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TwinCAT Library for PSL Environment

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of the LIGO Laboratory.

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| **Library** | |
| Title | PSLEnv |
| Version | 1 |
| TwinCAT version | V2.11.0 |
| Name space |  |
| Author | Daniel Sigg |
| Description | Information about PSL Environment |
| Error Code | None |
| Library Dependencies | Error, ReadADC, Omega |

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| **User Interface Type**  TYPE PSLEnvInStruct :  STRUCT  LaserRm\_AcS\_Temp: INT;  LaserRm\_AcN\_Temp: INT;  LaserRm\_Tb1N\_Temp: INT;  LaserRm\_Tb1S\_Temp: INT;  AnteRm\_Temp: INT;  LVEA\_Temp: INT:  DiodeRm\_Temp: INT:  ChillerRm\_Temp: INT;  LaserRm\_RH: INT;  AnteRm\_RH: INT;  DiodeRm\_RH: INT;  ChillerRm\_RH: INT;  LaserRmToAnteRm: INT;  AnteRmtoLVEA\_Dpress: INT;  DiodeRmToChillerRm\_Dpress: INT;  END\_STRUCT;  END\_TYPE; | |
| Type Name | PSLEnvStruct |
| Description | Environment status about the PSL |
| Definition | Struct |

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| **User Interface Type**  TYPE PSLEnvStruct :  STRUCT  LaserRm\_AcS\_Temp\_DegF: LREAL;  LaserRm\_AcN\_Temp\_DegF: LREAL;  LaserRm\_Tb1N\_Temp\_DegF: LREAL;  LaserRm\_Tb1S\_Temp\_DegF: LREAL;  LaserRm\_AcS\_Temp\_DegC: LREAL;  LaserRm\_AcN\_Temp\_DegC: LREAL;  LaserRm\_Tb1N\_Temp\_DegC: LREAL;  LaserRm\_Tb1S\_Temp:\_DegC: LREAL;  AnteRm\_Temp\_DegF: LREAL;  LVEA\_Temp\_DegF: LREAL:  DiodeRm\_Temp\_DegF: LREAL:  ChillerRm\_Temp\_DegF: LREAL;  AnteRm\_Temp\_DegC: LREAL;  LVEA\_Temp\_DegC: LREAL:  DiodeRm\_Temp\_DegC: LREAL:  ChillerRm\_Temp\_DegC: LREAL;  LaserRm\_RH: LREAL;  AnteRm\_RH: LREAL;  DiodeRm\_RH: LREAL;  ChillerRm\_RH: LREAL;  LaserRmToAnteRm: LREAL;  AnteRmtoLVEA\_Dpress: LREAL;  DiodeRmToChillerRm\_Dpress: LREAL;  END\_STRUCT;  END\_TYPE; | |
| Type Name | PSLEnvStruct |
| Description | Structure used in the user interface |
| Definition | STRUCT |

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| **Function Block**  TYPE PSLEnvFB:  VAR\_INPUT  PSLEnvIn: PSLEnvInStruct;  END\_VAR;  VAR\_OUTPUT  PSLEnvOut: PSLEnvOutStruct;  END\_VAR;  VAR\_IN\_OUT  PSLEnv: PSLEnvStruct;  END\_VAR:  END\_TYPE; | |
| Type Name | PSLEnvFB |
| Description | Function block used to monitor the PSL environment |
| Definition | Function Block |
| Input Argument | Name: PSLEnvIn  Type: PSLEnvInStruct  Description: Input structure |
| Output Argument | Name: PSLEnvOut  Type: PSLEnvOutStruct  Description: Output Structure |
| In/out Argument | Name: PSLEnv  Type: PSLEnvStruct  Description: User interface structure |