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Melexis
INSPIRED ENGINEERING

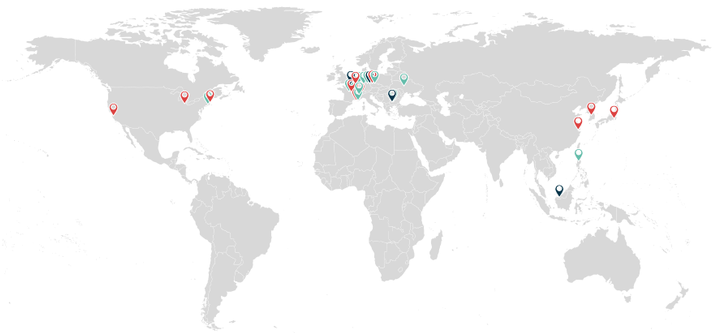
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- Research & Development
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The sea turtle's ability to locate its home beach is truly remarkable. As with many migratory animals, sea turtles accomplish this feat by measuring the Earth's magnetic field. A close link with our variety of magnetic sensors. The sea turtle's shield ensures safety at all times, just like our products do. A must for an important player in the automotive industry.

SELECTION GUIDE

PTC-04 AND DAUGHTERBOARD

PTC-04 AND DAUGHTERBOARD

The Melexis family of programmable sensors are designed to be integrated into an application and then programmed. Programming allows for setting the various operating modes inside the chip and for performing an end-of-line calibration which reduces or removes residual error due to mechanical tolerances for example.

To program the sensor the PTC-04 (programmed through connector) programming tool is used. The PTC-04 connects between a PC and the sensor to be programmed and manages the conversion of commands from the PC to the sensor. An easy to use UI is provided for every product allowing for easy development. For production environments, a DLL is also provided that can be called from Labview, Visual Basic, C#, or any language that supports ActiveX COM libraries thus enabling the automation of the calibration process.

The PTC-04 programmer contains its own programmable power supply and measurement circuitry. It's similar to a standard EEPROM programmer, but adds many special features such as 16-bit voltage and current measurement capability, and configuration options that will accommodate users from the prototyping phase directly into production. A PC is required to load software to the programmer and control the functions of the programmer.

Communication is done through a standard RS-232 null modem cable to a COM port of the PC or via USB. The PC requires no custom configuration, allowing the programmer to be used with any PC with a COM port speed of 115.2kbs or a standard USB 1.1 or USB 2.0 (Type A) interface.



PTC-04 programming tool

```
using System;
using System.Windows.Forms;
using PSF090365AAMLXModule;
using PTC04PSFModule;
using CommUnit;
using MLXMPTCommon;


namespace MLX90316_C_sharp_Demo
{
    public partial class Form1 : Form
    {
        private static PSF090365AAMLXDevice Dev;
        private PSF090365AAMLXAdvanced Advanced;
        private PSF090365AAMLXSolver Solver;
        private PTC04PSFDevice PTC04;
        private PSF090365AAMLXManager PSFMan;

        private bool connected = false;
        private ObjectCollection devicesCol;

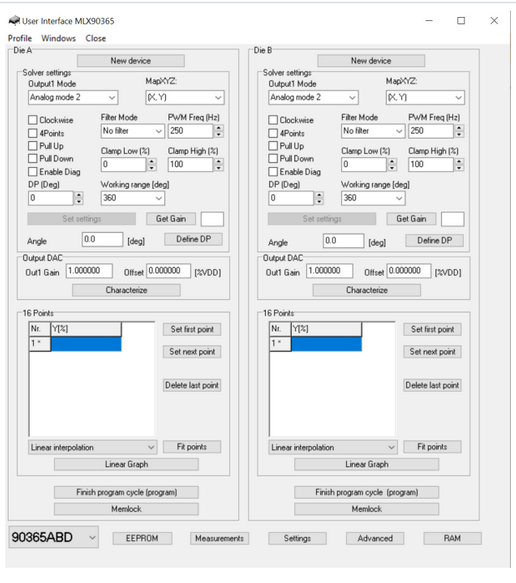
        public Form1()
        {
            InitializeComponent();
        }

        private void Exit_Click(object sender, EventArgs e)...

        private void BTN_Connect_Click(object sender, EventArgs e)
        {
            int temp;
            PSFMan = new PSF090365AAMLXManager();
            devicesCol = new ObjectCollection();
            if (connected == false)
            {
                devicesCol = (ObjectCollection)PSFMan.ScanStandalone(DeviceType.dtSerial);

                if (devicesCol.Count <= 0)
                {
                    MessageBox.Show("No PTC-04 programmers found.");
                    return;
                }
                if (devicesCol.Count >= 1)
```

