



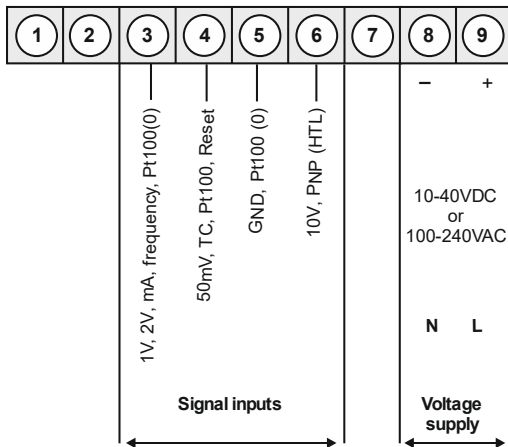
IML2-2 – LCD indicator for panel-mounting in 96x96mm

Multifunctional measuring inputs:

Direct voltage, direct current, Pt100, Pt1000, Thermocouple, pulse signals for frequency and rotational speed metering or counter

- multi voltage power supply unit of 100-240 VAC/DC or 10-40 VDC/18-30 VAC
- LCD indicator with all graphic features of 128x64 pixel
- measurand indication of -1999...9999 digits
- multicolour backlight (7 colours available)
- indication of metering point and signal identification
- 3-digit adjustable dimension unit
- adjustment of the metering point, manually via display menu (with help text as ticker)
or optionally via interface RS485 with ModBus protocol
- min/max memory, Tara function, 9-points-linearisation
- buzzer alarm for audible signalling with switchable confirmation function
- colour change at threshold value exceedance/undercut
- programming interlock via access code
- pluggable screw terminal
- optional: sensor supply
- optional: digital input for triggering of activities like e.g. TARA
- optional: analog output 0/4-20 mA, 0-10 VDC switchable
- optional: 2 relay outputs
- optional: RS232/RS485 interfaces (ModBus protocol) galvanically isolated
- accessories: PC-based configuration kit PM-TOOL with CD & USB-adapter

• **Multifunctional measuring input**



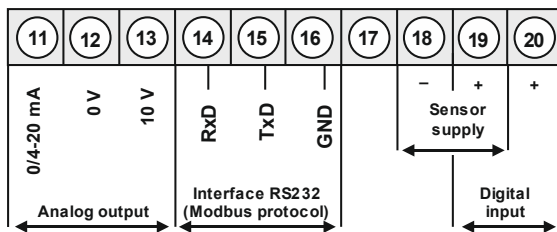
Supply 100-240 VAC, DC±10%

IML2-2UX4C.000X.S70AD 402.20

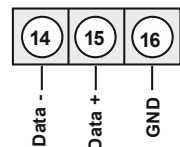
Supply 10-40 VDC, 18-30 VAC

IML2-2UX4C.000X.W70AD 402.20

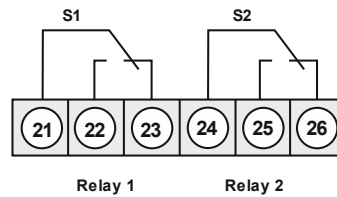
Options:



alternative to RS232



Interface RS485 (Modbus protocol)



• **Product key options**

IM	L	2-	2	U	4	X.	0	0	0	X.	S	7	0	A	D
IM	L	2-	2	U	4	X.	0	0	0	X.	W	7	0	A	D

		EUR	
	2	2 relay outputs	35.00
	X	Analog output 0/4-20 mA, 0-10 VDC galvanically isolated, 16 Bit switchable	127.10
	Z	Analog output 0/4-20 mA, 0-10 VDC galvanically isolated, 12 Bit switchable	63.50
	2	Sensor supply 10 VDC / 50 mA incl. digital input	26.50
	3	Sensor supply 24 VDC / 50 mA incl. digital input	26.50
	3	Interface RS232 galvanically isolated	58.30
	4	Interface RS485 galvanically isolated	58.30
	1	Digital input galvanically isolated	10.60

• **Parameterisation software**

PC-based configuration software PM-TOOL, for devices without keypad; for simple adjustment of standard devices, incl. CD and USB-adapter. Programming happens on the back via interface.

