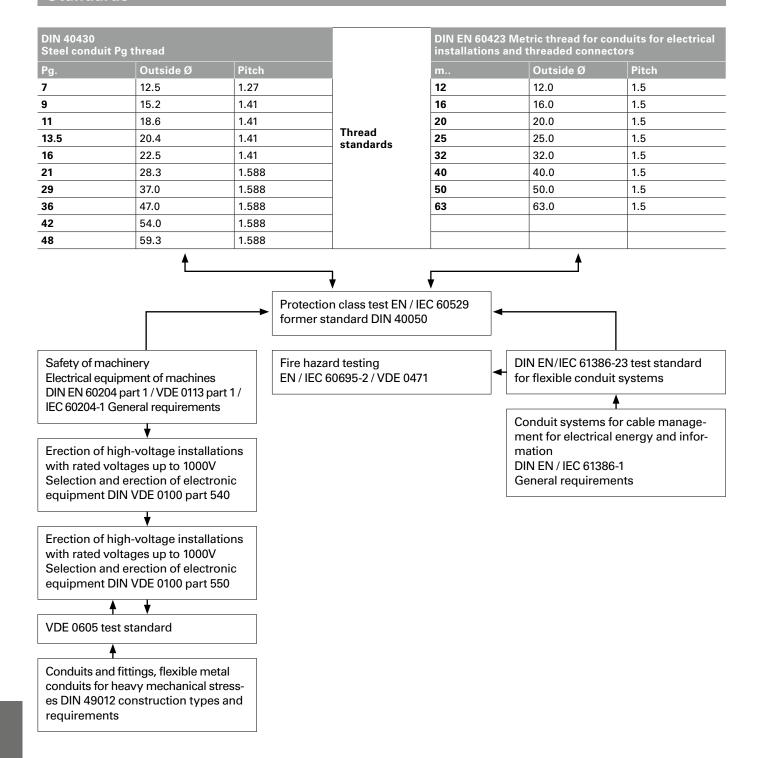
This locknut is used for all threaded connections and reductions with Pg thread.

## **Technical specifications:**

- material: nickel-plated brass
- temperature resistance range: -45°C to +400°C

Cat. no.	Туре	Thread Pg	Ss mm	Packaging in pcs.
288.15.007	7	7	15	100
288.15.009	9	9	19	100
288.15.011	11	11	22	100
288.15.013	13.5	13.5	24	100
288.15.016	16	16	27	50
288.15.021	21	21	32	50
288.15.029	29	29	42	50
288.15.036	36	36	52	25
288.15.048	48	48	66	10

## **Standards**



# **Definition: protection class**

DIN EN 60529 identifies protection classes by 4-digit codes. The two-letter abbreviation IP (International Protection) comes first and always stays the same. The levels of protection are complemented by two digits. The first digit indicates the level of protec-

tion against contact and foreign objects, the second digit indicates the level of protection against water.

For example:

IP54 (1st digit = 5 and 2nd digit = 4)

Protec	Protection levels against contact and foreign objects				Protection levels against water			
1 <sup>st</sup> digit	Designation	Level of protection contact	Level of protection foreign objects	2 <sup>nd</sup> digit	Designation	Level of protection water protection		
0	No protection	No particular protection of persons against direct contact with live or moving parts.	No protection of the equipment against ingress of solid foreign objects.	0	No protection	No particular protection.		
1	Protection against large foreign objects	Protection against accidental or inadvertent contact by large surfaces of the body with live and/or internal moving parts, e.g. back of hand, but no protection against deliberate access to these parts.	Protection against ingress of solid foreign objects with a diameter of > 50 mm.	1	Protection against vertically falling drops of water	Vertically falling drops of water shall have no harmful effect.		
2	Protection against me- dium-sized foreign objects	Protection against finger contact with live and/or internal moving parts.	Protection against ingress of solid foreign objects with a diameter of > 12 mm.	2	Protection against diagonally dripping water	Dripping water falling at an angle of 15° from the vertical shall have no harmful effect.		
3	Protection against small foreign objects	Protection against contact between live and/or internal moving parts and tools, wires or similar objects with a thickness of > 2.5 mm.	Protection against ingress of solid foreign objects with a diameter of > 2.5 mm.	3	Protection against spraying water	Water falling at an angle of 60° from the vertical shall have no harmful effect.		
4	Protection against gran- ular foreign objects	Protection against contact between live and/or internal moving parts and tools, wires or similar objects with a thickness of > 1 mm.	Protection against ingress of solid foreign objects with a diameter of > 1 mm.	4	Protection against spraying water	Water splashing against equipment from any direction shall have no harmful effect.		
5	Protection against dust deposits	Complete protection against contact with live and/or internal moving parts.	Protection against harmful dust deposits. Ingress of dust is not entirely prevented. The quantity of dust entering must not interfere with operation.	5	Protection against water jets	Water projected by a nozzle against the equipment from any direction shall have no harmful effect.		
6	Protection against dust ingress	Complete protection against contact with live and/or internal moving parts.	Protection against ingress of dust.	6	Protection against flood water	Water in harmful quantities must not enter the equipment in case of heavy seas or powerful jets of water.		
-	-	-	-	7	Protection during short immersion	Water must not enter in harmful quantities if equipment is immersed in water under the defined conditions of pressure and time.		
-	-	-	-	8	Protection during continuous submersion	Water must not enter in harmful quantities if equip- ment is submersed in water (1.2 m water depth, 1 hour)		

