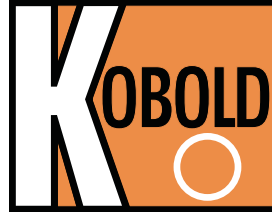




Processor-Based Digital Indicating Units

with Limit Switches and Analogue Output



measuring
•
monitoring
•
analysing



Model DAG-1...
48x24 mm

Model DAG-2...
72x36 mm

Model DAG-3...
96x24 mm

Model DAG-4...
96x48 mm

- Programmable
- 96x48; 96x24; 72x36; 48x24 mm
- Input: temperature, current, voltage, frequency
- Analogue output, contacts, min./max. memory



T2

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Model:
DAG...



Description

Price competitive and reliable digital indicating units for measurement of temperature, current and voltage. As option the units can be supplied with analogue output and an additional sensor supply. The units can be delivered with a factory calibration. In case of models with current or voltage input the decimal point and digits before the decimal point can be determined with help of jumpers. The display can be adapted with help of a potentiometer whereas the dimension with replaceable labels.

● **Sensor Supply (optional)**

In order to supply the connected transmitter with current or voltage output, the units may be delivered with an additional sensor supply. Please note that digital displays must be supplied with at least 20 V_{DC} (galvanic separated version) or 26 V_{DC} (not galvanic separated version).

● **Galvanic separated version (optional)**

The voltage supply is galvanic separated from measured input and analogue output. The measured inputs are not galvanic separated from the analogue output. Because by all measurement methods errors may occur because of earth currents, only units with galvanic separation should be used when possible.

● **Pluggable Terminals (optional)**

To facilitate the installation and dismantling of the units, pluggable connection terminals may be supplied as an option. Pluggable terminals should not be used on units with a temperature measurement input because of increased contact resistance.



Technical Details

- Display: 7-segment red LED, 14 mm high
3 1/2-segment (1999 digit) or
4 1/2-segment (19999 digit)
- Accuracy: Pt 100 (-50...+199.9 °C) ±0.2 °C, ±0.5 °C
resolution: 0.1 °C
Pt 100 (-100...+600 °C) ±1 °C
thermocouples: ±1 % of m. value ±1 digit
resolution: 1 °C,
current, voltage: ±0.1 % of measured
value ±1 digit
- Measuring rate: 1 measurement per second
- Power input: approx. 5 VA (input current, voltage)
approx. 2 VA (PT 100)
approx. 4 VA (thermocouples)
- Max. temperature: 0 to +60 °C operating,
-20 to +80 °C storage
- Case material: PC/ABS-BLEND, colour black
- Mounting: latching snap-on fixing
- Protection type: standard: front IP 40, terminal IP 00
option: front IP 65, terminal IP 00
- Dimensions: 96 x 48 x 135 mm (W x H x D)
96 x 48 x 148 with pluggable option
- Cut-out dimensions: 92 x 45 mm
- Weight: approx. 0.35 kg

Order Details (Example: DAG-D1 0 0 0 000)

| Display 14 mm | Input | Model | Supply | Output | Sensor supply for current/voltage input only | Options Pluggable terminal not for temperature input |
|--|--|--------|--|---|--|--|
| 3 1/2-digit | Pt100/2-wire (-50...+199.9 °C) | DAG-D1 | 0= 115/230 V _{AC} 1= 18-30 V _{DC} 2= 18-30 V _{DC} electrically isolated | 0= without 1= 0-20 mA 4= 4-20 mA 6= 0-10 V _{DC} | 0= without V= 10 V _{DC} / 20 mA W= 24 V _{DC} / 50 mA | 000= standard S00=IP 65, Poti back K00=terminal pluggable L00=IP 65/ terminal pluggable |
| | Pt100/2-wire (-100...+600 °C) | DAG-D2 | | | | |
| | Pt100/2+3-wire (-50...+199.9 °C) | DAG-D3 | | | | |
| | Pt100/2+3-wire (-100...+600 °C) | DAG-D4 | | | | |
| | NiCr-Ni (-100...+800 °C) | DAG-DK | | | | |
| | Fe-CuNi (USA) -50...+500 °C) | DAG-DJ | | | | |
| | Fe-CuNi (DIN) -50...+500 °C) | DAG-DL | | | | |
| 0(4)-20 mA, 0-200 mA and 0-10, 50, 200, 600 V _{DC} | DAG-DV | | | | | |
| 4 1/2-digit | 0(4)-20 mA, 0-200 mA and 0-10, 50, 200, 600 V _{DC} | DAG-HV | | 0= without | | |

