

Smilics Technologies® Product List 2024
2Grid & Sensors

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Smilics Technologies® Product Catalogue 2024

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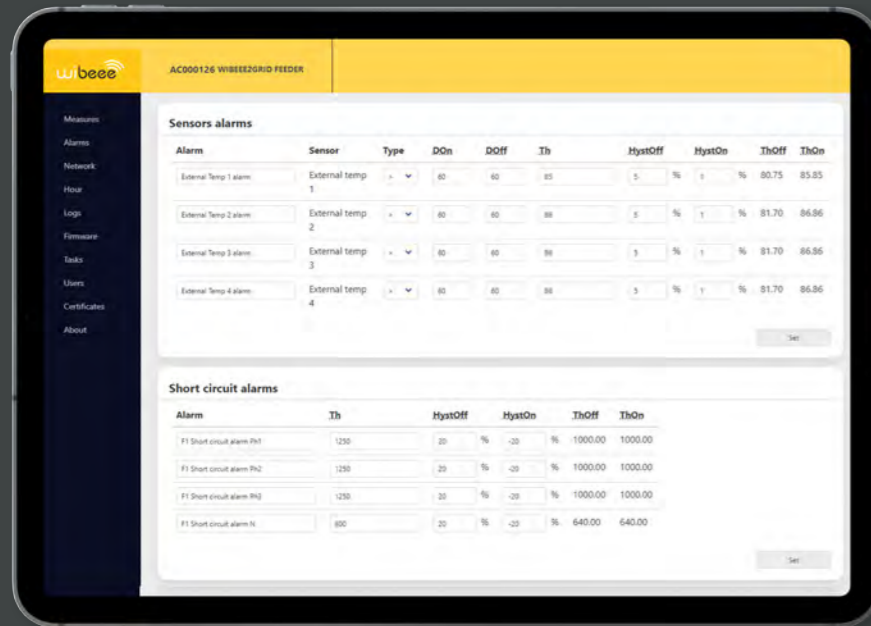


Smarter, safer, and better connected
low-voltage substations



2Grid Solution

Best monitoring and control solution for Distribution Power Utilities



2Grid is a complete solution for the LV monitoring and control of secondary substation for Distribution Power Utilities. Each device has been **designed to provide an accurate analysis** of the inside of a LV substation.

Five different devices

2Grid solution consists of 5 different devices distributed throughout the transformer stations, which are connected via Ethernet to the switch or router of the secondary substation.

Highest cybersecurity

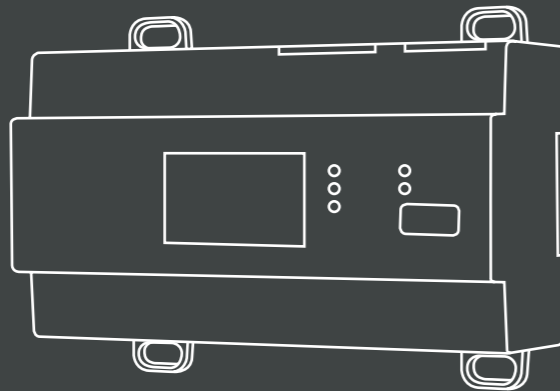
All 2Grid devices are designed to provide an accurate analysis of the inside of a secondary substation and engineered with the highest cybersecurity to guarantee the best security of the electrical infrastructure.

Hot-Pluggable and suitable for retrofit

2Grid solution and all of each devices are meant to be installed without requiring power interruption or replacement in existing fuse bases and feeder pillars.

2Grid Gate

Power transformer monitoring system



2Grid Gate device is a power line monitoring system with real-time communications to the server.

This device main functions are:

- 3PH + N Current measurement
- Three-phase voltage measurement
- Calculated electrical parameters. Power, power factor $\cos\phi$, active/reactive/apparent power, active energy per quadrant, symmetrical components and frequency.
- Total Harmonic Distorsion (THD). Voltage and current harmonic calculation up to 41st (21st odd harmonic).
- Measurement and recording of electrical parameters
- Event registering
- Alarms: shortcircuit, overload, power failure.

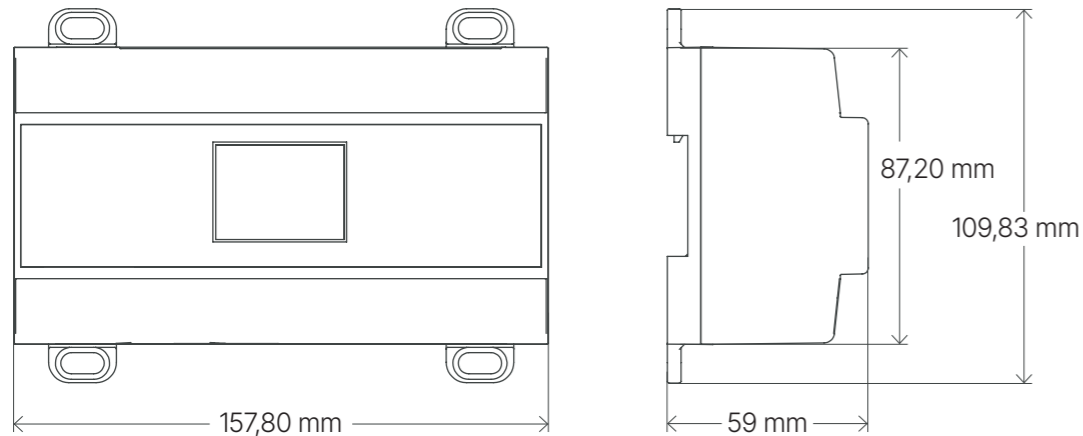
The IoT device shows the most important measured values directly on the display. Integrates communication interfaces via Modbus TCP and MQTT. The integrated web server is used for visualizing measured values, events and device configuration.

The IoT device is designed with high-power and long-life hardware components. Specific interfaces for metrology and sensorial applications.

The hardware components of the device are selected to enhance security functions such as generation, storage and encryption of cryptographic keys.

2Grid Gate

Dimensions



2Grid Gate

Technical features

Electrical features

Power	< 5 VA
Input voltage	24 V DC
Rated frequency	50 - 60Hz
Voltage input range	0 - 480 Vrms
Current measurement range	0 - 4000 A
Short circuit current measurement	800 - 4000 A (phase) / 500 - 2000 A (neutral)
Accuracy current	± 0.5%
VLN Voltage	± 0.2%
VLL Voltage	± 0.2%

Mechanical and environment features

Material	Plastic ABS Heat and flame resistan UL94 V0 / CTI ≥ 500
Protection grade	IP40 (IP20 for terminal blocks)
Installation	DIN rail 35mm Wall mount with 2/4 dowels (6mm)
Temperature (operating and storage)	-25°C up to +70°C
Relative humidity	0% up to 93%
Pressure	70 up to 106 kPa
Maximum altitude	2000 m
Pollution degree	Class D Heavy (IEC TS 60815-1)

Safety and EMC

Installation category	IV EB 61010-1
Safety category voltage measurement inputs	CEI EN 61010-1 CAT IV 300V
Insulation	Double

Communications

Type	Ethernet 10/100 Base TX
Connector	RJ45 Shielded
Transmission protocol	Modbus TCP, MQTT, Web, Server, NTP, DCHP Client, Rest API, Sys Log

Cybersecurity

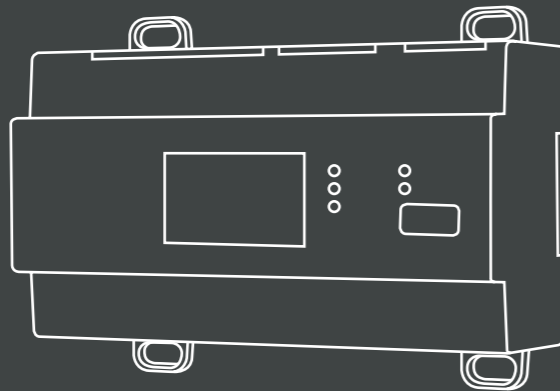
TPM 2.0 Cryptographic hardware accelerator.

Secure Firmware Install (SFI) embedded security services to authenticate and protect your software IPs while performing initial programming.

Cryptographic Co-processor with Secure / Hardware-based Key Storage: Secure Boot Secure Firmware Update (SBSFU). **Cryptographic functions:** AES-128: Encrypt/Decrypt, Galois Field Multiply for GCMnAnd HASH functions, SHA-1 and SHA-1 (secure HASH algorithms), MD5, MAC.

2Grid Feeder

Breaker and monitoring system



2Grid Feeder device is a power line monitoring system with real-time communications to the server.

This device main functions are:

- 4 feeder current measurement (16 current sensors)
- Three-phase voltage measurement
- Calculated electrical parameters. Power, power factor $\cos\phi$, active/reactive/apparent power, active energy per quadrant, symmetrical components and frequency.
- Circuit breakers temperature measurement (up to 4 measurement probes)
- Measurement and recording of electrical parameters
- Event registering
- Alarms: shortcircuit, overload, power failure and breakers temperature.

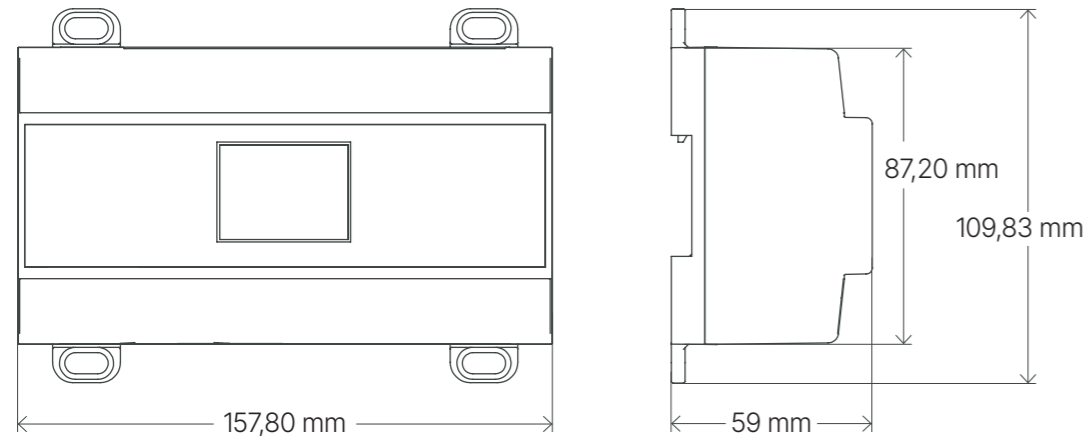
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The hardware components of the device are selected to enhance security functions such as generation, storage and encryption of cryptographic keys.

2Grid Feeder

Dimensions



2Grid Feeder

Technical features

Electrical features

Power	< 5 VA
Input voltage	24 V DC
Rated frequency	50 - 60Hz
Voltage input range	0 - 480 Vrms
Current measurement range	0 - 4000 A
Short circuit current measurement	800 - 4000 A (phase) / 500 - 2000 A (neutral)
Accuracy current	± 0.5%
VLN Voltage	± 0.2%
VLL Voltage	± 0.2%

Mechanical and environmental features

Material	Plastic ABS Heat and flame resistan UL94 V0 / CTI ≥ 500
Protection grade	IP40 (IP20 for terminal blocks)
Installation	DIN rail 35mm Wall mount with 2/4 dowels (6mm)
Temperature (operating and storage)	-25°C up to +70°C
Relative humidity	0% up to 93%
Pressure	70 up to 106 kPa
Maximum altitude	2000 m
Pollution degree	Class D Heavy (IEC TS 60815-1)

Safety and EMC

Installation category	IV EB 61010-1
Safety category voltage measurement inputs	CEI EN 61010-1 CAT IV 300V
Insultation	Double

Communications

Type	Ethernet 10/100 Base TX
Connector	RJ45 Shielded
Transmission protocol	Modbus TCP, MQTT, Web, Server, NTP, DCHP Client, Rest API, Sys Log

Cybersecurity

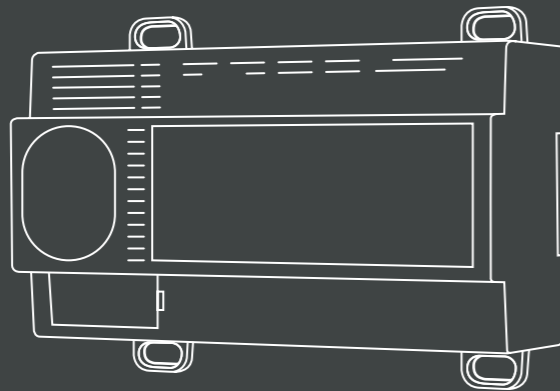
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2Grid Bulker

Power transformer monitoring and control equipment



2Grid Bulker device measures the inside of the power distribution transformer from MV to LV.

This device main functions are:

- Power transformer oil temperature measurement
- Check if the substation if flooded
- Ozone level measurement
- Chassis transformer temperature measurement (infrared sensor)
- 8 configurable digital inputs/outputs (4 inputs + 4 outputs)
- Chronological recording of substation alarms and events
- Indoor environmental temperature and humidity measurement

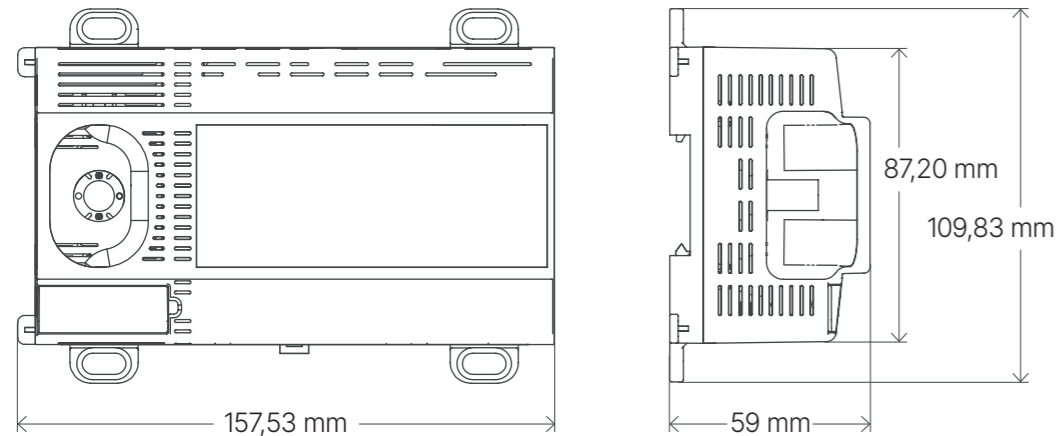
The IoT device integrates communication interfaces via Modbus TCP and MQTT. The integrated web server is used for visualizing measured values, events and device configuration.

The IoT device is designed with high-power and long-life hardware components. Specific interfaces for metrology and sensorial applications.

The hardware components of the device are selected to enhance security functions such as generation, storage and encryption of cryptographic keys.

2Grid Bulker

Dimensions



2Grid Bulker

Technical features

Electrical features

Power	< 5 VA
Input voltage	24 V

Mechanical and environment features

Material	Plastic ABS Heat and flame resistant UL94 V0 / CTI ≥ 500
Protection grade	IP40 (IP20 for terminal blocks)
Installation	Wall mount 2 dowels (6mm)
Temperature (operating and storage)	-25°C up to +70°C
Relative humidity	0% up to 93%
Pressure	70 up to 106 kPa
Maximum altitude	2000 m
Pollution degree	Class D Heavy (IEC TS 60815-1)

Safety and EMC

Installation category	IV EB 61010-1
Safety category voltage measurement inputs	CEI EN 61010-1 CAT IV 300V
Insulation	Double

Communications

Type	Ethernet 10/100 Base TX
Connector	RJ45 Shielded
Transmission protocol	Modbus TCP, MQTT, Web, Server, NTP, DHCP Client, Rest API, Sys Log

Cybersecurity

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Sensors*

Oil temperature

Infrared temperature

Indoor temperature

Indoor humidity

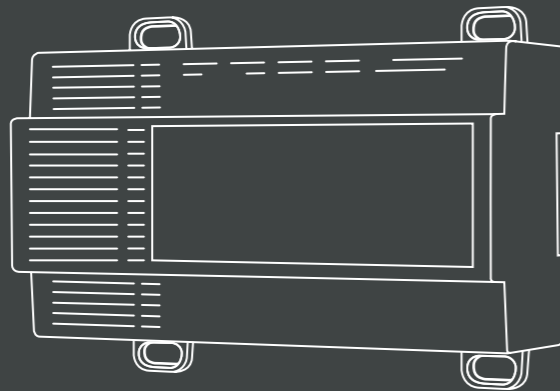
Ozone

Flood

*check the technical data sheet to get more information

2Grid Green

Substation environmental monitoring system



2Grid Green is a substation environmental monitoring device.