# **Chemical properties of plastics**

## Please note

The following information is provided to the best of our current knowledge and experience. We reserve the right to make technical changes or improvements to our products. The customer is responsible for conducting adequate

incoming inspections, tests and other inspections. The customer is also solely responsible for observing industrial property rights, laws and regulations.

Medium	Concentration in %	PVC-U	PE-HD	PP	PA6 / PA66	TPE
Hydrochloric acid emissions	any	+	+	+	0	+
Sulphuric acid emissions	any	+	+	+	-	+
Liquid ammonia	TR	+	+	+	+	0
Gaseous ammonia	TR	+	+	+	+	0
Gasoline	Н	+	+	0	+	0
Benzene	TR	-	0	0	+	-
Gaseous, dry chlorine	TR	0	0	-	-	•
Diesel fuel	Н	+	+	+	+	•
Aqueous fertiliser salt	saturated	+	+	+		
Photographic developer	Н	+	+	+	-	
Vinegar (wine vinegar)	Н	+	+	+	-	+
Anti-freeze	Н	+	+	+	0	
Fruit juices	Н	+	+	+	-	
Aqueous uric acid	33 %	+	+	+	+	
Fuel oil	Н	+	+	+	+	+
Sea water	Н	+	+	+	+	+
Methanol	TR	+	+	+	+	+
Milk	Н	+	+	+	+	+
Mineral oil	Н	+	+	+	+	+
Vegetable and animal oils	Н	+	+	+	+	+
Paraffin	TR	+	+	+	+	
Gaseous propane	TR	+	+	+	+	
Nitric acid	30 %	+	0	0	-	+
Hydrochloric acid	30 %	+	+	+	-	+
Sulfuric acid	40 %	+	+	+	-	0
Terpentine	TR	+	0	-	+	0
Detergent	VL	+	+	+	+	

Note: The information provided above applies to 20°C. The concentration (%) and the temperature must always be indicated additionally for special applications.

VL = aqueous solution, rate ≥ 10 %

GL= saturated solution, aqueous

TR= minimum requirement: technically pure

H = standard composition

+ = resistant

o = limitedly resistant

## **Designation of materials:**

**PA** = polyamide

TPE = thermoplastic polyester

**PP** = polypropylene

**PVC** = polyvinylchloride

**PE-LD** = low-density polyethylene

# **Chemical properties of metals**

## Please note

The following information is provided to the best of our current knowledge and experience. We reserve the right to make technical changes or improvements to our products. The customer is responsible for conducting adequate

incoming inspections, tests and other inspections. The customer is also solely responsible for observing industrial property rights, laws and regulations.

Medium	Concentration in %	Galvanised steel strip	Galvanised steel strip, metal braiding	Galvanised steel strip, PVC, metal braiding	Stainless steel V2A	Brass
Hydrochloric acid emissions	any			+	-	0
Sulphuric acid emissions	any			+	0	-
Liquid ammonia	TR	+	+	+	+	0
Gaseous ammonia	TR	+	+	+	+	-
Gasoline	Н			+	+	+
Benzene	TR	+	+	-	+	+
Beer	Н			-	+	+
Gaseous, dry chlorine	TR	+	+	0	-	-
Diesel fuel	Н	+	+	+	+	+
Aqueous fertiliser salt	saturated			+		
Photographic developer	Н			+	+	
Vinegar (wine vinegar)	Н			+	+	-
Anti-freeze	Н			+	+	+
Fruit juices	Н			+	+	-
Aqueous uric acid	33 %			+	0	0
Fuel oil	Н	+	+	+	+	+
Sea water	Н			+	0	0
Methanol	TR			+	+	+
Milk	Н	+	+	+	+	0
Mineral oil	Н			+	+	+
Vegetable and animal oils	Н			+	+	0
Paraffin	TR	+	+	+	+	+
Gaseous propane	TR			+	+	+
Nitric acid	30 %			+	-	-
Hydrochloric acid	30 %			+	0	-
Sulfuric acid	40 %	+	+	+	-	-
Terpentine	TR	+	+	+	+	0
Detergent	VL			+	+	0

Note: The information provided above applies to 20°C. The concentration (%) and the temperature must always be indicated additionally for special applications.

