Universal, Intelligent 2-wire Transmitters

IPAQ

IPAQ series transmitters are fully programmable two-wire transmitters for temperature and other measurement applications; IPAQ transmitters are available in DIN rail or in-head mounting configuration. The IPAQ-HX/LX are Intrinsically Safe, FM approved versions for use in hazardous areas. The combination of competitive pricing, functionality, and simple configuration has made the IPAQ series a leading transmitter for industrial measurements.

The IPAQ series has been designed for applications with stringent industrial demands on accuracy. To reach these demands, these transmitters use quality components and precision calibration equipment which reduce linearity and calibration errors. They also offer high long-term stability through an internal “self calibration”, continuous adjustment of important parameters after being compared with accurate built-in references, which contributes to a stability of ±0.1% per year.

The Smart Sense feature continuously monitors the isolation resistance of thermocouples and three-wire connected RTDs, as well as the cabling between sensor and transmitter. The transmitter will react by forcing the output to a user defined level if the isolation is too low. IPAQ transmitters also monitor sensor break and force the output signal to a user defined level, when any sensor lead is broken or disconnected. The dampening function can be used to dampen undesired instabilities on the input signal.

ORDERING INFORMATION

IPAQ-H	In-head mount, standard configuration	$169
IPAQ-HX	In-head mount, FM approved	$189
IPAQ-H-PLUS	In-head mount, 3750 VAC isolation	$275
IPAQ-L	DIN rail mount, standard configuration	$169
IPAQ-LX	DIN rail mount, FM approved	$189
IPAQ-L-PLUS	DIN rail mount, 3750 VAC isolation	$275
IPRO-X	Configuration software	$175

IPAQ SERIES

FEATURES:

Input for RTDs, thermocouples, mV, and resistance—reduce inventory costs and simplify plant engineering

True on-line communication—full access to all features while in operation

Configuration without external power—editing or reading a configuration is possible without external power supply

Display connection—direct connection of digital display to the communication port

Efficient customized 40-point linearization—any sensor characteristics can be matched

Sensor diagnostics—SmartSense detects low sensor isolation (essential for correct measurements); selectable sensor break action

Simplified loop check-up—the transmitter works as an accurate current generator with user defined action

On-screen indications and line recording—valuable tools for temporary measurements

Improved quality with data storage—vital information such as TAG-No., maintenance record etc. can be stored in the nonvolatile memory

Precision accuracy—linearity 0.05% for RTD. Reduced temperature influence. Each transmitter is individually temperature compensated. Long-term stability is 0.05% per year

Fast response—update time down to 170ms (with a measuring frequency of approximately six per second)

Enhanced total system accuracy—sensor error correction (for known sensor errors) and system error correction (against known temperatures)

Smart filter—short response time combined with high noise immunity

Input/Output isolation of up to 3750 VAC—excellent filtering of voltage spikes and elimination of ground loops

High load capacity—only 7.5V voltage drop over the transmitter allows for high loads

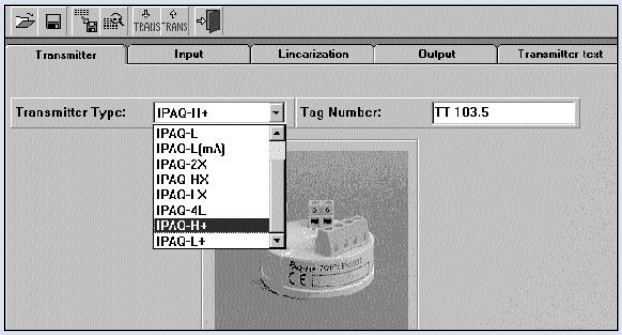
Designed for harsh conditions—operation temperature up to 85˚C/185˚F (105˚C/221˚F available), with excellent EMC performance and a durable, shockproof design

