

Topaz Analyzer	Parameter (Formula) - Method	Range	Applications, comments	Order Number
Topaz Aluminium	Aluminium (AL) - colorimetric	0-200 ppb	Potable Water, (WW & Eff.)	SOL-55.331.200
Topaz Ammonium (LR)	Ammonium (NH4+) - colorimetric	0-500 ppb	Potable Water, WW & Eff.	SOL-55.321.000
Topaz Ammonium (HR)	Ammonium (NH4+) - colorimetric	0-2 ppm	Potable Water, WW & Eff.	SOL-55.321.100
Topaz Chloride	Chloride (Cl-) - potentiometric	0-200 ppm	Potable Water	SOL-57.341.000
Topaz Color	H / Cr-Co / Pt-Co - absorptive	0-50 or 0-100 or 0-250 mg/l Pt Co or Cr-Co or Hazen	Potable Water, Surface Water	SOL-55.351.000
Topaz Total Dissolved Iron (LR)	Total Iron (Fe) - colorimetric	0-100 ppb or 0-1000 ppb	Potable Water, Surface Water, WW & Eff.	SOL-55.331.000
Topaz Total Dissolved Iron (HR)	Total Iron (Fe) - colorimetric	0-2 ppm or 0-5 ppm	Potable Water, Surface Water, WW & Eff.	SOL-55.331.100
Topaz COD Permanganate Index (LR)*	COD (KMnO4)- titrimetric	0-10 ppm	Surface Water	SOL-58.331.000
Topaz COD Permanganate Index (HR)*	COD (KMnO4)- titrimetric	0-200 ppm	Surface Water	SOL-58.331.100
Topaz Phenol (LR)	Phenols (C6H5OH) - colorimetric	0-5 ppm	Potable Water, Surface Water, WW & Eff.	SOL-55.341.000
Topaz Phenol (HR)*	Phenols (C6H5OH) - colorimetric	0-20 ppm	Potable Water, Surface Water, WW & Eff.	SOL-55.341.100
Topaz Total Hardness (LR)	Total Hardness (Ca2+ + Mg2+) - titrimetric	10-50 ppm	Potable Water, Demin Water Production, Process Water	SOL-58.311.000
Topaz Total Hardness (HR)	Total Hardness (Ca2+ + Mg2+) - titrimetric	10-100 ppm or 30-300 ppm or 60-600 ppm	Potable Water, Demin Water Production, Process Water	SOL-58.311.100
Topaz Total Alkalinity (@ pH 4.3)	Alkalinity (OH- + CO32- + HCO3-) - titrimetric	0-50 ppm or 0-200 ppm or 0-500 ppm	Potable Water, Demin Water Production, Process Water	SOL-58.321.000
Topaz Manganese Mn(II) (LR)	Manganese Mn(II) - colorimetric	0-100 ppb or 0-200 ppb	Potable Water, Surface Water, WW & Eff.	SOL-55.331.400
Topaz Manganese Mn(II) (HR)	Manganese Mn(II) - colorimetric	0-1 ppm or 0-2 ppm	Potable Water, Surface Water, WW & Eff.	SOL-55.331.500
Topaz Silica (MR)	Silica - colorimetric	0-20 ppm	Potable Water, Surface Water, WW & Eff.	SOL-55.311.000
Topaz Silica (HR)	Silica - colorimetric	0-50 ppm	Potable Water, Surface Water, WW & Eff.	SOL-55.311.100

#### Topaz Configurations

Dilution (HRx25) for Topaz Ammonium (HR)	Range extension to 0-50 ppm (dilution)	SOL-82.350.010
Dilution (HRx2) for Topaz Silica (HR)	Range extension to 0-100 ppm (dilution)	SOL-82.350.020
2-Channel Setup (similar range)	Additional channel must be of similar range	SOL-83.590.020
4-Channel Setup (similar range)	Additional channel must be of similar range	SOL-83.590.040
6-Channel Setup (similar range)	Additional channel must be of similar range	SOL-83.590.060
Ethernet Interface (TCP/IP)		SOL-81.410.020
(*) No multi-channel configuration available		

