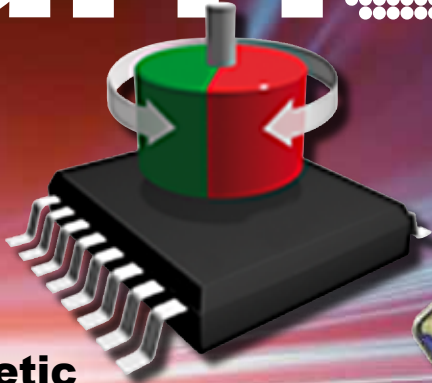


# ISP nano

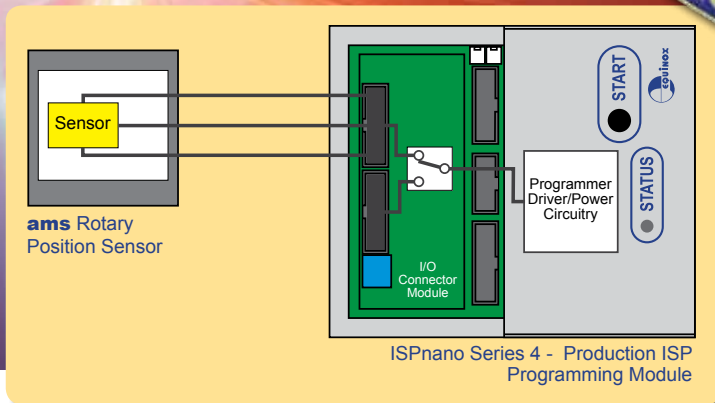
## Series IV-ATE

Production programming solution for...

# ams



## Magnetic Rotary Position Sensors



The 'ISP nano Series IV-ATE' is a state-of-the-art ISP Programmer designed for high-speed In-System Programming (ISP) of **ams Magnetic Rotary Position Sensor** devices in a production environment. The programmer handles all the real-time protocol and data transfer to / from a target ams sensor device when placed in a production programming fixture. A Remote Application (not included) running on the PC then controls the programmer and performs a full device calibration and programming sequence.

- Supports In-System Programming (ISP) / calibration of many ams **Magnetic Rotary Position Sensor** devices
- Direct programmer hardware support for all ams 1-wire connection interfaces (ams 1-wire and ams 1-wire UART) to the target sensor device
- Programmer handles all real-time protocol and data transfer to the ams sensor
- Supports sequential programming / calibration of up to 2 x target AS5x63 devices from a single programmer
- Supports concurrent programming of 2 x AS5x62 devices using 2 x ISP nano programmers networked to a single PC
- Comprehensive ESD and over-voltage protection on all target I/O signal lines
- All Programmer I/O and Target Power Lines can be isolated from the DUT via relays
- Compact physical size ideal for integration into ATE / Test Fixtures
- Multiple control methods: Development Mode / Console application / ActiveX control

ams Sensor  
Calibration Support



PRODUCTION PROGRAMMING

IN-CIRCUIT TESTING (ICT)

RELAY SIGNAL ISOLATION

FIRMWARE UPGRADEABLE



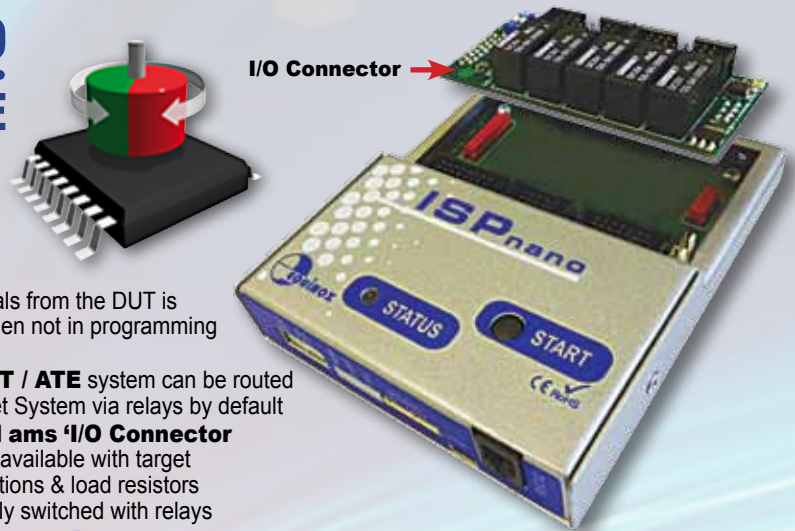
The Embedded Solutions Company

# ISP nano

## Series IV - ATE

# ams

High-Speed Production In-System Programmer for  
ams Magnetic Rotary Position Sensor devices



### Device support:

#### ams - Magnetic Rotary Position Sensors

- Aams **AS5x63** family via ams 1-wire interface: AS5163, AS5263 (dual-die device)
- ams **AS5x62** family via UART interface: AS5162, AS5262 (dual-die device)
- ams **AS54xx** (3D sensor) via ams 1-wire interface: AS5410, AS5411
- ams **AS5403** (3D sensor) via UART interface: AS5403
- Please note: The 'dual-die' devices require either an **ISPnano-MUX2** multiplexed programmer or 2 x **ISPnano** programmer to program both devices concurrently.