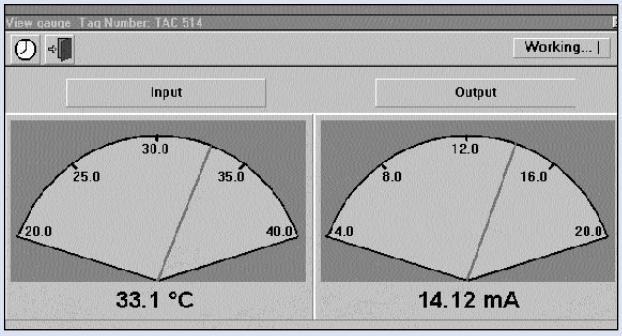
Warranty—five-year warranty against manufacturer's defects

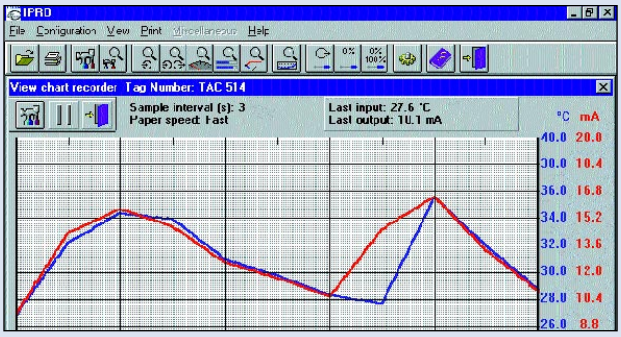
IPRO-X SOFTWARE

IPRO-X user friendly software lets you prepare configurations, save them as files, and transfer them to any IPAQ transmitter. Besides measurement configuring, IPRO-X software can also be used to monitor the sensor status and input/ output signals with real time on-screen presentations. The updating time is user selectable. It also allows for field calibration in one or two point modes. For this function, the transmitter is subjected to a calibration source (e.g. a process calibrator); the transmitter outputs are entered and IPRO software will automatically correct the transmitter.

IPRO software is compatible with Windows™ 3.1, Windows™ 3.11, Windows™ 95 and Windows™ NT Workstation 4.0.







IPAQ SPECIFICATIONS

INPUT	STYLES	RANGES
RTD's and RESISTANCE		
Pt100	3-, 4-wire connection	-200 to +1000°C/-328 to +1832°F
Pt1000	3-, 4-wire connection	-200 to +200°C/-328 to +392°F
PtX 10 ≤ X ≤ 1000)	3-, 4-wire connection	Upper range depending on X-value
Ni100	3-, 4-wire connection	-60 to +250°C/-76 to +482°F
Ni1000	3-, 4-wire connection	-60 to +150°C/-76 to +302°F
D100	3-, 4-wire connection	-200 to +1000°C/-328 to +1832°F
Potentiometer/resistance		0 to 2000Ω
THERMOCOUPLES AND VOLTAGE		
T/C Type	AE, B, E, J, K, L, N, R, S, T, U.	Ranges according to users manual
Voltage input	mV	-10 to +500mV
Input impedance		>10MΩ
Max sensor wire resistance		500Ω (total loop)
ADJUSTMENTS		
Zero adjustment	All inputs	Any value within range limits
Min. spans	Pt100, Pt1000, Ni100, Ni1000	10°C/18°F
	Potentiometer	10Ω
	T/C, mV	2mV
TYPICAL ACCURACY	IPAQ-H/HX/L/LX	±0.1% of temperature span
	IPAQ plus models	±0.05% of temperature span
OUTPUT		
Current	User definable output	4 to 20/20 to 4mA
Linearity	Temperature linear	
Current Limitation		21.6mA
POWER SUPPLY	IPAQ-H/L	7.5 to 36V DC 2-wire
	IPAQ-HX/LX	8.0 to 30V DC 2-wire
ISOLATION	IPAQ-H/HX/L/LX	1500 VAC
	IPAQ plus models	3750 VAC
MONITORING		
Sensor break monitoring	User definable output	3.5 to 21.6mA
SmartSense	User definable output	3.5 to 21.6mA (IPAQ-H/HX only)
INTRINSIC SAFETY	IPAQ-HX/LX & plus models	FM: Class 1, Div 1, GR. A-D
OPERATING TEMPERATURE	IPAQ-H/HX	-40 to +85°C/-40 to +185°F
	IPAQ-L/LX	-20 to +70°C/-4 to +158°F