

# Modbus Register B7000 TOC/TN/TP

V1.1



*Be Right™*

B7000 TOC/TN/TP V1.1

Name	Register	Data Type	Length	Access Mode	Discrete Range	Min / Max	Description
find complete register list on the next pages	0		1				for B7000 Software min. V02.13.00



Be Right™

Modbus Register  
B7000 BioTector TOC TN TP Analyzer  
V 1.1

# B7000 BioTector TOC TN TP Analyzer V 1.1

## REACTION RESULTS Registers

NAME	REGISTER	DATA TYPE	LENGTH	ACCESS MODE	MIN/MAX	DESCRIPTION
STREAM_1_RLOG_TIC	40001	Float	2	R	< -1.0e6,1.0e6 >	Stream 1: TIC Last on-line TIC reading
	40002					Note: reading this register updates the value in its _TIME register.
STREAM_1_RLOG_TOC	40003	Float	2	R	< -1.0e6,1.0e6 >	Stream 1: TOC Last on-line TOC reading
	40004					Note: reading this register updates the value in its _TIME register.
STREAM_1_RLOG_TC	40005	Float	2	R	< -1.0e6,1.0e6 >	Stream 1: TC Last on-line TC reading
	40006					Note: reading this register updates the value in its _TIME register.
STREAM_1_RLOG_VOC	40007	Float	2	R	< -1.0e6,1.0e6 >	Stream 1: VOC Last on-line VOC reading
	40008					Note: reading this register updates the value in its _TIME register.
STREAM_1_RLOG_TN	40009	Float	2	R	< -1.0e6,1.0e6 >	Stream 1: TN Last on-line TN reading
	40010					Note: reading this register updates the value in its _TIME register.
STREAM_1_RLOG_TP	40011	Float	2	R	< -1.0e6,1.0e6 >	Stream 1: TP Last on-line TP reading
	40012					Note: reading this register updates the value in its _TIME register.
STREAM_1_RLOG_COD	40013	Float	2	R	< -1.0e6,1.0e6 >	Stream 1: COD Last on-line COD reading
	40014					Note: reading this register updates the value in its _TIME register.
STREAM_1_RLOG_BOD	40015	Float	2	R	< -1.0e6,1.0e6 >	Stream 1: BOD Last on-line BOD reading
	40016					Note: reading this register updates the value in its _TIME register.
STREAM_1_RLOG_TPR	40025	Float	2	R	< -1.0e6,1.0e6 >	Stream 1: TPR Last on-line TPR reading
	40026					Note: reading this register updates the value in its _TIME register.
STREAM_2_RLOG_TIC	40029	Float	2	R	< -1.0e6,1.0e6 >	Stream 2: TIC Last on-line TIC reading
	40030					Note: reading this register updates the value in its _TIME register.
STREAM_2_RLOG_TOC	40031	Float	2	R	< -1.0e6,1.0e6 >	Stream 2: TOC Last on-line TOC reading
	40032					Note: reading this register updates the value in its _TIME register.

NAME	REGISTER	DATA TYPE	LENGTH	ACCESS MODE	MIN/MAX	DESCRIPTION
STREAM_2_RLOG_TC	40033	Float	2	R	< -1.0e6,1.0e6 >	Stream 2: TC Last on-line TC reading
	40034					Note: reading this register updates the value in its _TIME register.
STREAM_2_RLOG_VOC	40035	Float	2	R	< -1.0e6,1.0e6 >	Stream 2: VOC Last on-line VOC reading
	40036					Note: reading this register updates the value in its _TIME register.
STREAM_2_RLOG_TN	40037	Float	2	R	< -1.0e6,1.0e6 >	Stream 2: TN Last on-line TN reading
	40038					Note: reading this register updates the value in its _TIME register.
STREAM_2_RLOG_TP	40039	Float	2	R	< -1.0e6,1.0e6 >	Stream 2: TP Last on-line TP reading
	40040					Note: reading this register updates the value in its _TIME register.
STREAM_2_RLOG_COD	40041	Float	2	R	< -1.0e6,1.0e6 >	Stream 2: COD Last on-line COD reading
	40042					Note: reading this register updates the value in its _TIME register.
STREAM_2_RLOG_BOD	40043	Float	2	R	< -1.0e6,1.0e6 >	Stream 2: BOD Last on-line BOD reading
	40044					Note: reading this register updates the value in its _TIME register.
STREAM_2_RLOG_TPR	40053	Float	2	R	< -1.0e6,1.0e6 >	Stream 2: TPR Last on-line TPR reading
	40054					Note: reading this register updates the value in its _TIME register.
STREAM_3_RLOG_TIC	40057	Float	2	R	< -1.0e6,1.0e6 >	Stream 3: TIC Last on-line TIC reading
	40058					Note: reading this register updates the value in its _TIME register.
STREAM_3_RLOG_TOC	40059	Float	2	R	< -1.0e6,1.0e6 >	Stream 3: TOC Last on-line TOC reading
	40060					Note: reading this register updates the value in its _TIME register.
STREAM_3_RLOG_TC	40061	Float	2	R	< -1.0e6,1.0e6 >	Stream 3: TC Last on-line TC reading
	40062					Note: reading this register updates the value in its _TIME register.
STREAM_3_RLOG_VOC	40063	Float	2	R	< -1.0e6,1.0e6 >	Stream 3: VOC Last on-line VOC reading
	40064					Note: reading this register updates the value in its _TIME register.
STREAM_3_RLOG_TN	40065	Float	2	R	< -1.0e6,1.0e6 >	Stream 3: TN Last on-line TN reading
	40066					Note: reading this register updates the value in its _TIME register.
STREAM_3_RLOG_TP	40067	Float	2	R	< -1.0e6,1.0e6 >	Stream 3: TP Last on-line TP reading
	40068					Note: reading this register updates the value in its _TIME register.

