

## Short description of key input and output parameters of the DLL function TxRx

### 1. Start all measurements

This is only necessary if the MSR145 is inactive. If a record is running and the record rate (is equal the update rate) is high enough, you only have to read the updated values.

	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
in	6	3	0	0xFF	0xFF	0	0
out	6	0	0	0	0	0	0

### 2. Read the result

If you start the measurements manually, you have to wait until all measurements are ready to get updated values. The wait time depends on the measuring time of the selected channel (sensor). One possible value is 500 milliseconds.

If you read before the sensor is ready you will get the last (old) value.

	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
in	2	2	CH_A	CH_B	CH_C	0	0
out	2	CH_A_L	CH_A_H	CH_B_L	CH_B_H	CH_C_L	CH_C_H

CH\_A, CH\_B, CH\_C: one of the MSR145 measuring channels 0..10

CH\_x\_L, CH\_x\_H: signed measuring value -30000...+30000 (L= bit0..7, H= bit8..15)

### 3. Get channel information

You can get information to format the measuring values.

	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
in	7	1	CH_A	CH_B	CH_C	CH_D	CH_E
out	7	0	CH_A_ID	CH_B_ID	CH_C_ID	CH_D_ID	CH_E_ID

CH\_A..CH\_E: one of the MSR145 measuring channels 0..10

CH\_x\_ID: Identify of the selected channel  
Result= measuring value \* Gain + Offset

CH_ID	Name	Unit	Format	Gain	Offset
0	p	mbar	0.0	0.1	0
1	T(p)	°C	0.0	0.1	0
2	x	g	0.000	0.004	0
3	y	g	0.000	0.004	0
4	z	g	0.000	0.004	0
5	RH	%	0.00	0.01	0
6	T (RH)	°C	0.00	0.01	0
7	T	°C	0.00	70/2047	-10
8	BAT	V	0.000	3/1024	0
9	p	mbar	0.00	0.01	0
10	T	°C	0.00	0.0625	0
253	user	user	user	user	user