



# The System 281

FOR PH / ORP, DISSOLVED OXYGEN, TURBIDITY, TSS, CONDUCTIVITY OR SLUDGE LEVEL –  
SIMPLE. DIGITAL. MODERN.



a xylem brand

# Controller 281



- High quality, cost-effective, no risk
- Up-to-date and future-proof
- 100 % IQ SENSOR NET

pH

ORP

D.O.

Turb

TSS

Cond

Sludge



High quality, cost-effective, no risk

Use the current IQ SENSOR NET technology and proven measurement technology from WTW. The System 281 offers an ideal and extremely economical access to the IQ SENSOR NET.

Up-to-date and future-proof

Secure data transmission, automatic sensor recognition and free Software updates via USB! Get started to the digital world and stay sustainable.

100 % IQ SENSOR NET

Uniform software throughout the IQ SENSOR NET and compatible sensors for all systems facilitate future expansions.



## Application examples

Developed for wastewater, successfully applied in drinking water applications and the process industry for many years: The robust products of WTW are made for many applications. Try it yourself!



In drinking water:  
**SensoLyt® 700 IQ**  
for different pH ranges



In the aeration basin of a WWTP with industrial wastewater:  
**ViSolid® 700 IQ**  
Suspended solids sensor with ultrasonic cleaning



In the outlet:  
**VisoTurb® 700 IQ**  
turbidity sensor with ultrasonic cleaning



In the post-sedimentation:  
**IFL 700 IQ**  
Ultrasonic sensor for detailed presentation of sludge profile



In the aeration basin:  
calibration free **FDO® 700 IQ**  
for dissolved oxygen



In the process industry:  
**TetraCon® 700 IQ**  
4 electrodes conductivity cell

## Your benefits at a glance

You are planning a replacement of your existing analog equipment? The System 281 combines the known performance of analog products with the advantages of the digital IQ SENSOR NET:

- Proven and reliable IQ SENSOR NET technology
- 100 % IQ SENSOR NET look & feel
- Versions with 2 mA outputs, Modbus RTU or HART available
- You can easily upgrade to DIQ/S 282/284, since IQ sensors can be retained
- Free software updates with new features

Our sensors have been convincing for many years through their robust construction and precise measuring results - also as seawater (SW) versions for corrosive media.

## The system 281 at the web



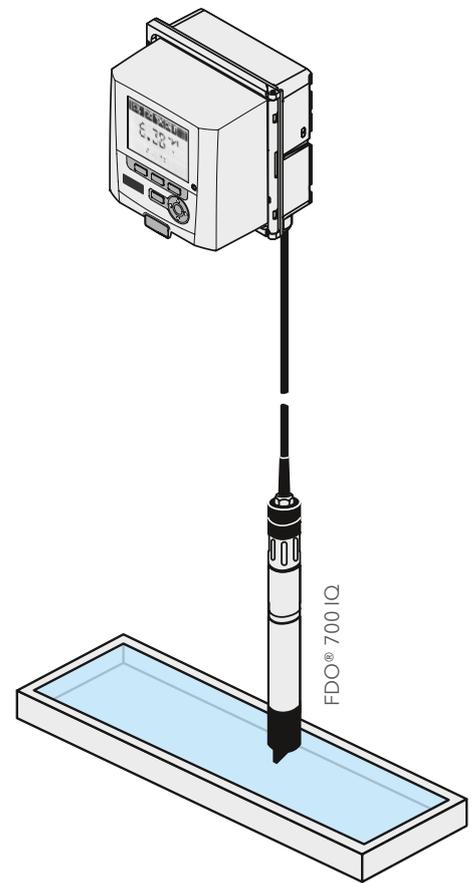
Detailed technical data and mounting accessories you can find on the data sheet D1.09, in our brochure "Product Details" and under [www.WTW.com/en/281](http://www.WTW.com/en/281) (For convenience use our QR code).

## Technical data

DIQ/S 281-	CR2 (/24V)	MOD	HART
Connectable sensors	IQ sensors for pH/ORP, O <sub>2</sub> , conductivity, turbidity, TSS or sludge level		
Current outputs and relays	2 x (0) 4-20 mA 2 x relays	Modbus RTU 2 x relays	HART 2 x relays
Cable length sensor	100 m fixed cable		
Max. total cable length	250 m		
Power supply	Wide range mains converter (100-240VAC) or 24V		
Connectable modules	DIQ/CHV (Cleaning Head Valve), DIQ/JB and MIQ/WL PS SET		



D1.09



## Order information

Model	Description	Order No.
<b>Controller</b>		
DIQ/S 281-CR2	Dual IQ/System 281, Universal monitor for the connection of 1 digital IQ sensor (pH/ORP, D.O., conductivity, turbidity, TSS or sludge level), with 2 analog outputs (0/4-20 mA) and 2 relays, 100 ... 240 VAC	472103
DIQ/S 281-CR2/24V	Like the DIQ/S 281, but for 24 V AC/ DC voltage supply	472104
DIQ/S 281-MOD	Like the DIQ/S 281, but with MODBUS interface (RS 485) and 2 relays, 100 ... 240 VAC (Please order separately D-SUB connection ADA/D-SUB 902888)	472105
DIQ/S 281-HART	Like the DIQ/S 281, but with HART interface and 2 relays, 100 ... 240 VAC	472106
<b>IQ sensors</b>		
SensoLyt® 700 IQ	Digital pH/ORP fitting for SensoLyt® electrode, with integrated preamplifier and temperature sensor (please order cable separately)	109170
SensoLyt® 700 IQ/SET	SensoLyt® 700 IQ including SensoLyt® SEA pH electrode and 7 m connecting cable	109173
SensoLyt® 700 IQ/SET1	SensoLyt® 700 IQ including SensoLyt® PtA ORP electrode and 7 m connecting cable	109174
TetraCon® 700 IQ	Digital 4 electrode conductivity measuring cell for highly contaminated wastewater (please order cable separately)	302500
TriOxmatic® 700 IQ	Universal oxygen sensor for the measurement and regulation of oxygen input in wastewater treatment plants (please order cables separately)	201640
FDO® 700 IQ	Optical O <sub>2</sub> sensor for connection to the IQ SENSOR NET (Please order cable separately)	201650
FDO® 701 IQ	Like the FDO® 700 IQ, but with a faster response time	201660
VisoTurb® 700 IQ	Digital turbidity sensor with integrated ultrasonic cleaning (please order cable separately)	600010
ViSolid® 700 IQ	Digital suspended solids sensor with integrated ultrasonic cleaning (please order cable separately)	600012
ViSolid® 700 IQ SW	Like ViSolid® 700 IQ, but as a sea water model	600013
IFL 700 IQ	Digital ultrasound interface level sensor with automatic cleaning system	481200
IFL 701 IQ	Digital ultrasound interface level sensor	481201
<b>SensoLyt® electrodes (selection)</b>		
SensoLyt® SEA	pH electrode for municipal wastewater, measuring range 2 ... 12 pH	109115
SensoLyt® DWA	pH electrode for drinking water, measuring range 0 ... 14 pH	109119
SensoLyt® TFA	pH electrode for industrial or non typical municipal wastewater, range 2 ... 12 pH	109114
<b>Cable (selection)</b>		
SACIQ-7,0	IQ SENSOR NET connection cable, length 7 m	480042
SACIQ-15,0	IQ SENSOR NET connection cable, length 15 m	480044

