

MANUAL

programmable digital panel meter with alarm contact

1. SAFETY PRECAUTIONS

The following general safety precautions must be observed during all phases of installation and operation of this instrument.

- Installation and operation of this instrument can be performed by qualified personnel only and according to the relevant Normative.
- Servicing can be performed at Factory only.
- Before installing the instrument make sure that the housing is not damaged, otherwise the unit must be rejected and returned to the Factory for servicing.
- Ensure that the line and auxiliary power supply are switched off before connecting the instrument to the circuits.
- Wiring diagrams must be respected according to the required model.
- Make sure to operate the instrument according to the technical specifications as listed in this Manual.
- Do not operate the instrument in an explosive atmosphere and in presence of flammable liquids or vapours.
- The environmental operating conditions must be in the range as specified in this Manual.
- Never attempt to open the instrument's housing for any reason.
- Water or other liquid cleaners must be avoided.
- Failure to comply with these precautions and with the instructions given in this Manual violates safety standards of design, manufacture, and intended use of this instrument.
- Langer Messtechnik GmbH assumes no liability for the Customer's failure to comply with these requirements.

NOTE: The contents of this Manual are subject to change without prior notice as a result of improvements in performances and functions.

Should you have any questions, please contact: Langer Messtechnik GmbH

2. TECHNICAL CHARACTERISTICS

max indication	± 19999
red LED display	h = 14 mm
reading update	5/sec.
over range indication	"Over"
accuracy (class)	0.2 (d.c.); 0.35 (a.c.)
operating frequency	45...65Hz
continuous overload	2 In, 1,2 Vn
instantaneous overload	10 In, 2 Vn (1 sec.)
input type (voltage or current)	selectable
measuring type (a.c. or d.c.)	programmable
measuring range (start...end range)	programmable
display (start...full range)	programmable
alarms (X98/96... only)	2 (1 SPDT + 1 SPST)
contacts rating	10A, 250V AC1
alarm intervention indication	by LED
alarm type (programmable)	MIN / MAX / OFF
safety type (programmable)	intrinsic (positive)
intervention delay (programmable)	OFF or 0.1...999 sec.
hysteresis (programmable)	0...100%
standard power supply	115/230V, 50/60Hz
power consumption	< 5VA
storage temperature	-30 + +70°C
operating temperature	-10 + +50°C
self extinguishing	according to
thermoplastic material	UL94-VO
insulation	full
test voltage	4kV, 50Hz, 60sec.
surge test	8kV, 1.2/50microsec.

3. DESCRIPTION

High-accuracy programmable digital meters suitable for AC and DC voltage and current measurements. Two types of input version are available: the D98/96MAV... with DC input only and for low current and voltage values. This meter is suitable for measurement of process quantities (e.g. 0...10V, 4...20mA, etc...etc...) and DC currents through shunts (e.g. 60mV, 100mV, etc...etc...). The other version is the D98/96UAV either for DC or for AC measurements for high current and voltage values: it is suitable for power system measurements (e.g. line voltage measurement, current measurement through CT/5A etc...etc...)

For both types it is possible to select the type of measurement, among the various type available, to set the start and the full measuring range and the relevant display range (e.g. DC input 4...20mA, display range 0...12000RPM or AC input 0...5A, display range 0-1500,0A).

Moreover each meter parcel will contain the most requested metering units which can be fitted on the front side of the meter according to the type of quantity to be displayed.

Both versions are also available with two alarms completely programmable. The code of the versions with alarms starts with a "X" instead of a "D".

4. PROGRAMMING

To enter in the programming mode press the enter key and keep it pressed at least for two seconds. To move among the various items of the programming menu, use the enter key (to advance), the left arrow (to return to the previous item), and the up and down arrows to select an item among those available. To modify a value, use the up or down arrow keys to increment or decrement the blinking digit, the left arrow to change digit and the enter to confirm the new value. NOTE: the memorization of a new value or a new selection can require some seconds.



