

Ozone Instruments

List of Products

Valid from 01. Aug 2017

Lowest Cost of Ownership Ozone Instruments:

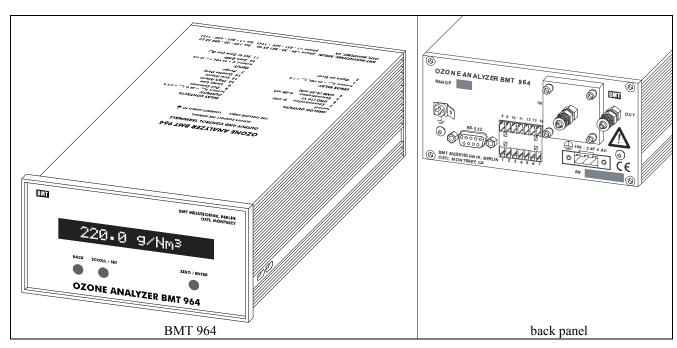
- Warranty 3 years
- UV lamp warranty 5 years
- Preventive Maintenance not required
- Recalibration not required under normal operating conditions
- Certificate of Calibration included at no charge
- Early Warning for soiled cuvette and weakening lamp
- Error and Event Log integrated, with real time clock
- Windows software for diagnostics and logging included
- NRTL safety listing by TUV for North America (BMT 964C/OG, BMT 932)

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Ozone Measurement

High Concentration OZONE ANALYZERs



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BMT 964	standard ozone analyzer, with temperature and pressure compensation, sample gas
	filter, power input 100-240 VAC, 50/60 Hz (12-36 VDC on request), purge timer,
	isolated analog outputs 0-10VDC and 4-20 mA, isolated serial interface RS-232,
	instrument control via the interactive display or a Windows PC with our software
	"BMT 964 Link" (CD included)

please order only one concentration range:

	standard	50, 100, 20	00, 300, 400, 500 or 600 g/Nm ³
LR	low		20 or 10 g/Nm ³
LLR	lowest	instrument is double in height!	5 or 2 g/Nm ³

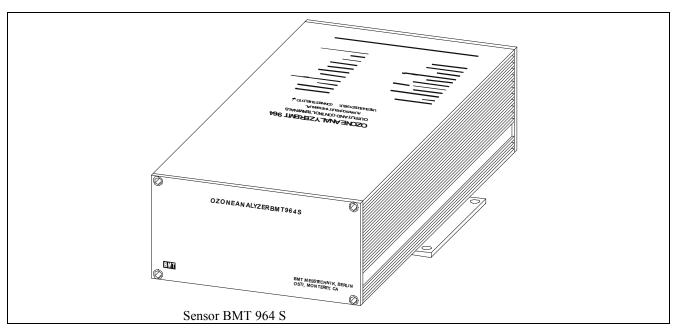
please order only one **pressure** range:

	standard		1.15 barabs
HP	high	1.5, 2.0, 2.5, 3.0, 3.	5, or 4.0 barabs

options

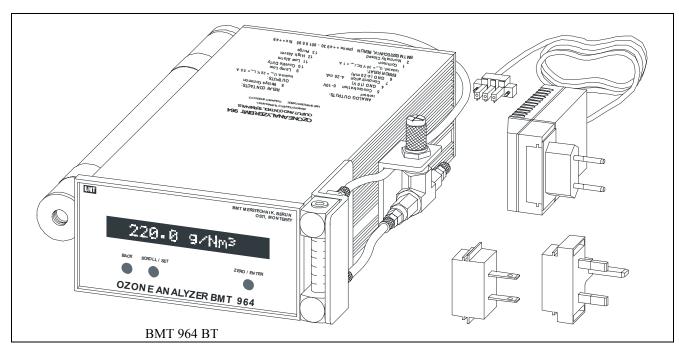
internal PU	built-in purge unit (solenoid valve & air pump)
	for fully automatic purging and zeroing on push button command
	not available for HP (high pressure) versions

For a complete overview of options and combinations please refer to our **Order Sheet!**



order number	description
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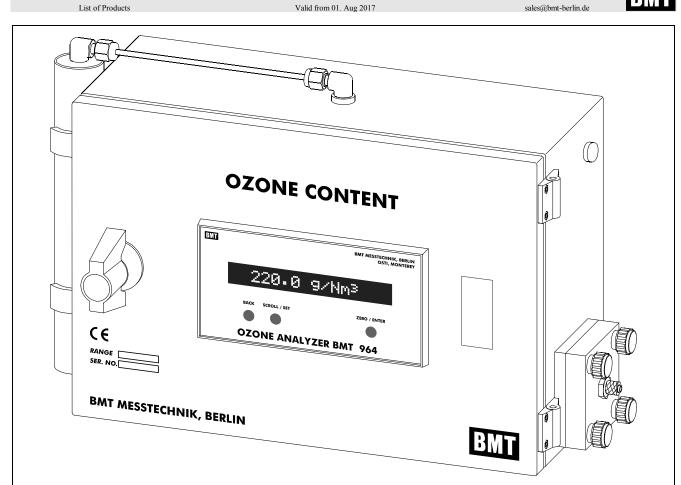
BMT 964 S sensor = ozone analyzer BMT 964 without a display