This device main functions are:

- Outdoor and indoor temperature measurement
- Indoor humidity measurement
- Substation door opening status
- Dark smoke level monitor
- Chronological recording of substation alarms and events
- Indoor environmental temperature and RH measurement

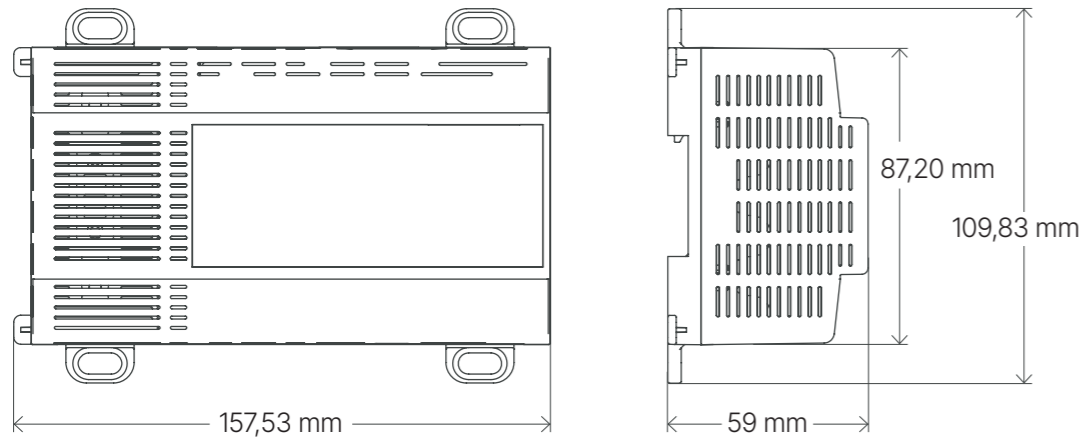
The IoT device integrates communication interfaces via Modbus TCP and MQTT. The integrated web server is used for visualizing measured values, events and device configuration.

The IoT device is designed with high-power and long-life hardware components. Specific interfaces for metrology and sensorial applications.

The hardware components of the device are selected to enhance security functions such as generation, storage and encryption of cryptographic keys.

2Grid Green

Dimensions



2Grid Green

Technical features

Electrical features

Power	< 5 VA
Input voltage	24 V

Mechanical and environment features

Material	Plastic ABS Heat and flame resistant UL94 V0 / CTI ≥ 500
Protection grade	IP40 (IP20 for terminal blocks)
Temperature (operating and storage)	-25°C up to +70°C
Relative humidity	0% up to 93%
Pressure	70 up to 106 kPa
Maximum altitude	2000 m
Pollution degree	Class D Heavy (IEC TS 60815-1)

Safety and EMC

Installation category	IV EB 61010-1
Safety category voltage measurement inputs	CEI EN 61010-1 CAT IV 300V
Insulation	Double

Communications

Type	Ethernet 10/100 Base TX
Connector	RJ45 Shielded
Transmission protocol	Modbus TCP, MQTT, Web, Server, NTP, DCHP Client, Rest API, Sys Log

Cybersecurity

TPM 2.0 Cryptographic hardware accelerator.

Secure Firmware Install (SFI) embedded security services to authenticate and protect your software IPs while performing initial programming.

Cryptographic Co-processor with Secure / Hardware-based Key Storage: Secure Boot Secure Firmware Update (SBSFU). **Cryptographic functions:** AES-128: Encrypt/Decrypt, Galois Field Multiply for GCMnAnd HASH functions, SHA-1 and SHA-1 (secure HASH algorithms), MD5, MAC.

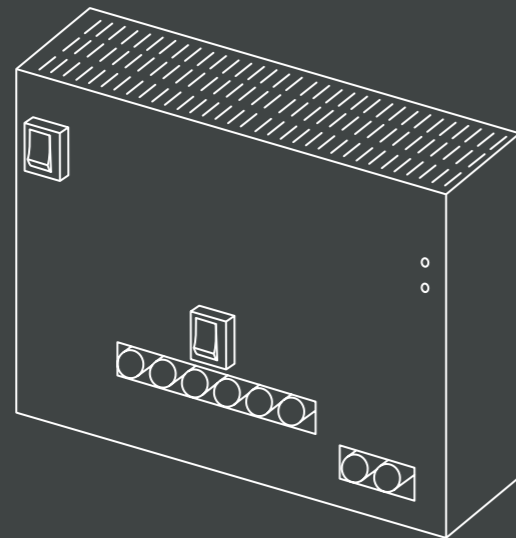
Sensors*

Dark smoke
Outdoor temperature probe
Magnetic door contact
Indoor temperature
Indor humidity

*check the technical data sheet to get more information

2Grid BCPS

Power charger and battery supply



2Grid BCPS is an advanced Power Supply Battery Charger for digital substation, capable of supplying devices provided for the remote control and protection of the MV and LV grid in secondary substation, as well as devices used to collect information from the advanced environmental and electrical sensors and relative sensors.

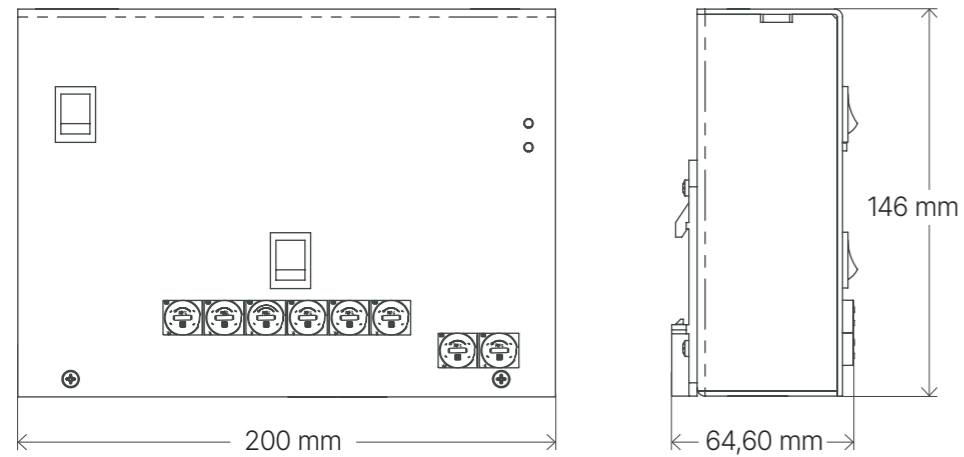
Moreover, it can be used as general-purpose battery charger power supply.

This device main functions are:

- Providing power supply for the Wibee2Grid devices family plus RTUs, fault detectors, protections, communications devices or other additional sensors present in substation.
- Provides protection and control for the LV MAIN devices power in secondary substation.
- Generation of remote alarm in case of MAINs voltage fault.
- Provides DC Power during a MAINs voltage fault.
- Battery charging during normal operation with an output voltage set by regulating steps of 0,02V.
- 6 outputs of 24Vdc in tripolar connector with ground and independent fuses for positive and negative terminals.
- 2 outputs of 24Vdc in bipolar connector and independent fuses for positive and negative terminals
- 1 output of 12Vdc in bipolar connector and independent fuses for positive and negative terminals
- 2 inputs of 24Vdc in bipolar port for battery charger and independent fuses for positive and negative terminals
- 1 output of 24Vdc in bipolar port alarm for MAINS Failure
- Universal input power supply range from 85Vac to 253Vac

2Grid BCPS

Dimensions



2Grid BCPS

Technical features

Input features

AC Input voltage	Universal	
Minimum AC input voltage	85Vac	
Maximum AC input voltage	253Vac	
AC input frequency range	47..63Hz	
Maximum input current	5A	

Output features

	1	2
Output type	DC	DC
Output voltage	27.4V	12V
Voltage tolerance	±1%	±1%
Maximum continuous current (I _o)	4A	0.7A

Mechanical and environment features

Input connection type	Extractable terminal blocks (Pitch ≥5.08mm)
Output connection type	Extractable terminal blocks (Pitch ≥3.81mm)
Storage temperature	-25°C up to +70°C
Operating temperature	-10°C up to +60°C
Cooling	Natural convection
Relative humidity	5% up to 93%
Maximum altitude	2000 m
Climatic tests	IEC60068-2-1, IEC60068-2-14, IEC60068-2-2, IEC60068-2-78
Vibration	EN60068-2-6, EN60068-2-64
Environmental regulations	RoHs according to directive 2015/863/EU and REACH

Safety and EMC

Safety according to	EN 60255-27
Pollution degree	PD2
Overvoltage category	OV4
Protection degree	IP20

2Grid

SKU codes

Code	Description	Installation	Communication
501000	2Grid Feeder	Tri-phase + Neutral	Ethernet
501001	2Grid Gate	Tri-phase + Neutral	Ethernet
501002	2Grid Bulker	Not applicable	Ethernet
501003	2Grid Green	Not applicable	Ethernet
501004	2Grid BCPS	Not applicable	Not applicable

sensors
smilics



positive energy, positive results

Flexible current sensors

Rogowski coils are flexible current sensors that are easily placed in electrical installations without the need to interrupt the sub-supply.

These sensors have characteristics that distinguish them from standard current sensors: they provide the proportional value of the current in mV, displaced 90° , and do not saturate.

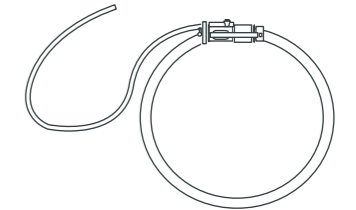
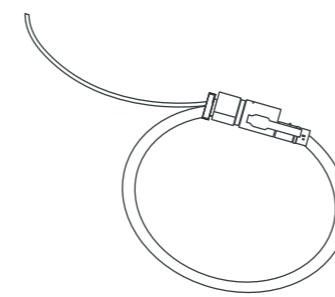
They are classified according to whether or not they incorporate the electronic components necessary to integrate the signal and assist in scale selection: active Rogowski coils include the electronics, while passive ones are used in devices that already incorporate these electronic components.

Rogowski selection guide

Active clamps for all needs

Active Flex

The design includes an integrator and electronics needed to adapt the current signal to mV.

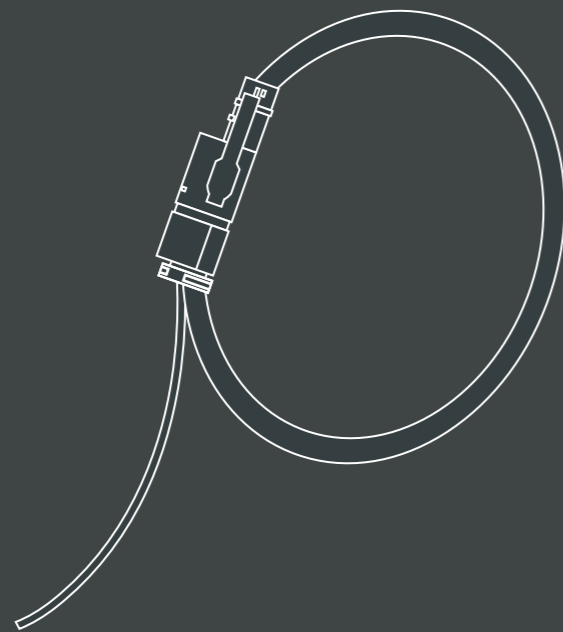


	AM Flex	AMS Flex	R Flex
Voltage output	1.28 V	1.28 V	2 V
Frequency range	20 Hz - 10 kHz	20 Hz - 10 kHz	20 Hz - 10 kHz
Power supply	5 V	5 V	9 - 12 V
Rater primary current	100A / 200A	100A / 200A	100A / 1kA / 10kA 200A / 2kA / 20kA
Accuracy	1 %	1 %	1 %
Inner diameter	170mm, 350mm	50mm, 80mm	170mm, 260mm, 380mm
Lenght	540mm, 1100mm	140mm	540mm, 1200mm
Coil Width	14mm	8mm	14mm

AM Flex

AM Flex range of active coils are powered at 5V and the standard full scale output voltage is 1.28V.

This product supports 100A/1kA/10kA scale change using a train of pulses.



ELECTRICAL FEATURES

Typical voltage output	1.28 V f.s.
Frecuency range	20Hz - 10kHz
Power supply	5 VDC
Operating voltage	600 VAC _{RMS}
Rated primary current	100A / 200A
Typical phase shift	< 1°
Linearity (10% to 100%)	± 0.6% ⁽¹⁾
Accuracy	± 1% ⁽¹⁾
Temperature coefficient max.	± 0.13% / °C
Position sensibility	± 3%
External fields	± 2%

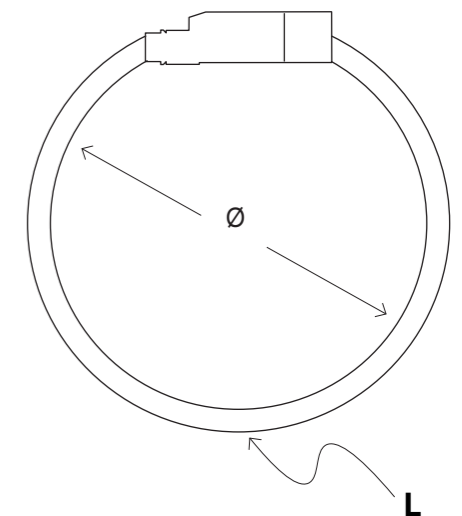
⁽¹⁾ Centered on current conductor

ELECTRICAL SAFETY

Isolation	Double
Protection class	II IEC/EN 61010-1:2001
Overvoltage category	600 V CAT III / 300 V CAT IV
Dielectric strenght	IEC/EN61010-2-32:2002, 5.4kV 50Hz

PHYSICAL AND ENVIRONMENTAL FEATURES

Material	Self-extinguishing UNE 21031 90°C V0
Couplings material	PA V-0
Operating temperature	-10 a +60 oC
Storage temperature	-40 a +80 oC
Relative humidity	15 a 85% (non-condensing)
Protection rating	IP54, IP65
Coil width	14 mm
Output cable lenght	2 m



DIMENSIONS

Model	Ø	L
AM Flex 54	170 mm	540 mm
AM Flex 110	350 mm	1100 mm

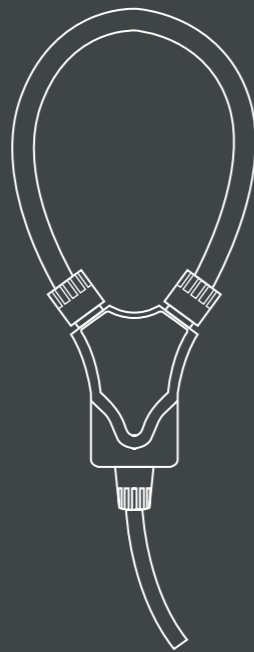
AM Flex

SKU codes

Code	Description
4301054100	AM54 FLEX 10K KIT1
4301054300	AM54 FLEX 10K KIT3
4301054400	AM54 FLEX 10K KIT4
4301110100	AM110 FLEX 10K KIT1
4301110300	AM110 FLEX 10K KIT3
4301110400	AM110 FLEX 10K KIT4

AMS Flex

AMS Flex models have been designed with an easy-to-install grip and an open connector. The device is powered at 5 V, provides 100A/200A scale change and 1.28 V output.