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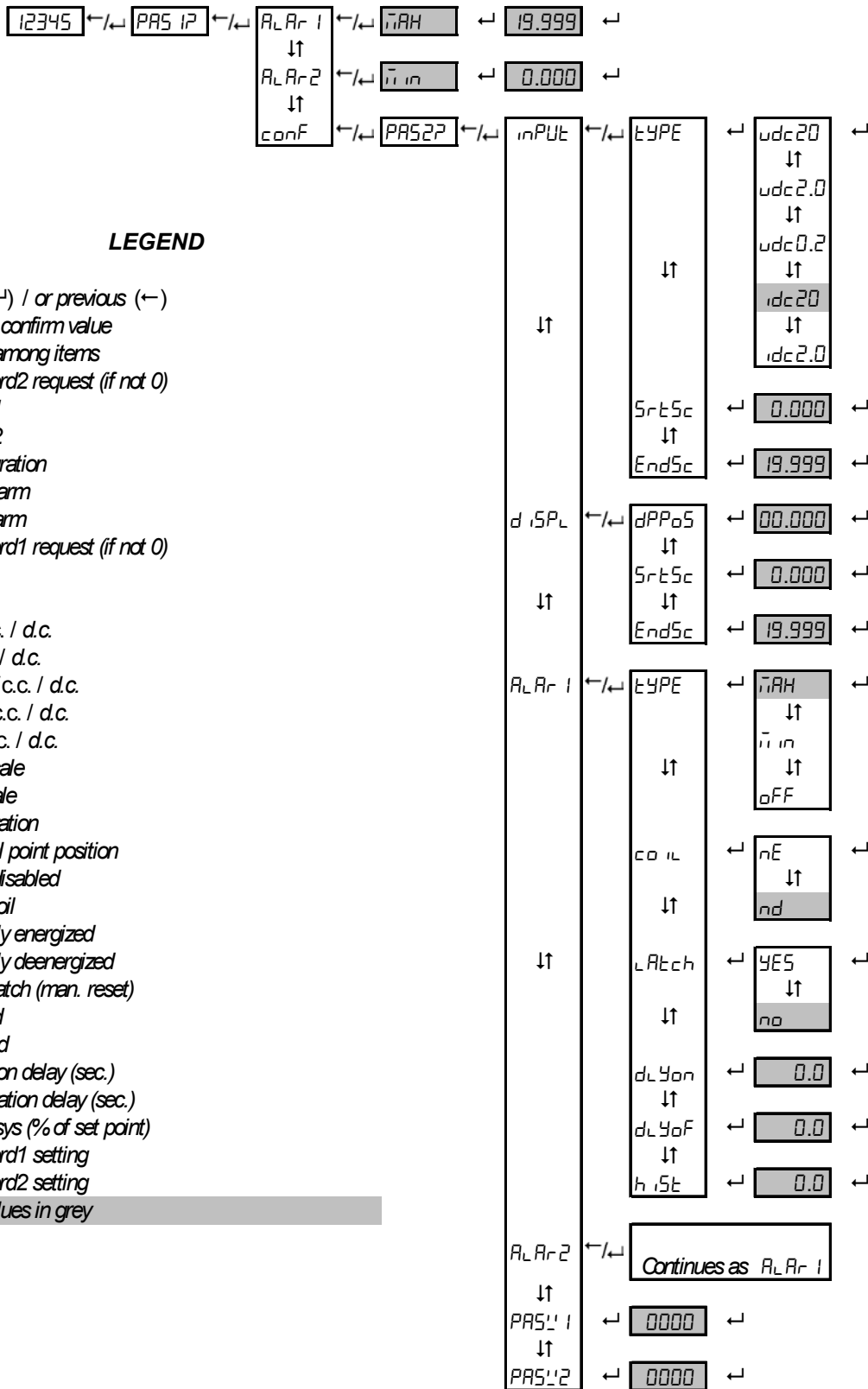
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PROGRAMMING MENU



LEGEND

- ←/→ Next (→) / or previous (←)
 - ↵ Next or confirm value
 - ↓ Select among items
 - PASS2? Password2 request (if not 0)
 - ALAR1 Alarm 1
 - ALAR2 Alarm 2
 - CONF Configuration
 - MAX Max. alarm
 - MIN Min. alarm
 - PASS1? Password1 request (if not 0)
 - INPUT Input
 - TYPE Type
 - udc20 20V.c.c. / d.c.
 - udc2.0 2V.c.c. / d.c.
 - udc0.2 200mV.c.c. / d.c.
 - idc20 20mA.c.c. / d.c.
 - idc2.0 2mA.c.c. / d.c.
 - StartSc Start scale
 - EndSc End scale
 - dSP_L Visualization
 - dPPoS Decimal point position
 - oFF Alarm disabled
 - coil Relay coil
 - nE Normally energized
 - nd Normally deenergized
 - LAtch Alarm latch (man. reset)
 - YES Enabled
 - no Disabled
 - dLYon Activation delay (sec.)
 - dLYoF Deactivation delay (sec.)
 - hSt Histeresys (% of set point)
 - PASS1? Password1 setting
 - PASS2? Password2 setting
- Note: Default values in grey