



## TC1250 | TC3 PLC/NC PTP 10

Extension of the TwinCAT PLC TC1200 by the possibility to realise point-to-point movements in software (TwinCAT Motion Control PTP 10). The axes are represented by axis objects and provide a cyclic interface, e.g. for the PLC. This axis object is then linked to a corresponding physical axis. In this way the most diverse axis types with the most diverse fieldbus interfaces can be connected abstractly with the axis objects, which always offer an identical configuration interface. The control of the axes can be configured in various constellations (position or velocity interface) and various controllers. The axes are configured in TwinCAT Engineering.

- up to a maximum of 255 axes on one CPU
- supports electrical and hydraulic Servo Drives, frequency converter drives, stepper motor drives, DC drives, switched drives (fast/slow axes), simulation axes and encoder axes
- supports various encoders such as incremental encoder, absolute encoder, digital interface to the drives such as EtherCAT, SERCOS, SSI, Lightbus, PROFIBUS DP/MC, pulse train
- standard axis functions such as start/stop/reset/reference, velocity override, master/slave couplings, electronic gearbox, online distance compensation, programming is carried out via PLCopen-compliant IEC 61131-3 function blocks
- convenient axis commissioning options
- online monitoring of all axis state variables such as actual/set values, releases, control values
- online axis tuning
- forcing of axis variables
- configuration of all axis parameters, such as measuring system, drive parameters and position controller
- configurable controller structures: P control, PID control, PID with velocity pre-control, PID with velocity and acceleration pre-control
- online master/slave and slave/master conversion
- flying saw (diagonal saw [optional])
- cam plates (support by TC3 Cam Design Tool [optional])
- FIFO axes (optional)
- external set value generators
- multi-master coupling

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|-----------------------|----------------------------|
| <b>Technical data</b> | <b>TC1250</b>              |
| Target system         | Windows 7/8/10, Windows CE |

| Ordering information |   |
|----------------------|---|
| TC1250-0v30          | TC3 PLC/NC PTP 10 axes, platform 30 (Economy Plus)            |
| TC1250-0v40          | TC3 PLC/NC PTP 10 axes, platform 40 (Performance)             |
| TC1250-0v50          | TC3 PLC/NC PTP 10 axes, platform 50 (Performance Plus)        |
| TC1250-0v60          | TC3 PLC/NC PTP 10 axes, platform 60 (Mid Performance)         |
| TC1250-0v70          | TC3 PLC/NC PTP 10 axes, platform 70 (High Performance)        |
| TC1250-0v80          | TC3 PLC/NC PTP 10 axes, platform 80 (Very High Performance)   |
| TC1250-0v81          | TC3 PLC/NC PTP 10 axes, platform 81 (Many-core 5...8 Cores)   |
| TC1250-0v82          | TC3 PLC/NC PTP 10 axes, platform 82 (Many-core 9...16 Cores)  |
| TC1250-0v83          | TC3 PLC/NC PTP 10 axes, platform 83 (Many-core 17...32 Cores) |
| TC1250-0v84          | TC3 PLC/NC PTP 10 axes, platform 84 (Many-core 33...64 Cores) |
| TC1250-0v90          | TC3 PLC/NC PTP 10 axes, platform 90 (Other)                   |
| TC1250-0v91          | TC3 PLC/NC PTP 10 axes, platform 91 (Other 5...8 Cores)       |
| TC1250-0v92          | TC3 PLC/NC PTP 10 axes, platform 92 (Other 9...16 Cores)      |
| TC1250-0v93          | TC3 PLC/NC PTP 10 axes, platform 93 (Other 17...32 Cores)     |
| TC1250-0v94          | TC3 PLC/NC PTP 10 axes, platform 94 (Other 33...64 Cores)     |

| Related products |                            |
|------------------|----------------------------|
| TC1260           | TC3 PLC/NC PTP 10/NC I     |
| TC1270           | TC3 PLC/NC PTP 10/NC I/CNC |