NAME	REGISTER	DATA TYPE	LENGTH	ACCESS MODE	MIN/MAX	DESCRIPTION
STREAM_3_RLOG_COD	40069	Float	2	R	< -1.0e6,1.0e6 >	Stream 3: COD Last on-line COD reading
	40070					Note: reading this register updates the value in its _TIME register.
STREAM_3_RLOG_BOD	40071	Float	2	R	< -1.0e6,1.0e6 >	Stream 3: BOD Last on-line BOD reading
	40072					Note: reading this register updates the value in its _TIME register.
STREAM_3_RLOG_TPR	40081	Float	2	R	< -1.0e6,1.0e6 >	Stream 3: TPR Last on-line TPR reading
	40082					Note: reading this register updates the value in its _TIME register.
STREAM_4_RLOG_TIC	40085	Float	2	R	< -1.0e6,1.0e6 >	Stream 4: TIC Last on-line TIC reading
	40086					Note: reading this register updates the value in its _TIME register.
STREAM_4_RLOG_TOC	40087	Float	2	R	< -1.0e6,1.0e6 >	Stream 4: TOC Last on-line TOC reading
	40088					Note: reading this register updates the value in its _TIME register.
STREAM_4_RLOG_TC	40089	Float	2	R	< -1.0e6,1.0e6 >	Stream 4: TC Last on-line TC reading
	40090					Note: reading this register updates the value in its _TIME register.
STREAM_4_RLOG_VOC	40091	Float	2	R	< -1.0e6,1.0e6 >	Stream 4: VOC Last on-line VOC reading
	40092					Note: reading this register updates the value in its _TIME register.
STREAM_4_RLOG_TN	40093	Float	2	R	< -1.0e6,1.0e6 >	Stream 4: TN Last on-line TN reading
	40094					Note: reading this register updates the value in its _TIME register.
STREAM_4_RLOG_TP	40095	Float	2	R	< -1.0e6,1.0e6 >	Stream 4: TP Last on-line TP reading
	40096					Note: reading this register updates the value in its _TIME register.
STREAM_4_RLOG_COD	40097	Float	2	R	< -1.0e6,1.0e6 >	Stream 4: COD Last on-line COD reading
	40098					Note: reading this register updates the value in its _TIME register.
STREAM_4_RLOG_BOD	40099	Float	2	R	< -1.0e6,1.0e6 >	Stream 4: BOD Last on-line BOD reading
	40100					Note: reading this register updates the value in its _TIME register.
STREAM_4_RLOG_TPR	40103	Float	2	R	< -1.0e6,1.0e6 >	Stream 4: TPR Last on-line TPR reading
	40104					Note: reading this register updates the value in its _TIME register.
STREAM_5_RLOG_TIC	40107	Float	2	R	< -1.0e6,1.0e6 >	Stream 5: TIC Last on-line TIC reading
	40108					Note: reading this register updates the value in its _TIME register.

NAME	REGISTER	DATA TYPE	LENGTH	ACCESS MODE	MIN/MAX	DESCRIPTION
STREAM_5_RLOG_TOC	40109	Float	2	R	< -1.0e6,1.0e6 >	Stream 5: TOC Last on-line TOC reading
	40110					Note: reading this register updates the value in its _TIME register.
STREAM_5_RLOG_TC	40111	Float	2	R	< -1.0e6,1.0e6 >	Stream 5: TC Last on-line TC reading
	40112					Note: reading this register updates the value in its _TIME register.
STREAM_5_RLOG_VOC	40113	Float	2	R	< -1.0e6,1.0e6 >	Stream 5: VOC Last on-line VOC reading
	40114					Note: reading this register updates the value in its _TIME register.
STREAM_5_RLOG_TN	40115	Float	2	R	< -1.0e6,1.0e6 >	Stream 5: TN Last on-line TN reading
	40116					Note: reading this register updates the value in its _TIME register.
STREAM_5_RLOG_TP	40117	Float	2	R	< -1.0e6,1.0e6 >	Stream 5: TP Last on-line TP reading
	40118					Note: reading this register updates the value in its _TIME register.
STREAM_5_RLOG_COD	40119	Float	2	R	< -1.0e6,1.0e6 >	Stream 5: COD Last on-line COD reading
	40120					Note: reading this register updates the value in its _TIME register.
STREAM_5_RLOG_BOD	40121	Float	2	R	< -1.0e6,1.0e6 >	Stream 5: BOD Last on-line BOD reading
	40122					Note: reading this register updates the value in its _TIME register.
STREAM_5_RLOG_TPR	40125	Float	2	R	< -1.0e6,1.0e6 >	Stream 5: TPR Last on-line TPR reading
	40126					Note: reading this register updates the value in its _TIME register.
STREAM_6_RLOG_TIC	40129	Float	2	R	< -1.0e6,1.0e6 >	Stream 6: TIC Last on-line TIC reading
	40130					Note: reading this register updates the value in its _TIME register.
STREAM_6_RLOG_TOC	40131	Float	2	R	< -1.0e6,1.0e6 >	Stream 6: TOC Last on-line TOC reading
	40132					Note: reading this register updates the value in its _TIME register.
STREAM_6_RLOG_TC	40133	Float	2	R	< -1.0e6,1.0e6 >	Stream 6: TC Last on-line TC reading
	40134					Note: reading this register updates the value in its _TIME register.
STREAM_6_RLOG_VOC	40135	Float	2	R	< -1.0e6,1.0e6 >	Stream 6: VOC Last on-line VOC reading
	40136					Note: reading this register updates the value in its _TIME register.
STREAM_6_RLOG_TN	40137	Float	2	R	< -1.0e6,1.0e6 >	Stream 6: TN Last on-line TN reading
	40138					Note: reading this register updates the value in its _TIME register.

