



Sensors used in the NAWA-FRACHT program

Parameter	Year	Manufacturer/type	Measuring accuracy*
Temperature [°C]	1976 -1991	Hartmannn u. Braun / CMR TEUC with PT100 (3 Leiter)	0.2°C
	since 1991	Camille Bauer / Eurax V601 with PT100 (3 Leiter)	0.15 + 0.02 °C/°C
	since 1991	Camille Bauer / Eurax V604 with PT100 (3 Leiter)	0.15 + 0.02 °C/°C
	since 2002	Rotax PT100 3-Leiter Widerstands-Thermometer	0.15 + 0.02 °C/°C
	since 2011	Rotax PT100 3-Leiter Widerstands-Thermometer	0.15 + 0.02 °C/°C
	since 2018/19	Rotax PT100 4-Leiter Widerstands-Thermometer	0.1°C +0.0017 °C/°C
Electrical conductivity [µS/cm]	1976 - 1991	Wösthoff / EMHD 1	5 - 10 µS/cm
	since 1991	Siemens / SIPAN 4EL	4 - 7 µS/cm
	since 2002	Quadroline LF296 with Tetracon 700	0.5% + 1Digit
	since 2018/19	Endress+Hauser / Memosens CLS82D	< 4 %
	since 2022	WTW TetraCon 700 IQ	< 4 %
Oxygen [mg/l]	1976 - 1981	WTW / OX1 39	0.23 mg/l
	1981 - 1991	Orbisphère / Modèle 2116	0.2 mg/l
	2005 /2006	Hach-Lange / LDO Sauerstoffmessung	± 0.2 mg/l
	since 2018/19	Endress+Hauser / Oxymax COS61D	± 2 %
pH	1976 - 1991	Hartmann u. Braun / UPY3	0.02
	since 1990	Jenco / Modell 6300N	0.10%
	since 1993	Endress+Hauser / Mycom CPM 121 with Ceratex CPS 31	0.03 - 0.04
	since 2018/19	Endress+Hauser / Memosens CPS31D	< 0.05
Turbidity	since 2001	Endress+Hauser CUS 41	± 2 %
	since 2012	Hach Solitax ts-line sc (Trübung)	< 1 %
Dry compounds	since 2017	Hach Solitax ts-line sc (TS)	< 3 %

Probes used in the NAWA-FRACHT program to measure parameters continuously. Because not all probes were changed at the same time at all stations, there are overlapping periods of operation.

*according to manufacturer's specifications