

## Data Sheet

### Nios II native code generator and runtime system

Supported C compilers for the runtime system

- Nios II Integrated Development Environment

#### Code / Data

Maximum code size	No limitations, depending on the memory equipment of the hardware
Maximum data size	No limitations, depending on the memory equipment of the hardware
Maximum number of POUs	No limitations, depending on the memory equipment of the hardware
Maximum size of POU	No limitations
Maximum size of variables	No limitations
Maximum size of relative jump width	
Memory request Flash for a minimum version of the runtime system[kB]	
Memory request Flash for a typical version of the runtime system[kB]	
Minimum Flash memory request for applications [kB]	
Typical Flash memory request for applications [kB]	Depending on application
Typical RAM memory request for applications [kB]	Depending on application

#### External functions

C-libraries	Yes
De-referencing in the runtime system	Yes

#### Multitasking

Non-preemptive	Yes
Timer tasks	Yes
Preemptive	No
Reentrant functions	No

#### Generation of application

Online Change	Yes
FPU support	Currently not implemented

#### Debugging

Monitoring	Yes
Forcing	Yes
Sampling trace	Yes
Breakpoints	Yes
Power flow control	Currently not implemented
Call stack	Yes
Call stack after exception	Currently not implemented

## Communication

Serial RS232	Yes
TCP/IP	Possible
CAN	Possible
Others	Possible

## IEC data types

- All

## Code for BOOL, BYTE, WORD, DWORD:

LD    A  
AND   B  
ST    C

## Performance measurement (Nios II/f EP2C35)

1000 instructions IL BOOL	20,0 $\mu$ s
1000 instructions IL BYTE	23,0 $\mu$ s
1000 instructions IL WORD	21,0 $\mu$ s
1000 instructions IL DWORD	21,0 $\mu$ s