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TwinCAT Library for   
PZT Mirrors

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| **Library** | |
| Title | PZTMirror |
| Version | 1 |
| TwinCAT version | 2.11 |
| Name space | – |
| Author | Alexa Staley, Daniel Sigg |
| Description | Controls PZT mirrors. |
| Error codes | None |
| Library dependencies | Error |

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| **Hardware Input Type**  TYPE PZTMirrorInStruct :  STRUCT  HV10MonitorPZTX: INT;  PositionSensorPZTX: INT;  HV10MonitorPZTY: INT;  PositionSensorPZTY: INT;  END\_STRUCT  END\_TYPE | |
| Type name | PZTMirrorInStruct |
| Description | Structure of the hardware input that are wired up for the PZT mirrors |
| Definition | STRUCT |
| Element | Name: HV10MonitorPZTX  Type: INT  Description: HV10 input monitor of PZT mirror X |
| Element | Name: PositionSensorPZTX  Type: INT  Description: Position sensor input of PZT mirror X |
| Element | Name: HV10MonitorPZTY  Type: INT  Description: HV10 input monitor of PZT mirror Y |
| Element | Name: PositionSensorPZTX  Type: INT  Description: Position sensor input of PZT mirror Y |

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| **User Interface Type**  TYPE PZTMirrorStruct :  STRUCT  HV10MonitorPZTX: LREAL;  PositionSensorPZTX: LREAL;  HV10MonitorPZTY: LREAL;  PositionSensorPZTY: LREAL;  END\_STRUCT  END\_TYPE | |
| Type name | PZTMirrorStruct |
| Description | Structure of the user interface tags that are used to control the PZT mirrors |
| Definition | STRUCT |
| Output Tag | Name: HV10MonitorPZTX  Type: LREAL  Description: |
| Output Tag | Name: PositionSensorPZTX  Type: LREAL  Description: |
| Output Tag | Name: HV10MonitorPZTY  Type: LREAL  Description: |
| Output Tag | Name: PositionSensorPZTY  Type: LREAL  Description: |

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| **Function Block**  FUNCTION\_BLOCK PZTMirrorFB  VAR\_INPUT  Request: SaveRestoreEnum;  PZTMirrorIn: PZTMirrorInStruct;  END\_VAR  VAR\_OUTPUT  END\_VAR  VAR\_IN\_OUT  PZTMirrorInit; PZTMirrorStruct;  PZTMirror: PZTMirrorStruct;  END\_VAR  VAR  END\_VAR | |
| Name | PZTMirrorFB |
| Description | Controls the PZT mirrors. |
| Input argument | Name: Request  Type: SaveRestoreEnum  Description: Request save/restore/safemode or noop |
| Input argument | Name: PZTMirrorIn  Type: PZTMirrorInStruct  Description: Input hardware structure |
| In/out argument | Name: PZTMirrorInit  Type: PZTMirrorStruct  Description: Save/restore variable in persistent memory |
| In/out argument | Name: PZTMirror  Type: PZTMirrorStruct  Description: User Interface structure |

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| **Visual** | |
| Name | PZTMirrorViz |
| Description | Displays monitors and sensors for the PZT mirrors |
| Placeholder | Name: PZTMirror  Type: PZTMirrorStruct  Description: PZT Mirror structure |