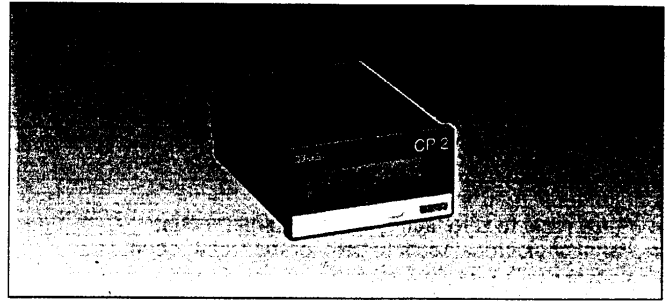


- Display: 8 digit LCD, 7mm height
- Supply: alkaline batteries or lithium batteries
- Counting input: solid state (4-30VDC) or voltage (up to 240VAC)
- Dimensions: DIN 24x48mm
- Reset to zero: front panel or external with inhibit facility
- Bezels: 25 x 50, 45 x 45, Ø50

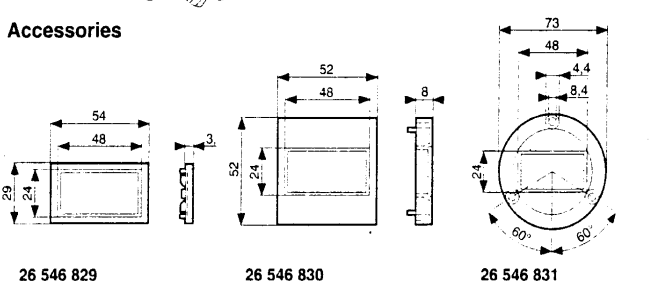
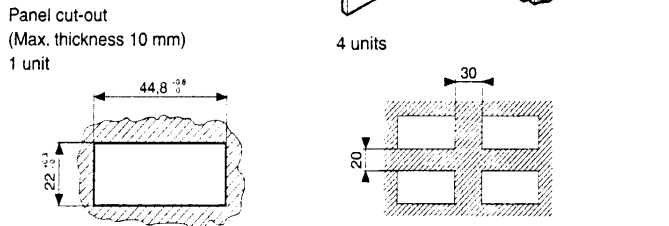
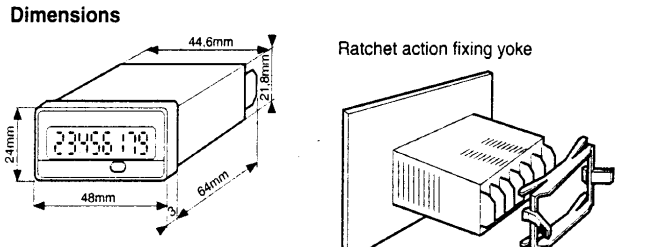
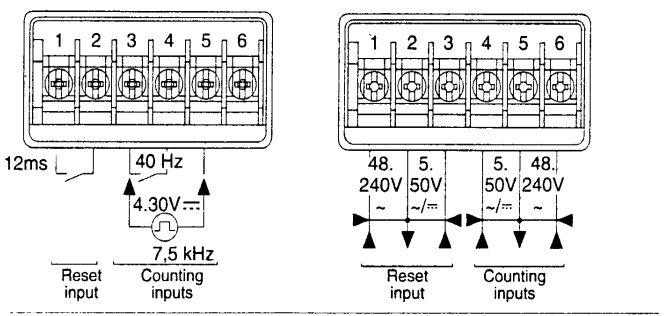


Characteristics

Function	Impulse counter
Display	8 digit LCD
Height of digits	7 mm
Counting capacity	0 - 99,999,999
Inputs	
2231	1 input for slow counting signal from volt-free contact or NPN open-collector transistor (terminals 3 - 4) • 1 input for high-speed counting signal from voltage level (terminals 3 - 5) Low level 4 - 30 V $\overline{\text{---}}$ High level 0 - 0.7 V $\overline{\text{---}}$ 4 - 30 V $\overline{\text{---}}$ 1 input for slow counting 2 voltage levels • terminals 4 - 5 5 - 50 V $\sim / \overline{\text{---}}$ terminals 5 - 6 48 - 240 V \sim
Reset	
Front panel	Switch no.2 to OFF Inhibited Switch no.2 to ON Allowed 2231 Volt-free contact or open collector NPN transistor (terminals 1 - 2) • 2232 Voltage terminals 2 - 3 5 - 50 V $\sim / \overline{\text{---}}$ terminals 1 - 2 48 - 240 V \sim
The reset is galvanically isolated from the counting input •	
Counting speed	
Slow counting	40 Hz
Minimum pulse time	Low level 12 ms
High level	12 ms
High-speed counting (2231)	7.5 kHz max.
Low level	70 μ s
High level	70 μ s
Input levels	4 - 30 VDC
Input impedance	3.5 k Ω min.
Supply	
2 alkaline batteries - Life (years)	4
1 lithium battery - Life (years)	8
Supply can be switched off via dipswitch no.1 situated underneath the unit.	
General specifications	
Material	Self-extinguishing
Connection	: by 6 screw terminals at rear of case •
Terminal capacity	2 x 1.5 mm ²
Fixing by yoke	•
Front panel protection	IP 66
Temperature limits	Use -10 + 55 °C Stored -20 + 70 °C
Insulation resistance (IEC 255.5)	100 M Ω (500 V $\overline{\text{---}}$)
Dielectric strength (IEC 255.5)	2000 V / 50 Hz / 1 min.
Conformity to standards VDE 0110 - IEC 664 - IEC 348 - IEC 255.4 - IEC 255.5 - IEC 801.2 - IEC 801.4	
Weight	2231 60 g 2232 65 g