### Programming Interfaces:

- Direct hardware support for **ams** 1-wire and **ams** 1-wire UART protocols
- Supports **sequential programming** of 2 x AS5x63 or AS5410 / AS5411 devices from a single programmer
- Supports **concurrent programming** of 2 x AS5x62 or AS5403 devices using 2 x ISPnano programmers networked to a single PC
- Individually configurable programmer I/O pins
- All programmer I/O lines are fully **ESD** and **over-voltage** protected
- Supports programming of target ICs between 1.8 and 5.0V

### Target Signal Routing:

- A range of interchangeable '**I/O Connector Modules**' is available to interface to the Target System (DUT).
- Relay isolation of all programming and

power signals from the DUT is possible when not in programming mode

- External **ICT / ATE** system can be routed to the Target System via relays by default
- Customised **ams 'I/O Connector Modules'** available with target communications & load resistors automatically switched with relays

### Power control:

- Programmer controls / switches power to the Target System (DUT)
- Target voltage and current monitored by programmer
- Programmable **Target VCC** Supply: 1.8V - 5.0V @ 480 mA
- Programmable **Target VPP** Supply: 6.5V - 13.5V @ 100mA
- Programmer controlled '**Target Discharge Circuit**'
- Target Board short-circuit monitoring
- Power supply input: 9 to 24V

### Software (as standard):

- **EQTools** - Integrated Development Environment for Equinox programmers
- **EQTools - EDS** - Development Mode for testing devices under PC control

### Other Features:

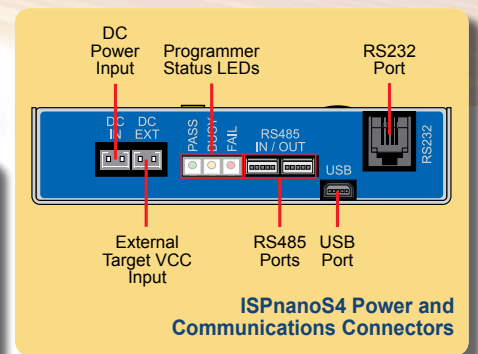
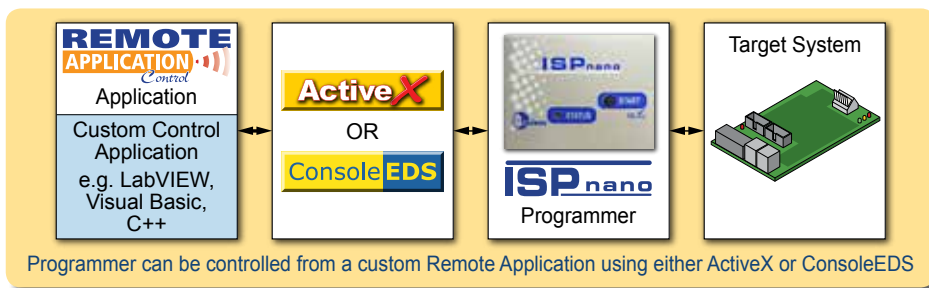
- Backwards compatible with the '**ISPnano Series III**' programmer

### Typical applications:

- Medium to high-volume production programming and calibration of **ams Magnetic Rotary Position Sensor** devices.
- Integrated programming / calibration / testing fixtures



### Control methods:



- PC control via RS232, RS485 or USB port
- Network up to 32 x ISPnano programmers to a PC via RS485 bus
- **EDS** - Development Mode
- \* **ConsoleEDS** - standalone console application

- \* **ActiveX** control library for direct integration into customer application
- \* **ISP-PRO** - production monitoring application

### Ordering information:

**ISPnano-S4ATEKIT** - Standard **ISPnano Series IV** programming kit including power supply, cables, documentation etc.

**ISPnano-UPG30** - Device Library for **ams Magnetic Rotary Position Sensors**

\* **PLEASE NOTE:** A suitable programmer control method must also be purchased e.g. ConsoleEDS, ActiveX, ISP-PRO

Equinox Technologies reserves the right to change any information contained within this leaflet without prior notice. E&OE