#### Topaz Options

1-Year Wear Parts Package (=Operational Spares for 1y) for single-channel Topaz:	Topaz Aluminium	For details please refer to Wear & Spare Parts List	SOL-84.110.040
1-Year Wear Parts Package (=Operational Spares for 1y) for single-channel Topaz:	Topaz Ammonium LR or HR or HRx25	For details please refer to Wear & Spare Parts List	SOL-84.110.050
1-Year Wear Parts Package (=Operational Spares for 1y) for single-channel Topaz:	Topaz Chlorides	For details please refer to Wear & Spare Parts List	SOL-84.110.060
1-Year Wear Parts Package (=Operational Spares for 1y) for single-channel Topaz:	Topaz Color	For details please refer to Wear & Spare Parts List	SOL-84.110.070
1-Year Wear Parts Package (=Operational Spares for 1y) for single-channel Topaz:	Topaz Total Dissolved Iron LR or HR	For details please refer to Wear & Spare Parts List	SOL-84.110.080
1-Year Wear Parts Package (=Operational Spares for 1y) for single-channel Topaz:	Topaz COD Permanganate Index LR or HR	For details please refer to Wear & Spare Parts List	SOL-84.110.090
1-Year Wear Parts Package (=Operational Spares for 1y) for single-channel Topaz:	Topaz Phenol LR or HR	For details please refer to Wear & Spare Parts List	SOL-84.110.110
1-Year Wear Parts Package (=Operational Spares for 1y) for single-channel Topaz:	Topaz Hardness TH LR or HR	For details please refer to Wear & Spare Parts List	SOL-84.110.120
1-Year Wear Parts Package (=Operational Spares for 1y) for single-channel Topaz:	Topaz Alkalinity TA	For details please refer to Wear & Spare Parts List	SOL-84.110.130
1-Year Wear Parts Package (=Operational Spares for 1y) for single-channel Topaz:	Topaz Manganese Mn(II)	For details please refer to Wear & Spare Parts List	SOL-84.110.140
1-Year Wear Parts Package (=Operational Spares for 1y) for single-channel Topaz:	Topaz Silica MR or HR or HRx2	For details please refer to Wear & Spare Parts List	SOL-84.110.160
1-Year Wear Parts Package "Multi-Channel" (to be added to "Basis" once only per multi-channel analyzer)		For details please refer to Wear & Spare Parts List	SOL-84.110.150
Back-up for TOPAZ Chloride (Reference Electrode ELECTRO055)	For emergency stock	For details please refer to Wear & Spare Parts List	SOL-87.860.010
Back-up for TOPAZ Chloride (Chloride Electrode ELECTRO034)	For emergency stock	For details please refer to Wear & Spare Parts List	SOL-87.750.010
Reagent shelf in SS316L			SOL-89.610.010
Technical manual on Paper (included but to specify by customer)	French or English		SOL-96.110.010
Technical manual on USB Key (included but to specify by customer)	French or English		SOL-96-110.020

TOC Analyzer (fast loop)	Parameter	Range	Applications, comments	Order Number
TOC Evolution VUV (1-channel)	TOC	Please select range below	Potable Water, Return Condensate	SOL-59.110.000
<b>TOC Configurations</b>				
110V AC				SOL-89.820.030
RS485 RTU MODBUS/JBUS Output				SOL-81.420.010
Ethernet interface (TCP/IP)				SOL-81.420.020
Tangential filtration			Only for TOC 1 channel; needs Instrument air 7 bars and sample flow of 200-500l/h., pressure: 0.5-1 bar	SOL-82.830.020
Auto-calibration			Only for 1-channel TOC	SOL-83.520.010
COD indication on display by correlation			Please mention when ordering	n/a
2nd-channel option (similar range)			Second channel must be of same range	SOL-83.590.010
<b>Range selection (included):</b>				
0-2 ppm	*LOD: 0.01 ppm			SOL-97.022.010
0-10 ppm	*LOD: 0.1 ppm			SOL-97.022.020
0-100 ppm	*LOD: 0.5 ppm			SOL-97.022.030
<b>TOC Options</b>				
1-Year Wear Parts Package (=Operational Spares for 1y) for single-channel TOC (basis):			For details please refer to Wear & Spare Parts List	SOL-84.110.010
1-Year Wear Parts Package (=Operational Spares for 1y) for 2-channel TOC:		To be added to basis	For details please refer to Wear & Spare Parts List	SOL-84.110.020
Back-up Spare Part Package for TOC	UV lamp and O3 destructor	For emergency stock	For details please refer to Wear & Spare Parts List	SOL-83.580.010
Reagent shelf in SS316L				SOL-89.610.010
Technical manual on Paper	French or English		Included but to specified by customer	SOL-96.120.010
Technical manual on USB Key	French or English		Included but to specified by customer	SOL-96.120.020

