Closures for optical fibres

used all over the world

TYKO
FLEX

The Tykoflex factory in Tyresö, outside Stockholm, Sweden.

The choice of a high quality closure is essential to safeguard a good environment for optical fibres, especially when installed in harsh and demanding environments.

Once installed onto a pole, buried in the ground or mounted in a manhole or a handhole, the joint closure must do the job, decade after decade. Tykoflex is the manufacturer of T240 closures. The company's closures have been used since 1977 for copper and since 1985 for fibre. More than 300,000 units have been installed all over the world.

Tykoflex AB is a family-owned Swedish company, founded in 1958 and based in Tyresö, south of Stockholm. The T240 outside plant closures are used by telecom and broadband operators, railway companies, mining and offshore industries, power companies and OEM equipment suppliers in many countries.

They are supplied as standard product items or adapted to customer configurations, and meet the highest requirements for harsh outdoor conditions, flexibility, technical performance and practical handling.

This T240 System overview is designed to simplify your choice of closure and accessories. For all questions and quotations, please contact us or your Tykoflex T240 distributor.

We are there for you!

Tykoflex AB

The technical data, information and specifications are valid at the time of printing. The manufacturer reserves the right to modifications without prior notice.
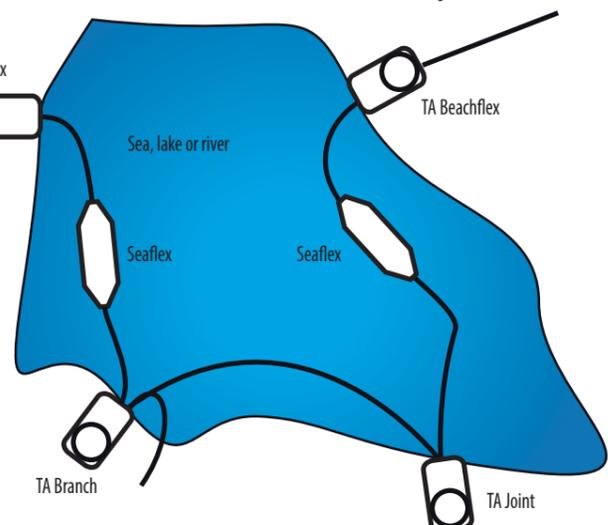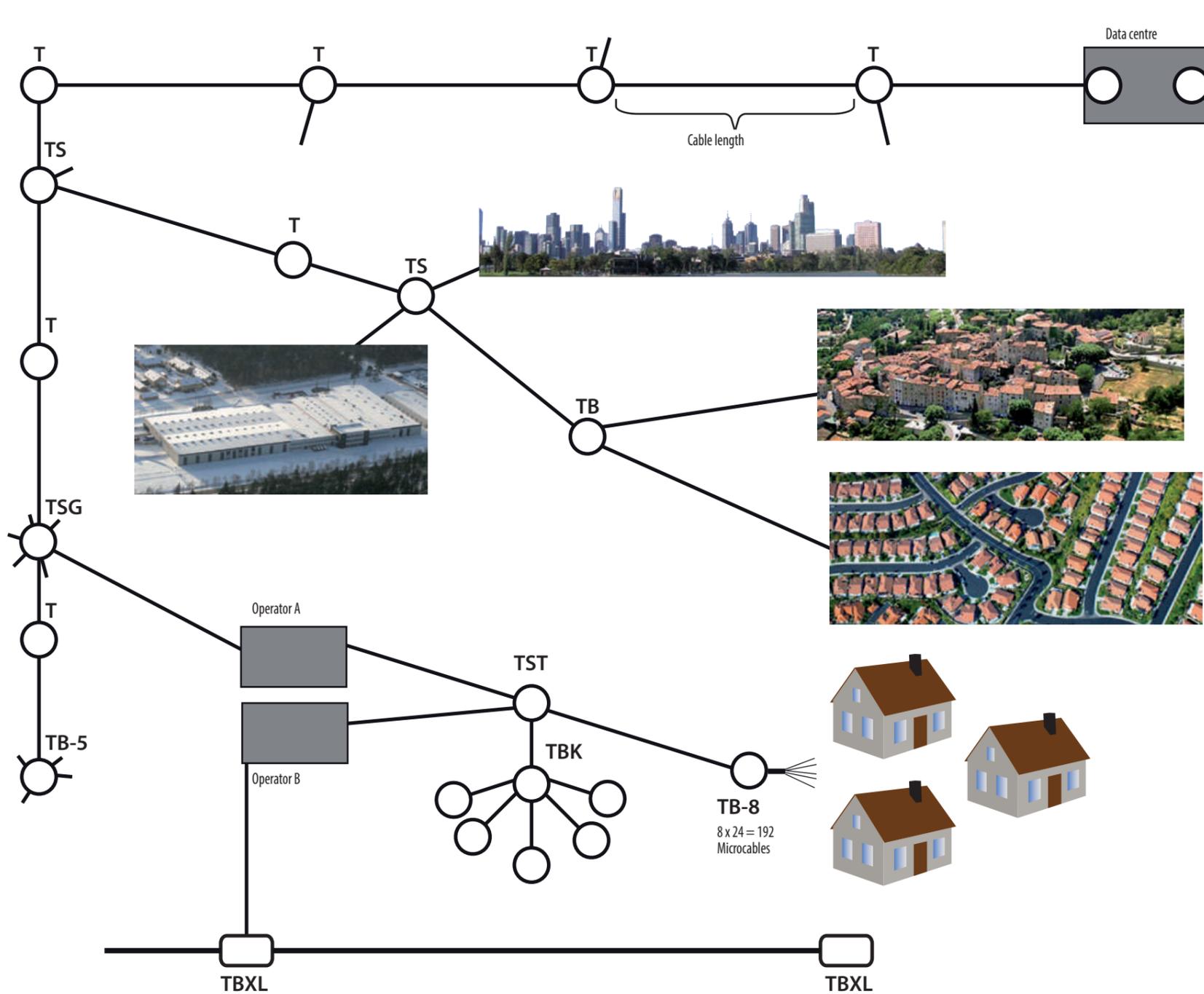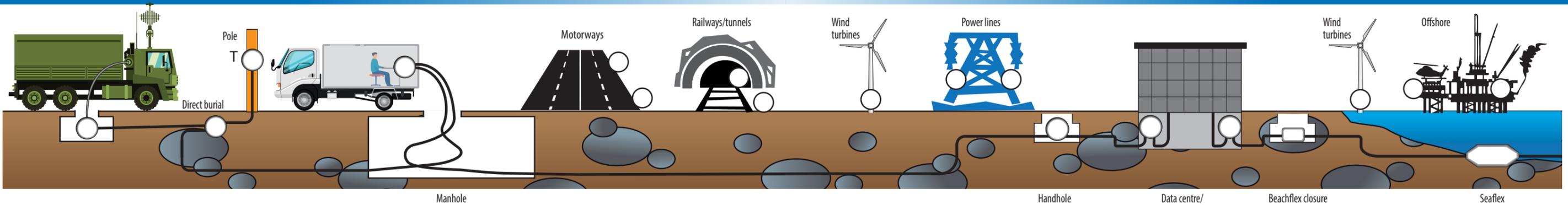
Do you want to know more about our Defence & Security Joint Closure? Contact the sales team at Tykoflex!

NEW 2024

Content

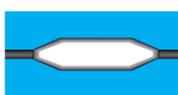# Application Map for T240 outside plant closures

Direct burial · Pole T · Motorways · Railways/tunnels · Wind turbines · Power lines · Wind turbines · Offshore

Manhole · Handhole · Data centre/Telecom exchange · Beachflex closure · Seaflex

Seaflex
Seaflex, for submarine closures, for depths down to 3000 meters.

TA Beachflex (pan)
Connection point between submarine cable and ground cable on shore.

Power Line Closures (pan)
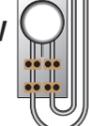
T-OPGW — Line joint for OPGW cable. With branching possibilities. Special clamps for rigid cable.

T-ADSS — Line joint for ADSS cable. With branching possibilities. Special clamps for semi rigid cable.

TBXL Backbone - High fibre count cables

TBXL/-S/-R — Line joint or distribution point for high fibre count cables.
Single fibre up to 576 fibres and ribbon up to 1728 fibres Dome closure ("butt") entry.

Distribution Closure - Access Networks

TB — Distribution point. Dome closure ("butt") entry.

Distribution Closure - Heavy duty cables

TBK — Distribution point. Dome closure ("butt") entry.

Backbone Closures (pan)

T — Line joint between cable lengths. One branching as option.

TS/TMC — Mid-span opening. Two branchings included.

TSG — Mid-span opening. Six branchings included.

TST — Crossconnect as dual operator interface. Two branchings as options.

Data centre · TA Beachflex · TA Beachflex · Sea, lake or river · Seaflex · Seaflex · TA Branch · TA Joint

Cable length

TS · TS · TB · TSG · TSG · TST · TBK · TB-8 · 8 x 24 = 192 Microcables · Operator A · Operator B · TB-5 · TBXL · TBXL

TYKO FLEX

Introduction

The T240 Joint Closure is part of a modular system of lockable closures made of acid proof stainless steel. The main benefits of the system are superior flexibility, easy handling, and tightness against overpressure as well as vacuum. The closures are designed for use in demanding environments. Together with desiccator the closure remains free of humidity even under extreme conditions.

General description

The closure is suitable for use above ground attached to high voltage towers, poles, walls or other support structures. The Tykoflex closure can be tailored to almost any required configuration. It is designed to provide water and pressure-tight environmental protection for optical fibres and optical fibre splices for all cable designs. The closure is therefore suitable for ground installations in manholes, tunnel systems and sewage lines.

Material

All external parts of the T240 Joint Closure are made of 1.4404 (316L) Acid-Proof stainless steel. Fulfils International standard IEC 61753-111-7, IEC 61753-111-8 and IEC 61753-111-9. T240 fulfills the IP 68 (2 bar) standard (-40° and +70° Celsius) and IP69/IP69K.

Useful information about IP
(International Protection)

IP ratings, IP is an enclosure rating which tells you how good an encapsulation is and how well it resists and protects against dust and water ingress. IP (International Protection), followed by two digits describing the equipment protection. The first digit of the IP code indicates the degree to which a person is protected against contact with moving parts (other than smooth rotating shafts, etc.) and the degree to which the equipment is protected against solid foreign bodies intruding into an enclosure. The second digit indicates the degree of protection of the equipment inside the enclosure against the harmful entry of various forms of moisture (e.g. dripping, spraying, submersion, etc.)

IP ratings first digit

0	1	2	3	4	5	6
Non protected	50 N sphere Ø 50 mm	10/30 N "Test finger" / sphere 12,5 mm	3 N probe Ø 2,5 mm	1 N steel wire Ø 1 mm	Dust protected	Dust tight. Same test as 5.
	Sphere Ø 50 mm		Ø 2,5 mm	Ø 1 mm		

Max under pressure: 20 mbar. Max airflow: 60 x volume/hour.

IP ratings second digit

0	1	2	3	4	5	6	7	8	9/K
Non protected	Protected against dripping water.	Protected against dripping water when tilted up to 15°.	Protected against spraying water.	Protected against splashing water.	Protected against low pressure jets of water.	Protected against strong jets of water.	Waterproof	Protected against continuous submersion at 2 bar / 24 h.	High pressure proof

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This is an example of how to use this brochure. Depending on the cable type, you will be guided through the options that are available. In this example we have selected the Joint Closure T (page 30-31).

Optional accessories and tools

List of accessories that are recommended or necessary to handle the closure system. For example, the Tool kit T240 has a tool necessary for mounting of bushings. Additional wrench TKT is necessary for TKT bushings. There is also the cassette holder that keeps the cassette in place during installation. Applicable with more than two cassettes.

Article		Article	
11 202 202	Multicassette fibre organizer, 2-p	11 216 115	Pressure test kit T240
11 216 020	Tool kit T240	11 218 056	Locking cap for padlock
11 216 100	Cassette holder horizontal	11 216 073	TKT spanner for opening and closing of TKT nipples.10 mm. Including TKT adapter.
11 216 105	Cassette holder vertical	11 216 110	Mid-span cable entry tool with radius protection.
11 218 xxx	For splice protectors see page		

Choice of cable bushing

Part No.	Type of cable bushing	Part No.	Type of cable bushing
11 208 010	End plug PG21 SS	11 212 840	Cable bushing TKT 7x7 mm metal
11 212 018	Cable bushing 6x6 mm	11 212 842	Cable bushing TKT 7x7 mm plastic
11 212 040	Cable bushing 4x10 mm	11 212 845	Cable bushing TKT 3x7 mm metal
11 212 050	Cable bushing 1x10 mm	11 212 846	Cable bushing TKT 3x7 mm plastic
11 212 070	Cable bushing 3x12 mm	11 212 847	Stuffing box nipple TKT M12x1
11 212 100	Cable bushing 2x18mm	11 212 870	Cable bushing TKN-K 1,8-4,0
11 212 132	Cable bushing 1x24mm	11 212 871	Cable bushing TKN-K 4,0-7,0
11 212 145	Cable bushing 1x30 mm	11 212 872	Cable bushing TKN-K 4x7,0-9,0
11 212 350	Cable bushing divisible 2x18 mm		

Choice of cable bushing

Make a selection of bushings or end plugs to fit in the open holes of the closure. There are also closures like TSG that have fixed cable inlets, and only need heatshrink for cable installation.

Choice of bracket

There are four M6 bolts on the bottom of the closure for mounting of the selected bracket. Nylock nut and washer are included in basic configuration.

Choice of bracket

Part No.	Type of bracket
11 214 005	Wall bracket
11 214 030	Pole bracket for horizontal box
11 214 050	Cable hanger 740, one mount plate

Ordering example

A typical example of an installation case. How to use the table to find the right parts.

Closure selection

To make the right choice of closure the number of fibres and the number of splices (in case of branching) should determine the type. i.e. 12 fibre cable in and 12 fibre cable out with one branch cable 12F can require 18 splices.

18 splices

Part No.

11 160 231	T240/50 T 24/24F

Closure | Lid height | Closure type | Total number of fibres | No. of fibres/Multicassette
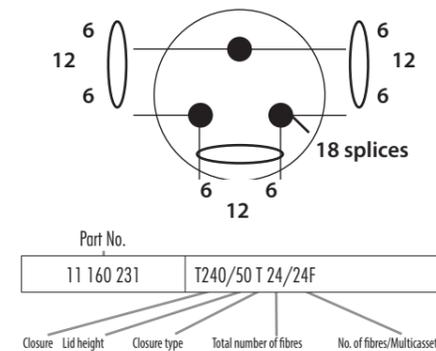
Basic configuration

This list provides an overview of all the parts that are always included when ordering the closure.

11 160 2xx	Bottom part 240 3 hole	Interior fittings
	Lid 240/50/70/150	Nut Nylock M6 Din 985 A-4
	Support sleeve 240	Washer 6.4x18x1.6
	O-ring 239.1x8 EPDM	Silica gel 10 g
	V-clamp 240	Wellbox 240/50/70/150

T240

is a rugged and flexible joint closure system with all external parts manufactured of 1.4404 (316L) stainless steel. The closure consists of a base and a lid sealed with an O-ring and V-clamp, using only one bolt without the need for a torque wrench.

The closure is designed for use in harsh environments and together with desiccators the closure remains free of humidity, even under extreme conditions.

The closure can be mounted on any pole or tower using a pole bracket and mounting plate and cable strain relief clamps.

Fibre organizers and cable bushings with heat shrink tubing are included.

Example of lid

Support sleeve

O-ring

V-clamp

Locking cap for padlock

Example with 3 Multicassettes

Features
- **1.4404 (316L) stainless steel closure**
- **Modular design with few parts**
- **Splicing in Multicassette fibre organizers**
- **V-clamp and EPDM rubber O-ring sealing**

Benefits
- **Rugged shotgun-proof design**
- **Quick and easy installation**
- **High fibre count capacity**
- **Suitable for use in harsh environments**
- **Lockable with optional locking cap and padlock**

Example of interior with strain relief clamp

Example of bottom part - Model T

Example of cable ports and blind plugs
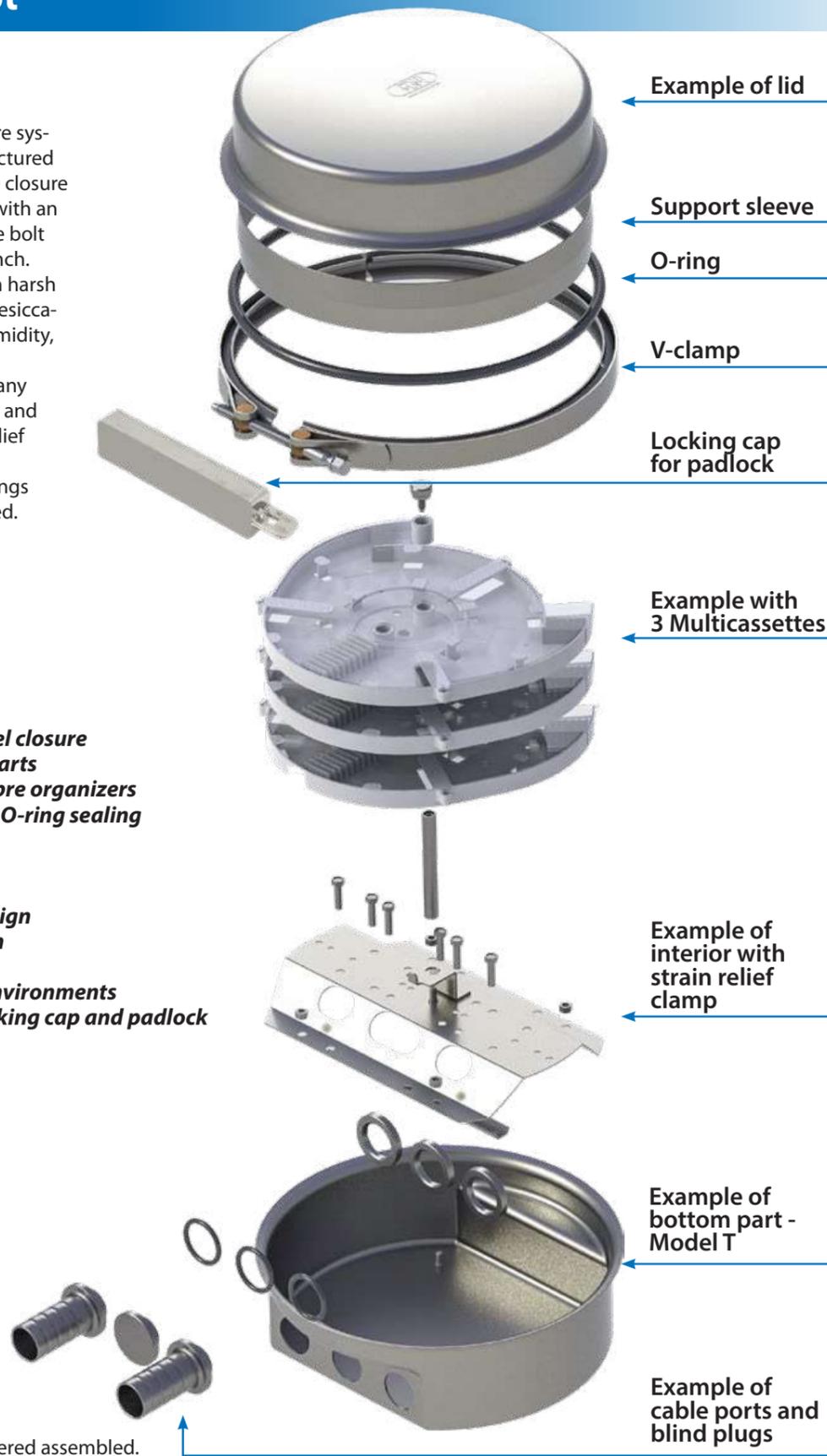
Typically all internal parts are delivered assembled.

Examples of mounting instructions used in T240 manuals

B, Place first loop in cassette

C, Place second loop in cassette

360°
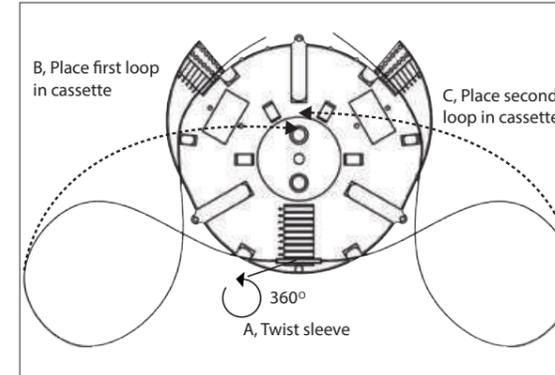
A, Twist sleeve

"The Ribbon Twist" - as simple as it looks.

Opening...

... and closing of strain relief clamp

Multicassette in work position

Multicassette in position

Mounting of support sleeve

Mounting of O-ring

Closing of closure

Tykoflex Multicassette fibre organizer

Multicassette for multipurpose application: Single fibre, 4-ribbon, 8-ribbon and 12-ribbon as well as splitters. One cassette type for all applications.

A On its way from cable port to cassette, the single fibres are always guided in tubes, either from the cable or in the tubes provided by Tykoflex. When adapting to centre tube cables it is recommended to use the branching kit 11 218 340 (page 68).

B Tubes are secured with cable ties on the cassette inlet.

C Tubes or ribbon fibre are held in place in the fibre inlet guide. Ribbon fibres are guided from the cable port without any additional protection tube to the cassette inlet and held in position.

D Fibres are safely routed in 45-90 mm radius loops, loosely and without pressure. Generous space inside the cassette enables the fibre to be turned and change direction. There is no need to adjust for precise length of fibre before splicing.

Multicassette 11202200

Fibre inlet guide

Fibre inlet guide

Holes for strapping buffer tubes

Position for additional signing of fibres, or alternatively for splitters or mechanical splices.

Holding tongue bendable 45°

Splice sleeve holder

Fibre count capacity

Each Multicassette has 9 sleeve holders; each can hold a maximum of four single fibres standard sleeve and eight single fibres thin sleeve, two 4-ribbon, two 8-ribbon fibre sleeves or one 12-ribbon fibre sleeve. This chart shows the maximum number of fibres that can be installed.

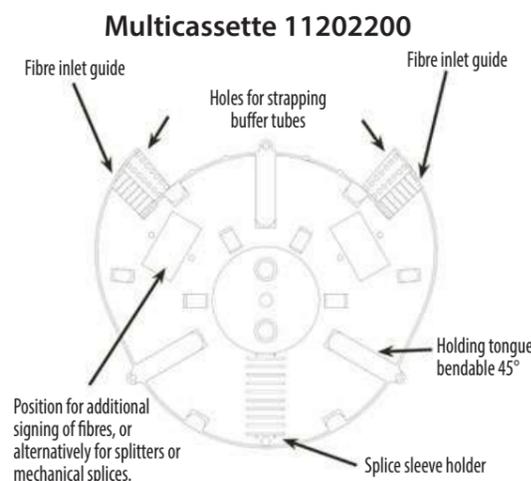| Configuration	Number of Multicassettes	Number of physical fibres to handle inside closure.							
		1	2	4	6	8	10	12	14	16
Single fibre 12		12	24	48	72	96	120	144	168	192
Single fibre 24		24	48	96	144	192	240	288	336	388
Single fibre 36		36	72	144	216	288	360	432		
Single fibre 48		48	96	192	288	384	480			
Single fibre 72, splice protector SLIM		72	144	288	432	576	720			
Ribbon, 4 fibres, 18-band		72	144	288	432					
Ribbon, 8 fibres, 12-band		96	192	384	576					
Ribbon, 12 fibres, 9-band		108	216	432	648					

Fibre Guide

The fibres are placed into the fibre sleeve holder and are held by rubber elements in the slot.

1. Round rubber piece
2. Square rubber piece
3. Splice protection sleeve 2.4 mm
4. Splice protector slim 2.0 mm
5. Ribbon 4-8 fibre
6. Ribbon 12 fibre

Example shows different configurations of fibre sleeve storage in the sleeve holder.
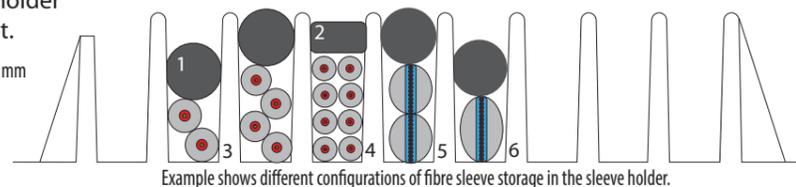
Multicassette

The Multicassette is comprised of a bottom part with two inlet fibre areas with one six slot rubber profile in each. The fibres/ fibre tubes are guided in position through the rubber profile into the storage area.

The cassette can organize and store all types of fibre e.g. single, ribbon etc. There are nine positions for storage of fibre sleeves. Each holder slot can store 4 to 8 single fibres sleeves, two 4- or 8-ribbon sleeves or one 12-ribbon sleeve.

There are also two dedicated areas in the cassette for additional sleeve holders or splitters. The large cassette with the open design enables easy, safe and timesaving installation. It is possible to change direction and turn fibres inside the cassette, within the allowed bending radius for the fibre. Since fibres are routed in numbered slots it is fast to locate the correct fibre for future fault-finding or splicing.
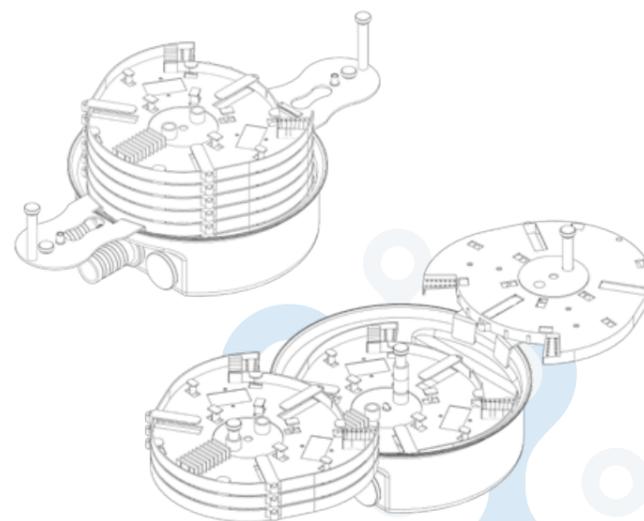
The Multicassette is covered with a transparent snap-on lid. The transparent lid provides good visibility of the installed fibres without having to open the cassette. The cassette's innovative design makes a re-splice of fibre an easy task. There can even be different lengths of fibre at each side of the splice sleeve.

The Multicassette handles Single Element, Single Ribbon, Multiple Element and Multiple Ribbon configurations.

Multicassette flexibility

Tykoflex Multicassette offers great flexibility. Additional cassettes can be added up to a maximum of 16. The closure lid must then be replaced to handle the extra height of the added cassettes.

The Multicassette holder

The Multicassette holder ensures that the installation and adding of more cassettes into the joint closure is smooth and safe.

The Multicassette holder 11216100 is an auxiliary tool for splicing of optical fibres. The Multicassette holder can be placed in several positions on the edge of the bottom part.

Up to four holders can be placed at the same time, for optimum flexibility and handling performance.

Tool kit T240

V-clamp

Blind plug

Multicassette holder

A

B
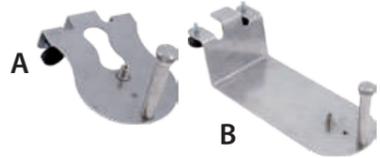
A: Horizontal holder
B: Vertical holder

Multicassette

Work position holder
For TB and TBK closures

Loose tube storage
Placed underneath the Multicassette.

Cable bushing

With cable diameter compensator

Cold vulc. sealing

TKT3x7

TKT7x7

Tool for cold sealing

Adapter

TKT wrench

Cold comp. method

TKN-O
2x 5,5-7,2

TKN-L
4x 7-9
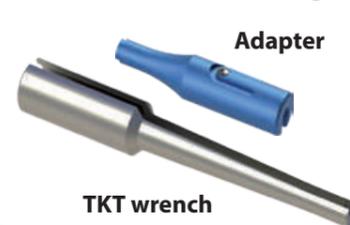
Branching clip
For mid-span/window cut cable access.

Radius protection tool
For mid-span/window cut.

Branching kit
Centre tube divider

OPGW

OPGW is an optical ground wire (OPGW) is a type of cable that is used in the construction of electric power transmission and distribution lines. The cable combines the functions of grounding and fibre communication.

An OPGW cable has a tubular structure with one or more optical fibres inside, surrounded by layers of steel and aluminium wire. The conductive part connected to earth in towers, shields the high-voltage conductors from lightning. The optical fibre itself is dielectric and not affected by power in transmission lines, lightning induction, external noise or crosstalk.

Typically, OPGW cables contain single-mode fibre with low transmission loss, allowing long distance transmission at high speed. For OPGW see page 14-23.

ADSS

ADSS is a self supporting fibre cable used for aerial installations, on pole structures. The optical fibre itself is dielectric and not affected by power in transmission lines, lightning induction, external noise or crosstalk.

Typically ADSS cables contain single-mode fibres with low transmission loss, allowing long distance transmission at high speed. Please see page 40-41 for ADSS single fibre.
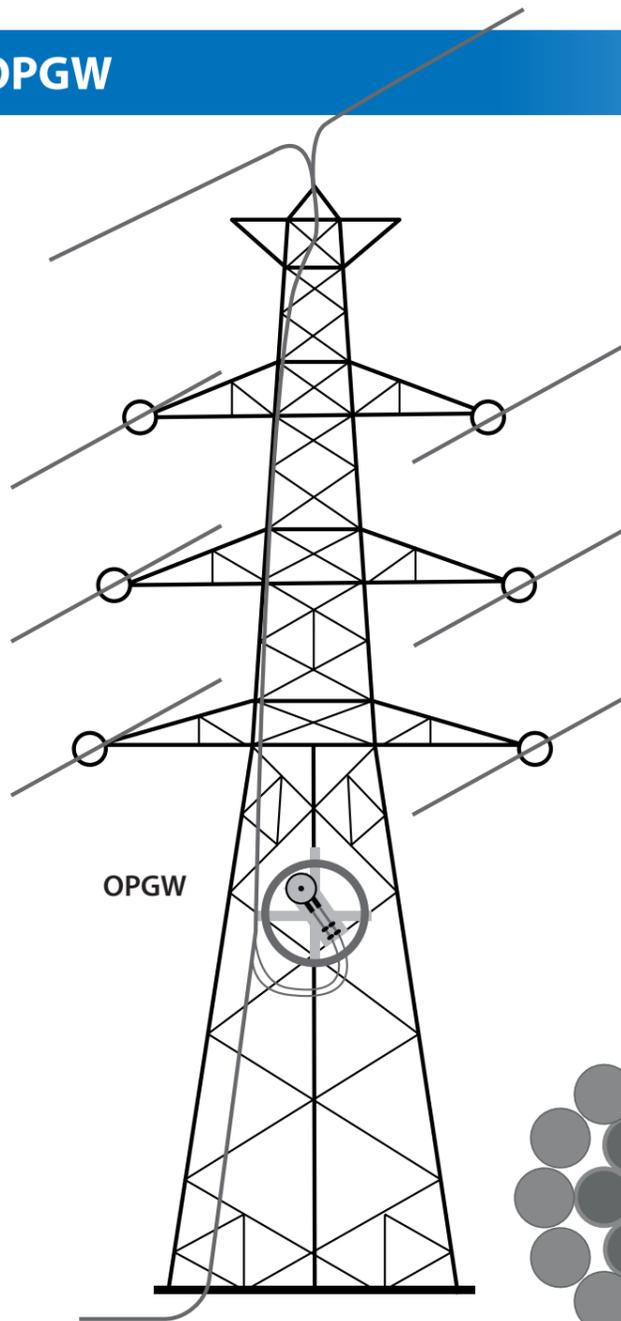
TYKO FLEX

OPGW

On the following pages the comprehensive system from Tykoflex for OPGW fibre installation is described. There are brackets for storing overlength of cable and attachment for steel towers, steel poles and wood poles. It is of the outmost importance that for example cable clamps are the right size for the cable diameter to avoid compression that can cause transmission failures.