PM-TOOL-MUSB4

94.30

• Technical data

Dimensions	Housing	B96 x H96 x D56 mm (incl. plug-in terminal D= 82 mm)		
	Panel cut-out	91.0 ^{+0.6} x 91.0 ^{+0.6} mm		
	Fixing	screw elements for a wall thickness up to 10 mm		
	Housing material	PC polycarbonate, black		
	Sealing material	EPDM, 65 Shore, black		
	Protection class	at the front IP65 Standard, at the back IP00		
	Weight	approx. 330 g		
	Connection	plug-in terminal; cable cross-section up to 2.5 mm ²		
Display	Display	LCD indicator with full graphic features with 128x64 Pixel		
	Indication of measurand	of -1999...9999 digits		
	Digit height	12 mm		
	Background colour	selectable: red, green, blue, white, yellow, teal, purple		
	LCD digit colour	black		
	Limit values	optical display flashing		
Measuring input	Measuring range	Measuring span	Resolution	
	Voltage	0...10 V (R _i > 100 kOhm)	0...12 V	≥ 14 bit
	Voltage	0...2 V (R _i ≥ 10 kOhm)	0...2.2 V	≥ 14 bit
	Voltage	0...1 V (R _i ≥ 10 kOhm)	0...1.1 V	≥ 14 bit
	Voltage	0...50 mV (R _i ≥ 10 kOhm)	0...75 mV	
	Current	4...20 mA (R _i = ~125 Ohm)	1...22 mA	
	Current	0...20 mA (R _i = ~125 Ohm)	0...22 mA	
	Pt100-3-wire	-50...200°C	-58...392°F	0,1°C / 0,1°F
	Pt100-3-wire	-200...850°C	-328...1562°F	1°C / 1°F
	Pt1000-2-wire	-200...850°C	-328...1562°F	1°C / 1°F
	Thermo K	-270...1350°C	-454...2462°F	1°C / 1°F
	Thermo S	-50...1750°C	-328...3182°F	1°C / 1°F
	Thermo N	-270...1300°C	-454...2372°F	1°C / 1°F
	Thermo J	-170...950°C	-274...1742°F	1°C / 1°F
	Thermo T	-270...400°C	-454...752°F	1°C / 1°F
	Thermo R	-50...1768°C	-58...3214°F	1°C / 1°F
	Thermo B	80...1820°C	176...3308°F	1°C / 1°F
	Thermo E	-270...1000°C	-454...1832°F	1°C / 1°F
	Thermo L	-200...900°C	-328...1652°F	1°C / 1°F
	Frequency	0...10 kHz	0...10 kHz	0,001 Hz / ±1
	NPN	0...3 kHz	0...3 kHz	0,001 Hz / ±1
	PNP	0...1 kHz	0...1 kHz	0,001 Hz
	Rotational speed	0...9999 1/min	0...9999 1/min	0,001 1/min
	Counter	0...9999 (prescaler up to 1000)		
Output	Relay	with changeover contact 250 V / 5 AAC, 30 V / 5 ADC		
	Switching cycle	30 * 10 ³ at 5 AAC, 5 ADC with ohm resistive burden, 10 * 10 ⁶ mechanically		
	Analog output	Diversification according to DIN EN50178 / Characteristics according to DIN EN 60255 10 VDC / burden 10kΩ, 0/4-20 mA / burden 500Ω, 16 Bit 10 VDC / burden 10kΩ, 0/4-20 mA / burden 500Ω, 12 Bit switchable		
	Sensor supply	24 VDC / 50 mA, 10 VDC / 20 mA		
	Buzzer	Signal transmitter as alarm indication		
Pulse input	TTL / Low <2 V / High >3 V	HTL/PNP / Low <6 V / High >8 V		
	NPN / Low <0.8 V / High via resistance	Namur / Low <1.5 mA / High >2.5 mA		
Reset input	active <0.8 V			
Digital input	< 6 V Low and > 18 V High max. 30 VDC galv. isolated			
Measuring fault	Standard	0.2% of measuring range ± 1 Digit		
	Pt100 / Pt1000	0.5% of measuring range ± 1 Digit		
	Thermocouples	0.3% of measuring range ± 1 Digit		
Accuracy	Reference junction	± 1°C		
	Temperature drift	100 ppm/K		
	Measuring time	0.01...2.0 seconds		
	Sampling rate	approx. 1/s with temperature sensor, approx. 100/s with standard signals		
	Measuring principle	U/F-conversion		
	Resolution	approx. 14 Bit at 1s measuring time		
Interface	Protocol ModBus	with ASCII- or RTU-protocol		
	RS232	9.600 Baud, no parity, 8 Databit, 1 StopBit, wire length max. 3m		
	RS485	9.600 Baud, no parity, 8 Databit, 1 StopBit, wire length max. 1000m		
Power pack	Supply	100-240 VAC 50/60 Hz /DC ±10 % (max. 15 VA) 10-40 VDC / 18-30 VAC 50/60 Hz (max. 15 VA)		
Memory	EEPROM	Data preservation ≥ 100 years at 25°C		
Ambient conditions	Working temperature	0 to +50°C		
	Storing temperature	-20 to +80°C		
	Wheathering resistance	relative humidity of 0-85% on years average without dew		
CE-sign	Conformity to guidance 2014/30/EU			
EMV	EN 61326, EN 55011			

