



Turb[®] 430

PORTABLE TURBIMETER WITH LAB PRECISION



a xylem brand

For any application:

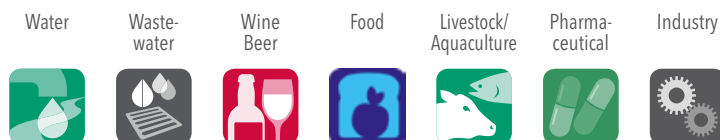
Whether it's about pure water or reliable product quality, turbidity is often an ideal parameter to use in many applications – and maybe even in fields you have not thought of before:

- From water to wine,
- From juice quality to food cleaning processes,
- From fuel to pharmaceutical,
- From industry to aquaculture.

To fulfill regulations in drinking water surveillance, two instrument models are available:

Turb® 430 IR according to DIN EN ISO 7027-1

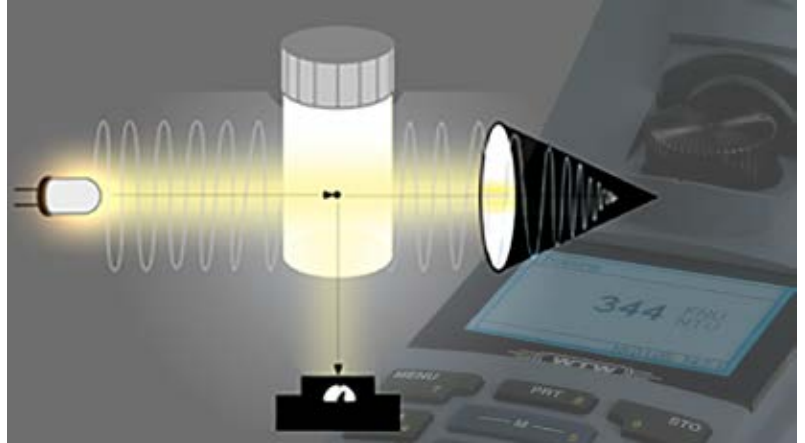
Turb® 430 T according to US EPA 180.1



Results you can trust

We make possible what the scattering properties of water allow: A highly precise turbidity measurement between 0-1100 FNU/NTU with automatic switch of measurement range providing the most technically accurate result possible!

The Turb®430 Series turbidimeters assist you with sophisticated optics, eliminating uncertainty by means of a light trap and our IRPC procedure (see below for definition).



Optics with „light trap“: optimized for the elimination of ambient and transmitted light

A “stable” value must be a correct value

Particles in a solution are in motion and thus do not stop for the measurement. With the **I**ntelligent **R**eproducibility and **P**lausibility **C**heck (**IRPC**) procedure, quick multiple measurements with subsequent evaluation and elimination of outliers are performed.

Turbidity	
[IRPC]	
0.10	FNU NTU
[3-P StdCAL]	
15.09.23 15:12	

Measurement with automatic range adaption

The result is “frozen” and shown as a stable reading. This way, IRPC secures correct and repeatable results.

Secure and fast

Cuvettes with optimal measuring path and long life span due to own indexing



Calibration with AMCO Clear®

AMCO Clear® Standards

Turb® 430 Series is supported by calibration with the proven AMCO Clear® Standards and the measurement at a scratch-free light transmission through the vial. A calibration kit for 3-point calibration is supplied with the meter. The following menu-guided calibration functions are available:

- Default 3-point calibration
- Flexible calibration with 2-5 user-defined calibration points
- PharmaCAL
- QuickCAL: 1-point calibration
- Setting of calibration interval
- Storage of calibration protocol

Advantages of AMCO Clear® Standards

AMCO Clear® Standards are made from polymer microspheres and provide a superior level of accuracy and precision:

- Long-term stability without drift (unlike formazine)
- Accurate to 1% lot-to-lot
- Optimized for the respective optics
- Traceable to formazine
- Environmentally friendly and non-toxic
- Easy-to-use

A successful calibration with AMCO Clear® standards is essential to obtain precise and reproducible results on the Turb® 430.



AMCO Clear®
Kal.Kit 430/750 IR



Small bench space requirement Turb® 430 with LabStation

- Ideal for laboratories
- Reliable optics offering laboratory precision
- AQA-supported calibration with date & calibration protocol
- Small dimensions

The LabStation is available as accessory incl. software LSData and battery pack.