Cable specifications

Please note that it is of utmost importance to have a detailed cable specification to select the necessary parts for a successful installation. Please see page 15 for further information.

Installation instructions for OPGW

There is a generic installation instruction for OPGW cables available on our website. And we also supply a written instruction with the closure. We can also supply customer tailored instruction for a specific OPGW cable, in which case we need a sample of the cable.

OPGW

Optical fibre
Hydrogen absorbent gel
Stainless steel tube
Aluminium-clad steel wire
Gel (depending on cable type)
AA/AC

Cable clamps

The OD (overall diameter) of the cable, determines the size of the cable clamps to be selected. The cable can be from 0-0.5 mm bigger than the dimension of the cable clamp. It is preferred to select the aluminium clamps, but if a size is missing or if the ground cable should be fixed, then the PA (Polyamide) type could be used.

The ground cable can either be fixed by itself or routed in a protection PA hose with a diameter of 25 mm. For this purpose the 1x25 to 4x25 clamps should be used. If a suitable match is not available please contact Tykoflex and we will supply you with the correct sized clamps.

For Joint Closure OPGW 4H there is an extended clamp, for cables mounted in the upper holes of the closure.
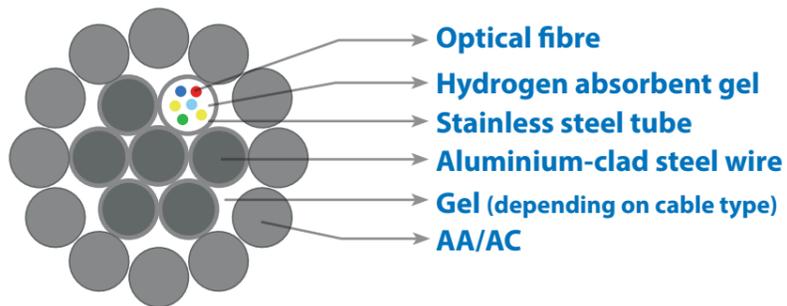
OD

OPGW Design
Ref: SFPOC/SFSJ-J-8069
Cable 48 FMF OPGW

Key Design Data – Complete Cable:

Nominal Cross Sectional area	mm²	125
Center- Aluminum Clad Steel Wires(20%) –No./Dia.	mm	1/3.3
L1- Aluminum Clad Steel Wires(20%) –No./Dia.	mm	4/3.3
L1- Aluminum Alloy Wires –No./Dia.	mm	1/3.3
L1- Stainless Steel Tube –No./Inner Dia./Outer Dia.	mm	1/2.9/ 3.3
L2- Aluminum Alloy Wires –No./Dia.	mm	15/2.5
Lay Direction-Outer Layer		RIGHT HAND

General Design Data (For Information Only)

Nominal Overall Diameter	mm	14.9
Ultimate Conductor Tensile Strength	kN	77.7
Approximate Total Mass	Kg/km	536
Electrical Resistance at 20° C	Ω/km	0.332
Modulus of Elasticity	N/mm²	96,501
Coefficient of Linear Expansion	x10⁻⁴/°C	17.2
Short Circuit Current Capacity (Ambient = 30 °C)	kA2 s	119.6
		10.9kA in 1s

OPGW jointing system

This is an example of how to use this brochure for ordering a OPGW closure. Depending on the type of cable, you will be guided through the options that are available.

In this example of an OPGW cable with stainless steel Tube ID 2.9 mm and OD 3.3 mm. The overall diameter is 14.9 mm. The OPGW design is 48 F. Cable in and out with possibility to branch.

Choice of cable clamp

Part No.	Cable clamp plastic, for cable diameter	Part No.	Cable clamp aluminium, for cable diameter
11 218 210	Cable clamp 1x25 mm PA	11 218 269	Cable clamp AL 25.0 mm
11 218 212	Cable clamp 2x25 mm PA		
11 218 214	Cable clamp 3x25 mm PA		
11 218 216	Cable clamp 4x25 mm PA		
11 218 218	Cable clamp Ø 6.0 mm PA	11 218 253	Cable clamp AL 6.0 mm

Choice of FIMT

Part No.	SS tube ID	Nr. of fibres	Type of FIMT
11 218 700	1.93-2.33		FIMT Kit S-tube 1.93-2.33 mm
11 218 702	2.4-2.8		FIMT Kit S-tube 2.4-2.8 mm
11 218 704	2.7-3.4		FIMT Kit S-tube 2.4-3.4 mm
11 218 706	3.2-3.9		FIMT Kit S-tube 3.2-3.9 mm
11 218 708	4.1-5.2		FIMT Kit S-tube 4.1-5.2 mm

Choice of bracket

Part No.	Type of bracket
11 214 106	Pole bracket 800 OPGW wood pole
11 214 110	Pole bracket 800 for OPGW steel tower
11 214 114	Mounting plate power line Fzb
11 214 116	Mounting plate power line, Fzb
11 214 120	Mounting plate stainless teel

Choice of cable bushing

Part No.	Type of cable bushing
11 212 134	Cable bushing 1x24 OPGW
11 212 135	Cable bushing 1x24 OPGW AFL
11 208 010	End plug PG21 SS
11 212 132	Cable bushing 1x24mm
11 212 100	Cable bushing 2x18mm

Ordering example of T240 OPGW 3H Joint Closure

OPGW, 48 fibre, cable OD 14,9 mm, SS tube 3.6/3.2 mounted on a steel lattice tower

Quantity	Choice of Closure * Delivery content	Quantity	Choice of bracket	Quantity	Choice of cable clamp	Quantity	Choice of FIMT	Quantity	Choice of cable bushing
1	11 160 632	1	11 214 110	2	11 218 259	2	11 218 704	2	11 212 134
								1	11 208 010

Down lead cushion

Down lead cushion for routing cable/cables downwards on steel/ concrete/ hardwood poles where SS band is used for mounting.

Cable dimension	Part No.	Type	Part No.	Type
8.00-10.00	11 218 295	For two cables	11 218 298	For one cable with spacer
10.01-12.50	11 218 282	For two cables	11 218 283	For one cable with spacer
12.51-15.50	11 218 296	For two cables	11 218 299	For one cable with spacer
15.51-19.50	11 218 297	For two cables	11 218 301	For one cable with spacer

Down lead clamp

Down lead clamp for mounting of cable/cables downwards on lattice towers. It can also be used to fix pole bracket 800 (11 214 106 or 110), or for mounting plate.

Part No.	Type of down lead clamp	Part No.	Type of down lead clamp
11 218 191	Cable diameter 8.00-10.00	11 218 279	Cable diameter 12.51-15.50
11 218 192	Cable diameter 10.01-12.50	11 218 193	Cable diameter 15.51-19.50

Brackets and mounting

	Part No.	Description		Pack
	11 214 106	Pole bracket 800 OPGW for wooden pole. Including mounting plate (11 214 114). Bulldog bracket for reliable grip on pole.		1
	11 214 107	Pole bracket 800AU OPGW. Wood/concrete/steele pole. Incl mounting plate		1
	11 214 110	Pole bracket 800 OPGW for lattice tower. Incl mounting plate.		1
11 214 106+110	11 214 114	Mounting plate, power line Fzb.	11 214 106 11 214 110	1
	11 214 116	Mounting plate Fzb for OPGW 4H		1
	11 214 120	Mounting plate, power line in stainless steel. (same as 11 214 114)		1
11 214 114+120 11 214 116	11 216 131	Tube cutter 3-16 mm for steel tubes.		1
11 216 131	11 216 133	Spare blades for tube cutter.		Pack of 10

Cable bushings

	Part No.	Description	Pack
	11 212 132	A kit of cable bushing 1x24 FOC contains: Heat shrink 34/8-200 mm and bushing 1x24.	1
	11 212 137	A kit of cable bushing 1x24 OPGW contains: Heat shrink 16/5-160, 34/8-200, 50/16-200 mm, Mastic 12FB and bushing 1x24.	1

The advantage with a screwable cable bushing is the possibility to prepare and mount the cable into the bushing before entering the closure. It makes the whole process of preparation and mounting of bushings much easier. When finished, the bushing fits perfectly into the holes of the closure. A maximum cable diameter of 24 mm and a minimum of 8 mm is applicable for all cables.

FIMT kit, fibre in metal tube (instruction sample)

60 mm

Fibre protection sleeve
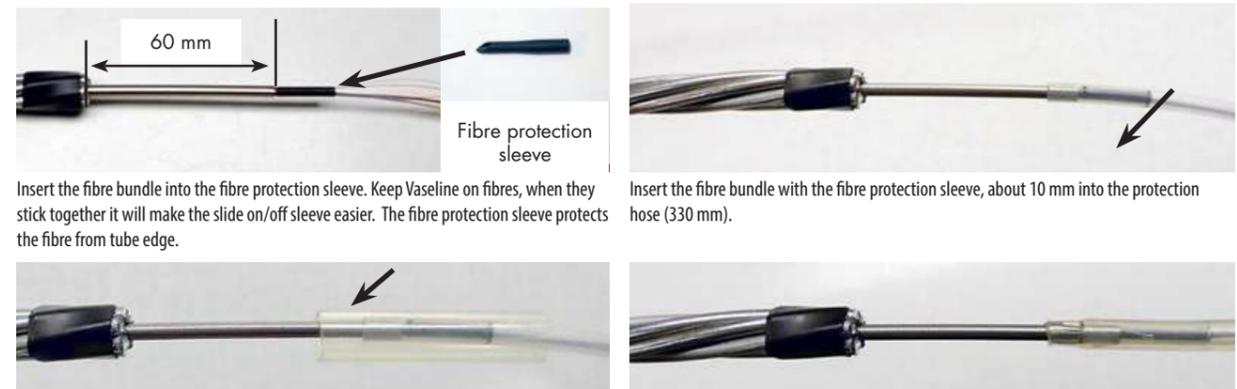
Insert the fibre bundle into the fibre protection sleeve. Keep Vaseline on fibres, when they stick together it will make the slide on/off sleeve easier. The fibre protection sleeve protects the fibre from tube edge.

Insert the fibre bundle with the fibre protection sleeve, about 10 mm into the protection hose (330 mm).

Slide the transparant heat skrink sleeve onto the fibre bundle, protection hose and protection sleeve, with an additional 10 mm over the protection sleeve.

Crimp heat shrink carefully, avoid heating on protective hose as it is heat sensitive.

When cutting the steel tube, make sure it is straight. Use the tube cutter 11 216 131. Never cut the whole way through. Bend and snap off the tube. Normal thickness of tube is 0.2 mm and use the table below to determine the right sleeve size.

FIMT kits

Part No.	Type of FIMT	Fibre protection sleeve	Crimp	Hose	SS tube thickness 0.2 mm
11 218 700	FIMT Kit S-tub 1.93-2.33	FPS 1.92-2.33	Crimp 6.0-2.0	PEL 2.5x3.8	OD 2.23-2.63 mm
11 218 702	FIMT Kit S-tub 2.4-2.8 mm	FPS 2.4-2.8	Crimp 9/3	PEL 3.0x4.0	OD 2.8-3.2 mm
11 218 704	FIMT Kit S-tub 2.7-3.4 mm	FPS 2.7-3.4	Crimp 9/3	PEL 3.5x5.0	OD 3.1-3.8 mm
11 218 705	FIMT Kit S-tube 3,0-3,3 m	FPS 3,0-3,3	Crimp 9/3	PEL 3,5-5,0	OD 3,4-3,7 mm
11 218 706	FIMT Kit S-tub 3.2-3.9 mm	FPS 3.2-3.9	Crimp 9/3	PEL 4.0-x5.6	OD 3.6-4.3 mm
11 218 708	FIMT Kit S-tub 4.1-5.2 mm	FPS 4.1-5.2	Crimp 9/3	PA 6.0x8.0	OD 4.4-5.6 mm

Spa entrance kit

11 218 358

11 218 340

TYKO FLEX

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The Joint Closure OPGW 3H (Optical Ground Wire) model has three open holes for customer adaptation. The closure is suitable for use above ground, attached to high voltage towers, poles, walls or other support structures. The closure comes with three holes for optional end plugs and or cable bushings which are selected separately. The closure is equipped with cable strength member clamps, splice protectors and cassettes. The number of fibres will determine the number of cassettes. Please choose a suitable joint closure for your fibre cables as specified in the table below. Depending on the cable type that will be used, the closure will need to be equipped with a choice of accessories, i.e. bracket, clamp and FIMT.

The tables on the opposite page will help you to determine the necessary accessories for the OPGW 3H. The OPGW 3H is always equipped with the articles specified in the table on the opposite page (basic configuration).

If your cable specification is not covered by the tables, please contact Tykoflex.

OPGW 3 holes for 24 or 36 fibres per Multicassette

OPGW 3 holes 24 fibre per Multi-cassette Part No.	Type	No. of fibres	Exterior diameter/ total height/ lid height/ mm	Weight kg	Included			Necessary accessories			
					No. of cassettes	No. of splice protectors	Basic configuration*	Choice of cable clamp, depending on cable Ø	Choice of bracket	Choice of FIMT, according to cable	Choice of cable bushing or end plug
11 160 631	T240/50 OP vGW 3H 24/24F	24	270/140/50		1	25	●	x	x	x	x
11 160 632	T240/50 OPGW 3H 48/24F	48	270/140/50		2	50	●	x	x	x	x
11 160 634	T240/50 OPGW 3H 96/24F	96	270/140/50		4	100	●	x	x	x	x
11 160 637	T240/70 OPGW 3H 144/24F	144	270/160/70		6	150	●	x	x	x	x

OPGW 3 holes 36 fibre per Multi-cassette Part No.	Type	No. of fibres	Exterior diameter/ total height/ lid height/ mm	Weight kg	Included			Necessary accessories			
					No. of cassettes	No. of splice protectors	Basic configuration*	Choice of cable clamp, depending on cable Ø	Choice of bracket	Choice of FIMT, according to cable	Choice of cable bushing or end plug
11 160 661	T240/50 OPGW 3H 36/36F	36	270/140/50		1	40	●	x	x	x	x
11 160 662	T240/50 OPGW 3H 72/36F	72	270/140/50		2	75	●	x	x	x	x
11 160 664	T240/50 OPGW 3H 144/36F	144	270/140/50		4	150	●	x	x	x	x
11 160 667	T240/70 OPGW 3H 216/36F	216	270/160/70		6	220	●	x	x	x	x

*= Please see next page   x= Please make a choice on next page

Accessories & tools

[R] Recommended

Article		Article	
11 202 202	Multicassette fibre organizer, 2-p	11 216 131	Tube cutter 3-16mm steel tubes
11 216 020	Tool kit T240 [R]	11 218 056	Locking cap for padlock
11 216 100	Cassette holder [R]	11 216 115	Pressure test kit T240
11 218 346	Splice protectors, pack of 25		

We recommend that you use the Tykoflex Tool kit T240 for the OPGW joint closure.

Necessary accessories

Choice of cable clamp

Part No.	Cable clamp aluminium, for cable diameter	Part No.	Cable clamp plastic, for cable diameter
11218253	Cable clamp AL 5,0-6,0mm	11 218 210	Cable clamp 1x25 mm PA
11218254	Cable clamp AL 7,0-8,0mm	11 218 212	Cable clamp 2x25 mm PA
11218255	Cable clamp AL 9,0-10,0mm	11 218 214	Cable clamp 3x25 mm PA
11218271	Cable clamp AL 10,0-11,0mm	11 218 216	Cable clamp 4x25 mm PA
11218256	Cable clamp AL 11,0-12,0mm	11 218 218	Cable clamp Ø 6.0 mm PA
11218258	Cable clamp AL 13,0-14,0mm	11 218 220	Cable clamp Ø 8.0 mm PA
11218259	Cable clamp AL 14,0-15,0mm	11 218 222	Cable clamp Ø 10.0 mm PA
11218263	Cable clamp AL 15,0-16,0mm	11 218 224	Cable clamp Ø 12.7 mm PA
11218261	Cable clamp AL 16,0-17,0mm	11 218 226	Cable clamp Ø 13.7 mm PA
11218262	Cable clamp AL 17,0-18,0mm	11 218 228	Cable clamp Ø 14.0 mm PA
11218264	Cable clamp AL 19,0-20,0mm	11 218 232	Cable clamp Ø 16.0 mm PA
11218266	Cable clamp AL 21,0-22,0mm	11 218 234	Cable clamp Ø 17.1 mm PA
11218269	Cable clamp AL 24,0-25,0mm	11 218 236	Cable clamp Ø 18.0 mm PA
		11 218 238	Cable clamp Ø 19.0 mm PA
		11 218 240	Cable clamp Ø 20.0 mm PA
		11 218 242	Cable clamp Ø 21.3 mm PA
		11 218 244	Cable clamp Ø 22.0 mm PA

Spa entrance kit

See page 97 for a selection of Spa entrance kit's.

Choice of FIMT

Part No.	SS tube ID	Nr. of fibres	Type of FIMT
11 218 700	1.93-2.33		FIMT Kit S-tube 1.93-2.33 mm
11 218 702	2.4-2.8		FIMT Kit S-tube 2.4-2.8 mm
11 218 704	2.7-3.4		FIMT Kit S-tube 2.4-3.4 mm
11 218 705	3,0-3,3		FIMT Kit S-tube 3,0-3,3 mm
11 218 706	3.2-3.9		FIMT Kit S-tube 3.2-3.9 mm
11 218 708	4.1-5.2		FIMT Kit S-tube 4.1-5.2 mm

The type of FIMT kit depends on the design of the OPGW cable. From the datasheet note the fibre stainless steel tube ODx.xx/IDx.xx to select the right kit. For an SS tube 3.6/3.2 mm the Part No: 11218704 FIMT Kit S-tube 2.9-3.4 shall be used.

Choice of bracket

Part No.	Type of bracket
11 214 106	Pole bracket 800 OPGW wood pole
11 214 110	Pole bracket 800 for OPGW steel tower
11 214 114	Mounting plate power line Fzb
11 214 116	Mounting plate power line, Fzb
11 214 120	Mounting plate stainless teel

Brackets for OPGW are selected from this table. The selection depends on whether the pole/tower is made of wood or steel.

Choice of cable bushing

Part No.	Type of cable bushing
11 212 137	Cable bushing 1x24 OPGW
11 208 010	End plug PG21 SS
11 212 132	Cable bushing 1x24mm
11 212 100	Cable bushing 2x18mm

Cable bushings are selected from this table. For a standard line joints two "Cable bushing 1x24 OPGW" and one "End plug", for future branching, is the correct choice. At start and end point of an OPGW section a "Cable bushing 1x24 OPGW" and one "Cable bushing 1x24" for the ground cable and one "End plug" should be chosen.

Basic configuration

11 160 6xx	Bottom part 240 3 hole	Interior fittings	Wellbox 240/50
	Lid 240/50/70	Cable tie 100x2,5mm	Emery cloth
	Support sleeve 240	Nut Nylock M6 Din 985 A-4	Instruction OPGW
	O-ring 239.1x8 EPDM	Washer 6.4x18x1.6	Instruction T240 Swedish/English
	V-clamp 240	Silica gel 10 g	Instruction Multicassette

Ordering example of T240 OPGW 3H Joint Closure

OPGW, 48 fibre, cable OD 14,9 mm, SS tube 3.6/3.2 mounted on a steel lattice tower

Quantity	Choice of Closure * Delivery content	Quantity	Choice of bracket	Quantity	Choice of cable clamp	Quantity	Choice of FIMT	Quantity	Choice of cable bushing
1	11 160 632	1	11 214 110	2	11 218 259	2	11 218 704	2	11 212 134
								1	11 208 010

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The Joint Closure OPGW 4H model has four open holes for customer adaptation. The closure is suitable for use above ground, attached to high voltage towers, poles, walls or other support structures. The closure comes with four holes for optional end plugs and or cable bushings which are selected separately. The closure is equipped with cable strength member clamps, splice protectors and cassettes. The number of fibres will determine the number of cassettes, please choose a suitable joint closure for your fibre cables as specified in the table below. Depending on the cable type that will be used, the closure will need to be equipped with a choice of accessories, i.e. bracket, clamp and FIMT.

The tables on the opposite page will help you to determine the necessary accessories for the OPGW 4H. The OPGW 4H is always equipped with the articles specified in the table on the opposite page (basic configuration).

If your cable specification is not covered by the tables, please contact Tykoflex.

OPGW 4 holes for 24 or 36 fibres per Multicassette

OPGW 4 holes 24 fibre per Multi-cassette Part No.	Type	No. of fibres	Exterior diameter/ total height/ lid height/ mm	Weight kg	Included			Necessary accessories			
					No. of cassettes	No. of splice protectors	Basic configu-ration*	Choice of cable clamp, depending on cable Ø	Choice of bracket	Choice of FIMT, according to cable	Choice of cable bushing or end plug
11 160 691	T240/50 OPGW 4H 24/24F	24	270/140/50		1	25	●	x	x	x	x
11 160 692	T240/50 OPGW 4H 48/24F	48	270/140/50		2	50	●	x	x	x	x
11 160 694	T240/50 OPGW 4H 96/24F	96	270/140/50		4	100	●	x	x	x	x
11 160 697	T240/70 OPGW 4H 144/24F	144	270/160/70		6	150	●	x	x	x	x

OPGW 4 holes 36 fibre per Multi-cassette Part No.	Type	No. of fibres	Exterior diameter/ total height/ lid height/ mm	Weight kg	Included			Necessary accessories			
					No. of cassettes	No. of splice protectors	Basic configu-ration*	Choice of cable clamp, depending on cable Ø	Choice of bracket	Choice of FIMT, according to cable	Choice of cable bushing or end plug
11 160 721	T240/50 OPGW 4H 36/36F	36	270/140/50		1	40	●	x	x	x	x
11 160 722	T240/50 OPGW 4H 72/36F	72	270/140/50		2	75	●	x	x	x	x
11 160 724	T240/50 OPGW 4H 144/36F	144	270/140/50		4	150	●	x	x	x	x
11 160 727	T240/70 OPGW 4H 216/36F	216	270/160/70		6	220	●	x	x	x	x

*= Please see next page   x= Please make a choice on next page

Accessories & tools

R Recommended

Article		Article	
11 202 202	Multicassette fibre organizer, 2-p	11 216 131	Tube cutter 3-16mm steel tubes
11 216 020	Tool kit T240 R	11 218 056	Locking cap for padlock
11 216 100	Cassette holder R	11 216 115	Pressure test kit T240
11 218 346	Splice protectors, pack of 25		

We recommend that you use the Tykoflex Tool kit T240 for the OPGW joint closure.

Necessary accessories

Choice of cable clamp

Part No.	Cable clamp aluminium, for cable diameter	Part No.	Cable clamp plastic, for cable diameter
11218253	Cable clamp AL 5,0-6,0mm	11 218 210	Cable clamp 1x25 mm PA
11218254	Cable clamp AL 7,0-8,0mm	11 218 212	Cable clamp 2x25 mm PA
11218255	Cable clamp AL 9,0-10,0mm	11 218 214	Cable clamp 3x25 mm PA
11218271	Cable clamp AL 10,0-11,0mm	11 218 216	Cable clamp 4x25 mm PA
11218256	Cable clamp AL 11,0-12,0mm	11 218 218	Cable clamp Ø 6.0 mm PA
11218258	Cable clamp AL 13,0-14,0mm	11 218 220	Cable clamp Ø 8.0 mm PA
11218259	Cable clamp AL 14,0-15,0mm	11 218 222	Cable clamp Ø 10.0 mm PA
11218263	Cable clamp AL 15,0-16,0mm	11 218 224	Cable clamp Ø 12.7 mm PA
11218261	Cable clamp AL 16,0-17,0mm	11 218 226	Cable clamp Ø 13.7 mm PA
11218262	Cable clamp AL 17,0-18,0mm	11 218 228	Cable clamp Ø 14.0 mm PA
11218264	Cable clamp AL 19,0-20,0mm	11 218 232	Cable clamp Ø 16.0 mm PA
11218266	Cable clamp AL 21,0-22,0mm	11 218 234	Cable clamp Ø 17.1 mm PA
11218269	Cable clamp AL 24,0-25,0mm	11 218 236	Cable clamp Ø 18.0 mm PA
		11 218 238	Cable clamp Ø 19.0 mm PA
Part No.	**Extended Cable clamp**	11 218 240	Cable clamp Ø 20.0 mm PA
11 218 284	Cable clamp AL 11.4 mm ext.**	11 218 242	Cable clamp Ø 21.3 mm PA
11 218 293	Cable clamp AL 15.0 mm ext.**	11 218 244	Cable clamp Ø 22.0 mm PA
11 218 294	Cable clamp AL 18.0 mm ext.**		
11 218 295	Cable clamp AL 20.0 mm ext.**		

** The ext. version of cable clamps 11 218 2xx is used for cables installed in the upper holes in the closure.

Spa entrance kit

See page 97 for a selection of Spa entrance kit's.

Choice of FIMT

Part No.	SS tube ID	Nr. of fibres	Type of FIMT
11 218 700	1.93-2.33	≤18	FIMT Kit S-tube 1.93-2.33 mm
11 218 702	2.4-2,8	≤36	FIMT Kit S-tube 2.4-2.8 mm
11 218 704	2,7-3.4	≤48	FIMT Kit S-tube 2.4-3.4 mm
11 218 705	3,0-3,3	≤48	FIMT Kit S-tube 3,0-3,3 mm
11 218 706	3.2-3.9	≤72	FIMT Kit S-tube 3.2-3.9 mm
11 218 708	4.1-5.2	≤96	FIMT Kit S-tube 4.1-5.2 mm

The type of FIMT kit depends on the design of the OPGW cable. From the datasheet note the fibre stainless steel tube ODx,xx/IDx,xx to select the right kit. For a SS tube 3.6/3.2 mm the Part No: 11218704 FIMT Kit S-tube 2.9-3.4 shall be used.

Choice of bracket

Part No.	Type of bracket
11 214 116	Mounting plate power line, Fzb

Brackets for OPGW are selected from this table. The selection depends on whether the pole/tower is made of wood or steel.

Choice of cable bushing

Part No.	Type of cable bushing
11 212 137	Cable bushing 1x24 OPGW
11 208 010	End plug PG21 SS
11 212 132	Cable bushing 1x24mm
11 212 100	Cable bushing 2x18mm

Cable bushings are selected from this table. For a 2x OPGW line joint two "Cable bushing 1x24 OPGW" and two "End plug", for future branching, is the correct choice.

Basic configuration

11 160 6xx	Bottom part 240 4 hole	Interior fittings	Wellbox 240/50/70
	Lid 240/50/70	Cable tie 100x2.5mm	Emery cloth
	Support sleeve 240	Nut Nylock M6 Din 985 A-4	Instruction OPGW Mastic
	O-ring 239.1x8 EPDM	Washer 6.4x18x1.6	Instruction T240 Swedish/English
	V-clamp 240	Silica gel 10 g	Instruction Multicassette

Ordering example of T240 OPGW 4H Joint Closure

3xOPGW, 48 fibre, cable OD 10.7mm, SS tube 3.6/3.2 mounted on a wooden pole + FOC 00 13.3 mm.

Quantity	Choice of Closure * Delivery content	Quantity	Choice of bracket	Quantity	Choice of cable clamp	Quantity	Choice of FIMT	Quantity	Choice of cable bushing
1	11 160 692	1	11 214 106	3	11 218 255	3	11 218 704	3	11 212 134
		1	11 218 288					1	11 212 132

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The Joint Closure OPGW 3H+2P model has three open holes for customer adaptation and two pre-sealed ports. The closure is suitable for use above ground attached to high voltage towers, poles, walls or other support structures. The closure comes with two fixed 16mm pre-sealed ports intended for ground cables and three holes for optional end plugs/ and or cable bushings which are selected separately. The closure is equipped with cable strength member clamps, splice protectors and cassettes. The number of fibres will determine the number of cassettes to be used. Please choose a suitable joint closure for your fibre cables as specified in the table below. Depending on the cable type that will be used, the closure will need to be equipped with a choice of accessories, i.e. bracket, clamp and FIMT.

The tables on the opposite page will help you to determine the necessary accessories for the OPGW 3H+2P. The OPGW 3H+2P is always equipped with the articles specified in the table on the opposite page (basic configuration).

If your cable specification is not covered by the tables, please contact Tykoflex.

OPGW 3 holes + 2P for 24 or 36 fibres per Multicassette

OPGW 3 holes +2 pipes 24 fibre per Multi-cassette Part No.	Type	No. of fibres	Exterior diameter/ total height/ lid height/ mm	Weight kg	Included			Necessary accessories			
					No. of cassettes	No. of splice protectors	Basic configuration*	Choice of cable clamp, depending on cable Ø	Choice of bracket	Choice of FIMT, according to cable	Choice of cable bushing or end plug
11 160 751	T240/50 OPGW 3H+2P 24/24F	24	270/140/50		1	25	●	x	x	x	x
11 160 752	T240/50 OPGW 3H+2P 48/24F	48	270/140/50		2	50	●	x	x	x	x
11 160 754	T240/50 OPGW 3H+2P 96/24F	96	270/140/50		4	100	●	x	x	x	x
11 160 757	T240/70 OPGW 3H+2P 144/24F	144	270/160/70		6	150	●	x	x	x	x

OPGW 3 holes+2 pipes 36 fibre per Multi-cassette Part No.	Type	No. of fibres	Exterior diameter/ total height/ lid height/ mm	Weight kg	Included			Necessary accessories			
					No. of cassettes	No. of splice protectors	Basic configuration*	Choice of cable clamp, depending on cable Ø	Choice of bracket	Choice of FIMT, according to cable	Choice of cable bushing or end plug
11 160 781	T240/50 OPGW 3H+2P 36/36F	36	270/140/50		1	40	●	x	x	x	x
11 160 782	T240/50 OPGW 3H+2P 72/36F	72	270/140/50		2	75	●	x	x	x	x
11 160 784	T240/50 OPGW 3H+2P 144/36F	144	270/140/50		4	150	●	x	x	x	x
11 160 787	T240/70 OPGW 3H+2P 216/36F	216	270/160/70		6	220	●	x	x	x	x

*= Please see next page   x= Please make a choice on next page

Accessories & tools

R Recommended

Article		Article	
11 202 202	Multicassette fibre organizer, 2-p	11 216 131	Tube cutter 3-16mm steel tubes
11 216 020	Tool kit T240 R	11 218 056	Locking cap for padlock
11 216 100	Cassette holder R	11 216 115	Pressure test kit T240
11 218 346	Splice protectors, pack of 25		

We recommend that you use the Tykoflex Tool kit T240 for the OPGW joint closure.

Necessary accessories

Choice of cable clamp

Part No.	Cable clamp aluminium, for cable diameter	Part No.	Cable clamp plastic, for cable diameter
11218253	Cable clamp AL 5,0-6,0mm	11 218 210	Cable clamp 1x25 mm PA
11218254	Cable clamp AL 7,0-8,0mm	11 218 212	Cable clamp 2x25 mm PA
11218255	Cable clamp AL 9,0-10,0mm	11 218 214	Cable clamp 3x25 mm PA
11218271	Cable clamp AL 10,0-11,0mm	11 218 216	Cable clamp 4x25 mm PA
11218256	Cable clamp AL 11,0-12,0mm	11 218 218	Cable clamp Ø 6.0 mm PA
11218258	Cable clamp AL 13,0-14,0mm	11 218 220	Cable clamp Ø 8.0 mm PA
11218259	Cable clamp AL 14,0-15,0mm	11 218 222	Cable clamp Ø 10.0 mm PA
11218263	Cable clamp AL 15,0-16,0mm	11 218 224	Cable clamp Ø 12.7 mm PA
11218261	Cable clamp AL 16,0-17,0mm	11 218 226	Cable clamp Ø 13.7 mm PA
11218262	Cable clamp AL 17,0-18,0mm	11 218 228	Cable clamp Ø 14.0 mm PA
11218264	Cable clamp AL 19,0-20,0mm	11 218 232	Cable clamp Ø 16.0 mm PA
11218266	Cable clamp AL 21,0-22,0mm	11 218 234	Cable clamp Ø 17.1 mm PA
11218269	Cable clamp AL 24,0-25,0mm	11 218 236	Cable clamp Ø 18.0 mm PA
		11 218 238	Cable clamp Ø 19.0 mm PA
		11 218 240	Cable clamp Ø 20.0 mm PA
		11 218 242	Cable clamp Ø 21.3 mm PA
		11 218 244	Cable clamp Ø 22.0 mm PA

Spa entrance kit
See page 97 for a selection of Spa entrance kit's.

