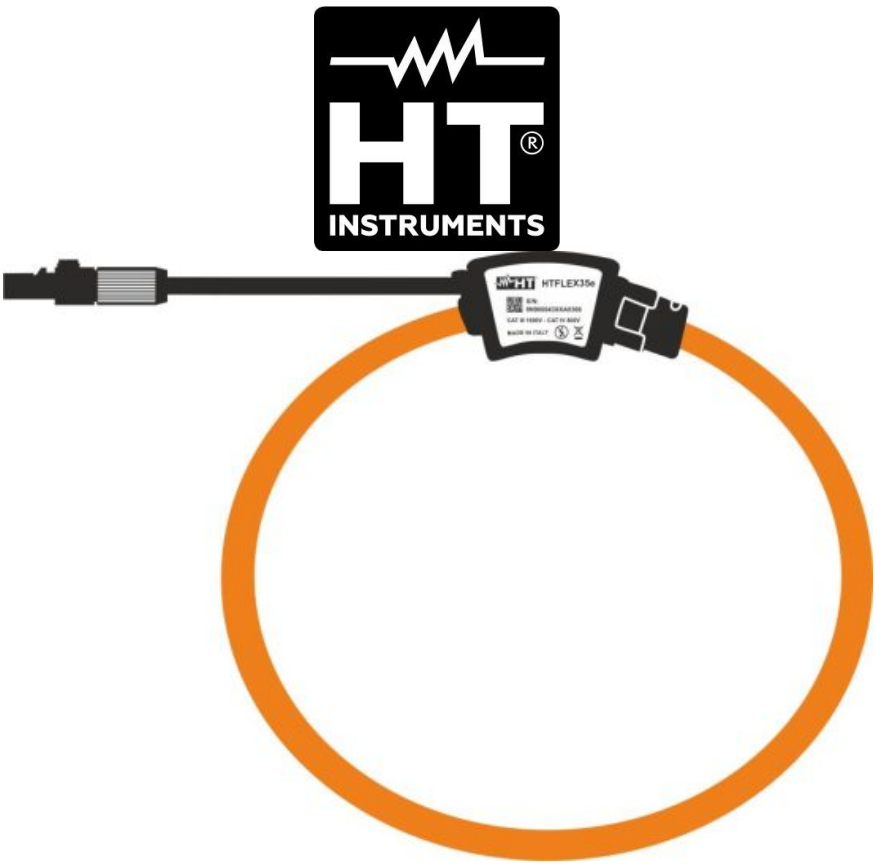

HTFLEX35e

User manual

CE

Release 2.00 – 19/05/2025

Contents [hide]

PRECAUTIONS AND SAFETY MEASURES

⚠ CAUTION

For your own safety as well as that of the apparatus you are recommended to follow the procedures described in this instruction manual and carefully read all the notes preceded by the symbol ⚠. No compliance with the Warnings and/or Instructions may damage the apparatus, its components, or injure the operator.

- Read this user manual and the instrument's one in which the clamp must be connected before starting use.
- Any instruction preceded by the caution symbol must be observed in order to avoid accidents or damages.
- This product must be used only by qualified personnel practicing applicable safety precautions, wear protective clothing and gloves as required.
- Do not perform any measurement under conditions beyond the limits specified in this manual.
- Always connect unit to display device before installing the flexible measuring heads.
- Do not install the clamp around cables where the current flowing is greater than the maximum measurable current (Overrange).

⚠ CAUTION

Hazardous potentials may exist close to the required current measurements.

Use locally approved safety procedures when working near hazardous potentials. It is

recommended not to install the clamp around a live bus that is at a hazardous potential. If installation is not possible when the bus is inactive or power is turned off, always use appropriate gloves and/or equipment approved for working around hazardous potentials when installing the HTFLEX35e in proximity of these potentials.

Both the HTFLEX35e transducer and interconnection cables use double insulation to protect the operator from possible hazardous potentials of the bus. The current probes are rated for measurement CAT III, pollution degree 2. The maximum voltage to earth rating for the transducer and cable is 1000VAC.

The following symbols are used in this manual and on the accessory:

	CAUTION: Refer to the instruction manual. Incorrect use may damage the a pparatus or its components.
	Do not apply around or remove from HAZARDOUS LIVE conductors.
	Double insulated meter.