Example C# code for automation



UI tool for development

Daughterboards for Triaxis position sensor products	
Triaxis sensor ICs	**Daughterboard required**
MLX90316	PTC-04-DB-90316
MLX90324	PTC-04-DB-90316
MLX90333	PTC-04-DB-90316
MLX90340	PTC-04-DB-90316
MLX90360	PTC-04-DB-90316
MLX90363	DB-SPI or N/A (1)
MLX90364	PTC-04-DB-90316 or PTC-04-DB-HALL06 (4)
MLX90365	PTC-04-DB-90316 or PTC-04-DB-HALL06 (4)
MLX90366	PTC-04-DB-90316 or PTC-04-DB-HALL06 (4)
MLX90367	PTC-04-DB-90316 or PTC-04-DB-HALL06 (4)
MLX90371	PTC-04-DB-HALL06
MLX90372	PTC-04-DB-HALL06
MLX90373	PTC-04-DB-HALL06 (5)
MLX90374	PTC-04-DB-HALL06
MLX90377	PTC-04-DB-HALL06
MLX90378	PTC-04-DB-HALL06
MLX90392, MLX90393, MLX90395, MLX90397	N/A (1)
MLX90421	PTC-04-DB-HALL06
MLX90422	PTC-04-DB-HALL06
MLX90425	PTC-04-DB-HALL06
MLX90426	PTC-04-DB-HALL06

Daughterboards for Linear Hall position sensors	
Linear Hall sensor ICs	**Daughterboard required**
MLX91377	PTC-04-DB-HALL06
MLX90293	PTC-04-DB-90316
MLX90292	PTC-04-DB-HALL03 (2) or PTC-04-DB-HALL04 (3)
MLX90288	PTC-04-DB-HALL03
MLX90251	PTC-04-DB-HALL01
MLX90215	PTC-04-DB-HALL01

Daughterboards for Inductive position sensors	
Inductive sensor ICs	**Daughterboard required**
MLX90510	PTC-04-DB-HALL06 (4) or PTC-04-DB-MUPET

Daughterboards for Latches & Switches	
Latch & Switch ICs	**Daughterboard required**
MLX92232	PTC04-DB-922xx
MLX92242	PTC04-DB-922xx
MLX92292	PTC04-DB-922xx
MLX92362	PTC-04-DB-HALL06

Daughterboards for current sensors	
Current sensor ICs	**Daughterboard required**
MLX91206	PTC04-DB-HALL03
MLX91207	PTC04-DB-HALL03
MLX91208	PTC04-DB-HALL05
MLX91209	PTC04-DB-HALL05
MLX91216	PTC04-DB-HALL05
MLX91217	PTC04-DB-HALL05
MLX91218	PTC04-DB-HALL05
MLX91219	PTC04-DB-HALL05

Daughterboards for Pressure sensors	
Pressure sensor ICs	**Daughterboard required**
MLX90807	PTC04_DB_Pressure01
MLX90808	PTC04_DB_Pressure01
MLX90809	PTC04_DB_Pressure01
MLX90817	PTC04_DB_Pressure01
MLX90818	PTC04_DB_Pressure01
MLX90819	PTC04_DB_Pressure01
MLX90820	PTC04_DB_Pressure01
MLX90821	PTC04_DB_Pressure01
MLX90328	PTC04_DB_Pressure01
MLX90329	PTC04_DB_Pressure01 or PTC-04-DB-HALL06 (5)

(1) Programmable via SPI (do not require the use of the PTC-04).
(2) PWM Output.
(3) PSI5 Output.
(4) version 3 or hgigher
(5) version 4 or higher

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