

IPAQ-21/-22

Universal 1- & 2-channel Programmable 2-wire Transmitters



IPAQ-21L



IPAQ-21LX/-22LX are 1- and 2-channel, universal, isolated 2-wire transmitters for Ex-applications. No zener barriers or Ex power supplies are needed, which reduces costs for purchase, design and maintenance. IPAQ-21L/-22L are 1- and 2-channel versions for non-Ex-applications.

- 1- and 2-channel intrinsic safe IPAQ-21LX/-22LX
- 1- and 2-channel non intrinsic safe IPAQ-21L/-22L
- Very cost effective Ex-solution
- Fully universal, linearized and isolated
- Accepts RTD, T/C, mV and Ω
- Sensor error and system (sensor/transmitter) error correction for highest total accuracy
- Full access to all features while in operation
- NAMUR compliant
- Consistent sensor break function
- Simplified loop check-up with calibration output
- IPRO, easy-to-use Windows configuration software
- Only 11 mm/channel (2-channel versions)
- Fixed terminals or plug-in terminals with coding (see Ordering information)

Specifications:

Input RTD		3-, 4-wire connection
Pt100 ($\alpha=0.00385$)		-200 to +1000 °C / -328 to +1832 °F
Pt1000 ($\alpha=0.00385$)		-200 to +200 °C / -328 to +392 °F
PtX $10 \leq X \leq 1000$ ($\alpha=0.00385$)		Upper range depending on X-value
Pt100 ($\alpha=0.003902$)		-200 to +1000 °C / -328 to +1832 °F
Pt100 ($\alpha=0.003916$)		-200 to +1000 °C / -328 to +1832 °F
Ni100 ¹⁾ , Ni120 ²⁾		-60 to +250 °C / -76 to +482 °F
Ni1000 ¹⁾		-100 to +150 °C / -148 to +302 °F
Cu10 ³⁾		-200 to +260 °C / -328 to +500 °F
Input Potentiometer/resistance		3-, 4-wire connection, 0 to 2000 Ω
Input Thermocouples		Types B, C, E, J, K, L, N, R, S, T, U
Input mV		-10 to +500 mV
Sensor failure		User definable output
Adjustments - Zero		Any value within range limits
Adjustments - Minimum spans		
Pt100, Pt1000, Ni100, Ni1000		10 °C / 18 °F
Potentiometer		10 Ω
T/C, mV		2 mV
Output		4-20 / 20-4 mA, temperature linear
Operating temperature	IPAQ-21L/-22L	-20 to +70 °C / -4 to +158 °F
	IPAQ-21LX/-22LX	-20 to +60 °C / -4 to +140 °F
Galvanic isolation		1500 VAC, 1 min
Power supply		8.0...36.0 VDC
Intrinsic safety	IPAQ-21LX/-22LX	ATEX: II (1) G [Ex ia] IIC II (1) D [Ex iaD] Mounting in safe area, U _{max} =250 VAC
Typical accuracy		± 0.1 % of span
Mounting		Rail acc. to DIN EN50022, 35 mm

¹⁾DIN 43760 ²⁾Edison No. 7 ³⁾Edison No. 15

Input connections

Ch2 21 22 23 24
Ch1 11 12 13 14

Wire connection
Wire connection
RTD temperature T1 > T2
Potentiometer wire connection
Potentiometer wire connection
Resistance
mV
Thermocouple

Connections

Ch2 25 26 27
Ch1 15 16 17

Test¹⁾
¹⁾ Ri $\leq 10 \Omega$

Output load diagram

$R_{LOAD} = (U-8)/0.022$

Dimensions

115/4.53
100/3.93
22,5/0.88

Ordering information

IPAQ-21L 1-Channel, Plug-in terminals	70IP21L001
IPAQ-22L 2-Channel, Plug-in terminals	70IP22L001
IPAQ-21LX, Ex, 1-Ch., Fixed terminals	70IP21LX01
IPAQ-22LX, Ex, 2-Ch., Fixed terminals	70IP22LX01
IPAQ-21LX, Ex, 1-Ch., Plug-in terminals	70IP21LX02
IPAQ-22LX, Ex, 2-Ch., Plug-in terminals	70IP22LX02
PC Configuration Kit	70CFGUSX01
Configuration	70CAL00001