



*Saves Your Energy*

# Parallel Groove Connectors

**Premium design and materials**



# Ensto in short

Ensto is a family business and international cleantech company specializing in the development, manufacture and marketing of electrical systems and supplies for the distribution of electrical power as well as electrical applications. We are committed to lasting sustainable development and our goal is to be the world's leading company in green energy efficiency and distribution. Our products, manufactured in seven different countries, are environmentally friendly, energy efficient and leave a minimum carbon footprint. Ensto has three key business units: Ensto Utility Networks, Ensto Industrial Solutions and Ensto Building Technology.

A wide selection of reliable and durable products

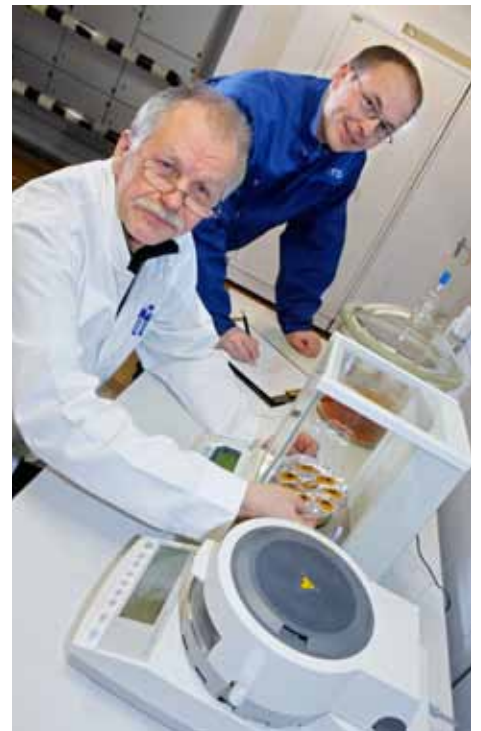
Ensto Utility Networks offers comprehensive solutions for overhead and underground distribution of electricity. Our products are built to withstand the toughest conditions on earth and are tested according to international standards. Durable products mean uninterrupted service, lower maintenance costs and, above all, satisfied customers.

## Production

Ensto Utility Networks offers accessories and solutions for:

- Low voltage overhead lines focused on Aerial Bundled Cable Systems
- Medium voltage overhead lines (for bare and covered conductor lines)
- Underground cable networks
- Power Quality for securing uninterrupted energy supply
- Network Automation

We have production plants in Finland, Estonia, Italy, Poland and India.



# Parallel groove connectors

Ensto has designed and manufactured connectors since 1960. Our parallel groove connectors are designed according to standards, such as SFS2663, VDE 0220 and EN 60947-7-1.



The parallel groove connectors are designed to resist corrosion and to endure varying mechanical tensions. The premium material and design enable safe and easy installation.

## **Durable material**

Ensto's SL connectors are made of corrosion resistant aluminium alloy. The 8.8 shear head bolts are hot-dip galvanized and ensure a correct tightening torque in all temperatures.

## **Quality training**

In addition to high-quality products, Ensto offers its customers continuous technical support and training. We co-operate with technical schools and universities around the world. The training locations vary from customers' premises to public auditories and each training is designed according to our customers' needs.



# Aluminium to aluminium parallel groove connectors

Connectors are designed for aluminium or steel to aluminium connection, where no mechanical tension is involved. The patented lower section of the body protects the bolts from corrosion and makes the tightening of the bolts easy (with fork wrench ST 34). The correct tightening torque is essential to the connection. The connectors are made of corrosion-resistant aluminium alloy with a tensile strength of 300 N/mm<sup>2</sup>. The 8.8 bolts are hot-dip galvanised.

## Parallel groove connector SL37.1

Non-tension aluminium to aluminium connector SL37.1 is equipped with one M8 bolt.

TYPE	EAN	CONDUCTORS MM <sup>2</sup>		CONDUCTORS DIA MM		TIGHTENING TORQUE NM	SUITABLE COVER	WEIGHT KG	PACKAGE PCS
		MAIN	BRANCH	MAIN	BRANCH				
SL 37.1	6418677414404	Al 6-95	Al 6-95	3-13	3-13	22	SP 15	0.055	200



## Parallel groove connector SL37.2

Non-tension aluminium to aluminium connector SL37.2 is equipped with two M8 bolts.

TYPE	EAN	CONDUCTORS MM <sup>2</sup>		CONDUCTORS DIA MM		TIGHTENING TORQUE NM	SUITABLE COVER	WEIGHT KG	PACKAGE PCS
		MAIN	BRANCH	MAIN	BRANCH				
SL 37.2	6418677414411	Al 6-95	Al 6-95	3-13	3-13	22	SP 15	0.100	50



## Parallel groove connector SL37.201

Non-tension aluminium to aluminium connector SL37.201 is equipped with two M8 shear head bolts.

