

AX 020

Panel Meter with Analogue Input



- Mini housing 48 x 24 mm (1.890 x 0.945")
- Bright LED display 6 decades/ 8mm (0.315")
- Add-on frame for 50 x 25 mm (1.969 x 0.984")
- Analogue inputs 0 – 10V, 0 – 20mA, 4 – 20mA
- Display range – 19 999 to 99 999
- Adjustable scaling factor
- 10 – 30 volts DC supply
- Latch input to freeze the display
- Protection class IP65 on front
- Minimum/ Maximum memory
- Easy to set up by menu support

Operating Instructions



Safety Instructions

- This manual is an essential part of the unit and contains important hints about function, correct handling and commissioning. Non-observance can result in damage to the unit or the machine or even in injury to persons using the equipment!
- The unit must only be installed, connected and activated by a qualified electrician
- It is a must to observe all general and also all country-specific and application-specific safety standards
- When this unit is used with applications where failure or maloperation could cause damage to a machine or hazard to the operating staff, it is indispensable to meet effective precautions in order to avoid such consequences
- Regarding installation, wiring, environmental conditions, screening of cables and earthing, you must follow the general standards of industrial automation industry
- - Errors and omissions excepted –

| Version: | Description: |
|-------------------|-----------------------------------|
| AX02002a/hk/Dec06 | Brochure format A5 |
| AX02002b/hk/Aug07 | Modification of temperature range |
| | |

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1. Operation of the front keys

To enter the setup mode, keep both front keys down while you switch power on. The display will show

Prog

As soon as you release the keys, the display starts alternating between the actual parameter text and the associated setting, in a cycle of two seconds.

Press the key on the right to increment the actual set value to next.

For numeric entries, use the left key to select the decade and the right key to scroll the value.

To continue to the next parameter, keep the left key down while you press the right key.

When you have reached the item „Endpro“, you get the choice

–„Yes“: this will store your entries to the unit and switch to normal operation.

–„No“: this will start the menu again and your previous data will not be stored.

2. Operational parameters

Please enter all of the subsequent parameters, like shown in section 1.

2.1. Input range

| | |
|---------------|---------|
| rRnGE | range |
| 0.20mA | 0.20mA |
| 4.20mA | 4..20mA |
| 0.10V | 0..10V |
| 2.10V | 2..10V |

2.2. Maximum value record

| | | |
|--------------|------|-------------------------------------------------------------------------------------|
| rMAX | MAX | |
| YES | YES | Maximum record on. (Right front key scrolls display between „Act“, „Min“ and „Max“) |
| no | no | Maximum record off. Skips next parameter |
| rRMAX | rMAX | |
| YES | YES | Red key sets maximum value to the actual value. |
| no | no | Maximum Reset disabled |

2.3. Minimum value record

| | | |
|--------------|------|-------------------------------------------------------------------------------------|
| rMin | Min | |
| YES | YES | Minimum record on. (Right front key scrolls display between „Act“, „Min“ and „Max“) |
| no | no | Minimum record off. Skips next parameter. |
| rRMin | rMin | |
| YES | YES | Red key sets minimum value to the actual value. |
| no | no | Minimum Reset disabled. |

2.4. Decimal point

| | | |
|------------------------------------|--------|---------------------------------------------------|
| dP | dP | |
| <input type="text" value="0"/> | 0 | Provides setting of up to four decimal positions. |
| <input type="text" value="00000"/> | 0.0000 | |

2.5. Minimum input signal

| | | |
|------------------------------------|--------|-----------------------------------------------------------------------------|
| Lo | Lo | (with 4-20 mA or 2-10V range only) |
| <input type="text" value="04000"/> | 04.000 | Unit shows "Lo" when input voltage or current gets lower than this setting. |
| <input type="text" value="20000"/> | 20.000 | |

2.6. Display value with lowest input signal

| | | |
|-------------------------------------|---------|--------------------------------------------------------------------------------------------------------------|
| LodiS | LodiS | |
| <input type="text" value="-19999"/> | -199.99 | Setting range – 19 999....99 999. Sets the display value as desired with a 0V / 0mA or 2V / 4mA input signal |
| <input type="text" value="99999"/> | 999.99 | |

2.7. Maximum input signal

| | | |
|------------------------------------|--------|------------------------------------------------------------------------------|
| hiCh | High | (with 4–20mA or 2–10V range only) |
| <input type="text" value="04000"/> | 04.000 | Unit shows "Hi" when input voltage or current gets higher than this setting. |
| <input type="text" value="20000"/> | 20.000 | |