NAME	REGISTER	DATA TYPE	LENGTH	ACCESS MODE	MIN/MAX	DESCRIPTION
STREAM_6_RLOG_TP	40139	Float	2	R	< -1.0e6,1.0e6 >	Stream 6: TP Last on-line TP reading
	40140					Note: reading this register updates the value in its _TIME register.
STREAM_6_RLOG_COD	40141	Float	2	R	< -1.0e6,1.0e6 >	Stream 6: COD Last on-line COD reading
	40142					Note: reading this register updates the value in its _TIME register.
STREAM_6_RLOG_BOD	40143	Float	2	R	< -1.0e6,1.0e6 >	Stream 6: BOD Last on-line BOD reading
	40144					Note: reading this register updates the value in its _TIME register.
STREAM_6_RLOG_TPR	40147	Float	2	R	< -1.0e6,1.0e6 >	Stream 6: TPR Last on-line TPR reading
	40148					Note: reading this register updates the value in its _TIME register.
RLOG_SMPL_STATUS	40200	Float	2	R	< 0.0,100.0 >	Sample status Quality of sample, measured by the ultrasonic sensor
	40201					Note: reading this register updates the value in its _TIME register.
RLOG_SMPL_STATUS_TIME	40202	integer	2	R	0x00000000-0xFFFFFFFF	Time, Date of last Sample status reading
	40203					
STREAM_1_RLOG_TIC_TIME	40300	integer	2	R	0x00000000-0xFFFFFFFF	Stream 1: Time, Date of last on-line TIC reading
	40301					
STREAM_1_RLOG_TOC_TIME	40302	integer	2	R	0x00000000-0xFFFFFFFF	Stream 1: Time, Date of last on-line TOC reading
	40303					
STREAM_1_RLOG_TC_TIME	40304	integer	2	R	0x00000000-0xFFFFFFFF	Stream 1: Time, Date of last on-line TC reading
	40305					
STREAM_1_RLOG_VOC_TIME	40306	integer	2	R	0x00000000-0xFFFFFFFF	Stream 1: Time, Date of last on-line VOC reading
	40307					
STREAM_1_RLOG_TN_TIME	40308	integer	2	R	0x00000000-0xFFFFFFFF	Stream 1: Time, Date of last on-line TN reading
	40309					
STREAM_1_RLOG_TP_TIME	40310	integer	2	R	0x00000000-0xFFFFFFFF	Stream 1: Time, Date of last on-line TP reading
	40311					
STREAM_1_RLOG_COD_TIME	40312	integer	2	R	0x00000000-0xFFFFFFFF	Stream 1: Time, Date of last on-line COD reading
	40313					
STREAM_1_RLOG_BOD_TIME	40314	integer	2	R	0x00000000-0xFFFFFFFF	Stream 1: Time, Date of last on-line BOD reading
	40315					
STREAM_1_RLOG_TPR_TIME	40324	integer	2	R	0x00000000-0xFFFFFFFF	Stream 1: Time, Date of last on-line TPR reading
	40325					
STREAM_2_RLOG_TIC_TIME	40328	integer	2	R	0x00000000-0xFFFFFFFF	Stream 2: Time, Date of last on-line TIC reading
	40329					
STREAM_2_RLOG_TOC_TIME	40330	integer	2	R	0x00000000-0xFFFFFFFF	Stream 2: Time, Date of last on-line TOC reading
	40331					