Choice of FIMT

Part No.	SS tube ID	Nr. of fibres	Type of FIMT
11 218 700	1.93-2.33	≤18	FIMT Kit S-tube 1.93-2.33 mm
11 218 702	2.4-2,8	≤36	FIMT Kit S-tube 2.4-2.8 mm
11 218 704	2,7-3.4	≤48	FIMT Kit S-tube 2.4-3.4 mm
11 218 705	3,0-3,3	≤48	FIMT Kit S-tube 3,0-3,3 m
11 218 706	3.2-3.9	≤72	FIMT Kit S-tube 3.2-3.9 mm
11 218 708	4.1-5.2	≤96	FIMT Kit S-tube 4.1-5.2 mm

The type of FIMT kit depends on the design of the OPGW cable. From the datasheet note the fibre stainless steel tube ODx,xx/IDx,xx to select the right kit. For a SS tube 3.6/3.2 mm the Part No: 11218704 FIMT Kit S-tube 2.9-3.4 shall be used.

Choice of bracket

Part No.	Type of bracket
11 214 106	Pole bracket 800 OPGW wood pole
11 214 110	Pole bracket 800 for OPGW steel tower
11 214 114	Mounting plate power line Fzb
11 214 116	Mounting plate power line, Fzb
11 214 120	Mounting plate stainless teel

Brackets for OPGW are selected from this table. The selection depends on whether the pole/tower is made of wood or steel.

Choice of cable bushing

Part No.	Type of cable bushing
11 212 137	Cable bushing 1x24 OPGW
11 208 010	End plug PG21 SS
11 212 132	Cable bushing 1x24mm
11 212 100	Cable bushing 2x18mm
11 219 159	Heat shrink 34/8 L=200 mm

Cable bushings are selected from this table. For a standard line joints two "Cable bushing 1x24 OPGW" and one "End plug" should be chosen, for future branching, is the correct choice. For the two fixed 16 mm presealed ports the heat shrink 11 219 159 is needed for installation.

Basic configuration

11 160 7xx	Bottom part 240 3 hole + 2 inlet	Interior fittings	Wellbox 240/50/70
	Lid 240/50/70	Cable tie 100x2.5mm	Emery cloth
	Support sleeve 240	Nut Nylock M6 Din 985 A-4	Instruction OPGW mastic
	O-ring 239.1x8 EPDM	Washer 6.4x18x1.6	Instruction T240 Swedish/English
	V-clamp 240	Silica gel 10 g	Instruction Multicassette

Ordering example of T240 OPGW 3H+2P Joint Closure

3xOPGW, 24 fibre, cable OD 10.7mm, SS tube 3.6/3.2 mounted on a steel tower + 2x FOC, 12 fibre, OD 12 mm in 25 mm PA Hose.

Quantity	Choice of Closure * Delivery content	Quantity	Choice of bracket	Quantity	Choice of cable clamp	Quantity	Choice of FIMT	Quantity	Choice of cable bushing
1	11 160 754	1	11 214 114	1	11 218 210	3	11 218 704	3	11 212 134
								2	11 219 159

Seaflex® / Branch Unit

A universal joint closure for optical fibre submarine cables made of highly corrosion resistant material and applicable on most cable designs and between cables of different manufacturers and with branching capability.

Features

Seaflex is a universal joint closure designed for optical submarine cables. It is made of highly corrosion resistant material and applicable on most cable designs.

The closure can be used for splicing cables of different manufacture and designs. The closure is designed for an easy and quick assembly with ordinary standard tools, with no welding required at the assembly procedure.

Easy to re-enter.

The closure consists of a main closure kit with the closure housing and rubber cable bend protections, and cable specific connection kits for each unique cable type. The splicing area is designed for accommodation of up to 192 fibres.

The fibre jointing is carried out with an ordinary fusion splicing machine and using standard splice protection sleeves. The interior of the closure is filled with oil in order to protect the fibres. For submarine cable ends, see beach closures on page 50-51.

Please contact Tykoflex for further information.
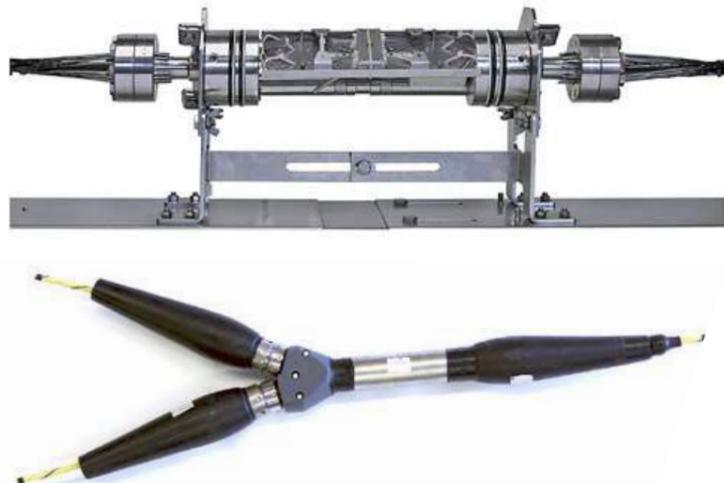
Samples of single and multi-mode fibre cores.

Single fibres are protected in the cable and spliced individually. In fibre-optic communication, a single-mode optical fibre (SMF) is an optical fibre designed to carry only a single ray of light (mode). Waves can have the same mode but have different frequencies. There is also multi-mode mostly used for communication over short distances.

125 8,3	125 50	125 62,5	140 100
Single-mode 8,3/125	Multi-mode 50/125	Multi-mode 62,5/125	Multi-mode 100/140
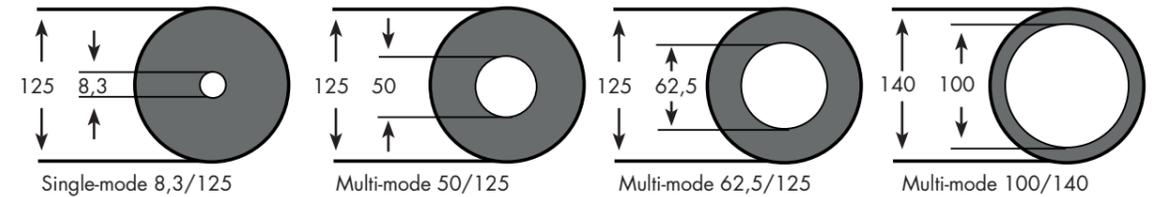
1. Fibre core 8,3-100 Nm
2. Cladding 125-140 Nm
3. Primary coating 250 Nm
4. Secondary coating ≈ 400 Nm
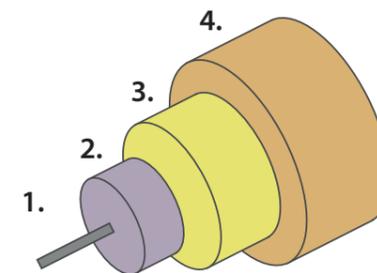
The cladding is coated by a primary coating and UV-cured urethane acrylate material that is colour coded. Transparent primary coating of 200μm and a colored secondary coating (buffer). Secondary coating is normally 900μm as in a pigtail or loosetube cable.

EIA598-A Fibre Color Chart

1. Blue	2. Orange	3. Green	4. Brown	5. Slate	6. White	7. Red	8. Black	9. Yellow	10. Violet	11. Pink	12. Aqua
1. Blue	2. Orange	3. Green	4. Brown	5. Slate	6. White	7. Red	8. Black	9. Yellow	10. Violet	11. Pink	12. Aqua
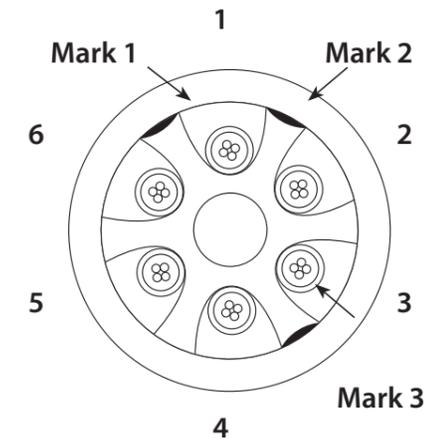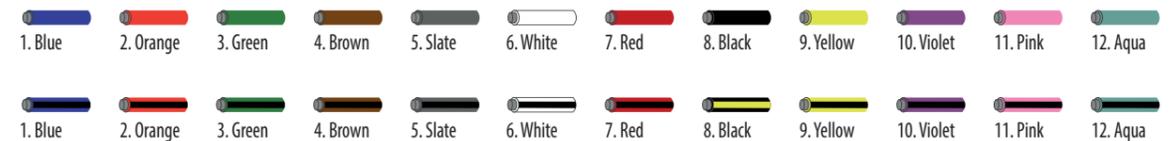
In slotted core cable, the first fibre bundle is located between the mark no.1 and No.2 on the core. The third fibre bundle is before mark no.3.

Optical fibres are inherently very strong, but their strength is drastically reduced by unavoidable microscopic surface flaws in the manufacturing process. Therefore, the stress imposed on the fibre during handling, cabling and installation must be considered in relation to a given set of environmental conditions. The surface flaws must also be protected from water, especially in the closure where the cable is stripped and fibre is exposed for the splicing process.

Single fibre cables can be designed as mono tube, multi-tube, slotted core, micro cable, ADSS, OPGW etc.

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Line joint
Joint Closure T SLIM is primarily intended for line joints with the possibility of up to two branches. The slim design makes its perfect for use in hand-holes. Joint Closure T SLIM is delivered with two open cable inlets and two sealed cable inlets. All inlets can handle cable diameters from 8 to 22 mm. Two heat shrinks are included. The closure is equipped with cable strength member clamps, splice protectors and cassettes. For branching, the inlet is opened and the cable installed and sealed with heat shrink.

   T SLIM is available in three different sizes, depending on the total number of fibres to be spliced and the number of fibres per cassette. The number of cassettes included depends on the number of fibres required. Brackets for attachment on walls, racks, in manholes or on poles, are available as options and ordered separately. Together with a locking cap, the closure can easily be locked with a padlock. Please see table below.

T SLIM for 12, 24 or 48 fibres per Multicassette

T SLIM Part No.	Type	No. of fibres	Exterior diameter/ total height/ lid height/ mm	Weight kg	Included			Optional accessories	
					No. of cassettes	No. of splice protectors	Basic configuration*	Choice of heat shrink	Choice of bracket
T SLIM 12 Fibre									
11 161 431	T240/30 SLIM 12/12F	12	270/95/30		1	12	●	x	x
11 161 432	T240/30 SLIM 24/12F	24	270/95/30		2	25	●	x	x
11 161 434	T240/50 SLIM 36/12F	36	270/115/50		3	50	●	x	x
11 161 435	T240/50 SLIM 48/12F	48	270/115/50		4	50	●	x	x
11 161 437	T240/70 SLIM 72/12F	72	270/135/70		6	75	●	x	x
T SLIM 24 Fibre									
11 161 461	T240/30 SLIM 24/24F	24	270/95/30		1	25	●	x	x
11 161 462	T240/30 SLIM 48/24F	48	270/95/30		2	50	●	x	x
11 161 464	T240/50 SLIM 96/24F	96	270/115/50		4	100	●	x	x
11 161 467	T240/70 SLIM 144/24F	144	270/135/70		6	150	●	x	x
T SLIM 48 Fibre									
11 161 467	T240/30 SLIM 48/48F	48	270/95/30		1	50	●	x	x
11 161 492	T240/30 SLIM 96/48F	96	270/95/30		2	100	●	x	x
11 161 494	T240/50 SLIM 192/48F	192	270/115/50		4	200	●	x	x
11 161 495	T240/50 SLIM 288/48F	288	270/135/70		6	300	●	x	x
T SLIM 72 Fibre									
11 161 496	T240/30 SLIM 72/72F	72	270/95/30		1	75	●	x	x
11 161 497	T240/30 SLIM 144/72F	144	270/95/30		2	150	●	x	x
11 161 498	T240/50 SLIM 288/72F	288	270/115/50		4	300	●	x	x
11 161 499	T240/70 SLIM 432/72F	432	270/135/70		6	450	●	x	x

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Accessories & tools

ℝ Recommended

Article		Article	
11 202 202	Multicassette fibre organizer, 2-p	**11 218 056**	Locking cap for padlock
11 216 020	Tool kit T240 ℝ	**11 216 115**	Pressure test kit T240
11 216 100	Cassette holder ℝ	**11 218 xxx**	For splice protectors see page

We recommend that you use the Tykoflex Tool kit T240 when working with closure and accessories.

Optional accessories

Heat shrink (for additional branching)

Part No.	Type of heat shrink
11 219 159	Heat shrink 34/8 L=200 mm

Choice of bracket

Part No.	Type of bracket
11 214 005	Wall bracket
11 214 030	Pole bracket for horizontal box

Basic configuration

11 161 4xx	Bottom part 240 4 port	Interior fittings	Silica gel 10 g
	Lid 240/30/50/70	Cable tie 100x2.5mm	Wellbox 240/30/50/70
	Support sleeve 240	Emery cloth	2X Heat shrink 34/8, L=200 mm
	O-ring 239.1x8 EPDM	Nut Nylock M6 Din 985 A-4	Instruction T240 Swedish/English
	V-clamp 240	Washer 6.4x18x1.6	Instruction Multicassette

Ordering example of T Slim closure

3x FOC, 12 fibre, cable 0D 12 mm, mounted on wall.

Quantity	Choice of Closure	Quantity	Choice of bracket	Quantity	Choice of heat shrink
1	11 161 432	1	11 214 005	1	11 219 159

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Mid-span

Joint Closure TS SLIM facilitates mid-span access without the need to cut and re-splice all the fibres in the cable and with the possibility of up to two branches. The slim design makes it perfect for use in hand-holes. Joint Closure TS SLIM is delivered with one open oval cable inlet and two sealed cable inlets. All inlets can handle cable diameters from 8 to 22 mm. Heat-shrink and clip for the oval inlet are included. Brackets for attachment on walls, racks, in manholes or on poles, are available as options and ordered separately. The closure is equipped with cable strength member clamps, splice protectors and cassettes. For branching, the inlet is opened and the cable installed and sealed with heat shrink.

TS SLIM is available in three different sizes, depending on the total number of fibres to be spliced and the number of fibres per cassette. The number of cassettes included depends on the number of fibres required. Together with a locking cap, the closure can easily be locked with a padlock.

Please see table below.

TS SLIM for 12, 24, 48 or 72 fibres per Multicassette

TS SLIM Part No.	Type	No. of fibres	Exterior diameter/ total height/ lid height/ mm	Weight kg	Included			Optional accessories	
					No. of cassettes	No. of splice protectors	Basic configuration*	Choice of heat shrink	Choice of bracket
TS SLIM 12 Fibre									
11 161 501	TS240/30 SLIM 12/12F	12	270/95/30		1	12	●	x	x
11 161 502	TS240/30 SLIM 24/12F	24	270/95/30		2	25	●	x	x
11 161 504	TS240/50 SLIM 36/12F	36	270/115/50		3	50	●	x	x
11 161 505	TS240/50 SLIM 48/12F	48	270/115/50		4	50	●	x	x
11 161 507	TS240/70 SLIM 72/12F	72	270/135/70		6	75	●	x	x
TS SLIM 24 Fibre									
11 161 531	TS240/30 SLIM 24/24F	24	270/95/30		1	25	●	x	x
11 161 532	TS240/30 SLIM 48/24F	48	270/95/30		2	50	●	x	x
11 161 534	TS240/50 SLIM 96/24F	96	270/115/50		4	100	●	x	x
11 161 537	TS240/70 SLIM 144/24F	144	270/135/70		6	150	●	x	x
TS SLIM 48 Fibre									
11 161 561	TS240/30 SLIM 48/48F	48	270/95/30		1	50	●	x	x
11 161 562	TS240/30 SLIM 96/48F	96	270/95/30		2	100	●	x	x
11 161 564	TS240/50 SLIM 192/48F	192	270/115/50		4	200	●	x	x
11 161 567	TS240/70 SLIM 288/48F	288	270/135/70		6	300	●	x	x
TS SLIM 72 Fibre									
11 161 571	TS240/30 SLIM 72/72F	72	270/95/30		1	75	●	x	x
11 161 572	TS240/30 SLIM 144/72F	144	270/95/30		2	150	●	x	x
11 161 574	TS240/50 SLIM 288/72F	288	270/50/50		4	300	●	x	x
11 161 577	TS240/70 SLIM 432/72F	432	270/70/70		6	450	●	x	x

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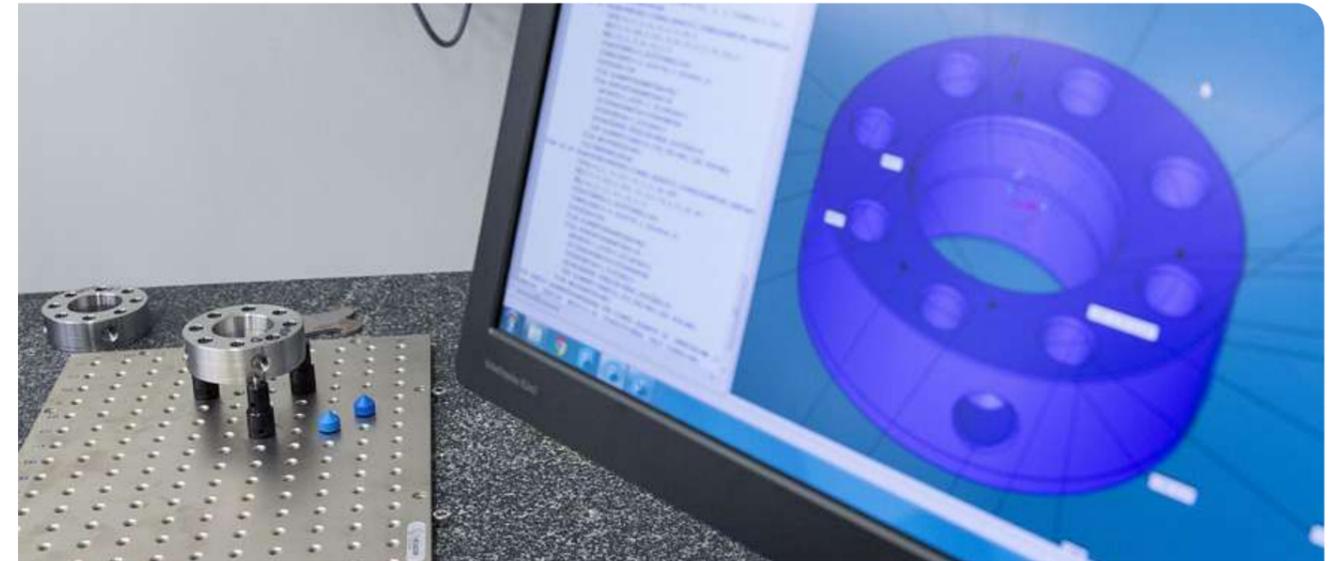
Accessories & tools

R Recommended

Article		Article	
11 202 202	Multicassette fibre organizer, 2-p	11 218 056	Locking cap for padlock
11 216 020	Tool kit T240 R	11 216 115	Pressure test kit T240
11 216 100	Cassette holder R	11 218 xxx	For splice protectors, see page
11 216 131	Tube cutter 3-16mm steel tubes		

We recommend that you use the Tykoflex Tool kit T240 when working with closure and accessories.

Optional accessories

Heat shrink (for additional branching)

Part No.	Type of heat shrink
11 219 159	Heat shrink 34/8 L=200 mm

Choice of bracket

Part No.	Type of bracket
11 214 005	Wall bracket
11 214 030	Pole bracket for horizontal box

Basic configuration

11 161 5xx	Bottom part 240 3 inlet	Interior fittings	Wellbox 240/30/50/70
	Lid 240/30/50/70	Cable tie 100x2.5mm	Heat shrink 50/66, L=200 mm
	Support sleeve 240	Nut Nylock M6 Din 985 A-4	Branch -off clip
	O-ring 239.1x8 EPDM	Washer 6.4x18x1.6	Instruction T240 Swedish/English
	V-clamp 240	Silica gel 10 g	Instruction Multicassette and Emery cloth

Ordering example of TS Slim closure

3x FOC, 96 fibre, OD 13 mm, mounted on wall.

Quantity	Choice of Closure	Quantity	Choice of bracket	Quantity	Choice of heat shrink
1	11 161 537	1	11 214 005	1	11 219 159

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Line joint

Joint Closure T is foremost intended for line joints with the possibility of branching. Joint Closure T has three open holes for customer adaptation and is delivered without end plugs or bushings which are selected separately. The closure is equipped with cable strength member clamps, splice protectors and cassettes. Joint Closure T is available in three different sizes, depending on the total number of fibres to be spliced and the number of fibres per cassette.

The number of fibres will determine the number of cassettes, please choose a suitable joint closure for your fibre cables as specified in the table below. Brackets for attachment on walls, racks, in manholes or on poles, are available as options. Together with a locking cap the closure can easily be locked with a padlock.

T 12, 24, 48 or 72 fibres per Multicassette

T Part No.	Type	No. of fibres	Exterior diameter/ total height/ lid height/ mm	Weight kg	Included			Accessories	
					No. of cassettes	No. of splice protectors	Basic configuration*	Required	Optional
								Choice of cable bushing or end plug	Choice of bracket
T 12 Fibre									
11 160 201	T240/50 T 12/12F	12	270/140/50		1	12	●	x	x
11 160 202	T240/50 T 24/12F	24	270/140/50		2	25	●	x	x
11 160 204	T240/50 T 48/12F	48	270/140/50		4	50	●	x	x
11 160 207	T240/70 T 72/12F	72	270/160/70		6	75	●	x	x
11 160 210	T240/150 T 96/12F	96	270/235/150		8	100	●	x	x
11 160 212	T240/150 T 120/12F	120	270/235/150		10	125	●	x	x
T 24 Fibre									
11 160 231	T240/50 T 24/24F	24	270/140/50		1	25	●	x	x
11 160 232	T240/50 T 48/24F	48	270/140/50		2	50	●	x	x
11 160 234	T240/50 T 96/24F	96	270/140/50		4	100	●	x	x
11 160 237	T240/70 T 144/24F	144	270/160/70		6	150	●	x	x
11 160 240	T240/150 T 192/24F	192	270/235/150		8	200	●	x	x
11 160 242	T240/150 T 240/24F	240	270/235/150		10	250	●	x	x
T 48 Fibre									
11 160 261	T240/50 T 48/48F	48	270/140/50		1	50	●	x	x
11 160 262	T240/50 T 96/48F	96	270/140/50		2	100	●	x	x
11 160 264	T240/50 T 192/48F	192	270/140/50		4	200	●	x	x
11 160 267	T240/70 T 288/48F	288	270/160/70		6	300	●	x	x
11 160 270	T240/150 T 384/48F	384	270/235/150		8	400	●	x	x
11 160 272	T240/150 T 480/48F	480	270/235/150		10	500	●	x	x
T 72 Fibre									
11 160 281	T240/50 T 72/72F	72	270/140/50		1	75	●	x	x
11 160 282	T240/50 T 144/72F	144	270/140/50		2	150	●	x	x
11 160 284	T240/50 T 288/72F	288	270/140/50		4	300	●	x	x
11 160 286	T240/70 T 432/72F	432	270/160/70		6	450	●	x	x
11 160 288	T240/150 T 576/72F	576	270/235/150		8	600	●	x	x
11 160 290	T240/150 T 720/72F	720	270/235/150		10	725	●	x	x

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Accessories & tools

R Recommended

Article		Article	
11 202 202	Multicassette fibre organizer, 2-p	11 216 115	Pressure test kit T240
11 216 020	Tool kit T240 R	11 218 056	Locking cap for padlock
11 216 100	Cassette holder horizontal R	11 216 073	TKT spanner for opening and closing of TKT nipples.10 mm. Including TKT adapter.
11 216 105	Cassette holder vertical	11 216 110	Mid-span cable entry tool with radius protection.
11 218 xxx	For splice protectors see page		

We recommend that you use the Tykoflex Tool kit T240 when working with closure and accessories.

Required accessories

Choice of cable bushing

Part No.	Type of cable bushing	Part No.	Type of cable bushing
11 208 010	End plug PG21 SS	11 212 145	Cable bushing 1x30 mm
11 212 018	Cable bushing 6x6 mm	11 212 350	Cable bushing divisible 2x18 mm
11 212 040	Cable bushing 4x10 mm	11 212 840	Cable bushing TKT 7x7 mm metal
11 212 050	Cable bushing 1x10 mm	11 212 842	Cable bushing TKT 7x7 mm plastic
11 212 070	Cable bushing 3x12 mm	11 212 870	Cable bushing TKN-K 1,8-4,0
11 212 100	Cable bushing 2x18mm	11 212 871	Cable bushing TKN-K 4,0-7,0
11 212 132	Cable bushing 1x24mm	11 212 872	Cable bushing TKN-K 4x7,0-9,0
11 212 145	Cable bushing 1x30 mm		

Make a selection from the cable bushing table. For standard line joints, two "Cable bushings 1x24" and one "End plug", for future branching, would be the choice.

Optional accessories

Choice of bracket

Part No.	Type of bracket
11 214 005	Wall bracket
11 214 030	Pole bracket for horizontal box
11 214 050	Cable hanger 740, one mount plate

Make your choice from the list, depending on whether the application is a wall, pole or manhole.

Basic configuration

11 160 2xx	Bottom part 240 3 hole	Interior fittings	Instruction T240 Swedish/English
	Lid 240/50/70/150	Nut Nylock M6 Din 985 A-4	Instruction Multicassette
	Support sleeve 240	Washer 6.4x18x1.6	Emery cloth
	O-ring 239.1x8 EPDM	Silica gel 10 g	
	V-clamp 240	Wellbox 240/50/70/150	

Ordering example of T

2x FOC, 24 fibre, OD 15 mm Ø and one end plug, mounted on a wooden pole.

Quantity	Choice of Closure	Quantity	Choice of bracket	Quantity	Choice of cable bushing
1	11 160 202	1	11 214 030	1	11 212 132

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Mid-span

Joint Closure TS facilitates mid-span access without the need to cut and re-splice all the fibres in the cable. The closure is delivered with one oval cable inlet and has two open holes for customer adaptation, and is delivered without end plugs or bushings which are selected separately. The closure is equipped with cable strength member clamps, splice protectors and cassettes. Joint Closure TS is available in three different sizes, depending on the total number of fibres to be spliced and the number of fibres per cassette. The number of fibres will determine the number of cassettes. Please choose a suitable joint closure for your fibre cables as specified in the table below. Brackets for attachment on walls, racks, in manholes or on poles, are available as options and ordered separately. Together with a locking cap, the closure can easily be locked with a padlock. The closure TS is delivered with heat shrink tube + branch-off clip for the oval inlet and with the articles specified in the table on the opposite page (basic configuration).

TS 12, 24, 48 or 72 fibres per Multicassette

TS Part No.	Type	No. of fibres	Exterior diameter/ total height/ lid height/ mm	Weight kg	Included			Accessories	
					No. of cassettes	No. of splice protectors	Basic configuration*	Required — Choice of cable bushing or end plug	Optional — Choice of bracket
TS 12 Fibre									
11 160 401	T240/50 TS 12/12F	12	270/140/50		1	12	●	x	x
11 160 402	T240/50 TS 24/12F	24	270/140/50		2	25	●	x	x
11 160 404	T240/50 TS 48/12F	48	270/140/50		4	50	●	x	x
11 160 407	T240/70 TS 72/12F	72	270/160/70		6	75	●	x	x
11 160 410	T240/150 TS 96/12F	96	270/235/150		8	100	●	x	x
11 160 412	T240/150 TS 120/12F	120	270/235/150		10	125	●	x	x
TS 24 Fibre									
11 160 431	T240/50 TS 24/24F	24	270/140/50		1	25	●	x	x
11 160 432	T240/50 TS 48/24F	48	270/140/50		2	50	●	x	x
11 160 434	T240/50 TS 96/24F	96	270/140/50		4	100	●	x	x
11 160 437	T240/70 TS 144/24F	144	270/160/70		6	150	●	x	x
11 160 440	T240/150 TS 192/24F	192	270/160/150		8	200	●	x	x
11 160 442	T240/150 TS 240/24F	240	270/235/150		10	250	●	x	x
TS 48 Fibre									
11 160 471	T240/50 TS 48/48F	48	270/140/50		1	50	●	x	x
11 160 472	T240/50 TS 96/48F	96	270/140/50		2	100	●	x	x
11 160 474	T240/50 TS 192/48F	192	270/140/50		4	200	●	x	x
11 160 477	T240/70 TS 288/48F	288	270/160/70		6	300	●	x	x
11 160 480	T240/150 TS 384/48F	384	270/235/150		8	400	●	x	x
11 160 482	T240/150 TS 480/48F	480	270/235/150		10	500	●	x	x
TS 72 Fibre									
11 160 484	T240/50 TS 48/72F	72	270/140/50		1	75	●	x	x
11 160 486	T240/50 TS 144/72F	144	270/140/50		2	150	●	x	x
11 160 488	T240/50 TS 288/72F	288	270/140/50		4	300	●	x	x
11 160 490	T240/70 TS 432/72F	432	270/160/70		6	450	●	x	x
11 160 492	T240/150 TS 576/72F	576	270/235/150		8	600	●	x	x
11 160 494	T240/150 TS 720/72F	720	270/235/150		10	725	●	x	x

*= Please see next page   x= Please make a choice on next page

Accessories & tools

Ⓡ Recommended

Article		Article	
11 202 202	Multicassette fibre organizer, 2-p	11 216 115	Pressure test kit T240
11 216 020	Tool kit T240 Ⓡ	11 218 056	Locking cap for padlock
11 216 100	Cassette holder horizontal Ⓡ	11 216 073	TKT spanner for opening and closing of TKT nipples.10 mm. Including TKT adapter.
11 216 105	Cassette holder vertical	11 216 110	Mid-span cable entry tool with radius protection.
11 218 xxx	For splice protectors see page		

We recommend that you use the Tykoflex Tool kit T240 when working with closure and accessories.

Required accessories

Choice of cable bushing

Part No.	Type of cable bushing	Part No.	Type of cable bushing
11 208 010	End plug PG21 SS	11 212 145	Cable bushing 1x30 mm
11 212 018	Cable bushing 6x6 mm	11 212 350	Cable bushing divisible 2x18 mm
11 212 040	Cable bushing 4x10 mm	11 212 840	Cable bushing TKT 7x7 mm metal
11 212 050	Cable bushing 1x10 mm	11 212 842	Cable bushing TKT 7x7 mm plastic
11 212 070	Cable bushing 3x12 mm	11 212 860	Cable bushing TKN-L 1,8-4,0
11 212 100	Cable bushing 2x18mm	11 212 861	Cable bushing TKN-L 4,0-7,0
11 212 132	Cable bushing 1x24mm	11 212 862	Cable bushing TKN-L 4x7,0-9,0

Cold method – Insert oval

Part No.	Type of cable bushing	Part No.	Type of cable bushing
11 212 851	Cable bushing TKN-O 4x 5,0-7,0	11 212 854	Cable bushing TKN-O 4x 7,7-9,5
11 212 852	Cable bushing TKN-O 2x 5,5-7,2	11 212 855	Cable bushing TKN-O 10-12
11 212 853	Cable bushing TKN-O 4x 6,5-8,5		

Make a selection from the cable bushing table.

