



Tronic

WIKAI programmable process meters are ideal for use with WIKAI Tronic pressure transmitters when a programmable display or controller is required. They feature 1/8 DIN, NEMA 4 / IP 65 metal front bezel, full 6-digit .56" high red LED display, state-of-the-art digital electronics, one-pass scaling, and front panel programming with lock-out menu to protect set up data. English display prompts simplify programming and operation. Set up data is stored in an E²PROM for ten years without power. Each unit is supplied with a detailed users manual and is available with options to meet a wide variety of applications.



Options

Built-in Excitation

Provides an 18VDC 60mA supply to power the transmitter.

Totalizer/linearizer/peak/valley/tare

- Totalizer- adds input readings using a programmable time base and scaling coefficient.
- Linearizer- a series of nine programmable scaling points used to linearize the input signal. Used primarily for square law devices.
- Peak- the highest reading is retained for later recall.
- valley- the lowest reading is retained for later recall.
- tare- zeros the display to compensate for small drifts in the input signal.

Dual relays

Two independently programmable form C relays and two open collector transistors acting in parallel with the relays. Relays can be programmed for high or low acting, hysteresis (deadband), auto or manual reset, and trigger from input or total. They can be set to track each other where a pre-warning device activates prior to shutting off a process. The relays can be programmed to latch (manual reset) and can be reset by the front panel or remote input.

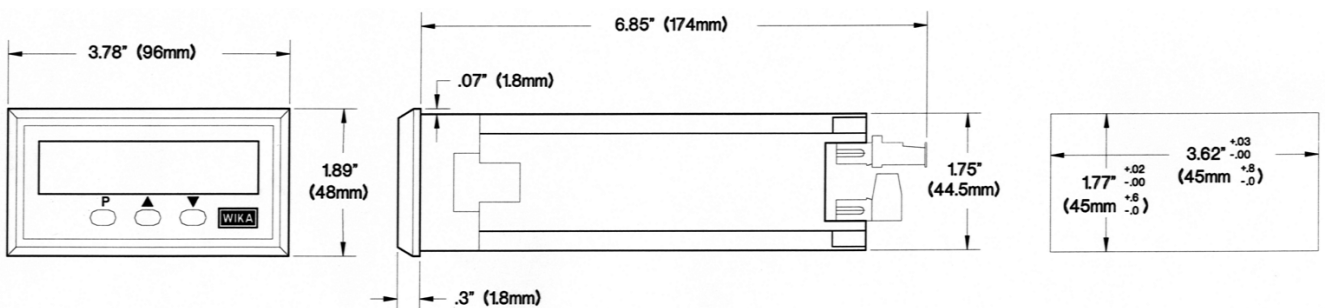
Isolated serial communications

Half-duplex, two way 20mA loop for connection to printers, computers, or controllers for automatic operation applications.

Isolated re-transmitted analog output

The re-transmitted 4-20 mA analog output signal can be used for remote indicators, controllers, and chart recorders. The compliance is 10VDC.

Dimensions in inches (mm)



Ordering Guide

Select the model number that corresponds to the required options.

Options	Type Number							
	907.50.900	907.50.910	907.50.920	907.50.930	907.50.940	907.50.950	907.50.960	907.50.970
Excitation		X	X	X	X	X	X	X
Peak/Valley/Tare				X	X	X	X	X
Dual Relays			X			X		X
Serial Output					X			X
4-20mA Output							X	X

Specifications:

Display: 6 digit, 0.56" (14.2mm) high red LED, minus sign displayed for negative values. Display flashes on totalizer overflow. "....." displayed when input display is out of range. "OLOLOL" displayed on input display overload, "ULULUL" displayed for underload.

Power: 115VAC, +/-10%, 50/60Hz, 14VA

Controls: Three front-panel push buttons for set-up and changing alarm values. Two external inputs for disabling the front panel and controlling programmable functions.

