

# Charge Amplifier DACU 820

## Features

- Multi-range charge amplifier for industrial application
- 4 selectable ranges channel 1  
3 fixed ranges 100'000 pC - 500'000 pC  
1 variable range 100'000 pC - 500'000 pC
- 4 fixed ranges channel 2  
4 fixed ranges 2'000 pC - 20'000 pC
- Adjustable limit value with switching output
- Peak value and test function
- Serial RS 232 interface

## Electrical Data

Voltage supply	10...40 VDC
Capacity draw	< 1,5 W <sup>(1)</sup>
Measuring range channel 1	$\pm 100'000...500'000$ pC
Measuring range channel 2	$\pm 2'000...20'000$ pC
Output signal	$\pm 10$ V
Characteristic curve deviation	< 1% FS
Linearity	< 0,02%FS
Output offset	< $\pm 5$ mV
Noise voltage	< 5 mVpp (0,1 Hz... 100 kHz) <sup>(2)</sup>
Output impedance	10 $\Omega$
Reset operate offset	< $\pm 10$ mV
Drift	< 0,03 pC/s at 23 °C <sup>(3)</sup>
Frequency range (-3 dB)	0...20 kHz <sup>(4)</sup>
Control input	$\pm 5$ V... $\pm 45$ V, galv. separated
Switching output	max. 45 V, max. 100 mA galv. separated

<sup>(1)</sup> < 55 mA at 24 V

<sup>(2)</sup> < 20 mVpp in the 2000 pC range

<sup>(3)</sup> DACU at least 30 min attached to operational voltage

<sup>(4)</sup> @ 2'000 pC...100'000 pC; > 2 kHz @ 500'000 pC

All specifications at ambient temperature (23°C  $\pm 2^\circ\text{C}$ )

## 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



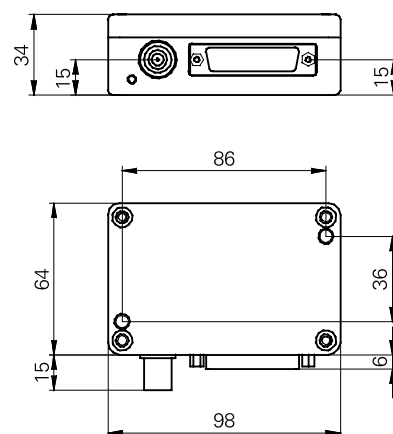
## Order Code

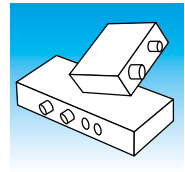
**DACU 820-2.0-500BS**

## Included

- Mounting screws 2 pcs. M4 x 16

## Dimensions (mm)





**Electrical Connections D-Sub 25**

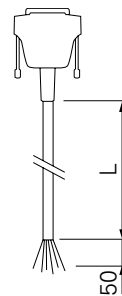
Pin	Function
1	Signal out CH1
2	Peak out
3	Level 1 (In or Out)
4	Level 0 (In or Out)
5	Range B1 (CH2)
6	Range B0 (CH2)
7	Range A1 (CH1)
8	Range A0 (CH1)
9	Supply GND
10	+Supply
11	Code 2
12	Code 0
13	Code Supply +
14	Signal GND
15	Alarm 1 (CH1)
16	Alarm 0 (CH1)
17	RX
18	TX
19	Com Logic Input
20	Operate
21	80% Test
22	Supply GND
23	Signal out CH2
24	Code 1
25	Com Logic Output (Alarm)

**Measuring Range Selection**

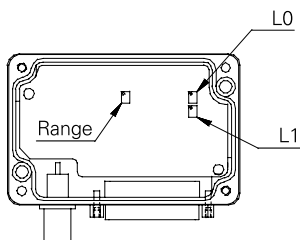
Range CH1		Measuring Range
A1	A0	pC/10V
0	0	500'000
0	1	200'000
1	0	100'000
1	1	100'000...500'000
Range CH2		
B1	B0	
0	0	20'000
0	1	10'000
1	0	5'000
1	1	2'000

**Accessories**

Connecting cable with open end



**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

Length (L)	Order code
5 m	<b>DZCS 05/DACU 8</b>