T2



Description

Processor-based digital indicating units for measuring frequency, temperature, current and voltage. The measured input is calibrated at the factory. The scale of the unit may be altered with replaceable labels.

The following parameters may be set by the customer from a tactile keypad:

- Desired indicated value and offset
- Position of point, display time, measurement frequency
- Full scale value and offset of analogue output
- Switch point, hysteresis, closed-circuit current/load current

The units may be provided with the following:

- Two changeover contacts
- Min./max. memory (not for frequency)
- Output: 0-20 mA, 4-20 mA, 0-10 V (optional)
- Sensor supply (optional for current input, voltage input, or frequency input)

● **Sensor Supply (optional)**

In order to supply the connected transmitter with current or voltage output, the units may be delivered with an additional sensor supply. Please note that digital displays must be supplied with at least 20 V_{DC}.

● **Pluggable Terminals (optional)**

To facilitate the installation and dismantling of the units, pluggable connection terminals may be supplied as an option. Pluggable terminals should not be used on units with a temperature measurement input because of increased contact resistance.



Technical Details

Display: 7-segment red LED, 14 mm high
 Accuracy: Pt 100 (-100...+600 °C)
 ±0.2 °C, ± 1 digit, resolution: 0.1 °C
 thermocouples: ± 1 °C, ± 1 digit
 resolution: 1 °C,
 frequency: ± 0.04 % of display, ± 1 digit
 resolution: 0 to 9999
 current, voltage: ± 0.2 % of measured
 value, ± 1 digit

Display time: 0.2-10 seconds, adjustable
 Power input: 5 VA (max.)
 Max. temperature: 0 to +60 °C operating,
 -20 to +80 °C storage

Case material: ABS, colour black
 Mounting: latching snap-on fixing
 Protection type: standard: front IP 40, terminal IP 00
 option: front IP 65, terminal IP 00

Output/load: 0(4)-20 mA / 500 Ω
 Relay: 2 changeover contacts
 max. 230 V_{AC}/2A-120 V_{DC}/0.5 A

Dimensions: 96 x 48 x 131 mm (W x H x D)
 96 x 48 x 148 with pluggable option

Cut-out dimensions: 92 x 45 mm
 Weight: approx. 0.45 kg

Order Details (Example DAG-42 2 0 0 0 2M)

| Display 14 mm | Input | Model | Supply | Output | Sensor supply for current/vol- tage input only | Options Pluggable terminal, not for temperature input | Contacts/ memory |
|------------------|--|--|--|---|---|--|--|
| 4-digit | Pt 100/2-wire (-100.0...+600.0 °C) Pt 100/2+3-wire (-100.0...+600.0 °C) Pt 100/4-wire (-100.0...+600.0 °C) NiCr-Ni (-250...+1350 °C) Fe-CuNi (USA) -200...+1200 °C) Fe-CuNi (DIN) -100...+900 °C) 0(4)-20 mA, 0-10 V _{DC} | DAG-42.. DAG-44.. DAG-45.. DAG-4K.. DAG-4J.. DAG-4L.. DAG-4V.. | 2= 20-30 V _{DC} electrically isolated 4= 115 V _{AC} 0= 230 V _{AC} | 0=without 1=0-20 mA 4=4-20 mA 6=0-10 V _{DC} | 0= without V= 10 V _{DC} / 20 mA W=24 V _{DC} / 50 mA | 0= standard S= IP 65, K= IP 40/ terminal pluggable L= IP 65/ terminal pluggable | 2M=2 change- over contacts incl. min/max.- memory |
| 4-digit | 1 Hz...500 kHz | DAG-4F.. | 2= 20-30 V _{DC} electrically isolated 4= 115 V _{AC} 0= 230 V _{AC} | 0=without 1=0-20 mA 4=4-20 mA 6=0-10 V _{DC} | V= 10 V _{DC} / 20 mA W=24 V _{DC} / 50 mA | 0= standard S= IP 65 K= IP 40/ terminal pluggable L= IP 65/ terminal pluggable | 20= 2 change- over contacts |



