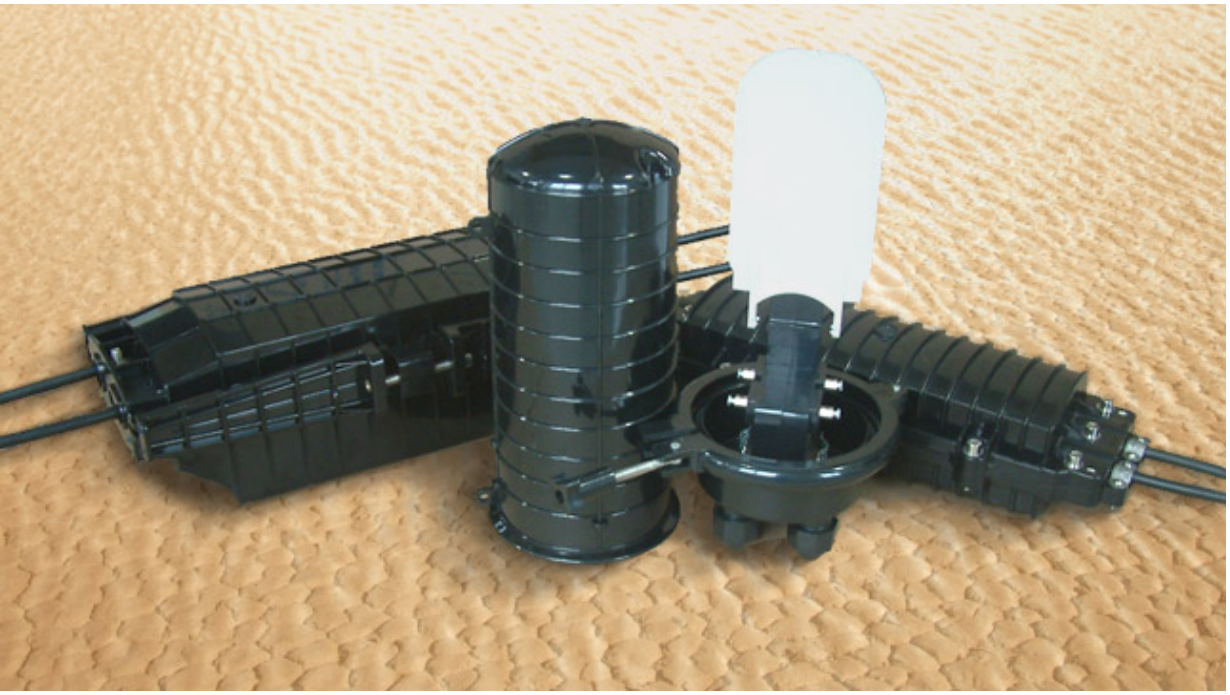
FIBER OPTIC CLOSURES

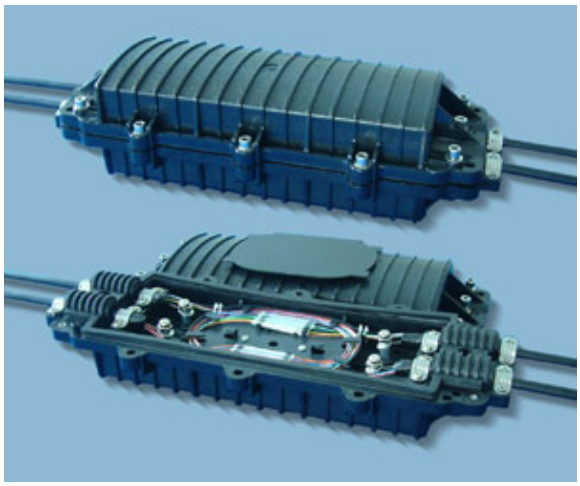


In-line type and dome type - series CLS-I, CLS-IF2X, CLS-D, CLS-DF2X144 and CLS-DF2X240

PACIFIC
INTERCONNECTIONS
- connecting the world with fiber optics

IN-LINE TYPE FIBER OPTIC CLOSURES

Description



Pacific Interconnections' in-line fiber splice closures are compliant with IEC 1073-1. The closures are made of tough anti-corrosive Polycarbonate that makes the closures ideal for aerial, cable duct, direct burial and well applications.

Our inline closures include CLS-I48, CLS-I60 and CLS-I132 series. The CLS-I48 and CLS-I60 have 4 cable entry ports, and the CLS-I132 provides 6 cable entry ports with 3 different diameters. The CLS-I48 can accommodate up to 4 12-fiber splice trays. The CLS-I60 can hold up to 5 12-fiber or 24-fiber splice trays. The CLS-I132 can house a maximum of 11 splice trays which can house a maximum 12 or 24 single fiber splices.

The closures employ gasket-sealing technology that enables ease of installation and re-entry requiring no special tools.