Optional accessories

Choice of bracket

Part No.	Type of bracket
11 214 005	Wall bracket
11 214 030	Pole bracket for horizontal box
11 214 050	Cable hanger 740, one mount plate

Make your selection from the list depending on the application – wooden pole, steel pole/tower.

Basic configuration

11 160 4xx	Bottom part 240 TS	Interior fittings	Heat shrink 50/16. L =200 mm.
	Lid 240/50/70/150	Cable tie 100x2.5mm	Branch -off clip
	Support sleeve 240	Nut Nylock M6 Din 985 A-4	Wellbox 240/50/70/150
	O-ring 239.1x8 EPDM	Washer 6.4x18x1.6	Instruction T240 Swedish/English
	V-clamp 240	Silica gel 10 g	Instruction Multicassette and Emery cloth

Ordering example of TS

3X FOC, 96 fibre, OD 13 mm, Mid-span, wall mounted,

Quantity	Choice of Closure	Quantity	Choice of bracket	Quantity	Choice of cable bushing
1	11 160 437	1	11 214 005	1	11 212 132
				1	11 208 010

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Mid-span

Joint Closure TMC facilitates mid-span access without the need to cut and re-splice all the fibres in the cable. The closure is delivered with one oval cable inlet, placed vertical, and has two open holes for customer adaptation, and is delivered without end plugs or bushings which are selected separately. The closure is equipped with cable strength member clamps, splice protectors and cassettes. Joint Closure TMC is available in three different sizes, depending on the total number of fibres to be spliced and the number of fibres per cassette. The number of fibres will determine the number of cassettes. Please choose a suitable joint closure for your fibre cables as specified in the table below. Brackets for attachment on walls, racks, in manholes or on poles, are available as options and ordered separately. Together with a locking cap, the closure can easily be locked with a padlock. The closure TMC is delivered with with the articles specified in the table on the opposite page (basic configuration).

TMC 12, 24, 48 or 72 fibres per Multicassette

TMC Part No.	Type	No. of fibres	Exterior diameter/ total height/ lid height/ mm	Weight kg	Included			Accessories	
					No. of cassettes	No. of splice protectors	Basic configuration*	Required	Optional
								Choice of cable bushing or end plug	Choice of bracket
TMC 12 Fibre									
11 162 401	T240/50 TMC 12/12F	12	270/140/50		1	12	●	x	x
11 162 402	T240/50 TMC 24/12F	24	270/140/50		2	25	●	x	x
11 162 404	T240/50 TMC 48/12F	48	270/140/50		4	50	●	x	x
11 162 407	T240/70 TMC 72/12F	72	270/160/70		6	75	●	x	x
11 162 410	T240/150 TMC 96/12F	96	270/235/150		8	100	●	x	x
11 162 412	T240/150 TMC 120/12F	120	270/235/150		10	125	●	x	x
TMC 24 Fibre									
11 162 431	T240/50 TMC 24/24F	24	270/140/50		1	25	●	x	x
11 162 432	T240/50 TMC 48/24F	48	270/140/50		2	50	●	x	x
11 162 434	T240/50 TMC 96/24F	96	270/140/50		4	100	●	x	x
11 162 437	T240/70 TMC 144/24F	144	270/160/70		6	150	●	x	x
11 162 440	T240/150 TMC 192/24F	192	270/160/150		8	200	●	x	x
11 162 442	T240/150 TMC 240/24F	240	270/235/150		10	250	●	x	x
TMC 48 Fibre									
11 162 471	T240/50 TMC 48/48F	48	270/140/50		1	50	●	x	x
11 162 472	T240/50 TMC 96/48F	96	270/140/50		2	100	●	x	x
11 162 474	T240/50 TMC 192/48F	192	270/140/50		4	200	●	x	x
11 162 477	T240/70 TMC 288/48F	288	270/160/70		6	300	●	x	x
11 162 480	T240/150 TMC 384/48F	384	270/235/150		8	400	●	x	x
11 162 482	T240/150 TMC 480/48F	480	270/235/150		10	500	●	x	x
TMC 72 Fibre									
11 162 484	T240/50 TMC 48/72F	72	270/140/50		1	75	●	x	x
11 162 486	T240/50 TMC 144/72F	144	270/140/50		2	150	●	x	x
11 162 488	T240/50 TMC 288/72F	288	270/140/50		4	300	●	x	x
11 162 490	T240/70 TMC 432/72F	432	270/160/70		6	450	●	x	x
11 162 492	T240/150 TMC 576/72F	576	270/235/150		8	600	●	x	x
11 162 494	T240/150 TMC 720/72F	720	270/235/150		10	725	●	x	x

*= Please see next page   x= Please make a choice on next page

Accessories & tools

Ⓡ Recommended

Article		Article	
11 202 202	Multicassette fibre organizer, 2-p	**11 216 115**	Pressure test kit T240
11 216 020	Tool kit T240 Ⓡ	**11 218 056**	Locking cap for padlock
11 216 100	Cassette holder horizontal Ⓡ	**11 216 073**	TKT spanner for opening and closing of TKT nipples. 10 mm. Including TKT adapter.
11 216 105	Cassette holder vertical	**11 216 110**	Mid-span cable entry tool with radius protection.
11 218 xxx	For splice protectors see page		

We recommend that you use the Tykoflex Tool kit T240 when working with closure and accessories.

Required accessories

Choice of cable bushing

| Part No.	Type of cable bushing	Part No.	Type of cable bushing
11 208 010	End plug PG21 SS	11 212 145	Cable bushing 1x30 mm
11 212 018	Cable bushing 6x6 mm	11 212 350	Cable bushing divisible 2x18 mm
11 212 040	Cable bushing 4x10 mm	11 212 840	Cable bushing TKT 7x7 mm metal
11 212 050	Cable bushing 1x10 mm	11 212 842	Cable bushing TKT 7x7 mm plastic
11 212 070	Cable bushing 3x12 mm	11 212 870	Cable bushing TKN-K 1,8-4,0
11 212 100	Cable bushing 2x18mm	11 212 871	Cable bushing TKN-K 4,0-7,0
11 212 132	Cable bushing 1x24mm	11 212 872	Cable bushing TKN-K 4x7,0-9,0
11 212 145	Cable bushing 1x30 mm		

Cold method – Insert oval

11 212 851	Cable bushing TKN-O 4x 5,0-7,0	11 212 854	Cable bushing TKN-O 4x 7,7-9,5
11 212 852	Cable bushing TKN-O 2x 5,5-7,2	11 212 855	Cable bushing TKN-O 10-12
11 212 853	Cable bushing TKN-O 4x 6,5-8,5		

Make a selection from the cable bushing table.

Optional accessories

Choice of bracket and duct holder

Part No.	Type of bracket
11 214 032	Bracket with protective cover. Duct holders for 5 or 7 mm ducts. Cover for protection of micro cables routed from ducts to bushing/inlet.
11 214 033	Bracket for plate 11 214 032
11 408 245	Duct holder 24x 0 5 mm
11 408 247	Duct holder 24x 0 7 mm
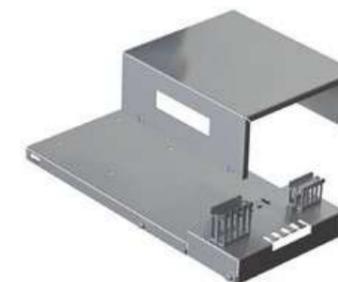
Basic configuration

11 162 4xx	Bottom part 240 TMC	Interior fittings	Heat shrink 50/16. L =200 mm.
	Lid 240/50/70/150	Cable tie 100x2.5mm	Branch -off clip
	Support sleeve 240	Nut Nylock M6 Din 985 A-4	Wellbox 240/50/70/150
	O-ring 239.1x8 EPDM	Washer 6.4x18x1.6	Instruction T240 Swedish/English
	V-clamp 240	Silica gel 10 g	Instruction Multicassette and Emery cloth

Ordering example of TMC

1X FOC, 192 fibre, OD 7,9 mm Viper, Mid-span, 12x4 fiber OD 3 mm in 7 mm duct, manhole

Quantity	Choice of Closure	Quantity	Choice of bracket	Quantity	Choice of cable bushing
1	11 162 440	1	11 214 032	1	11 212 853
		1	11 408 247	1	11 212 870
				1	11 208 010

TYKO FLEX

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Mid-span branching

Joint Closure TSG facilitates mid-span access without the need to cut and re-splice all the fibres in the cable. The closure is delivered with one oval cable inlet and two pre-sealed ports, ID 25 mm and four pre-sealed ports, ID 16 mm. The closure is equipped with cable strength member clamps, splice protectors and cassettes. Joint Closure TSG is available in three different sizes, depending on the total number of fibres to be spliced and the number of fibres per cassette.

The number of fibres will determine the number of cassettes. Please choose a suitable joint closure for your fibre cables as specified in the table below. Brackets for attachment on walls, racks, in manholes or on poles, are available as options and ordered separately. Together with a locking cap, the closure can easily be locked with a padlock. The closure TSG is delivered with heat shrink tube + branch-off clip for the oval inlet and with the articles specified in the table on the opposite page (basic configuration).

TSG 12, 24, 48 or 72 fibres per Multicassette

TSG Part No.	Type	No. of fibres	Exterior diameter/ total height/ lid height/ mm	Weight kg	Included			Optional accessories		
					No. of cassettes	No. of splice protectors	Basic configuration*	Choice of heat shrink tube	Choice of bracket	Choice of cable bushing
TSG 24 Fibre										
11 160 531	T240/50 TSG 24/24F	24	270/140/50		1	25	●	x	x	x
11 160 532	T240/50 TSG 48/24F	48	270/140/50		2	50	●	x	x	x
11 160 534	T240/50 TSG 96/24F	96	270/140/50		4	100	●	x	x	x
11 160 537	T240/70 TSG 144/24F	144	270/160/70		6	150	●	x	x	x
11 160 540	T240/150 TSG 192/24F	192	270/235/150		8	200	●	x	x	x
11 160 542	T240/150 TSG 240/24F	240	270/235/150		10	250	●	x	x	x
TSG 48 Fibre										
11 160 571	T240/50 TSG 48/48F	48	270/140/50		1	50	●	x	x	x
11 160 572	T240/50 TSG 96/48F	96	270/140/50		2	100	●	x	x	x
11 160 574	T240/50 TSG 192/48F	192	270/140/50		4	200	●	x	x	x
11 160 577	T240/70 TSG 288/48F	288	270/160/70		6	300	●	x	x	x
11 160 580	T240/150 TSG 384/48F	384	270/235/150		8	400	●	x	x	x
11 160 582	T240/150 TSG 480/48F	480	270/235/150		10	500	●	x	x	x
TGS 72 Fibre										
11 160 584	T240/50 TSG 72/72F	72	270/140/50		1	75	●	x	x	x
11 160 586	T240/50 TSG 144/72F	144	270/140/50		2	150	●	x	x	x
11 160 588	T240/50 TSG 288/72F	288	270/140/50		4	300	●	x	x	x
11 160 590	T240/70 TSG 432/72F	432	270/160/70		6	450	●	x	x	x
11 160 592	T240/150 TSG 576/72F	576	270/235/150		8	600	●	x	x	x
11 160 594	T240/150 TSG 720/72F	720	270/235/150		10	725	●	x	x	x

*= Please see next page   x= Please make a choice on next page

Basic configuration

11 160 5xx	Bottom part 240 TSG	Interior fittings	Heat shrink 50/16. L =200 mm.
	Lid 240/50/70/150	Cable tie 100x2.5mm	Branch -off clip
	Support sleeve 240	Nut Nylock M6 Din 985 A-4	Wellbox 240/50/70/150
	O-ring 239.1x8 EPDM	Washer 6.4x18x1.6	Instruction T240 Swedish/English
	V-clamp 240	Silica gel 10 g	Instruction Multicassette and Emery cloth

Accessories & tools

Ⓡ Recommended

Article		Article	
11 202 202	Multicassette fibre organizer, 2-p	11 216 115	Pressure test kit T240
11 216 020	Tool kit T240	11 218 056	Locking cap for padlock
11 216 100	Cassette holder horizontal Ⓡ	11 216 073	TKT spanner for opening and closing of TKT nipples.10 mm. Including TKT adapter.
11 216 105	Cassette holder vertical	11 216 110	Mid-span cable entry tool with radius protection.
11 218 xxx	For splice protectors see page		

Optional accessories

Choice of heat shrink tube

Part No.	Type of heat shrink
11 219 159	Heat shrink tube 34/8, L = 200 mm
11 219 035	Heat shrink end cap 50/25 for oval inlet.

Choice of bracket

Part No.	Type of bracket
11 214 005	Wall bracket
11 214 030	Pole bracket for horizontal box
11 214 050	Cable hanger 740, one mount plate

The bracket for T240 is found in the table "Bracket". Make your selection from the list depending on the application – wooden pole, steel pole/tower.

Choice of cable bushing

Part No.	Type of cable bushing
11 212 845	Cable bushing TKT 3x7 mm metal
11 212 846	Cable bushing TKT 3x7 mm plastic
11 212 850	Cable bushing TKT 1x11 mm metal

Make a selection from the cable bushing table. Cable bushing TKT fits on the four 18 mm inlets above the oval inlet.

Cold method – Insert oval

Part No.	Type of cable bushing	Part No.	Type of cable bushing
11 212 851	Cable bushing TKN-O 4x 5,0-7,0	**11 212 854**	Cable bushing TKN-O 4x 7,7-9,5
11 212 852	Cable bushing TKN-O 2x 5,5-7,2	**11 212 855**	Cable bushing TKN-O 10-12
11 212 853	Cable bushing TKN-O 4x 6,5-8,5	**11 212 891**	Cable bushing TKN-IO 14-17

Ordering example of TSG

FOC, 240 fibre, mid span, 1x OD 17 mm and micro-cable 2X OD 5 mm, wall mounted mid-span.

Quantity	Choice of Closure	Quantity	Choice of heat shrink	Quantity	Choice of bracket	Quantity	Choice of cable bushing
1	11 160 542	1	11 219 159	1	11 214 005	1	11 212 845

TYKO FLEX

Wind/Station

- Developed for substation and wind turbines.
- The closures base has the following inlets/glands: 4xø16, 2xø29 and an oval entry hole to allow uninterrupted Fiber splicing (mid span).
- Connection panel for 8XSCD included in delivery. (Pigtails available on request, contact Tykoflex).
- Heat shrink Kit for sealing of glands and entry/exit points is included. (Branching clip with glue for mid-span, heat shrink caps, emery cloth, instructions, 2 X Multicassette´s, magnetic holder.
- Bushings suitable for either cold or warm method possible but not included (needs to be selected according to cable specifications, PG21 type) as Option the oval can accommodate cold method bushing type (TKN-O).
- Please note that due to cable glands this box Is NOT IP69K, ask us for further options.
- Lockable with padlock cap 11 218 056 (not included)

Wind/ Station Part No.	Type	Exterior diameter/ total height/ lid height/ mm	Weight kg	Included			Accessories
				No. of cassettes	Choice of bracket	Basic configuration*	Required
							Choice of cable bushing
11 140 061	Wind/Station	270/140/50	4,95	2	●	●	x

Basic configuration

11 140 061	Bottom part 240 Wind/Station	Cable tie 100x2,5mm Nature 25-p
	Lid 240/50	2x multicassettes for optical fibre
	Support sleeve 240	8xSCD adapter panel TTC
	O-ring 239.1x8 EPDM	3x Fibre holder WSLT-03-2-01
	V-clamp 240	4x M16 Nut/plug
	Interior fittings	
	Emery cloth	
	Heat shrink 50/16. L =200 mm. Branch -off clip	
	Silica gel 10 g	
	Wellbox 240/50	
	2x End plug	
	8x Adapter SC duplex Zr	
	Mounting bracket for magnet	
	Shrinkable End Cap 63/24mm	
	Instruction Multicassette	
	Instruction T240 Swedish/English	

Optional accessories

Choice of cable bushing / Cold method

Part No.	Type of cable bushing	Part No.	Type of cable bushing
11 212 018	Cable bushing 6x6 mm	11 208 010	End plug PG21 RS
11 212 040	Cable bushing 4x10 mm	11 212 840	Cable bushing TKT 7x7mm Metal
11 212 050	Cable bushing 1x10 mm	11 212 842	Cable bushing TKT 7x7mm Plastic
11 212 060	Cable bushing 2×10 mm	11 212 847	Stuffing box nipple TKT M12x1
11 212 070	Cable bushing 3x12 mm	11 212 851	Cable bushing TKN-O 4x 5,0-7,0
11 212 100	Cable bushing 2x18mm	11 212 852	Cable bushing TKN-O 2x 5,5-7,2
11 212 132	Cable bushing 1x24mm	11 212 853	Cable bushing TKN-O 4x 6,5-8,5
11 212 145	Cable bushing 1x30 mm	11 212 854	Cable bushing TKN-O 4x 7,7-9,5
11 212 350	Cable bushing divisible 2x18 mm	11 212 855	Cable bushing TKN-O 10-12
		11 212 859	Cable bushing TKN-O 2x 5,5-12,0
		11 212 860	Cable bushing TKN-L 24x 1,8-4mm
		11 212 861	Cable bushing TKN-L 12x 4-7mm
		11 212 861	Cable bushing TKN-L 12x 4-7mm
		11 212 862	Cable bushing TKN-L 4x 7-9mm

Accessories & tools

Ⓡ Recommended

Article	
11 216 020	Tool kit T240 Ⓡ
11 216 040	Multicassette tool
11 216 045	Tool to remove SCD adapter
11 216 055	Socket wrench 11 mm

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Termination

Joint Closure TST is primarily intended for termination and cross coupling of fibre in an outdoor environment. In addition measurements of fibre can easily take place. A fibre adaptor panel and fibre organizer cassettes are included. The closure is delivered with one oval cable inlet and has two open holes for customer adaptation and is delivered without end plugs or bushings which are selected separately.

The closure is equipped with a fibre adaptor panel, cable strength member clamps, splice protectors and a cassette. Joint Closure TST is available in four different sizes, depending on the total number of fibres to be connected, (12 to 96 SC), please choose a suitable joint closure for your application as specified in the table below. Brackets for attachment on walls, racks, in manholes or on poles, are available as options and ordered separately. Together with a locking cap, the closure can easily be locked with a padlock.

The closure TST is delivered with heat shrink tube + branch-off clip for the oval inlet and with the articles specified in the table on the opposite page (basic configuration).

TST 24 fibres per Multicassette

TST 24 Fibre Part No.	Type	No. of fibres termi-nated	Exterior diameter/ total height/ lid height/ mm	Weight kg	Included				Accessories			
									Necessary			Optional
					No. of cassettes	No. of splice protec-tors	Patch panel with holes for	Basic confi-gura-tion*	Choice of pigtail	Choice of cable bushing or end plug	Choice of adaptors	Choice of bracket
11 160 451	T240/50 TST 12/F	12	270/140/50	3.8	1	25	12xSC Simplex	●	x	x	x	x
11 160 453	T240/70 TST 24/F	24	270/140/70	3.9	2	50	12xSC Duplex	●	x	x	x	x
11 160 455	T240/150 TST 48/F	48	270/140/150	4.4	4	100	24xSC Duplex	●	x	x	x	x
11 160 457	T240/200 TST 96/F	96	270/140/200	5.6	4	200	48xSC Duplex	●	x	x	x	x

*= Please see next page   x= Please make a choice on next page

Accessories & tools

R Recommended

Article		Article	
11 202 202	Multicassette fibre organizer, 2-p	11 216 115	Pressure test kit T240
11 216 020	Tool kit T240	11 218 056	Locking cap for padlock
11 216 100	Cassette holder horizontal R	11 216 073	TKT spanner for opening and closing of TKT nipples.10 mm. Including TKT adapter.
11 216 105	Cassette holder vertical R	11 216 110	Mid-span cable entry tool with radius protection.
11 218 346	Splice protectors, pack of 25		

Necessary accessories

Choice of cable bushing

Part No.	Type of cable bushing	Part No.	Type of cable bushing
11 208 010	End plug PG21 SS	11 212 145	Cable bushing 1x30 mm
11 212 018	Cable bushing 6x6 mm	11 212 350	Cable bushing divisible 2x18 mm
11 212 040	Cable bushing 4x10 mm	11 212 840	Cable bushing TKT 7x7 mm metal
11 212 050	Cable bushing 1x10 mm	11 212 842	Cable bushing TKT 7x7 mm plastic
11 212 070	Cable bushing 3x12 mm	11 212 860	Cable bushing TKN-L 1,8-4,0
11 212 100	Cable bushing 2x18mm	11 212 861	Cable bushing TKN-L 4,0-7,0
11 212 132	Cable bushing 1x24mm	11 212 862	Cable bushing TKN-L 4x7,0-9,0

Cold method – Insert oval

Part No.	Type of cable bushing	Part No.	Type of cable bushing
11 212 851	Cable bushing TKN-O 4x 5,0-7,0	11 212 854	Cable bushing TKN-O 4x 7,7-9,5
11 212 852	Cable bushing TKN-O 2x 5,5-7,2	11 212 855	Cable bushing TKN-O 10-12
11 212 853	Cable bushing TKN-O 4x 6,5-8,5		

Make a selection from the cable bushing table.

Choice of pigtail

Part No.	Type of pigtail
11 349 702	Pigtail SM SC/VPC 0.9 L = 1000 mm
11 349 801	Pigtail SC/UPC 12R-SM-0.9-3 high quality

Choice of adaptors

Part No.	Type of adaptor
11 348 810	Adaptor SC Simplex Zr
11 348 812	Adaptor SC Duplex Zr
11 348 840	Adaptor SC/APC Simplex Zr
11 348 842	Adaptor SC/APC Duplex Zr

Optional accessories

Choice of bracket

Part No.	Type of bracket
11 214 005	Wall bracket
11 214 030	Pole bracket for horizontal box
11 214 050	Cable hanger 740, one mount plate

The bracket for T240 is found in the table "Bracket". Make your selection from the list depending on the application – wooden pole, steel pole/tower.

Basic configuration

11 160 4xx	Bottom part 240 TS	Nut Nylock M6 Din 985 A-4	Wellbox 240/50/50/70/150/200
	Lid 240/50/70/150/200	Fiber adaptor panel 12/24/48/96	Instruction TST
	Support sleeve 240	Washer 6.4x18x1.6	Instruction T240 Swedish/English
	O-ring 239.1x8 EPDM	Silica gel 10 g	Instruction Multicassette
	V-clamp 240	Heat shrink 50/16, L =200 mm.	Emery cloth
	Interior fittings	Branch -off clip	

Ordering example of TST

2x FOC, 48 terminated fibre, SC Duplex adaptor, bracket for manhole mount.

Quantity	Choice of Closure	Quantity	Choice of bracket	Quantity	Choice of pigtail	Quantity	Choice of adaptors	Quantity	Choice of cable bushing
1	11 160 455	1	11 214 005	96	11 349 702	24	11 348 812	2	11 208 010

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ADSS (All-Dielectric Self-Supporting)
The Joint Closure ADSS can be mounted on any pole or tower with a suitable bracket. Joint Closure ADSS has three open holes for customer adaptation and is delivered without end plugs or bushings which are selected separately.

The closure is equipped with cable strength member clamps, splice protectors and Multicassette. Joint Closure ADSS is available in three different sizes, depending on the total number of fibres to be spliced and the number of fibres per cassette. The number of fibres will determine the number of cassettes. Please choose a suitable joint closure for your fibre cables as specified in the table below.

Brackets for attachment on walls or on poles, are available as options. Together with a locking cap, the closure can easily be locked with a padlock.

ADSS 12, 24, 48 or 72 fibres per Multicassette

ADSS Part No.	Type	No. of fibres	Exterior diameter/ total height/ lid height/ mm	Weight kg	Included			Required accessories	
					No. of cassettes	No. of splice protectors	Basic configuration*	Choice of bracket	Choice of cable bushing or end plug
ADSS 12 Fibre									
11 160 301	T240/50 ADSS 12/12F	12	270/140/50		1	12	●	x	x
11 160 302	T240/50 ADSS 24/12F	24	270/140/50		2	25	●	x	x
11 160 304	T240/50 ADSS 48/12F	48	270/140/50		4	50	●	x	x
11 160 307	T240/70 ADSS 72/12F	72	270/160/70		6	75	●	x	x
11 160 310	T240/150 ADSS 96/12F	96	270/235/150		8	100	●	x	x
11 160 312	T240/150 ADSS 120/12F	120	270/235/150		10	125	●	x	x
ADSS 48 Fibre									
11 160 331	T240/50 ADSS 24/24F	24	270/140/50		1	25	●	x	x
11 160 332	T240/50 ADSS 48/24F	48	270/140/50		2	50	●	x	x
11 160 334	T240/50 ADSS 96/36F	96	270/140/50		4	100	●	x	x
11 160 337	T240/70 ADSS 144/36F	144	270/160/70		6	150	●	x	x
11 160 340	T240/150 ADSS 192/36F	192	270/235/150		8	200	●	x	x
11 160 342	T240/150 ADSS 240/36F	240	270/235/150		10	250	●	x	x
ADSS 48 Fibre									
11 160 361	T240/50 ADSS 48/48F	48	270/140/50		1	50	●	x	x
11 160 362	T240/50 ADSS 96/48F	96	270/140/50		2	100	●	x	x
11 160 364	T240/50 ADSS 192/48F	192	270/140/50		4	200	●	x	x
11 160 367	T240/70 ADSS 288/48F	288	270/160/70		6	300	●	x	x
11 160 370	T240/150 ADSS 384/48F	384	270/235/150		8	400	●	x	x
11 160 372	T240/150 ADSS 480/48F	480	270/235/150		10	500	●	x	x
ADSS 72 Fibre									
11 160 374	T240/50 ADSS 72/72F	72	270/140/50		1	75	●	x	x
11 160 376	T240/50 ADSS 144/72F	144	270/140/50		2	150	●	x	x
11 160 378	T240/50 ADSS 288/72F	288	270/140/50		4	300	●	x	x
11 160 380	T240/70 ADSS 432/72F	432	270/160/70		6	450	●	x	x
11 160 382	T240/235 ADSS 576/72F	576	270/235/150		8	600	●	x	x
11 160 384	T240/235 ADSS 720/72F	720	270/235/150		10	720	●	x	x

*= Please see next page   x= Please make a choice on next page

Accessories & tools

Ⓡ Recommended

Article		Article	
11 202 202	Multicassette fibre organizer, 2-p	**11 216 115**	Pressure test kit T240
11 216 020	Tool kit T240 Ⓡ	**11 218 056**	Locking cap for padlock
11 216 100	Cassette holder horizontal Ⓡ	**11 216 073**	TKT spanner for opening and closing of TKT nipples.10 mm. Including TKT adapter.
11 216 105	Cassette holder vertical	**11 216 110**	Mid-span cable entry tool with radius protection.
11 218 xxx	For splice protectors, see page		

Required accessories

Choice of cable bushing

Part No.	Type of cable bushing	Part No.	Type of cable bushing
11 208 010	End plug PG21 SS	**11 212 350**	Cable bushing divisible 2x18 mm
11 212 018	Cable bushing 6x6 mm	**11 212 840**	Cable bushing TKT 7x7 mm metal
11 212 040	Cable bushing 4x10 mm	**11 212 842**	Cable bushing TKT 7x7 mm plastic
11 212 050	Cable bushing 1x10 mm	**11 212 845**	Cable bushing TKT 3x7 mm metal
11 212 070	Cable bushing 3x12 mm	**11 212 846**	Cable bushing TKT 3x7 mm plastic
11 212 100	Cable bushing 2x18mm	**11 212 870**	Cable bushing TKN-K 1,8-4,0
11 212 132	Cable bushing 1x24mm	**11 212 871**	Cable bushing TKN-K 4,0-7,0
11 212 145	Cable bushing 1x30 mm	**11 212 872**	Cable bushing TKN-K 4x7,0-9,0

Make a selection from the cable bushing table.

Choice of bracket

Part No.	Type of bracket
11 214 102	Pole bracket 800 wood pole
11 214 104	Pole bracket 800 for steel pole
11 214 114	Mounting plate power line
11 214 005	Wall bracket

The bracket for ADSS is found in the table "Bracket". Make your selection from the list depending on the application – wooden pole, steel pole/tower.

Basic configuration

11 160 3xx	Bottom part 240 3 hole	Interior fittings	Instruction T240 Swedish/English
	Lid 240/50/70/150	Nut Nylock M6 Din 985 A-4	Instruction Multicassette
	Support sleeve 240	Washer 6.4x18x1.6	Emery cloth
	O-ring 239.1x8 EPDM	Silica gel 10 g	
	V-clamp 240	Wellbox 240/50/70/150	

Ordering example of ADSS

ADSS, 24 fibre, two cables OD 15 mm, wooden pole.

Quantity	Choice of Closure * Delivery content	Quantity	Choice of bracket	Quantity	Choice of cable bushing
1	11 160 302	1	11 214 102	2	11 212 132
				1	11 208 010

IP69K APPROVED

Distribution point for up to 56 micro-cables.
Joint Closure TB facilitates mid-span access and as distribution point in FTTH networks. The closure is delivered with one oval cable inlet and has 5 or 8 open holes for customer adaptation and without end plugs or bushings which are selected separately. The closure is equipped with cable strength member clamps, splice protectors and Multicassette. Depending on the amount of 3-10 mm cables to be installed, the closure TB is delivered in two different models, TB5 and TB8 as specified in the table below, with the appropriate number of cassettes and splice protectors.

End plugs and/or cable bushings are ordered separately. Brackets for attachment on walls, racks, in manholes or on poles, are available as options and ordered separately. Together with a locking cap, the closure can easily be locked with a padlock. The closure TB is delivered with heat shrink tube + branch-off clip for the oval inlet and with the articles specified in the table on the opposite page (basic configuration).

TB 5 or 8 openings for cable bushings

TB 24 Fibre Part No.	Type	No. of fibres	Exterior diameter/ total height/lid height/ mm	Weight kg	Included			Info.	Accessories		
					No. of cassettes	No. of splice protectors	Basic configuration*	Maximum number of cable bushings	Required	Optional	
									Choice of cable bushing or end plug	Choice of bracket	Choice of work holder
11 160 963	T240/150 TB8 120/24F	120	270/200/150		5	125	●	8	x	x	x

*= Please see next page x= Please make a choice on next page

Accessories & tools

R Recommended

Article		Article	
11 202 202	Multicassette fibre organizer, 2-p **R**	11 216 115	Pressure test kit T240
11 216 020	Tool kit T240	11 218 056	Locking cap for padlock
11 218 346	Splice protectors, pack of 25 **R**	11 216 073	TKT spanner for opening and closing of TKT nipples.10 mm. Including TKT adapter.
11 216 105	Cassette holder vertical	11 216 110	Mid-span cable entry tool with radius protection.