NAME	REGISTER	DATA TYPE	LENGTH	ACCESS MODE	MIN/MAX	DESCRIPTION
STREAM_2_RLOG_TC_TIME	40332	integer	2	R	0x00000000-0xFFFFFFFF	Stream 2: Time, Date of last on-line TC reading
	40333					
STREAM_2_RLOG_VOC_TIME	40334	integer	2	R	0x00000000-0xFFFFFFFF	Stream 2: Time, Date of last on-line VOC reading
	40335					
STREAM_2_RLOG_TN_TIME	40336	integer	2	R	0x00000000-0xFFFFFFFF	Stream 2: Time, Date of last on-line TN reading
	40337					
STREAM_2_RLOG_TP_TIME	40338	integer	2	R	0x00000000-0xFFFFFFFF	Stream 2: Time, Date of last on-line TP reading
	40339					
STREAM_2_RLOG_COD_TIME	40340	integer	2	R	0x00000000-0xFFFFFFFF	Stream 2: Time, Date of last on-line COD reading
	40341					
STREAM_2_RLOG_BOD_TIME	40342	integer	2	R	0x00000000-0xFFFFFFFF	Stream 2: Time, Date of last on-line BOD reading
	40343					
STREAM_2_RLOG_TPR_TIME	40352	integer	2	R	0x00000000-0xFFFFFFFF	Stream 2: Time, Date of last on-line TPR reading
	40353					
STREAM_3_RLOG_TIC_TIME	40356	integer	2	R	0x00000000-0xFFFFFFFF	Stream 3: Time, Date of last on-line TIC reading
	40357					
STREAM_3_RLOG_TOC_TIME	40358	integer	2	R	0x00000000-0xFFFFFFFF	Stream 3: Time, Date of last on-line TOC reading
	40359					
STREAM_3_RLOG_TC_TIME	40360	integer	2	R	0x00000000-0xFFFFFFFF	Stream 3: Time, Date of last on-line TC reading
	40361					
STREAM_3_RLOG_VOC_TIME	40362	integer	2	R	0x00000000-0xFFFFFFFF	Stream 3: Time, Date of last on-line VOC reading
	40363					
STREAM_3_RLOG_TN_TIME	40364	integer	2	R	0x00000000-0xFFFFFFFF	Stream 3: Time, Date of last on-line TN reading
	40365					
STREAM_3_RLOG_TP_TIME	40366	integer	2	R	0x00000000-0xFFFFFFFF	Stream 3: Time, Date of last on-line TP reading
	40367					
STREAM_3_RLOG_COD_TIME	40368	integer	2	R	0x00000000-0xFFFFFFFF	Stream 3: Time, Date of last on-line COD reading
	40369					
STREAM_3_RLOG_BOD_TIME	40370	integer	2	R	0x00000000-0xFFFFFFFF	Stream 3: Time, Date of last on-line BOD reading
	40371					
STREAM_3_RLOG_TPR_TIME	40380	integer	2	R	0x00000000-0xFFFFFFFF	Stream 3: Time, Date of last on-line TPR reading
	40381					
STREAM_4_RLOG_TIC_TIME	40384	integer	2	R	0x00000000-0xFFFFFFFF	Stream 4: Time, Date of last on-line TIC reading
	40385					
STREAM_4_RLOG_TOC_TIME	40386	integer	2	R	0x00000000-0xFFFFFFFF	Stream 4: Time, Date of last on-line TOC reading
	40387					
STREAM_4_RLOG_TC_TIME	40388	integer	2	R	0x00000000-0xFFFFFFFF	Stream 4: Time, Date of last on-line TC reading
	40389					
STREAM_4_RLOG_VOC_TIME	40390	integer	2	R	0x00000000-0xFFFFFFFF	Stream 4: Time, Date of last on-line VOC reading
	40391					
STREAM_4_RLOG_TN_TIME	40392	integer	2	R	0x00000000-0xFFFFFFFF	Stream 4: Time, Date of last on-line TN reading
	40393					

NAME	REGISTER	DATA TYPE	LENGTH	ACCESS MODE	MIN/MAX	DESCRIPTION
STREAM_4_RLOG_TP_TIME	40394	integer	2	R	0x00000000-0xFFFFFFFF	Stream 4: Time, Date of last on-line TP reading
	40395					
STREAM_4_RLOG_COD_TIME	40396	integer	2	R	0x00000000-0xFFFFFFFF	Stream 4: Time, Date of last on-line COD reading
	40397					
STREAM_4_RLOG_BOD_TIME	40398	integer	2	R	0x00000000-0xFFFFFFFF	Stream 4: Time, Date of last on-line BOD reading
	40399					
STREAM_4_RLOG_TPR_TIME	40402	integer	2	R	0x00000000-0xFFFFFFFF	Stream 4: Time, Date of last on-line TPR reading
	40403					
STREAM_5_RLOG_TIC_TIME	40406	integer	2	R	0x00000000-0xFFFFFFFF	Stream 5: Time, Date of last on-line TIC reading
	40407					
STREAM_5_RLOG_TOC_TIME	40408	integer	2	R	0x00000000-0xFFFFFFFF	Stream 5: Time, Date of last on-line TOC reading
	40409					
STREAM_5_RLOG_TC_TIME	40410	integer	2	R	0x00000000-0xFFFFFFFF	Stream 5: Time, Date of last on-line TC reading
	40411					
STREAM_5_RLOG_VOC_TIME	40412	integer	2	R	0x00000000-0xFFFFFFFF	Stream 5: Time, Date of last on-line VOC reading
	40413					
STREAM_5_RLOG_TN_TIME	40414	integer	2	R	0x00000000-0xFFFFFFFF	Stream 5: Time, Date of last on-line TN reading
	40415					
STREAM_5_RLOG_TP_TIME	40416	integer	2	R	0x00000000-0xFFFFFFFF	Stream 5: Time, Date of last on-line TP reading
	40417					
STREAM_5_RLOG_COD_TIME	40418	integer	2	R	0x00000000-0xFFFFFFFF	Stream 5: Time, Date of last on-line COD reading
	40419					
STREAM_5_RLOG_BOD_TIME	40420	integer	2	R	0x00000000-0xFFFFFFFF	Stream 5: Time, Date of last on-line BOD reading
	40421					
STREAM_5_RLOG_TPR_TIME	40424	integer	2	R	0x00000000-0xFFFFFFFF	Stream 5: Time, Date of last on-line TPR reading
	40425					
STREAM_6_RLOG_TIC_TIME	40428	integer	2	R	0x00000000-0xFFFFFFFF	Stream 6: Time, Date of last on-line TIC reading
	40429					
STREAM_6_RLOG_TOC_TIME	40430	integer	2	R	0x00000000-0xFFFFFFFF	Stream 6: Time, Date of last on-line TOC reading
	40431					
STREAM_6_RLOG_TC_TIME	40432	integer	2	R	0x00000000-0xFFFFFFFF	Stream 6: Time, Date of last on-line TC reading
	40433					
STREAM_6_RLOG_VOC_TIME	40434	integer	2	R	0x00000000-0xFFFFFFFF	Stream 6: Time, Date of last on-line VOC reading
	40435					
STREAM_6_RLOG_TN_TIME	40436	integer	2	R	0x00000000-0xFFFFFFFF	Stream 6: Time, Date of last on-line TN reading
	40437					
STREAM_6_RLOG_TP_TIME	40438	integer	2	R	0x00000000-0xFFFFFFFF	Stream 6: Time, Date of last on-line TP reading
	40439					
STREAM_6_RLOG_COD_TIME	40440	integer	2	R	0x00000000-0xFFFFFFFF	Stream 6: Time, Date of last on-line COD reading
	40441					
STREAM_6_RLOG_BOD_TIME	40442	integer	2	R	0x00000000-0xFFFFFFFF	Stream 6: Time, Date of last on-line BOD reading
	40443					