Description

Processor-based digital indicating units for measuring frequency, temperature, current and voltage. The measured input is calibrated at the factory. The scale of the unit may be altered with replaceable labels.

The following parameters may be set by the customer from a tactile keypad:

- Desired indicated value and offset
- Position of point, display time, measurement frequency
- Full scale value and offset of analogue output
- Switch point, hysteresis, closed-circuit current/load current

The units may be provided with the following:

- Two changeover contacts
- Min./max. memory (not for frequency)
- Output: 0- 20 mA, 4- 20 mA, 0- 10 V (optional)
- Sensor supply (optional for current input, voltage input, or frequency input)

● **Sensor Supply (optional)**

In order to supply the connected transmitter with current or voltage output, the units may be delivered with an additional sensor supply. Please note that digital displays must be supplied with at least 20 V_{DC}.

● **Pluggable Terminals (optional)**

To facilitate the installation and dismantling of the units, pluggable connection terminals may be supplied as an option. Pluggable terminals should not be used on units with a temperature measurement input because of increased contact resistance.



Technical Details

- Display: 7-segment red LED, 14 mm high
- Accuracy: Pt100 (-100.0 to +600.0 °C) ± 0.2 °C, ± 1 digit, resolution: 0.1 °C
thermocouples: 1 °C, frequency: ±0.04 % of display, ± 1 digit
resolution: 0 to 9999
current, voltage: ± 0.2 % of measured value, ± 1 digit
- Display time: 0.2-10 seconds, adjustable
- Power input: 5 VA (max.)
- Max. temperature: 0 to +60 °C operating, -20 to +80 °C storage
- Case material: ABS, colour black
- Mounting: latching snap-on fixing
- Protection: standard: front IP 40, terminal IP 00
option: front IP 65, terminal IP 00
- Output/load: 0(4)-20 mA / 500 Ω
- Relay: 2 changeover contacts
max. 230 V_{AC} / 2 A-120 V_{DC} / 0.5 A
- Dimensions: 96 x 24 x 131 mm (W x H x D)
96 x 24 x 148 with pluggable option
- Cut-out dimensions: 92 x 22 mm
- Weight: approx. 0.29 kg

Order Details (Example: DAG-32 0 0 0 0 2M)

| Display 14 mm | Input | Model | Supply | Output | Sensor supply for current/vol- tage input only | Options Pluggable terminal, not for temperature input | Contacts/ memory |
|----------------------------------|--------------------------------------|-----------------|--|---|---|--|--|
| 4-digit | Pt 100/2-wire (-100.0...+600.0 °C) | DAG-32.. | 2= 20-30 V _{DC} electrically isolated 4= 115 V _{AC} 0= 230 V _{AC} | 0=without 1=0-20 mA 4=4-20 mA 6=0-10 V _{DC} | 0= without V= 10 V _{DC} / 20 mA W=24 V _{DC} / 50 mA | 0= standard S= IP 65, K= IP 40/ terminal pluggable L= IP 65/ terminal pluggable | 2M=2 change- over contacts incl. min/max.- memory |
| | Pt 100/2+3-wire (-100.0...+600.0 °C) | DAG-34.. | | | | | |
| | Pt 100/4-wire (-100.0...+600.0 °C) | DAG-35.. | | | | | |
| | NiCr-Ni (-250...+1350 °C) | DAG-3K.. | | | | | |
| | Fe-CuNi (USA) -200...+1200 °C) | DAG-3J.. | | | | | |
| | Fe-CuNi (DIN) -100...+900 °C) | DAG-3L.. | | | | | |
| 0(4)-20 mA, 0-10 V _{DC} | DAG-3V.. | | | | | | |
| 4-digit | 1 Hz...500 kHz | DAG-3F.. | 2= 20-30 V _{DC} electrically isolated 4= 115 V _{AC} 0= 230 V _{AC} | 0=without 1=0-20 mA 4=4-20 mA 6=0-10 V _{DC} | V= 10 V _{DC} / 20 mA W=24 V _{DC} / 50 mA | 0= standard S= IP 65 K= IP 40/ terminal pluggable L= IP 65/ terminal pluggable | 20= 2 change- over contacts |