Basic configuration

11 160 9xx	Bottom part 240	Interior fittings	Branch -off clip
	Lid 240/150/200	Cable tie 100x2.5 mm	Wellbox 240/150/200
	Support sleeve 240	Nut Nylock M6 Din 985 A-4	Instruction T240 Swedish/English
	O-ring 239.1x8 EPDM	Silica gel 10 g	Instruction Multicassette
	V-clamp 240	Heat shrink 50/16, L = 200 mm	Emery cloth

Optional accessories

Choice of bracket

Part No.	Type of bracket
11 214 029	Bracket for TB/TBK

Choice of work holder

Part No.	Type of work holder
11 216 122	Work holder for TB/TBK

Required accessories

Choice of cable bushing

Part No.	Type of cable bushing
11 208 010	End plug PG21 SS
11 212 018	Cable bushing 6x6 mm
11 212 040	Cable bushing 4x10 mm
11 212 050	Cable bushing 1x10 mm
11 212 070	Cable bushing 3x12 mm
11 212 100	Cable bushing 2x18mm
11 212 132	Cable bushing 1x24mm
11 212 145	Cable bushing 1x30 mm
11 212 350	Cable bushing divisible 2x18 mm
11 212 840	Cable bushing TKT 7x7 mm metal
11 212 842	Cable bushing TKT 7x7 mm plastic
11 212 870	Cable bushing TKN-K 1,8-4,0
11 212 871	Cable bushing TKN-K 4,0-7,0
11 212 872	Cable bushing TKN-K 4x7,0-9,0

Cold method – Insert oval

Part No.	Type of cable bushing
11 212 851	Cable bushing TKN-O 4x 5,0-7,0
11 212 852	Cable bushing TKN-O 2x 5,5-7,2
11 212 853	Cable bushing TKN-O 4x 6,5-8,5
11 212 854	Cable bushing TKN-O 4x 7,7-9,5
11 212 855	Cable bushing TKN-O 10-12

Make a selection from the cable bushing table.
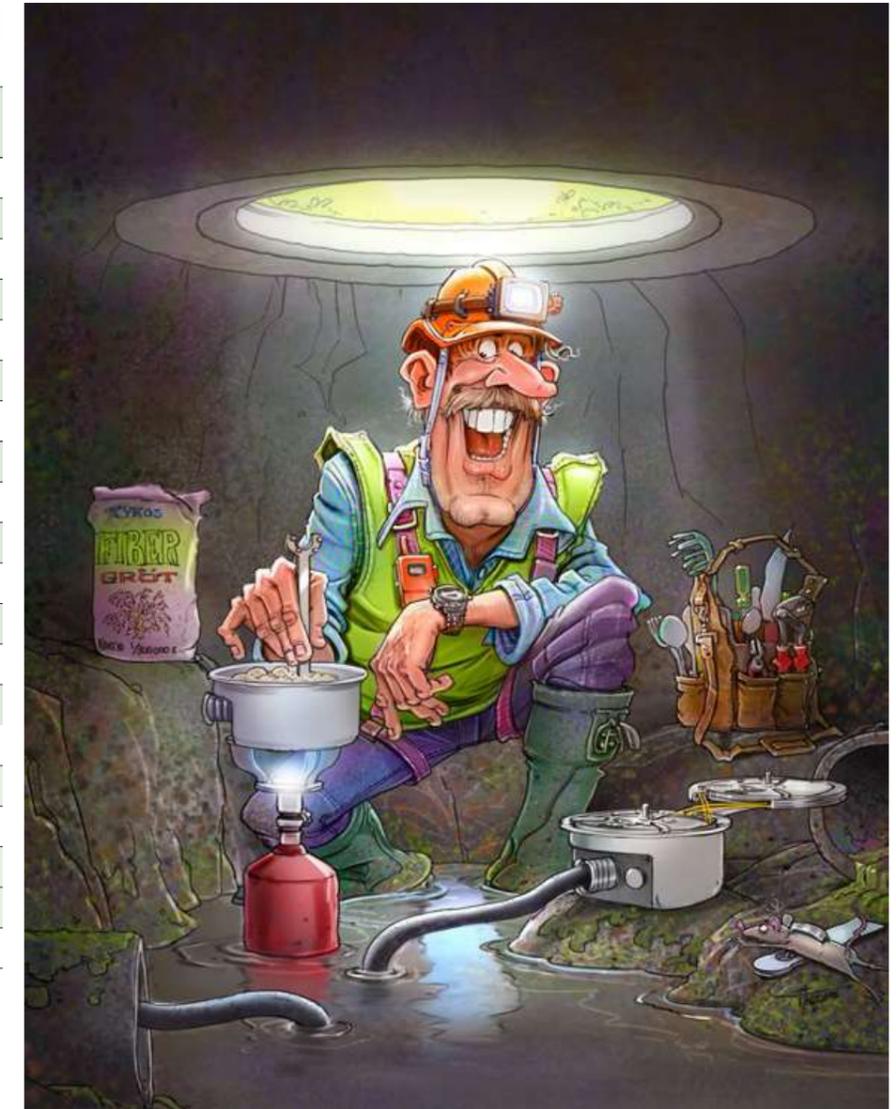
Ordering example of TB closure

FOC, 72 fibre, OD 18 mm, 28x 2F microcables OD 5 mm = 56 fibre, wall mount

Quantity	Choice of Closure	Quantity	Choice of bracket	Quantity	Choice of cable bushing
1	11 160 961	1	11 214 029	4	11 212 840
				1	11 208 010

TYKO FLEX

IP69K APPROVED

Distribution point up to 8 standard cables.

Joint Closure TBK8 facilitates mid-span access without the need to cut and re-splice all the fibres in the cable. The closure is delivered with one oval cable inlet and two pre-sealed ports, ID 27 mm and six pre-sealed ports, ID 22 mm. The closure is equipped with cable strength member clamps, splice protectors and Multicassette.

Joint Closure TBK8 is available in two different sizes, depending on the total number of fibres to be spliced and the number of fibres per cassette. The number of fibres will determine the number of cassettes. Please choose a suitable joint closure for your fibre cables as specified in the table below. Brackets for attachment on walls, racks, in manholes or on poles, are available as options and ordered separately.

Together with a locking cap, the closure can easily be locked with a padlock. The closure TBK8 is delivered with heat shrink tube + branch-off clip for the oval inlet and with the articles specified in the table on the opposite page (basic configuration).

TBK 8 for 12, 24, 48 or 72 fibres per Multicassette

TBK8 Part No.	Type	No. of fibres	Exterior diameter/ total height/ lid height/ mm	Weight kg	Included			Optional accessories		
					No. of cassettes	No. of splice protectors	Basic configuration*	Choice of bracket	Choice of shrink tube	Choice of work holder
TBK8 12 Fibre										
11 160 801	T240/150 TBK8 12/12F	12	270/200/150		1	12	●	x	x	x
11 160 804	T240/150 TBK8 48/12F	48	270/200/150		4	50	●	x	x	x
11 160 807	T240/200 TBK8 120/12F	120	270/275/200		10	125	●	x	x	x
TBK8 24 Fibre										
11 160 831	T240/150 TBK8 24/24F	24	270/200/150		1	25	●	x	x	x
11 160 834	T240/150 TBK8 96/24F	96	270/200/150		4	100	●	x	x	x
11 160 837	T240/200 TBK8 240/24F	240	270/275/200		10	250	●	x	x	x
TBK8 48 Fibre										
11 160 861	T240/150 TBK8 48/48F	48	270/200/150		1	50	●	x	x	x
11 160 864	T240/150 TBK8 192/48F	192	270/200/150		4	200	●	x	x	x
11 160 867	T240/200 TBK8 480/48F	480	270/275/200		10	500	●	x	x	x
TBK8 72 Fibre										
11 160 871	T240/150 TBK8 72/72F	72	270/200/150		1	75	●	x	x	x
11 160 874	T240/150 TBK8 288/72F	288	270/200/150		4	300	●	x	x	x
11 160 877	T240/200 TBK8 720/72F	720	270/275/200		10	725	●	x	x	x

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Accessories & tools

R Recommended

Article		Article	
11 216 020	Tool kit T240	11 218 xxx	For splice protectors, see page
11 216 111	Cassette holder for TBK 8 R	11 202 202	Multicassette fibre organizer, 2-p
11 218 056	Locking cap for padlock	11 218 340	Branching kit for centre tube cables.
11 216 115	Pressure test kit T240	11 216 131	Tube cutter

Optional accessories

Cold method – Insert oval

Part No.	Type of cable bushing	Part No.	Type of cable bushing
11 212 851	Cable bushing TKN-O 4x 5,0-7,0	11 212 854	Cable bushing TKN-O 4x 7,7-9,5
11 212 852	Cable bushing TKN-O 2x 5,5-7,2	11 212 855	Cable bushing TKN-O 10-12
11 212 853	Cable bushing TKN-O 4x 6,5-8,5	11 212 891	Cable bushing TKN-IO 14-17

Make a selection from the cable bushing table.

Basic configuration

11 160 8xx	Bottom part 240 TBK 8	Interior fittings	Heat shrink 50/16, L = 200 mm
	Lid 240/150/200	Cable tie 100x2.5mm	Branch -off clip
	Support sleeve 240	Nut Nylock M6 Din 985 A-4	Wellbox 240/150/200
	O-ring 239.1x8 EPDM	Washer 6.4x18x1.6	Instruction T240 Swedish/English
	V-clamp 240	Silica gel 10 g	Instruction Multicassette and Emery cloth

Optional accessories

Choice of bracket

Part No.	Type of bracket
11 214 029	Bracket for TB/TBK

Choice of shrink tube

Part No.	Type of shrink tube
11 219 159	Heat shrink tube 34/8 L = 200 mm

Choice of work holder

Part No.	Type of work holder
11 216 122	Work holder for TB/TBK

Ordering example of TBK8 closure

FOC, 192 fibre, 2x OD 18 mm (in oval), 6x OD 14 mm, wall mounted.

Quantity	Choice of Closure	Quantity	Choice of bracket	Quantity	Choice of shrink tube
1	11 160 864	1	11 214 029	6	11 219 159

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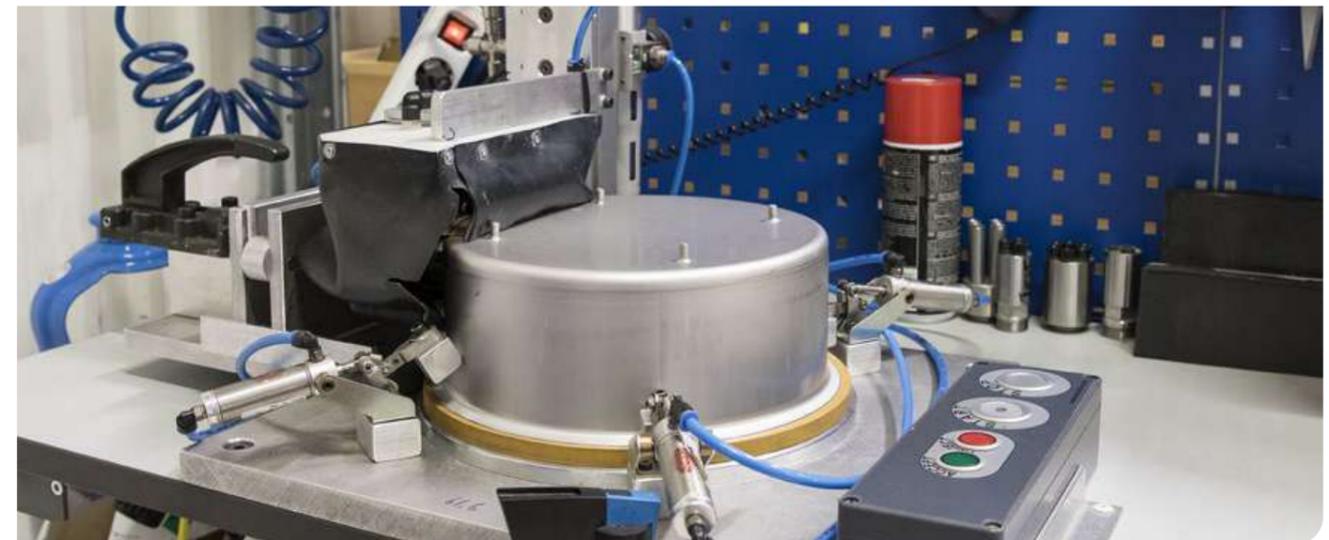
Distribution point up to 10 standard cables.
The closure is delivered with one open cable inlet 22 mm and two pre-sealed ports, ID 27 mm, and seven pre-sealed ports, ID 22 mm. The closure is equipped with cable strength member clamps, splice protectors and Multicassette. Joint Closure TBK10 is available in two different sizes, depending on the total number of fibres to be spliced and the number of fibres per cassette.

The number of fibres will determine the number of cassettes. Please choose a suitable joint closure for your fibre cables as specified in the table below. Brackets for attachment on walls, racks, in manholes or on poles, are available as options and ordered separately. Together with a locking cap, the closure can easily be locked with a padlock.

The closure TBK10 is delivered with heat shrink tube for the open inlet and with the articles specified in the table on the opposite page (basic configuration).

TBK10 for 12, 24, 48 or 72 fibres per Multicassette

TBK10 Part No.	Type	No. of fibres	Exterior diameter/ total height/ lid height/ mm	Weight kg	Included			Optional accessories		
					No. of cassettes	No. of splice protectors	Basic configuration*	Choice of bracket	Choice of shrink tube	Choice of work holder
TBK10 12 Fibre										
11 160 891	T240/150 TBK10 12/12F	12	270/200/150		1	12	●	x	x	x
11 160 894	T240/150 TBK10 48/12F	48	270/200/150		4	50	●	x	x	x
11 160 897	T240/200 TBK810 120/12F	120	270/275/200		10	125	●	x	x	x
TBK10 24 Fibre										
11 160 901	T240/150 TBK10 24/24F	24	270/200/150		1	25	●	x	x	x
11 160 904	T240/150 TBK10 96/24F	96	270/200/150		4	100	●	x	x	x
11 160 907	T240/200 TBK10 240/24F	240	270/275/200		10	250	●	x	x	x
TBK10 48Fibre										
11 160 931	T240/150 TBK10 48/48F	48	270/200/150		1	50	●	x	x	x
11 160 934	T240/150 TBK10 192/48F	192	270/200/150		4	200	●	x	x	x
11 160 937	T240/200 TBK10 480/48F	480	270/275/200		10	500	●	x	x	x
TBK10 72 Fibre										
11 160 941	T240/150 TBK10 72/72F	72	270/200/150		1	75	●	x	x	x
11 160 944	T240/150 TBK10 288/72F	288	270/200/150		4	300	●	x	x	x
11 160 947	T240/200 TBK10 720/72F	720	270/275/150		10	725	●	x	x	x

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Accessories & tools

R Recommended

Article		Article	
11 216 020	Tool kit T240	11 218 346	Splice protectors, pack of 25
11 216 111	Cassette holder for TBK 8 R	11 202 202	Multicassette fibre organizer, 2-p
11 218 056	Locking cap for padlock	11 218 340	Branching kit for centre tube cables.
11 216 115	Pressure test kit T240		

Optional accessories

Choice of bracket

Part No.	Type of bracket
11 214 029	Bracket for TB/TBK

Choice of heat shrink tube

Part No.	Type of heat shrink tube
11 219 159	Heat shrink tube 34/8 L = 200 mm

Choice of work holder

Part No.	Type of work holder
11 216 122	Work holder for TB/TBK

Cold method – Insert oval

Part No.	Type of cable bushing	Part No.	Type of cable bushing
11 212 851	Cable bushing TKN-O 4x 5,0-7,0	11 212 854	Cable bushing TKN-O 4x 7,7-9,5
11 212 852	Cable bushing TKN-O 2x 5,5-7,2	11 212 855	Cable bushing TKN-O 10-12
11 212 853	Cable bushing TKN-O 4x 6,5-8,5	11 212 891	Cable bushing TKN-IO 14-17

Make a selection from the cable bushing table.

Basic configuration

11 160 8xx	Bottom part 240 TBK 10	Interior fittings	Heat shrink 50/16, L = 200 mm
	Lid 240/150/200	Cable tie 100x2.5mm	Branch -off clip
	Support sleeve 240	Nut Nylock M6 Din 985 A-4	Wellbox 240/150/200
	O-ring 239.1x8 EPDM	Washer 6.4x18x1.6	Instruction T240 Swedish/English
	V-clamp 240	Silica gel 10 g	Instruction Multicassette and Emery cloth

Ordering example of TBK10 closure

FOC, 240F, 2x OD 20 mm (in oval), 8x OD 14 mm.

Quantity	Choice of Closure	Quantity	Choice of bracket	Quantity	Choice of shrink tube
1	11 160 907	1	11 214 029	8	11 219 159

TYKO FLEX

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Distribution point up to 16 standard cables

Joint Closure TBK16 facilitates mid-span access without the need to cut and re-splice all the fibres in the cable. The closure is delivered with one oval cable inlet and two pre-sealed ports, ID 25 mm, and 14 pre-sealed ports, ID 16 mm. The closure is equipped with cable strength member clamps, splice protectors and Multicassette. Joint Closure TBK16 is available in two different sizes, depending on the total number of fibres to be spliced and the number of fibres per cassette.

The number of fibres will determine the number of cassettes to be used. Please choose a suitable joint closure for your fibre cables as specified in the table below. Brackets for attachment on walls, racks, in manholes or on poles, are available as options and ordered separately.

Together with a locking cap, the closure can easily be locked with a padlock. The closure TBK16 is delivered with heat shrink tube + branch-off clip for the oval inlet and with the articles specified in the table on the opposite page (basic configuration).

TBK 16 for 12, 24 , 48 or 72 fibres per Multicassette

TBK16 Part No.	Type	No. of fibres	Exterior diameter/ total height/ lid height/ mm	Weight kg	Included			Optional accessories		
					No. of cassettes	No. of splice protectors	Basic configuration*	Choice of bracket	Choice of shrink tube	Choice of work holder
TBK16 12 Fibre										
11 160 991	T240/150 TBK16 12/12F	12	270/200/150		1	12	●	x	x	x
11 160 992	T240/150 TBK16 48/12F	48	270/200/150		4	50	●	x	x	x
11 160 993	T240/200 TBK16 120/12F	120	270/275/200		10	125	●	x	x	x
TBK16 24 Fibre										
11 160 994	T240/150 TBK16 24/24F	24	270/200/150		1	25	●	x	x	x
11 160 995	T240/150 TBK16 96/24F	96	270/200/150		4	100	●	x	x	x
11 160 996	T240/200 TBK16 240/24F	240	270/275/200		10	250	●	x	x	x
TBK16 48Fibre										
11 161 031	T240/150 TBK16 48/48F	48	270/200/150		1	50	●	x	x	x
11 161 034	T240/150 TBK16 192/48F	192	270/200/150		4	200	●	x	x	x
11 161 037	T240/200 TBK16 480/48F	480	270/275/200		10	500	●	x	x	x
TBK16 72 Fibre										
11 161 041	T240/150 TBK16 72/72F	72	270/200/150		1	75	●	x	x	x
11 161 044	T240/150 TBK16 288/72F	288	270/200/150		4	300	●	x	x	x
11 161 047	T240/200 TBK16 720/72F	720	270/275/200		10	725	●	x	x	x

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Accessories & tools

R Recommended

Article		Article	
11 216 020	Tool kit T240	11 218 xxx	For splice protectors, see page
11 216 111	Cassette holder for TBK 8 **R**	11 202 202	Multicassette fibre organizer, 2-p
11 218 056	Locking cap for padlock	11 218 340	Branching kit for centre tube cables.
11 216 115	Pressure test kit T240		

Optional accessories

Choice of bracket

Part No.	Type of bracket
11 214 029	Bracket for TB/TBK

Choice of heat shrink tube

Part No.	Type of heat shrink tube
11 219 159	Heat shrink tube 34/8 L = 200 mm

Choice of work holder

Part No.	Type of work holder
11 216 122	Work holder for TB/TBK

Cold method – Insert oval

Part No.	Type of cable bushing	Part No.	Type of cable bushing
11 212 851	Cable bushing TKN-O 4x 5,0-7,0	11 212 854	Cable bushing TKN-O 4x 7,7-9,5
11 212 852	Cable bushing TKN-O 2x 5,5-7,2	11 212 855	Cable bushing TKN-O 10-12
11 212 853	Cable bushing TKN-O 4x 6,5-8,5	11 212 891	Cable bushing TKN-IO 14-17

Make a selection from the cable bushing table.

Basic configuration

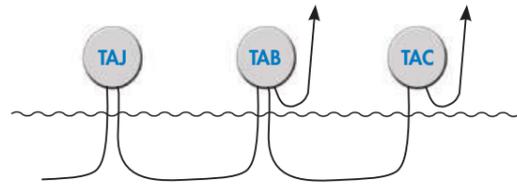| 11 160 9xx	Bottom part 240 TBK 10	Interior fittings	Heat shrink 50/16, L = 200 mm
	Lid 240/150/200	Cable tie 100x2.5mm	Branch -off clip
	Support sleeve 240	Nut Nylock M6 Din 985 A-4	Wellbox 240/150/200
	O-ring 239.1x8 EPDM	Washer 6.4x18x1.6	Instruction T240 Swedish/English
	V-clamp 240	Silica gel 10 g	Instruction Multicassette and Emery cloth

Ordering example of TBK16 closure

FOC, 192F, 1x OD 18 mm (in oval), 16x OD 12 mm.

Quantity	Choice of Closure	Quantity	Choice of bracket	Quantity	Choice of shrink tube
1	11 161 034	1	11 214 029	16	11 219 159

TYKO FLEX

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+see basic configuration

TA Beachflex

Joint Closure TA Beachflex is designed for harsh coastal environments. Joint Closure TA Beachflex is a complete system used for the transition between wire armoured submarine cables and/or land cable.

TA Beachflex consists of a T240 type TA mounted on a strain relief frame (stainless steel bracket). The cable entries to the joint closure are configured for a variety of applications, such as:
- **TAJ:** Joint between two submarine cables with capability of a future branch.
- **TAB:** Branch between two submarine cables with branching ground cable.
- **TAC:** Connection between submarine cable and ground cable.

The closure is equipped with cable strength member clamps, splice protectors, Multicassette, sea cable/ground cable bushing, hose clamps and bracket. Joint Closure TA is available in three different types, depending on the total number of fibres to be spliced. The number of fibres will determine the number of cassettes. Please choose a suitable joint closure for your fibre cables as specified in the table below. Together with a locking cap, the closure can easily be locked with a padlock. Depending on sea cable type add FIMT and potential equalizer (earth strap) kit.

Contact Tykoflex for information about our SEAFLEX product range.

TAJ= Joint TAB= Branch TAC= Connection

Beachflex TA Joint Closure, TAJ, TAB or TAC

TAJ Part No.	Type	No. of fibres	Exterior diameter/ total height/ lid height/ mm	Weight kg	Included					Optional accessories	
					No. of casset-tes	No. of splice protectors	Bracket SS	Cable bushing and end plug	Basic configu-ration*	Choice of FIMT	Choice of earthing kit
11 161 171	T240/50 TAJ 24/24F	24	270/140/50	6.0	1	25	1	2x cable bushing 1X24 beach + 1 end plug	●	x	x
11 161 174	T240/50 TAJ 48/24F	48	270/140/50	6.0	2	50	1	2x cable bushing 1X24 beach + 1 end plug	●	x	x
11 161 175	T240/50 TAJ 96/24F	96	270/140/50	6.0	4	100	1	2x cable bushing 1X24 beach + 1 end plug	●	x	x
11 161 176	T240/50 TAJ 192/48	192	270/140/50	6,5	4	200	1	2x cable bushing 1X24 beach + 1 end plug	●	x	x
11 161 177	T240/70 TAJ 288/48	288	270/140/70	6,6	6	300	1	2x cable bushing 1X24 beach + 1 end plug	●	x	x

TAB Part No.	Type	No. of fibres	Exterior diameter/ total height/ lid height/ mm	Weight kg	Included					Optional accessories	
					No. of casset-tes	No. of splice protectors	Bracket SS	Cable bushing	Basic configu-ration*	Choice of FIMT	Choice of earthing kit
11 161 231	T240/50 TAB 24/24F	24	270/140/50	6.5	1	25	1	2x cable bushing 1X24 beach + 1 1X24	●	x	x
11 161 234	T240/50 TAB 48/24F	48	270/140/50	6.5	2	50	1	2x cable bushing 1X24 beach + 1 1X24	●	x	x
11 161 235	T240/50 TAB 96/24F	96	270/140/50	6.5	4	100	1	2x cable bushing 1X24 beach + 1 1X24	●	x	x
11 161 236	T240/50 TAB 192/48	192	270/140/50	7,0	4	200	1	2x cable bushing 1X24 beach + 1 1X24	●	x	x
11 161 237	T240/70 TAB 288/48	288	270/140/70	7,1	6	300	1	2x cable bushing 1X24 beach + 1 1X24	●	x	x

TAC Part No.	Type	No. of fibres	Exterior diameter/ total height/ lid height/ mm	Weight kg	Included					Optional accessories	
					No. of casset-tes	No. of splice protectors	Bracket SS	Cable bushing and end plug	Basic configu-ration*	Choice of FIMT	Choice of earthing kit
11 161 291	T240/50 TAC 24/24F	24	270/140/50	6.0	1	25	1	1x cable bushing 1X24 beach + 1 1X24, end plug	●	x	x
11 161 294	T240/50 TAC 48/24F	48	270/140/50	6.0	2	50	1	1x cable bushing 1X24 beach + 1 1X24, end plug	●	x	x
11 161 295	T240/50 TAC 96/24F	96	270/140/50	6.0	4	100	1	1x cable bushing 1X24 beach + 1 1X24, end plug	●	x	x
11 161 296	T240/50 TAC 192/48	192	270/140/50	6,5	4	200	1	1x cable bushing 1X24 beach + 1 1X24, end plug	●	x	x
11 161 297	T240/70 TAC 288/48	288	270/140/70	6,6	6	300	1	1x cable bushing 1X24 beach + 1 1X24, end plug	●	x	x

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Accessories & tools

R Recommended

Article		Article	
11 202 202	Multicassette fibre organizer, 2-p	11 218 346	Splice protectors, pack of 25
11 216 020	Tool kit T240 R	11 216 115	Pressure test kit T240
11 216 100	Cassette holder horizontal R	11 218 056	Locking cap for padlock
11 216 143	Tool for Cable Tie SS – Used with cable bushing for sea cable. See picture below.		

Optional accessories

Choice of FIMT

Part No.	SS tube ID	Nr. of fibres	Type of FIMT
11 218 700	1.93-2.33		FIMT Kit S-tube 1.93-2.33 mm
11 218 702	2.4-2.8		FIMT Kit S-tube 2.4-2.8 mm
11 218 704	2.7-3.4		FIMT Kit S-tube 2.4-3.4 mm
11 218 705	3.0-3.3		FIMT Kit S-tub 3.0-3.3 mm
11 218 706	3.2-3.9		FIMT Kit S-tube 3.2-3.9 mm
11 218 708	4.1-5.2		FIMT Kit S-tube 4.1-5.3 mm

The type of FIMT kit depends on the design of the cable. From the datasheet, note the fibre stainless steel tube OD x,xx/ID x,xx to select the right kit. For a SS tube 3.6/3.2 mm the Part No: 11218704 FIMT Kit S-tube 2.9-3.4

Choice of earthing kit

Part No.	Type of earthing kit for sea cable.
11 218 653	SS tube Ø 3-7 mm
11 218 654	AL tape, type earth bonding
11 218 656	Copper tube 5 mm
11 218 657	Copper tube 8 mm

11 218 653

11 218 654

Spa entrance kit

See page 97 for a selection of Spa entrance kit's.

Basic configuration

11 161 1xx	Bottom part 240 3 hole	Silica gel 10 g	
	Lid 240/50	Wellbox TA	
	Support sleeve 240	Cable cleaner	
	O-ring 239.1x8 EPDM	Cable bushing 1x24 Beach	Depending on type. 4x Cable Tie SS incl.
	V-clamp 240	Cable bushing 1x24	
	Interior fittings	End plug PG21SS	
	Cable tie 100x2.5mm	Bracket SS	
	Emery cloth	Hose clamp	
	Branching kit for centre tube cables 48/24, 96/24, 192/48, 288/48		

TYKOFLEX

IP69K APPROVED

High fibre count up to 576 fibres
Joint Closure TBXL S is developed for loose-tube or centre tube cables for up to 576 fibres. Joint Closure TBXL S is delivered with one open oval inlet 63x31 mm (for mid-span access) and four ID 25 mm and two ID 27 mm sealed cable inlets.

TBXL S is equipped with six pivoting splice trays for 96 splices in each tray and a storage space for mid-span fibres. The closure is equipped with cable strength member clamps and splice protectors. Brackets for installation are available as options and ordered separately.

Together with a locking cap, the closure can easily be locked with a padlock. The closure TBXL S is delivered with heat shrink tube + branch-off clip for the oval and with the articles specified in the basic configuration table below.

Ribbon Fibre
Combined with mass fusion splicing, ribbon cables yield increased productivity in the field, significantly lower installation costs, and faster restorations. This is important considerations while tailoring your high density, high bandwidth network.

Ribbon cable offers the highest packing density, since all the fibres are laid out in rows, typically of 4, 8 or 12 in each row, and laid on top of each other. This way 144 fibres only have a cross section of about 6 mm or 1/4 inch. Some cable designs use a " slotted core" with up to 6 of these 144 fibre ribbon assemblies for 864 fibres in one cable.
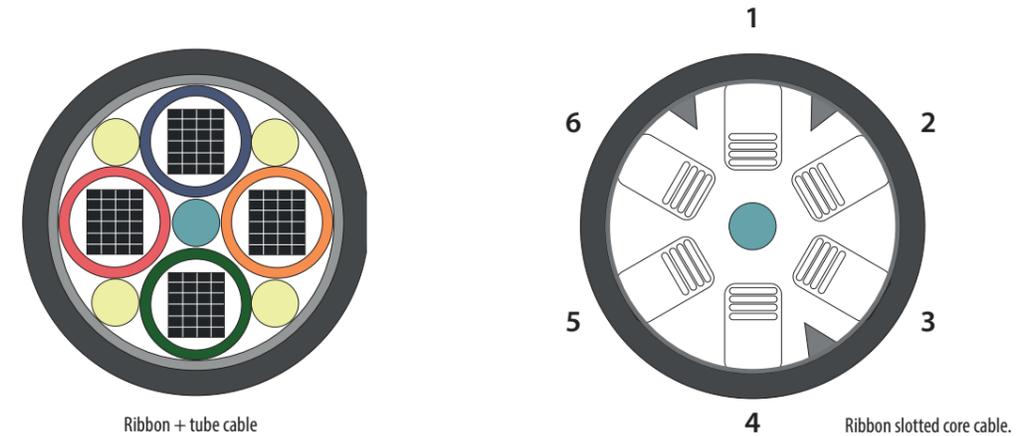
The most obvious asset for ribbon cable is its higher fibre density. This is particularly important for upstream applications requiring high fibre-count cables.

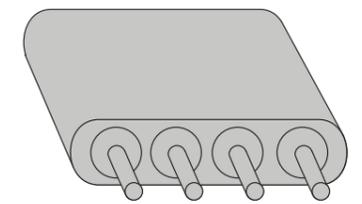Material costs decrease since less plastic is involved and fewer strength members are required. Additionally, it takes significantly less termination time (and cost) with ribbon cable because of its mass fusion splicing capability as compared to one-by-one fibre splicing.

Even with techniques available for " ribbonizing" loose tube fibre – basically stacking the fibre and using a spray adhesive to simulate ribbon cable – for mass fusion splicing, using ribbon cable to begin with, eliminates the need for this extra step.

Ribbon is, therefore, a favourable choice for termination in areas of the network that require a high volume of fibres.

TBXL S Single fibre

TBXL S Single fibre Part No.	Type	Max no. of fibres	Exterior diameter/ total height/ lid height/ mm	Weight kg	Included		Accessories			
							Required	Optional		
					No. of cassettes	Basic configuration*	Splice protectors	Work holder	Bracket	Heat shrink
11 162 001	T240/270 TBXL8 576/576F	576	270/600/450	11	6	●	x	x	x	x

*= Please see table below

Accessories & tools | Ⓡ Recommended

Article	
11 216 020	Tool kit T240

Required accessories

Part No.	Splice protectors, pack of 25
11 218 346	Splice protectors

Optional accessories

Part No.	Work holder (one time)	Part No.	Bracket	Part No.	Heat shrink
11 216 123	Work holder	11 xxx xxx	Bracket	11 219 159	Heat shrink 34/8

Basic configuration

11 162 001		
Bottom part 240/TBXL	Pivoting splice trays	Silica gel 10 g
V-clamp 240	Branch-off clip	Cable tie 100x2.5mm
Support sleeve 240	Heat shrink WCSM 54/16 L = 200 mm	Instruction TBXL
O-ring 239.1x8 EPDM	Branching kit for centre tube cables	
Interior fittings TBXL	Emery cloth	

Ordering example of TBXL S

FOC, 432 F, OD 23 mm, FOC 192F OD 13 mm

Quantity	Choice of Closure	Quantity	Splice protectors pack of 100	Quantity	Work holder	Quantity	Bracket	Quantity	Heat shrink
1	11 162 001	5	11 218 346	1	11 216 123	1	11 xxx xxx	1	11 219 159

Ribbon + tube cable

Ribbon slotted core cable.