Features

- Reliable gasket sealing
- No special tool required for installation
- Re-enterable with no re-entry kit needed
- High compressive strength

Applications

- Suitable for ribbon and non-ribbon fibers
- Aerial, duct, direct burial, and well
- Trunk lines
- Access networks

Specifications

Characteristics	**Value/Performance**		
Type	CLS-I48	CLS-I60	CLS-I132
Basic			
No. of Cable Port	4	4	6
Max. Cable Diameter allowed	18mm	13mm	23mm/20mm/16mm*1
Dimension	465x180x122mm3	467x190x122mm3	450x216x160mm3
Weight	2.6kg	2.8kg	3.5kg
Operating Temperature	-40 ~ +60°C		
Fiber Bend Radius	30mm		
Max. No. of Splice Trays	4	5	11
Max. Capacity (single fiber splice)*2	48	60	132

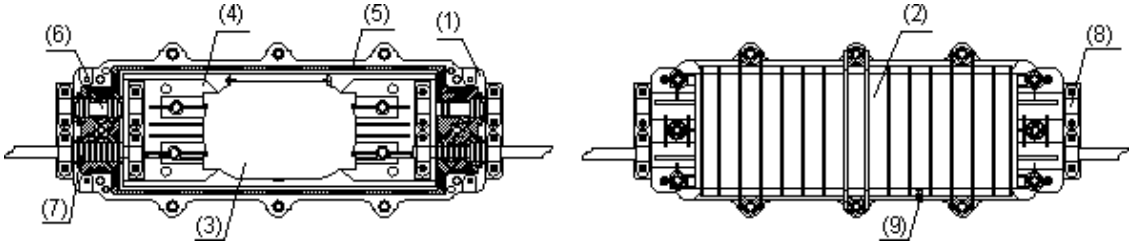
*1 See drawing. *2 Capacity is for 12-fiber splice trays, it is doubled if 24-fiber splice trays are used.

Specifications

Characteristics	Value/Performance	Methods and Conditions
Mechanical		
Air Tightness	No air bubble seen	Put closure under water for 15min with closure's internal air pressure set at 100kPa±5kPa.
	Remains 100kPa±5kPa	Measure the internal pressure 24 hours later
Air Tightness after re-installation	No air bubble seen and pressure remains unchanged	Do re-entry and re-installation 3 times and repeat above Air Tightness Tests.
Axial Pulling	Pressure remains unchanged	Pulling force: 1000N Time: 1min Internal air pressure: 60kPa±5kPa
Compression	Pressure remains unchanged	Applied pressure: 2000N/100mm Time: 1min Internal air pressure: 60kPa±5kPa
Impact	Pressure remains unchanged	Impact energy: 16N.m No. of impacts: 3 Internal air pressure: 60±5kPa
Bending	Pressure remains unchanged	Bending angle: ±45°(in two opposite directions) Tension: 150N No. of bending: 10 Internal air pressure: 60kPa±5kPa
Twisting	Pressure remains unchanged	Twisting angle: ±90° Torque: 50N No. of twisting: 10 Internal air pressure: 60kPa±5kPa
Thermal		
Temperature Cycling	Pressure drop ≤5kPa	Cycling range: -40 ~ +60°C Cycling time: 2hrs at -40°C, then 2hrs at +60°C No. of cycling: 3 Internal air pressure: 60kPa±5kPa
Electrical		
Insulation	Resistance between metal parts: $2.0x10^5M\Omega$	Soak closure into water in 1.5m-depth for 24hrs, and measure the insulation resistance after taking it out of water.
	Resistance between each metal part and ground: $2.0x10^5M\Omega$	
High Voltage	No voltage break-downs and sparks	Soak closure into water in 1.5m-depth for 24hrs, then apply 15kV DC to the metal parts inside

