

## 24 x 48 Totalizers CTR24 non-backlit model Part number 87622070



- Display : 8-digit LCD, height 8 mm
- Powered by a lithium battery
- Counter inputs : solid state (4-30 VDC) or voltage (10 →260 VAC)
- Reset on panel or external with inhibition option
- Backlit model (2341-2351-2342)
- Counting directions can be selected with input (2241-2341/2251-2351)
- Accessories for 50 x 25 mm cut-out

### Part numbers

Type	Type	Functions
87622070 CTR24 non-backlit model	2242	Voltage input, lithium battery

### Specifications

#### Physical details and protection

Consumption	Backlighting : 24 VDC± 20 % 50 mA
Connection by 8 screw terminals at rear of casing	•
Connection capacity	1,5 mm <sup>2</sup>
Fixed using bracket	•
Degree of protection front face	IP 65
Temperature limits use (°C)	-10 →+60
Temperature limits stored (°C)	-20 →+70
Breakdown voltage	EN 61010-1 : 2000 V / 50 Hz / 1 min
Conformity to standards	EN 61000-6-2 - EN 55011 class B
Altitude	2000 m
Certifications	UL - cULus (pending) - CE
Weight (g)	50

#### Operating characteristics

Function	Impulse counter
Display	8-digit LCD
Height digits (mm)	8
Counting capacity	-9,999,999 →99,999,999 with elimination of zeros

#### Input 2241-2341

1 slow counting input for contact closure on NPN open-collector transistor input (terminals 2-6)	•
1 input for high speed counting signal from voltage level (terminals 1-6)	4 →30 VDC
Low level	0 →0,7 VDC
High level	4 →30 VDC PNP
High-speed counting	12 K Hz max. 42 µs PNP
Input impedance	100 KΩ PNP

#### Input 2251-2351

1 slow counting input for contact closure on NPN open-collector transistor input (terminals 2-6)	•
1 input for high speed counting signal from voltage level (terminals 1-6)	3 →30 VDC
Low level	0 →0,7 VDC
High level	3 →30 VDC
High-speed counting	7 K Hz max. 70 µs NPN
Input impedance	1 MΩ

#### Reset to zero - External 2241-2341 & 2251-2351

Volt-free contact or open collector (terminals 3-6)	•
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#### Input 2242-2342

1 input for slow counting 2 voltage levels	•
Voltage - Terminals 1-2	10 →260 VAC/DC
Input impedance (kΩ)	160
Slow counting	30 Hz
Minimum pulse time	16 ms
Low level	0 →2 VAC/DC
High level	10 →260 VAC/DC

#### Reset to zero - External 2242-2342

Voltage - Terminals 2-3	•
Minimum pulse time	16 ms

Low level	0 →2 VAC/DC
High level	10 →260 VAC/DC

**Reset to zero - Panel**

Reset via	Inhibited : Terminals 4-6 not connected Active : Terminals 4-6 connected
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**Supply**

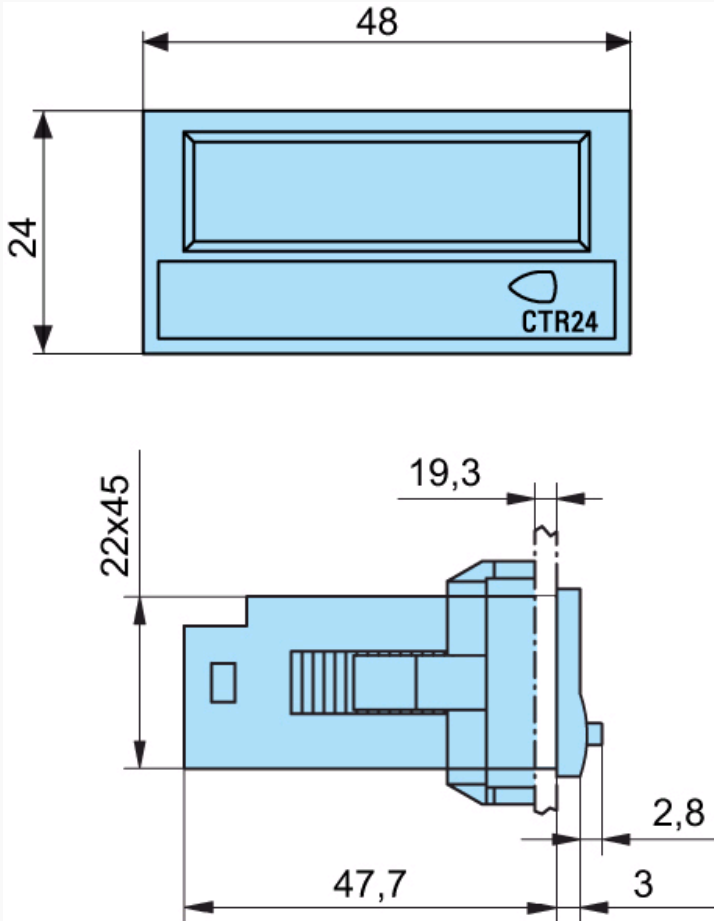
1 lithium battery - Life (years)	8
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**Accessories**