Types	2231	2232
Part numbers		
Solid state input, lithium battery	87 610 040	
Voltage input, lithium battery		87 610 050
Accessories		
Adaptor for panel cut-out	25x50 mm (dimensions 29x54 mm) 45x45 mm (dimensions 52x52 mm) Ø50 mm (dimensions Ø73 mm)	26 546 829 26 546 830 26 546 831

- Terminal markings**
- | | |
|-------------------------|---|
| 2231 | 2232 |
| 1 - Reset input | 1 - Reset 48 to 240V \sim |
| 2 - 0V Reset | 2 - 0V Reset |
| 3 - 0V Counting | 3 - Reset 5 to 50V $\sim / \overline{\text{---}}$ |
| 4 - Slow counting | 4 - 5 to 50 V $\sim \overline{\text{---}}$ |
| 5 - High-speed counting | 5 - 0V |
| | 6 - 48 to 240 V \sim |



Other information

For connections see page 2/19
Alkaline battery versions available. Please consult us.

To order, specify:

Standard products

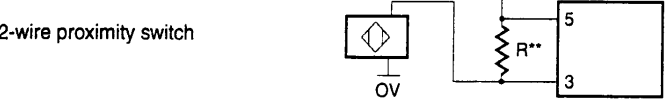
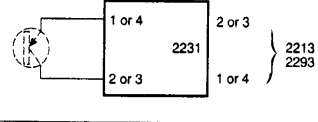
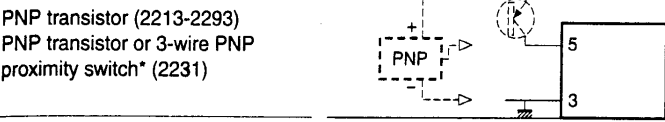
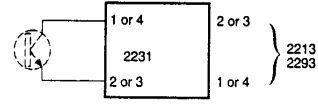
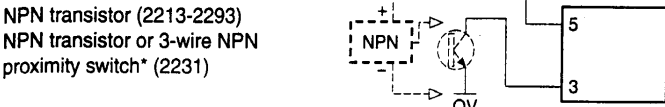
1 Part number
2 Accessory
Example: Totalizer/counter 87 610 040 - Adaptor 26 546 829

Connections 2231/32 - 2213/14 - 2293/94

Terminal markings:
2231-2213-2293

High-speed counting input 2231

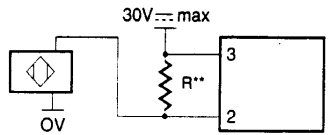
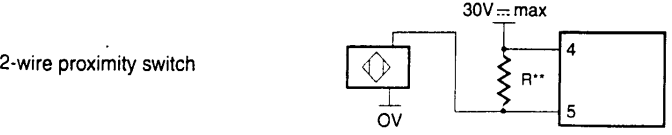
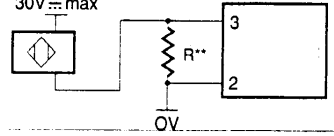
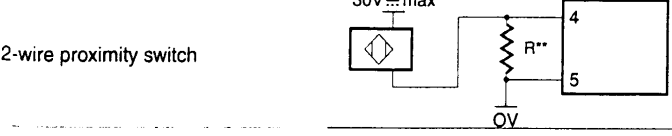
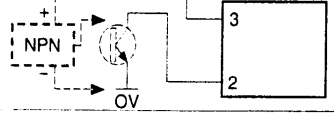
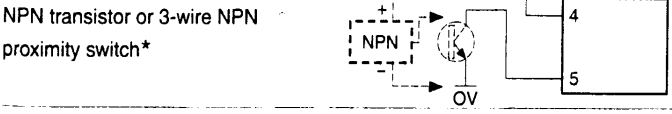
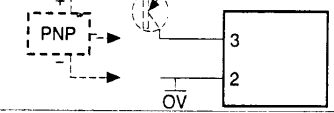
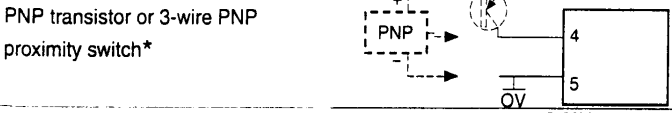
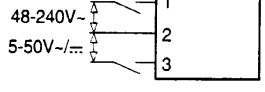
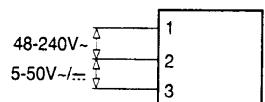
Slow counting input or reset input - 2231
Start-stop input or reset input - 2213
Counting and general reset input - 2293



2232 - 2214 - 2294

Counting input 2232 - 2294
Start/stop input 2214

Reset 2232 - 2214 - 2294



* For switch with leakage current ≤ 0.1 mA
** $R = 470 \Omega / 2$ W for a 2-wire switch with leakage current ≤ 1.5 mA