NAME	REGISTER	DATA TYPE	LENGTH	ACCESS MODE	MIN/MAX	DESCRIPTION
STREAM_6_RLOG_TPR_TIME	40446	integer	2	R	0x00000000-0xFFFFFFFF	Stream 6: Time, Date of last on-line TPR reading
	40447					



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# B7000 BioTector TOC TN TP Analyzer V 1.1

## SETTINGS, CALIBRATION AND DIAGNOSTICS Registers

NAME	REGISTER	DATA TYPE	LENGTH	ACCESS MODE	MIN/MAX	DESCRIPTION
DEVICE_ADDR	40500	integer	1	R/W	0x0000-0x00C8	Device address on Modbus network.
DEVICE_ID	40501	integer	1	R/W	0x0000-0xFFFF	Device class ID code.
MANUF_ID	40502	integer	1	R/W	0x0000-0x00FF	Manufacture ID code.
DEVICE_SERIAL_ID	40503	uint48	3	R	0x0000000000000-0xFFFFFFFFFFFFFFF	Device serial number.
	40504					
	40505					
PROTO_REV	40506	integer	1	R	0x0000-0x9999	Modbus protocol implementation revision, expressed in BCD code. rev AA.BB → 0xAABB
FRMW_REV	40507	integer	1	R	0x0000-0x9999	Device firmware revision, expressed in BCD code. rev AA.BB → 0xAABB
REGS_MAP_REV	40508	integer	1	R	0x0000-0x9999	Device Modbus registers map, expressed in BCD code. rev AA.BB → 0xAABB
LOCATION_STR	40509	string	8	R/W	max. 16chars	Device location text info. The string has to be null terminated if shorter than max. size.
	40510					
	40511					
	40512					
	40513					
	40514					
	40515					
	40516					
BAUDRATE	40517	integer	1	R/W	0x0000-0x0008	Indexed device baud rate used on Modbus.  0 – 1200 bps 1 – 2400 bps 2 – 4800 bps 3 – 9600 bps 4 – 14400 bps 5 – 19200 bps 6 – 38400 bps 7 – 57600 bps 8 – 115200 bps  Note: default value should be 7, 57600bps.
SYS_TIMEDATE	40518	integer	2	R/W	0x00000000-0xFFFFFFFF	System time & date in seconds elapsed since 1.1.1970.  Note: this reg can be changed only when system is fully stopped.
	40519					

NAME	REGISTER	DATA TYPE	LENGTH	ACCESS MODE	MIN/MAX	DESCRIPTION
SYS_TIME	40520	integer	1	R/W	0x0000-0x3B3B	System time, encoded in higher/lower bytes. HH:MM → 0xHHMM  Note: this reg can be changed only when system is fully stopped.
SYS_DATE	40521	integer	2	R/W	0x00000000-0x1F0C0833	System date, encoded in 4 bytes bytes.  higher word DAY:MON → 0xDDMM lower word YEAR → 0xYYYY  Note: this reg can be changed only when system is fully stopped.
	40522					
REACT_TIC_RANGE1	40550	Float	2	R	< 0.0,1000000.0 >	TIC range 1  Note: shown as 0.0 if in the actual analysis mode this result not available.
	40551					
REACT_TIC_RANGE2	40552	Float	2	R	< 0.0,1000000.0 >	TIC range 2  Note: shown as 0.0 if in the actual analysis mode this result not available.
	40553					
REACT_TIC_RANGE3	40554	Float	2	R	< 0.0,1000000.0 >	TIC range 3  Note: shown as 0.0 if in the actual analysis mode this result not available.
	40555					
REACT_TOC_RANGE1	40556	Float	2	R	< 0.0,1000000.0 >	TOC range 1  Note: shown as 0.0 if in the actual analysis mode this result not available.
	40557					
REACT_TOC_RANGE2	40558	Float	2	R	< 0.0,1000000.0 >	TOC range 2  Note: shown as 0.0 if in the actual analysis mode this result not available.
	40559					
REACT_TOC_RANGE3	40560	Float	2	R	< 0.0,1000000.0 >	TOC range 3  Note: shown as 0.0 if in the actual analysis mode this result not available.
	40561					
REACT_TC_RANGE1	40562	Float	2	R	< 0.0,1000000.0 >	TC range 1  Note: shown as 0.0 if in the actual analysis mode this result not available.
	40563					