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Description

Processor-based digital indicating units for measuring frequency, temperature, current and voltage. The measured input is calibrated at the factory. The scale of the unit may be altered with replaceable labels.

The following parameters may be set by the customer from a tactile keypad:

- Desired indicated value and offset
- Position of point, display time, measurement frequency
- Full scale value and offset of analogue output
- Switch point, hysteresis, steady state current/load current

The units may be provided with the following:

- 1 open collector /1 changeover contact (for units without analogue output)
- Min./max. memory (not for frequency)
- Output: 0-20 mA, 4-20 mA, 0-10 V (optional)

● **Sensor Supply**

Not available

● **Pluggable Terminals (optional)**

To facilitate the installation and dismantling of the units, pluggable connection terminals may be supplied as an option. Pluggable terminals should not be used on units with a temperature measurement input because of increased contact resistance.



Technical Details

Display: 7-segment red LED, 14 mm high
 Accuracy: Pt 100 (-100.0 to +600.0 °C) ± 0.2 % of measured value, ± 1 digit, resolution: 0.1 °C
 thermocouples: ± 1 °C, ± 1 digit resolution: 1 °C,
 frequency: ± 0.04 % of display resolution: 0 to 9999
 current, voltage: ± 0.2 % of measured value ± 1 digit
 Display time: 0.2-10 seconds, adjustable
 Power input: 3 VA (max.)
 Max. temperature: 0 to +60 °C operating, -20 to +80 °C storage
 Case material: PC/ABS-Blend, colour black
 Mounting: latching snap-on fixing
 Protection: standard: front IP 40, terminal IP 00
 option: front IP 65, terminal IP 00
 Output/load: 0(4) -20 mA / 500 Ω
 Relay: 1 changeover contact
 max. 230 V_{AC} / 2 A-120 V_{DC} / 0.5 A
 U_B=5-40 V_{DC} / I_{max}= 100 mA, PNP (supply by customer)
 (units without analogue output)
 Open collector: U_B=5-40 V_{DC} / I_{max}= 100 mA, PNP (supply by customer)
 (units without analogue output)
 Dimensions: 72 x 36 x 97 mm (W x H x D)
 72 x 36 x 115 with pluggable option
 Cut-out dimensions: 68 x 33 mm
 Weight: approx. 0.19 kg

Order Details (Example: **DAG-22 0 00 0 5M**)

| Display 14 mm | Input | Model | Supply | Output | Options | Contacts / memory |
|----------------------------------|-------------------------------------|-----------------|--|---|---|---|
| 4- digit | Pt100/2-wire (-100.0...+600.0 °C) | DAG-22.. | 0= 230 V _{AC} 2= 20-30 V _{DC} electrically isolated 4= 115 V _{AC} | 00=without 10=0-20 mA 40=4-20 mA 60=0-10 V _{DC} | 0= standard S= IP 65 K= IP 40/ terminal pluggable L= IP 65/ terminal pluggable | 5M=1 open collector/ 1 changeover cont. min/max.-memory incl. (units without analogue output) 1M=1 changeover cont. min/max.-memory (units with analogue output) |
| | Pt100/2+3-wire (-100.0...+600.0 °C) | DAG-24.. | | | | |
| | NiCr-Ni (-250...+1350 °C) | DAG-2K.. | | | | |
| | Fe-CuNi (USA) -200...+1200 °C) | DAG-2J.. | | | | |
| | Fe-CuNi (DIN) -100...+900 °C) | DAG-2L.. | | | | |
| 0(4)-20 mA, 0-10 V _{DC} | DAG-2V.. | | | | | |
| 4-digit | 1 Hz...500 kHz | DAG-2F.. | 0= 230 V _{AC} 2= 20-30 V _{DC} electrically isolated 4= 115 V _{AC} | 00=without 10=0-20 mA 40=4-20 mA 60=0-10 V _{DC} | 0= standard S= IP 65 K= IP 40/ terminal pluggable L= IP 65/ terminal pluggable | 50= 1 open collector/ 1 changeover cont. (units without analogue output) 10= 1 changeover cont. (units with analogue output) |



