

# pipe::scan

The pipe::scan is a sensor system for monitoring drinking water quality in pipes under pressure. It measures up to 10 parameters in one device: TOC, DOC, UV254, Turbidity, Color, UVT, Chlorine, pH/Redox, Conductivity, Temperature and Pressure. The water quality data can be sent to any central database via almost any protocol. Multiple pipe::scans are the ideal solution to monitor drinking water at any point in the network.



Certificate of Sanitary Conformity



Certified to NSF/ANSI/CAN 61 & 372

- TOC
- DOC
- UV254
- Turbidity
- Color
- Chlorine
- pH/Redox
- Conductivity
- Temperature
- Pressure

**i::scan**  
Multi-parameter spectrophotometer probe.  
  
Parameters:  
FTU/NTU, UV254, UVT, Color, TOC, DOC

**Optional autobrush for i::scan**  
Provides automatic brush cleaning for the i::scan.

**Pipe saddle**  
2" pipe saddle for hot tap installation. Available for pipes from DN80 to DN600.  
**Pipe saddle is not NSF certified.**

**Enclosure**  
Additional security for sensors and operator.

**Physical sensors**  
One chlori::lyser and two additional sensors (condu::lyser, pH::lyser or redo::lyser) can be installed.

Parameters:  
**Conductivity, Free Chlorine, pH, Redox and Temperature**

**Base unit**  
Flow cell for up to 4 sensors with retractable insertion nozzle, filter, sample valve, automatic bleeder valve, pressure sensor and flow sensor (optional).

**Nano-pump**  
For water flow even during periods of stagnation.



### technical specification

measurement interval	1 min (minimal)	installation / mounting	on 2" Hawle pipe saddle (to be ordered separately)
precalibrated ex-works	all parameters	other operating limits	pipeline must be vented installation must be on top of pipe no direct sunlight
integration via	con::line	pH range	4 ... 12
power supply	via con::line or con::cube	pH range free chlorine	4 ... 9
power consumption (typical)	14 W	automatic cleaning	autobrush (for i::scan)
power consumption (max.)	35 W	storage temperature	0 ... 45 °C
wetted materials	POM stainless steel fine brass EN12165 and EN12164 EPDM	conformity - EMC	EN 61326-1
dimensions (width x height x depth)	220 x 475 x 340 mm	conformity - safety	EN 61010-1 RoHS
weight (min.)	approx. 8 kg	drinking water safety certificate	ACS (Attestation de conformité Sanitaire) NSF/ANSI/CAN 61 & 372
operating temperature	0 ... 40 °C	protection class (-000)	IP67
storage humidity	0 ... 95 %		
operating pressure	1 ... 10 bar		

### i::scan

		parameter							part number
		turbidity [NTU/FTU]	color (app) [Hazen]	color (tru) [Hazen]	TOC [mg/l]	DOC [mg/l]	UV254 [Abs/m]	UV254 f [Abs/m]	
i::scan FTU/NTU	min.	0							Y01-1-D-000-DW
	max.	800							
i::scan FTU/NTU+Color	min.	0	0	0					Y02-1-D-000-DW
	max.	800	500	500					
i::scan FTU/NTU+UV254	min.	0				0	0	25	Y03-2-D-000-DW
	max.	800				70	70	100	
i::scan FTU/NTU+UV254+Color	min.	0	0	0		0	0		Y04-2-D-000-DW
	max.	800	500	500		70	70		
i::scan FTU/NTU+TOC_eq+UV254	min.	0			0	0	0		Y05-3-D-000-DW
	max.	800			25	25	70		
i::scan FTU/NTU+TOC_eq+UV254+Color	min.	0	0	0	0	0	0		Y06-3-D-000-DW
	max.	800	500	500	25	25	70		

### chlори::lyser (stainless steel version)

		parameter			part number
		free chlorine [mg/l]	total chlorine [mg/l]	temperature [°C]	
chlори::lyser (FCI)	min.	0		0	E-520-1-S-000
	max.	2		40	
chlори::lyser (TCI)	min.		0	0	E-525-1-S-000
	max.		2	40	

### ph::lyser

		parameter		part number
		pH [pH]	temperature [°C]	
pH::lyser (pH)	min.	4	0	E-514-2-000-DW
	max.	10	40	

### redo::lyser

		parameter		part number
		redox [mV]	temperature [°C]	
redo::lyser (redox)	min.	-2000	0	E-513-2-000-DW
	max.	2000	40	

### condu::lyser

		parameter		part number
		conductivity [µS/cm]	temperature [°C]	
condu::lyser (conductivity)	min.	0	0	E-511-2-000-DW
	max.	500000	40	

pipe::scan versions	
part number	article name
P-450-PS-SET-024-DW	pipe::scan base unit: flow cell incl. adapter plate, nano pump, insertion nozzle, vent valve, enclosure, pipe::scan cable hub incl. 10 m connection cable to con::cube, pressure sensor con::cube V3 24 V incl. D-303-LX, S-08-MONI, S-11-BASIC-PLC, D-315-IN-MA, with drinking water certificate
P-450-PS-SET-230-DW	pipe::scan base unit: flow cell incl. adapter plate, nano pump, insertion nozzle, vent valve, enclosure, pipe::scan cable hub incl. 10 m connection cable to con::cube, pressure sensor con::cube V3 230 V incl. D-303-LX, S-08-MONI, S-11-BASIC-PLC, D-315-IN-MA, with drinking water certificate
P-450-PS-SET-012-DW	pipe::scan base unit: FlowCell incl. adapter plate, nano pump, insertion nozzle, vent valve, enclosure, pipe::scan cable hub incl. 10 m connection cable to con::line, pressure sensor, con::line 12 V incl. S-500-08-IO, with drinking water certificate
Y01-1-D-000-DW	FTU/NTU with i::scan incl. Autobrush for pipe::scan
Y02-1-D-000-DW	FTU/NTU + COLOR with i::scan incl. Autobrush for pipe::scan
Y04-2-D-000-DW	FTU/NTU + COLOR + UV245 with i::scan incl. Autobrush for pipe::scan
Y06-3-D-000-DW	FTU/NTU + COLOR + UV254 + TOC with i::scan incl. Autobrush for pipe::scan
Y03-2-D-000-DW	FTU/NTU + UV254 with i::scan incl. Autobrush for pipe::scan
Y05-3-D-000-DW	FTU/NTU + UV245 + TOC with i::scan incl. Autobrush for pipe::scan
E-520-1-S-000	Free Chlorine sensor, 0-2 mg/l, pressure resistant
E-525-1-S-000	Total Chlorine sensor, 0-2 mg/l, pressure resistant
E-514-2-000-DW	pH sensor, pressure resistant
E-513-2-000-DW	ORP sensor, pressure resistant
E-511-2-000-DW	Conductivity sensor, pressure resistant

recommended accessories	
part number	article name
D-500-012	con::line
D-330-xxx	con::cube V3
F-160-SP-SET-DKxxx	Hawle shut off pipe saddle DK75 - DK315, incl. saddle blade (for PE and PVC pipes)
F-160-SP-SET-DNxxx	Hawle shut off pipe saddle DN80 - DK600, incl. saddle blade (for ductile iron pipes)
S-500-08-IO	lo::Tool - s::can monitoring station software for 8 parameters
S-11-xx-moni	moni::tool Software
S-14-vali	vali::tool - s::can data validation software
S-15-ana	ana::tool - s::can event detection software