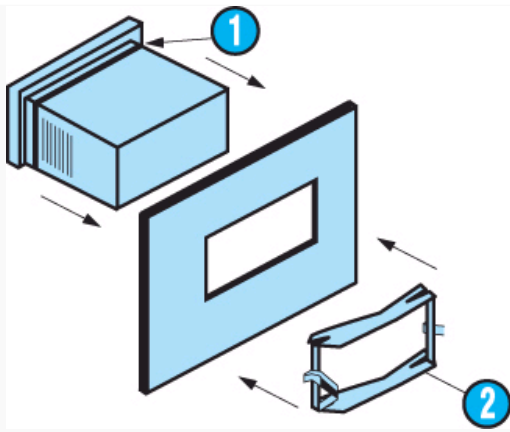
Description	Code
Adaptor for 50 x 25 mm cut-out - Fixed with screws	26546843
Adaptor for 50 x 25 mm cut-out - Fixed with clips	26546844
DIN rail adaptor	26546840
Clip-fixing kit (supplied with the product)	26546848

**Dimensions (mm)**

CTR24

**Dimensions (mm)**

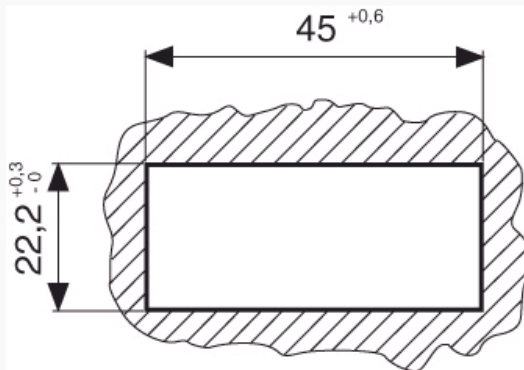
Fixing strip with clip-on yoke



N°	Legend
1	Seal
2	Fixing yoke

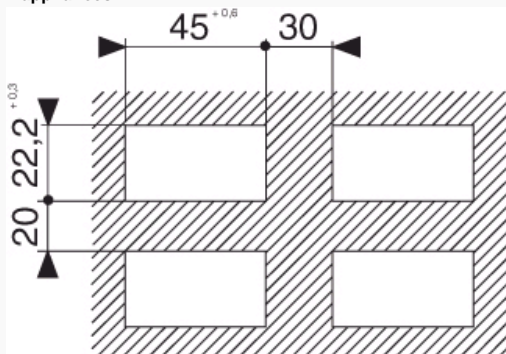
#### Dimensions (mm)