1.1. PRELIMINARY INSTRUCTIONS

Carefully read the following recommendations and instructions before using HTFLEX35e flexible clamp

⚠ CAUTION

- Always de-energize circuit under test before installing flexible measuring heads. Always inspect the connecting cable and the flexible measuring heads for damage before using this product
- Do not use product if damaged
- Do not use the clamp on non-insulated conductors whose potential to earth exceeds 1000VAC
- Do not use the clamp outdoors
- Do not use the clamp at altitudes exceeding 2000 meters
- Do not expose the clamp to water splashes
- Avoid shocks and torsion force to the clamp as this can affect the measurement

accuracy

- Do not paint the product
- Do not apply metal labels or any other object over the product as that could compromise insulation
- Keep the clamp gap perfectly clean
- Should the clamp be unintentionally used without load (not connected to the measuring instrument), take the clamp off the cable, wait 1 minute before connecting the clamp to the measuring instrument, then clamp the cable again

ACCESSORY DESCRIPTION

2.1. INTRODUCTION

HTFLEX33e is an innovative current transducer based on the operating principle of the Rogowski coil combining friendly use with measurement accuracy. The HTFLEX33e current probe is similar to a CT or current transformer. The output is an AC voltage which is, after an integrator circuit, proportional to the AC current value. The output signal is insulated form the hazardous conductor potentials and is an exact replica of the current waveform in the conductor. The output signal is available via a 3 pin connector (see Fig. 1 or output signal pin assignment).

	Pin 1	+ Output
	Pin 2	– Output
	Pin 2	Shield

Fig. 1: Internal connectors scheme

2.2. FEATURES

The lightweight and flexible HTFLEX35e is a current probe that may be wrapped around most conductors. The flexible head has a preset bend that allows the transducer to be more easily operated around the conductor (see Fig. 2). Its application versatility and insulation rating clearly distinguishes the HTFLEX35e transducer from other current measuring methods. It is made of non-ferrous materials, minimizing any circuit loading due to magnetic influence.

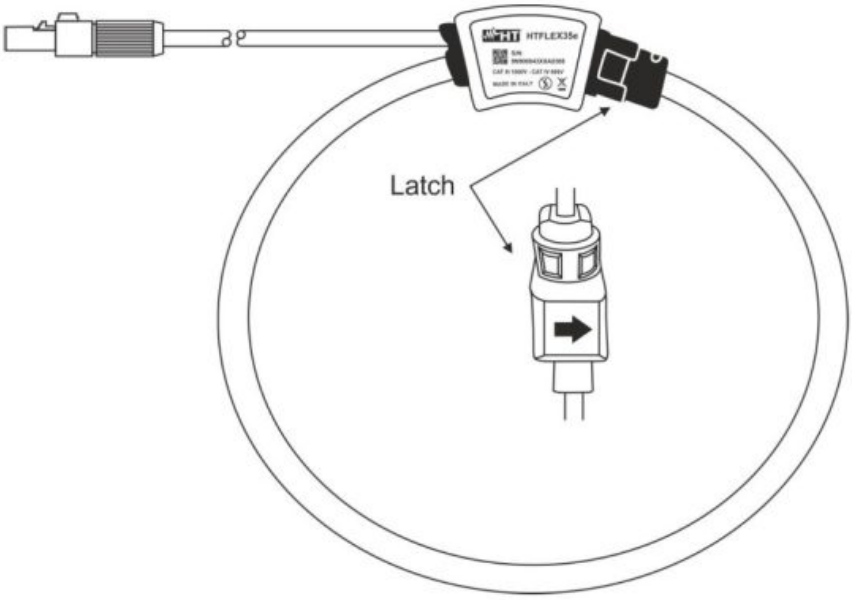

Fig. 2: HTFLEX35e transducer description

The frequency response of the HTFLEX35e current probe is quite wide compared to conventional CTs. This allows the user to monitor a much wider range of line harmonic components than conventional CTs allow. The transducer was designed to be very flexible, with larger opening and smaller cross section compared to many conventional CTs. This allows measurements in tight places as never before possible.

The current probe was designed to allow the operator to connect this device around a conductor without disconnecting it. Even though the current probe output is AC, there are instances where the user wishes to orient the transducer to get proper polarity at the output terminals (e.g. active power measurements). This is done by installing the transducer around the conductor with the molded-in arrow on the latch (see Fig. 2) pointing to the direction of conventional current flow. Conventional current flow is defined as current flowing from the positive to the negative potential. When a three phase plant is under test, the correspondence must be respected between volt probe of measuring instrument connected and clamp measuring the same phase.