BMT 964 BT	bench top version of BMT 964, portable, throttle valve, flow meter, sample gas filter,
	catalysing cartridge, for 24VDC, wall mount power supply for 100-240VAC included,
	max. inlet pressure 2.5 bar g, max. outlet pressure 1.15 barabs,
	other specs see BMT 964
BMT 964 TRANS	Transfer Standard for field verification, carefully calibrated to the highest diligence
	and accurateness, range 300 g/Nm3, incl. 2 re-calibrations at BMT

options

options	
internal PU	built-in purge unit (solenoid valve & air pump)
	for fully automatic purging and zeroing on push button command
bag	with soft carrying bag (camera bag)



order number	description
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	1
BMT 964 C	cabinet version of ozone analyzer (wall-mount metal cabinet, splash-proof)
	with internal purge unit, flow meter, squeeze valve (throttle valve), sample gas filter,
	catalyzing cartridge CAT-35, RS-232,
	max. inlet pressure 2.5 bar g, max. outlet pressure 1.15 barabs
MODBUS-RTU	option: MODBUS RTU (MODBUS TCP on request)
option: Swagelok	BMT 964 C with LET-LOK (Swagelok interchangeable), inlet only, see order sheet
AQ Signal Cable	16-pole signal cable, only one connector, standard length 2m (please specify length)
AQ Power Cable	power cable, only one connector, standard length 2m (please specify length)

BMT 964 C

spare parts:

spare parts.	
CAT-35	Catalysing Cartridge for BMT 964C
REFILL-35	Carulite 200 material to refill CAT-35
FILTER 25G	box with 5 filter inserts of porous PTFE ("GOLD" filters), 25mm
CONN-MAINS	connector for mains input, 4-pole, screw terminals
CONN-SIG 16	connector for signals, 16-pole, solder terminals
CONN-232	connector for serial interface, 4-pole, solder terminals
CONN-TOOL	mounting Tool for Signal Connector

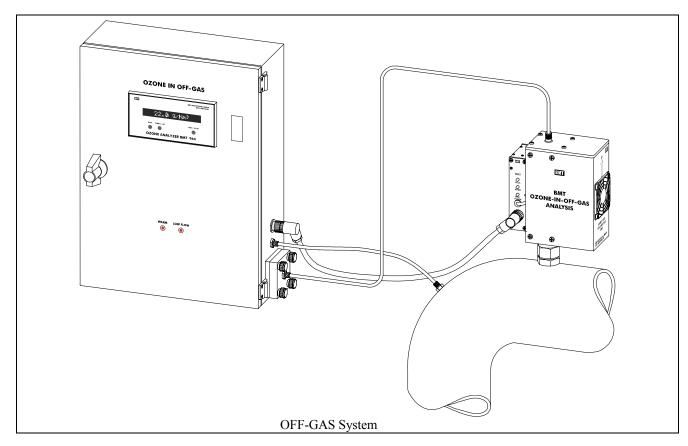
please order only one concentration range:

	standard	50, 100, 200, 300, 400, 500 or 600 g/Nm ³
LR	low	20 or 10 g/Nm ³

For a complete overview of options and combinations please refer to our **Order Sheet!**



OFF-GAS System



order num	ıber	description

oraci namber	ueser iption	
BMT 964 OG	basic cabinet - including:	
	OZONE ANALYZER BMT 964 (ranges 50g/Nm³ or 100g/Nm³, pressure range	
	1.15 bar abs), purge unit, sample gas filter	
FILTER 50G	box with 5 filter inserts of porous PTFE ("GOLD" filters), 50mm	
AQ Signal Cable	16-pole signal cable, only one connector, standard length 2m (please specify length)	
AQ Power Cable	power cable, only one connector, standard length 2m (please specify length)	
MODBUS-RTU	option: MODBUS RTU (MODBUS TCP on request)	

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DH5	sample gas dehumidifier DH5 (to be mounted at the point of sampling)	
	cable length 3m (others on request, max. 10m)	
DH5-WH	weather hood for DH5 for operation outside of building	
SOBV	shut-off ball valve, mounting option for DH5	
SGP5	sample gas pump SGP5-DC	
SGP5-SPARE	spare parts for SGP5 (membranes, valves, O-rings)	
LFW-2	low flow warning (thermal flow sensor)	
FM 61-8	flow meter FM 61-8, 0-0.8 l/min	
CAT-RS	catalyzing cartridge (stainless steel, re-fillable)	
DT 100	dirt trap DT 100 (to be mounted near the point of sampling)	

please order only one concentration range:

	standard	50 or 100 g/Nm ³
LR	low	20 or 10 g/Nm ³
LLR	lowest	5 g/Nm ³

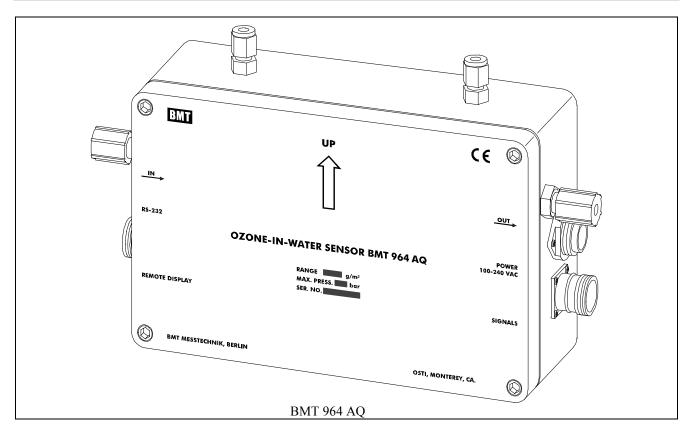
please order only one pressure range:

	standard		1.15 barabs
HP	high		1.5 or 2.0 barabs

An OFF-GAS system usually has to be tailored according to individual needs - Do not hesitate to ask!