ELECTRICAL FEATURES

Typical voltage output	1.28 V f.s.
Frecuency range	20Hz - 10kHz
Power supply	5 VDC
Operating voltage	600 VAC _{RMS}
Rated primary current	100A / 200A
Typical phase shift	< 1°
Linearity (10% to 100%)	± 0.6% ⁽¹⁾
Accuracy	± 1% ⁽¹⁾
Temperature coefficient max.	± 0.13% / °C
Position sensibility	± 3%
External fields	± 2%

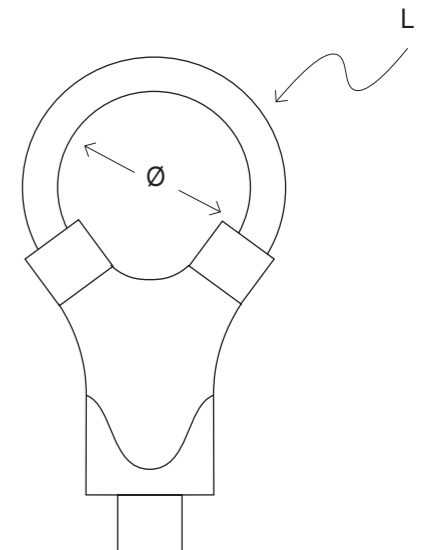
⁽¹⁾ Centered on current conductor

ELECTRICAL SAFETY

Isolation	Double
Protection class	II IEC/EN 61010-1:2001
Overvoltage category	1000 V CAT III / 600 V CAT IV
Dielectric strenght	IEC/EN61010-2-32:2002, 5.4kV 50Hz

PHYSICAL AND ENVIRONMENTAL FEATURES

Material	Self-extinguishing UNE 21031 90°C V0
Couplings material	PA V-0
Operating temperature	-20 a +80 oC
Storage temperature	-40 a +80 oC
Relative humidity	15 a 85% (non-condensing)
Protection rating	IP54, IP65
Coil width	8 mm
Output cable lenght	2 m



DIMENSIONS

Model	Ø	L
AMS Flex 14	50 mm	140 mm

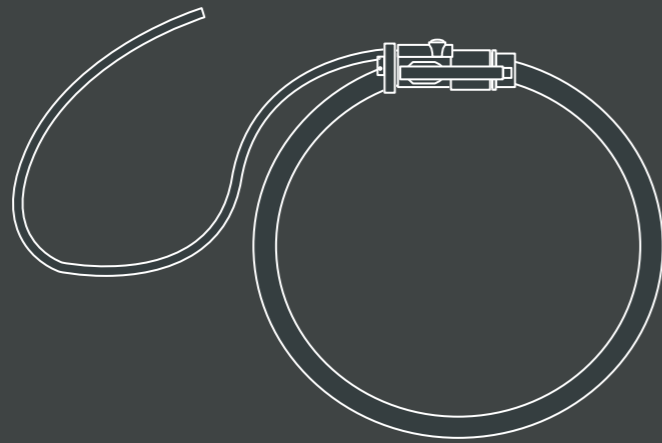
AMS Flex

SKU codes

Code	Description
4302014100	AMS14 FLEX 100 KIT1
4302014300	AMS14 FLEX 100 KIT3
4302014400	AMS14 FLEX 100 KIT4
4302014305	AMS14 One Connector 100 KIT3

R Flex

R Flex active devices are powered at 9 - 12 V and allow 100/1kA/10kA or 200A/2kA/20kA scale switching through logical selection. Typical full scale output voltage is 2V.



ELECTRICAL FEATURES

Typical voltage output	2 V f.s.
Frecuency range	20Hz - 10kHz
Power supply	9 - 12 VDC
Operating voltage	600 VAC _{RMS}
Rated primary current	10kA / 1kA / 100A 20kA / 2kA / 200A
Typical phase shift	< 1°
Linearity (10% to 100%)	± 0.6% ⁽¹⁾
Accuracy	± 1% ⁽¹⁾
Temperature coefficient max.	± 0.13% / °C
Position sensibility	± 3%
External fields	± 2%

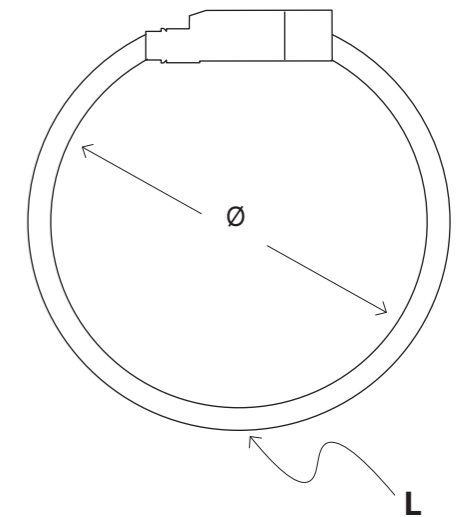
⁽¹⁾ Centered on current conductor

ELECTRICAL SAFETY

Isolation	Double
Protection class	II IEC/EN 61010-1:2001
Overvoltage category	600 V CAT III / 300 V CAT IV
Dielectric strenght	IEC/EN61010-2-32:2002, 5.4kV 50Hz

PHYSICAL AND ENVIRONMENTAL FEATURES

Material	Self-extinguishing UNE 21031 90°C V0
Couplings material	PA V-0
Operating temperature	-20 a +80 oC
Storage temperature	-40 a +80 oC
Relative humidity	15 a 85% (non-condensing)
Protection rating	IP50, IP65
Coil width	14 mm
Output cable lenght	2 m



DIMENSIONS

Model	Ø	L
R Flex 54	170 mm	540 mm
R Flex 120	380 mm	1200 mm

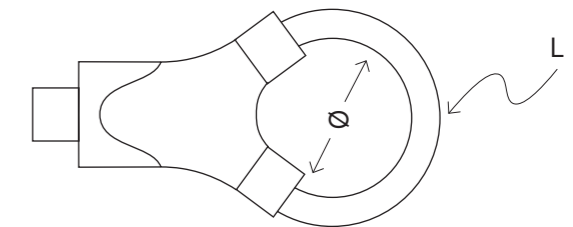
R Flex

SKU codes

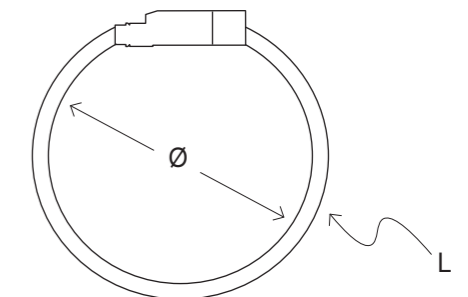
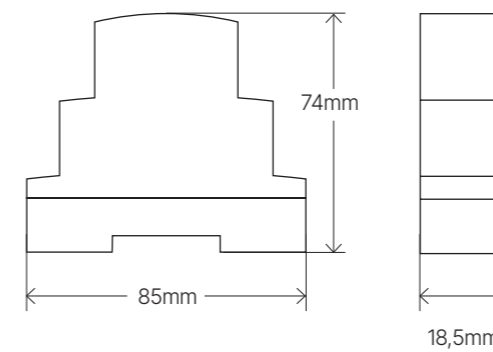
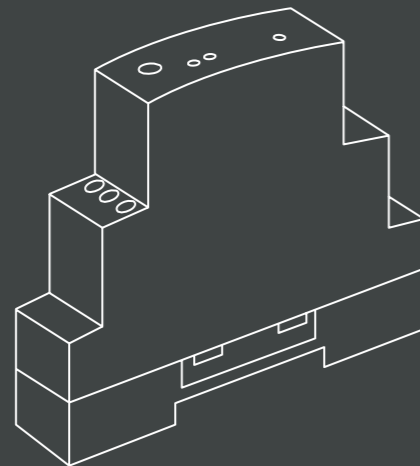
Code	Description
4304054010	R FLEX 10K 54
4304054020	R FLEX 20K 54
4304120020	R FLEX 20K 120
4304054310	KIT3 R FLEX 10K 54
4304054320	KIT3 R FLEX 20K 54

DIN Flex

Din Flex adapter converts the typical mV output of Rogowski coils to any standard .../1A measuring or protection device. Due to its compact design, it requires only one DIN module. This kit of devices includes both, the adapter and a flexible sensor. Furthermore, an external DC power supply can be included to power the adapter.



DIMENSIONS		
Model	Ø	L
AMS Flex 14	50 mm	140 mm



Model	Ø	L
AM Flex 54	170 mm	540 mm
AM Flex 110	350 mm	1100 mm

ELECTRICAL FEATURES

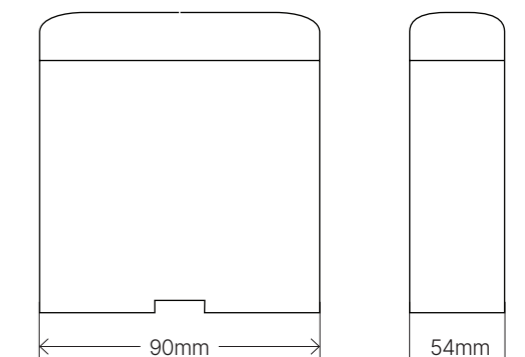
Voltage range	18 - 24 V
Frecuency range	50Hz - 60Hz
Consumption	50 mA
Protection class	Class II - Reinforced insulation

PHYSICAL AND ENVIRONMENTAL FEATURES

Operating temperature	-25 a +70 oC
Storage temperature	-40 a +80 oC
Protection rating	IP20

CURRENT SENSOR	Measurement scale	Max. conductor Ø
AM Flex 54	100A/1kA/10kA 50A/500A/5kA	170 mm
AM Flex 110	100A/1kA/10kA 50A/500A/5kA	350 mm
AMS Flex 14	100 A / 200 A	50 mm

Power Supply Dimensions



DIN Flex

SKU codes

Code	Description
4605054810	DINFLEX 1A AM54 100/1K/10K ²
4305054300	KIT3 DINFLEX 1A AM54 100/1K/10K + SUPPLY ¹
4605054830	DINFLEX 1A AM54 50/500/5K ²
4305054330	KIT3 DINFLEX 1A 50/500/5K AM54 + SUPPLY ¹
4605110810	DINFLEX 1A 110 100/1K/10K ²
4305110300	KIT3 DINFLEX 1A 110 100/1K/10K + SUPPLY ¹
4605110830	DINFLEX 1A 110 50/500/5K ²
4305110330	KIT3 DINFLEX 1A 110 50/500/5K + SUPPLY ¹
4605014810	DINFLEX 1A AMS14 ²
4305014300	KIT3 DINFLEX 1A AMS14 + SUPPLY ¹

¹ It includes 3 DINFLEX 1A + 3 AM54 or AMS14 + 1 power Supply

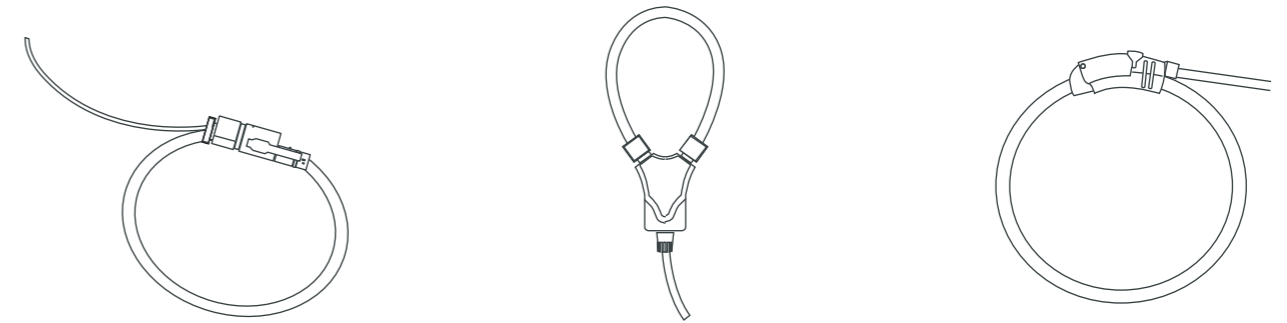
² It includes a DINFLEX + Rogowski

Rogowski selection guide

Passive clamps for all needs

Passive Flex

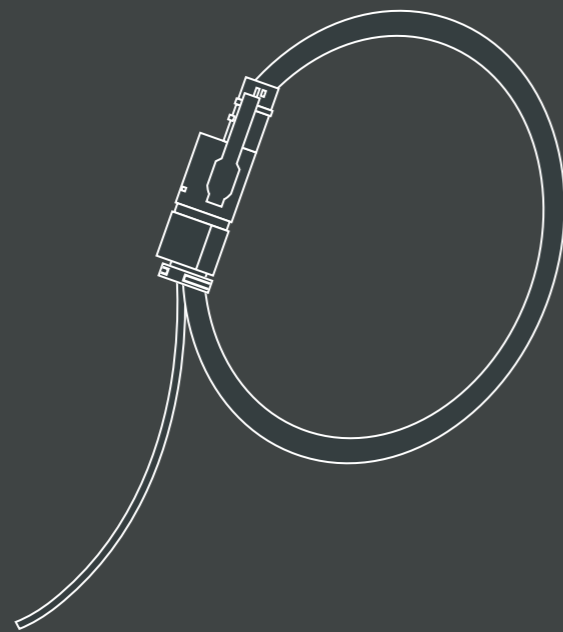
Engineered to be connected for measuring or protect equipment which already includes an integrator and electronics to adjust the signal.



	C Flex	Smart Flex	Magnetic Flex	
Electrical features	Voltage output	89 mV	100 mV	
	Frequency range	10 Hz - 100 Hz	50 Hz - 60 Hz	50 Hz - 60 Hz
	Accuracy	1 %	1 %	1 %
Dimensions	Inner diameter	150mm, 170mm, 260mm, 350mm, 380mm	50mm, 80mm	70mm, 120mm, 200mm
	Lenght	450mm, 540mm, 800mm, 1100mm, 1200mm	140mm, 250mm	219mm, 376mm, 628mm
	Coil width	14mm	8mm	8mm

C Flex

Flexible passive sensors in the C Flex series allow alternating current measurements with a ratio of 89mV/kA@50Hz.



ELECTRICAL FEATURES

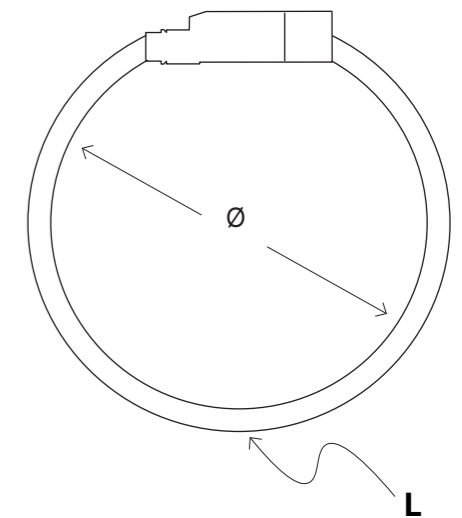
Typical voltage output	$(1.78 \times 10^{-6}) \times I_{RMS} \times f$ 89mV/kA@50Hz
Frequency range	10Hz - 100kHz
Linearity (10% to 100%)	± 0.2%
Accuracy	± 1%
Temperature coefficient max.	± 0.05% / °C
Position sensibility	± 3%
External fields	± 2%

ELECTRICAL SAFETY

Isolation	Double
Protection class	II IEC/EN 61010-1:2001
Overvoltage category	1000 V CAT III / 600 V CAT IV
Dielectric strength	IEC/EN61010-2-32:2002, 5.4kV 50Hz

PHYSICAL AND ENVIRONMENTAL FEATURES

Material	Self-extinguishing UNE 21031 90°C V0
Couplings material	PA V-0
Operating temperature	-20 a +80 oC
Storage temperature	-40 a +80 oC
Relative humidity	15 a 85% (non-condensing)
Protection rating	IP54, IP65
Coil width	14 mm
Output cable length	2 m



DIMENSIONS

Model	Ø	L
C Flex 45	150	450
C Flex 54	170	540
C Flex 80	260	800
C Flex 110	350	1100
C Flex 120	380	1200

C Flex

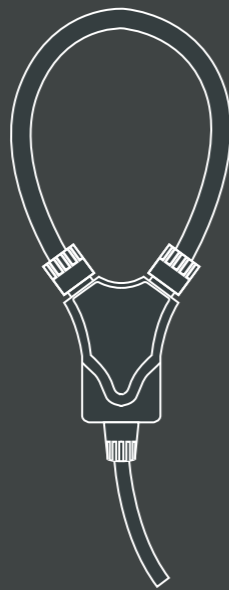
SKU codes

Code	Description
4303045000	C FLEX 45 GW
4303054000	C FLEX 54 GW
4303080000	C FLEX 80 GW
4303110000	C FLEX 110 GW
4303120000	C FLEX 120 GW

Smart Flex

Smart Flex passive models have been designed with an easy-to-install grip and an open connector.