ACCESSORY INSTALLATION

⚠ CAUTION

- Hazardous potentials may exist in proximity of the desired current measurements. Use locally approved safety procedures when working close to hazardous potentials
- It is recommended not to install the clamp around a live bus that is at a hazardous potential. If installation is not possible when the bus is inactive or power is turned off,

always use appropriate gloves and/or equipment approved for working close to hazardous potentials when installing the HTFLEX35e in proximity of these potentials

- It should also be noted that the current probes would produce twice the output voltage if you wrap the transducers around the conductors twice
- Make sure the clamp is correctly installed. An incorrect locking of the clamp can affect the accuracy of measurement and this may be influenced by the presence of external wires or other sources of electromagnetic fields
- The clamp must not wrap the wire tight. The inner diameter of the clamp must always exceed that of the conductor

To perform the installation of the clamp follow the herewith steps:

1. Wrap the coil around the conductor, joining the two ends of the head by respecting the arrow on the rear part of the closing device (see Fig. 2) which indicates the direction of the current that by convention is from the generator to the load
2. Fix the closure by rotating the ring clockwise as shown below

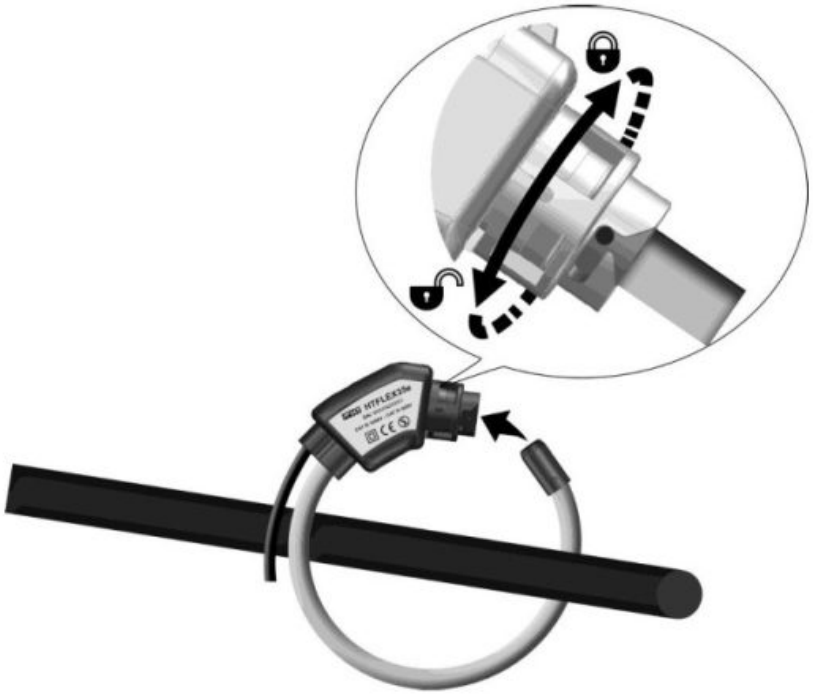

Fig. 3: Connection of HTFLEX35e clamp on a conductor

3. Turn the ring counterclockwise and remove the two ends of the head to open the clamp

MAINTENANCE

⚠ **CAUTION**

- Make sure the current probe as well as the output cable are clean before installing it around the conductor. If no, the contaminants on them may provide a conductive path for a high-voltage breakdown
- Check the transducer and output cables for cuts and abrasions. The transducer should not be used if damaged
- Preventive maintenance primarily consists in cleaning the transducers and cable to prevent surface contamination

4.1. CLEANING

⚠ CAUTION

- Use a mild detergent and water to clean the transducers and cables.
  Remove the detergent with clean water, then wipe dry with a clean cloth
- The use of solvents as cleaners are not recommended unless thoroughly tested and found harmless to all surfaces and parts. Do not drop the HTFLEX35e transducers or the electronics package into water or other fluids

4.2. END OF LIFE

CAUTION: this symbol indicates that the accessories and its parts shall be subject to a separate collection and correct disposal.