Structural Drawing

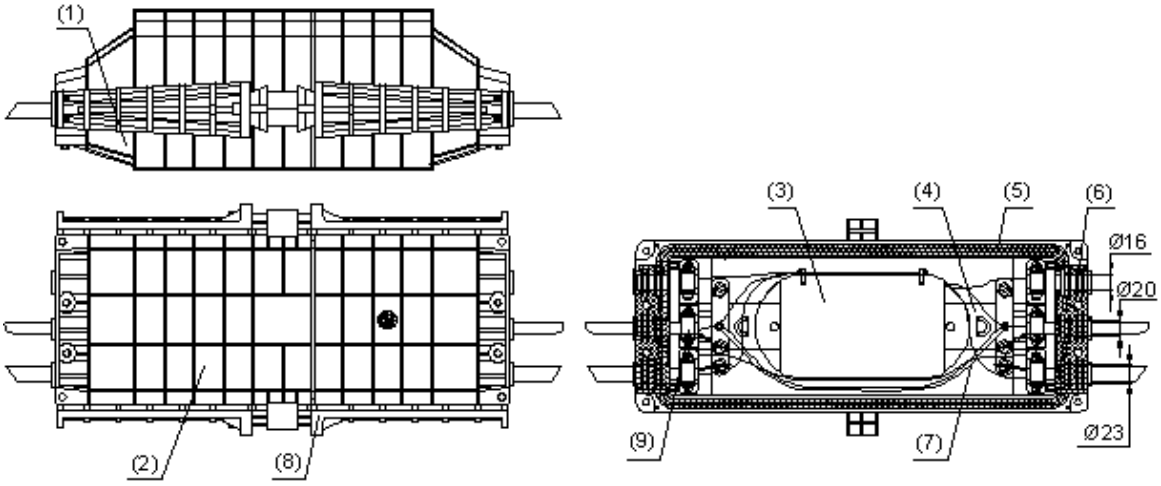
CLS-I48 and CLS-I60



Above splice closure includes a (1)closure base, (2)closure cover, (3) splice tray(s), (4)splice tray holder, (5)silicon rubber gasket, (6)plug, (7)cable ring, (8)cable clamp, and (9)gas valve (optional).

Structural Drawing

CLS-I132



Above splice closure includes a (1)closure base, (2)closure cover, (3) splice tray(s), (4)splice tray holder, (5)silicon rubber gasket, (6)plug, (7)grounding wire, and (8)lock device.

Ordering Information

Part Number: **CLS-I48/48**
1 **2**

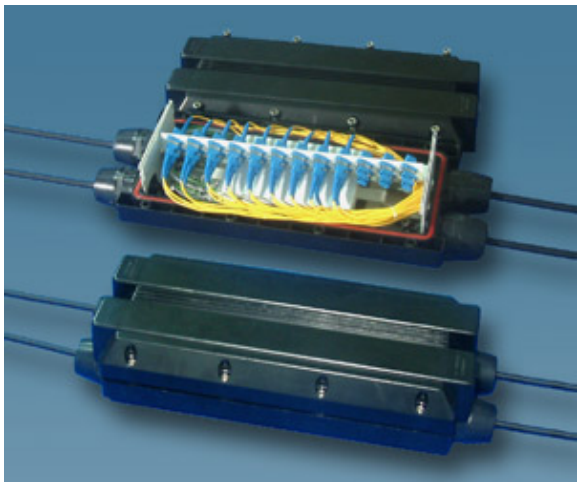
1	Product Type	I48	Inline type closure with max. 4 splice trays
		I60	Inline type closure with max. 5 splice trays
		I132	Inline type closure with max. 11 splice trays
		I48ST1	Splice tray for CLS-I48, each tray can hold 12 splices
		I60ST1	Splice tray for CLS-I60, each tray can hold 12 splices
		I60ST2	Splice tray for CLS-I60, each tray can hold 24 splices
		I132ST1	Splice tray for CLS-I132, each tray can hold 12 splices
		I132ST2	Splice tray for CLS-I132, each tray can hold 24 splices
		I48SG	Sealing gasket for CLS-I48
		I60SG	Sealing gasket for CLS-I60
		I132SG	Sealing gasket for CLS-I132
2	Fiber Count *3 (single fiber)	144	144 fiber counts, 6pcs 24-fiber splice trays installed
		96	96 fiber counts, 8pcs 12-fiber splice trays installed
		48	48 fiber counts, 4pcs 12-fiber splice trays installed
		24	24 fiber counts, 2pcs 12-fiber splice trays installed
		Blank	For splice tray and sealing gasket

*3 24-fiber splice trays can be provided on request with half quantity of 12-fiber splice trays.

Products manufactured in ISO 9001 certified facilities

FTTX
IN-LINE CLOSURE

Description



Pacific Interconnections' FTTX in-line closure is an environmentally sealed enclosure for fiber splice, splitting, distribution and cross-connect in outside plant network for FTTX and broadband applications. It complies with IEC 1073-1. The closure is made of tough anti-corrosive Polycarbonate and is ideal for aerial, cable duct, direct burial, and well environment.

The closure has 4 cable entry ports. The entries can be increased up to 12 when optional multi-hole grommets are equipped. Its unique design of adjustable port size allows quick cable installation. It accommodates up to 6 splice trays. When adapter panel and splitter mount are equipped, it supports 24 adapters and 2 splitters for fiber optic service drops in FTTX deployment.