Panel cut-out



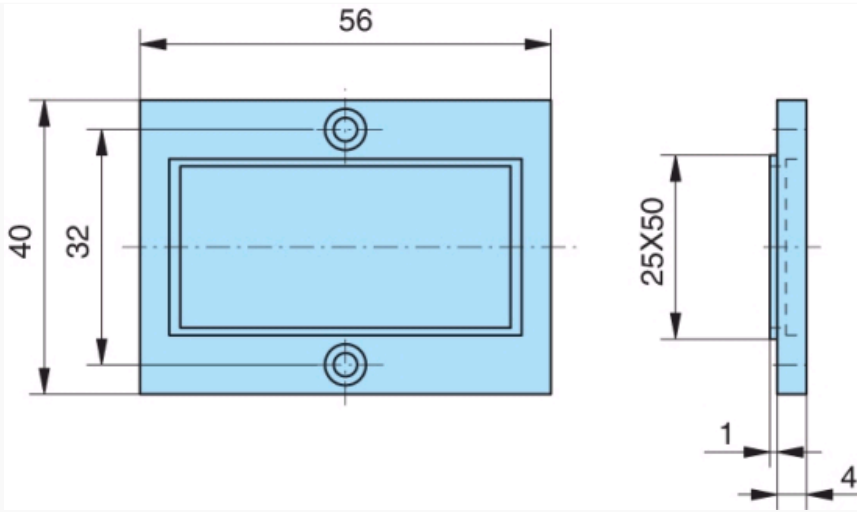
#### Dimensions (mm)

4 appliances



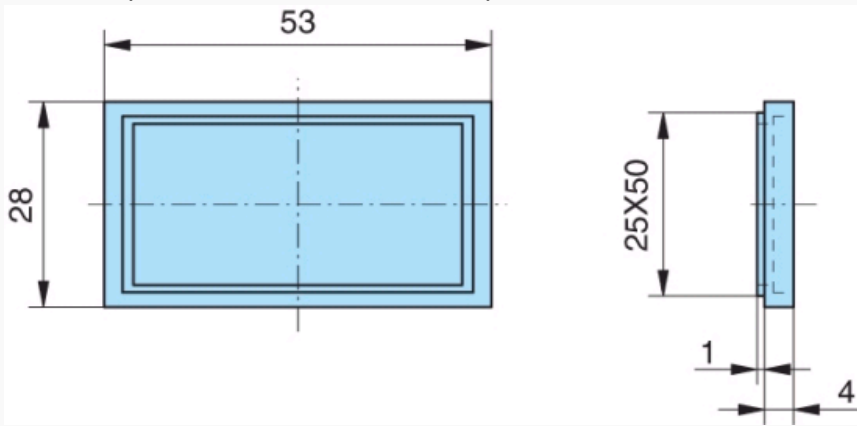
#### Dimensions (mm)

26546843 - Adaptor for 50 x 25 mm cut-out - Fixed with screws



**Dimensions (mm)**

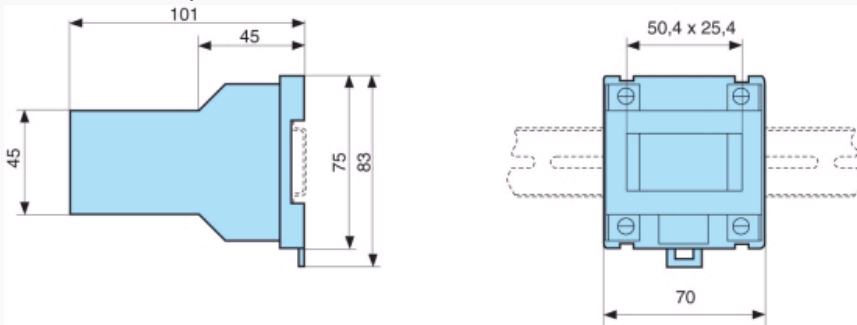
26546844 - Adaptor for 50 x 25 mm cut-out - Fixed with clips