TECHNICAL SPECIFICATIONS

5.1. REFERENCE GUIDELINES

Safety:	IEC/EN61010-1,IEC/EN61010-2-032
Insulation:	double insulation
Pollution degree:	2
Measurement category:	CAT III 1000V, CAT IV 600VAC

5.2. TECHNICAL FEATURES

Current ranges:	max 3000 A ACrms
Output signal (@ 1000ARMS, 50Hz):	85mV AC
Accuracy (@ +25ºC, 50Hz):	class 1-A1 compliance with IEC 61869-10
Output impedance (@ 50Hz@25°C):	238 Ω ± 15%
Minimum load impedance:	100k Ω
Frequency range (-3dB):	10Hz ÷ 8kHz
Working voltage:	1000VACrms

5.3. MECHANICAL FEATURES

Coil length:	920mm (36in)
Coil diameter:	8.3 ± 0.2mm
Coil material:	Thermoplastic polyurethane UL94-V0
Type of latch:	bayonet
Output cable length:	2m (7ft)
Weight:	approx. 215g ; (8ounces)
Output connector:	HT Custom, 3 poles
Maximum conductor diameter:	275mm (11in)
Mechanical protection:	IP65

5.4. ENVIRONMENTAL CONDITIONS

Operating temperature:	–20°C ÷ 80°C (–4°F ÷ 176°F)
Storage temperature:	–40°C ÷ 90°C (–40°F ÷ 194°F)
Operating and storage humidity:	15%RH ÷ 85% RH (without condensation)

This product complies with the prescriptions of the European directive on low voltage 2014/35/EU (LVD). This instrument complies with the requirements of 2011/65/EU +2015/863/EU (RoHS) directive and 2012/19/EU (WEEE) directive

SERVICE

6.1. WARRANTY CONDITIONS

This instrument is guaranteed against any defect in material and manufacturing in compliance with the general sales terms and conditions. Throughout the period of guarantee all defective parts may be replaced and the manufacturer reserves the right to repair or replace the product. If the instrument is to be returned to the after-sales service or to a dealer transportation costs are on the customer's behalf. Shipment shall be however agreed upon. A report must always be enclosed to a rejected product stating the reasons for its return. To ship the instrument use only the original packaging material. Any damage
that may be due to no-original packing shall be charged to the customer. The manufacturer declines any responsibility for damages caused to persons and/or objects.

Warranty is not applied in the following cases:

- Any repair that might be necessary as a consequence of a misuse of the instrument or of its use with no compatible devices
- Any repair that might be necessary as a consequence of improper packaging
- Any repair that might be necessary as a consequence of service actions carried out by unauthorized personnel
- Any modification of the instrument carried out without the authorization of the manufacturer
- Use not provided for in the instrument's specifications or in the instruction manual.

Our products are patented and our trademarks are registered. The manufacturer reserves the right to make changes in the specifications and prices if this is due to improvements in technology

6.2. SERVICE

If the instrument does not operate properly, before contacting the after-sales service check cables as well as test leads and replace them if necessary. Should the instrument still operate improperly check that the operation procedure is correct and conforms to the instructions given in this manual. If the instrument is to be returned to the after-sales

service or to a dealer transportation costs are on the customer's behalf. Shipment shall be however agreed upon. A report must always be enclosed to a rejected product stating the reasons for its return. To ship the instrument use only the original packaging material; any damage that may be due to no-original packing shall be charged to the customer.

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WHERE WE ARE

https://l.ead.me/bcsxjF

Documents / Resources

	HT INSTRUMENTS HTFLEX35e Flexible Clamp Meter 3000A AC With Wide Diameter [pdf] User Manual HTFL EX35e, HTFLEX35e, HTFLEX35e Flexible Clamp Meter 3000A AC With Wide Diameter, HTFLEX35e, Flexible Clamp Meter 3000A AC With Wide Diameter, Clamp Meter 3000A AC With Wide Diameter, Meter 3000 A AC With Wide Diameter, 3000A AC With Wide Diameter, With Wide Dia meter, Wide Diameter, Diameter

References

- User Manual

HT
INSTRUMENTS
3000A AC With Wide Diameter, Clamp Meter 3000A AC With Wide Diameter, Diameter, Flexible Clamp Meter 3000A AC With Wide Diameter, HT INSTRUMENTS, HTFL EX35e, HTFLEX35e, HTFLEX35e Flexible Clamp Meter 3000A AC With Wide Diameter, Meter 3000A AC With Wide Diameter, Wide Diameter, With Wide Diameter

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