The output ratio of these devices is 37 mV/1kA@50Hz.



ELECTRICAL FEATURES

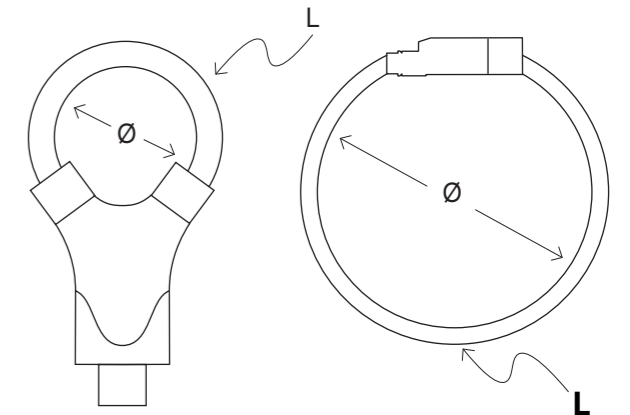
Typical voltage output	100UV/A @50Hz
Frecuency range	50 - 60 Hz
Linearity (10% to 100%)	± 0.2%
Accuracy	± 1%
Temperature coefficient max.	± 0.05% / °C
Position sensibility	± 3%
External fields	± 2%

ELECTRICAL SAFETY

Isolation	Double
Protection class	II IEC/EN 61010-1:2001
Overvoltage category	600 V CAT III / 300 V CAT IV
Dielectric strenght	IEC/EN61010-2-32:2002, 5.4kV 50Hz

PHYSICAL AND ENVIRONMENTAL FEATURES

Material	Self-extinguishing UNE 21031 90°C V0
Couplings material	PA V-0
Operating temperature	-20 a +85 °C
Storage temperature	-40 a +80 °C
Relative humidity	15 a 85% (non-condensing)
Protection rating	IP54, IP65
Coil width	14 mm
Output cable lenght	2 m



DIMENSIONS

Model	Ø	L
Smart Flex 25	80 mm	250 mm
Smart Flex 14	50 mm	140 mm

Smart Flex

SKU codes

Code	Description
4306013000	SMART FLEX 14
4306025000	SMART FLEX 25

Magnetic Flex

Magnetic Flex passive models have been designed with a magnetic sealable connector to hold both ends and make installation easier. The output ratio of it is 100 mV/1kA@50Hz.

ELECTRICAL FEATURES

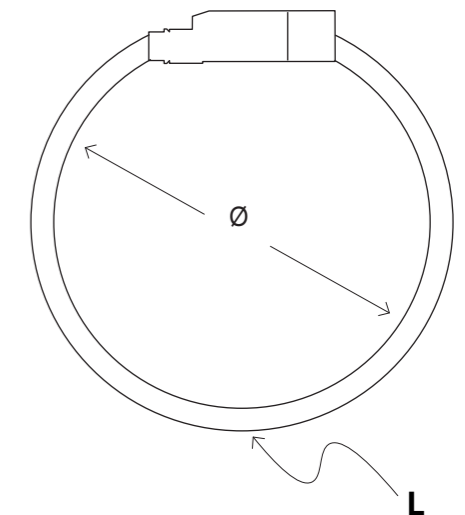
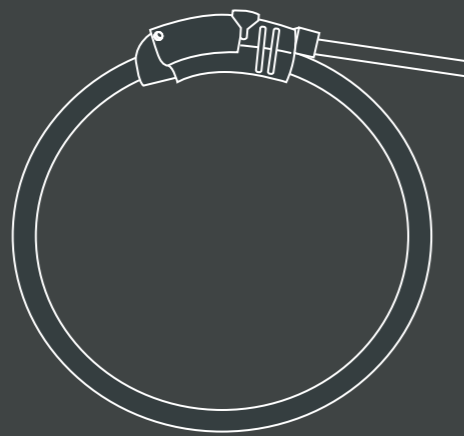
Typical voltage output	100mV/kA@50Hz
Frecuency range	50 - 60 Hz
Linearity (10% to 100%)	± 0.2%
Accuracy	± 1%
Temperature coefficient max.	± 0.05% / °C
Position sensibility	± 3%
External fields	± 2%

ELECTRICAL SAFETY

Isolation	Double
Protection class	II IEC/EN 61010-1:2001
Overvoltage category	1000 V CAT III / 600 V CAT IV
Dielectric strenght	IEC/EN61010-2-32:2002, 5.4kV 50Hz

PHYSICAL AND ENVIRONMENTAL FEATURES

Material	Self-extinguishing UNE 21031 90°C V0
Couplings material	PA V-0
Operating temperature	-20 a +80 °C
Storage temperature	-40 a +80 °C
Relative humidity	15 a 85% (non-condensing)
Protection rating	IP54, IP67
Coil width	8 mm
Output cable lenght	2 m



DIMENSIONS

Model	Ø	L
Magnetic Flex 70	70 mm	219 mm
Magnetic Flex 120	120	376
Magnetic Flex 200	200	628

Magnetic Flex

SKU codes

Code	Description
4307024002	MAGNETIC FLEX DIAM70
4307040002	MAGNETIC FLEX DIAM120
4307063002	MAGNETIC FLEX DIAM200
903930	MAGNETIC FLEX CENTERING PIECE

Split Core Current Transformers

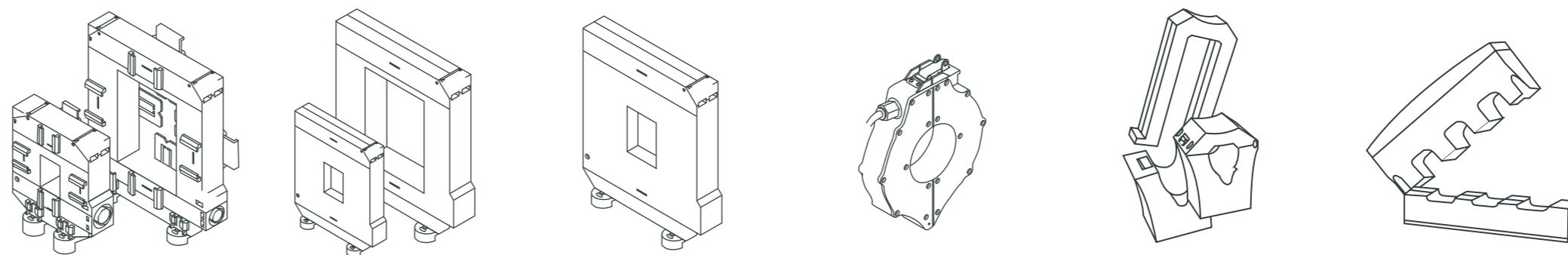
The current transformers are designed with a split core to facilitate the installation process as much as possible, unlike the connection of conventional transformers that require the interruption of the primary circuit to pass the cables inside.

This family of products allows the core to be opened without interrupting the power supply.

The transformers also have a high level of accuracy, safety and versatility, with a wide range of sizes and dimensions of the inner window.

Current Transformers Selection Guide

Electrical power transformers for all needs



Push

TP

WG

Loop

STP

SC3

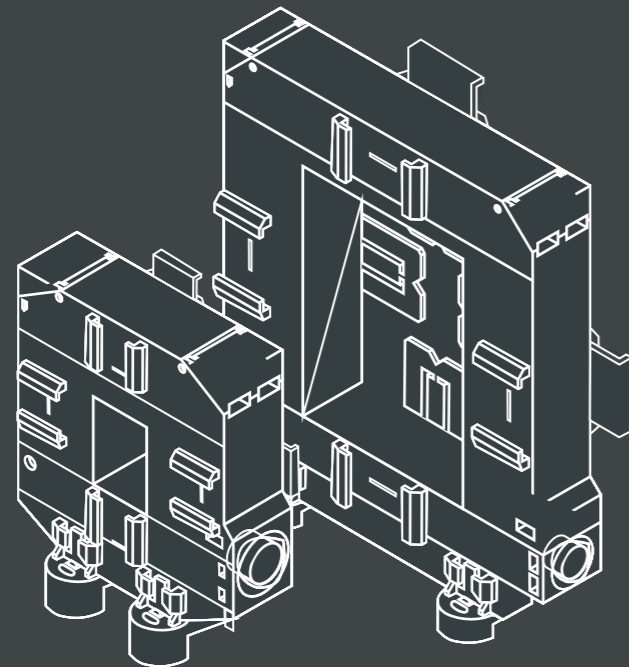
	Push	TP	WG	Loop	STP	SC3
Rated primary current	50 - 5000 A	100 - 5000 A	250 mA - 30 A	500 - 2500 A	100 - 1000 A	125 A
Rated secondary current	1 A / 5 A	1 A / 5 A / 1.5 V	60 mA	1 A / 5 A	1 A / 5 A	1,25
Accuracy class	0.5 / 1 / 3	0.5 / 1 / 3	± 15%	0.2s / 0.2 / 0.5s / 0.5 / 1 / 3	0,5 / 1 / 3	1 / 3
Window dimensions	30 × 20 mm 60 × 80 mm 80 × 120 mm 80 × 160 mm	20 × 30 mm 50 × 80 mm 80 × 80 mm 80 × 120 mm 80 × 160 mm	20 × 30 mm 50 × 80 mm 80 × 80 mm 80 × 120 mm 80 × 160 mm	∅ 80 / ∅ 105 mm	∅ 24 / ∅ 40 40 × 80 mm	∅ 14 mm

Push

Push series split-core current transformers have been designed to improve the experience during the installation: they feature a push-button release for opening and detaching the equipment and for installation in complex wiring systems.

The transformer, for indoor use, has different rectangular window dimensions, suitable for installation in busbars.

The complete series covers a primary current range from 50A to 5000A, with secondary outputs of 1A or 5A, and accuracy up to class 0.5.



ELECTRICAL FEATURES

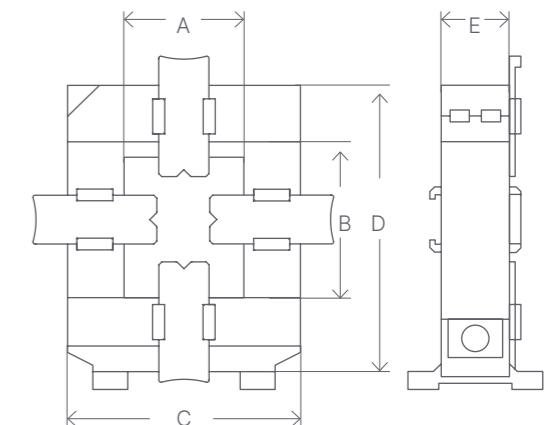
Primary	50 – 5000 A
Secondary output	1A / 5A
Accuracy class	0.5 - 1 - 3
Accuracy limit	1,5 In
Continuous overload	1,2 In
Frequency	50 - 60 Hz
Rated Power	See table
Highest voltage for equipment	0,72 kV
Rated insulation voltage	3 kV
Rated short-time thermal current	60 In
Rated dynamic current	2,5 Ith

ENVIRONMENTAL FEATURES

Operating temperature	-5 a +40°C
Type of encapsulation	UL90 V0
Safety factor	<FS10
Degrees of protection	IP20 - IP40
Thermal class	Push Push 32, 68, 812: B (130°C) Push 816: H (185°C)
Storage temperature	-40 a +85°C
Altitude	< 1000 m

DIMENSIONS (mm)

Model	A	B	C	D	E
Push 23	20	30	83	89.5	28.5
Push 68	60	80	122.5	140	27.5
Push 812	80	120	146	192	38
Push 816	80	160	179	234	58



Push VA Chart

	Push 32						Push 68					
	/1			/5			/1			/5		
	CI 0.5	CI 1	CI 3	CI 0.5	CI 1	CI 3	CI 0.5	CI 1	CI 3	CI 0.5	CI 1	CI 3
50			1									
100			1,5			1						
150			2			1						
200		0,5	2			2						
250		1	2		1	2						
300	0,5	1	2	0,5	1	2		1	2,5		1	2,5
400				1	2,5	4	1	1,5	3	1	1,5	3
500							2	5	7,5	2	5	7,5
600							2	5	8	2	5	8
700							2	5	8	2	5	8
750							2,5	5	10	2,5	5	10
800							3	6	10	3	6	10
1000							5	8	15	5	8	15
1200												
1250												
1500												
2000												
2500												
3000												
4000												
5000												

	Push 812						Push 816					
	/1			/5			/1			/5		
	CI 0.5	CI 1	CI 3	CI 0.5	CI 1	CI 3	CI 0.5	CI 1	CI 3	CI 0.5	CI 1	CI 3
50												
100												
150												
200												
250												
300												
400												
500	0	3	7,5	0	3	7,5						
600	0	3,5	8	0	3,5	8						
700	0	4	10	0	4	10						
750	3,5	5	10	3,5	5	10						
800	4	6	10	4	6	10						
1000	4	10	15	4	10	15	5	8	12,5	5	8	12,5
1200	5	10	15	5	10	15	5	8	15	5	8	15
1250	6	10	15	6	10	15	5	8	15	5	8	15
1500	10	15	20	10	15	20	10	15	20	10	15	20
2000	12	20	30	12	20	30	15	20	25	15	20	25
2500							15	20	25	15	20	25
3000							20	25	30	20	25	30
4000							20	25	30	20	25	30
5000							20	25	30	20	25	30

Push

SKU codes

Code	Description	I1 (A)	I2 (A)
4710110050	Push 32 50/1A	50	1
4710110100	Push 32 100/1A	100	1
4710110150	Push 32 150/1A	150	1
4710110200	Push 32 200/1A	200	1
4710110250	Push 32 250/1A	250	1
4710110300	Push 32 300/1A	300	1
4710510100	Push 32 100/5A	100	5
4710510150	Push 32 150/5A	150	5
4710510200	Push 32 200/5A	200	5
4710510250	Push 32 250/5A	250	5
4710510300	Push 32 300/5A	300	5
4710510400	Push 32 400/5A	400	5
932998	Accessories Push 32: DIN Rail Fixing Clips and Sliding Centering Guides		

Code	Description	I1 (A)	I2 (A)
4711110300	Push 68 300/1A	300	1
4711110400	Push 68 400/1A	400	1
4711110500	Push 68 500/1A	500	1
4711110600	Push 68 600/1A	600	1
4711110700	Push 68 700/1A	700	1
4711110750	Push 68 750/1A	750	1
4711110800	Push 68 800/1A	800	1
4711111000	Push 68 1000/1A	1000	1
4711510300	Push 68 300/5A	300	5
4711510400	Push 68 400/5A	400	5
4711510500	Push 68 500/5A	500	5
4711510600	Push 68 600/5A	600	5
4711510700	Push 68 700/5A	700	5
4711510750	Push 68 750/5A	750	5
4711510800	Push 68 800/5A	800	5
4711511000	Push 68 1000/5A	1000	5
SE100090	Accessories Push 68: DIN Rail Fixing Clips and Sliding Centering Guides		

Code	Description	I1 (A)	I2 (A)
4728110500	Push 812 500/1A	500	1
4728110600	Push 812 600/1A	600	1
4728110700	Push 812 700/1A	700	1
4728110750	Push 812 750/1A	750	1
4728110800	Push 812 800/1A	800	1
4728111000	Push 812 1000/1A	1000	1
4728111200	Push 812 1200/1A	1200	1
4728111250	Push 812 1250/1A	1250	1
4728111500	Push 812 1500/1A	1500	1
4728111600	Push 812 1600/1A	1600	1
4728510500	Push 812 500/5A	500	5
4728510600	Push 812 600/5A	600	5
4728510700	Push 812 700/5A	700	5
4728510750	Push 812 750/5A	750	5
4728510800	Push 812 800/5A	800	5
4728511000	Push 812 1000/5A	1000	5
4728511200	Push 812 1200/5A	1200	5
4728511250	Push 812 1250/5A	1250	5
4728511500	Push 812 1500/5A	1500	5
4728511600	Push 812 1600/5A	1600	5
4728512000	Push 812 2000/5A	2000	5
933030	Accessories Push 812 IP20: DIN Rail Fixing Clips and Sliding Centering Guides		
933013	Accessories Push 812 IP40: DIN Rail Fixing Clips, Sliding Centering Guides, End Caps, and Labels		