OZONE-IN-WATER SENSORs



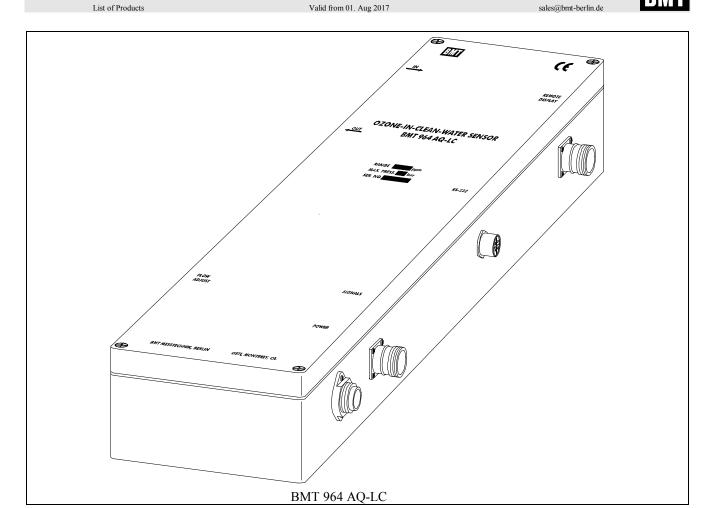
order number	description
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oracr mamber	44041-P4101	
BMT 964 AQ	SENSOR BMT 964 AQ (RS-232 included, connectors included)	
	range: 10, 50, 100 or 150 ppm _w (g/m ³), please specify	
BMT 964 AQ/HF	SENSOR BMT 964 AQ (HF version) for up to 20% hydrofluoric acid (HF)	
	range: 10, 20, 50, 100 or 150 ppm _w (g/m ³), please specify	
option: /RD	optional connector for Remote Display BMT 964 RD (display see next page)	
option: RD cable	special cable length > 10m up to 30m (up to 100m please contact factory)	
AQ Signal Cable	16-pole signal cable, only one connector, standard length 2m (please specify length)	
AQ Power Cable	power cable, only one connector, standard length 2m (please specify length)	
	power cable with connectors on both sides,	
	NEMA 5-15P (2m) or Schuko (1.5m), please specify	

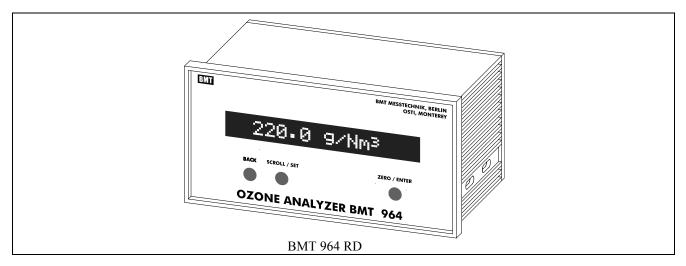
spare parts:

CONN-MAINS	connector for mains input, 4-pole, screw terminals
CONN-SIG 16	connector for signals, 16-pole, solder terminals
CONN-232	connector for serial interface, 4-pole, solder terminals
CONN-TOOL	mounting Tool for Signal Connector

please order only one concentration range:
10, 50, 100, or 150 ppm _w (g/m ³)



order number	description
BMT 964 AQ-LC	SENSOR BMT 964 AQ-LC, range: 0.5, 0.75, 2, 5, 10, or 15 ppm _w (g/m ³),
	please specify
	fluid ports PVDF for 4x6 mm tubing, or 1/4" SS Swagelok, please specify
	(RS-232 included, connectors included)
option: /RD	optional connector for Remote Display BMT 964 RD



order number	description
BMT 964 RD	Remote Display with 2.5m cable (or 5 or 10m, please specify)
	needs instrument with option /RD



Order Sheet

- please check option/version
 standard & recommended version
 included, no choice
 option not available or not applicable

 Image: Applicable option option of the property of the
- Basic model → Concentration range 1) 0.5 g/Nm3 (or 0.04 %wt/wt) 0.5 ppmw 0.75g/Nm3 (or 0.06 %wt/wt) 0.75 ppmw 2) 2) 2 g/Nm3 (or 0.15 %wt/wt) 2 ppm_w 5 g/Nm3 (or 0.35 %wt/wt) 2) 2) 5 ppm_w 10 g/Nm³ (or 0.7 %wt/wt) 10 ppm_w 10 ppm_w 10 ppm_w 15 g/Nm³ (or 1.1 %wt/wt) 15 ppm_w 20 g/Nm3 (or 1.5 %wt/wt) 20 ppmw 50 g/Nm3 (or 3.5 %wt/wt) 50 ppmw 50 ppmw 100 g/Nm³ (or 7 %wt/wt) 100 ppm_w 100 ppm_w 150 g/Nm³ 150 ppm_w 150 ppm_w 200 g/Nm³ (or 14 %wt/wt) 300 g/Nm3 (or 20 %wt/wt) 400 g/Nm3 (or 26 %wt/wt) 500 g/Nm³ (or 31 %wt/wt) 600 g/Nm³ (or 37 %wt/wt) Pressure range standard, 1.15 bara high, 1.50 bara high, 2.00 bara high, 2.50 bara high, 3.00 bara high, 3.50 bara high, 4.00 bara **Fittings** for 3x5 mm FEP for 4x6 mm FEP 1/8" Swagelok 4) 1/4" Swagelok 4) 6 mm Swagelok 4) PVDF, for 4x6 mm FEP Other built-in options 1.15 bara option Internal Purge Unit 3) 1.15 bara Sensor Version (no display)

Choosing a model and its ranges (concentration and pressure) is mandatory!