NAME	REGISTER	DATA TYPE	LENGTH	ACCESS MODE	MIN/MAX	DESCRIPTION
REACT_TC_RANGE2	40564	Float	2	R	< 0.0,1000000.0 >	TC range 2
	40565					Note: shown as 0.0 if in the actual analysis mode this result not available.
REACT_TC_RANGE3	40566	Float	2	R	< 0.0,1000000.0 >	TC range 3
	40567					Note: shown as 0.0 if in the actual analysis mode this result not available.
REACT_TN_RANGE1	40568	Float	2	R	< 0.0,1000000.0 >	TN range 1
	40569					Note: shown as 0.0 if in the actual analysis mode this result not available.
REACT_TN_RANGE2	40570	Float	2	R	< 0.0,1000000.0 >	TN range 2
	40571					Note: shown as 0.0 if in the actual analysis mode this result not available.
REACT_TN_RANGE3	40572	Float	2	R	< 0.0,1000000.0 >	TN range 3
	40573					Note: shown as 0.0 if in the actual analysis mode this result not available.
REACT_TP_RANGE1	40574	Float	2	R	< 0.0,1000000.0 >	TP range 1
	40575					Note: shown as 0.0 if in the actual analysis mode this result not available.
REACT_TP_RANGE2	40576	Float	2	R	< 0.0,1000000.0 >	TP range 2
	40577					Note: shown as 0.0 if in the actual analysis mode this result not available.
REACT_TP_RANGE3	40578	Float	2	R	< 0.0,1000000.0 >	TP range 3
	40579					Note: shown as 0.0 if in the actual analysis mode this result not available.
REACT_TPR_RANGE1	40580	Float	2	R	< 0.0,1000000.0 >	TPR range 1
	40581					Note: shown as 0.0 if in the actual analysis mode this result not available.
REACT_TPR_RANGE2	40582	Float	2	R	< 0.0,1000000.0 >	TPR range 2
	40583					Note: shown as 0.0 if in the actual analysis mode this result not available.

NAME	REGISTER	DATA TYPE	LENGTH	ACCESS MODE	MIN/MAX	DESCRIPTION
REACT_TPR_RANGE3	40584	Float	2	R	< 0.0,1000000.0 >	TPR range 3 Note: shown as 0.0 if in the actual analysis mode this result not available.
	40585					
OXF_ANLS	40586	integer	1	R	0x0000-0x07FF	Show the current oxidation analysis type. bit 0 = TIC+TOC. bit 1 = TC. bit 2 = VOC. bit 3 = TIC+TOCe bit 4 = TCe bit 5 = TIC+TOCb bit 6 = TCb bit 7 = VOCb bit 8 = Fast TC
LQP_ANLS	40587	integer	1	R	0x0000-0x0017	Show the current liquid analysis type. bit 0 = TN. bit 1 = TP. bit 2 = TN+TP bit 3 = TPb bit 4 = TN+TPb bit 5 = TN+TPr+TP bit 6 = TN+TPr
AUTOCAL_PROG	40700	integer	1	R	0x0000-0x000F	bit 0 = off bit 1 = Monday bit 2 = Tuesday bit 3 = Wednesday bit 4 = Thursday bit 5 = Friday bit 6 = Saturday bit 7 = Sunday
AUTOCAL_PROG_TIME	40701	integer	1	R	0x0000-0x3B3B	Time of scheduled autocal, encoded in higher/lower bytes. HH:MM → 0xHHMM
CLOG_CAL_SELECT	40702	integer	1	R/W	0x0000-0x0004	0 = TIC 1 = TOC 2 = TC 3 = TN 4 = TP 5 = TPR  Note: this register value defines value of all following CLOG_ registers. By writing into CLOG_CAL_SELECT register updates CLOG_ registers in the similar way the reading of CLOG_CALx_SPAN_STATUS or CLOG_CALx_ZERO does.

NAME	REGISTER	DATA TYPE	LENGTH	ACCESS MODE	MIN/MAX	DESCRIPTION
CLOG_CAL1_SPAN_STATUS	40703	integer	1	R	0x0000-0x007F	bit 0 = calibration bit 1 = check bit 2 = calibration successful bit 3 = result outside band bit 4 = calculated from other range bit 5 = calculated from TOC/TC result bit 6 = entered by operator  Note: in case of calibration failure on master range, the derived results status need to be update as well.
CLOG_CAL1_SPAN_TIME	40704	integer	2	R	0x00000000-0xFFFFFFFF	Time, Date of last calibration action
	40705					Note: this register value is only updated when CLOG_CAL1_SPAN_STATUS register is read.
CLOG_CAL1_SPAN_STD	40706	Float	2	R	< -1.0e6,1.0e6 >	Standard used Null if bits 4-6 set in "...status" register
	40707					Note: this register value is only updated when CLOG_CAL1_SPAN_STATUS register is read.
CLOG_CAL1_SPAN_RSLT	40708	Float	2	R	< -1.0e6,1.0e6 >	Result found Null if bits 4-6 set in "...status" register
	40709					Note: this register value is only updated when CLOG_CAL1_SPAN_STATUS register is read.
CLOG_CAL1_SPAN_FACTOR	40710	Float	2	R	< -1.0e6,1.0e6 >	Span adjustment factor currently in use
	40711					Note: this register value is only updated when CLOG_CAL1_SPAN_STATUS register is read.
CLOG_CAL1_ZERO_STATUS	40712	integer	1	R/W	0x0000-0x007F	bit 0 = zero calibration bit 1 = zero check bit 2 = zero successful bit 3 = result outside band bit 4 = calculated from other range bit 5 = TIC: no zero required bit 6 = entered by operator
CLOG_CAL1_ZERO_TIME	40713	integer	2	R	0x00000000-0xFFFFFFFF	Time, Date of last zero action
	40714					Note: this register value is only updated when CLOG_CAL1_ZERO_STATUS register is read.
CLOG_CAL1_ZERO_OFFSET	40715	Float	2	R	< -1.0e6,1.0e6 >	Zero offset currently in use
	40716					Note: this register value is only updated when CLOG_CAL1_ZERO_STATUS register is read.
CLOG_CAL2_SPAN_STATUS	40717	integer	1	R	0x0000-0x007F	bit 0 = calibration bit 1 = check bit 2 = calibration successful bit 3 = result outside band bit 4 = calculated from other range bit 5 = calculated from TOC/TC result bit 6 = entered by operator