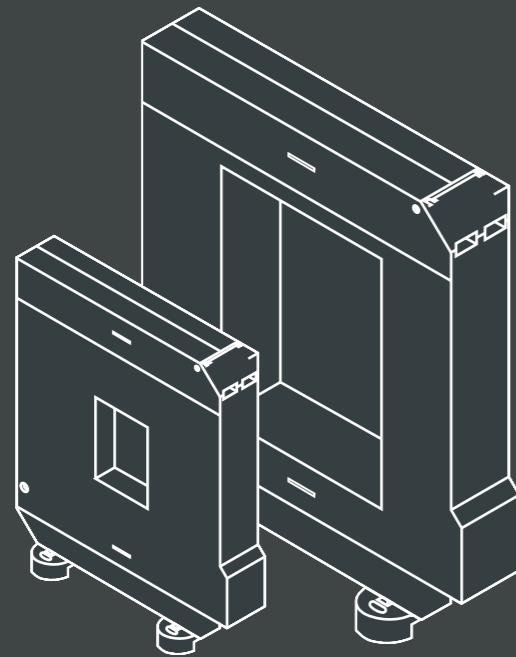
Code	Description	I1 (A)	I2 (A)
4729111000	Push 816 1000/1A	1000	1
4729111200	Push 816 1200/A	1200	1
4729111250	Push 816 1250/1A	1250	1
4729111500	Push 816 1500/1A	1500	1
4729111600	Push 816 1600/1A	1600	1
4729112000	Push 816 2000/1A	2000	1
4729112500	Push 816 2500/1A	2500	1
4729113000	Push 816 3000/1A	3000	1
4729113200	Push 816 3200/1A	3200	1
4729113500	Push 816 3500/1A	3500	1
4729114000	Push 816 4000/1A	4000	1
4729115000	Push 816 5000/1A	5000	1
4729511000	Push 816 1000/5A	1000	5
4729511200	Push 816 1200/5A	1200	5
4729511250	Push 816 1250/5A	1250	5
4729511500	Push 816 1500/5A	1500	5
4729511600	Push 816 1600/5A	1600	5
4729512000	Push 816 2000/5A	2000	5
4729512500	Push 816 2500/5A	2500	5
4729513000	Push 816 3000/5A	3000	5
4729513200	Push 816 3200/5A	3200	5
4729513500	Push 816 3500/5A	3500	5
4729514000	Push 816 4000/5A	4000	5
4729515000	Push 816 5000/5A	5000	5
933030	Accessories Push 816 IP20: DIN Rail Fixing Clips and Sliding Centering Guides		
933013	Accessories Push 816 IP40: DIN Rail Fixing Clips, Sliding Centering Guides, End Caps, and Labels		

TP

TP current transformer has been designed to facilitate its installation in electrical networks, either new or already existing.

The connection of the conventional Cts usually requires the interruption of the primary side circuit to pass cables bus bar through the transformer core or to connect such cables to primary terminals.

Thanks to the split core, this device can be installed without shutting down any cable or bus bar circuit, thus saving time and installation costs.



ELECTRICAL FEATURES

Primary	100 up to 5000 A
Secondary output	1 / 5 A (or 1,5 V)
Accuracy class	0,5 - 1 - 3
Accuracy limit	1,2 In*
Continuous overload	1 In
Frequency	50 - 60 Hz
Rated Power	See VA table
Highest voltage for equipment	0,72 kV
Rated insulation voltage	3 kV
Rated short-time thermal current	60 In
Rated dynamic current	2,5 Ith

*All devices supply 1.2 In, except TP 812 which supplies 1 In.

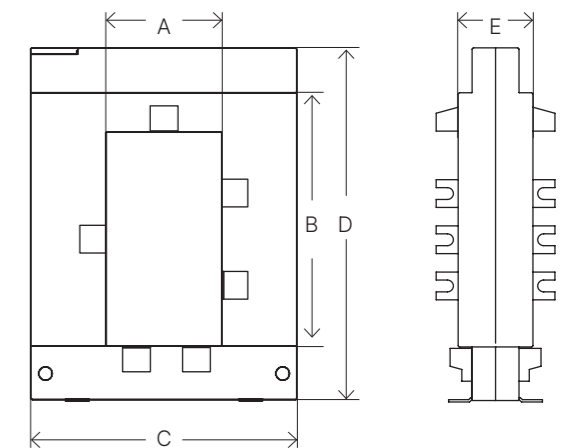


ENVIRONMENTAL FEATURES

Operating temperature	-5°C up to +40°C
Type of encapsulation	UL94 V0
Safety factor	<FS10
Degrees of protection	IP20
Thermal class	B (130°C)
Storage temperature	-30°C up to +85°C
Altitude	< 1000 m

DIMENSIONS (mm)

Model	A	B	C	D	E	Weight
TP 23	20	30	89	111	32	0.9 kg
TP 58	50	80	114	145	32	1.0 kg
TP 88	80	80	144	145	32	1.3 kg
TP 812	80	120	144	185	32	1.6 kg
TP 816	80	120	184	245	52	4.1 kg



TP

VA Chart

	TP 23						TP 58						TP 88						TP 812						TP 816						
	/1			/5			/1			/5			/1			/5			/1			/5			/1			/5			
	CI 0.5	CI 1	CI 3	CI 0.5	CI 1	CI 3	CI 0.5	CI 1	CI 3	CI 0.5	CI 1	CI 3	CI 0.5	CI 1	CI 3	CI 0.5	CI 1	CI 3	CI 0.5	CI 1	CI 3	CI 0.5	CI 1	CI 3	CI 0.5	CI 1	CI 3	CI 0.5	CI 1	CI 3	
50																															
100			1,5			1,5																									
150			2			2																									
200		1,5	2,5		1,5	2,5																									
250	0,5	2	4	0,5	2	4	1	2	4	1	2	4	1	2	4	1	2	4													
300	1,5	4	6	1,5	4	6	1,5	3	6	1,5	3	6	1,5	3	6	1,5	3	6													
400	2,5	6	10	2,5	6	10	1,5	3	10	1,5	3	10	1,5	3	10	1,5	3	10													
500							2,5	5	15	2,5	5	15	2,5	5	15	2,5	5	15	2,5	4	12		4	12							
600							2,5	5	17,5	2,5	5	17,5	2,5	5	17,5	2,5	5	17,5	2,5	5	14		5	14							
700							3	6	18	3	6	18	3	6	18	3	6	18	2,5	5	14		5	14							
750							3	6	18	3	6	18	3	6	18	3	6	18	2,5	6	17	2,5	6	17							
800							3	7	18	3	7	18	3	7	18	3	7	18	3	7	18	3	7	18							
1000							5	10	20	5	10	20	5	10	20	5	10	20	5	9	20	5	9	20	10	15	20	10	15	20	
1200																			6	11	24	6	11	24	10	15	20	10	15	20	
1250																			7	15	28	7	15	28	10	15	20	10	15	20	
1500																			8	17	30	8	17	30	15	20	25	15	20	25	
2000																					10	17	30	15	20	25	15	20	25		
2500																								15	20	25	15	20	25		
3000																								20	25	30	20	25	30		
4000																								20	25	30	20	25	30		
5000																								20	25	30	20	25	30		

TP

SKU codes

Code	Description	I1 (A)	I2 (A)
410110100	TP 23 100/1A	100	1
410110150	TP 23 150/1A	150	1
410110200	TP 23 200/1A	200	1
410110250	TP 23 250/1A	250	1
410110300	TP 23 300/1A	300	1
410110400	TP 23 400/1A	400	1
4101510100	TP 23 100/5A	100	5
4101510150	TP 23 150/5A	150	5
4101510200	TP 23 200/5A	200	5
4101510250	TP 23 250/5A	250	5
4101510300	TP 23 300/5A	300	5
4101510400	TP 23 400/5A	400	5

Code	Description	I1 (A)	I2 (A)
4102110250	TP 58 250/1A	250	1
4102110300	TP 58 300/1A	300	1
4102110400	TP 58 400/1A	400	1
4102110500	TP 58 500/1A	500	1
4102110600	TP 58 600/1A	600	1
4102110700	TP 58 700/1A	700	1
4102110750	TP 58 750/1A	750	1
4102110800	TP 58 800/1A	800	1
4102111000	TP 58 1000/1A	1000	1
4102510250	TP 58 250/5A	250	5
4102510300	TP 58 300/5A	300	5
4102510400	TP 58 400/5A	400	5
4102510500	TP 58 500/5A	500	5
4102510600	TP 58 600/5A	600	5
4102510700	TP 58 700/5A	700	5
4102510750	TP 58 750/5A	750	5
4102510800	TP 58 800/5A	800	5
4102511000	TP 58 1000/5A	1000	5
904409	Accesories TP 58: DIN Rail Fixing Clips and Sliding Centering Guides		

Code	Description	I1 (A)	I2 (A)
4103110250	TP 88 250/1A	250	1
4103110300	TP 88 300/1A	300	1
4103110400	TP 88 400/1A	400	1
4103110500	TP 88 500/1A	500	1
4103110600	TP 88 600/1A	600	1
4103110700	TP 88 700/1A	700	1
4103110750	TP 88 750/1A	750	1
4103110800	TP 88 800/1A	800	1
4103111000	TP 88 1000/1A	1000	1
4103510250	TP 88 250/5A	250	5
4103510300	TP 88 300/5A	300	5
4103510400	TP 88 400/5A	400	5
4103510500	TP 88 500/5A	500	5
4103510600	TP 88 600/5A	600	5
4103510700	TP 88 700/5A	700	5
4103510750	TP 88 750/5A	750	5
4103510800	TP 88 800/5A	800	5
4103511000	TP 88 1000/5A	1000	5
904409	Accesories TP 88: DIN Rail Fixing Clips and Sliding Centering Guides		

Code	Description	I1 (A)	I2 (A)
4104110500	TP 812 500/1A	500	1
4104110600	TP 812 600/1A	600	1
4104110700	TP 812 700/1A	700	1
4104110750	TP 812 750/1A	750	1
4104110800	TP 812 800/1A	800	1
4104111000	TP 812 1000/1A	1000	1
4104111200	TP 812 1200/1A	1200	1
4104111250	TP 812 1250/1A	1250	1
4104111500	TP 812 1500/1A	1500	1
4104510500	TP 812 500/5A	500	5
4104510600	TP 812 600/5A	600	5
4104510700	TP 812 700/5A	700	5
4104510750	TP 812 750/5A	750	5
4104510800	TP 812 800/5A	800	5
4104511000	TP 812 1000/5A	1000	5
4104511250	TP 812 1250/5A	1250	5
4104511500	TP 812 1500/5A	1500	5
4104511600	TP 812 1600/5A	1600	5
4104512000	TP 812 2000/5A	2000	5
904410	Accesories TP 812: DIN Rail Fixing Clips and Sliding Centering Guides		

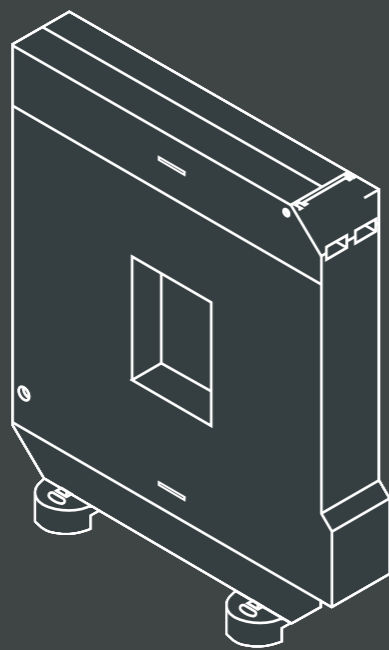
Code	Description	I1 (A)	I2 (A)
4105111000	TP 816 1000/1A	1000	1
4105111200	TP 816 1200/1A	1200	1
4105111250	TP 816 1250/1A	1250	1
4105111500	TP 816 1500/1A	1500	1
4105111600	TP 816 1600/1A	1600	1
4105112000	TP 816 2000/1A	2000	1
4105112500	TP 816 2500/1A	2500	1
4105113000	TP 816 3000/1A	3000	1
4105113200	TP 816 3200/1A	3200	1
4105114000	TP 816 4000/1A	4000	1
4105115000	TP 816 5000/1A	5000	1
4105511000	TP 816 1000/5A	1000	5
4105511200	TP 816 1200/5A	1200	5
4105511250	TP 816 1250/5A	1250	5
4105511500	TP 816 1500/5A	1500	5
4105511600	TP 816 1600/5A	1600	5
4105512000	TP 816 2000/5A	2000	5
4105512500	TP 816 2500/5A	2500	5
4105513000	TP 816 3000/5A	3000	5
4105513200	TP 816 3200/5A	3200	5
4105513500	TP 816 3500/5A	3500	5
4105514000	TP 816 4000/5A	4000	5
4105515000	TP 816 5000/5A	5000	5
904410	Accessories TP 816: DIN Rail Fixing Clips and Sliding Centering Guides		

WG

WG current transformer has been designed to facilitate its installation in electrical networks, either new or already existing.

The connection of the conventional Cts usually requires the interruption of the primary side circuit to pass cables bus bar through the transformer core or to connect such cables to primary terminals.

Thanks to the split core, this device can be installed without shutting down any cable or bus bar circuit, thus saving time and installation costs.



ELECTRICAL FEATURES

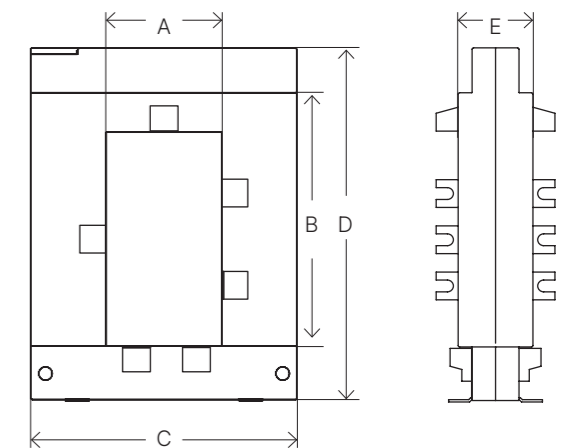
Primary	250 mA up to 30 A
Secondary output	60 mA
Accuracy class	± 15%
Accuracy limit	5 – 110% I _n
Continuous overload	1,2 I _n
Frequency	50 – 60 Hz
Highest voltage for equipment	0,72 kV
Rated insulation voltage	3 kV
Rated short-time thermal current	60 I _n
Rated dynamic current	2,5 I _{th}

ENVIRONMENTAL FEATURES

Operating temperature	-10°C up to +50°C
Type of encapsulation	UL94 V0
Safety factor	<FS10
Degrees of protection	IP20
Thermal class	B (130°C)
Storage temperature	-40°C up to +85°C
Altitude	< 1000 m

DIMENSIONS (mm)

Model	A	B	C	D	E	Weight
WG 23	20	30	89	111	32	0.9 kg
WG 58	50	80	114	145	32	1.0 kg
WG 88	80	80	144	145	32	1.3 kg
WG 812	80	120	144	185	32	1.6 kg
WG 816	80	120	184	245	52	4.1 kg



WG

SKU codes

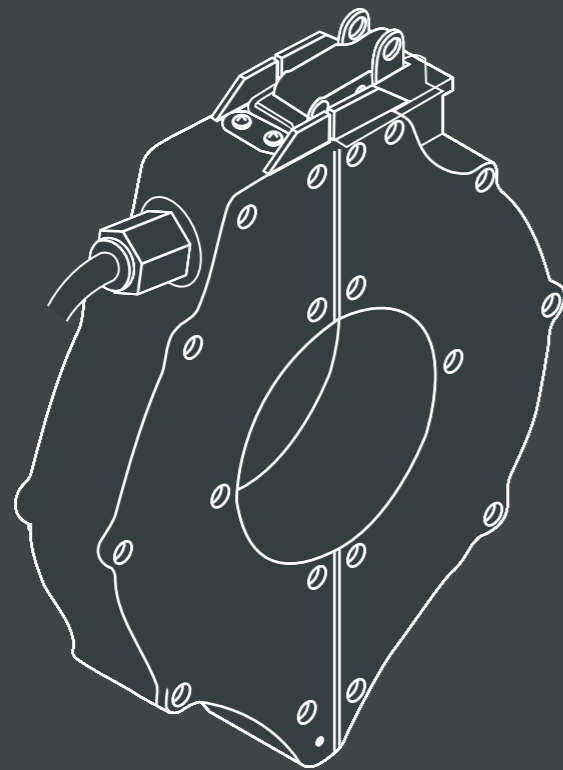
Code	Description	I1 (A)	I2 (A)
4101320000	WG 23	250 mA - 30 A	60 mA
4102320000	WG 58	250 mA - 30 A	60 mA
4103320000	WG 88	250 mA - 30 A	60 mA
4104320000	WG 812	250 mA - 30 A	60 mA
4105320000	WG 816	250 mA - 30 A	60 mA

Loop

Loop current transformer has been designed to facilitate its installation in electrical networks, either new or already existing.