Description

Processor-based digital indicating units for measuring frequency, temperature, current and voltage. The measured input is calibrated at the factory. The scale of the unit may be altered with replaceable labels.

The following parameters may be set by the customer from a tactile keypad:

- Desired indicated value and offset
- Position of point, display time, measurement frequency
- Full scale value and offset of analogue output
- Switch point, hysteresis, closed-circuit current/load current

The units may be provided with the following:

- 2 open collectors (for units without analogue output)
- Min./max. memory (not for frequency)
- Output: 0-20 mA, 4-20 mA, 0-10 V (optional)

- **Sensor Supply**
not available

● **Pluggable Terminals**

To facilitate the installation and dismantling of the units, pluggable connection terminals are supplied. Pluggable terminals should not be used on units with a temperature measurement input because of in-creased contact resistance.



Technical Details

- Display: 7-segment red LED, 10 mm high
- Accuracy: Pt 100 (-100.0 to +600.0 °C) ± 0.2% of meas. value, ± 1 digit, Resolution: 0.1 °C
Thermocouples: ± 1 °C, ± 1 digit
Resolution: 1 °C,
Frequency: ± 0.04% of display
Resolution: 0 to 9999
Current, voltage: ± 0.2% of measured value, ± 1 digit
- Display time: 0.2-10 seconds, adjustable
- Power input: 5 VA (max.)
- Max. temperature: 0...+60 °C operating, -20...+80 °C storage
- Case material: PC/ABS-Blend, colour black
- Mounting: Latching snap-on fixing
- Protection: Standard: front IP 40, terminal IP 00
Option: front IP 65, terminal IP 00
- Output/load: 0(4)-20 mA / 500 Ω
- Open collector: $U_B = 5-40 V_{DC} / I_{max} = 100 \text{ mA}$, PNP (supply by customer)
- Dimensions: 48 x 24 x 90 mm (W x H x D)
48 x 24 x 101 with pluggable option
- Cut-out dimensions: 45 x 22.2 mm
- Weight: approx. 75 g

Order Details (Example: DAG-12 2 00 K 6M)

| Display 10 mm | Input | Model | Supply | Output | Options | Contacts / memory |
|---------------|--|--|--|---|---|--|
| 4-digit | Pt 100/2-wire (-100.0...+600.0 °C) NiCr-Ni (-250...+1350 °C) Fe-CuNi (USA) -200...+1200 °C) Fe-CuNi (DIN) -100...+900 °C) 0(4)-20 mA, 0-10 V _{DC} | DAG-12.. DAG-1K.. DAG-1J.. DAG-1L.. DAG-1V.. | 2 = 20-30 V _{DC} electrically isolated | 00 = without 10 = 0-20 mA 40 = 4-20 mA 60 = 0-10 V _{DC} | K = IP 40/ terminal pluggable L = IP 65/ terminal pluggable | 6M = 2 open collectors min/max.-memory incl. (units without analogue output) 0M = without contacts min/max.-memory incl. (units with analogue output) |
| 4-digit | 1 Hz...500 kHz | DAG-1F.. | 2 = 20-30 V _{DC} electrically isolated | 00 = without 10 = 0-20 mA 40 = 4-20 mA 60 = 0-10 V _{DC} | K = IP 40 / terminal pluggable L = IP 65/ terminal pluggable | 60 = 2 open collectors (units without analogue output) 00 = without contacts (units with analogue output) |

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