NAME	REGISTER	DATA TYPE	LENGTH	ACCESS MODE	MIN/MAX	DESCRIPTION
CLOG_CAL2_SPAN_TIME	40718	integer	2	R	0x00000000-0xFFFFFFFF	Time, Date of last calibration action
	40719					Note: this register value is only updated when CLOG_CAL2_SPAN_STATUS register is read.
CLOG_CAL2_SPAN_STD	40720	Float	2	R	< -1.0e6,1.0e6 >	Standard used Null if bits 4-6 set in "...status" register
	40721					Note: this register value is only updated when CLOG_CAL2_SPAN_STATUS register is read.
CLOG_CAL2_SPAN_RSLT	40722	Float	2	R	< -1.0e6,1.0e6 >	Result found Null if bits 4-6 set in "...status" register
	40723					Note: this register value is only updated when CLOG_CAL2_SPAN_STATUS register is read.
CLOG_CAL2_SPAN_FACTOR	40724	Float	2	R	< -1.0e6,1.0e6 >	Span adjustment factor currently in use
	40725					Note: this register value is only updated when CLOG_CAL2_SPAN_STATUS register is read.
CLOG_CAL2_ZERO_STATUS	40726	integer	1	R/W	0x0000-0x007F	bit 0 = zero calibration bit 1 = zero check bit 2 = zero successful bit 3 = result outside band bit 4 = calculated from other range bit 5 = TIC: no zero required bit 6 = entered by operator
CLOG_CAL2_ZERO_TIME	40727	integer	2	R	0x00000000-0xFFFFFFFF	Time, Date of last zero action
	40728					Note: this register value is only updated when CLOG_CAL2_ZERO_STATUS register is read.
CLOG_CAL2_ZERO_OFFSET	40729	Float	2	R	< -1.0e6,1.0e6 >	Zero offset currently in use
	40730					Note: this register value is only updated when CLOG_CAL2_ZERO_STATUS register is read.
CLOG_CAL3_SPAN_STATUS	40731	integer	1	R	0x0000-0x007F	bit 0 = calibration bit 1 = check bit 2 = calibration successful bit 3 = result outside band bit 4 = calculated from other range bit 5 = calculated from TOC/TC result bit 6 = entered by operator
CLOG_CAL3_SPAN_TIME	40732	integer	2	R	0x00000000-0xFFFFFFFF	Time, Date of last calibration action
	40733					Note: this register value is only updated when CLOG_CAL3_SPAN_STATUS register is read.
CLOG_CAL3_SPAN_STD	40734	Float	2	R	< -1.0e6,1.0e6 >	Standard used Null if bits 4-6 set in "...status" register
	40735					Note: this register value is only updated when CLOG_CAL3_SPAN_STATUS register is read.

NAME	REGISTER	DATA TYPE	LENGTH	ACCESS MODE	MIN/MAX	DESCRIPTION
CLOG_CAL3_SPAN_RSLT	40736	Float	2	R	< -1.0e6,1.0e6 >	Result found Null if bits 4-6 set in "...status" register
	40737					Note: this register value is only updated when CLOG_CAL3_SPAN_STATUS register is read.
CLOG_CAL3_SPAN_FACTOR	40738	Float	2	R	< -1.0e6,1.0e6 >	Span adjustment factor currently in use
	40739					Note: this register value is only updated when CLOG_CAL3_SPAN_STATUS register is read.
CLOG_CAL3_ZERO_STATUS	40740	integer	1	R/W	0x0000-0x007F	bit 0 = zero calibration bit 1 = zero check bit 2 = zero successful bit 3 = result outside band bit 4 = calculated from other range bit 5 = TIC: no zero required bit 6 = entered by operator
CLOG_CAL3_ZERO_TIME	40741	integer	2	R	0x00000000-0xFFFFFFFF	Time, Date of last zero action
	40742					Note: this register value is only updated when CLOG_CAL3_ZERO_STATUS register is read.
CLOG_CAL3_ZERO_OFFSET	40743	Float	2	R	< -1.0e6,1.0e6 >	Zero offset currently in use
	40744					Note: this register value is only updated when CLOG_CAL3_ZERO_STATUS register is read.
PANEL_TEMP	40800	Float	2	R	< -100.0,150.0 >	Current Enclosure Temperature, in deg C
	40801					
ATM_PRESS	40802	Float	2	R	< 0.0,250.0 >	Atmospheric pressure from sensor, in kPa
	40803					
CO2A_ZERO	40804	Float	2	R	< -1.0e6,1.0e6 >	CO2 analyser zero setting.
	40805					Note: this register is reset to 0.0 after power-up and gets set during ANALYZER_ZERO reaction state.
COOLER_TEMP	40806	Float	2	R	< -100.0,150.0 >	Cooler temperature, if measured, in deg C
	40807					
TP_BOILER_TEMP	40808	Float	2	R	< -100.0,150.0 >	TP boiler temperature
	40809					
TP_MIX_BOILER_TEMP	40810	Float	2	R	< -100.0,150.0 >	TP mixer boiler temperature
	40811					