The connection of the conventional CTs usually requires the interruption of the primary side circuit to pass cables bus bar through the transformer core or to connect such cables to primary terminals.

Thanks to the split core, this device can be installed without shutting down any cable or bus bar circuit, thus saving time and installation costs.



ELECTRICAL FEATURES

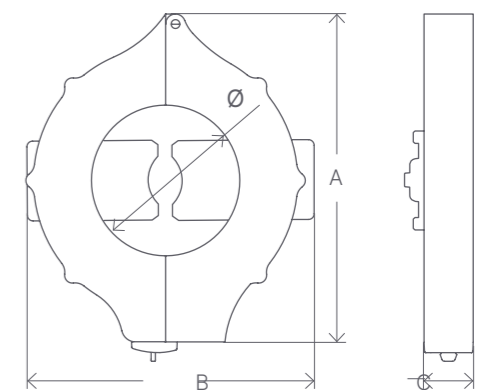
Primary	500 up to 2500 A
Secondary output	1 / 5 A
Accuracy class	0,5 - 1 - 3 High Accuracy: 0,2s - 0,2 - 0,5s
Accuracy limit	1,5 In
Continuous overload	1,2 In
Frequency	50 - 60 Hz
Rated Power	See VA table
Highest voltage for equipment	0,72 kV
Rated insulation voltage	3 kV
Rated short-time thermal current	60 In
Rated dynamic current	2,5 Ith

ENVIRONMENTAL FEATURES

Operating temperature	-10°C up to +60°C
Type of encapsulation	UL94 V0
Safety factor	<FS10
Degrees of protection	IP65
Thermal class	B (130°C)
Storage temperature	-40°C up to +85°C
Altitude	< 1000 m

DIMENSIONS (mm)

Model	A	B	C	Ø
Loop 80	215,98	173	37	80
Loop 105	240,2	198,9	42,4	105



Loop VA Chart

	Loop 80						Loop 105					
	/1			/5			/1			/5		
	CI 0.5	CI 1	CI 3	CI 0.5	CI 1	CI 3	CI 0.5	CI 1	CI 3	CI 0.5	CI 1	CI 3
500	1,5	3	6	1	1,5	3	2	3	6	1	2	4
600	3	4	8	1,5	2	4	3	4	8	1,5	2	4
700	5	8	16	2	4	8	3	5	8	2	4	8
750	5	8	16	2,5	5	10	3	5	10	2,5	5	10
800	5	8	16	3	7	15	5	8	16	3	7	15
1000	5	8	16	5	8	16	5	8	16	5	8	16
1200	6	8	16	5	8	16	6	8	16	5	8	16
1250	6	10	20	6	10	20	6	10	20	6	10	20
1500	8	10	20	6	10	20	7	10	20	6	10	20
2000	8,5	15	25	8	15	25	8	15	25	8	15	25
2500										8	15	25

	Loop HA 80						Loop HA 105					
	/1			/5			/1			/5		
	CI 0.2s	CI 0.2	CI 0.5s	CI 0.2s	CI 0.2	CI 0.5s	CI 0.2s	CI 0.2	CI 0.5s	CI 0.2s	CI 0.2	CI 0.5s
500			1,5						2			0,5
600			3						2,5			1
700	1,5	2	4			1,5			2,5			1
750	1,5	2	4			1,5			2,5			2
800	2	2,5	4			2,5			4			2,5
1000	3	4,5	5	1,5	1,5	3	2,5	4	4,5			2,5
1200	4,5	5	6	1,5	2	3	4,5	5	5,5	1	1,5	3
1250	4,5	5	6	1,5	2	3	4,5	5	5,5	1	1,5	3
1500	6	7,5	8	3	3,5	5	5	5,5	7	2	3	4,5
2000	7	8	8,5	3,5	4	6	6,5	7	7,5	2	3	4,5
2500										2	3	4,5

Loop SKU codes

Code	Description	I1 (A)	I2 (A)
4827110400	Loop 80 400/1A	400	1
4827110500	Loop 80 500/1A	500	1
4827110600	Loop 80 600/1A	600	1
4827110750	Loop 80 750/1A	750	1
4827110800	Loop 80 800/1A	800	1
4827111000	Loop 80 1000/1A	1000	1
4827111200	Loop 80 1200/1A	1200	1
4827111250	Loop 80 1250/1A	1250	1
4827111500	Loop 80 1500/1A	1500	1
4827510400	Loop 80 400/5A	400	5
4827510500	Loop 80 500/5A	500	5
4827510600	Loop 80 600/5A	600	5
4827510750	Loop 80 750/5A	750	5
4827510800	Loop 80 800/5A	800	5
4827511000	Loop 80 1000/5A	1000	5
4827511200	Loop 80 1200/5A	1200	5
4827511250	Loop 80 1250/5A	1250	5
4827511500	Loop 80 1500/5A	1500	5
4827512000	Loop 80 2000/5A	2000	5
933011	Accessories Loop 80: DIN Rail Fixing Clips and Sliding Centering Guides		

Code	Description	I1 (A)	I2 (A)
4823110500	Loop HA 80 500/1A	500	1
4823110600	Loop HA 80 600/1A	600	1
4823110800	Loop HA 80 800/1A	800	1
4823111000	Loop HA 80 1000/1A	1000	1
4823111200	Loop HA 80 1200/1A	1200	1
4823111250	Loop HA 80 1250/1A	1250	1
4823111500	Loop HA 80 1500/1A	1500	1
4823510600	Loop HA 80 600/5A	600	5
4823510750	Loop HA 80 750/5A	750	5
4823510800	Loop HA 80 800/5A	800	5
4823511000	Loop HA 80 1000/5A	1000	5
4823511200	Loop HA 80 1200/5A	1200	5
4823511250	Loop HA 80 1250/5A	1250	5
4823511500	Loop HA 80 1500/5A	1500	5
4823512000	Loop HA 80 2000/5A	2000	5
933011	Accessories Loop HA 80: DIN Rail Fixing Clips and Sliding Centering Guides		

Code	Description	I1 (A)	I2 (A)
4818110599	Loop 105 500/1A	500	1
4818110600	Loop 105 600/1A	600	1
4818110750	Loop 105 750/1A	750	1
4818110800	Loop 105 800/1A	800	1
4818111000	Loop 105 1000/1A	1000	1
4818111200	Loop 105 1200/1A	1200	1
4818111250	Loop 105 1250/1A	1250	1
4818111500	Loop 105 1500/1A	1500	1
4818112000	Loop 105 2000/1A	2000	1
4818510600	Loop 105 600/5A	600	5
4818510750	Loop 105 750/5A	750	5
4818510800	Loop 105 800/5A	800	5
4818511000	Loop 105 1000/5A	1000	5
4818511200	Loop 105 1200/5A	1200	5
4818511250	Loop 105 1250/5A	1250	5
4818511500	Loop 105 1500/5A	1500	5
4818511600	Loop 105 1600/5A	1600	5
4818512000	Loop 105 2000/5A	2000	5
4818512500	Loop 105 2500/5A	2500	5
933011	Accessories Loop 105: DIN Rail Fixing Clips and Sliding Centering Guides		

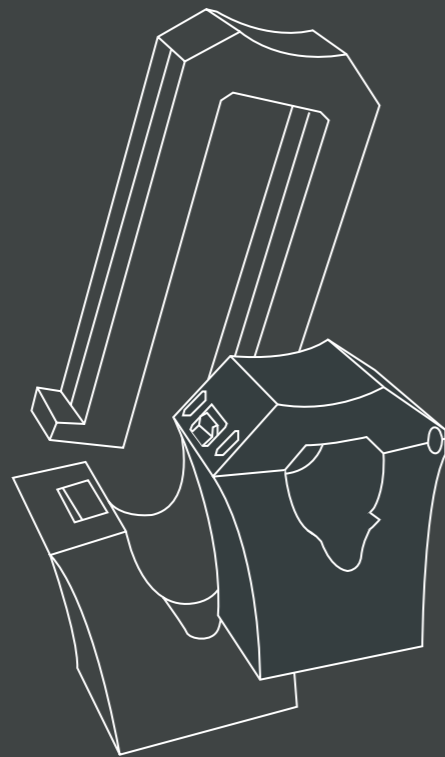
Code	Description	I1 (A)	I2 (A)
4830110599	Loop HA 105 500/1A	500	1
4830110600	Loop HA 105 600/1A	600	1
4830110750	Loop HA 105 750/1A	750	1
4830110800	Loop HA 105 800/1A	800	1
4830111000	Loop HA 105 1000/1A	1000	1
4830111200	Loop HA 105 1200/1A	1200	1
4830111250	Loop HA 105 1250/1A	1250	1
4830111500	Loop HA 105 1500/1A	1500	1
4830112000	Loop HA 105 2000/1A	2000	1
4830510600	Loop HA 105 600/5A	600	5
4830510750	Loop HA 105 750/5A	750	5
4830510800	Loop HA 105 800/5A	800	5
4830511000	Loop HA 105 1000/5A	1000	5
4830511200	Loop HA 105 1200/5A	1200	5
4830511250	Loop HA 105 1250/5A	1250	5
4830511500	Loop HA 105 1500/5A	1500	5
4830511600	Loop HA 105 1600/5A	1600	5
4830512000	Loop HA 105 2000/5A	2000	5
4830512500	Loop HA 105 2500/5A	2500	5
933011	Accessories Loop HA 105: DIN Rail Fixing Clips and Sliding Centering Guides		

STP

STP current transformer has been designed to facilitate its installation in electrical networks, either new or already existing.

The connection of the conventional Cts usually requires the interruption of the primary side circuit to pass cables bus bar through the transformer core or to connect such cables to primary terminals.

Thanks to the split core, this device can be installed without shutting down any cable or bus bar circuit, thus saving time and installation costs.



ELECTRICAL FEATURES

Primary	100 up to 1000 A
Secondary output	1 / 5
Accuracy class	0,5 – 1 – 3
Accuracy limit	1,2 In
Continuous overload	1,2 In
Frequency	50 – 60 Hz
Rated Power	See VA table
Highest voltage for equipment	0,72 kV
Rated insulation voltage	3 kV
Rated short-time thermal current	60 In
Rated dynamic current	2,5 Ith

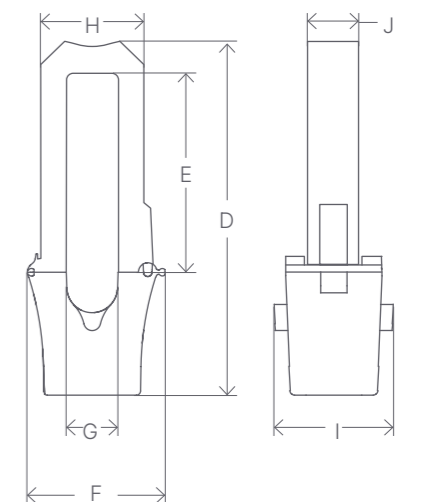
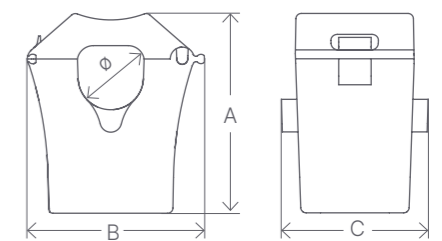
ENVIRONMENTAL FEATURES

Operating temperature	-10°C up to +60°C
Type of encapsulation	UL94 V0
Safety factor	<FS10
Degrees of protection	IP40
Thermal class	H (185°)
Storage temperature	-40°C up to +85°C
Altitude	< 1000 m

DIMENSIONS (mm)

Model	A	B	C	Ø
STP 24	75,4	66	55	24
STP 40	107,1	78	68	40

	D	E	F	G	H	I	J
STP 40L	154,1	87	78	40	63,8	68	22



STP

VA Chart

	STP 24						STP 40						STP 40L					
	/1			/5			/1			/5			/1			/5		
	CI 0.5	CI1	CI3	CI 0.5	CI1	CI3	CI 0.5	CI1	CI3	CI 0.5	CI1	CI3	CI 0.5	CI1	CI3	CI 0.5	CI1	CI3
50																		
100			1			1												
150			1			1												
200			2			2												
250		1	2			2			4			4			4			4
300		1	2		1	2		0,5	4		0,5	4			4			4
400								1	4		1	4		1	4		1	4
500								4	4		4	4		2	4		2	4
600							1	4	4	1	4	4	2	4	4	2	4	4
700							1	4	4	1	4	4	2	4	4	2	4	4
800							1	4	4	1	4	4	2	4	4	2	4	4
1000							1	4	4	1	4	4	2	4	4	2	4	4

STP

SKU codes

Code	Description	I1 (A)	I2 (A)
4207110100	STP 24 100/1A	100	1
4207110125	STP 24 125/1A	125	1
4207110150	STP 24 150/1A	150	1
4207110200	STP 24 200/1A	200	1
4207110250	STP 24 250/1A	250	1
4207110300	STP 24 300/1A	300	1
4207510100	STP 24 100/5A	100	5
4207510150	STP 24 150/5A	150	5
4207510200	STP 24 200/5A	200	5
4207510250	STP 24 250/5A	250	5
4207510300	STP 24 300/5A	300	5

Code	Description	I1 (A)	I2 (A)
4219110250-1,5	STP 40 250/1A	250	1
4219110300-1,5	STP 40 300/1A	300	1
4219110400-1,5	STP 40 400/1A	400	1
4219110500-1,5	STP 40 500/1A	500	1
4219110600-1,5	STP 40 600/1A	600	1
4219110700-1,5	STP 40 700/1A	700	1
4219110800-1,5	STP 40 800/1A	800	1
4219111000-1,5	STP 40 1000/1A	1000	1
4219510250-1,5	STP 40 250/5A	250	5
4219510300-1,5	STP 40 300/5A	300	5
4219510400-1,5	STP 40 400/5A	400	5
4219510500-1,5	STP 40 500/5A	500	5
4219510600-1,5	STP 40 600/5A	600	5
4219510700-1,5	STP 40 700/5A	700	5
4219510800-1,5	STP 40 800/5A	800	5
4219511000-1,5	STP 40 1000/5A	1000	5

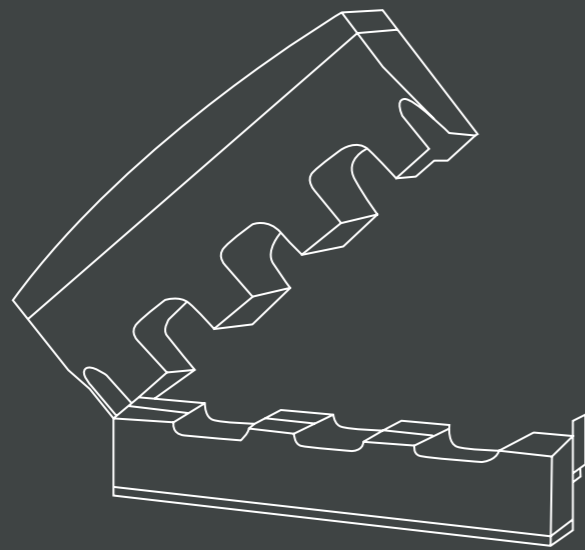
Code	Description	I1 (A)	I2 (A)
4226110250-1,5	STP 40L 250/1A	250	1
4226110300-1,5	STP 40L 300/1A	300	1
4226110400-1,5	STP 40L 400/1A	400	1
4226110500-1,5	STP 40L 500/1A	500	1
4226110600-1,5	STP 40L 600/1A	600	1
4226110700-1,5	STP 40L 700/1A	700	1
4226110800-1,5	STP 40L 800/1A	800	1
4226111000-1,5	STP 40L 1000/1A	1000	1
4226510250-1,5	STP 40L 250/5A	250	5
4226510300-1,5	STP 40L 300/5A	300	5
4226510400-1,5	STP 40L 400/5A	400	5
4226510500-1,5	STP 40L 500/5A	500	5
4226510600-1,5	STP 40L 600/5A	600	5
4226510700-1,5	STP 40L 700/5A	700	5
4226510800-1,5	STP 40L 800/5A	800	5
4226511000-1,5	STP 40L 1000/5A	1000	5

SC3

SC3 current transformer has been designed to facilitate its installation in electrical networks, either new or already existing.

