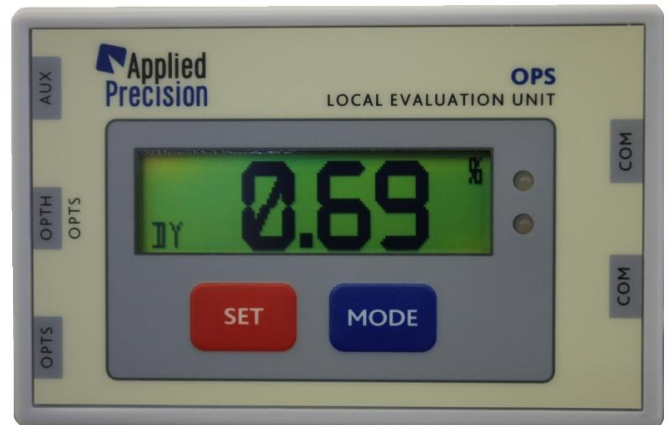# Local Evaluation Unit OPS

Microcomputer unit for evaluation of error of the tested electricity meter

⇨ Highlights

- Remotely configurable either for reflexive mark or SO output of electromechanical or LED of electronic meters.
- The reflex scanner work with coded signal to suppress false light signals.
- The auto-calibration capability significantly increases the work comfort and productivity of the test system.
- The built-in remotely controlled dividers enable to evaluate high constant meters with light impulses up to 2.5 kHz.
- Variable pre-divider enables direct measurement of standard meters with impulse output up to 500 kHz.
- The built-in manual switch enables effective local control of individual unit and data input for tests with operator interactions.

⇨ Description

The **Local Evaluation Unit OPS** is a local microcomputer designed for comparison of reference impulses coming from the standard meter with optical impulses or reflexes from the black mark on the disk of the meter. Value of the measured error is displayed by the unit. The unit permits measurement of electromechanical as well as electronic meters. The built-in configuration possibilities enable to match variety of meter types and measurement requirements. Auto-calibration facility of the optical part of unit increases the work productivity eliminating necessity of manual sensitivity adjustment.

OPS 400 in Meter Handling System

OPS 400 with EDEX on Meter Handling System

Local Evaluation Unit OPS

Microcomputer unit for evaluation of error of the tested electricity meter

⇨ Available Models

Model	Description
OPS 410	Evaluation unit for testing dynamic & static meters.
OPS 400	= OPS 410 + optical communication head OPTH 1000 for serial communication with electronic meters.

⇨ Technical Specification

General Parameters	
Max. Resolution	0.002 %
Displayed Error Resolution	X.X%, X,XX% or X,XXX% (variable and selectable by software)
Interfaces	RS-422
Supply	9 V
Consumption	approx. 150 mA

Maximal Frequencies	
Impulses from the standard	500 kHz
Optical Input	1 kHz
S0 Input	1 kHz
Impulse Input	1 MHz (TTL, CMOS)

⇨ Options / Accessories

● … standard / ❍ … optional

| Code	Description	OPS 410	OPS 400
OPS 400-Body	Local Evaluation Unit body with display and keypad	●	●
OPTS 2100	Enhanced Optical Sensor for static and dynamic meters	●	●
OPTI 1000	Impulse (S0) cable for OPS unit	●	●
OPTH 1000	Optical Communication Head (IR and IrDA) with RJ connector	❍	●
EDEX	Data Exchange HW and SW system including connection infrastructure	❍	❍
OPPS 1000	Positioning system for Optical Sensor	❍	❍
OPPS 2000	Positioning system for Optical Communication Head	❍	❍

OPTS 2100

OPTI 1000
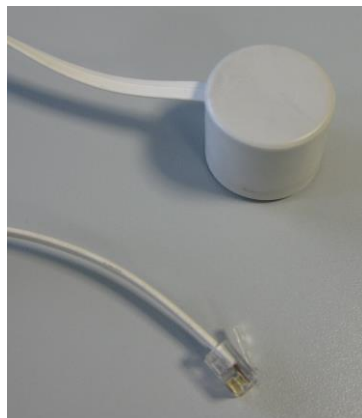
OPTH 1000
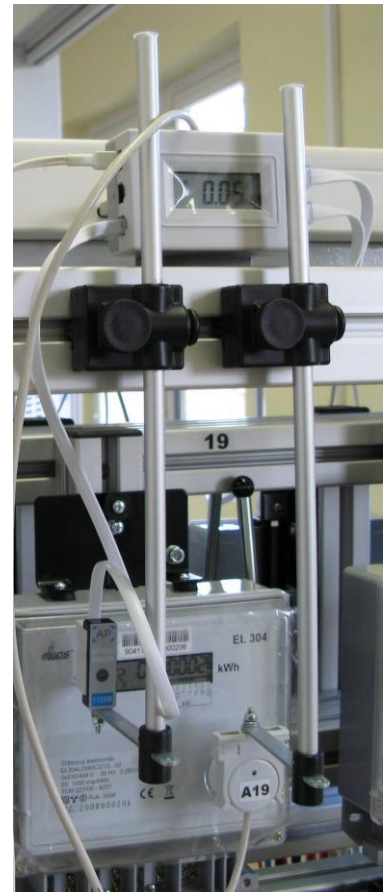
OPPS 1000 (left) and OPPS 2000 (right)

⇨ EDEX (ELMA Data Exchange) – Simultaneous meter data exchange with meters

EDEX System provides enhancement of simultaneous data exchange (communication) with meters via optical interface or wired bus.

⇨ EDEX components
- communication infrastructure/interface for simultaneous meter data exchange with meters
  - set of communication converters Ethernet to serial communication RS-422
  - mechanical bar with connectors for connecting of optical communication head (OPTH 1000) for each position
- software support and compatibility with Software Package ELMA (SPE).
  - on the side of control computer system behaves as set of serial communication ports, one serial port for each position freely accessible
  - simultaneous meter data exchange according to EN 62056-21

⇨ EDEX available configurations

Code	Description
EDEX 5S	Simultaneous meter data exchange Interface for 5 meters / single side
EDEX 8S	Simultaneous meter data exchange Interface for 8 meters / single side
EDEX 10S	Simultaneous meter data exchange Interface for 10 meters / single side
EDEX 10D	Simultaneous meter data exchange Interface for 10 meters / double side
EDEX 16D	Simultaneous meter data exchange Interface for 16 meters / double side
EDEX 20D	Simultaneous meter data exchange Interface for 20 meters / double side

Any combination of above mentioned configurations can be used on customer system.
Customer specific configuration is available on request.