VL = aqueous solution, rate ≥ 10 % GL= saturated solution, aqueous

TR= minimum requirement: technically pure

+ = resistant o = limitedly resistant - = non-resistant

H = standard composition

## **Designation of materials:**

Galvanised steel strip Galvanised steel strip, metal braiding PVC, metal braiding Stainless steel V2A **Brass** 

# Classification code

Electrical installation conduits must comply with the requirements of DIN EN 61386 (VDE 0605). These standards determine the classifications, identification and VDE tests. The twelve-digit code classifies conduits and fittings according to compressive strength, impact strength and the minimum

and maximum operating temperatures and bending during transport, storage and use. Electrical properties, protection class, corrosion resistance and tensile strength as well as flame propagation resistance and suspended load capacity are also indicated.

	Meaning	0	1	2	3	4	5	6	7
First digit	Resistance to compression	-	125 N (very light)	320 N (light)	750 N (medium)	1250 N (heavy)	4000 N (very heavy)	-	-
Second digit	Resistance to impact stresses	-	0.5 kg /100 mm (very light)	1 kg /100 mm (light)	2 kg /100 mm (medium)	2 kg /300 mm (heavy)	6.8 kg /300 mm (very heavy)	-	-
Third digit	Minimum tempera- ture range	-	+5°C	-5°C	–15°C	−25°C	–45°C	-	-
Fourth digit	Maximum temper- ature range	-	+60°C	+90°C	+105°C	+120°C	+150 °C	+250°C	+400°C
Fifth digit	Resistance against bending	-	rigid	pliable	flexible, moves back on its own	flexible	-	-	-
Sixth digit	Electrical properties	not de- clared	with elec- trical con- ductivity properties	with electrical insulation properties	with electri- cal conduc- tivity and insulation properties	-	-	-	-
Seventh digit	Protection against ingress of solid foreign objects	protection IP -	protection IP -	protection IP -	protection IP 3X	protection IP 4X	protection IP 5X	protection IP 6X	protection IP -
Eighth digit	Protection against ingress of water	protection IP X0	protection IP X1	protection IP X2	protection IP X3	protection IP X4	protection IP X5	protection IP X6	protection IP X7
Ninth digit	Resistance against corrosion	-	low protection	medium protection	medium inside, high outside protection	high protection	-	-	-
Tenth digit	Tensile strength	not de- clared	100 N (very light)	250 N (light)	500 N (medium)	1000 N (heavy)	2500 N (very heavy)	-	-
Elev- enth digit	Resistance against flame propagation	-	non-flame propagat- ing	flame prop- agating	-	-	-	-	-
Twelfth digit	Suspended load capacity	not de- clared	20 N (very light)	30 N (light)	150 N (medium)	450 N (heavy)	850 N (very heavy)	-	-

# **Classification code**

Explanation of test methods for different temperature indications:

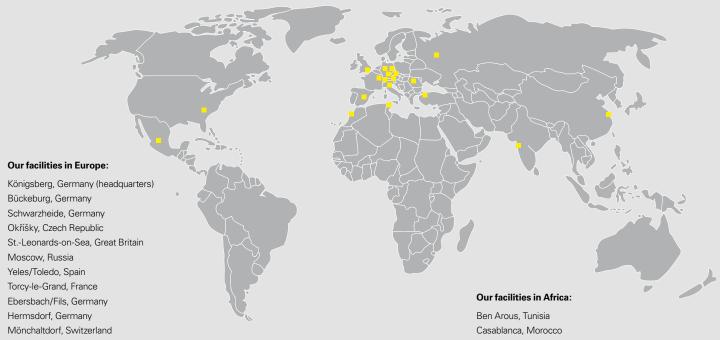
Temperature resistance test according to LV312-3 is conducted without load being applied. Temperature resistance test according to DIN EN 61386-23 is conducted with the test load described in the standard being applied.

All accessories have been tested for flame propagation according to DIN 61386-1 using the glow-wire test according to DIN IEC 60695-2-11.

The classification code refers to the tests according to DIN EN 61386-23. The following is based on type 17 and type 20:

Conduit type	First digit	Second digit	Third digit	Fourth digit	Fifth digit	Page
FFMYD-UL C coarse	1	2	5	4	4	12
FFMYD-PA6	1	2	5	4	4	13
FFMYD-L	0	2	4	4	4	14
FFMYD PA12-BS	1	2	5	3	4	15
FFHY	0	3	5	3	4	16
FFTYL-BS	0	4	5	1	4	17
FFPYL-MOD-BS	0	3	3	1	4	18
FFPYL-MOD-BS-UV	0	3	3	1	4	19
Co-flex PP-UV	1	3	4	3	4	38
Co-flex PP black	1	3	4	3	4	39
Co-flex PP white	1	3	4	3	4	40
Co-flex PA6	1	2	4	5	4	41
FFMSS	4	3	5	7	4	47
FFMSS-K-FD	4	3	4	1	4	48
FFMSS-K	4	3	4	1	4	49
FFMSS-G	4	3	5	7	4	50
FFMSS-VA	4	3	5	7	4	51
FFKSS-SW	4	2	4	1	4	56
FFKSS-KW	1	3	4	1	4	57

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FRÄNKISCHE - Your partner for sophisticated and technologically advanced solutions.