The connection of the conventional Cts usually requires the interruption of the primary side circuit to pass cables bus bar through the transformer core or to connect such cables to primary terminals.

Thanks to the split core, this device can be installed without shutting down any cable or bus bar circuit, thus saving time and installation costs.

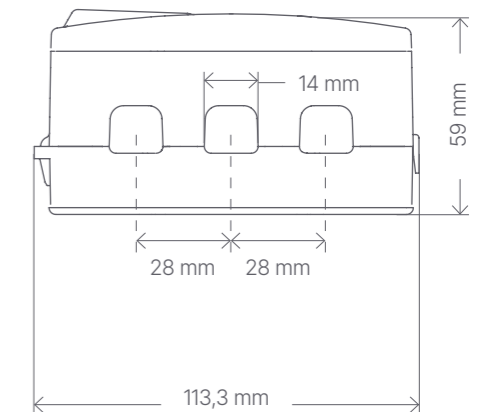


ELECTRICAL FEATURES

Primary	125
Secondary output	1,25
Accuracy class	1 - 3
Accuracy limit	1,5 I _n
Continuous overload	1,2 I _n
Frequency	50 - 60 Hz
Rated Power	0,1 VA
Highest voltage for equipment	0,72 kV
Rated insulation voltage	3 kV
Rated short-time thermal current	60 I _n
Rated dynamic current	2,5 I _{th}

ENVIRONMENTAL FEATURES

Operating temperature	-10 a +60°C
Type of encapsulation	UL94 V0
Safety factor	5 - 10
Degrees of protection	IP40
Thermal class	B
Storage temperature	-40 a +85°C
Altitude	< 4000 m



SC3

SKU codes

Code	Description	I1 (A)	I2 (A)
4109610125	SC3 125/250mA	125	250

Smilics Technologies

Overview of product line

Code	Description	Installation	Communication
501000	2Grid Feeder	Tri-phase + Neutral	Ethernet
501001	2Grid Gate	Tri-phase + Neutral	Ethernet
501002	2Grid Bulker	Not applicable	Ethernet
501003	2Grid Green	Not applicable	Ethernet
501004	2Grid BCPS	Not applicable	Not applicable

Code	Description
4301054100	AM54 FLEX 10K KIT1
4301054300	AM54 FLEX 10K KIT3
4301054400	AM54 FLEX 10K KIT4
430110100	AM110 FLEX 10K KIT1
430110300	AM110 FLEX 10K KIT3
430110400	AM110 FLEX 10K KIT4

Code	Description
4302014100	AMS14 FLEX 100 KIT1
4302014300	AMS14 FLEX 100 KIT3
4302014400	AMS14 FLEX 100 KIT4
4302014305	AMS14 One Connector 100 KIT3

Code	Description
4304054010	R FLEX 10K 54
4304054020	R FLEX 20K 54
4304120020	R FLEX 20K 120
4304054310	KIT3 R FLEX 10K 54
4304054320	KIT3 R FLEX 20K 54

Code	Description
4605054810	DINFLEX 1A AM54 100/1K/10K
4305054300	KIT3 DINFLEX 1A AM54 100/1K/10K + SUPPLY
4605054830	DINFLEX 1A AM54 50/500/5K
4305054330	KIT3 DINFLEX 1A 50/500/5K AM54 + SUPPLY
4605110810	DINFLEX 1A 110 100/1K/10K
4305110300	KIT3 DINFLEX 1A 110 100/1K/10K + SUPPLY
4605110830	DINFLEX 1A 110 50/500/5K
4305110330	KIT3 DINFLEX 1A 110 50/500/5K + SUPPLY
4605014810	DINFLEX 1A AMS14
4305014300	KIT3 DINFLEX 1A AMS14 + SUPPLY

Code	Description
4303045000	C FLEX 45 GW
4303054000	C FLEX 54 GW
4303080000	C FLEX 80 GW
4303110000	C FLEX 110 GW
4303120000	C FLEX 120 GW

Code	Description
4306013000	SMART FLEX 14
4306025000	SMART FLEX 25

Code	Description
4307024002	MAGNETIC FLEX DIAM70
4307040002	MAGNETIC FLEX DIAM120
4307063002	MAGNETIC FLEX DIAM200
903930	MAGNETIC FLEX CENTERING PIECE

Code	Description	I1 (A)	I2 (A)
4710110050	Push 32 50/1A	50	1
4710110100	Push 32 100/1A	100	1
4710110150	Push 32 150/1A	150	1
4710110200	Push 32 200/1A	200	1
4710110250	Push 32 250/1A	250	1
4710110300	Push 32 300/1A	300	1
4710510100	Push 32 100/5A	100	5
4710510150	Push 32 150/5A	150	5
4710510200	Push 32 200/5A	200	5
4710510250	Push 32 250/5A	250	5
4710510300	Push 32 300/5A	300	5
4710510400	Push 32 400/5A	400	5
932998	Accesories Push 32: DIN Rail Fixing Clips and Sliding Centering Guides		

Code	Description	I1 (A)	I2 (A)
4729111000	Push 816 1000/1A	1000	1
4729111200	Push 816 1200/A	1200	1
4729111250	Push 816 1250/1A	1250	1
4729111500	Push 816 1500/1A	1500	1
4729111600	Push 816 1600/1A	1600	1
4729112000	Push 816 2000/1A	2000	1
4729112500	Push 816 2500/1A	2500	1
4729113000	Push 816 3000/1A	3000	1
4729113200	Push 816 3200/1A	3200	1
4729113500	Push 816 3500/1A	3500	1
4729114000	Push 816 4000/1A	4000	1
4729115000	Push 816 5000/1A	5000	1
4729511000	Push 816 1000/5A	1000	5
4729511200	Push 816 1200/5A	1200	5
4729511250	Push 816 1250/5A	1250	5
4729511500	Push 816 1500/5A	1500	5
4729511600	Push 816 1600/5A	1600	5
4729512000	Push 816 2000/5A	2000	5
4729512500	Push 816 2500/5A	2500	5
4729513000	Push 816 3000/5A	3000	5
4729513200	Push 816 3200/5A	3200	5
4729513500	Push 816 3500/5A	3500	5
4729514000	Push 816 4000/5A	4000	5
4729515000	Push 816 5000/5A	5000	5
933030	Accesories Push 816 IP20: DIN Rail Fixing Clips and Sliding Centering Guides		
933013	Accesories Push 816 IP40: DIN Rail Fixing Clips, Sliding Centering Guides, End Caps, and Labels		

Code	Description	I1 (A)	I2 (A)
4711110300	Push 68 300/1A	300	1
4711110400	Push 68 400/1A	400	1
4711110500	Push 68 500/1A	500	1
4711110600	Push 68 600/1A	600	1
4711110700	Push 68 700/1A	700	1
4711110750	Push 68 750/1A	750	1
4711110800	Push 68 800/1A	800	1
4711111000	Push 68 1000/1A	1000	1
4711510300	Push 68 300/5A	300	5
4711510400	Push 68 400/5A	400	5
4711510500	Push 68 500/5A	500	5
4711510600	Push 68 600/5A	600	5
4711510700	Push 68 700/5A	700	5
4711510750	Push 68 750/5A	750	5
4711510800	Push 68 800/5A	800	5
4711511000	Push 68 1000/5A	1000	5
SE100090	Accesories Push 68: DIN Rail Fixing Clips and Sliding Centering Guides		

Code	Description	I1 (A)	I2 (A)
4728110500	Push 812 500/1A	500	1
4728110600	Push 812 600/1A	600	1
4728110700	Push 812 700/1A	700	1
4728110750	Push 812 750/1A	750	1
4728110800	Push 812 800/1A	800	1
4728111000	Push 812 1000/1A	1000	1
4728111200	Push 812 1200/1A	1200	1
4728111250	Push 812 1250/1A	1250	1
4728111500	Push 812 1500/1A	1500	1
4728111600	Push 812 1600/1A	1600	1
4728510500	Push 812 500/5A	500	5
4728510600	Push 812 600/5A	600	5
4728510700	Push 812 700/5A	700	5
4728510750	Push 812 750/5A	750	5
4728510800	Push 812 800/5A	800	5
4728511000	Push 812 1000/5A	1000	5
4728511200	Push 812 1200/5A	1200	5
4728511250	Push 812 1250/5A	1250	5
4728511500	Push 812 1500/5A	1500	5
4728511600	Push 812 1600/5A	1600	5
4728512000	Push 812 2000/5A	2000	5
933030	Accesories Push 812 IP20: DIN Rail Fixing Clips and Sliding Centering Guides		
933013	Accesories Push 812 IP40: DIN Rail Fixing Clips, Sliding Centering Guides, End Caps, and Labels		

Code	Description	I1 (A)	I2 (A)
410110100	TP 23 100/1A	100	1
410110150	TP 23 150/1A	150	1
410110200	TP 23 200/1A	200	1
410110250	TP 23 250/1A	250	1
410110300	TP 23 300/1A	300	1
410110400	TP 23 400/1A	400	1
4101510100	TP 23 100/5A	100	5
4101510150	TP 23 150/5A	150	5
4101510200	TP 23 200/5A	200	5
4101510250	TP 23 250/5A	250	5
4101510300	TP 23 300/5A	300	5
4101510400	TP 23 400/5A	400	5

Code	Description	I1 (A)	I2 (A)
4102110250	TP 58 250/1A	250	1
4102110300	TP 58 300/1A	300	1
4102110400	TP 58 400/1A	400	1
4102110500	TP 58 500/1A	500	1
4102110600	TP 58 600/1A	600	1
4102110700	TP 58 700/1A	700	1
4102110750	TP 58 750/1A	750	1
4102110800	TP 58 800/1A	800	1
4102111000	TP 58 1000/1A	1000	1
4102510250	TP 58 250/5A	250	5
4102510300	TP 58 300/5A	300	5
4102510400	TP 58 400/5A	400	5
4102510500	TP 58 500/5A	500	5
4102510600	TP 58 600/5A	600	5
4102510700	TP 58 700/5A	700	5
4102510750	TP 58 750/5A	750	5
4102510800	TP 58 800/5A	800	5
4102511000	TP 58 1000/5A	1000	5
904409	Accessories TP 58: DIN Rail Fixing Clips and Sliding Centering Guides		

Code	Description	I1 (A)	I2 (A)
4103110250	TP 88 250/1A	250	1
4103110300	TP 88 300/1A	300	1
4103110400	TP 88 400/1A	400	1
4103110500	TP 88 500/1A	500	1
4103110600	TP 88 600/1A	600	1
4103110700	TP 88 700/1A	700	1
4103110750	TP 88 750/1A	750	1
4103110800	TP 88 800/1A	800	1
4103111000	TP 88 1000/1A	1000	1
4103510250	TP 88 250/5A	250	5
4103510300	TP 88 300/5A	300	5
4103510400	TP 88 400/5A	400	5
4103510500	TP 88 500/5A	500	5
4103510600	TP 88 600/5A	600	5
4103510700	TP 88 700/5A	700	5
4103510750	TP 88 750/5A	750	5
4103510800	TP 88 800/5A	800	5
4103511000	TP 88 1000/5A	1000	5
904409	Accessories TP 88: DIN Rail Fixing Clips and Sliding Centering Guides		

Code	Description	I1 (A)	I2 (A)
4104110500	TP 812 500/1A	500	1
4104110600	TP 812 600/1A	600	1
4104110700	TP 812 700/1A	700	1
4104110750	TP 812 750/1A	750	1
4104110800	TP 812 800/1A	800	1
4104111000	TP 812 1000/1A	1000	1
4104111200	TP 812 1200/1A	1200	1
4104111250	TP 812 1250/1A	1250	1
4104111500	TP 812 1500/1A	1500	1
4104510500	TP 812 500/5A	500	5
4104510600	TP 812 600/5A	600	5
4104510700	TP 812 700/5A	700	5
4104510750	TP 812 750/5A	750	5
4104510800	TP 812 800/5A	800	5
4104511000	TP 812 1000/5A	1000	5
4104511250	TP 812 1250/5A	1250	5
4104511500	TP 812 1500/5A	1500	5
4104511600	TP 812 1600/5A	1600	5
4104512000	TP 812 2000/5A	2000	5
904410	Accessories TP 812: DIN Rail Fixing Clips and Sliding Centering Guides		

Code	Description	I1 (A)	I2 (A)
4105111000	TP 816 1000/1A	1000	1
4105111200	TP 816 1200/1A	1200	1
4105111250	TP 816 1250/1A	1250	1
4105111500	TP 816 1500/1A	1500	1
4105111600	TP 816 1600/1A	1600	1
4105112000	TP 816 2000/1A	2000	1
4105112500	TP 816 2500/1A	2500	1
4105113000	TP 816 3000/1A	3000	1
4105113200	TP 816 3200/1A	3200	1
4105114000	TP 816 4000/1A	4000	1
4105115000	TP 816 5000/1A	5000	1
4105511000	TP 816 1000/5A	1000	5
4105511200	TP 816 1200/5A	1200	5
4105511250	TP 816 1250/5A	1250	5
4105511500	TP 816 1500/5A	1500	5
4105511600	TP 816 1600/5A	1600	5
4105512000	TP 816 2000/5A	2000	5
4105512500	TP 816 2500/5A	2500	5
4105513000	TP 816 3000/5A	3000	5
4105513200	TP 816 3200/5A	3200	5
4105513500	TP 816 3500/5A	3500	5
4105514000	TP 816 4000/5A	4000	5
4105515000	TP 816 5000/5A	5000	5
904410	Accessories TP 816: DIN Rail Fixing Clips and Sliding Centering Guides		

Code	Description	I1 (A)	I2 (A)
4101320000	WG 23	250 mA - 30 A	60 mA
4102320000	WG 58	250 mA - 30 A	60 mA
4103320000	WG 88	250 mA - 30 A	60 mA
4104320000	WG 812	250 mA - 30 A	60 mA
4105320000	WG 816	250 mA - 30 A	60 mA

Code	Description	I1 (A)	I2 (A)
4827110400	Loop 80 400/1A	400	1
4827110500	Loop 80 500/1A	500	1
4827110600	Loop 80 600/1A	600	1
4827110750	Loop 80 750/1A	750	1
4827110800	Loop 80 800/1A	800	1
4827111000	Loop 80 1000/1A	1000	1
4827111200	Loop 80 1200/1A	1200	1
4827111250	Loop 80 1250/1A	1250	1
4827111500	Loop 80 1500/1A	1500	1
4827510400	Loop 80 400/5A	400	5
4827510500	Loop 80 500/5A	500	5
4827510600	Loop 80 600/5A	600	5
4827510750	Loop 80 750/5A	750	5
4827510800	Loop 80 800/5A	800	5
4827511000	Loop 80 1000/5A	1000	5
4827511200	Loop 80 1200/5A	1200	5
4827511250	Loop 80 1250/5A	1250	5
4827511500	Loop 80 1500/5A	1500	5
4827512000	Loop 80 2000/5A	2000	5
933011	Accessories Loop 80: DIN Rail Fixing Clips and Sliding Centering Guides		

Code	Description	I1 (A)	I2 (A)
4823110500	Loop HA 80 500/1A	500	1
4823110600	Loop HA 80 600/1A	600	1
4823110800	Loop HA 80 800/1A	800	1
4823111000	Loop HA 80 1000/1A	1000	1
4823111200	Loop HA 80 1200/1A	1200	1
4823111250	Loop HA 80 1250/1A	1250	1
4823111500	Loop HA 80 1500/1A	1500	1
4823510600	Loop HA 80 600/5A	600	5
4823510750	Loop HA 80 750/5A	750	5
4823510800	Loop HA 80 800/5A	800	5
4823511000	Loop HA 80 1000/5A	1000	5
4823511200	Loop HA 80 1200/5A	1200	5
4823511250	Loop HA 80 1250/5A	1250	5
4823511500	Loop HA 80 1500/5A	1500	5
4823512000	Loop HA 80 2000/5A	2000	5
933011	Accessories Loop HA 80: DIN Rail Fixing Clips and Sliding Centering Guides		