Signal input range: 0-50mA DC(4-20mA, 10-50mA)

Input impedance: 10 Ohms, 0.2VDC @ 20mA

Accuracy: ± (.02% full scale +1 digit)

Resolution: 1/40,000

Programmable display reading range: -99,999 to 999,999

Reading Rate: 2.5 readings/second

Response time: 2 seconds to settle for step input (increases with programmable digital filtering)

Normal mode rejection: 40 dB @ 50/60Hz (may be improved by programmable digital filtering)

Common mode rejection: 120 dB, DC to 50/60Hz

Temperature effects: Operating 0 to 50 °C

Storage -40 to 80 °C

Span temperature coefficient: 40ppm/ °C

Zero Temperature coefficient: 1uV/ °C

Excitation (optional): 18VDC @ 60mA maximum

Serial Communications (optional): Bi-directional 20mA current loop, 20mA source provided on transmit loop (powers up to 7 units in a loop with internal current source)

Baud rate: programmable 300 to 2400

Maximum address: 99 (actual number in a single loop limited by serial hardware specifications)

Data format: 10 bit frame, odd parity (one start bit, 7 data bits, one odd parity bit, one stop bit)

Serial Hardware Specifications:

SO-Output Transistor Rating: $V_{max}=30VDC$, $V_{SAT}=1V_{max}$ @ 20mA. (This will allow up to 28 units maximum in each loop.)

SI-Input Diode Rating: $VF=1.25V_{TYP}$; $1.5V_{max}$

NOTE: The compliance voltage rating of the source must be greater than the sum of the voltage drops around the loop. (Typically a 30VDC powered source would be capable of operating between 18 and 22 units in a loop.)

Alarms (Optional):

Solid state: two, isolated, sinking open collector NPN transistors acting in parallel with relays. I_{max} : 100mA @ $V_{SAT} = 1V$. V_{max} : 30VDC.

Relays: 2 type Form C; 5 amps @ 120/240VAC or 28VDC resistive load), 1/8 hp @ 120 VAC (inductive load). Life expectancy: 100,000 cycles at maximum rating (life expectancy increases as load level decreases).

Analog output (Optional): Digital scaling and offsetting within 4-20ma range. Accuracy = 0.1% of full scale; Resolution = 12 bits; Compliance voltage = 10VDC (500 ohms maximum loop impedance).

Totalizer/linearizer/peak/valley/tare/E2-Con (Optional): Front panel button for input/total display select. External totalizer reset/enable. Programmable time base, scale factor (.001-100.000) and low end cutout.. Nine segment multiple slope scaling for non-linear inputs. Peak and Valley recording. Signal re-zero (tare). Programmable E2-CON pin.

Construction: Die-cast metal front bezel that meets NEMA 4/IP65 requirements for wash down and/or dusty environments when properly installed. Case body is black, high impact plastic. Panel gasket and mounting clips are included.

Electrical connection: Removable terminal blocks.

Weight: 1.2 lbs (.5 kg)

Programmable Functions

Programming is divided into modular steps. Each module is a short series of data entries. The front panel buttons "UP" and "DOWN" (shown as arrows on the front panel) are used to change the data and setups. The "P" button saves or enters the data. Pressing "P" gains entry into the programming mode. Each program module is identified by the display "Pro" and a number in the display. Pressing "UP" or "DOWN" selects the desired module, while "P" enters the selection. All subsequent programming steps follow the same procedure. The rear terminal labeled "PGM.DIS" must be ungrounded to gain access to the programming functions.

Programming functions:

Pro 0	Return to measurement mode
Pro 1	Scale unit by applying signal
Pro 2	Scale unit by key-in signal level
Pro 3	Program functions accessible with front panel lockout engaged
Pro 4	Program digital filtering and remote input function
Pro 5	Program totalizer
Pro 6	Program alarms
Pro 7	Program serial communications
Pro 8	Program re-transmitted analog output

Sample programming steps:

<u>Display</u>	<u>Action</u>
Pro 2	Scale unit by keying in signal
dECPnt	Enter decimal point for scaled display
round	Enter rounding factor and trailing zeros for scaled display
SCALE	Continue or return to measurement mode
dSP 1	Enter display reading for scaling point #1
INP 1	Enter signal level for scaling point #1
dSP 2	Enter display reading for scaling point #2
INP 2	Enter signal level for scaling point #2
Pro 6	Program alarms
trAc	Enter alarm value tracking
dISP	Enable display alarm annunciators
LATc-1	Enable alarm #1 latching
ASN-1	Enter alarm #1 trigger source (input or total)
AL-1	Enter alarm #1 value
HYS-1	Enter hysteresis value for alarm #1
Act-1	Enter alarm #1 action (high or low)
LATc-2	Enable alarm #2 latching
ASN-2	Enter alarm #2 trigger source (input or total)
AL-2	Enter alarm #2 value
HYS-2	Enter hysteresis value for alarm #2
Act-2	Enter alarm #2 action (high or low)

Each meter is supplied with a comprehensive programming and instruction manual.

Ordering Information:

State computer part number (if available) / type number / options required.

Specifications given in this data sheet represent the state of engineering at the time of printing. Modifications may take place and the specified materials may change without prior notice

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