TYPE	EAN	CONDUCTORS MM <sup>2</sup>		CONDUCTORS DIA MM		TIGHTENING TORQUE NM	SUITABLE COVER	WEIGHT KG	PACKAGE PCS
		MAIN	BRANCH	MAIN	BRANCH				
SL 37.201	6418677414602	Al 6-95	Al 6-95	3-13	3-13	22	SP 15	0.100	50



## Parallel groove connector SL39.2

SL39.2 connector is used in non-tension aluminium to aluminium LV and MV connections. The connector is suitable for AAC, AAAC and ACSR conductors. Equipped with two M8 bolts.

TYPE	EAN	CONDUCTORS MM <sup>2</sup>		CONDUCTORS DIA MM		TIGHTENING TORQUE NM	SUITABLE COVER	WEIGHT KG	PACKAGE PCS
		MAIN	BRANCH	MAIN	BRANCH				
SL 39.2	6418677419607	Al 16-150	Al 16-150	4.5 - 17.5	4.5 - 17.5	22	SP 15	0.120	50



# Aluminium to copper parallel groove connectors

Connectors are designed for aluminium or steel to copper connections, where no mechanical tension is involved. The patented lower section of the body protects the bolts from corrosion and makes tightening of the bolts easy, using Ensto's fork wrench ST34. The correct tightening torque is essential to the connection. The body is made of corrosion resistant aluminium alloy with tin plated copper in-linings on the copper conductor side. The interface edges between the body and the linings are painted to prevent corrosion. The bolts are of hot-dip galvanized steel. All connectors are brushed and prepared with joint compound.

## Parallel groove connector SL37.271

The SL37.271 connector is used for non-tension aluminium/copper to aluminium/copper connections. The connector is equipped with shear head bolts which guarantees the right tightening torque without a torque wrench. The body of the connector is made of corrosion resistant tin plated aluminium alloy, tensile strength 300 N/mm<sup>2</sup>. The screw is made of hot-dip galvanised steel and the shear head is made of aluminium. The lower section of the body protects the screw against corrosion and enables the connector to be easily reopened even after years of service.

TYPE	EAN	CONDUCTORS MM2		CONDUCTORS DIA MM		TIGHTENING TORQUE NM	SUITABLE COVER	WEIGHT KG	PACKAGE PCS
		MAIN	BRANCH	MAIN	BRANCH				
SL 37.271	6418677450273	Al - Cu 6-95	Al - Cu 6-95	3-13	3-13	22	SP 15	0.100	50



## Parallel groove connector SL39.271

The SL39.271 connector is used for non-tension aluminium/copper to aluminium/copper connections. The connector is equipped with shear head bolts which guarantees the right torque without a torque wrench. The body of the connector is made of corrosion resistant tin plated aluminium alloy, tensile strength 300 N/mm<sup>2</sup>. The screw is made of hot-dip galvanised steel and the shear head is made of aluminium. The lower section of the body protects the screw against corrosion and enables the connector to be easily reopened even after years of service.

TYPE	EAN	CONDUCTORS MM2		CONDUCTORS DIA MM		TIGHTENING TORQUE NM	SUITABLE COVER	WEIGHT KG	PACKAGE PCS
		MAIN	BRANCH	MAIN	BRANCH				
SL 39.271	6418677450280	Al - Cu 16 - 150	Al 16/150, Cu 10/120	4.5 - 4.5	4.5- 17.5	22	SP 15	0.100	50



# Insulating covers aluminium to copper

SP14 and SP15 are used as a connector covers. The covers are used with Al/Al and Al/Cu connectors as insulation and protection against corrosion caused by various climatic conditions.

## Insulating cover SP14

SP14 is used as a connector cover. The cover has to be installed so that the drain hole for ambient water is downwards. The cover is made of UV-radiation and weather resistant thermoplastic.