Accessory supplied with the counter

**Dimensions (mm)**

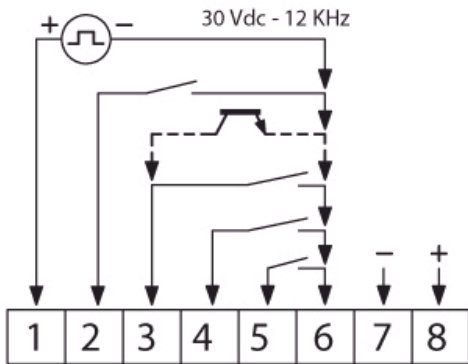
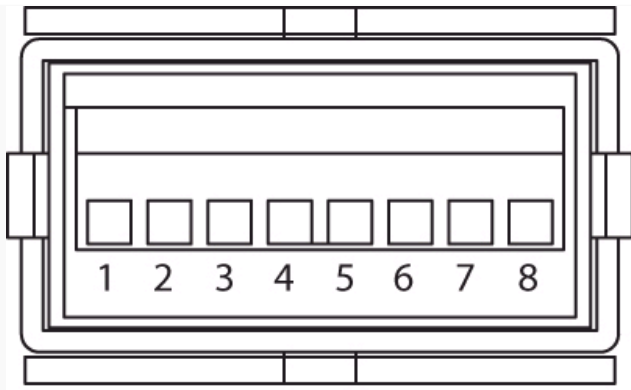
26546840 - DIN rail adaptor



Accessory supplied with the counter

**Connections**

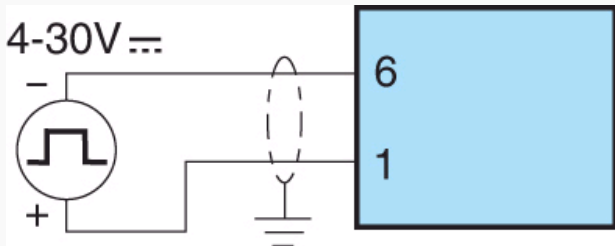
2241-2341



N°	Legend
1	Fast count
2	Slow count
3	Reset input 12 ms
4	Enable panel reset
5	Mode 1 count direction
6	0 V common/ (BL- only 23xx)
7	Backlighting option (only 2341)
8	Backlighting option + 24 VDC (only 2341)

**Connections**

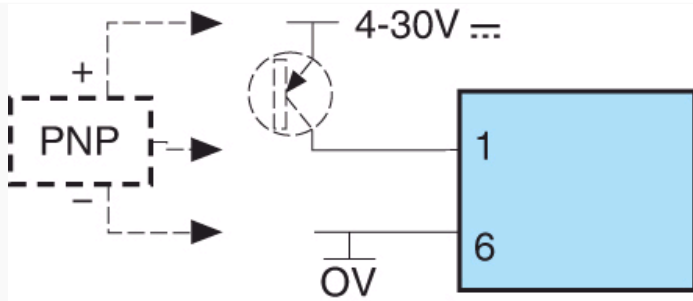
2241-2341



PNP fast count input - Voltage

**Connections**

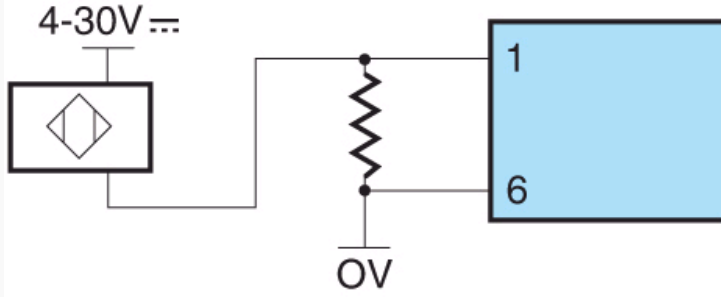
2241-2341



PNP fast count input Transistor or 3-wire PNP proximity sensor (for leakage current detector  $\leq 1$  mA)