Features

- Supports adapter bulkheads and splitters
- Reliable and re-usable sealing gasket
- Re-enterable with no re-entry kit needed
- No special tool required for installation

Applications

- Suitable for ribbon and non-ribbon fibers
- Aerial, duct, direct burial, and well
- FTTX, access networks and broadband

Specifications

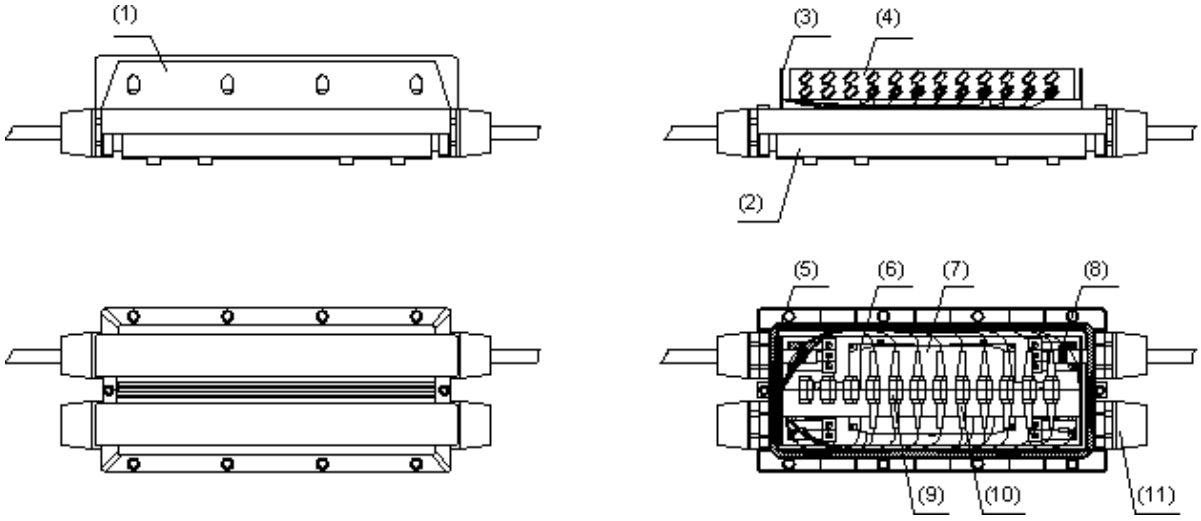
Characteristics		Value/Performance
Basic		
No. of Cable Entries	Basic	4
	Maximum	12 (3-hole grommet used)
Max. Cable Diameter allowed		25mm
Max. No. of Splice Trays	Adapter panel loaded	6
	Adapter panel unloaded	2
Max. Capacity without adapters*1		72 (single-fiber splice)
Max. No. of adapters		24
Max. No. of splitters (for 1x8)		2
Dimension		490x200x140mm^3
Weight		5kg
Operating Temperature		-40 ~ +60°C
Fiber Bend Radius		30mm

*1 Capacity is for 12-fiber splice trays, doubled if 24-fiber splice trays are used.

Specifications

Characteristics	Value/Performance	Methods and Conditions
Mechanical		
Air Tightness	No air bubble seen	Put closure under water for 15min with closure's internal air pressure set at 100kPa±5kPa.
	Remains 100kPa±5kPa	Measure the internal pressure 24 hours later
Air Tightness after re-installation	No air bubble seen and pressure remains unchanged	Do re-entry and re-installation 3 times and repeat above Air Tightness Tests.
Axial Pulling	Pressure remains unchanged	Pulling force: 1000N Time: 1min Internal air pressure: 60kPa±5kPa
Compression	Pressure remains unchanged	Applied pressure: 2000N/100mm Time: 1min Internal air pressure: 60kPa±5kPa
Impact	Pressure remains unchanged	Impact energy: 16N.m No. of impacts: 3 Internal air pressure: 60±5kPa
Bending	Pressure remains unchanged	Bending angle: ±45°(in two opposite directions) Tension: 150N No. of bending: 10 Internal air pressure: 60kPa±5kPa
Twisting	Pressure remains unchanged	Twisting angle: ±90° Torque: 50N No. of twisting: 10 Internal air pressure: 60kPa±5kPa
Thermal		
Temperature Cycling	Pressure drop ≤5kPa	Cycling range: -40 ~ +60°C Cycling time: 2hrs at -40°C, then 2hrs at +60°C No. of cycling: 3 Internal air pressure: 60kPa±5kPa
Electrical		
Insulation	Resistance between metal parts: $2.0x10^5M\Omega$	Soak closure into water in 1.5m-depth for 24hrs, and measure the insulation resistance after taking it out of water.
	Resistance between each metal part and ground: $2.0x10^5M\Omega$	
High Voltage	No voltage break-downs and sparks	Soak closure into water in 1.5m-depth for 24hrs, then apply 15kV DC to the metal parts inside

Structural Drawing



Above splice closure includes a (1)closure cover (2)closure body, (3) internal frame, (4)adapter panel, (5)silicon rubber gasket, (6)splitter, (7)splice tray, (8)cable clamp, (9)adapter, (10)connector, and (11)cable port.