NAME	REGISTER	DATA TYPE	LENGTH	ACCESS MODE	MIN/MAX	DESCRIPTION
REACT_STREAM_VALVE	40816	integer	1	R	<0,6 >	Actual analysis reaction stream valve. 0 = no analysis on any stream valve 1 = analysis on stream 1 valve 2 = analysis on stream 2 valve 3 = analysis on stream 3 valve 4 = analysis on stream 4 valve 5 = analysis on stream 5 valve 6 = analysis on stream 6 valve
REACT_RANGE	40817	integer	1	R	<0,3 >	Actual analysis reaction range. 0 = no analysis reaction 1 = analysis reaction range 1 2 = analysis reaction range 2 3 = analysis reaction range 3
ACID_RGNT_STATUS	40818	integer	1	R	< 0,999 >	Estimation of days remaining for Acid
BASE_RGNT_STATUS	40819	integer	1	R	< 0,999 >	Estimation of days remaining for Base
TN_CLEAN_RGNT_STATUS	40820	integer	1	R	< 0,999 >	Estimation of days remaining for TN Cleaning fluid
DIW_RGNT_STATUS	40821	integer	1	R	< 0,999 >	Estimation of days remaining for DI water
C_RGNT_STATUS	40822	integer	1	R	< 0,999 >	Estimation of days remaining for Reagent C
D_RGNT_STATUS	40823	integer	1	R	< 0,999 >	Estimation of days remaining for Reagent D
REACT_CNTR	40824	integer	2	R	0x00000000-0xFFFFFFFF	Reaction counter.
	40825					
SERVICE_REQ	40826	integer	1	R	0x0000-0xFFFF	Service required in xxx days

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## ERROR Registers

NAME	REGISTER	DATA TYPE	LENGTH	ACCESS MODE	MIN/MAX	DESCRIPTION
SYS_ALARM_STATUS	49930	integer	1	R	0x0000-0x000F	Alarm Status. Bitwise coding: bit 0 = fault. bit 1 = warning. bit 2 = notification. Bit 3 = DW warning.
SYS_COND_GRP	49950	integer	1	R	0x0000-0xFFFF	bit 0 = fault archive code 01, Low O2 Flow - EX bit 1 = fault archive code 02, Low O2 Flow - SO ..bit 15  Note: For description of Fault Archive codes please refer to User Manual Section "Troubleshooting of System Faults, Warnings and Notification Events"
SYS_COND_GRP	49951	integer	1	R	0x0000-0xFFFF	bit 0 = fault archive code 17, bit 1 = fault archive code 18, ..bit 15  Note: For description of Fault Archive codes please refer to User Manual Section "Troubleshooting of System Faults, Warnings and Notification Events"
		...	...	...		...
SYS_COND_GRP	49966	integer	1	R	0x0000-0xFFFF	bit 0 = fault archive code 241, bit 1 = fault archive code 242, ..bit 15  Note: For description of Fault Archive codes please refer to User Manual Section "Troubleshooting of System Faults, Warnings and Notification Events"

## B7000 BioTector TOC TN TP Analyzer V 1.1 STATUS & EXTERNAL CONTROL Registers

NAME	REGISTER	DATA TYPE	LENGTH	ACCESS MODE	MIN/MAX	DESCRIPTION
SYS_OP_STATUS	49931	integer	1	R	0x0000-0x003F	Operational Status. Bitwise coding: bit 0 = running. bit 1 = manual running. bit 2 = calibration running. bit 3 = zero running. bit 4 = remote standby activated. bit 5 = maintenance switch activated.
SYS_REM_CTRL	49932	integer	1	R/W	<0,7>	System remote control.  0 = no change 1 = system finish & stop 2 = analysis start 3 = zero cal start 4 = zero check start 5 = span cal start 6 = span check start 7 = reagents purge and zero
SYS_REM_CTRL_STANDBY	49933	integer	1	R/W	< 0,1 >	Set Remote Standby function.  0 = Modbus remote standby deactivated 1 = Modbus remote standby activated  Note: the content of this register is internally OR'd with REMOTE STANDBY digital input line (if this one is available in the system).
SYS_REM_CTRL_SYNC	49934	integer	1	R	< 0,1 >	Synchronization output for remote control operation  Note: works even without SYNC output defined in system.
SYS_REM_CTRL_RANGE	49935	integer	1	R/W	< 0,3 >	Select next range  0 = not selected / auto 1 = range 1 2 = range 2 3 = range 3  Note: if this register value is 0 then range is selected by EXT_RANGE_MUX1-2 digital input lines (if these one are available in the system). otherwise the content of this register takes precedence over the digital input lines.

NAME	REGISTER	DATA TYPE	LENGTH	ACCESS MODE	MIN/MAX	DESCRIPTION
SYS_REM_CTRL_STREAM	49936	integer	1	R/W	0x0000-0x007f	<p>Next stream to be selected:  bit 0 = Stream 1.  bit 1 = Stream 2.  bit 2 = Stream 3.  bit 3 = Stream 4.  bit 4 = Stream 5.  bit 5 = Stream 6.</p> <p>Note: the content of this register is internally OR'd with STREAM SEL 1-6 digital input lines to activate/deactivate particular stream selection</p>
SYS_DEBUG_MODE	45000	integer	1	R/W	0x0000-0x0001	<p>System debug mode register.</p> <p>0 – normal system operation  1 – system supplies pre-defined Modbus registers values</p>