



Read Times in Static Mode

For double read and compare:

data carriers with 32-byte blocks	
Byte	read time [ms]
from 0 up to 31	110
for each additional 32 bytes started add an additional	120
from 0 up to 255	= 950

data carriers with 64-byte blocks	
Byte	read time [ms]
from 0 up to 63	220
for each additional 64 bytes started add an additional	230
from 0 up to 2047	= 7350

Write Times in Static Mode

Includes checking and comparing:

data carriers with 32-byte blocks	
Byte	read time [ms]
from 0 up to 31	110 + n × 10
≥ 32	y × 120 + n × 10
from 0 up to 255	= 3510 max.

data carriers with 64-byte blocks	
Byte	read time [ms]
from 0 up to 63	220 + n × 10
≥ 64	y × 230 + n × 10
from 0 up to 2047	= 27830 max.

n = number of contiguous bytes to be programmed
y = number of blocks to be processed

Example:

Write 17 bytes starting at address 187. data carrier block size = 32 bytes. Blocks 5 and 6 are processed, since the start address 187 is in block 5 and end address 204 is in block 6.

$$t = 2 \times 120 + 17 \times 10 = \mathbf{410 \text{ ms}}$$

Read Times in Dynamic Mode

Read times within the 1st block for double read and compare:

The time indicated apply after the data carrier has been recognized. If the tag has not been recognized, an additional 30 ms must be added to allow for creating the energy field necessary to recognize the data carrier.

data carriers with 32-byte blocks	
Byte	read time [ms]
from 0 up to 3	14
for each additional byte	3.5
from 0 up to 31	112

data carriers with 64-byte blocks	
Byte	read time [ms]
from 0 up to 3	14
for each additional byte	3.5
from 0 up to 64	224

Example:

Read 11 bytes starting at address 9, i. e. the highest address to be read is 20 (use for "m" in the formula).

$$t = 14 \text{ ms} + (m - 3) \times 3.5 \text{ ms} = \mathbf{73.5 \text{ ms}}$$

In the internal memory organization of the data carrier, a distinction is made between the two block sizes 32 and 64 bytes (also referred to as 'page size').

Memory organization

Memory size up to 1023 bytes = 32 bytes per block
Memory size 2047 bytes and larger = 64 bytes per block