Code	Description	I1 (A)	I2 (A)
4818110599	Loop 105 500/1A	500	1
4818110600	Loop 105 600/1A	600	1
4818110750	Loop 105 750/1A	750	1
4818110800	Loop 105 800/1A	800	1
4818111000	Loop 105 1000/1A	1000	1
4818111200	Loop 105 1200/1A	1200	1
4818111250	Loop 105 1250/1A	1250	1
4818111500	Loop 105 1500/1A	1500	1
4818112000	Loop 105 2000/1A	2000	1
4818510600	Loop 105 600/5A	600	5
4818510750	Loop 105 750/5A	750	5
4818510800	Loop 105 800/5A	800	5
4818511000	Loop 105 1000/5A	1000	5
4818511200	Loop 105 1200/5A	1200	5
4818511250	Loop 105 1250/5A	1250	5
4818511500	Loop 105 1500/5A	1500	5
4818511600	Loop 105 1600/5A	1600	5
4818512000	Loop 105 2000/5A	2000	5
4818512500	Loop 105 2500/5A	2500	5
933011	Accessories Loop 105: DIN Rail Fixing Clips and Sliding Centering Guides		

Code	Description	I1 (A)	I2 (A)
4830110599	Loop HA 105 500/1A	500	1
4830110600	Loop HA 105 600/1A	600	1
4830110750	Loop HA 105 750/1A	750	1
4830110800	Loop HA 105 800/1A	800	1
4830111000	Loop HA 105 1000/1A	1000	1
4830111200	Loop HA 105 1200/1A	1200	1
4830111250	Loop HA 105 1250/1A	1250	1
4830111500	Loop HA 105 1500/1A	1500	1
4830112000	Loop HA 105 2000/1A	2000	1
4830510600	Loop HA 105 600/5A	600	5
4830510750	Loop HA 105 750/5A	750	5
4830510800	Loop HA 105 800/5A	800	5
4830511000	Loop HA 105 1000/5A	1000	5
4830511200	Loop HA 105 1200/5A	1200	5
4830511250	Loop HA 105 1250/5A	1250	5
4830511500	Loop HA 105 1500/5A	1500	5
4830511600	Loop HA 105 1600/5A	1600	5
4830512000	Loop HA 105 2000/5A	2000	5
4830512500	Loop HA 105 2500/5A	2500	5
933011	Accessories Loop HA 105: DIN Rail Fixing Clips and Sliding Centering Guides		

Code	Description	I1 (A)	I2 (A)
4207110100	STP 24 100/1A	100	1
4207110125	STP 24 125/1A	125	1
4207110150	STP 24 150/1A	150	1
4207110200	STP 24 200/1A	200	1
4207110250	STP 24 250/1A	250	1
4207110300	STP 24 300/1A	300	1
4207510100	STP 24 100/5A	100	5
4207510150	STP 24 150/5A	150	5
4207510200	STP 24 200/5A	200	5
4207510250	STP 24 250/5A	250	5
4207510300	STP 24 300/5A	300	5

Code	Description	I1 (A)	I2 (A)
4219110250-1,5	STP 40 250/1A	250	1
4219110300-1,5	STP 40 300/1A	300	1
4219110400-1,5	STP 40 400/1A	400	1
4219110500-1,5	STP 40 500/1A	500	1
4219110600-1,5	STP 40 600/1A	600	1
4219110700-1,5	STP 40 700/1A	700	1
4219110800-1,5	STP 40 800/1A	800	1
4219111000-1,5	STP 40 1000/1A	1000	1
4219510250-1,5	STP 40 250/5A	250	5
4219510300-1,5	STP 40 300/5A	300	5
4219510400-1,5	STP 40 400/5A	400	5
4219510500-1,5	STP 40 500/5A	500	5
4219510600-1,5	STP 40 600/5A	600	5
4219510700-1,5	STP 40 700/5A	700	5
4219510800-1,5	STP 40 800/5A	800	5
4219511000-1,5	STP 40 1000/5A	1000	5

Code	Description	I1 (A)	I2 (A)
4226110250-1,5	STP 40L 250/1A	250	1
4226110300-1,5	STP 40L 300/1A	300	1
4226110400-1,5	STP 40L 400/1A	400	1
4226110500-1,5	STP 40L 500/1A	500	1
4226110600-1,5	STP 40L 600/1A	600	1
4226110700-1,5	STP 40L 700/1A	700	1
4226110800-1,5	STP 40L 800/1A	800	1
4226111000-1,5	STP 40L 1000/1A	1000	1
4226510250-1,5	STP 40L 250/5A	250	5
4226510300-1,5	STP 40L 300/5A	300	5
4226510400-1,5	STP 40L 400/5A	400	5
4226510500-1,5	STP 40L 500/5A	500	5
4226510600-1,5	STP 40L 600/5A	600	5
4226510700-1,5	STP 40L 700/5A	700	5
4226510800-1,5	STP 40L 800/5A	800	5
4226511000-1,5	STP 40L 1000/5A	1000	5

Code	Description	I1 (A)	I2 (A)
4109610125	SC3 125/250mA	125	250

Smilics Technologies®
Terms and conditions

General Sales Terms (Annex I)

Smilics Technologies®

These terms are applicable to all purchase orders made to Smilics Technologies, S.L.© from now on the Seller.

1. Overview

- 1.1. The Buyer accepts all and each one of the clauses of these Terms, except those ones that might be modified by an agreement in written with the Seller.
- 1.2. Validity of our offers will expire in 3 months, unless otherwise specified.
- 1.3. Orders made by the Buyer and received by the Seller cannot be cancelled, unless agreed by the parties in written.
- 1.4. Technical data included or attached (like drawings, catalogues, ...), in our offers are approximate. All technical information is property of the Seller, being prohibited its reproduction, copy or its submittal to third parties without prior written consent from the Seller.
- 1.5. Any obligation from the Seller derived from the commercial relationship, even those agreed against or additionally to these Terms, will be considered prescribed after 12 months from delivery of goods in case the Buyer has not exercised its rights during such time.

2. Price

- 2.1. Price being offered should always be considered EXW Exworks (INCOTERMS) with standard packing included, unless otherwise stated in the written offer by the Seller.
- 2.2. Validity of our offers is the one stated in clause 1.2, after which prices can be reviewed if costs change.
- 2.3. The Buyer is solely responsible for the collection, remittance, and payments of any or all taxes, charges, levies, assessments imposed by governmental or other authority in the Territory in respect of the purchase order, transfer of the property, possession of the goods and use of the same.
- 2.4. Prices detailed on the Seller's offer are "Net prices excluding VAT".

3. Delivery

- 3.1. With the notice of availability of goods from the Seller to the Buyer, delivery will be considered as completed. Once delivery is made, either partially or totally, property of the delivered goods, as well as its risks of loss or damage, are transferred to the Buyer. Unless otherwise stated by the Seller, it will be allowed to make anticipated deliveries to the agreed delivery time as well as partial deliveries. The notice of availability or a partial delivery, implies acceptance by the Buyer of the corresponding Invoice.
- 3.2. Agreed delivery time will start to count upon the Seller's acknowledge receipt of the purchase order, including all technical and commercial conditions agreed. In case, there is required an advance payment with the acknowledge receipt of the Purchase Order, delivery time will not start to count until the Seller acknowledges payment receipt in his account.
- 3.3. Delivery time will be increased, without any responsibility for the Seller, for the same time lost in a force majeure event, understanding as such all events that are not predictable or that even being predictable they are unavoidable, as well as any circumstance not within the Seller's reasonable control including, without limitation: delays or rejection of components, materials or official documents, or impossibility to get human labour resources or transport. This increasement of the delivery time can happen even after there have been delays, in the same order, for other reasons.
- 3.4. The Seller has the right to delay the delivery or increase the agreed delivery time, in case that in the agreed date, the Buyer has not completed advanced payments or partial payments agreed, as well as by changes on the product characteristics required by the Buyer, after having sent the Purchase Order.

3.5. If delivery cannot be made due to causes like the ones reflected in point 3.1, the Seller can put the goods in a deposit or warehouse after 15 days from the notice of availability. In this case, it will be considered as complied the obligations of the Seller and the property and risk that are indicated in point 3.1 will be transferred to the Buyer. At the same time, the Buyer will be bound to assume the costs of that deposit or warehouse.

3.6. In case of having accepted in written by the Seller any penalty for delays in the delivery of the goods, it cannot be claimed by the Buyer if he cannot demonstrate irrefutably having suffered real prejudice.

4. Payment and property reserve

- 4.1. Payments will be made for the stipulated price and date agreed in written. In case of postponing or delaying payment, the Seller reserves the right to claim for interests for late payment.
- 4.2. If the total price of the supply is not totally paid when delivering the goods, the sale will be understood as made with domain/property reserve and such reserve of the property of the goods will remain until there is no pending amount.
- 4.3 Payment terms to be confirmed by COFACE risk coverage upon receipt of the firm purchase order.

5. Packing, transport and insurance

5.1. Special packaging different from the standard one, transport and insurance are not included in the Seller's price unless otherwise stated in the written offer made by the Seller.

6. Warranty

6.1. It will be applicable what has been defined on the Seller's Product warranty terms in ANNEX II.

7. Technical and commercial documentation

7.1. Any technical document (manuals, datasheets, drawings, ...) or commercial document (offer, conditions, ...) provided by the Seller should be treated by the Buyer as confidential information, being prohibited its reproduction, copy or its submittal to third parties without prior written consent from the Seller.

8. Limitation of liability

8.1. Seller's liabilities including its subcontracted companies, for any contractual claim or extra-contractual claim derived from this contract, will be limited to the Price of the product, service or component that was the origin of the claim.

9. Governing law - Jurisdiction

- 9.1. These Terms and all actions and settlements arising from them, as well as the rights and obligations of the parties, shall be administered and construed in accordance with Spanish laws.
- 9.2. Any dispute between the parties arising out of these Terms shall be resolved without recourse to the courts and according to the Arbitration Rules of the Arbitration Centre of the Chamber of Commerce of Barcelona by one or more arbitrators appointed in accordance with such rules. The place of arbitration shall be Barcelona (Spain) and the language of arbitration shall be English.

10. Validity

10.1. These General Sales Terms are applicable for all those points where there is not a contrary written agreement. Any Buyer's conditions which might be in contradiction with these General Sales Terms, will only be valid, if the Seller has accepted them in written.

Warranty Agreement and Return Conditions (Annex II)

Smilics Technologies®

Smilics Technologies, S.L. © hereinafter SMILICS, commits to take charge of every product supplied with a malfunction caused either by its design or manufacturing, within the terms detailed in the following agreement.

1. Terms and conditions to exercise warranty rights

1.1. SMILICS will take care of the defects observed as soon as possible, using the means considered most appropriate, assuming the costs derived from it.

1.2. Products replaced will become SMILICS' property and must be returned as soon as requested.

1.3 Warranty will be put in practice by SMILICS at its own option, either by providing a replacement product, or by repairing the same. For this purpose, the return of the defective product to SMILICS' facilities, must be completed within the next 30 calendar days from the moment, it is declared defective; SMILICS shall assume the shipping costs for the replacement or those that have been repaired. Failure by the Buyer to comply with the aforementioned 30-day period for returning the allegedly defective product, will allow SMILICS to invoice the replacement product or the cost of the repair.

1.4 Warranty does not cover, under any circumstances, expenses related to searching for the defective element in a facility, nor disassembling and assembling in the site where they were installed. If, due to the nature of the products, the repair has to be carried out at the site, SMILICS will bear the labor costs related to such repair (except for those derive from the waiting time likewise expenses incurred due to products not being available at that moment).

1.5. No return will be accepted, nor will any credit be effective for any material which was not purchased directly by the Buyer from SMILICS. In order to guarantee this point, the Buyer shall always provide detail of the corresponding sales invoice as well as product tracking with the same.

1.6. Repairs are subject to all Buyers with residence within Spain, Portugal, Balearic Islands, Ceuta and Melilla. Any other location outside the Iberian Peninsula will be subject to previous quotation.

1.7. SMILICS will not accept returns of products declared obsoletes, discontinued, used, or installed, nor subjected to disassembly or any other manipulations which prevent it from offering the mentioned warranty for their normal use.

2. Warranty exclusions

2.1. SMILICS's responsibility is limited to repairing or replacing the affected products as long as they were not manipulated by unauthorized personnel. Neither when the use case specifications

for such product, have not been met.

2.2. Products shall be installed and connected correctly according to SMILICS instructions and specifications, as well as all current Electrical and Safety regulations. This warranty does not indemnify the Buyer for complaints regarding property damage due to loss of operations, services nor profits.

2.3. SMILICS' warranty does not cover accessories, parts, pieces, or fittings other than those supplied by SMILICS.

2.4. Warranty is exclusive. No person nor entity is authorized to change, add, or create any warranty or obligation other than that as set forth herein for products manufactured and supplied by SMILICS.

3. Return process

3.1. The Buyer will have to contact SMILICS within a maximum of 30 calendar days from the detection of the defect either by phone +34 93 515 85 48 or by e-mail at support@smilics.com in order to obtain "SMILICS' return authorization number".

3.2. The Buyer will return the defective product to SMILICS.

3.3 SMILICS will return the repaired product to the customer or replace it.

4. Warranty period

4.1. Warranty described herein, will be applicable for a maximum period of 2 years or as dictated by the law on the sale of consumer goods.

4.2. Warranty period will be effective from the purchase invoice date, or the corresponding delivery date, in case it happens later.

4.3. Product reparation will not extend its initial warranty period. However, a 6-month warranty period will apply and replace the initial period for all purposes, starting from the date of repair.

4.4. The right to complain will expire 3 years after product delivery.

4.5. Buyer must inform SMILICS about the lack of conformity within 2 months after becoming aware of it.

5. Smilics Liabilities

5.1. SMILICS will be accountable before the Buyer for any lack of conformity encountered at the time of delivering the goods.

5.2. If the delivered product is found defective, Buyer may choose to repair or replace it, unless one of both options is impossible or disproportionate.

5.3. Repairs or replacements will be free of charge for the Buyer, including either transportation or materials costs, as long as products are under warranty.

6. Buyer liabilities

6.1. In order to benefit from this warranty, Buyer must provide before SMILICS, full detail of the defect attributable to the product, as soon as it is detected. Likewise, all related documents to justify such defect, so that SMILICS can run the corresponding checkings to apply what's committed under these warranty terms.

6.2. Unless previously agreed with SMILICS, Buyer may under no circumstances, carry out repairs on his own or through third parties. This will void any product warranty.

6.3. If the return authorization has not been requested by the Buyer, after a period of 2 months from the date of purchase, it will be understood that Buyer will no longer be able to use the right by withdrawal.

7. Governing law - Jurisdiction

7.1. These Terms as well as all actions and settlements arising from them, including the rights and obligations of the parties, shall be administered, and construed in accordance with Spanish laws.

7.2. Any dispute between the parties arising out of these Terms shall be resolved without recourse to the courts and according to the Arbitration Rules of the Arbitration Center of the Chamber of Commerce of Barcelona, by one or more arbitrators appointed in accordance with such rules. The place of arbitration shall be Barcelona (Spain) and the language of arbitration shall be English.

8. General data protection (GDPR)

8.1. Responsible: SMILICS TECHNOLOGIES, S.L.

8.2. Purpose limitation: to prepare the requested budget.

8.3. Storage limitation: for as long as the stakeholder does not request for its removal.

8.4. Recipients: no data will be transferred to third parties except for legal obligation.

8.5. Rights: you can exercise in writing the rights of access, rectification, deletion, limitation, opposition and portability, accompanied by a copy of an official document that identifies you, addressed to the Controller at the following address: C/Baldrich, 222-226 Terrassa (08223) Barcelona-CAT or by e-mail: rgpd@smilics.com . In case, of disagreement with the treatment, you can also have the right to file a claim with the Spanish Data Protection Agency (www.aepd.es).

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