Ordering Information

Part Number: **CLS-IF2X 72 /24 SC R 24**
1 2 3 4 5

1	Product Type	72	Closure with max. 6 splice trays
		72ST1	12-fiber splice tray for CLS-IF2X72
		72ST2	24-fiber splice tray for CLS-IF2X72
		72SG	Sealing gasket for CLS-IF2X72
2	Fiber Count *2 (single fiber)	72	72 fiber counts, 6pcs 12-fiber splice trays installed
		24	24 fiber counts, 2pcs 12-fiber splice trays installed
		12	12 fiber counts, 1pc 12-fiber splice trays installed
		Blank	For splice tray and sealing gasket
3	Adapter Type	SC	SC/PC simplex
		SA	SC/APC simplex
		LC	LC/PC simplex
		LC2	LC/PC duplex
		Blank	Adapter mount unloaded, and for closure accessories
4	Adapter Grade	R	Single mode (SM)
		K	Multimode (MM)
		Blank	For splice tray and sealing gasket
5	Number of Adapters	24	24 adapters loaded
		Blank	No adapters loaded

*2 24-fiber splice trays can be provided on request with half quantity of 12-fiber splice trays.

Products manufactured in
ISO 9001 certified facilities

DOME TYPE FIBER OPTIC CLOSURES

Description

Pacific Interconnections' CLS-D96 dome type fiber splice closures are compliant with IEC 1073-1. The closures are made of tough anti-corrosive Polycarbonate that makes the closures ideal for aerial, cable duct, direct burial and well applications.

The closures employ gasket-sealing technology that enables ease of installation and re-entry requiring no special tools.

It can accommodate maximum 6 pieces of 12-fiber or 16-fiber splice trays. When 12-fiber splice trays are used, maximum capacity is 72. When 16-fiber splice trays are used, maximum capacity is 96. It holds cables up to diameter 21mm and provides 6 cable entry ports.

Features

- Easy installation with no special tool required
- Reliable and re-usable gasket sealing
- High compressive strength
- Chemical resistant
- High voltage resistant
- Suitable for ribbon and non-ribbon fibers
- Can hold up to 96 fibers for single fiber splice or 576 fibers for ribbon fiber splice
- Flip-up style splice trays

Applications

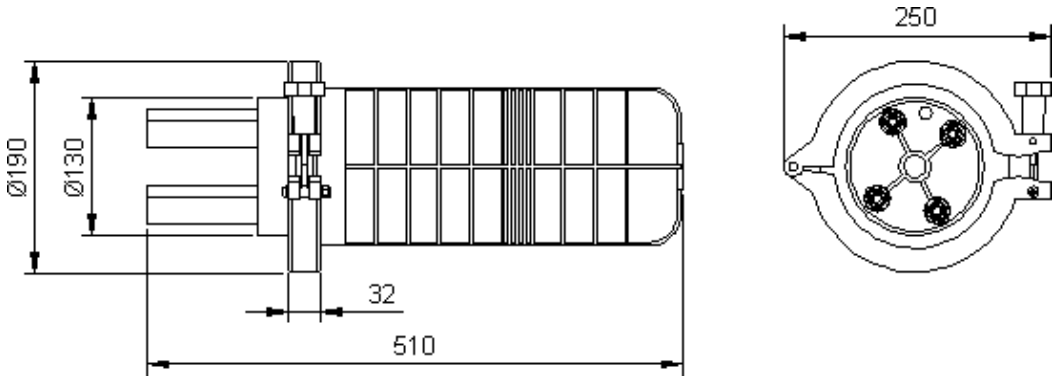
- Aerial
- Cable duct
- Direct burial
- Well

Specifications

Characteristics	Value/Performance
Basic	
No. of Cable Port	4
Dimension	Ø190x510mm^3
Weight	4kg
Operating Temperature	-40 ~ +60°C
Fiber bend radius	30mm
Max. Capacity (single fiber splice)	96