2.8. Display value with highest input signal

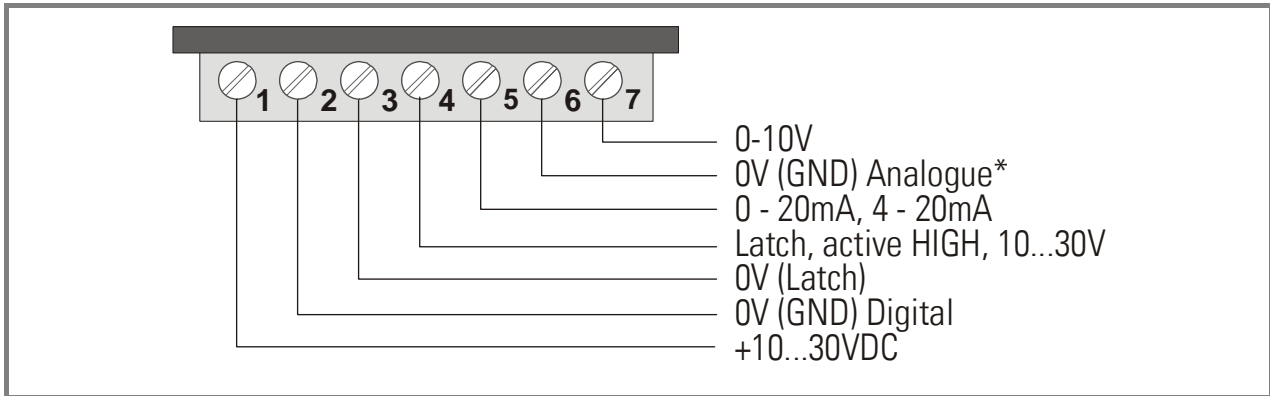
| | | |
|-------------------------------------|---------|-----------------------------------------------------------------------------------------------------|
| hi diS | Hi.diS | |
| <input type="text" value="-19999"/> | -199.99 | Setting range – 19 999....99 999. Sets the display value as desired with a 10V or 20mA input signal |
| <input type="text" value="99999"/> | 999.99 | |

2.9. End of program

| | | |
|----------------------------------|--------|----------------------------------------------------------------------------------|
| EndPro | EndPro | |
| <input type="text" value="YES"/> | YES | Select "Yes" to store data and exit the menu. |
| <input type="text" value="no"/> | no | Select "No" to return to the beginning of the menu for verification of settings. |

3. Terminal Assignment

(also printed to the top of the unit)



* Potential separated from GND digital/ power supply (terminal 2)

4. Delivery includes:

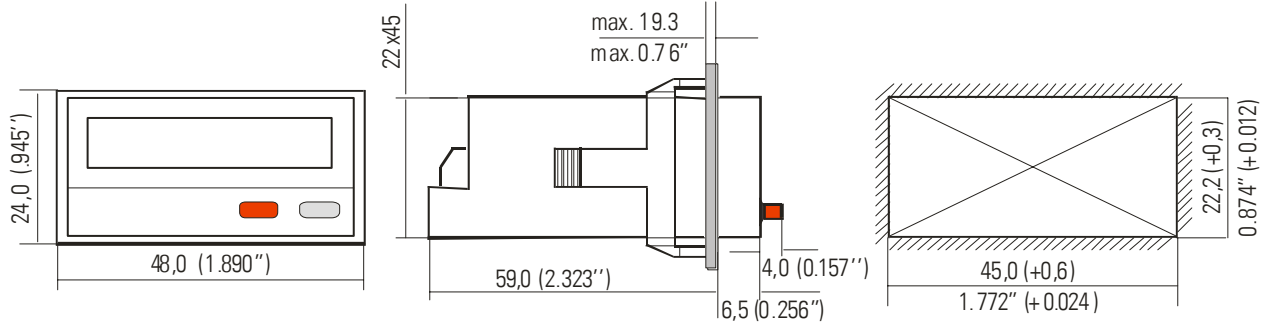
- Panel mounting clip
- Bezel for screw mount with panel cut out 50 x 25mm
- Bezel for clip mount with panel cut out 50 x 25mm
- Sealing
- 1 sheet with self adhesive stickers (engineering units)

5. Specifications

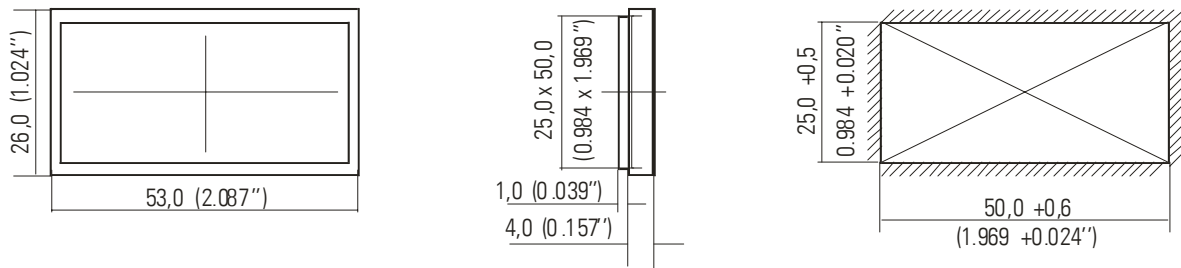
| | | |
|--------------------------|---|----------------------------------------------------------------------------|
| Power supply UB | : | 10...30 Vdc, max. 50 mA |
| Display | : | 5 decades / 8mm (0.315") |
| Inputs | : | 0 ... 10 V, 2 ... 10V (Ri = 1M), 0 ... 20mA, 4 ... 20mA (Ri = 100 Ohms) |
| Resolution | : | 14 bit |
| Measuring cycle | : | 0,5 sec. |
| Accuracy | : | < 0.1% +/- 1 digit (20°C, 68°F) |
| Thermal drift | : | < 70 ppm/K |
| Operating temperature | : | -20°... + 55° C (-4 ... +131° F) |
| Storage temperature | : | -25°... + 70° C (-13 ... +158° F) |
| Weight | : | 50g |
| Protection Class (front) | : | IP 65 |
| Conformity and Standards | : | EMC 89/336/EEC : EN 61000-6-2 EN 61000-6-3 LV73/23/EEC : EN 61010-1 |

6. Dimensions

6.1. Mounting without use of add-on frames



6.2. Bezel 50 x 25 mm (1.969 x 0.984") for clip mounting



6.3. Bezel 50 x 25 mm (1.969 x 0.984") for screw mounting