T with 432 ribbon fibres installed.

4-ribbon fibre.

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Line joint
Joint Closure T SLIM is primarily intended for line joints with the possibility of up to two branches. The slim design makes its perfect for use in hand-holes. Joint Closure T SLIM is delivered with two open cable inlets and two sealed cable inlets. All inlets can handle cable diameters from 8 to 22 mm. Two heat shrinks are included.

The closure is equipped with cable strength member clamps and Multi-cassette. When branching, the inlet is opened and the cable is installed and sealed with heat shrink. T SLIM is available in three different sizes, depending on the total number of fibres to be spliced and the number of fibres per cassette. The necessary cassettes are included depending on the number of fibres to be used. Also select the number and type of splice protectors.

Brackets for attachment on walls, racks, in manholes or on poles, are available as options. Together with a locking cap, the closure can easily be locked with a padlock. Please see table below.

T SLIM for ribbon fibre

T SLIM for ribbon fibre Part No.	Type	No. of fibres	Exterior diameter/ total height/ lid height/ mm	Weight kg	Included		Accessories		
					No. of Multicassettes	Basic configuration*	Required	Optional	
							Splice protectors	Choice of heat shrink	Choice of bracket
11 171 431	T240/30 T SLIM 1MC	See below	270/95/30		1	●	xx	x	x
11 171 432	T240/30 T SLIM 2MC	See below	270/95/30		2	●	xx	x	x
11 171 434	T240/50 T SLIM 3MC	See below	270/115/50		3	●	xx	x	x
11 171 435	T240/50 T SLIM 4MC	See below	270/115/50		4	●	xx	x	x
11 171 437	T240/70 T SLIM 6MC	See below	270/135/70		6	●	xx	x	x

*= Please see next page   x= Please make a choice on next page, xx= Please make a choice below

Fibre capacity for T Slim with 1 to 6 Multicassettes

No. of cassettes	Singlefibre std 36/cas.	slim 72/cas.	4-fib. 18x4/cas.	8-fib. 18x8/cas.	12-fib. 9x12/cas.
1	36	72	72	144	108
2	72	144	144	288	216
4	144	288	288	576	432
6	216	432	432	864	648

The choice of splice protectors
Do not forget to add accurate number of splice protectors according to the type of cable that will be installed. This option ensures that our Joint Closures have total flexibility to meet all installation needs. Ribbon fibre and or mixed ribbon fibre and single fibre.

Required splice protectors

11 218 080	Ribbon fibre 4/8	25
11 218 082	Ribbon fibre 4/8/12	25
11 218 088	Ribbon fibre 4/8	100
11 218 090	Ribbon fibre 4/8/12	100

Mixed installation ribbon and single fibre add splice protectors below

11 218 346	Single fibre standard	25
11 218 348	Single fibre SLIM	25
11 218 084	Single fibre standard	100
11 218 086		100

Accessories & tools

R Recommended

Article		Article	
11 202 202	Multicassette fibre organizer, 2-p	11 216 115	Pressure test kit T240
11 216 020	Tool kit T240 **R**	11 218 056	Locking cap for padlock
11 216 100	Cassette holder **R**		

We recommend that you use the Tykoflex Tool kit T240 when working with closure and accessories.

Optional accessories

Heat shrink (for additional branching)

Part No.	Type of heat shrink tube
11 219 159	Heat shrink tube 34/8 L = 200 mm

Choice of bracket

Part No.	Type of bracket
11 214 005	Wall bracket
11 214 030	Pole bracket for horizontal box

Basic configuration

11 171 4xx	Bottom part 240 4 port	Interior fittings	2x Heat shrink 34/8. L=200 mm
	Lid 240/30/50/70	Cable tie 100x2.5mm	Wellbox 240/30/50/70
	Support sleeve 240	Nut Nylock M6 Din 985 A-4	Instruction T240 Swedish/English
	O-ring 239.1x8 EPDM	Washer 6.4x18x1.6	Instruction Multicassette
	V-clamp 240	Silica gel 10 g	Emery cloth

Ordering example of T Slim closure

3x FOC, 96 fibre, 4-ribbon cable OD 12 mm, for wall mounting.

Quantity	Choice of Closure	Quantity	Splice protectors	Quantity	Choice of Bracket	Quantity	Choice of heat shrink
1	11 171 432	1	11 218 080	1	11 214 005	1	11 219 159

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Mid-span

Joint Closure TS SLIM facilitates mid-span access without the need to cut and re-splice all the fibres in the cable and with the possibility of up to two branches. The slim design makes its perfect for use in hand-holes. Joint Closure TS SLIM is delivered with one open oval cable inlet and two sealed cable inlets. All inlets can handle cable diameters from 8 to 22 mm. Heatshrink and clip for the oval inlet are included.

The closure is equipped with cable strength member clamps and Multicassette. When branching, the inlet is opened and the cable is installed and sealed with heat shrink. TS SLIM is available in three different sizes, depending on the total number of fibres to be spliced and the number of fibres per cassette.

The necessary cassettes are included depending on the number of fibres to be used. Also select the number and type of splice protectors. Brackets for attachment on walls, racks, in manholes or on poles, are available as options. Together with a locking cap, the closure can easily be locked with a padlock. Please see table below.

Accessories & tools

R Recommended

Article		Article	
11 202 202	Multicassette fibre organizer, 2-p	11 216 115	Pressure test kit T240
11 216 020	Tool kit T240 R	11 218 056	Locking cap for padlock
11 216 100	Cassette holder R	11 216 131	Tube cutter 3-16 mm steel tubes

We recommend that you use the Tykoflex Tool kit T240 when working with closure and accessories.

Optional accessories

Heat shrink (for additional branching)

Part No.	Type of heat shrink tube
11 219 159	Heat shrink tube 34/8 L = 200 mm

Choice of bracket

Part No.	Type of bracket
11 214 005	Wall bracket
11 214 030	Pole bracket for horizontal box

TS SLIM for ribbon fibre

TS SLIM for ribbon fibre Part No.	Type	No. of fibres	Exterior diameter/ total height/ lid height/ mm	Weight kg	Included		Accessories		
							Required	Optional	
					No. of Multicassettes	Basic configuration*	Splice protectors	Choice of heat shrink	Choice of bracket
11 171 501	T240/30 TS SLIM 1C	See below	270/95/30		1	●	xx	x	x
11 171 502	T240/30 TS SLIM 2C	See below	270/95/30		2	●	xx	x	x
11 171 504	T240/50 TS SLIM 3C	See below	270/115/50		3	●	xx	x	x
11 171 505	T240/50 TS SLIM 4C	See below	270/115/50		4	●	xx	x	x
11 171 507	T240/70 TS SLIM 6C	See below	270/135/70		6	●	xx	x	x

*= Please see next page   x= Please make a choice on next page, xx= Please make a choice below

Basic configuration

11 171 4xx	Bottom part 240 3 inlet	Interior fittings	Wellbox 240/30/50/70
	Lid 240/30/50/70	Cable tie 100x2.5mm	Heat shrink 60/15, L=200 mm
	Support sleeve 240	Nut Nylock M6 Din 985 A-4	Branch -off clip
	O-ring 239.1x8 EPDM	Washer 6.4x18x1.6	Instruction T240 Swedish/English
	V-clamp 240	Silica gel 10 g	Instruction Multicassette and Emery cloth

Fibre capacity for TS Slim with 1 to 6 Multicassettes

No. of cassettes	Singlefibre std 36/cas.	Singlefibre slim 72/cas.	4-fib. 18x4/cas.	8-fib. 18x8/cas.	12-fib. 9x12/cas.
1	36	72	72	144	108
2	72	144	144	288	216
4	144	288	288	576	432
6	216	432	432	864	648

Required splice protectors

11 218 080	Ribbon fibre 4/8	25
11 218 082	Ribbon fibre 4/8/12	25
11 218 088	Ribbon fibre 4/8	100
11 218 090	Ribbon fibre 4/8/12	100

Mixed installation ribbon and single fibre add splice protectors below

11 218 346	Single fibre standard	25
11 218 348	Single fibre SLIM	25
11 218 084	Single fibre standard	100
11 218 086	Single fibre SLIM	100

The choice of splice protectors

Do not forget to add accurate number of splice protectors according to the type of cable that will be installed. This option ensures that our Joint Closures have total flexibility to meet all installation needs. Ribbon fibre and or mixed ribbon fibre and single fibre.

Ordering example of TS Slim closure

3x FOC, 192 fibre, OD 13 mm, for wall mounting.

Quantity	Choice of Closure	Quantity	Choice of Bracket	Quantity	Choice of heat shrink
1	11 171 504	1	11 214 005	1	11 219 159

Ordering example of T Slim closure

3x FOC, 96 fibre, 4-ribbon cable OD 12 mm, for wall mounting.

Quantity	Choice of Closure	Quantity	Splice protectors	Quantity	Choice of Bracket	Quantity	Choice of heat shrink
1	11 171 502	2	11 218 080	1	11 214 005	1	11 219 159

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Line joint

Joint Closure T is primarily intended for line joints with the possibility of branching. Joint Closure T has three open holes for customer adaptation and is delivered without end plugs or bushings which are selected separately.

The closure is equipped with cable strength member clamps and Multicassette. Joint Closure T is available in three different sizes, depending on the total number of fibres to be spliced and the number of fibres per cassette. The number of fibres will determine the number of cassettes.

Please choose a suitable joint closure for your fibre cables as specified in the table below and select the number and type of splice protectors. Brackets for attachment on walls, racks, in manholes or on poles, are available as options. Together with a locking cap, the closure can easily be locked with a padlock.

T for ribbon fibre

T for ribbon fibre Part No.	Type	No. of fibres	Exterior diameter/ total height/ lid height/ mm	Weight kg	Included		Accessories		
								Required	Optional
					No. of cassettes	Basic configuration*	Splice protectors	Choice of cable bushing or end plug	Choice of bracket
11 170 201	T240/50 T 1C	See below	270/140/50		1	●	xx	x	x
11 170 202	T240/50 T 2C	See below	270/140/50		2	●	xx	x	x
11 170 204	T240/50 T 4C	See below	270/140/50		4	●	xx	x	x
11 170 207	T240/70 T 6C	See below	70/160/70		6	●	xx	x	x
11 170 210	T240/150 T 8C	See below	270/235/150		8	●	xx	x	x
11 170 212	T240/150 T 10C	See below	270/235/150		10	●	xx	x	x
11 170 214	T240/200 T 12C	See below	270/290/200		12	●	xx	x	x
11 170 216	T240/200 T 14C	See below	270/290/200		14	●	xx	x	x
11 170 218	T240/200 T 16C	See below	270/290/200		16	●	xx	x	x

*= Please see next page   x= Please make a choice on next page, xx= Please make a choice below

Fibre capacity for T with 1 to 16 Multicassettes

No. of cassettes	Singlefibre std 36/cas.	slim 72/cas.	4-fib. 18x4/cas.	8-fib. 18x8/cas.	12-fib. 9x12/cas.
1	36	72	72	144	108
2	72	144	144	288	216
4	144	288	288	576	432
6	216	432	432	864	648
8	288	576	576	1152	864
10	360	720	720	1440	1080
12	-	-	864	1728	1296
14	-	-	1008	2016	1512
16	-	-	1152	2304	1728

Required splice protectors

11 218 080	Ribbon fibre 4/8	25
11 218 082	Ribbon fibre 4/8/12	25
11 218 088	Ribbon fibre 4/8	100
11 218 090	Ribbon fibre 4/8/12	100

Mixed installation ribbon and single fibre add splice protectors below

11 218 346	Single fibre standard	25
11 218 348	Single fibre SLIM	25
11 218 084	Single fibre standard	100
11 218 086	Single fibre SLIM	100

The choice of splice protectors

Do not forget to add accurate number of splice protectors according to the type of cable that will be installed. This option ensures that our Joint Closures have total flexibility to meet all installation needs. Ribbon fibre and or mixed ribbon fibre and single fibre.

Accessories & tools

R Recommended

Article		Article	
11 202 202	Multicassette fibre organizer, 2-p	11 216 115	Pressure test kit T240
11 216 020	Tool kit T240 R	11 218 056	Locking cap for padlock
11 216 100	Cassette holder horizontal R	11 216 073	TKT spanner for opening and closing of TKT nipples.10 mm. Including TKT adapter.
11 216 105	Cassette holder vertical	11 216 110	Mid-span cable entry tool with radius protection. For TS, TSG, TST, TB and other oval entry models.

Required accessories

Choice of cable bushing

Part No.	Type of cable bushing	Part No.	Type of cable bushing
11 208 010	End plug PG21 SS	11 212 145	Cable bushing 1x30 mm
11 212 018	Cable bushing 6x6 mm	11 212 350	Cable bushing divisible 2x18 mm
11 212 040	Cable bushing 4x10 mm	11 212 840	Cable bushing TKT 7x7 mm metal
11 212 050	Cable bushing 1x10 mm	11 212 842	Cable bushing TKT 7x7 mm plastic
11 212 070	Cable bushing 3x12 mm	11 212 870	Cable bushing TKN-K 1,8-4,0
11 212 100	Cable bushing 2x18mm	11 212 871	Cable bushing TKN-K 4,0-7,0
11 212 132	Cable bushing 1x24mm	11 212 872	Cable bushing TKN-K 4x7,0-9,0

Make a selection from the cable bushing table. For standard line joints, two "Cable bushings 1x24" and one "End plug", for future branching, would be the choice.

Optional accessories

Choice of bracket

Part No.	Type of bracket
11 214 005	Wall bracket
11 214 030	Pole bracket for horizontal box
11 214 050	Cable hanger 740, one mounting plate

Make your choice, depending on if it is pole, wall or manhole.

Basic configuration

11 170 2xx	Bottom part 240 3 hole	Interior fittings	Wellbox 240/50/70/150
	Lid 240/50/70/150	Cable tie 100x2.5mm	Instruction T240 Swedish/English
	Support sleeve 240	Nut Nylock M6 Din 985 A-4	Instruction Multicassette
	O-ring 239.1x8 EPDM	Washer 6.4x18x1.6	Emery cloth
	V-clamp 240	Silica gel 10 g	

Ordering example of T

2x FOC, 480 fibre 8-ribbon, OD 20 mm and one end plug, for mounting on a wooden pole.

Quantity	Choice of Closure	Quantity	Splice protectors	Quantity	Choice of Bracket	Quantity	Choice of cable bushing
1	11 170 204	3	11 218 080	1	11 214 030	2	11 212 132
						1	11 208 010

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Mid-span

Joint Closure TS facilitates mid-span access without the need to cut and re-splice all the fibres in the cable. The closure is delivered with one oval cable inlet and has two open holes for customer adaptation. It is delivered without end plugs or bushings which are selected separately. The closure is equipped with cable strength member clamps and Multicassette.

Joint Closure TS is available in three different sizes, depending on the total number of fibres to be spliced and the number of fibres per cassette. The number of fibres will determine the number of cassettes. Please choose a suitable joint closure for your fibre cables as specified in the table below. Also select the number and type of splice protectors. Brackets for attachment on walls, racks, in manholes or on poles, are available as options and ordered separately. Together with a locking cap, the closure can easily be locked with a padlock. The closure TS is delivered with heat shrink tube and branch-off clip for the oval inlet and with the articles specified in the table on the opposite page (basic configuration).

TS for ribbon fibre

TS for ribbon fibre Part No.	Type	No. of fibres	Exterior diameter/ total height/ lid height/ mm	Weight kg	Included		Accessories		
								Required	Optional
					No. of cassettes	Basic configuration*	Splice protectors	Choice of cable bushing or end plug	Choice of bracket
11 170 401	T240/50 TS 1C	See below	270/140/50		1	●	xx	x	x
11 170 402	T240/50 TS 2C	See below	270/140/50		2	●	xx	x	x
11 170 404	T240/50 TS 4C	See below	270/140/50		4	●	xx	x	x
11 170 407	T240/70 TS 6C	See below	270/160/70		6	●	xx	x	x
11 170 410	T240/150 TS 8C	See below	270/235/150		8	●	xx	x	x
11 170 412	T240/150 TS 10C	See below	270/235/150		10	●	xx	x	x
11 170 414	T240/200 TS 12C	See below	270/290/200		12	●	xx	x	x
11 170 416	T240/200 TS 14C	See below	270/290/200		14	●	xx	x	x
11 170 418	T240/200 TS 16C	See below	270/290/200		16	●	xx	x	x

*= Please see next page   x= Please make a choice on next page, xx= Please make a choice below

Fibre capacity for T with 1 to 16 Multicassettes

No. of cassettes	Singlefibre std 36/cas.	slim 72/cas.	4-fib. 18x4/cas.	8-fib. 18x8/cas.	12-fib. 9x12/cas.
1	36	72	72	144	108
2	72	144	144	288	216
4	144	288	288	576	432
6	216	432	432	864	648
8	288	576	576	1152	864
10	360	720	720	1440	1080
12	-	-	864	1728	1296
14	-	-	1008	2016	1512
16	-	-	1152	2304	1728

Required splice protectors

11 218 080	Ribbon fibre 4/8	25
11 218 082	Ribbon fibre 4/8/12	25
11 218 088	Ribbon fibre 4/8	100
11 218 090	Ribbon fibre 4/8/12	100

Mixed installation ribbon and single fibre add splice protectors below

11 218 346	Single fibre standard	25
11 218 348	Single fibre SLIM	25
11 218 084	Single fibre standard	100
11 218 086	Single fibre SLIM	100

The choice of splice protectors

Do not forget to add accurate number of splice protectors according to the type of cable that will be installed. This option ensures that our Joint Closures have total flexibility to meet all installation needs. Ribbon fibre and or mixed ribbon fibre and single fibre.

Accessories & tools

R Recommended

Article		Article	
11 202 202	Multicassette fibre organizer, 2-p	11 216 115	Pressure test kit T240
11 216 020	Tool kit T240 **R**	11 218 056	Locking cap for padlock
11 216 100	Cassette holder horizontal **R**	11 216 073	TKT spanner for opening and closing of TKT nipples.10 mm. Including TKT adapter.
11 216 105	Cassette holder vertical	11 216 110	Mid-span cable entry tool with radius protection. For TS, TSG, TST, TB and other oval entry models.

Required accessories

Choice of cable bushing

Part No.	Type of cable bushing	Part No.	Type of cable bushing
11 208 010	End plug PG21 SS	11 212 145	Cable bushing 1x30 mm
11 212 018	Cable bushing 6x6 mm	11 212 350	Cable bushing divisible 2x18 mm
11 212 040	Cable bushing 4x10 mm	11 212 840	Cable bushing TKT 7x7 mm metal
11 212 050	Cable bushing 1x10 mm	11 212 842	Cable bushing TKT 7x7 mm plastic
11 212 070	Cable bushing 3x12 mm	11 212 860	Cable bushing TKN-L 1,8-4,0
11 212 100	Cable bushing 2x18mm	11 212 861	Cable bushing TKN-L 4,0-7,0
11 212 132	Cable bushing 1x24mm	11 212 862	Cable bushing TKN-L 4x7,0-9,0

Cold method – Insert oval

11 212 851	Cable bushing TKN-O 4x 5,0-7,0	11 212 854	Cable bushing TKN-O 4x 7,7-9,5
11 212 852	Cable bushing TKN-O 2x 5,5-7,2	11 212 855	Cable bushing TKN-O 10-12
11 212 853	Cable bushing TKN-O 4x 6,5-8,5		

Make a selection from the cable bushing table.

Optional accessories

Choice of bracket

Part No.	Type of bracket
11 214 005	Wall bracket
11 214 030	Pole bracket for horizontal box
11 214 050	Cable hanger 740, one mounting plate

Make your choice, depending on the application – a pole, wall or manhole.

Basic configuration

11 170 4xx	Bottom part 240 3 TS	Interior fittings	Heat shrink 50/16, L =200 mm.
	Lid 240/50/70/150	Cable tie 100x2.5mm	Branch -off clip
	Support sleeve 240	Nut Nylock M6 Din 985 A-4	Wellbox 240/50/70/150
	O-ring 239.1x8 EPDM	Washer 6.4x18x1.6	Instruction T240 Swedish/English
	V-clamp 240	Silica gel 10 g	Instruction Multicassette and Emery cloth

Ordering example of TS

3x FOC, 432 fibre 4-ribbon, OD 21 mm, Mid-span, for wall mounting.

Quantity	Choice of Closure	Quantity	Splice protectors	Quantity	Choice of Bracket	Quantity	Choice of cable bushing
1	11 170 407	1	11 218 088	1	11 214 005	1	11 212 132
		1	11 218 080			1	11 208 010

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Mid-span branching

Joint Closure TSG facilitates mid-span access without the need to cut and re-splice all the fibres in the cable. The closure is delivered with one oval cable inlet and two pre-sealed ports, ID 25 mm, and four pre-sealed ports, ID 16 mm. The closure is equipped with cable strength member clamps and Multicassette. Joint Closure TSG is available in three different sizes, depending on the total number of fibres to be spliced and the number of fibres per cassette. The number of fibres will determine the number of cassettes.

Please choose a suitable joint closure for your fibre cables as specified in the table below. Also select the number and type of splice protectors. Brackets for attachment on walls, racks, in manholes or on poles, are available as options and ordered separately. Together with a locking cap, the closure can easily be locked with a padlock. The closure TSG is delivered with heat shrink tube + branch-off clip for the oval inlet and with the articles specified in the table on the opposite page (basic configuration).

TSG for ribbon fibre

TSG for ribbon fibre Part No.	Type	No. of fibres	Exterior diameter/ total height/ lid height/ mm	Weight kg	Included		Accessories			
					No. of cassettes	Basic configuration*	Required	Optional		
							Splice protectors	Choice of heat shrink tube	Choice of bracket	Choice of cable bushing or end plug
11 170 501	T240/50 TSG 1C	See below	270/140/50		1	●	xx	x	x	x
11 170 502	T240/50 TSG 2C	See below	270/140/50		2	●	xx	x	x	x
11 170 504	T240/50 TSG 4C	See below	270/140/50		4	●	xx	x	x	x
11 170 507	T240/70 TSG 6C	See below	270/160/70		6	●	xx	x	x	x
11 170 510	T240/150 TSG 8C	See below	270/235/150		8	●	xx	x	x	x
11 170 512	T240/150 TSG 10C	See below	270/235/150		10	●	xx	x	x	x
11 170 514	T240/200 TSG 12C	See below	270/290/200		12	●	xx	x	x	x
11 170 516	T240/200 TSG 14C	See below	270/290/200		14	●	xx	x	x	x
11 170 518	T240/200 TSG 16C	See below	270/290/200		16	●	xx	x	x	x

*= Please see next page   x= Please make a choice on next page, xx= Please make a choice below

Fibre capacity for T with 1 to 16 Multicassettes

No. of cassettes	Singlefibre std 36/cas.	Singlefibre slim 72/cas.	4-fib. 18x4/cas.	8-fib. 18x8/cas.	12-fib. 9x12/cas.
1	36	72	72	144	108
2	72	144	144	288	216
4	144	288	288	576	432
6	216	432	432	864	648
8	288	576	576	1152	864
10	360	720	720	1440	1080
12	-	-	864	1728	1296
14	-	-	1008	2016	1512
16	-	-	1152	2304	1728

Required splice protectors

11 218 080	Ribbon fibre 4/8	25
11 218 082	Ribbon fibre 4/8/12	25
11 218 088	Ribbon fibre 4/8	100
11 218 090	Ribbon fibre 4/8/12	100

Mixed installation ribbon and single fibre add splice protectors below

11 218 346	Single fibre standard	25
11 218 348	Single fibre SLIM	25
11 218 084	Single fibre standard	100
11 218 086	Single fibre SLIM	100

The choice of splice protectors

Do not forget to add accurate number of splice protectors according to the type of cable that will be installed. This option ensures that our Joint Closures have total flexibility to meet all installation needs. Ribbon fibre and or mixed ribbon fibre and single fibre.

Accessories & tools

R Recommended

Article		Article	
11 202 202	Multicassette fibre organizer, 2-p	11 216 115	Pressure test kit T240
11 216 020	Tool kit T240	11 218 056	Locking cap for padlock
11 216 100	Cassette holder horizontal **R**	11 216 073	TKT spanner for opening and closing of TKT nipples.10 mm. Including TKT adapter.
11 216 105	Cassette holder vertical	11 216 110	Mid-span cable entry tool with radius protection. For TS, TSG, TST, TB and other oval entry models.

Optional accessories

Choice of heat shrink tube

Part No.	Type of heat shrink tube
11 219 159	Heat shrink tube 34/8 L = 200 mm
11 219 035	Heat shrink end cap 50/25 for oval inlet.

Choice of bracket

Part No.	Type of bracket
11 214 005	Wall bracket
11 214 030	Pole bracket for horizontal box
11 214 050	Cable hanger 740, one mounting plate

The bracket for T240 is found in the table above. Select a bracket depending on whether the application is a wooden pole or steel pole/tower.

Choice of cable bushing

Part No.	Type of cable bushing
11 212 845	Cable bushing TKT 3x7 mm metal
11 212 846	Cable bushing TKT 3x7 mm plastic
11 212 850	Cable bushing TKT 1x11 mm metal

Make a selection from the cable bushing table. Cable bushing TKT fits on the four 18 mm inlets above the oval inlet.

Cold method – Insert oval

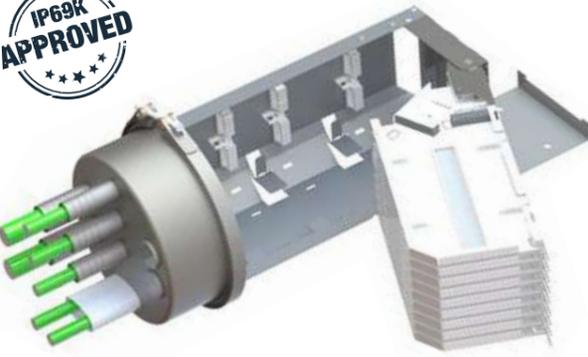| Part No.	Type of cable bushing	Part No.	Type of cable bushing
11 212 851	Cable bushing TKN-0 4x 5,0-7,0	11 212 854	Cable bushing TKN-0 4x 7,7-9,5
11 212 852	Cable bushing TKN-0 2x 5,5-7,2	11 212 855	Cable bushing TKN-0 10-12
11 212 853	Cable bushing TKN-0 4x 6,5-8,5	11 212 891	Cable bushing TKN-IO 14-17

Basic configuration

11 170 5xx	Bottom part 240 TSG	Interior fittings	Heat shrink 50/16, L =200 mm.
	Lid 240/50/70/150	Cable tie 100x2.5mm	Branch -off clip
	Support sleeve 240	Nut Nylock M6 Din 985 A-4	Wellbox 240/50/70/150
	O-ring 239.1x8 EPDM	Washer 6.4x18x1.6	Instruction T240 Swedish/English
	V-clamp 240	Silica gel 10 g	Instruction Multicassette and Emery cloth

Ordering example of TSG

FOC, 480 fibre 8-ribbon, 4x OD 15-23 mm and micro-cable 2x OD 5 mm, wall mounted mid-span.

Quantity	Choice of Closure	Quantity	Splice protectors	Quantity	Choice of Bracket	Quantity	Choise of heat shrink tube
1	11 170 504	3	11 218 080	1	11 214 005	1	11 219 159

TYKO FLEX

All Enquiries: tel: +44 (0)1744 762 929 | email: sales@etechcomponents.com | web: www.etechcomponents.com

IP69K APPROVED

High fibre count up to 1728 fibres

Joint Closure TBXL R is developed for ribbon fibre cables for up to 1728 fibres. Joint Closure TBXL R is delivered with one open oval inlet 63x31 mm (for mid-span access) and two ID 35 mm sealed cable inlets, four ID 25 mm sealed cable inlets and two open holes.

TBXL R is equipped with nine permanent pivoting splice trays for a maximum of 192 fibres (8-ribbon). The closure is equipped with cable strength member clamps and splice protectors. Brackets for installation are available as options and ordered separately.

Together with a locking cap, the closure can easily be locked with a padlock. The closure TBXL R is delivered with heat shrink tube and branch-off clip for the oval inlet and with the articles specified in the table below (basic configuration).

TBXL R ribbon fibre

TBXL R ribbon fibre Part No.	Type	Max No. of fibres	Exterior diameter/ total height/ lid height/ mm	Weight kg	Included		Accessories				
					No. of cassettes	Basic configuration*	Required	Optional			
							Splice protectors	Work holder	Bracket	Heat shrink	
11 162 003	T240/270 TBXLR 1728/1728F	1728	270/630/450	13.5	9	●	x	x	x	x	

*= Please see table below

Required accessories

Work holder

Part No.	Splice protectors, 4/8/12
11 218 080	Ribbon fibre 4/8 25-p
11 218 082	Ribbon fibre 4/8/12 25-p
11 218 088	Ribbon fibre 4/8 100-p
11 218 090	Ribbon fibre 4/8/12 100-p

Optional accessories

Work holder

Part No.	Work holder (one time)
11 216 123	Work holder

Bracket

Part No.	Bracket
11 xxx xxx	Bracket

Heat shrink

Part No.	Heat shrink
11 219 159	Heat shrink 34/8

Accessories & tools

R Recommended

Article	
11 216 020	Tool kit T240

Basic configuration

11 162 003	Bottom part 240/TBXL	Pivoting splice trays	Emery cloth
	V-clamp 240	Branch-off clip	Silica gel 10 g
	Support sleeve 240	Heat shrink WCSM 54/16 L = 200 mm	Cable tie 100x2.5mm
	O-ring 239.1x8 EPDM	Branching kit for centre tube cables	Instruction TBXL
	Interior fittings TBXL		

Ordering example of TBXL R

FOC, 640 Fibre 8-Ribbon, OD 23 mm, FOC 192F OD 13 mm

Quantity	Closure	Quantity	Splice protectors	Quantity	Work holder	Quantity	Bracket	Quantity	Heat shrink
1	11 162 003	1	11 218 088	1	11 216 123	1	11 xxx xxx	1	11 219 159

Examples of custom design.

Box with TFOCA fibre connector.
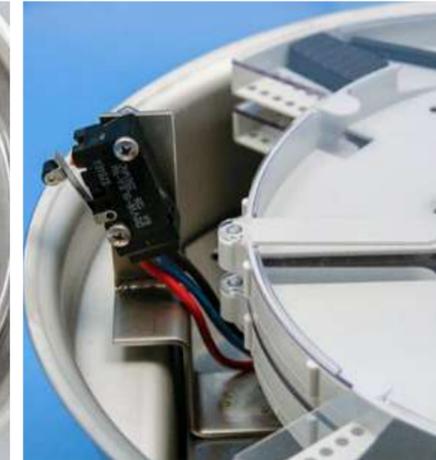
Micro switch to indicate opening of box.

Copper installation for Automatic Train Control.

Underground ODF with 96 SC connectors.

Fibre splitter, converters and PON.
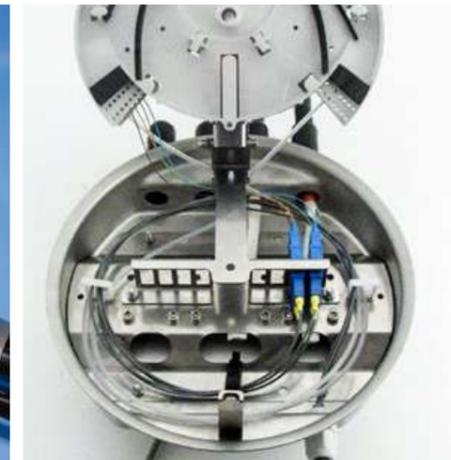
Termination and splicing, e.g. in wind turbines.

2x S-HDSL

Sensitive μ cable storage for closure in harsh man-hole environment.

Customised bushing.

The T240 Joint Closure can be adapted to suit electronic and other equipment that needs strong and safe protection in harsh environments. Please contact Tykoflex for advice, design support and an estimate.

