

ADT MINI



ON-POWER DEHYDRATION OF TRANSFORMERS

FOR VERY HEAVY WORKING CONDITIONS
ON POWER RECOVERY OF DIELECTRIC STRENGTH
LIFE EXTENSION OF TRANSFORMER
REMOTE PROCESS CONTROL AND MONITORING
**EASY CHECK OF FUNCTION VIA YOUR HANDY
ON-LINE DIELECTRIC SCREENING
EASY VERIFICATION BY LAB RESULTS**
PLUG & PLAY INSTALLATION
MINIMUM SUPERVISION AND/OR MAINTENANCE

Copyright: Ing. ALTMANN 2021
C:\MANUAL\ADT MINI \ VERSION 2021

Fa. Ing. Altmann ARS Altmann Group, Machova 142, 344 01 Domazlice, Czech Republic, European Union
Tel:+420-379 738 778, Fax:+420-379 738 775, Cell phone:+420-602 362 157 email:altmann@iol.cz, www.ars-altmann.com;

Drying of transformers

The presence of moisture in the transformer, to whatever degree, harms the insulation which will be permanently damaged. Drying methods can substantially reduce that deterioration.

The **ADT Mini** is intended for mobile and preventative use on transformers with more than 2 - 2.5% water content in the cellulose and with particle contamination.

The **quick restoration of safe dielectric conditions, life-extending features and remote control** also forms part of this concept. The system is especially suitable for drying of transformers situated in narrow, hardly accessible spaces.