Characteristics	Value/Performance	Methods and Conditions
Mechanical		
Air Tightness	No air bubble seen	Put closure under water for 15min with closure's internal air pressure set at 100kPa±5kPa.
	Remains 100kPa±5kPa	Measure the internal pressure 24 hours later
Air Tightness after re-installation	No air bubble seen and pressure remains unchanged	Do re-entry and re-installation 3 times and repeat above Air Tightness Tests.
Axial Pulling	Pressure remains unchanged	Pulling force: 1000N Time: 1min Internal air pressure: 60kPa±5kPa
Compression	Pressure remains unchanged	Applied pressure: 2000N/100mm Time: 1min Internal air pressure: 60kPa±5kPa
Impact	Pressure remains unchanged	Impact energy: 16N.m No. of impacts: 3 Internal air pressure: 60±5kPa
Bending	Pressure remains unchanged	Bending angle: ±45°(in two opposite directions) Tension: 150N No. of bending: 10 Internal air pressure: 60kPa±5kPa
Twisting	Pressure remains unchanged	Twisting angle: ±90° Torque: 50N No. of twisting: 10 Internal air pressure: 60kPa±5kPa
Thermal		
Temperature Cycling	Pressure drop ≤5kPa	Cycling range: -40 ~ +60°C Cycling time: 2hrs at -40°C, then 2hrs at +60°C No. of cycling: 3 Internal air pressure: 60kPa±5kPa
Electrical		
Insulation	Resistance between metal parts: $2.0x10^5M\Omega$	Soak closure into water in 1.5m-depth for 24hrs, and measure the insulation resistance after taking it out of water.
	Resistance between each metal part and ground: $2.0x10^5M\Omega$	
High Voltage	No voltage break-downs and sparks	Soak closure into water in 1.5m-depth for 24hrs, then apply 15kV DC to the metal parts inside

Structural Drawing



Ordering Information

Part Number: **CLS-D96/48**
1 **2**

1	Product Type	D96	Dome type closure with max. capacity of 96 fibers
		D96ST1	Splice tray, each tray can hold 12 splices
		D96ST2	Splice tray, each tray can hold 16 splices
		D96SG	Sealing gasket
2	Fiber Count (single fiber)	96	96 fiber counts, 6pcs CLS-D96ST2 splice trays installed
		48	48 fiber counts, 4pcs CLS-D96ST1 splice trays installed
		36	36 fiber counts, 3pcs CLS-D96ST1 splice trays installed
		24	24 fiber counts, 2pcs CLS-D96ST1 splice trays installed
		12	12 fiber counts, 1pcs CLS-D96ST1 splice trays installed
		Blank	For splice tray and sealing gasket

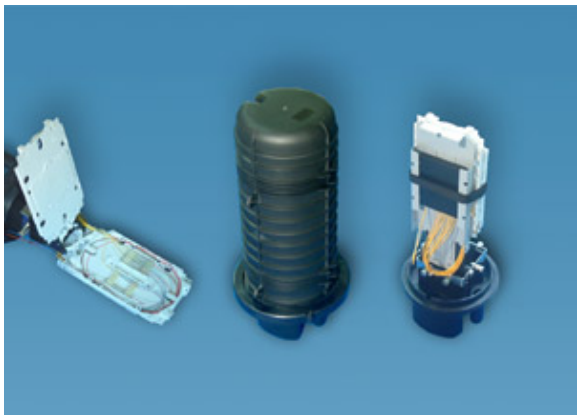
Other accessories: splice protection sleeve can be ordered separately.

Products manufactured in
ISO 9001 certified facilities

FIBER DISTRIBUTION DOME CLOSURE

FIBER DISTRIBUTION
DOME CLOSURE

Description



Pacific Interconnections' fiber distribution dome closure is an environmentally sealed enclosure for fiber splice, splitting and distribution in outside plant network for FTTX and broadband applications. It complies with IEC 1073-1. The closure is made of tough anti-corrosive Polycarbonate and is ideal for aerial, cable duct, direct burial, and well environment.

The closure has 5 cable entry ports. One of the ports has larger size and fits two cables. Each of other ports fits one cable only.
It accommodates up to 6 splice trays and supports fiber optic distribution drop splitting of up to 2 splitters in FTTX deployment. Air valve is available as an optional accessory.

Features

- Supports splitters
- Reliable and re-usable sealing gasket
- Re-enterable with no re-entry kit needed
- No special tool required for installation
- High compressive strength

Applications

- Suitable for ribbon and non-ribbon fibers
- Aerial, duct, direct burial, and well
- FTTX, access networks and broadband

Specifications

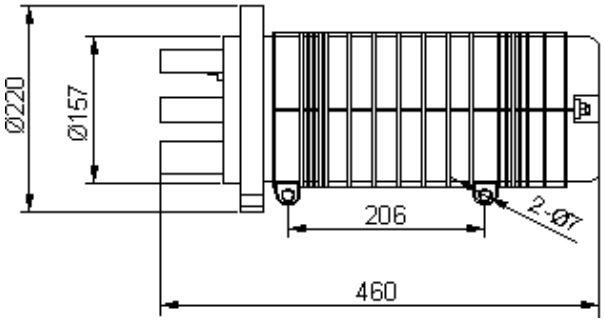
Characteristics	Value/Performance
Basic	
No. of Cable Entries	5
Max. Cable Diameter allowed	22mm
Max. No. of Splice Trays	6
Max. Capacity*1	144 (single-fiber splice)
Max. No. of splitters (for 1x8)	2
Dimension	Ø220x460mm3
Weight	3.25kg
Operating Temperature	-40 ~ +60°C
Fiber Bend Radius	30mm

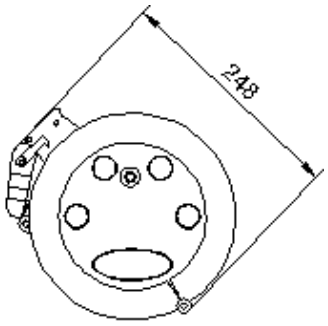
*1 Capacity is for 24-fiber splice trays, half if 12-fiber splice trays are used.