Smart and versatile

- Energy-efficient
- Robust and water proof
- Intuitive handling
- Direct access to essential functions
- Storage with sample ID
- Calibration interval and calibration protocol
- Data filter for data output
- GLP compliant data management

Turbidity	
[IRPC]	
157.0	FNU NTU
[3-P StdCAL]	
15.09.23 15:12	

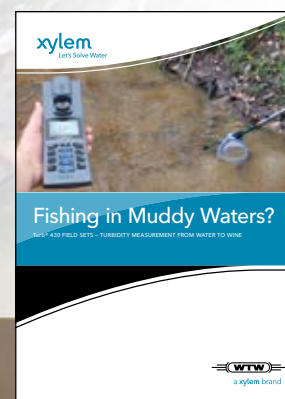
Store (996 free)	
15.09.2023 11:24:16	16.80 FNU/NTU
assign ID:	1
Store (ID: 1)	

Important information at a glance

Saving with sample ID



All functions are directly accessible



Available as field set for safe working on site

2 Year Warranty

IP 67



Data management with Turb® Data

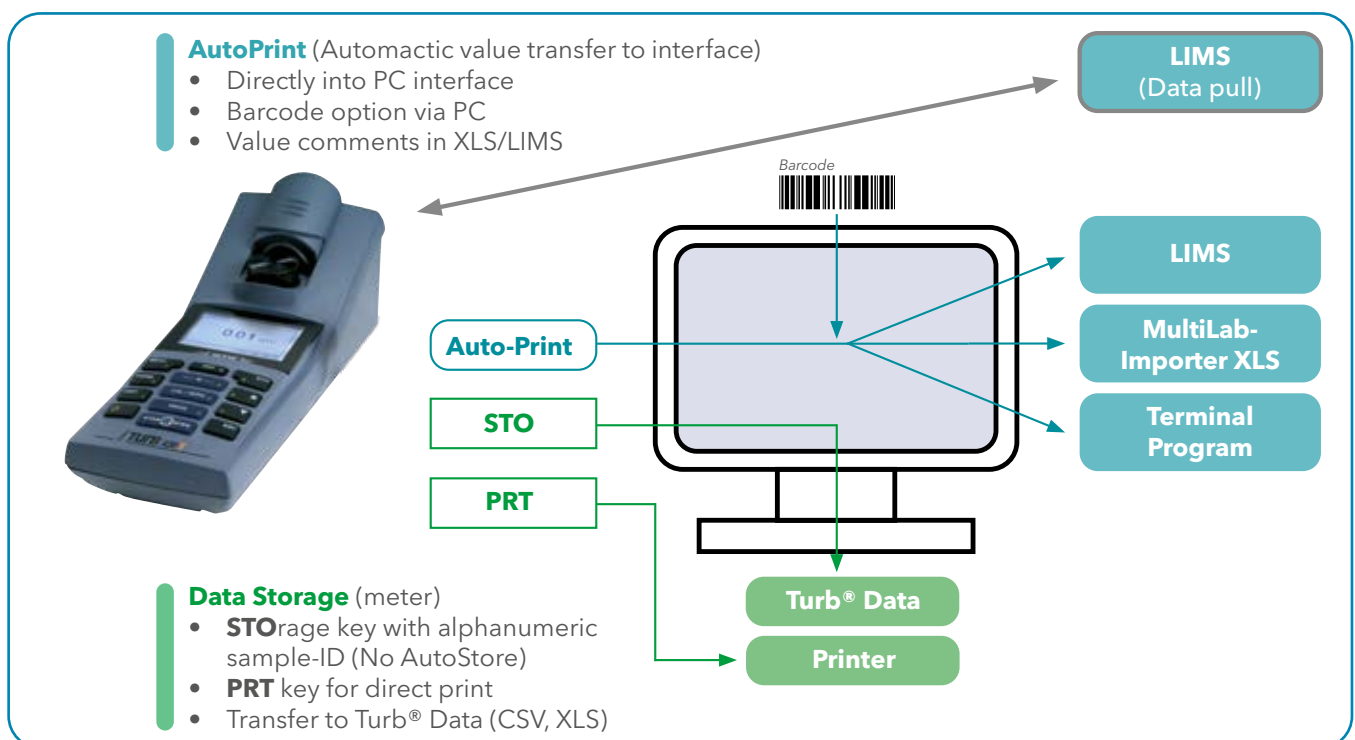
Measured values are stored as data sets with the associated calibration protocol, and sample ID.

