

Charge Amplifier DACU 800

Features

- Multi-range charge amplifier for industrial application
- 14 selectable ranges
- 13 fixed ranges 100 pC - 1'000'000 pC
- 1 variable range 100 pC - 1'000'000 pC
- Adjustable limit value with switching output
- Peak value
- RS 232 serial interface

Electrical Data

| | |
|--------------------------------|--|
| Voltage supply | 15...35 VDC |
| Current draw | < 70 mA |
| Measuring range | $\pm 100 \dots 1'000'000$ pC |
| Output signal | ± 10 V |
| Characteristic curve deviation | < 1% FS |
| Linearity | < 0,02% FS |
| Output offset | < ± 5 mV |
| Noise voltage | < 5 mVpp (0,1 Hz...100 kHz) < 30 mVpp at 100 pC range |
| Output impedance | 10 Ω |
| Reset operate offset | electronically compensated |
| Drift | < 0,03 pC/s ⁽²⁾ |
| Frequency range (-3 dB) | 0...20 kHz ⁽¹⁾ |
| Control input | ± 5 V... ± 45 V, galv. separated |
| Switching output | max. 45 V, max. 100 mA galv. separated |

⁽¹⁾ @ 100 pC...1'000'000 pC; > 2 kHz @ 1'000'000 pC

⁽²⁾ DACU at least 30 min. attached to operational voltage

All specifications at ambient temperature (23°C \pm 2°C)

Mechanical Data

| | |
|--------------------|-------------------|
| Control connection | 25 pin D-Sub |
| Sensor connection | BNC male |
| Enclosure material | Aluminum die cast |

Environmental Conditions

| | |
|-----------------------|--|
| Operating temp. range | -5...+60 °C |
| Storage temperature | -20...+80 °C |
| Protection class | IP 40 |
| EMC | EN 61000-6-2 immunity EN 61000-6-4 emission |



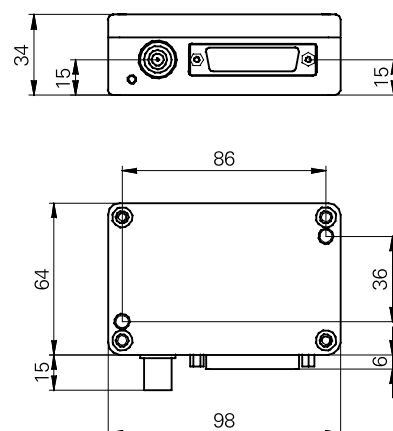
Order Code

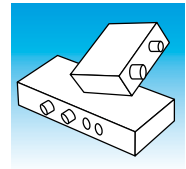
DACU 800-0.1-1K0BS

Included

- Mounting screws 2 pcs. M4 x 16

Dimensions (mm)

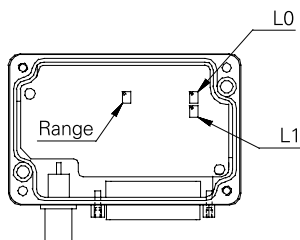




Electrical Connections D-Sub 25

| Pin | Function |
|-----|--------------------------|
| 1 | Signal out |
| 2 | Peak out |
| 3 | Level 1 (In or Out) |
| 4 | Level 0 (In or Out) |
| 5 | Range 3 |
| 6 | Range 2 |
| 7 | Range 1 |
| 8 | Range 0 |
| 9 | Supply GND |
| 10 | +Supply |
| 11 | Code 2 |
| 12 | Code 0 |
| 13 | Code Supply + |
| 14 | Signal GND |
| 15 | Alarm 1 |
| 16 | Alarm 0 |
| 17 | RX |
| 18 | TX |
| 19 | Com Logic Input |
| 20 | Operate |
| 21 | 80% Test |
| 22 | Supply GND |
| 23 | NC |
| 24 | Code 1 |
| 25 | Com Logic Output (Alarm) |

Control Elements



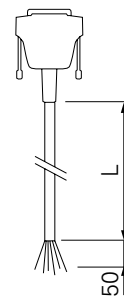
| | |
|-------|---|
| Range | Adjustment of variable range |
| L0 | Adjustment of value 1. The limit switch voltage can be set with the potentiometer and has to be measured at pin 4. Alternatively a voltage can be supplied as well. |
| L1 | Adjustment limit value 2. ditto, pin 3 only |

Measuring Range Selection

| Range | | | | Measuring range |
|-------|---|---|---|---------------------|
| 3 | 2 | 1 | 0 | pC/10V |
| 0 | 0 | 0 | 0 | 1'000'000 |
| 0 | 0 | 0 | 1 | 500'000 |
| 0 | 0 | 1 | 0 | 200'000 |
| 0 | 0 | 1 | 1 | 100'000 |
| 0 | 1 | 0 | 0 | 50'000 |
| 0 | 1 | 0 | 1 | 20'000 |
| 0 | 1 | 1 | 0 | 10'000 |
| 0 | 1 | 1 | 1 | 5'000 |
| 1 | 0 | 0 | 0 | 2'000 |
| 1 | 0 | 0 | 1 | 1'000 |
| 1 | 0 | 1 | 0 | 500 |
| 1 | 0 | 1 | 1 | 200 |
| 1 | 1 | 0 | 0 | 100 |
| 1 | 1 | 0 | 1 | 100'000...1'000'000 |
| 1 | 1 | 1 | 0 | 10'000...100'000 |
| 1 | 1 | 1 | 1 | 100...10'000 |

Accessories

Connecting cable with open end



Length(L)

5 m

Order code

DZCS 05/DACU 8