Note 1): The ranges in %wt/wt are not equal to the ranges in g/Nm³ - the unit may be switched by the user at any time.

Note 2): For ranges 2 and 5g/Nm³, the instrument is double in height (front 144 x 144mm).

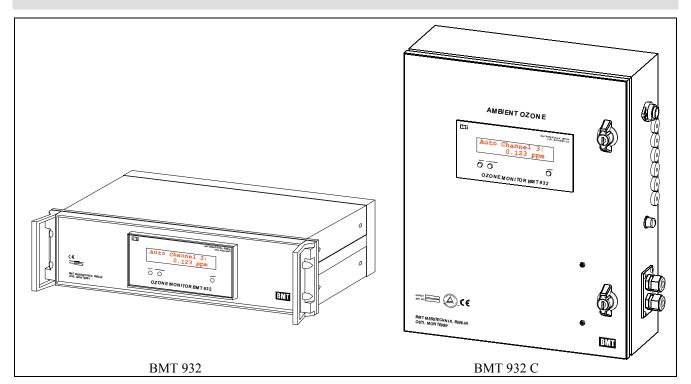
Note 3): An internal purge unit is only available for a pressure range of 1.15 bara, in general.

Note 4): LET-LOK fitting, Swagelok interchangeable

To find out more about the above models and their options, please refer to our data sheets (www.bmt-berlin.de).



Ambient OZONE MONITOR



order number descr	ription
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BMT 932-1	19" monitor, 1-channel, please specify range: 1, 2, 5, 10, 20, 50, 100, or 250ppm _v
BMT 932-3	19" monitor, 3-channel
BMT 932-6	19" monitor, 6-channel
BMT 932C-1	cabinet monitor, 1-channel
BMT 932C-3	cabinet monitor, 3-channel
BMT 932C-6	cabinet monitor, 6-channel
	accessories included: one filter holder and mounting fitting per channel 200 filter inserts
option: 932-24VDC	main power input 18 – 36 VDC (instead of 100 – 240 VAC)
option: 932-RELAY	relay box, 50 pin D-Sub connector, fully compatible with BMT 930 relay box
option: 932-MPA	second display for ozone partial pressure (mPa)
	according to DIN ISO 1431-1 and ASNI D 1149-07

spare parts:

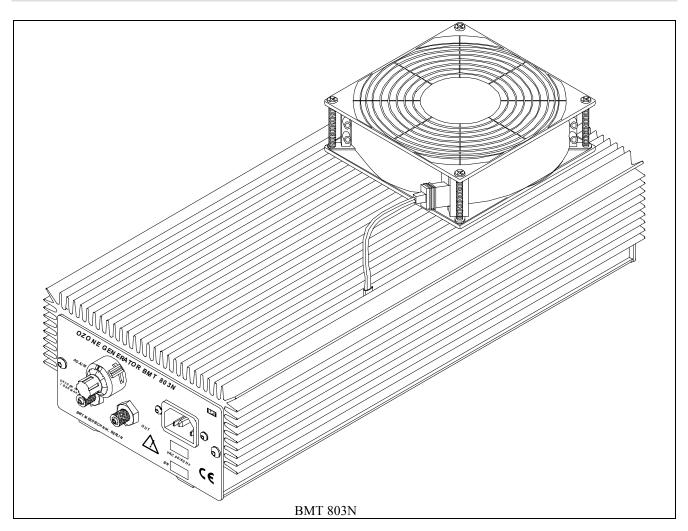
spare parts kit (UV lamp, scrubber, additional set of filter holders)
UV lamp
scrubber (gold)
permanent scrubber (black)
sample gas pump (please specify serial number)
filter holder
box with filter inserts (200 pcs.)
mounting fitting (male) for filter holder, mounting hole 13mm
set of fittings (male & female) for both sides of filter holder
fitting for 1/4" or 4x6 mm tubing, mounting thread G 1/8"
for evaluation of condensation risk
tubing, 1/4 x 5/32", transparent FEP

AOS 1, AOS 2	Ambient Ozone Simulator, for comparison of two ozone monitors	see p. 13
DH5-LC	sample gas dryer, peltier-electric, 24 VDC, incl. power supply 100-240VAC/100W	
VENT ADAPTER	Adapter 1/4" Swagelok to 932-MALEFIT, 19cm long with FEP lining, Filter Holder	

If you have any further questions, do not hesitate to contact us – we will find a solution to your problem.