The data output can be done either via the free Multilab Importer into Excel, printer or hyperterminal by pressing the print key or, more easily, with the supplied PC software Turb® Data:

- GLP compliant data transfer
- Instrument recognition via serial number
- User name input
- Output in CSV format
- Data export to Excel
- Data import into LIMS



Data Output for any need



Technical Data

Instrument model	Turb®430 IR	Turb® 430 T
Measuring standards	DIN EN ISO 7027-1	US EPA 180.1
Light source	Infrared LED	White light Tungsten filament lamp
Measuring mode	Nephelometric (90° scattered light)	
Measuring range	0-1100 FNU/NTU	0-1100 NTU
Units	FNU/NTU	NTU
Resolution	0.01 the range 0.02-9.99 0.1 in the range 10-99.99 1 in the range 100-1100	
Accuracy	0.01 FNU/NTU or ± 2% of reading	0.01 NTU or ± 2% of reading,
Repeatability	< 0.5% of reading	< 1% of reading
Reading mode	Measurement with Intelligent Reproducibility and Plausibility Check (IRPC) procedure, rapid settlement samples supported by fast response time and IRPC.	
Response time	4 sec	7 sec
Calibration - options	Default 3 points standard calibration, selectable 2-5 points calibration (FreeCal), 1P -QUICKCal	
Calibration protocol and interval setting	yes/yes	
AQS-Support	Calibration protocol, selectable calibration interval	
Data storage	2000 data sets with cal protocol,	
Sample Identification	3 digit ID number via keypad, optional ID via PC with MultiLab Importer and barcode scanner	
Firmware update	via RS 232 optional with USB adapter	
Interface	via RS 232 optional with USB adapter	
Storage condition instrument	-25... +65 °C (13...149°F)	
Operating temperature range	+0... +50 °C (32...122°F)	
Data management	GLP-compliant PC software LSdata, MultiLab Importer for direct data output, direct LIMS connection available for programmers on request	
Dimensions (H x W x D)	ca. 236 x 82 x 170 mm (9.29 x 3.23 x 6.69 inches)	
Weight	0.6 kg	
Calibration standards	Cal.Kit for 3-P standard calibration: long-term stable polymer AMCO® Clear standards, 0.02 - 10.0 -1000 FNU/NTU	
Vials, sample volume	28 mm diameter vials, min. volume 15 ml, borosilicate glass, phenolic resin cap, PTFE-coated rubber seal. No silicon oil required to cover scratches for measurement procedure!	
Sample temperature	< 70°C (<158°F)	
Power supply	Batteries 4 x 1,5 V, Typ AA, Battery pack (optional), Wide range power supply with plugs for Euro, US, UK and Australia (optional)	
Certificates	CE	

Ordering Information

Model	Description	Order No.
Turb 430 IR	Portable turbidimeter for nephelometric measurement (90°) acc. DIN EN ISO 7027-1, incl. calibration standard kit (0.02 - 10 - 1000 NTU/FNU) and 5 empty cuvettes	600320
Turb 430 T	Portable turbidimeter (90°, tungsten) acc. US EPA 180.1 incl. calibration standard kit (0,02-10-1000 NTU) and 5 empty cuvettes	600325
Turb 430 IR / SET	Portable turbidimeter (90°) with infrared light source according to DIN EN ISO 7027-1 in field case with table insert, calibration set, empty cuvettes, cleaning cloth, screwdriver, PC software LSdata and PC connection cable AK 540 B	600321
Turb 430 T / SET	Portable turbidimeter (90°) with infrared light source according to US-EPA 180.1 in field case with table insert, calibration set, empty cuvettes, cleaning cloth, screwdriver, PC software LSdata and PC connection cable AK 540 B	600326
Turbidity calibration standards		
Kal.Kit Turb® 430/750 IR	Calibration standards set for Turb® 430 IR, Turb® 750 IR and photoFlex® Turb: 0.02 - 10.0 - 1000 FNU/NTU	600560
Kal.Kit Turb® 430/750 T	Calibration standards set for Turb® 430 T and Turb® 750: 0.02 - 10.0 - 1000 NTU	600561
Optional accessories:		
LS Flex/430	Labstation with Software LSdata Flex/430 and battery pack RB Flex/430	251301
RB Flex/430	Battery pack	251300
LSdata Flex/430	Software LSdata for GLP-compliant data management	902762

Xylem | 'zīləm|

- 1) The tissue in plants that brings water upward from the roots;
- 2) a leading global water technology company.

We're a global team unified in a common purpose: creating advanced technology solutions to the world's water challenges. Developing new technologies that will improve the way water is used, conserved, and re-used in the future is central to our work. Our products and services move, treat, analyze, monitor and return water to the environment, in public utility, industrial, residential and commercial building services settings. Xylem also provides a leading portfolio of smart metering, network technologies and advanced analytics solutions for water, electric and gas utilities. In more than 150 countries, we have strong, long-standing relationships with customers who know us for our powerful combination of leading product brands and applications expertise with a strong focus on developing comprehensive, sustainable solutions.

For more information on how Xylem can help you, go to www.xylem.com



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November 2023