**Connections**

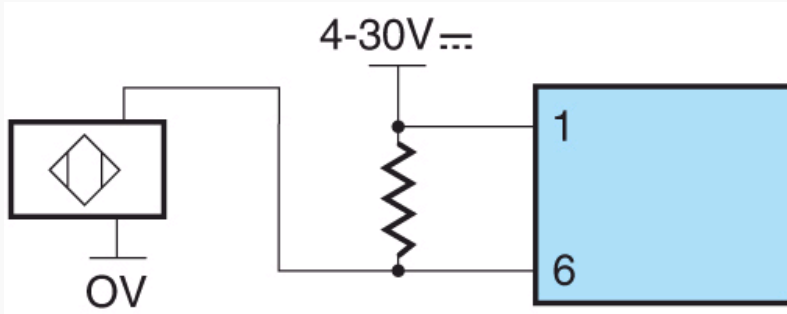
2241-2341



2-wire proximity sensor fast count input

**Connections**

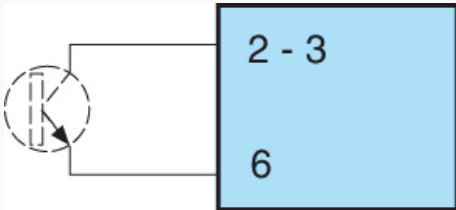
2241-2341



2-wire proximity sensor fast count input

**Connections**

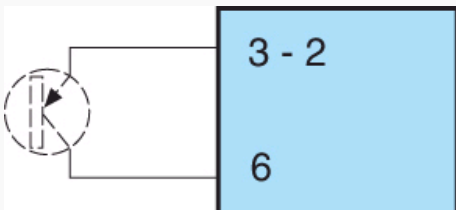
2241-2341



Slow count input (2) or reset input (3)

**Connections**

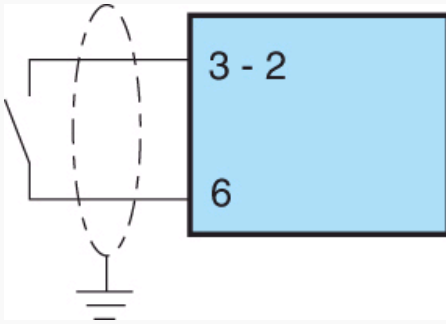
2241-2341



Slow count input (2) or reset input (3) - Contact not supplied with power

**Connections**

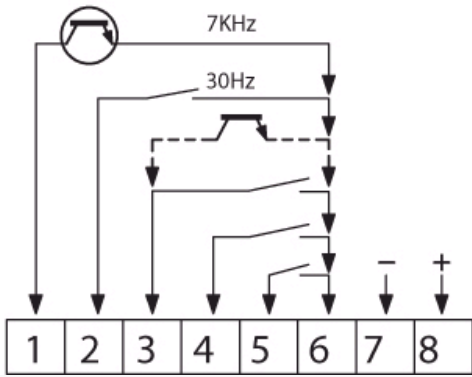
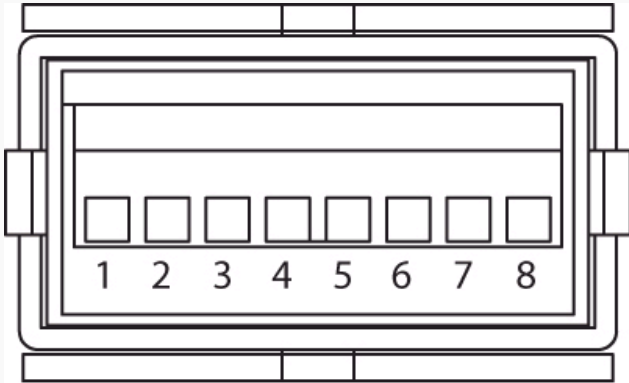
2241-2341



Slow count input (2) or reset input (3) - Contact not supplied with power

**Connections**

2251-2351

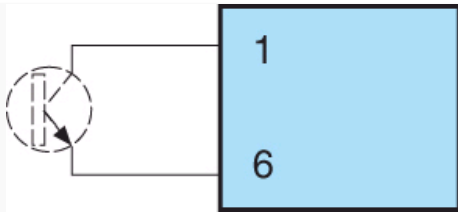


Slow count input (2) or reset input (3) - Contact not supplied with power

N°	Legend
1	Fast count
2	Slow count
3	Reset input 12 ms
4	Enable panel reset
5	Mode 1 count direction
6	0 V common/ (BL- only 23xx)
7	Backlighting option - (only 2351)
8	Backlighting option + 24 VDC (only 2351)