Ozone Sources

Ozone Generators



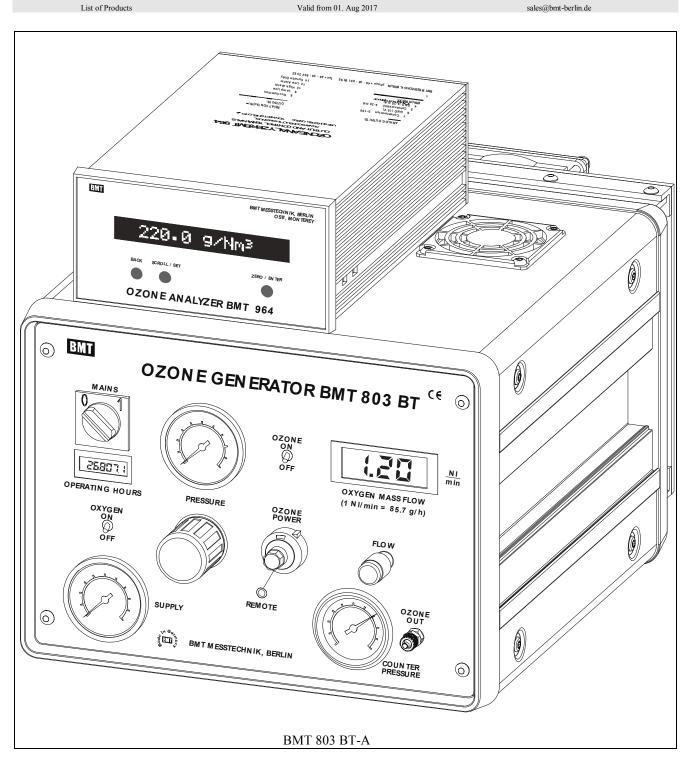
order number	description
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BMT 802N	ozone generator, about 4g/h @ 100 g/Nm³ (length 311 mm)
BMT 803N	ozone generator, about 8g/h @ 100 g/Nm³ (length 391 mm)
BMT 803N HP	ozone generator, about 8g/h @ 100 g/Nm³, high pressure version 2 to 3 bar abs
option: RC	remote control with 0-5VDC or remote potentiometer (instead of built-in
	potentiometer)
option: CHECK	check valve at the outlet (mounted externally)
option: VCR	generator with ½" VCR (inlet and outlet, male body)
option: SWAGE	generator with 1/4" or 1/8" LET-LOK (Swagelok interchangeable), inlet & outlet

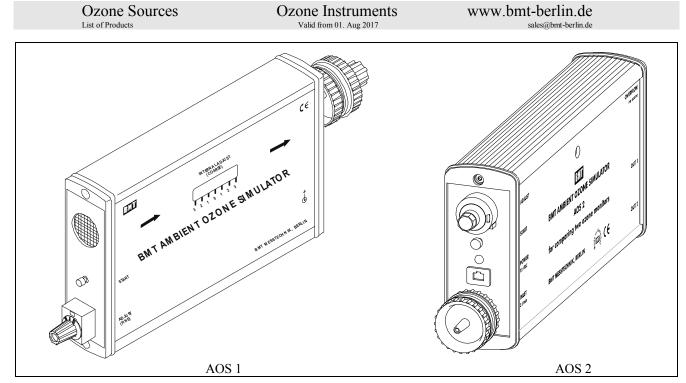
For the operation of the above generators, please see the accessories on the following pages!



order number	description
BMT 803 BT	Laboratory ozone source, bench top model, more than 8g/h @ 100 g/Nm³, with valves,
	gauges and controls for immediate operation, oxygen mass flow meter 0-2 Nl/min or 0-
	5 Nl/min (please specify), flow rate 0.1 to 4l/min,
	ozone resistant pressure gauge for outlet pressure, fittings for 3x5 mm FEP,
	mains voltage 230 or 115 VAC, 155 W, 255 x 200 x 385 mm, 10kg
option: SWAGE	generator with 1/8" LET-LOK (Swagelok interchangeable), outlet only



order number	description	
BMT 803 BT-A	BMT 803 BT-A BMT 803 BT combined with special ozone concentration analyser, range 300g/Nm3,	
	pressure range 2.0 bara, fittings for 3x5 mm FEP	
option: SWAGE	generator with 1/8" LET-LOK (Swagelok interchangeable), outlet only	



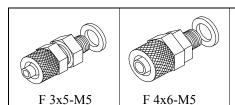
order number	description
AOS 1	Ambient Ozone Simulator, for comparison of two ozone monitors, well above 1 ppmv
	at 2 l/min in air, 24 VDC/300 mA, wall mount power supply included
AOS 2	Ambient Ozone Simulator with flow independent concentration, up to 3 l/min,
	for comparison of 2 ozone monitors, 24 VDC/450 mA (wall mount power supply incl.)



Ozone Accessories

Our standard fitting size is for 3x5 mm flexible tubing (FEP, PTFE, etc.). Other fitting types and sizes on request.