TYKO FLEX

IP69K APPROVED

Tykoflex cold compression method has bushings for micro cables in the size range of Ø 1.8- 12,0 mm. For oval inlet in T240 splice boxes there are a variety of rubber seals. Two cables (mid-span) red rubber Ø 5.5 to 7.2 mm and four cables (2x mid-span) grey rubber Ø 5.0-7.0 mm, 6.5-8.5 mm, 7.7 to 9.5 mm and black rubber 9,5-12,0mm. Bushings can easily be mounted by inserting the cables into slots in the rubber seal. For the Ø 29 mm hole´s there are cable bushings with three rubber seals. Rubber black Ø 24x1.8-4.0 mm, black Ø 12x4.0-7.0 mm and blue 4x7,0-9,0 mm. Bushing is delivered with plugs to seal all unused inlets. Compression of the rubber by tightening the nut/nuts.
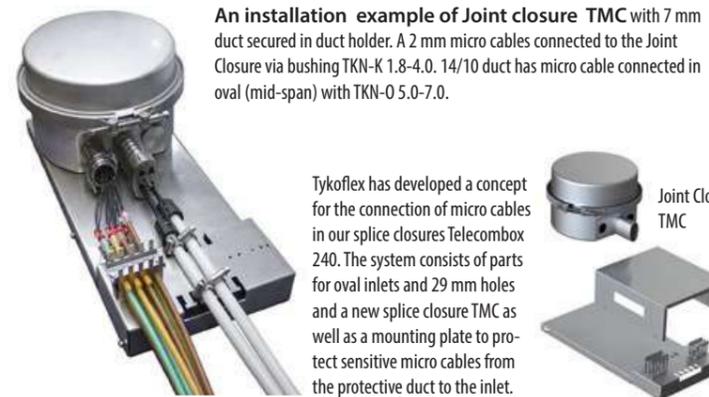
An installation example of Joint closure TMC with 7 mm duct secured in duct holder. A 2 mm micro cables connected to the Joint Closure via bushing TKN-K 1.8-4.0. 14/10 duct has micro cable connected in oval (mid-span) with TKN-O 5.0-7.0.

Tykoflex has developed a concept for the connection of micro cables in our splice closures Telecombox 240. The system consists of parts for oval inlets and 29 mm holes and a new splice closure TMC as well as a mounting plate to protect sensitive micro cables from the protective duct to the inlet.

Joint Closure TMC

Testing of the cold method
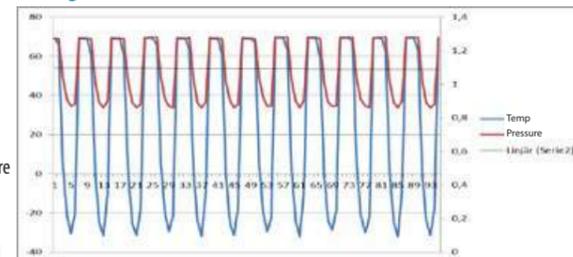
Joint Closure fitted with TKN with 20 cables Hexatronik Ø 2 mm closed with ambient pressure inside, tested in climate chamber. Temperature cycling from minus 30° to plus 70° celsius. A cycle consisting of cooling 3 hours and 3 hours of heating. Results of tests in the chart above.

Information

	Part number	Nr. of cables	Cable diameter
	11 212 851	4	Cable Ø 5,0-7,0 mm
	11 212 852	2	Cable Ø 5,5-7,2 mm
	11 212 853	4	Cable Ø 6,5-8,5 mm
	11 212 854	4	Cable Ø 7,7-9,5 mm
	11 212 855	2	Cable Ø 9,5-12 mm
	11 212 860 11 212 870	14 to 24	Cable Ø 1,8-4,0 mm
	11 212 861 11 212 871	8 to 12	Cable Ø 4,0-7,0 mm
	11 212 862 11 212 872	4	Cable Ø 7,0-9,0 mm

Tykoflex cold compression method

	TMC	TS	TSG	T	TB	Part Nr.	Description	Pack
Cable bushing TKN-O 2x 5,5-7,2	•	•	•		•	11 212 852	Cable bushing 2x 5.5 to 7.2 TKN -O red rubber seal 2 holes. A blind plug is included.	1
Cable bushing TKN-O 5,0-7,0/6,5-8,5/7,7-9,5	•	•	•		•	11 212 851	Cable bushing TKN-O 4x 5.0-7.0 grey rubber seal 4 holes. Three plugs are included.	1
						11 212 853	Cable bushing TKN-O 4x 6.5-8.5 grey rubber seal 4 holes. Three plugs are included.	1
						11 212 854	Cable bushing TKN-O 4x 7.7 to 9.5 grey rubber seal 4 holes. Three plugs are included.	1
						11 212 855	Cable bushing TKN-O 2x9,5-12,0 black rubber seal 2 holes. Two plugs are included.	1
Cable bushing TKN-L 1,8-4,0/4,0-7,0/7,0-9,0		•				11 212 860	Cable bushing TKN-L 1.8-4.0 black rubber seal 24 holes. 24 plugs included. A maximun of 24 cables with a size of 1.8-3.0 mm. A maximum of 14 cables with a size of 3.1-4.0 mm. 10 holes in the outer ring are sealed with blind plugs.	1
						11 212 861	Cable bushing TKN-L 4.0-7.0 black rubber seal 12 holes. 12 plugs included.	1
						11 212 862	Cable bushing TKN-L 4x7,0-9,0mm Cable bushingTKN-L 7,0-9,0 blue rubber seal 4 holes. 4 plugs included.	1
Cable bushing TKN-K 1,8-4,0/4,0-7,0/7,0-9,0	•			•	•	11 212 870	Cable bushing TKN-K 1.8-4.0 black rubber seal 24 holes. 24 plugs included. A maximun of 24 cables with a size of 1.8-3.0 mm. A maximum of 14 cables with a size of 3.1-4.0 mm. 10 holes in the outer ring are sealed with blind plugss.	1
						11 212 871	Cable bushing TKN-K 4.0-7.0 black rubber seal 12 holes. 12 plugs included.	1
						11 212 872	Cable bushing TKN-K 4x7,0-9,0mm Cable bushing TKN-K 7,0-9,0 blue rubber seal 4 holes. 4 plugs included.	1

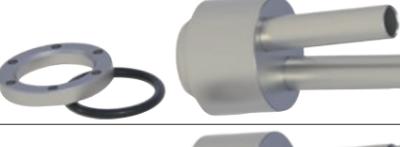# Cable bushings of stainless steel and accessories

Cable bushing TKT - cold sealing

For cables and ducts 3-7 mm, with complete sealing kit,
Mastic tape and instruction manual. All branchings are presealed at delivery.

Part No.	Description	Pack
11 212 845	TKT S 3x7 stainless steel. Three branchings for 3-7 mm cables. Mountable on cable entry pipe 18 mm outer diameter. (for example, TSG). 3 plastic and 3 metal nipples and Mastic tape included.	1
11 212 846	TKT S 3x7 plastic. Three branchings for 3-7 mm cables. Mountable on cable entry pipe 18 mm outer diameter (for example, TSG). 3 plastic nipples and Mastic tape included.	1
11 212 840	TKT 7x7 stainless steel. Seven branchings for 3-7 mm cables. TKT is a cable bushing for open cable bushing ports 28.3 mm. 7 metal nipples and Mastic tape included.	1
11 212 842	TKT 7x7 plastic. Seven branchings for 3-7 mm cables. TKT is a cable bushing for open cable bushing ports 28.3 mm. 7 plastic nipples and Mastic tape included.	1
11 212 850	TKT-S 1x11 mm Mountable on cable entry pipe 18 mm outer diameter. (for example, TSG). Mastic tape included.	1
11 212 847	Spare part TKT metal nipple. For branching in cable bushing TKT 11 212 8/ 40/ 42/ 45 and 46.	1
11 216 073	TKT spanner for opening and closing of TKT nipples.10 mm (A). Including TKT Adapter (B).	1
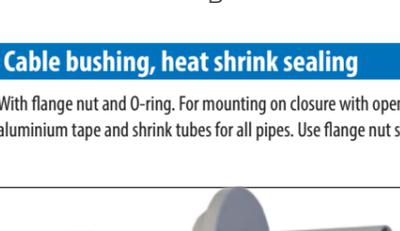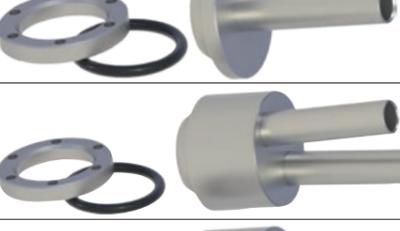
Cable bushing, heat shrink sealing

With flange nut and O-ring. For mounting on closure with open cable bushing ports 28.3 mm. Kit including emery cloth, heat protection
aluminium tape and shrink tubes for all pipes. Use flange nut spanner 11 216 020 B, for mounting of cable bushings and blind plugs.
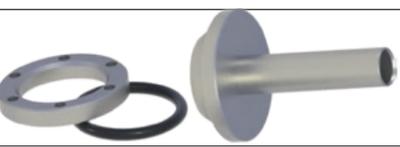
Part No.	Description	Pack
11 212 050	1x10, for cable with inner diameter 5.5-10 mm. Heat shrink 16/5, L=100 mm.	1
11 212 060	2x10, for cable with inner diameter 5.5-10 mm. 2x heat shrink 16/5, L=100 mm.	1
11 212 070	3x12, for cable with inner diameter 5.5-12 mm. 3x heat shrink 16/5, L=100 mm.	1
11 212 040	4x10, for cable with inner diameter 5.5-10 mm. 4x heat shrink 16/5, L=100 mm.	1
11 212 018	6x6, for cable with inner diameter 3.5-6 mm. 6x heat shrink 10/3, L=100 mm.	1

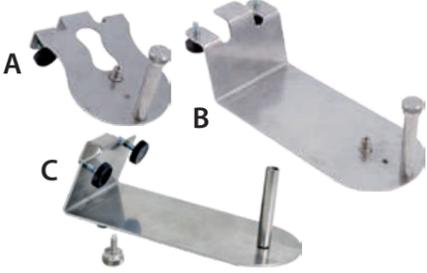| Part No.	Description	Pack
11 212 100	2x18 oval for two cables 9-18 mm diameter. Heat shrink 50/16, L=200 mm. Insert clip.	1
11 212 132	1x24, with diameter adapter for 9-24 mm cable diameter. Heat shrink 34/8, L=200 mm.	1
11 212 133	1x24 self bonding tape with diameter adapter for 9-24 mm cable diameter. Mastic tape and heat shrink MWTM 35/12 U, L=200 mm.	1
11 212 145	1x30, for cable diameter 17-30 mm. Heat shrink 50/16, L=200 mm.	1
11 212 350	Split cable bushing, 2x16 oval pipes for two cables 7-18 mm diameter. Ability to add new cable parallel with old cable in existing entry, without disturbing traffic. Heat shrink 55/12, L=170 mm divisible.	1
11 209 825	Flexible stainless steel cable bushing 1x25 with L=500mm, incl. diameter adapter 9-25 mm cable diameter.	1

Blind plug SS for sealing of open cable bushing ports.

Part No.	Description	Pack
11 208 010	Blind plug with flange nut and O-ring. Use Flange nut spanner 11216020 B, for mounting of cable bushings and blind plugs.	1

Heat shrink tubes for sealing of cables in cable entry pipes and for other sealings. Max/min diameter - length.
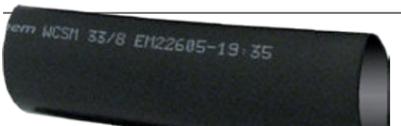
Part No.	Description	Pack
11 219 110	Heat shrink tube Ø3-10 mm, 100 mm.	1
11 219 123	Heat shrink tube Ø5-16 mm, 100 mm.	1
11 219 149	Heat shrink tube Ø8-25 mm, 200 mm.	1
11 219 159	Heat shrink tube Ø8-34 mm, 200 mm.	1
11 219 169	Heat shrink tube Ø12-35 mm, 200 mm.	1
11 219 189	Heat shrink tube Ø16-50 mm, 200 mm.	1
11 219 192	Heat shrink tube Ø19-63 mm, 200 mm.	1
11 218 307	Heat protection aluminium tape 20 m.	1
11 219 300	Zip shrink tube 55/12-170 mm.	1
11 219 016	Shrinkable end cap Ø4-10 mm for 6x6 mm pipe.	1
11 219 025	Shrinkable end cap Ø8-20 mm for 1x10, 2x10, 4x10, 3x12 mm.	1
11 219 030	Shrinkable end cap Ø15-35 mm for 30-16 mm.	1
11 219 035	Shrinkable end cap Ø25-50 mm for oval entry.	1
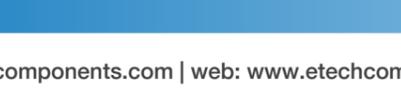
Accessories Multicassette

Part No.	Description	Pack
11 202 202	Multicassette fibre organizer for 36 single fibre. Made of resistant polycarbonate. Large fibre bending radius. Included: Two rubber profiles for securing splice, round and rectangular. With 9 slots for splice protectors.	2-pack
11 202 204	Multicassette for 48 single fibre. With 9 slots + additional 2x4 slots for splice protectors.	2-pack
11 216 100	Cassette holder horizontal, for all side entry, "pan" closures (A)	1
11 216 105	Cassette holder vertical, for bottom entry, "dome" closures (B)	1
11 216 111	Cassette holder for TB and TBK (C)	1
11 216 020	**Kit including:** Cable bushing flange nut and blind plug spanner (A) V-clamp spanner (B) Multicassette opener (C)	Kit

Cable entry tools

Part No.	Description	Pack
11 216 110	Mid-span cable entry tool with radius protection. For TS, TSG, TST, TB and other oval entry models.	1
11 219 010	Insert clip with adhesive string. For sealing of space between cables installed in oval entry.	1

Picture shows installed insert clip between two cables with heat shrink tube.

Cable hanger

Part No.	Description	Pack
11 214 050	Cable hanger 740, one mounting plate.	1

Special accessories TB/TBK

Part No.	Description	Pack
11 202 102	Storage tray for TBK8. For mid-span fibre overlength.	1
11 202 100	Storage tray for pan closure, i.e. TSG. For mid-span fibre overlength.	1
11 216 122	Work position holder – for handling type TB, TBK, TBXL, bottom entry dome closures.	1
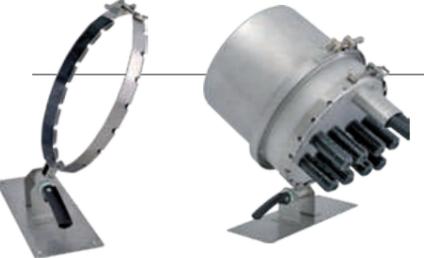
T240 closure lid

Part No.	Description	Pack
11 218 010	70 mm, for maximum 6 Multicassette cassettes.	1
11 218 015	150 mm, for maximum 10 cassettes.	1
11 218 020	200 mm, for maximum 16 cassettes.	1
11 218 040	Extension shaft 30 mm for an extra 2 cassettes.	1
11 218 056	Locking cap for padlock.	1
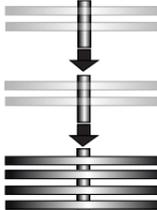
Mounting
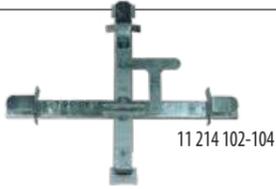
Part No.	Description	Pack
11 214 102	Pole bracket for ADSS including mounting bracket, wooden pole. PA or AL type.	1
11 214 104	Pole bracket for ADSS including mounting bracket, steel tower.	1
11 214 005	Mounting bracket, wall or rack for hooked or fixed mounting.	1
11 214 030	Pole bracket for horizontal closure.	1
11 214 040	Pole bracket for vertical closure.	1
11 214 029	Bracket for TB and TBK	1

11 214 102-104

.005

.030

.040

.029

Termination cabinet / Fiber Distribution Hub

24F	Indoor box for splicing or termination of optical cables. 12 SC Duplex.
48F	Indoor box for splicing or termination of optical cables. 24 SC Duplex.
T510	Connection box for CTV and smaller customers. Contact field for 4 or 6 SC Duplex. Storage of excess cable
T512	For splicing in cassette and storage of excess cable. Contact field for 6 SC Duplex.
T548	For splicing in cassette and storage of excess cable. Contact field for 6 SC Duplex.
T696	Termination box with contact field for 24 SC Duplex. Splicing in Multicassette.
T596	19"-based wall cabinet Connection point between connection and property network. Up to 196 customers with 2-fiber solution.

ODF-system 19"

T400	Termination box with small depth with a capacity for 96 fiber. Front panel for different contact types.
T405	Termination box with a capacity for 192 fibers. Available with front panel for different contact types

Pole cabinet aerial cables T340

T340	Pole-mounted cabinet for air mounted fibre optic cable. Storage space of excess lengths
Fibre Optical cabinet for air mounted fibre optic cable	Pole-mounted cabinet with 6 cable inlets for storage of excess lengths. Holds 3x20 m.

Splice cabinet/Fiber Termination Box

T2/2B 7/5 mm and T2/24B	Compact and user-friendly distribution box used for FTTx. Capacity for 48 fibers.
T4 96 / T4 Flex	Cabinet for quick and easy fiber splicing of up to 288 4-ribbon.
T20	Cabinet for up to 20 Multi-cassettes, which provides a capacity for 2880 fibers.
T24	Cabinet for fiber splicing for 1500 or 3000 fiber.

Modularjoints

	For mounting in cabinets or racks.

Skarvboxar

T240	For all types of splicing.

Street Cabinet FET

FET	Outdoor cabinet /Street Cabinet as a distribution point for customer connection in access networks. With termination cabinet or 19" interior.

Splice rack

	Splice rack for e.g. datacenter. Up to 13824 fibers. With good access for secure installation. Made for/19"-rackbased

Splice cabinets

Guide for choosing a Splice cabinet

Splice cabinet	Capacity, number of customers	Application	Location	WxHxD (mm)	Inlet/exits
Splice cabinet T2 7/5 mm	24, 7 mm duct 30, 5 mm duct	Microcable / Tubes 5 and 7 mm sepairately or mixed	Wall indoors Street cabinet	150x450x110	Cable inlet for uninterrupted fiber passage
Splice cabinet T2/24B	24, 1-2 built-in cassettes for single or double fiber solution	Micro cable / Tubes max 5.5 mm diam	Wall indoors Street cabinet	145x315x70	From below /Bottom
Splice cabinet T4	60-96, with up to 4 Multi cassettes	Fiber optic cables Micro cable / Tubes max 7.0 mm diam.	Wall indoors Street cabinet	270x350x130	Bottom and top, Double slit for uninterrupted fiber passage
Splice cabinet T4 Flex	48-64, with up to 4 Multi cassettes	Fiber optic cables Micro cable / Tubes max 7.0 mm diam.	Wall indoors Street cabinet	264,5x387,5x133	From below /Bottom
Splice cabinet T8	96, vid 1-7 mm microducts max 8 Multi cassettes	Fiber optic microcables / Tubes 1-7 mm	Wall indoors Street cabinet	500x358x150	Bottom and top, Cable inlet for uninterrupted fiber passage
Splice cabinet T20	256 vid 4-5 mm microducts max 20 Multi cassettes	Fiber optic cables Micro cable / Tubes max 5.5 mm diam.	Wall indoors Street cabinet	600x300x300	Bottom and top, Cable inlet for uninterrupted fiber passage
Splice cabinet T80	Up to 80 Multi cassettes	Fiber optic cables Micro cable / Tubes max 5.5 mm diam.	Wall indoors	600x1200x300	Top, Cable inlet for uninterrupted fiber passage

Splice cabinet T2/2B 7/5 mm

Part No.	Name/Designation	Cable entry/exit	Measures mm WxHxD	Weight kg	Number of fibres
11 470 175	Splice cabinet incl 1 cassette	Underneath / Bottom	145x315x70	2,5	48/24

- For mounting on a wall indoors or in a street cabinet
- Made of powder-coated aluzinc sheet metal
- Compact and user-friendly distribution box for FTTx.
- Suitable for blown fiber and micro cables.
- Flexible connection of cables and microTubes.

- Outgoing gland for 24 pcs. 7 mm and with insert 5 mm Tubes.
- Fast and easy fiber splicing.
- Lockable door
- Double cable entries for midspan

Splice cabinet T2/24B

Part No.	Type	Cable entry	Measures mm WxHxD	Vikt kg	Number of fibers
11 470 162	Splice cabinet incl 2 cassettes	Bottom	145x315x70	2,5	48/24
11 470 164	Splice cabinet incl 1 cassette	Bottom	145x315x70	2,5	24/24

- For mounting on a wall indoors or in a street cabinet.
- Made of powder-coated sheet metal
- Compact and user-friendly distribution box for FTTx.
- Suitable for blown fiber and micro cables.
- Flexible connection of cables and microTubes.

- Outgoing gland holds up to 24 Tubes or microcables.
- Fast and easy fiber splicing. .
- Delivered with lockable lid and seal.
- Double hole in the bottom for midspan intake.

Splice cabinet T4 Flex

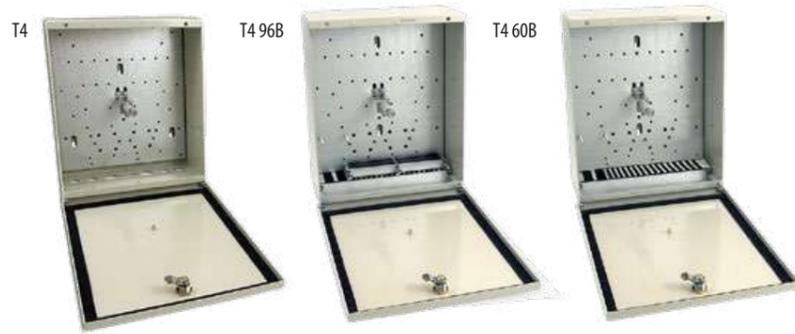| Part No.	Type	Cable entry	Measures mm WxHxD	Weight kg	Maximum number of cassettes
11 470 245	Splice cabinet T4 Flex	Bottom	264,5x387,5x133	5,5	4

- Mounted on a wall indoors or in a street cabinet
- Powder-coated sheet metal
- Suitable for blown fiber and micro cables.
- Splice cabinet T4 Flex connects cables and microduct at a bottom entry of the cabinet.
- Multi cassettes, which allows 192 (288 slim) single fiber alt. 288 4-ribbon can be spliced in the cabinet with the option for midspan.

- To obtain high capacity for single fiber, select Multi cassettes for 48 fibers (11202204), alt. SLIM sleeve (11218347) = 72 fiber / cassette.
- Fast and easy fiber splicing
- Compact outer dimensions
- Lockable
- 2 cassette holders, 2 multi-cassettes and a 24x7mm duct chambers are included.

Accessories

Part No.	Type
11 202 202	Multi cassette for optical fiber (2-pack)
11 202 204	Multi cassette for optical fiber for 48 single fibers (2-pack)
11 408 227	Ductholder 60 x 5mm
11 408 250	Ductholder 5-7x2 SOT
11 470 172	Insert 5mm suitable for 7mm cam, 3 grooves = 12 Tubes
11 470 251	Cassette holder T4 Flex
11 478 048	Strain relief 48mm
11 478 050	Strain relief 65mm
11 478 423	Holder T20 / T80 64 microTubes (5mm)

Splice cabinets

Splice cabinet T4 - T4/96A - T4/96B - T4/60A - T4/60B

T4   T4 96B   T4 60B

Part No.	Type	Cable entry	Measures mm WxHxD	Weight kg	Maximum number of cassettes
11 470 205	Splice cabinet T4	Bottom	280x350x130	6,0	4
11 470 220	Splice cabinet T4/96A	Top	280x350x130	6,0	4
11 470 225	Splice cabinet T4/96B	Bottom	280x350x130	6,0	4
11 470 223	Splice cabinet T4/60A	Top	280x350x130	6,0	4
11 470 224	Splice cabinet T4/60B	Bottom	280x350x130	6,0	4
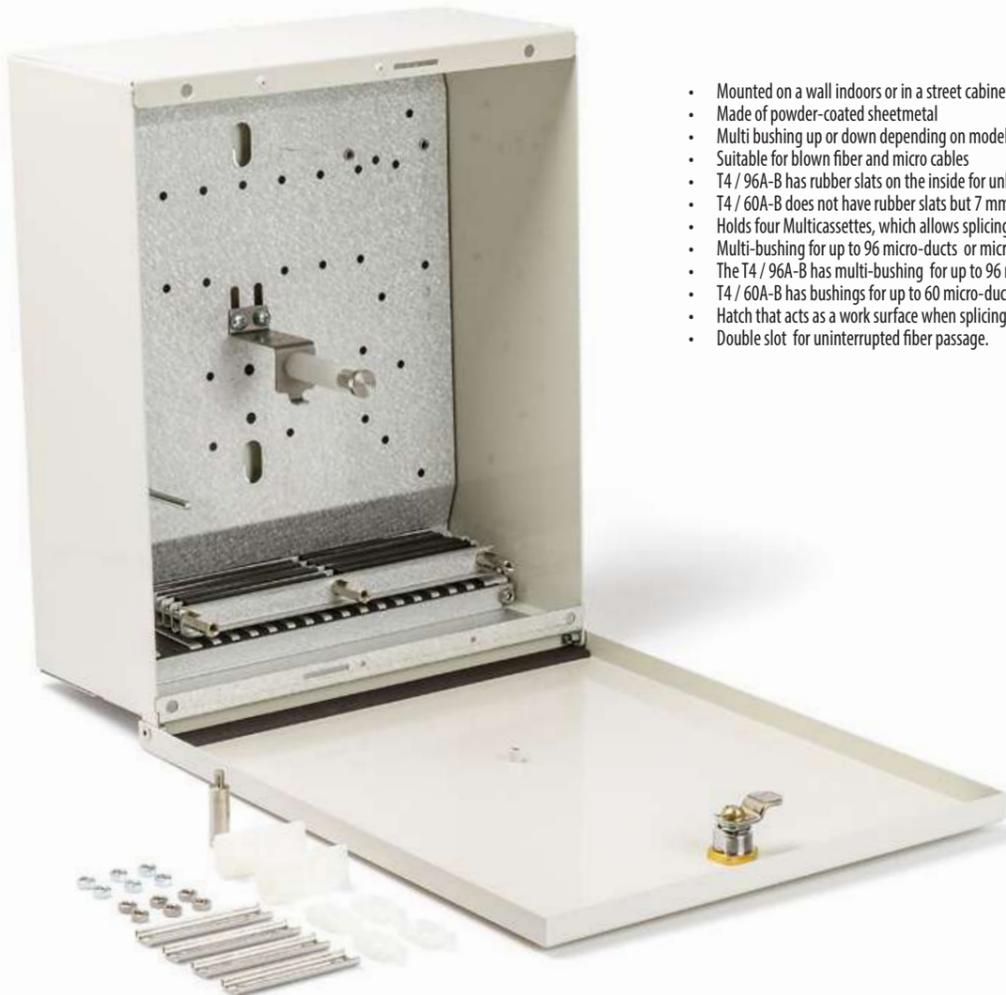
- Mounted on a wall indoors or in a street cabinets
- Made of powder-coated sheetmetal
- Multi bushing up or down depending on model.
- Suitable for blown fiber and micro cables
- T4 / 96A-B has rubber slats on the inside for unloading ducts / cables.
- T4 / 60A-B does not have rubber slats but 7 mm duct / cable reliever in slot end.
- Holds four Multicassettes, which allows splicing of e.g. 288 4-ribbon.
- Multi-bushing for up to 96 micro-ducts or micro-cables.
- The T4 / 96A-B has multi-bushing for up to 96 microducts / microcables from 3 mm to 7 mm.
- T4 / 60A-B has bushings for up to 60 micro-ducts / micro cables diameter 7 mm.
- Hatch that acts as a work surface when splicing.
- Double slot for uninterrupted fiber passage.

Splice cabinet T8

Part No.	Type	Cable entry	Measures mm WxHxD	Weight kg	Maximum number of cassettes
11 470 270	Splice cabinet T8	Both from Top and bottom	500x358x150	9	8

- Mounted on a wall indoors or in a street cabinets
- For splicing fiber optic cables
- Made of powder-coated aluzinc sheet metal
- 8 multi cassettes included
- Hatch that acts as a work surface

Splice cabinet T20

Part No.	Type	Cable entry	Measures mm WxHxD	Weight kg	Maximum number of cassettes
11 470 300	Splice cabinet T20	Both from Top and bottom	600x300x300	14,0	20

- Mounted on a wall indoors or in a ground cabinet / street cabinets
- For splicing fiber optic cables
- Made of powder-coated aluzinc sheet metal
- Holds 20 multicassettes
- Hatch that acts as a work surface
- Wiring can be laid both from above and below
- Detachable side for high accessibility
- Four hangers for cassettes included
- Multicassettes and holder blocks
- for cabling ordered sepairately
- Inlet for uninterrupted fiber passage

TYKO FLEX

Accessories for splice cabinets

Splice cabinet T2/2B 7/5 mm accessories

Part No.	Beskrivning	Packaging
11 470 172	Staple holder for 15 pcs. 5 mm Tubes	1
11 470 171	Cassette for extension T2 / 2B.	1
11 478 048	Strain relief L = 48 mm hole Ø 7.5 mm screw MZX M5x25	1

Splice cabinet T2/24B accessories

Part No.	Beskrivning	Packaging
11 408 262	Mounting plate	1
11 470 170	Cassette	1
11 478 195	Abloylock different locking 2 keys per lock	1

Splice cabinet T4 accessories

Part No.	Beskrivning	Packaging
11 408 264	Mounting plate	1
11 202 202	Multi-cassette for optical fiber	2-pack
11 202 204	Multi-cassette for 48 single fibers	2-pack
11 478 195	Abloylock different locking 2 keys per lock	1

Splice cabinet T20/T80 accessories

Part No.	Description	Packaging
11 202 202	Multi-cassette for optical fiber	2-pack
11 202 204	Multicassette for 48 single fibers	2-pack
11 478 400	Hanger for hanging Multicassette	2-pack
11 478 410	Multi holder	1
11 478 418	Ductholder 64 st. 4 mm	1
11 478 423	Holder T20 / T80 64 microTubes, 5mm	1
11 478 422	Ductholder 48 st. 7 mm	1
11 478 425	Holder for Tube T20 / T80	1
11 478 052	Strain relief external 2x10 flex	1
11 478 440	Console for splice cabinet T20	1

TYKO FLEX

Pole-mounted cabinet for aerial fibre cabling

Pole-mounted cabinet 340 for aerial fibre cabling

Part No.	Description	Measure mm WxHxD	Weight kg
11 214 441	Pole-mounted/ cabinet	340x650x170	17,0

- Pole-mounted cabinet
- Protected storage of excess fiber
- Developed to not fall below the minimum acceptable bending radius
- Mounted on a pole or wall.
- Cables can be connected both from above and below.
- A total of 20 cable entries, of which 4 for up to 40 mm with midspan.

- Space for four Multi-cassettes (two included) for splicing fiber from ground cables, micro cables and blown fiber ducts .
- Comes with chisel lock and French screw for set-up.
- Lockable
- Powder-coated aluzinc sheet metal RAL 7037

Pole-mounted cabinet 340 for aerial fibre cabling

Part No.	Description	Packaging
11 202 202	Multi-cassette for optical fiber	2-pack
11 202 204	Multi-cassette for 48 single fibers	2-pack
11 478 195	Abloylock different locking 2 keys per lock	1
11 214 446	Starin relief kit with rod and wire, two pcs.	1
11 214 448	Strain relief kit for mounting cable from below	1
11 478 418	Duct holder 64 st. 4 mm	1
11 214 450	Fibreguide T340 short kit	1
11 214 451	Fibreguide T340 long kit	1
11 478 420	Holder T340 / T10 2 microTubes, 5mm	1
11 478 422	Ductholder 48 st. 7 mm	1
11 214 445	Crimp plier	1
11 214 447	Material-kit T340	1

Guide for choosing Multiflex

Multiflex	Maximum number of Multi Cassettes	Number of cable entries	Termination number of fibers	Maximum number of fibers in an unbroken loop	Midspan
12	2	8	12 SC Simplex	96	Yes
24	2	8	12 SC Duplex	96	Yes
48	4	10	24 SC Duplex	192	Yes

Multiflex 24 fiber

Part No.	Type	Measure mm WxHxD	Weight kg
11 470 030	12xSC Simplex	244x365x80	3,8
11 470 050	12xSC Duplex	244x365x80	3,8

- Versatile indoor box for terminating optical cables.
- 8 cable entries, 4 at the bottom and 2 plugged on each side.
- Optical patching.