**Connections**

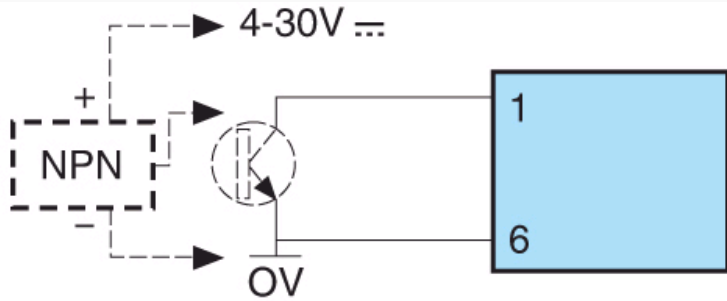
2251-2351



Fast count input NPN - Voltage

**Connections**

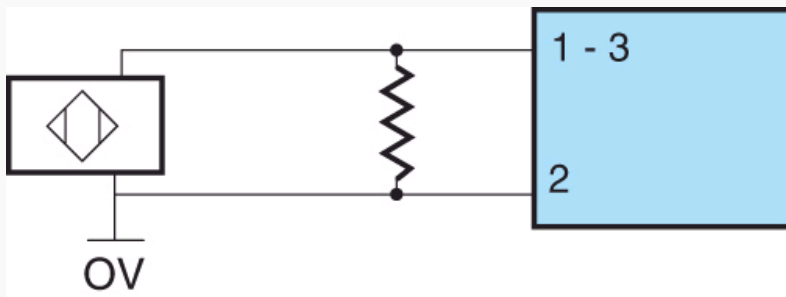
2251-2351



Fast count input NPN Transistor or 3-wire PNP proximity sensor (for leakage current detector  $\leq 1$  mA)

**Connections**

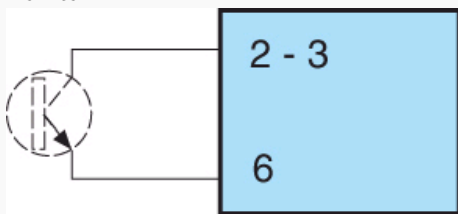
2251-2351



2-wire proximity sensor fast count input

**Connections**

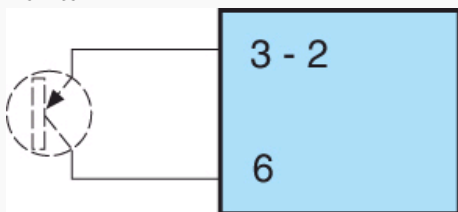
2251-2351



Slow count input (2) or reset input (3)

**Connections**

2251-2351

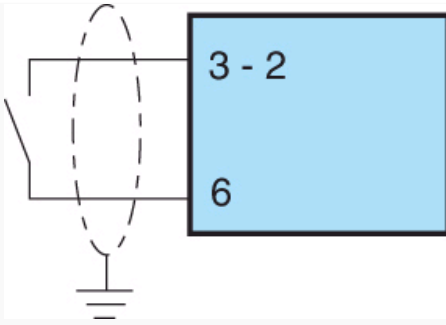


Slow count input (2) or reset input (3)

**Connections**

2251-2351

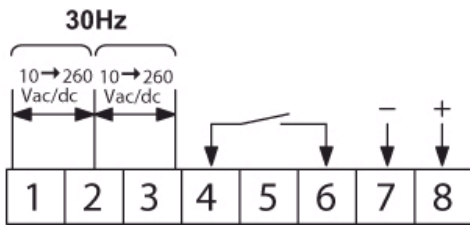
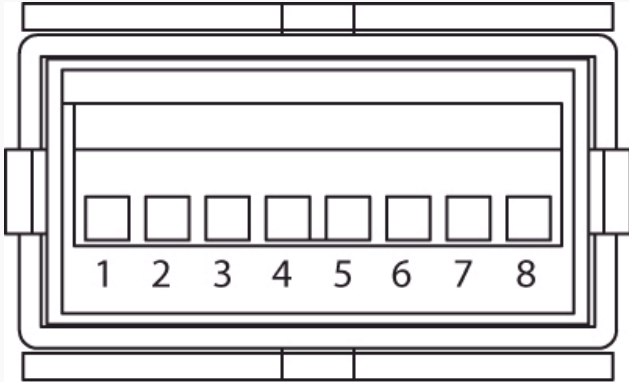