Specifications

Characteristics	Value/Performance	Methods and Conditions
Mechanical		
Air Tightness	No air bubble seen	Put closure under water for 15min with closure's internal air pressure set at 100kPa±5kPa.
	Remains 100kPa±5kPa	Measure the internal pressure 24 hours later
Air Tightness after re-installation	No air bubble seen and pressure remains unchanged	Do re-entry and re-installation 3 times and repeat above Air Tightness Tests.
Axial Pulling	Pressure remains unchanged	Pulling force: 1000N Time: 1min Internal air pressure: 60kPa±5kPa
Compression	Pressure remains unchanged	Applied pressure: 2000N/100mm Time: 1min Internal air pressure: 60kPa±5kPa
Impact	Pressure remains unchanged	Impact energy: 16N.m No. of impacts: 3 Internal air pressure: 60±5kPa
Bending	Pressure remains unchanged	Bending angle: ±45°(in two opposite directions) Tension: 150N No. of bending: 10 Internal air pressure: 60kPa±5kPa
Twisting	Pressure remains unchanged	Twisting angle: ±90° Torque: 50N No. of twisting: 10 Internal air pressure: 60kPa±5kPa
Thermal		
Temperature Cycling	Pressure drop ≤5kPa	Cycling range: -40 ~ +60°C Cycling time: 2hrs at -40°C, then 2hrs at +60°C No. of cycling: 3 Internal air pressure: 60kPa±5kPa
Electrical		
Insulation	Resistance between metal parts: $2.0x10^5M\Omega$	Soak closure into water in 1.5m-depth for 24hrs, and measure the insulation resistance after taking it out of water.
	Resistance between each metal part and ground: $2.0x10^5M\Omega$	
High Voltage	No voltage break-downs and sparks	Soak closure into water in 1.5m-depth for 24hrs, then apply 15kV DC to the metal parts inside

Structural Drawing





Ordering Information

Part Number: **CLS-DF2X144/72 V**
1 2 3

1	Product Type	144	Closure with max. 6 splice trays
		144ST1	12-fiber splice tray for CLS-DF2X144
		144ST2	24-fiber splice tray for CLS-DF2X144
		144SG	Sealing gasket for CLS-DF2X144
2	Fiber Count*2 (single fiber)	144	144 fiber counts, 6pcs 24-fiber splice trays installed
		96	96 fiber counts, 4pcs 24-fiber splice trays installed
		72	72 fiber counts, 3pcs 24-fiber splice trays installed
		24	24 fiber counts, 1pc 24-fiber splice trays installed
		Blank	For splice tray and sealing gasket
3	Accessories included	V	Air valve installed
		G	Grounding wire to outside installed
		VG	Both air valve and grounding wire to outside installed
		Blank	Air valve and grounding wire to outside are not included

*2 12-fiber splice trays can be provided on request.

Products manufactured in
ISO 9001 certified facilities

FTTX
DOME CLOSURE

Description

Pacific Interconnections' FTTX dome closure is an environmentally sealed enclosure for fiber splice, splitting, distribution and cross-connect in outside plant network for FTTX and broadband applications. It complies with IEC 1073-1. The closure is made of tough anti-corrosive Polycarbonate and is ideal for aerial, cable duct, direct burial, and well environment.

The closure has 4 cable entry ports. The entries can be increased up to 12 when optional multi-hole grommets are equipped. It accommodates up to 20 splice trays. Its adapter mount can equip 24 SC, FC or LC adapters. It also supports 2 splitters for fiber optic service drops in FTTX deployment. Air valve is available as an optional accessory.

Features

- Supports adapter bulkheads and splitters
- Reliable and re-usable sealing gasket
- Re-enterable with no re-entry kit needed
- No special tool required for installation
- High compressive strength

Applications

- Suitable for ribbon and non-ribbon fibers
- Aerial, duct, direct burial, and well
- FTTX, access networks and broadband

