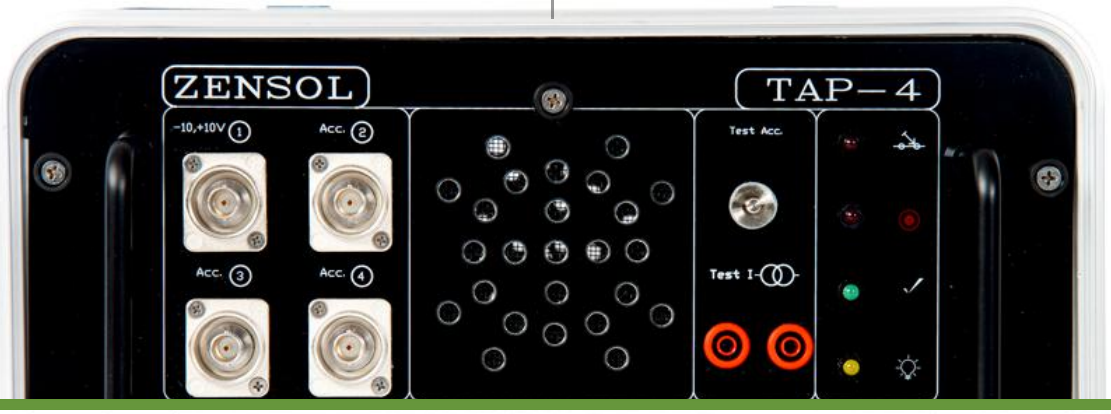
TAP-4

OLTC ANALYZER



What is the TAP-4

The TAP-4 is the first portable instrument using the vibroacoutic method to perform tests on On Line Tap Changers (OLTC) for transformers. Just like a stethoscope, the unit listens to the heartbeat of your OLTC without opening it. It can create a complete overview of the internal state and can detect a wide variety of mechanical and electrical malfunctions.

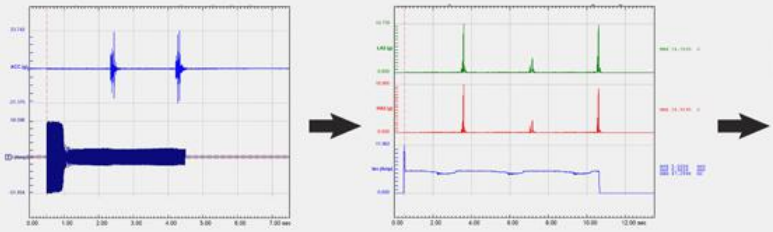
The TAP-4 is used with a simple current transducer and up to 3 accelerometers, allowing simple and precise readings of the main components of an OLTC, the motor and mechanism. It is a multipurpose measuremnt apparatus, able to test all OLTC types (ABB, Federal Pioneer, Ferranti, MR, etc.) Its portability and resistance to impacts and extreme climate conditons (-40˚C to +70˚C) make it a precious and highly appreciated instrument.

Simple to use, the OpenZen-TAP software drives the instrument and records and analyzes OLTC events.

Key points

- Very precise measurements (100 kHz) allow the very fast sampling time (10 µs) required for fine analysis of the vibrations.
- Adaptable to all OLTC types.
- Tests may be conducted either on line or off line.
- Non-invasive tests.

Data processing makes analysis easier



Nom de prise	Durée de l'opération	COURANT				ACCELEROMETRE1		
		Moyenne du courant	Inrush	Delta du courant	Temps de fin d'opération	MAX HF	MAX BF	RATIO HF/BF
	Temps en ms	Courant en ampères			Temps en ms	Accélération en G		
Médiane:	1850.00	2.052795	10.762663	0.158982	35.9000245	20.698068	13.971399	1.543429
1 --> 2	2525.00	2.042415	10.808553	0.146744	11.100098	22.262745	15.008675	1.483325
2 --> 3	1885.00	2.05768	10.836086	0.177338	23.199951	24.271753	15.155006	1.601567
3 --> 4	1820.00	2.067137	10.750425	0.158982	43.800049	25.261013	14.873013	1.698446
4 --> 5	2595.00	2.060483	10.842205	0.149804	35.999756	23.154453	14.083434	1.644091
5 --> 6	1875.00	2.052825	10.774899	0.189575	39.5	22.195677	14.24196	1.558471
6 --> 7	1870.00	2.05981	10.72901	0.158982	35.800293	19.701948	13.923384	1.415026
7 --> 8	1880.00	2.054258	10.750425	0.162041	45.600098	16.008606	9.856592	1.624152
8 --> 9	6480.00	2.052765	10.777959	0.192535	51.799805	27.067291	17.709707	1.528387
9 --> 10	8765.00	2.050617	10.698417	0.183456	18.799805	22.395359	15.696127	1.426808
10 --> 11	2625.00	2.055974	10.704535	0.140626	34.200195	24.466862	17.096945	1.431066

There are 2 tools to help analyze data: converting raw data into HQ envelopes and export to Zensol format.

Quick and Easy Connection

- The accelerometer is placed as close as possible to the taps.
- The AC clamp is placed at the motor outlet.
- The test plan generator is easy to follow for performing tests.
- A diagnosis can be made in 15 minutes for an online test, and 1 hour for an off-line test.

TAP-4
Technical Specifications

www.zensol.com www.zensol.net

MEASUREMENT SPECIFICATIONS

Sampling frequency: 100 kHz
Sampling time: 10 µs
Recording time: unlimited
Precision: +/- 1 mV
Signal to noise ratio: better than 80 dB

Instant data transfer to PC via USB link.

Self-diagnostic function for AC clamp.
Self-diagnostic function for accelerometers.

The OpenZen software gives complete control over the system.

3 ACCELEROMETER INPUTS

Accelerometer type: ICP
Sensitivity: 100 mV/g
Range: +/- 50g
Frequency range: 1 to 20000 Hz
Drive current; 4 to 20 mA

1 CURRENT INPUT

Resolution: 16 bits conversion
Voltage range: +/- 10V
Frequency range; DC to 200 kHz
Signal to noise ratio: better than 80 dB

GENERAL

Dimensions: 12.9 x 13.7 x 7 inches (33 x 35 x 18 cm)
Weight: 15.43 lbs (7 kg)
Operating temperature: 0 to 50°C (32°F to 122°F)
Storage temperature: -40°C to 70°C (-40°F to 176°F)
Power supply: 100-240 VAC 50/60 Hz

STRONG

Able to sustain shocks and falls without damage
Case made of reinforced polyethylene with molded reinforcements for maximum protection
No fragile components such as integrated printers, screens or keyboards.

SYSTEM INCLUDES

OpenZen software with upgrades
Manuals
USB cable
Ground cable
Power cable

OPTIONAL ACCESSOIRIES

Accelerometer and AC or AC/DC current clamp
Accelerometer cable (10-32 to BNC)
BNC to BNC cables (10' to 50')
BNC-BNC extensions
Carrying cases for accessories
Accelerometer mounting bases
Glue