Fittings, Reducers, Tubing







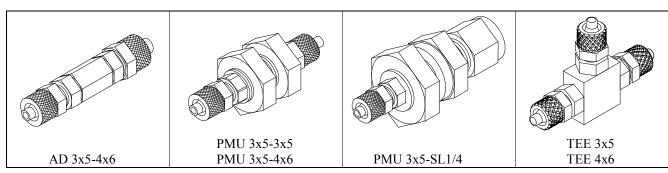


F 3x5-1/8

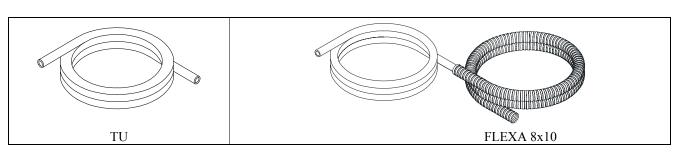


order number	description
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	•
F 3x5-M5	fitting for (standard) 3x5 mm (or 1/8" x 3/16" resp.) FEP tubing, M5 thread,SS
F 4x6-M5	fitting for 4x6 mm FEP tubing, M5 thread, SS
F 3x5-M5-OR	same as F3x5-M5, with KALREZ® O-ring on mounting side
F 4x6-1/8-SS	fitting for 4x6 mm FEP tubing, G1/8 thread, SS
F 3x5-1/8	fitting for (standard) 3x5 mm (or 1/8" x 3/16" resp.) FEP tubing, G1/8" thread,
	aluminum, black anodised
F 4x6-1/8	fitting for 4x6 mm FEP tubing, G1/8" thread, aluminum, black anodised
nut 3x5	additional nuts for the above fittings may be ordered separately
nut 4x6	additional nuts for the above fittings may be ordered separately



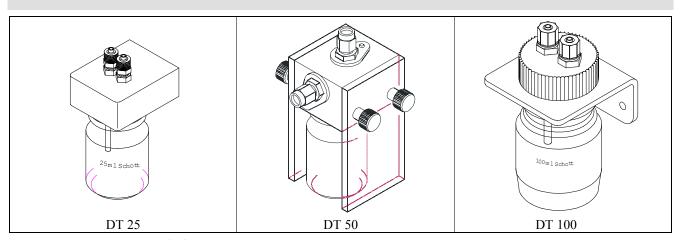
AD 3x5-4x6	adaptor 4x6 mm to 3x5 mm FEP tubing, SS
PMU 3x5-3x5	panel mount union for FEP tubing, hole 10mm, max. wall thickness 5mm, SS
PMU 3x5-4x6	same as above, panel mount reducer
PMU 3x5-SL1/4	panel mount reducer union, 1/4" LET-LOK (Swagelok interchangeable) to 3x5 mm FEP
	tubing, hole 13.1 mm, max. wall thickness 6 mm, SS
TEE 3x5	Tee connection with fittings for 3x5 mm FEP tubing, AL, SS
TEE 4x6	Tee connection with fittings for 4x6 mm FEP tubing, AL, SS



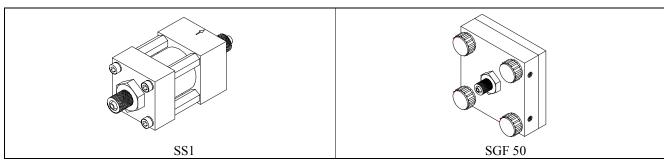
TU 2.5x4	FEP tubing, 2.5x4 mm, transparent	per m
TU 3x5	FEP tubing, 3x5 mm (1/8" x 3/16"), transparent	per m
TU 4x6	FEP tubing, 4x6 mm, transparent	per m
TU 1/4x5/32	FEP tubing, 1/4 x 5/32", transparent	per m
FLEXA 8x10	flexible SS tubing ID 7.5mm, for protecting FEP tubing	per m



Sample Gas Filters, Ozone Destructs



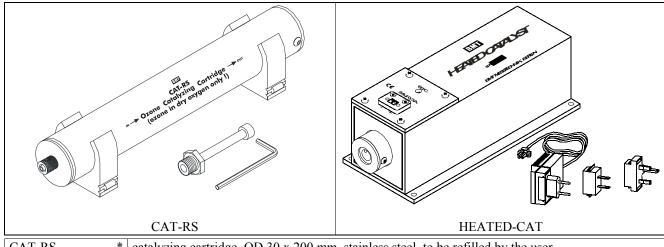
order number	description
DT 25	DIRT TRAP 25ml, fittings 3x5 mm, glass / PTFE
DT 50	DIRT TRAP 50ml, fittings 6mm or 1/4" LET-LOK (Swagelok interchangeable),
	glass / PTFE, acrylic protection on two sides
DT 100	DIRT TRAP 100ml fittings 3x5 mm glass / PTFF



SS1		sample system, gas filter + flow resistance, fittings for 3x5 mm
FILTER-SS1		filter insert (two pieces), PTFE
SGF 50	*	sample gas filter, diameter 50 mm, fittings for (standard) 3x5 mm or 4x6 mm PTFE,
		mounting holes M 4, anodised aluminum, comes with 20 filter inserts (pure glass fibre)
SGF 50G	*	same as above, golden anodized, for filter inserts of porous PTFE ("GOLD" filters),
		5 spare filter inserts
SGF 50G/W	*	same as above, with window for easy inspection
SGF 50G		filter holder replacement (removable part, black or grey) for upgrade of
UPGRADE KIT		BMT 964C / OG with 50mm glass fibre filter insert to porous PTFE
FILTER 50		box with 20 filter inserts, 50mm, for SGF 50 (as used in older BMT 964C & OG)
FILTER 50G		box with 5 filter inserts of porous PTFE ("GOLD" filters), 50mm, for SGF 50G
FILTER 25		box with 20 filter inserts of pure glass fibre, 25mm (as used in older BMT 964)

^{*} These filter holders are not suitable as spare parts in BMT instruments! Please ask.