- Interface between operator and customer.
- Splicing and branching in property.
- Detachable lid with locking knob and hole pattern for Assa-Abloy lock.
- Lockable.

Multiflex 48 fiber

Part No.	Type	Measure mm WxHxD	Weight kg
11 470 060	24xSC Duplex	280x480x130	8,0

- Versatile indoor box for terminating optical cables
- 10 cable entries, 6 at the bottom and 2 plugged on each side.
- Optical patching.
- Interface between operator and customer.
- Splicing and branching in property
- Detachable lid with locking knob and hole pattern for Assa-Abloy lock
- Lockable

Multiflex T712 SOT 6xSC Duplex

Part No.	Type	Measure mm WxHxD	Weight kg
11 470 080	6xSC Duplex	266,5x388x135	4,9

- Opto-termination box Multiflex T712 SOT 6xSC Duplex is a versatile indoor cabinet for termination and / or splicing of optical cables.
- The T712 has a sliding contact field for easier access when cleaning contacts.
- Splicing Max 2 Multi Cassettes.
- Termination 6 SC Duplex connectors
- Comes with lock knob. The mounting hole is suitable for rackard locks (Assa-Abloy).
- The cabinet is mounted with four screws in the base plate.
- Powder coated steel sheetmetal .
- Cassettes not included, ordered separately.

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Multiflex accessories

	24F	48F	Part No.	Description	Packaging
	•	•	11 478 010	Cable gland 8-14	1
		•	11 478 015	Cable gland 13-18	1
	•	•	11 478 172	Latch ASSA industry lock	1
	•	•	11 478 195	Abloylock different locking 2 keys per lock	1
	•		11 478 xxx	For Abloylock with a unique lock code, contact Tykoflex	1
	•	•	11 202 202	Multi-cassette optical fiber	2-pack
	•	•	11 202 204	Multi-cassette for 48 single fibers	2-pack
			11 408 250	Ductholder 5-7x2 SOT	1
		•	11 348 000	End plug FC / PC, ST	1
		•	11 348 010	End plug SC simple	1
	•	•	11 348 020	End plug SC Double	1

11 400 601 (Multicassette not included)

11 400 602 (Multicassette not included)

ODFlex 19" 1U comes with retractable front panel and detachable cover, which simplifies inserting fibers and cleaning contacts. The Panel is available with contact panels for type SCD and LCQ, the front panel is clearly numbered with arrows for easier contact orientation.

   11400600 and 11400604 are supplied with holders for fiber protective sleeves and with pre-assembled fiber holders for the fiber loop. The other ODFlexes are prepared for cassette solution.
   Connection and unloading of cable from the right or left at the rear edge of the ODF.
   Attachment points for Fan-out sleeves and splitter sleeves are located at the rear edge of the retractable fiber box.
   The fiber box is provided with a mechanical protective stop outwards but can also be easily lifted out upwards.

Capacity:	*Up to 96f*
Mounting:	*Cabinet or rack mounting, console for 19" integrated into the product.*
Dimensions	
Height unit:	*1U*
Width unit:	*19"*
Depth:	*312 mm with protective cover.*
Material:	*Powder coated steel, stainless steel contact panel.*
Colorcode:	*RAL 9010 high gloss.*

ODFlex

Part No.	Description	Weight
11 400 600	ODFlex 24xSCD	3,860 kg
11 400 601	ODFlex 24xSCD for 1 cassette	3,795 kg
11 400 602	ODFlex 24xSCD for 2 cassettes	3,800 kg
11 400 604	ODFlex 24xLCD	3,860 kg
11 400 606	ODFlex 24xLCD for 2 cassettes	3,800 kg

Accessories

Part No.	Description
11 202 202	Multicassette fibre organizer, 2-p
11 202 204	Multicassette/48 (2-P) for optofibre
11 400 610	Barcode holder ODFlex
11 218 345	Splice protector 45 mm 25-pack
11 218 346	Splice protector 45 mm 100-pack
11 218 348	Splice protector SLIM 45 mm 100-pack
11 216 040	Multicassette tool

Termination box T405 for fiber 1.5U

Part No.	Type	Measure mm WxHxD	Maximum number of contacts	Weight kg
11 400 300	24 x SC Simplex	435x64x330	24	4,80
11 400 302	Splicing unit 19"T405 1 Unit	435x64x330	-	4,80
11 400 303	Splicing unit 19"T405 2 Unit	435x123x330	-	8,60
11 400 310	24 x SC Duplex	435x64x330	48	4,80
11 400 311	48 x SC Duplex	435x123x330	96	7,70
11 400 312	72 x SC Duplex	435x182x330	144	11,50
11 400 313	96 x DC Duplex	435x240x330	192	15,00
11 400 314	192 x SC Duplex	435x477x330	384	30,00
11 400 316	144 x SC Duplex	435x359x330	288	21,00
11 400 317	216 x SC Duplex	435x477x330	432	34,00
11 400 318	120 x SC Duplex	435x300x330	240	18,00
11 400 319	240 x SC Duplex	870x320x330	480	36,00
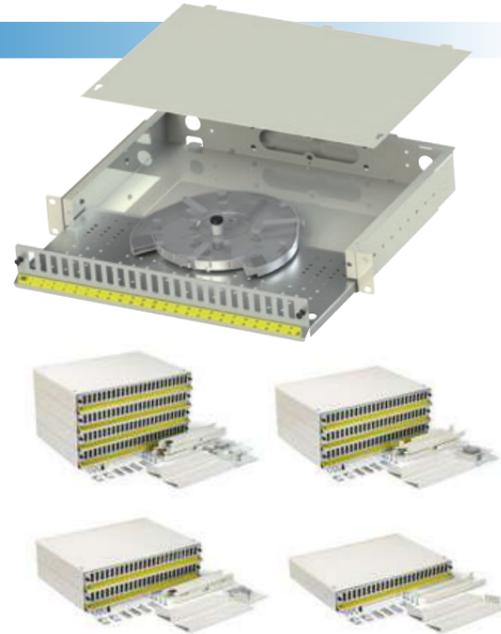
- Capacity max 192 fiber.
- Mounting in cabinet or rack.
- Quick and easy termination.
- Keyholes in the bottom for easy connection of devices.

- Holder for Multicassettes and storage of e.g. splitters.
- Cable holder and strain relief for secure cable fixation.
- Extendable front drawer and removable lid for easy installation and maintenance.

- Available with front panel for different contact types.
- Easy splicing in Multi Cassettes (accessories). Holds two pcs.
- Well-protected fiber installation through the bottom.

Termination box Prefabricated ODF T405

Guide for selecting ODF

ODF	Mounting	Access	Measure WxD	Height min/max	Connection	Variants
T400	19" / ETSI Rack	Extendable	435x200	61	Right/left	With spacers
		Front Panel				Fan-out
T405	19" / ETSI Rack	Extendable	435x330	64	Right/left	With spacers
	Cabinet	Front Panel		240		Fan-out

ODF 19" T400

ODF 19" T405

Termination box T400

Part No.	Type	Measure mm WxHxD	Weight kg
11 400 015	24 x SC Simplex	435x61x200	3,80
11 400 050	24 x SC Duplex	435x61x200	3,80
11 400 060	48 x SC Duplex	435x61x200	6,50
11 400 135	24xFC/PC	435x61x200	3,80

Our popular ODF T405 in prefabricated design means quick and easy installation in racks or cabinets in 19" design and in ETSI racks with accessories.

By combining Tykoflex's expertise in manufacturing fiber enclosures and Micropol's expertise in prefabrication, you get the best of both worlds. Always delivered 100 percent checked and with attached measurement protocol.

Equipped with transparent dust caps that ease troubleshooting if required. The ODF is also equipped with metal tube at the entry to protect the fiber from external stress. The Tubes used in the installation are of a transparent type so that the color coding can be seen through.

No welding in the ODF reduces the risk of possible damping and are also protected with metal tube. Each Unit/level corresponds to 1.5 height units.

Depth: 330 mm
Width: 435 mm
Height: 1 unit 64 mm
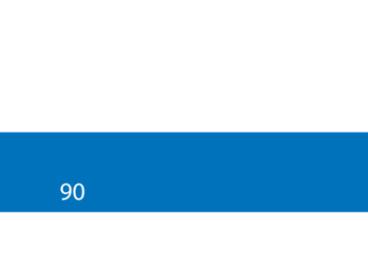2 units 123 mm
4 units 240 mm

Please contact Tykoflex for further information.

1. **Dustcap**
Transparent dustcaps easy troubleshooting.

2. **Fanout (unbroken fiber)**
No welding in ODF, which reduces any attenuation and are protected with metal tube.

3. **Shrink-Tube Heatshrink Tube**
Equipped with metal tube to protect the fiber from external stresses.

4. **Cable**
Brand independence.

5. **Transparent Tubes**
By using transparent Tubes, you see the color coding

6. **Numerically marked Tubes**

7. **100% controlled**
Measurement protocols are always attached upon delivery.

Powered by

MICROPOL

ODF-system 19" accessories

Part No.	Description	Packaging
11 202 202	Multi-cassette optical fiber	2
11 202 204	Multi-cassette for 48 single fibers	2
11 348 000	End plug FC / PC, ST	1
11 348 010	End plug SC simple	1
11 348 020	End plug SC double	1
11 408 210	Console 19 "T400 for ETSI rack	1
11 408 212	Console ODF 19 "for ETSI rack	1
11 216 045	Tool for Spacer SCD	1

Termination box ODF 240

Part No.	Type	Measure mm WxHxD	Weight kg
11 340 010	ODF 240 6xSC Duplex	60x240x200	2,20
11 340 020	ODF 240 12xSC Duplex	60x240x200	2,20
11 340 070	ODF 240 24xSCD (2 ODF with holder for MAXI 2100 & 600)	60x240x200	6,80

- Capacity 2-48 fibers.
- Mounted in cabinet or rack
- 19 "or ETSI design.
- Extendable front panel and removable side lids.
- Secure cable fixation with cable holder and strain relief.
- Fast and secure termination.
- Available with front panel for different types of connectors.

With spacers

Part No.	Spacers	Measure mm WxHxD	Weight kg
11 341 010	12xSCE Zr	60x240x200	2,30
11 341 020	12xSCD Zr	60x240x200	2,30

Prefabricated ODF frames with fibre optic cables

Contact Tykoflex for more information.

ODF 240 accessories
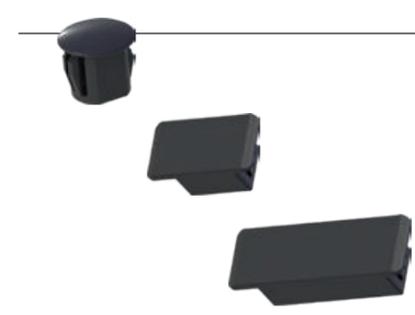
Part No.	Description	Packaging
11 348 000	End plug FC / PC, ST	1
11 348 010	End plug SC simple	1
11 348 020	End plug SC double	1
11 348 080	Label set ODF 240 25-48	1
11 348 081	Label set ODF 240 25-72	1
11 348 082	Label set ODF 240 25-96	1
11 348 084	Label set ODF 240 25-144	1
11 348 086	Label set ODF 240 25-192	1
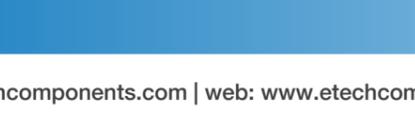
Pigtails

Part No.	Description	Packaging
11 349 767	Pigtail SC/APC SM 0,9 L=2m -E	1
11 349 768	Pigtail LC/UPC SM 0,9 L=2m -E	1
11 349 803	Pigtail LC APC L=5m 2mm -E	1
11 349 804	Pigtail LC APC 10m 2mm -E	1
11 349 805	Pigtail LC APC L=2m 0,9mm -E	1
11 349 808	Pigtail SC/PC SM, 0.9mm L=2m LSZH -E	1

Adaptors

Part No.	Description	Packaging
11 348 894	Adapter SC/APC Duplex -E	1
11 348 895	Adapter SC/UPC Duplex -E	1
11 348 896	Adapter LC/UPC Duplex -E	1
11 348 898	Adapter LC/UPC Quad -E	1
11 348 899	Adapter SC/UPC Simplex -E	1
11 348 887	Adapter LC/APC Quad -E	1

Patchcords

Part No.	Description	Packaging
11 349 761	SM SC/APC-SC/APC 2,0mm 2m -E	1
11 349 762	SM SC/APC-SC/APC 2,0mm 4m -E	1
11 349 763	SM SC/UPC-SC/UPC 2,0mm 2m -E	1
11 349 764	SM SC/UPC-SC/UPC 2,0mm 4m -E	1
11 349 765	SM LC/UPC-LC/UPC 2,0mm 2m -E	1
11 349 766	SM LC/UPC-LC/UPC 2,0mm 4m -E	1

Tykoflex splice rack T10, outdoor/indoor

Part No.	Type	Dimensions mm WxHxD	Material
11 214 340	Splice rack T10	540x700x200/300	Aluzinc

- T10 is used in outdoor cabinets or on indoor walls with pivoting splicing cassettes. These cassettes provide good accessibility for splicing optical fibres as well as the possibility to use 5 terminal boards for copper networks.
- When T10 is installed in cabinets, two cabinet depths can be used; 300 mm or 200 mm (200 mm slim cassette), e.g. FiA cabinet 300x600 mm or 200x600 mm.
- A maximum of 14 splicing cassettes can be used and the rack has a maximum capacity of 1,344 single fibre or 2,688 ribbon fibre . Included with the T10 are 27 fibre holders and 9 strength members.
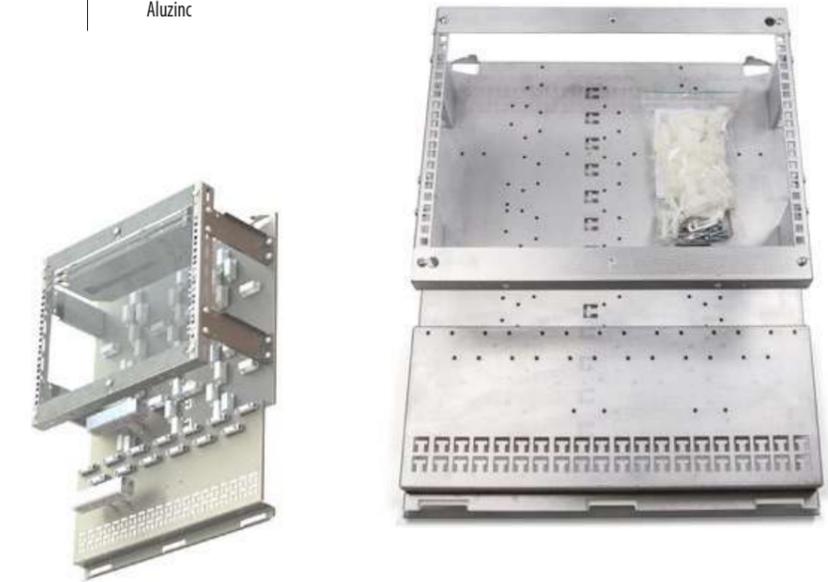
Tykoflex splice cabinet T24, indoor

Part No.	Type	Dimensions mm WxHxD	Material
11 548 040	Splice cabinet T24	700x700x350	Powder coated steel (RAL light grey)

- T24 is an indoor cabinet that is easy to mount on walls and has removable side panels as well as a door for good accessibility during installation.
- The box has a back plate for organizing the fibres and a cable shaft for the installation of ducts.
- The box uses pivoting splice cassettes, 2-pack or 8-pack left. One pack of 2 is included.
- A maximum of 20 splicing cassettes can be used and the box has a maximum capacity of 3, 840 ribbonfibre. T24 can be equipped with cable holding bracket part no. 11 419 272, 4 psc are included.

Tykoflex splice rack 19", indoor

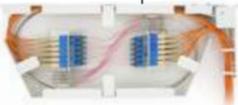| Part No.	Type	Dimensions mm WxHxD	Material
11 419 266	Splice rack 19"	600x2000x3004	Powder coated steel

- Open splicing rack for, e.g. main node. Good access for secure installation.
- Cable holders and swing-out splicing cassettes with frames for cable installations are also available together with this rack.
- The rack has keyhole fasteners for fastening on wall or floor.
- A maximum of 72 splicing cassettes can be used and the maximum capacity is 13,824 fibres.

Accessories, fits 19" racks or ETSI

	T10	T24	19"	ETSI	Part No.	Type and dimensions WxHxD mm	Packaging
Cable module 10U			•		11 419 280	Cable module, 10U, for attachment cables. Expandable with 2 pcs. expansion devices, fiber holder, nuts and screws included. Dimensions: 480x300x230	1
				•	11 419 281	Expansion unit for cable module 11 419 280. Locking rails included. Dimensions: 65x200x215	1
Cable module 1U				•	11 419 284	Cable module for extension of cables in existing rack. 1U with transparent lid, an optional front, and fibre holders. Dimensions: 480x45x230	1
Duct holder				•	11 408 227	Duct holder 60 pcs Ø 5 mm	1
				•	11 408 229	Duct holder 60 pcs Ø 6,5 mm	1
	•				11 478 418	Duct holder 64 psc Ø 4 mm	1
	•				11 478 420	Duct holder 64 pcs Ø 5 mm	1
	•				11 478 422	Duct holder 48 pcs Ø 7 mm	1
	•				11 214 342	Duct holder kit, duct holder Ø 7 mm and distance	1
	•				11 408 223	Ductholder Multi Ø 4-12 mm 8 tracs	1
	•				11 408 224	Ductholder Multi Ø 9-18 mm 6 tracs	1
					11 408 234	Ductholder Ø 14 mm 6 tracs	
Cable holder			•		11 419 272	Cable holder	1
Strength relief	•				11 478 048	Strength relief L=48 mm holes Ø 7,5 mm screw MZX M5x25	1
Strength relief kit	•				11 214 341	Strength relief kit Clamp 25 mm PA, Screw M5x35, Screw M5x25, Strain relief L=48mm with thread M5, Strain relief L=48mm with hole Ø7,5 mm	1
Plastic protection T10	•				11 214 345	Plastic protection T10, contact and moisture protection	1
Duct holder	•	•	•		11 478 007	Duct holder, FCT-7	10-pack
Splice cassette module 308 with frame left, pivoting.				•	11 419 267	Splice cassette module with 8 pcs 165 mm splice cassettes, 4U, with transparent lid. Fibre holder, nuts and screws included. Dimensions: 480x160x230 mm	1
Splice cassette module 308, 19" without frame left or right, pivoting.	•	•	•		V:11 400 408	Splice cassette module with 8 pcs 165 mm splice cassettes, with transparent lid. Fibre holder, nuts and screws included. Dimensions:19"x150x165 mm	1
Splice cassette module 302 with frame left, pivoting.				•	11 419 269	Splice cassette module with 2 pcs 165 mm splice cassettes, 1U, with transparent lid. Fibre holder, nuts and screws included. Dimensions: 480x45x230 mm	1
Splice cassette module 302, 19" without frame left or right, pivoting.	•	•	•		V:11 400 403	Splice cassette module with 2 pcs 165 mm splice cassettes, 1U, with transparent lid. Used with Splice cabinette T10. Fibre holder, nuts and screws included. Dimensions: 19"x45x165 mm	1
				•	H:11 400 400		

Accessories, fits 19" racks or ETSI

	T10	T24	19"	ETSI	Part No.	Type and dimensions WxHxD mm	Packaging
Splice module 12 x SCD L/R			•		11 400 424	Splice/Termination modul for 19" system. Splice tray builds 1U (1HE) depth is 165 mm. Space for splicing of pigtail or fan out. Two contact fields for 12x SC Duplex connectors	1
Splice module 102, 19" No frame (Left)	•	•	•		V:11 400 373	Splice module comes with 2x splice cassettes. Depht 130 mm. Builds 1U with transparent lidh. Fibre organisers is included.	1
Splice unit 402 19" L/R	•	•	•		11400430	Swing-out joint for 2 cassettes (5062185) Lock plate included for 19" mounting. Universal design makes it possible to mont it on left or right side in the splice rack. Making it easy to maintain and install. Basket nuts, screw, fibre organisers and cable ties included in the installation kit.	1
Splice unit 402 ETSI L/R				•	11400431	Swing-out joint for 2 cassettes (5062185) Lock plate included for ETSI mounting. Universal design makes it possible to mont it on left or right side in the splice rack. Making it easy to maintain and install. Basket nuts, screw, fibre organisers and cable ties included in the installation kit.	1
Splice unit 408 19" L/R	•	•	•		11400432	Swing-out joint for 8 cassettes (5062185) Lock plate included for 19" mounting. Universal design makes it possible to mont it on left or right side in the splice rack. Making it easy to maintain and install. Basket nuts, screw, fibre organisers and cable ties included in the installation kit.	1
Splice unit 408 ETSI L/R				•	11400433	Swing-out joint for 8 cassettes (5062185) Lock plate included for 19" mounting. Universal design makes it possible to mont it on left or right side in the splice rack. Making it easy to maintain and install. Basket nuts, screw, fibre organisers and cable ties included in the installation kit.	1
Splice cassette 400 L/R	•	•	•	•	11400439	Universal splice cassette for splice unit L/R. Cassette has 2 sleeve holder with 12 slot in each. Width in each slot is 4,3 mm. That makes it possible to fit 6 single sleeves (standard) 6x24f = 144 single sleeves. Silicone cord, transparent lidh and cable ties is included in the installation kit.	1
Splice unit 402 19" and ETSI L/R	•	•	•	•	11400445	Swing-out joint for 2 cassettes (5062185) Lock plate included for ETSI and 19" mounting. Universal design makes it possible to mount it on left or right side in the splice rack. Making it easy to maintain and install. Basket nuts, screw, fibre organisers and cable ties is included in the istallation kit.	1
Splice unit 408 19" and ETSI L/R	•	•	•	•	11400447	Swing-out joint for 8 cassettes (5062185) Lock plate included for ETSI and 19" Mounting. Universal design ,makes it possible to mount it on left or right side in the splice rack. Making it easy to maintain and install. Basket nuts, screw, fibre organisers and cable ties is included in the istallation kit.	1
Splice module 412 19" L/R			•		11400436	Cassette (11400439) is purchased individually. Is possible to mount it on left or right side in splice rack. Screw, cable ties and fibre organisers is included. Capacity: 2 splice cassettes.	1
Splice module 414 19" L/R			•		11400437	Cassette (11400439) is purchased individually. Is possible to mount it on left or right side in splice rack. Screw, cable ties and fibre organisers is included. Capacity: 4 splice cassettes.	1
Splice module 418 19" L/R			•		11400438	Cassette (11400439) is purchased individually. Is possible to mount it on left or right side in splice rack. Screw, cable ties and fibre organisers is included. Capacity: 8 splice cassettes.	1

TYKO FLEX

Tube cutters

Part No.	Description	Pack
11 216 131	Tube cutter, stainless steel tubes 3-16 mm.	1
11 216 133	Spare blades for tube cutter 11 216 131	10
11 216 135	Tube cutter, plastic tube 0-3.2 mm.	1

Splice protectors

Part No.	Description	Pack
11 218 345	Splice protectors for single fibre standard	25-pack
11 218 080	Splice protectors for ribbon fibre 4/8	25-pack
11 218 082	Splice protectors for ribbon fibre 4/8/12	25-pack
11 218 084	Splice protectors for single fibre standard	100-pack
11 218 348	Splice protectors for single fibre SLIM	100-pack
11 218 088	Splice protectors for ribbon fibre 4/8	100-pack
11 218 090	Splice protectors for ribbon fibre 4/8/12	100-pack

Other accessories

Part No.	Description	Pack
11 218 360	Cable ties 98 x 2.5 mm	100-pack
11 218 305	Absorbent bag 10 gr	5-pack
11 218 315	Cable cleaner	10
11 216 140	Knipex Oetiker plier, to crimp Oetiker clamp in 11 218 340	1
11 218 316	Protective bag PE 600 x 1100 x 0.12 mm For dirt protection of splice boxes for direct burial	1

Pressure test

| Part No.	Description	Pack
11 216 115	Pressure test kit for T240, Lid, air overpressure pump and air bubble indicator.	Kit
11 216 117	Leakage air bubble indicator liquid 400 ml.	1

Spa entrance kit

Part No.	Description	Packaging
11 218 340	SPA Entrance Kit Fibremanifolder, 4x Protective sleeve3,0x4,0 L=800 mm Oetiker 7-13, Drawbar fibre, hose 20 mm	1
11 218 341	SPA Entrance Kit 10/1,2 10x Fibremanifolder, 50m Protective sleeve3,0x4,0 L=800 mm, 10x Oetiker 7-13, Drawbar fibre	1
11 218 358	SPA Entrance Kit 4-way Fibremanifolder, 2x Protective sleeve3,0x4,0 L=800 mm, Oetiker 11-13, 2cm Protective Tube5x7, 40cm Protective TubePel 3,5x5,0, 5cm Heatshrink Tube W5C 9/3, Splice protector2,4-2,8 samt 2,7-3,4	1
11 218 805	SPA Entrance Kit 5mm Tube 4-way Fibremanifolder, 2x Protective sleeve3,0x4,0 L=800 mm, Oetiker 13-15, 2cm siliconetube unarmoured. 7x10mm, 40cm Protective Tube PA 5x7, 5cm Heatshrink Tube W5C 9/3, Splice protector3,5-4,4	1
11 218 808	SPA Entrance Kit 7,4mm Tube 4-way Fibremanifolder, 2x Protective sleeve3,0x4,0 L=800 mm, Oetiker 13-15	1

Export information
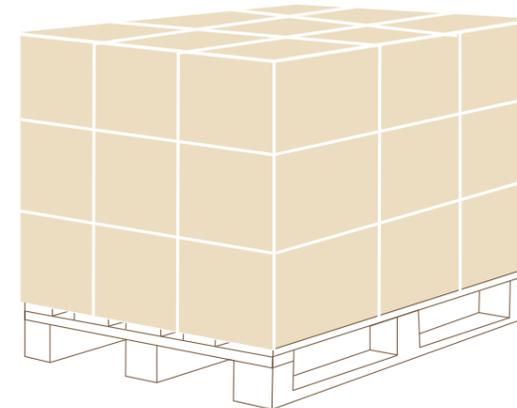
Let us help you optimize your transportation.

We are happy to help you optimize your transportation of Tykoflex closures. We will always pack your goods in the most cost effective and efficient way. We have many years of exporting experience and our pallets fulfil the necessary requirements for transportation to most parts of the world, including Australia.

Well container 1/1 size with Joint Closure T 240/50, 44 pieces.

A full pallet.
Volume: 1,2 x 0,8 x 0,93 = 0,8928m³ = 0,90 m³
Weight: 44 x 4 = 176 + 10 + 4 = 190 kg

Stockholm Chamber of Commerce

BUSINESS SWEDEN   THE SWEDISH TRADE & INVEST COUNCIL

Closure under test with high pressure water jet, 100 bar, 80°C, 0° to 180° angle.

No UV radiation impact on the stainless steel T240 closure.

The T240 closure is reliable in extreme temperatures.

T240 closure in water-filled manhole.

Rodents can eat through concrete, but not through stainless steel.

Tightness for overpressure and vacuum

Closures installed in manholes or direct burried can be exposed of flooding and stay under water for months. Tykoflex closure therefor tested and certified for IP68 (2 bar/24 h) IP69 and IP69K.
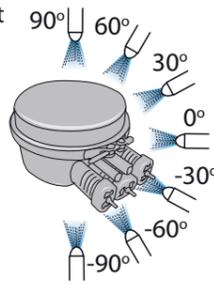
Universality

The unique Multicassette fibre organizer is used for splicing of single fibre as well as ribbon. One cassette and the same installation procedure for all needs.

Tight for overpressure and vacuum

Manholes may be flooded for months, but inside the T240 it´s safe and dry. T240 fulfils the IP 68 tightness requirements.

Rodents

Rodents can eat through concrete, but not through stainless steel. With rodent-proof cables and Tykoflex T240, there is no weak link.

Withstands harsh weather and hunters

The closure has been tested and approved for abrasive winds, hailstorms and is also shotgun proof. The closure is made of acid proof stainless steel (316L).

International and European standard

Fulfils International standard IEC 61753-111-7 IEC 61753-111-8 and IEC 61753-111-9.

Big and small

Maximum use of interior space with as little wasted space as possible gives compact outer dimensions. This allows placement in small and narrow manholes.

Round for a reason

Allows largest possible fibre bending radius, with safe storage and easy fibre handling in the large Multicassette. All in a very compact closure solution. The round construction makes the closure very easy to open and close safely with only one screw. The round construction with the o-ring seal guarantees safe sealing.

High capacity

The T240 can handle up to 2304 fibres and offer up to 77 ports.

Easy to use, quick to assemble

Few components, opens and closes with only one screw. Hot or cold cable entry sealing. Distinct mechanical assembly. Most parts are assembled in factory.

Time-saving

Safe, efficient, easy and time-saving handling for securing cables and with capacity for storing all types of fibres in the Multicassette.

Flexibility

Install the closure for the demands of today and the capacity of tomorrow. T240 closures are designed to be easy to expand, branch off and re-configure.

Withstands rough handling.

Manhole installation with T240 closures.

Solid T240 closure with safe locking device

Weather is unpredictable – T240 is reliable.

Example of OPGW installation.

Tykoflex T240 installation movies

https://www.tykoflex.se/en/instructions/
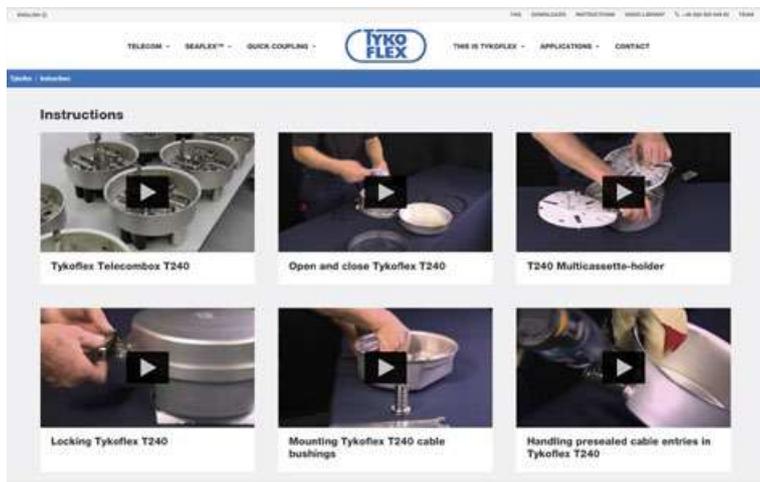
1	Open and close the T240		**7**	Cable bushing
2	Multicassette holder		**8**	Multicassette organizer
3	Locking the T240		**9**	Cable strain relief clamp
4	Mounting T240 cable bushing		**10**	Cable entry tool
5	Fibre branching		**11**	Sealing of T240 midspan cable entry
6	Tube splitter		**12**	Handling presealed cable entries

www.tykoflex.se

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T240 fulfils international and European standards
for outdoor closures.
IEC 61753-111-7
IEC 61753-111-8
IEC 61753-111-9
EN 60529:1991 + A1:2000 + A2:2013
IEC 60529:1989 + A1:1999 + A2:2013
ISO 20653:2013
IP68 (2.0 bar/24 h)/IP69, IP69K

qValify ISO 9001

qValify ISO 14001

IP69K APPROVED

Part of
Lagercrantz Group
www.lagercrantz.com

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