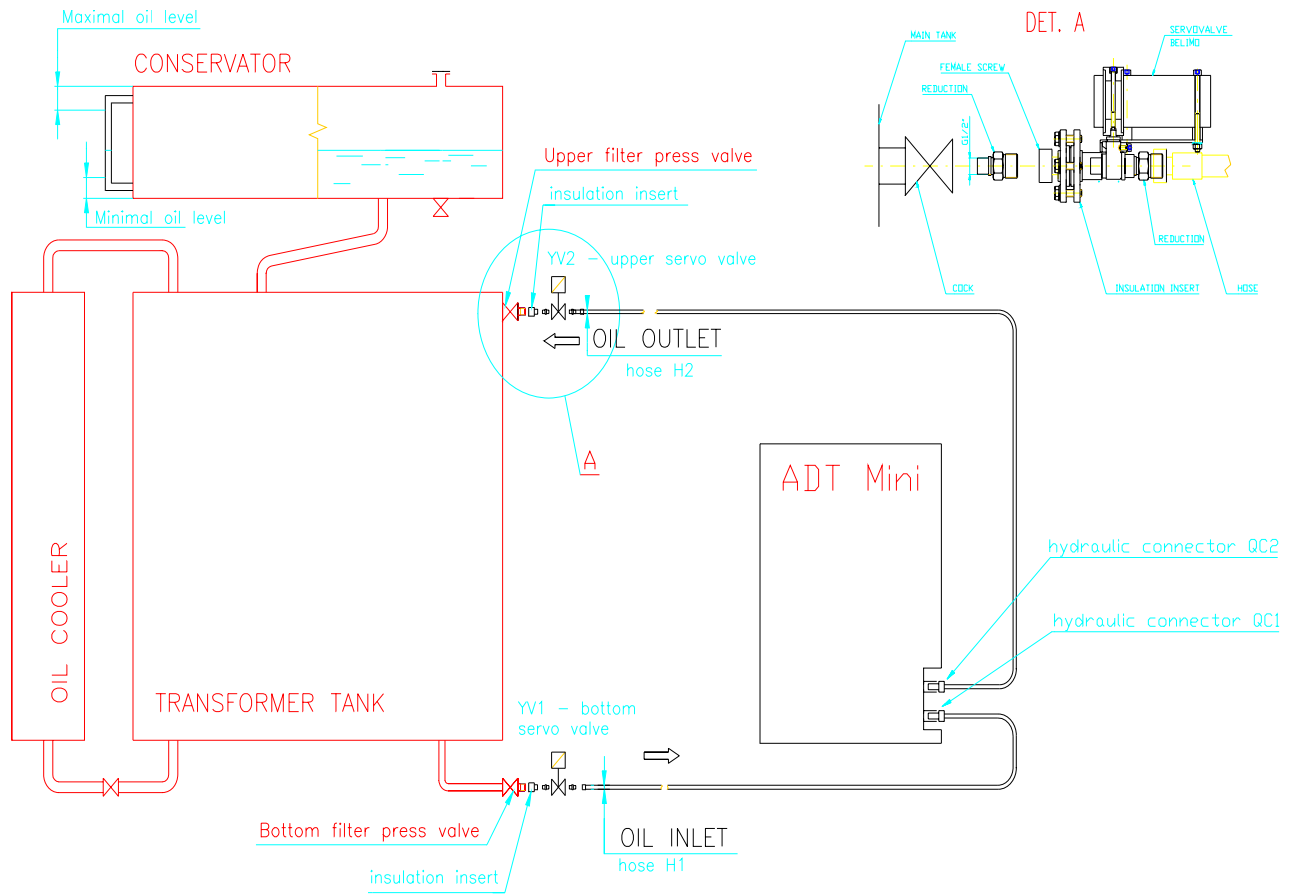
Main features

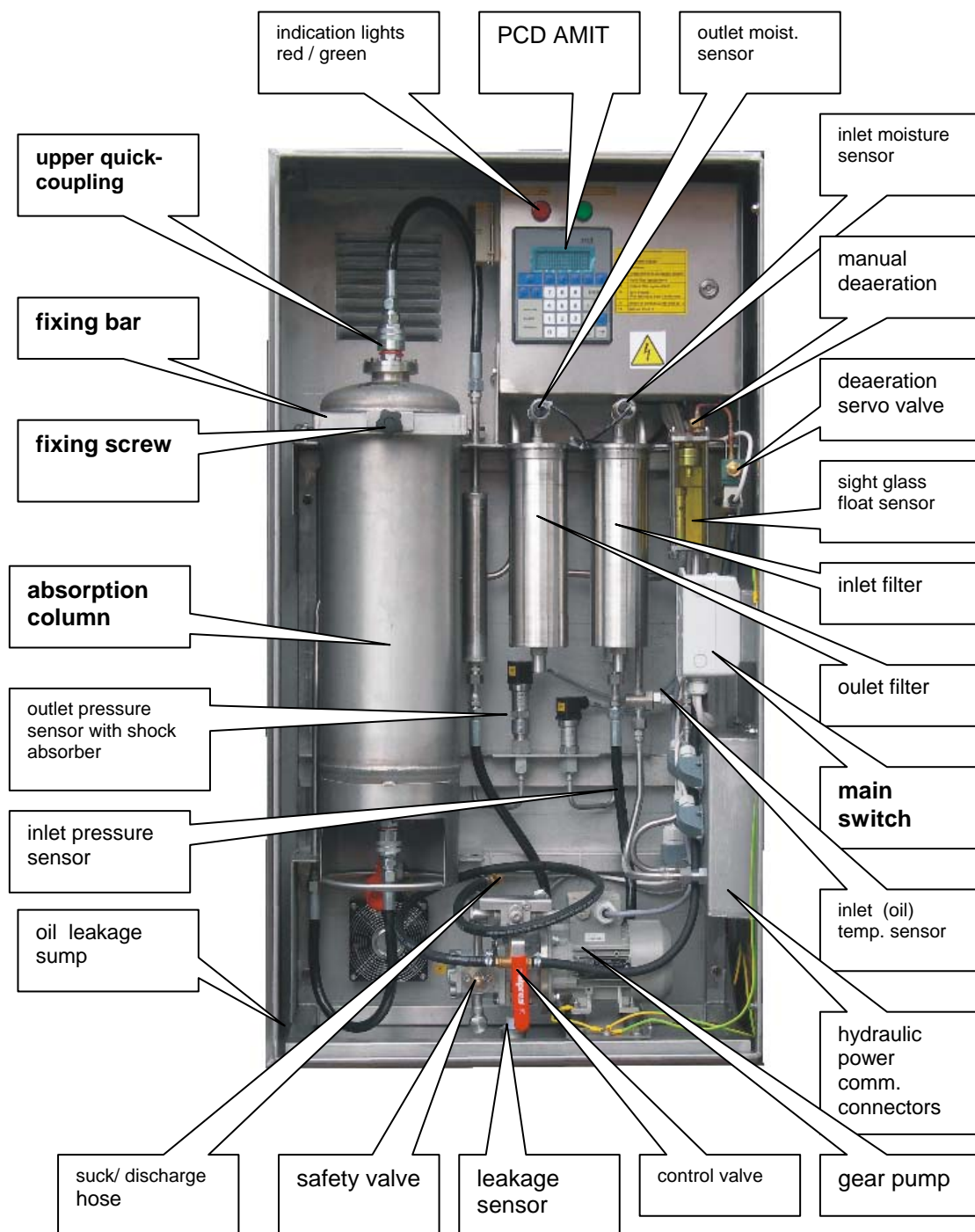
- ❑ **Easy and safe installation and commissioning:** all procedures are computer controlled to avoid any human lapses and errors
- ❑ **No disconnection of the transformer under treatment, normally not even during installation of dehydrator (Plug & Play design)**
- ❑ **No air venting after installation:** hydraulical interconnections to a transformer oil filling are set under vacuum and subsequently rinsed by oil
- ❑ **Moisture and particles content can be reduced to the level of a new transformer**
- ❑ **Quick restoration of dielectric strength of oil**
- ❑ **No impact on the insulating oil properties and DGA**
- ❑ **Direct check of dehydration efficiency based on amount of removed water: calculated as the product of difference input-output water content in oil (2 x humidity sensors) x precise volumetric reading of oil throughflow**
- ❑ **Easy and safely replacement of adsorbent cartridges and filters without a potential oil spill: the oil is removed before replacement and forced back to the oil filling of transformer**
- ❑ **Easy control of function by SMS via your handy**
- ❑ **Remote monitoring & control of drying process: all relevant data are recorded and displayed (printed) as easy comprehensive diagrams**
- ❑ **Calculation of actual value of dielectric strength (Ud-value) of oil during the whole dehydration**
- ❑ **Easy verification of simulated Ud-values by lab reading(s) by means of Verification diagram**
- ❑ **DOG (Dynamic Overdrying Guard) procedure inhibits the overdrying of hard insulants**

Specification

Power supply voltage	1 phase 230 VAC (or on demand)
Power supply frequency	50 (60) Hz
Power consumption:	200 W
Oil throughput	7.5 m ³ per day maximum
Outlet water content	5 ppm nominal , 1 ppm minimum
Outlet filtering grade	1 µm
Absorption capacity	2.6 kg of water
Installation options	mobile unit / permanently installed
Dry weight (without oil)	183 kg
Operating weight (oil filled)	200 kg
Dimensions	700x600x1240 (mm)
Hydraulical connection	2 x flexible 1/2" hose
Communication:	GSM modem, LAN link, Internet, SMS

INSTALLATION





Internal layout of main components in ADTmini (open front door)