\*LOD = Limit of Detection

OPAL Oil Pollution Alarm Detector	Parameter	Range (selection below)	Applications, comments	Order Number
Opal Detector Standard (on frame)	HC in Water	0-1000 ppm		SOL-59.211.000
Opal Detector Marine IMO (on frame)	HC in Water	0-30 ppm	Certified for Marine applications (IMO MEPC.107(49))	SOL-59.211.300
Opal Detector Russian Version (GOST ATEX)*	HC in Water	0-1000 ppm	Stainless Steel Enclosure	SOL-59.211.100
Opal Detector in ATEX/IECEX Enclosure*	HC in Water	0-1000 ppm	Stainless Steel Enclosure ATEX/IECEX, Press. Cabinet	SOL-59.211.200
<b>OPAL Configurations</b>				
Sampling probe for process pipe				SOL-83.710.010
Sample Cooler for liquid (60°C < sample T° < 90°C - inbuilt on frame)		Only available for ATEX version	Incl. PT100 probe, solenoid valve, fittings	SOL-82.330.010
Automatic backflush filter cleaning		Recommended when high particle load is expected in sample		SOL-82.810.010
HART converter module (for 4-20mA only and for ATEX/IECEX version only)				SOL-81.430.010
RS485 RTU MODBUS/JBUS Output				SOL-81.430.020
Self priming pump (only for 230V AC version)		Price adder for self-priming pump. Standard pump is included in basis.		SOL-82.340.020
<b>Power supply selection (included):</b>				
230V AC / 50Hz				SOL-89.820.040
230V AC / 60Hz				SOL-89.820.050
110V AC / 50Hz				SOL-89.820.060
110V AC / 60Hz				SOL-89.820.070
<b>Range selection (included):</b>				
0-10 ppm				SOL-97.022.510
0-30 ppm				SOL-97.022.520
0-50 ppm				SOL-97.022.530
0-120 ppm				SOL-97.022.540
0-250 ppm				SOL-97.022.550
0-500 ppm				SOL-97.022.560
0-1000 ppm				SOL-97.022.570
-> not applicable for IMO version (0-30 ppm by default)				n/a
<b>OPAL Options</b>				
1-year spare part package typically incl. Fuses, glasses, seal, filter strainer			For details please refer to Spare Part Package List	SOL-84.110.030
Technical manual on Paper (included but to specify by customer - for ATEX/IECEX paper mandatory)			French or English	SOL-96.220.010
Technical manual on USB Key (included but to specify by customer)			French or English	SOL-96.220.020

To be mentioned mandatory on offers and orders (ATEX/IECEX Certification):

**(\*) Additional information ATEX/IECEX/GOST:**

For installation of equipment in hazardous area zone 1 or 2 group IIC, T4.

Pressurized cabinet, air purge unit (ATEX), air control unit, intergation works, certification, cabinet cooler.

**ATEX:**

ATEX / IECEx:

II 2 G

Ex pxb IIC T4 Gb

ATEX Certificate No.: LCIE 12 ATEX 3078

IECEX Certificate No: IECEX LCIE 17.0036

**GOST:**

Metrologic and TC-RU (2ExpzIIT4/T3)

for hazardous areas

Pautbac II Basis Detector	Parameter	Threshold	Applications, comments	Order Number
			Automatic draining of petroleum storage tanks (Detector incl. Control cabinet (ATEX/IECEX) + measuring chamber (ATEX))	
			To be mentioned mandatory on offers and orders (ATEX/IECEX Certification)	
Pautbac II ATEX	Hydrocarbon	5 - 25%	*Measuring chamber --> Explosion-proof certified N° L.C.I.E. 04 ATEX 6073 CE0081 Category II 2 G, Ex d II C T6 Gb all gases, including H2, C2H2, solves the problems of purges under excellent conditions  *Control cabinet --> Explosion-proof certified N° INERIS 15 ATEX 0010X / IECEX INE 15.0011X Category II 2 GD, Ex d II B + H2 T4 Gb	SOL-59.221.100
<b>Pautbac II Configurations</b>				
30W heater in electronic cabinets				SOL-89.810.010
Rain Water Configuration			Special conductive & corrosion proof coating of measuring chamber (Rain Application)	on request
Steel Frame SS316L not painted				
Technical manual on Paper + Quickstart	French or English		Included but to specify by customer - For ATEX/IECEX paper mandatory	SOL-96.210.010
Technical manual on USB Key	French or English		Included but to specify by customer - For ATEX/IECEX paper mandatory	SOL-96.210.020

\*Note: Measuring chamber (pot) is in IIC and Electronic cabinet IIB+H2 (not IIC)