Slow count input (2) or reset input (3) - Contact not supplied with power

**Connections**

2242-2342

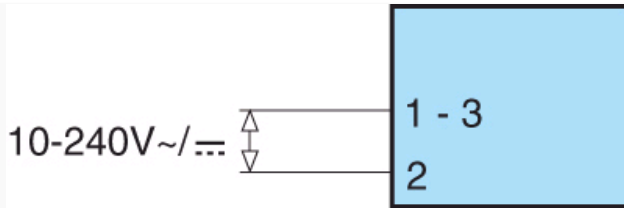


Slow count input (2) or reset input (3) - Contact not supplied with power

N°	Legend
1	Fast count
2	AC/DC common
3	Reset input 12 ms
4	Enable panel reset
5	NC
6	0 V common/ (BL- only 23xx)
7	Backlighting option - (only 2342)
8	Backlighting option + 24 VDC (only 2342)

**Connections**

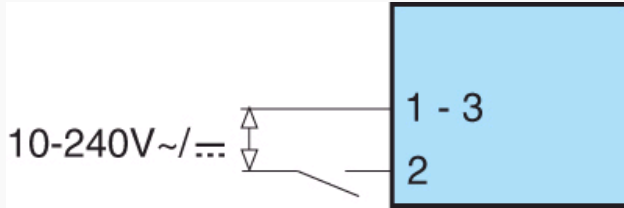
2242-2342



Counter or reset input - Voltage

**Connections**

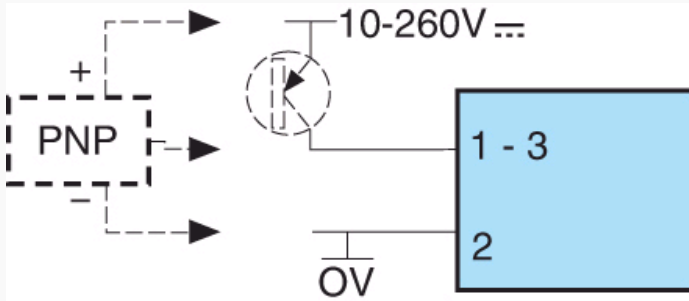
2242-2342



Counter or reset input - Contact supplied with power

**Connections**

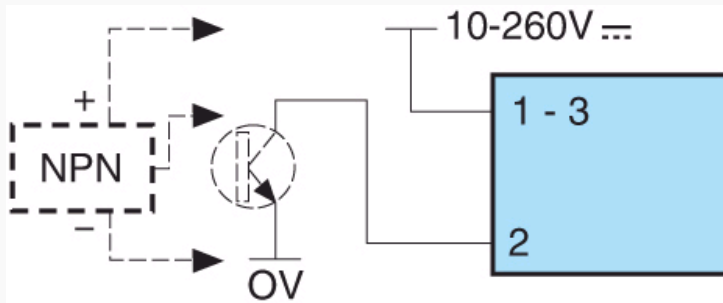
2242-2342



Counter or reset input PNP Transistor or 3-wire PNP proximity sensor (for leakage current detector < 1 mA)

**Connections**

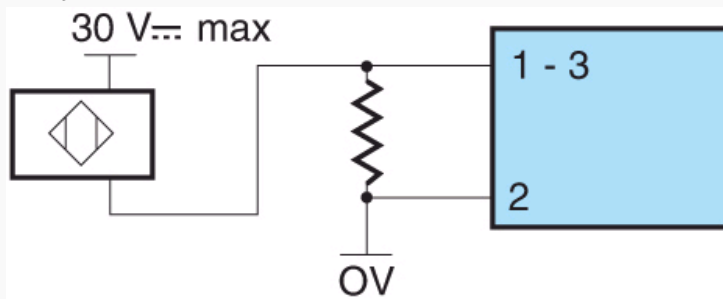
2242-2342



Counter or reset input NPN Transistor or 3-wire PNP proximity sensor (for leakage current detector < 1 mA)

**Connections**

2242-2342



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Start/Stop or reset input : 2-wire proximity sensor R=470  $\Omega$ /2 W for 2-wire leakage current detector  $\leq 1$  mA