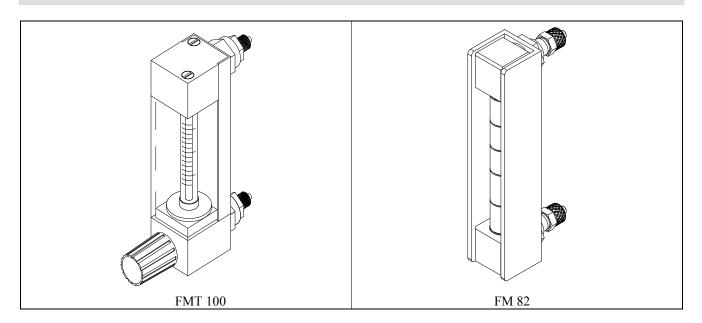




CAT-RS	*	catalyzing cartridge, OD 30 x 200 mm, stainless steel, to be refilled by the user,
		fitting for 3x5 mm FEP tubing (1/8" or 1/4" Swagelok on request), outlet G1/8,
		internal dust filters, clips; REFILL-RS included
		Attention: warranty is restricted to O ₃ in pure dry oxygen
REFILL-RS		Carulite 200 material to refill CAT-RS
REFILL-35		(see page 4, BMT 964 C)
HEATED-CAT		CAT-RS as above, electrically heated to 60°C
		for 24 VDC, wall mount power supply for 100-240VAC included

^{*} The above CAT-RS is not suitable as spare part in BMT instruments! Please ask.

Flow Meters



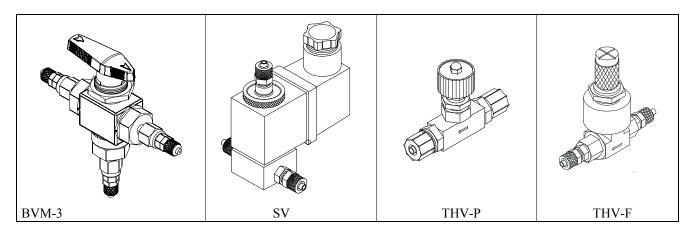
order number	description
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Accessories

List of Products

FMT 100-12	flow meter (SS) 0.1 to 1.2 l/min, with throttle valve, fittings 3x5 mm Al
FMT 100-6	same as above, range 0.05 to 0.6 l/min
FM 82-3	flow meter 0.03 to 0.3 l/min, glass, SS, PTFE, fittings for 3x5 mm or 4x6 mm tubing
FM 82-5	flow meter 0.04 to 0.5 l/min, glass, SS, PTFE, fittings for 3x5 mm or 4x6 mm tubing
FM 82-10	flow meter 0.1 to 1.0 l/min, glass, SS, PTFE, fittings for 3x5 mm or 4x6 mm tubing

Valves



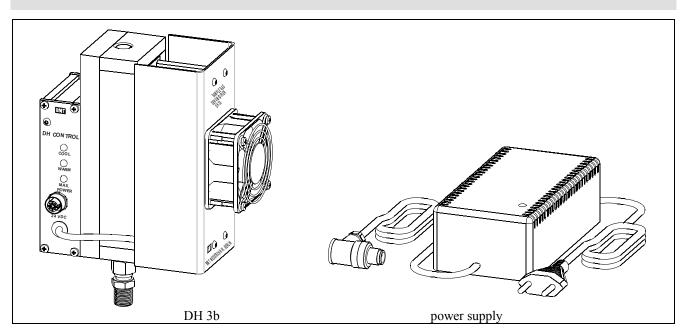
BVM-3		3-way ball valve, manually operated, SS, for 3x5 mm tubing
SVDC 5	*	3-way solenoid valve, fittings for 3x5 mm FEP, SS, 5V DC / 2.8W, with plug
SVDC 12	*	3-way solenoid valve, fittings for 3x5 mm FEP, SS, 12V DC / 6W, with plug
SVDC 24	*	3-way solenoid valve, fittings for 3x5 mm FEP, SS, 24V DC / 6W, with plug
SVDC Plug		electric connector
SVAC-PWR		24 VDC power supply, to operate SVDC 24 at 100240 VAC, 15 W, screw terminals
THV-P		throttle valve, for PRESS (bypass) configuration, for 3x5 mm tubing
THV-F		throttle valve, fine tuning, for 3x5 mm tubing

^{*} The above solenoid valves are not suitable as spare parts in BMT instruments! Please ask.