TYPE	EAN	MAX.CONDUCTOR CROSS-SECTION MM²	TEST VOLTAGE G	WEIGHT PCS	PACKAGE
SP14	6418677405204	50	4 kV/ 50 Hz/ 1 min	14	100/ 3200

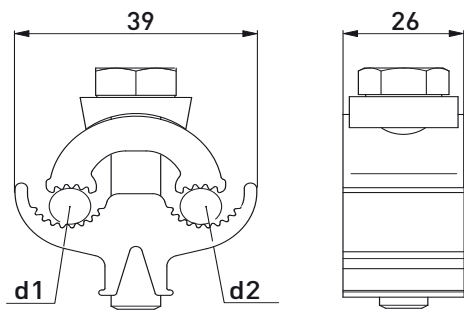


## Insulating cover SP15

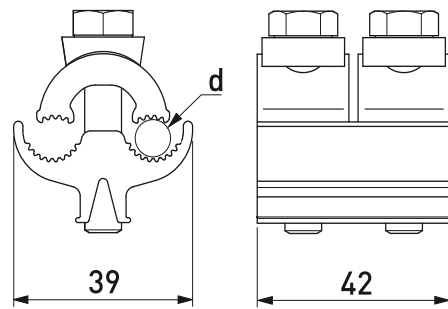
SP15 is used as a connector cover. The cover has to be installed so that the drain hole for ambient water is downwards. The cover is made of UV-radiation and weather resistant thermoplastic.

TYPE	EAN	MAX.CONDUCTOR CROSS-SECTION MM²	TEST VOLTAGE G	WEIGHT PCS	PACKAGE
SP15	6418677405211	150	4 kV/ 50 Hz/ 1 min	30	100/ 1800

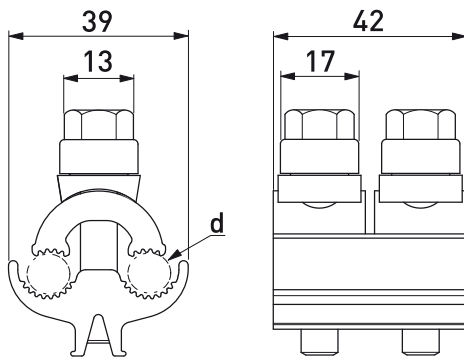




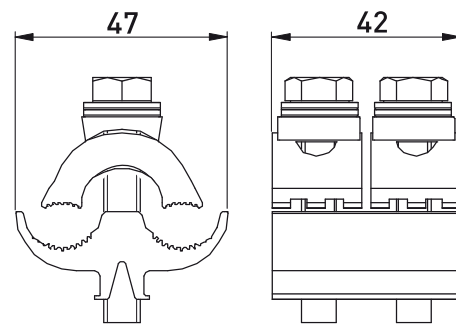
SL37.1



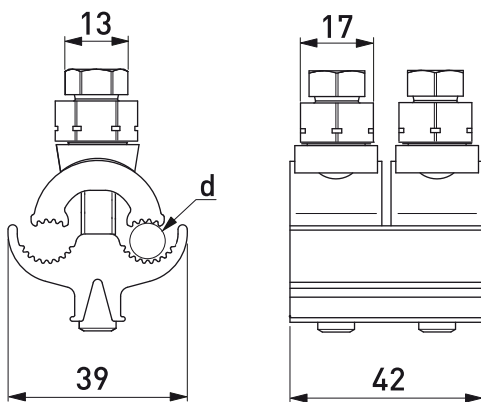
SL37.2



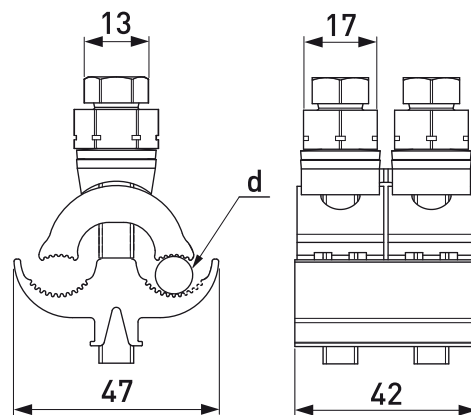
SL37.201



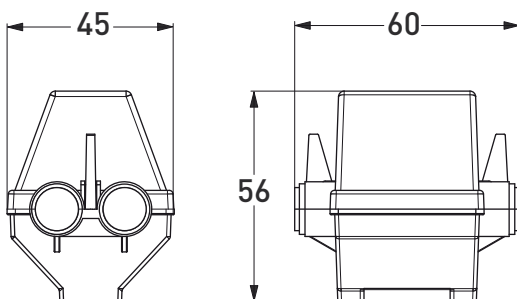
SL39.2



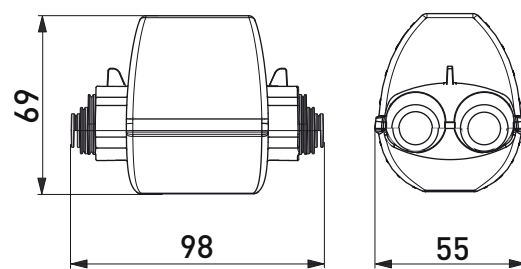
SL37.271



SL39.271



SP14



SP15



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