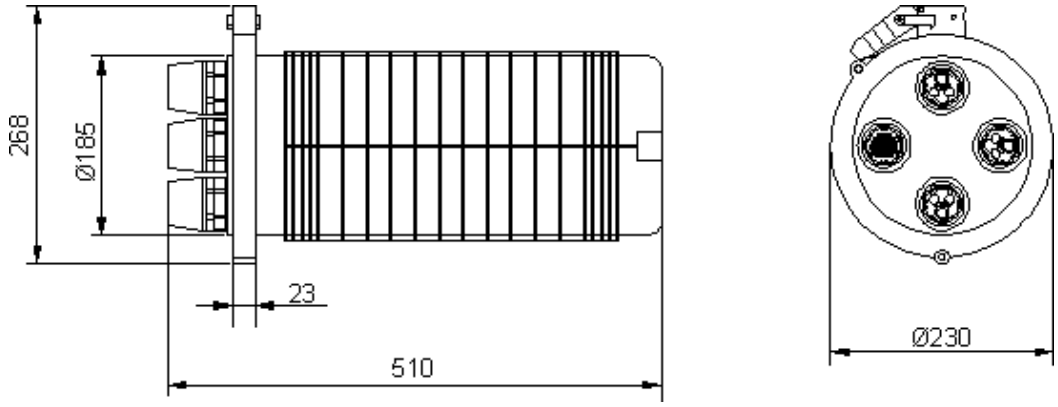
Specifications

Characteristics		Value/Performance
Basic		
No. of Cable Entries	Basic	4
	Maximum	12 (3-hole grommet used)
Max. Cable Diameter allowed		25mm
Max. No. of Splice Trays		20
Max. Capacity without adapters		240 (single-fiber splice)
Max. No. of adapters		24
Type of adapters supported		SC, LC and FC
Max. No. of splitters (for 1x8)		2
Dimension		Ø230x510mm^3
Weight		5kg
Operating Temperature		-40 ~ +60°C
Fiber Bend Radius		30mm

Specifications

Characteristics	Value/Performance	Methods and Conditions
Mechanical		
Air Tightness	No air bubble seen	Put closure under water for 15min with closure's internal air pressure set at 100kPa±5kPa.
	Remains 100kPa±5kPa	Measure the internal pressure 24 hours later
Air Tightness after re-installation	No air bubble seen and pressure remains unchanged	Do re-entry and re-installation 3 times and repeat above Air Tightness Tests.
Axial Pulling	Pressure remains unchanged	Pulling force: 1000N Time: 1min Internal air pressure: 60kPa±5kPa
Compression	Pressure remains unchanged	Applied pressure: 2000N/100mm Time: 1min Internal air pressure: 60kPa±5kPa
Impact	Pressure remains unchanged	Impact energy: 16N.m No. of impacts: 3 Internal air pressure: 60±5kPa
Bending	Pressure remains unchanged	Bending angle: ±45°(in two opposite directions) Tension: 150N No. of bending: 10 Internal air pressure: 60kPa±5kPa
Twisting	Pressure remains unchanged	Twisting angle: ±90° Torque: 50N No. of twisting: 10 Internal air pressure: 60kPa±5kPa
Thermal		
Temperature Cycling	Pressure drop ≤5kPa	Cycling range: -40 ~ +60°C Cycling time: 2hrs at -40°C, then 2hrs at +60°C No. of cycling: 3 Internal air pressure: 60kPa±5kPa
Electrical		
Insulation	Resistance between metal parts: $2.0x10^5M\Omega$	Soak closure into water in 1.5m-depth for 24hrs, and measure the insulation resistance after taking it out of water.
	Resistance between each metal part and ground: $2.0x10^5M\Omega$	
High Voltage	No voltage break-downs and sparks	Soak closure into water in 1.5m-depth for 24hrs, then apply 15kV DC to the metal parts inside

Structural Drawing



Ordering Information

Part Number: **CLS-DF2X240/144SC R 24 V**

1 2 3 4 5 6

1	Product Type	240	Closure with max. 20 splice trays
		240ST1	12-fiber splice tray for CLS-DF2X240
		240SG	Sealing gasket for CLS-DF2X240
2	Fiber Count (single fiber)	240	240 fiber counts, 20pcs 12-fiber splice trays installed
		144	144 fiber counts, 12pcs 12-fiber splice trays installed
		96	96 fiber counts, 8pcs 12-fiber splice trays installed
		48	48 fiber counts, 4pcs 12-fiber splice trays installed
		Blank	For splice tray and sealing gasket
3	Adapter Type	SC	SC/PC simplex
		SC2	SC/PC duplex
		SA	SC/APC simplex
		SA2	SC/APC duplex
		LC	LC/PC simplex
		LC2	LC/PC duplex
		Blank	Adapter mount unloaded, and for closure accessories
4	Adapter Grade	R	Single mode (SM)
		K	Multimode (MM)
		Blank	For splice tray and sealing gasket
5	Number of Adapters	24	24 adapters loaded
		Blank	No adapters loaded
6	Accessories included	V	Air valve installed
		G	Grounding wire to outside installed
		VG	Both air valve and grounding wire to outside installed
		Blank	Air valve and grounding wire to outside are not included

Products manufactured in ISO 9001 certified facilities