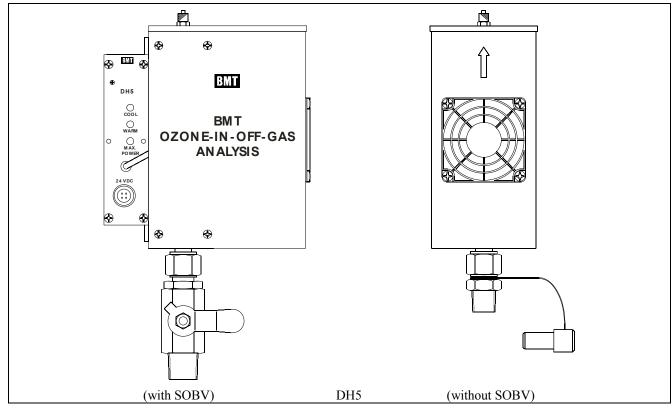


Sample Gas Dryers, Pumps

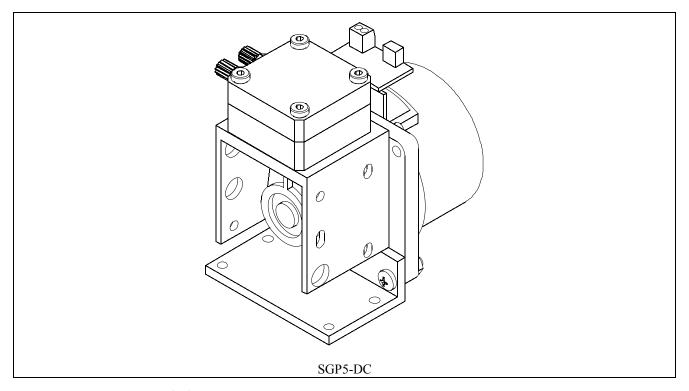
Valid from 01. Aug 2017



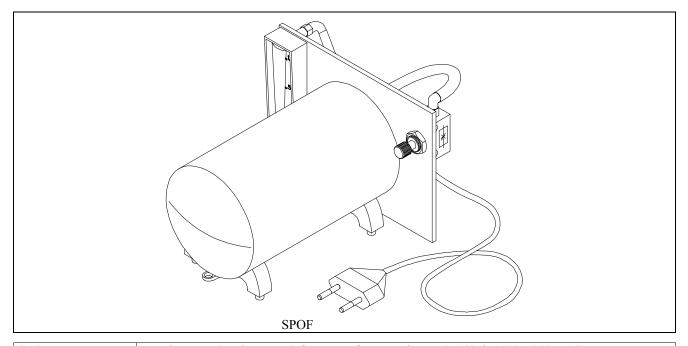
order number	description
DH 3b	sample gas dehumidifier DH3b, outlet f. 3x5 mm FEP, incl. pwr. supply 100-240 VAC
DH 3b-LC	to be used at very low (ambient) ozone concentration, internal PTFE lining,
	incl. power supply 100-240 VAC



order number	description
DH5	sample gas dehumidifier DH5, peltier-electric, splash proof
	including power supply, 100240 VAC to 24 V DC, 100 W
DH5-LC	version to be used at very low (ambient) ozone concentration, internal PTFE lining
SOBV	shut-off ball valve, mounting option for DH5 and DH5-LC
DH5-WH	weather hood for DH5 for operation outside of building



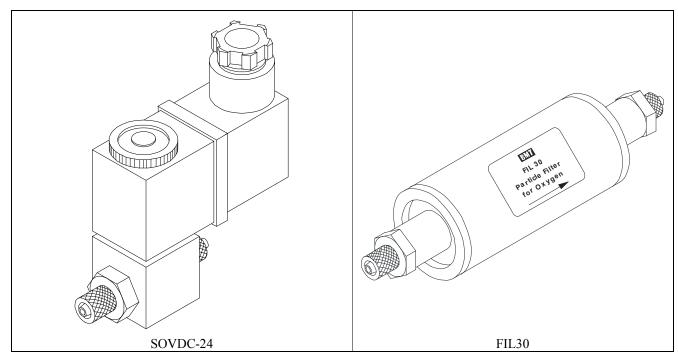
order number	description
SGP5-DC	sample gas pump, ozone resistant, fittings for 3x5 mm, 24 VDC, 1A
	performance: 0.5 l/min at $\Delta P = 0$ and 0.35 l/min at $\Delta P = 100$ mbar
Spare Parts SGP5	spare parts kit for SGP5 (membrane, valves, O-rings)
SGP5-DC-POWER	24VDC wall mount power supply for 100, 240VAC



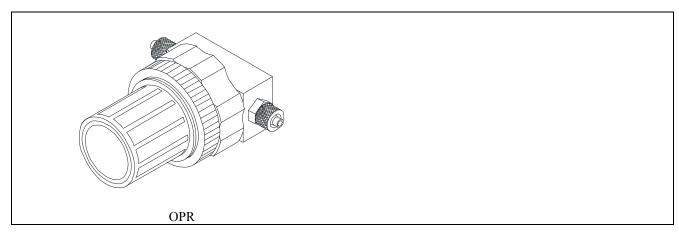
SPOF sample pump (suction pump) for ozone-free sample gas, 0-1 l/min, 100 - 240 VAC	<u> </u>
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Ozone Generator Accessories



SOVDC-24	oxygen safety off valve NC (for 3x5 mm tubing), coil 24 VDC/5W, others on request
FIL30	oxygen filter (specify tubing)



order number description

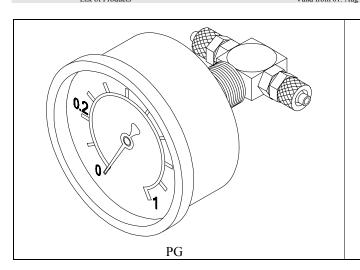
OPR10	oxygen pressure regulator 0-1.0 barg
OPR25	oxygen pressure regulator 0-2.5 barg

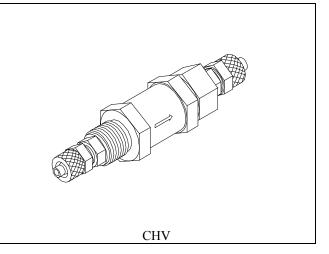


Ozone Instruments Valid from 01. Aug 2017

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order number	description
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PG10	oxygen pressure gauge, 50mm OD, 0-1.0 barg, with 2 fittings for 3x5 mm tubing, clamp
PG25	oxygen pressure gauge, 50mm OD, 0-2.5 barg, with 2 fittings for 3x5 mm tubing, clamp
CHV	check valve, approx. 25 mbar, ozone resistant

If you have any further question, do not hesitate to contact us.

We will find a solution to your problem.

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