IPS

EUROTHERM
CONTROLS

Instrument Programming System

Product data

IPS - Instrument Programming System

Instrument Programming System or IPS is a software system product which is specifically designed to provide remote access to Eurotherm instruments using an IBM or compatible personal computer (PC) connected via a serial communications link.

Whether on the shop floor, in the plant control room, or in the office, the system provides many of the features normally only available on more expensive supervisory systems.

Through careful design of the user interface, using menus and help screens, the IPS system is easy to learn and straight forward to install, requiring little or no computer experience.

IPSG is a system that is suitable for users who need a simple recipe system or need customized views of key parameters from a group of 1 to 8 instruments. The system has the following features:

Parameters

- Live display of all engineering parameters from any of the four instruments, such as Process value, Setpoint, Integral Time, Autotune status etc.
- Write access to selected engineering parameters for example, a control loop setpoint can be changed directly from the screen.
- Summary screens are provided for the key parameters, such as Setpoint, Process Value, Output, from the different instrument control loops.

Configuration

- New instruments can be cloned from the configuration of another instrument by copying the configuration data over the communications link.
- Information is provided by on-line help screens, removing the need to reference user manuals during normal operation.

Ramp/dwell programs

- Ramp/dwell programmer instrument, can be configured from a screen using a simple editor that shows ramp and dwell profiles graphically.
- Segments of ramp/dwell Programs can be inserted and deleted without needing to access the instrument front panel.
- Ramp/dwell Programs can be saved to named files and then re-loaded any time in the future to any instrument of the same configuration.

User screens

- Program summary screens provide a concise view of the status of programs in all the instruments, for example, which programs are running, in hold etc.
- A customized user screen can be configured to display any set of operating parameters from any of the eight instruments. A customised user screen can be saved in, and subsequently loaded from, a named file.
- User screens may be linked using function keys to provide a simple operator panel.
- Simple recipes.
- Data from a customized user screen can be logged to a file for analysis using third party spread sheets.

TECHNICAL SPECIFICATION

General

IPS	All IPS products will run on an IBM personal computer or compatible with the following specification or better: AT with 1 free serial communications port Running DOS 3.1 upwards, with CGA, EGA, VGA or Hercules display Mouse or other pointing device such as a tracker ball Although a mouse is recommended IPS products can also be operated using the PC keyboard
IPSG	IPSG requires a PC with extended memory of 1 Megabyte or greater

Instrument support

IPS	IPS will operate with all instruments in the 900 EPC and 902-904 ranges, 808, 847, 94c, 815, 818 and 2400 Series. (2400 Series from July 1996) Note: Digital communications is always provided on 900 EPC instruments but should be specifically requested when ordering 902-904 range.
IPSG	IPSG operates with up to 8 instruments

Software

All IPS software is delivered on a set of 3.5 inch diskettes. By following simple step by step instructions, installing IPS software is very straight forward.
Install and de-install procedures are supplied to enable the software to be moved between PC's to allow machine upgrade and maintenance. However, the software is licensed for use on a single PC at any one time as detailed in the Eurotherm Controls software license. Full details of the license are available on request.

Handbook

An extensive handbook is included with the IPS software and provides details on how to install cables, using the IPS screens, the operation of the mouse and keyboard, and details about special facilities such as cloning i.e. copying instrument configurations and editing ramp/dwell programmes.

Support for single instruments using RS232

All IPS products operate using RS232 Communications protocol. A standard 3.0 Metre cable is available to connect a 9 pin serial port on the PC to a 900 Series instrument. Note: The RS422 standard is recommended for electrically noisy environments or for distances over 15 Metres.

Support for multiple instruments using RS422

All IPS products also provide support for operating with multiple instruments sharing the same serial (digital) communications link using the RS422 standard. RS422 is recommended for plant or shop floor use and will allow IPS to operate with instruments that are up to 1200 Metres from the PC.

Universal Serial Interface Convertor	The Eurotherm Controls 261 RS232/RS422 Universal Serial Interface Convertor is recommended for use with PC's that are not provided with a RS422 port but have a free RS232 port. Two standard 3.0 Metre cables are available; a) to connect a 9 pin serial port on the PC, to the 261: b) to connect a 25 pin RS422 port on the 261, to a 900 Series instrument BELDEN Twin Twisted Pair RS422 Cable (9729) is recommended for custom wiring between instruments using RS422.

Communications

IPS normally operates at 9600 Baud using the Eurotherm serial protocol EI Bisynch. Operation at slower Baud rates can be configured if required, for example, if modem is being used.

Instrument cloning

All IPS products provide the facility to copy the configuration of one instrument into another instrument of identical hardware configuration. In most cases, the target instrument should have a software (firmware) version number which is the same or higher than the source instrument.
Direct cloning over the communications link is possible providing the source and target instruments are both connected to the PC at the same time.

IPSG	IPSG products however, also allow configurations to be stored on disk so that cloning to a new target instrument is possible with or without the source instruments remaining connected.

Help

All IPS products have a built-in help facility which provides information on the operation of all IPS menus, options and screens. There is also help to describe the use of many of the instrument parameters. for example, simply by pressing the right mouse button while over the value of an instrument parameter, will call up a help screen that describes the parameter.

ORDERING CODE

Revisions to support instruments with new or enhanced functionality can be supplied at a discount if the serial number of your current system is quoted. That serial number of your current system should also be quoted in the product code if you wish to upgrade IPS to higher functionality.

For the user who has a high volume requirement for IPS, there is a special discount for ordering copies of IPS in sets of 10.

Basic Product	Variant	Comms	Upgrade/ Revision	Quantity	Language	Serial Number				
IPS		XA								

Variant	Code
IPSG	G

Communications	Code
EI Bisynch	XA

Upgrade/Revision	Code
Standard System	00
Revision	REV

Quantity	Code
Single Pack	ST1
Pack of 10	ST10

Language	Code
English	ENG

Serial Number
Only required for upgrades or Revisions

To order an upgrade from IPSL to IPSG code as follows:

G - XA - UPGL - ST1

Standard default if field is blank

Accessories

A 3.0M cable that connects a 9 pin RS232 port on a PDC to the rear terminals of a single 900 series instrument for RS232 communications:

CABLE	9PINPC	NOPLUG	232	3.0M

A 3.0M cable that connects a 9 pin RS232 port on a PC to a type 261 RS232/RS422 convertor:

CABLE	9PINPC	25PIN261	232	3.0M

A 3.0M cable that connects a port on type 261 RS232/422 convertor to the rear terminals of a 900 series instrument for RS422 communications:

CABLE	25PIN261	NOPLUG	422	3.0M

A type 261 RS232/422 convertor to operate on 220/240 voltage supply:

261	230	00

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