

Totalizers electronic

Small impulse counters and position displays

Display LCD, 8-digits

ISI30, ISI31, ISI32, ISI33



ISI30 - Totalizer

Features

- ISI30 - Impulse counter
- ISI31 - Up/down, difference counter
- ISI32 - Up/down counter
- ISI33 - Position display

Technical data - electrical ratings

Voltage supply	Lithium battery (approx. 8 years at 20 °C)
Display	LCD, 7-segment display
Backlit	24 VDC $\pm$ 20 %, 50 mA
Number of digits	8-digits
Display range	-9999999...+99999999
Digit height	8 mm
Reset	Button and electric
Keylock	Yes, electric (keylock)
Emitted interference	DIN EN 61000-6-4
Interference immunity	DIN EN 61000-6-2
Programmable parameters	Count mode
Approval	UL/cULus

ISI30

Function	Fast and slow counting
Count mode	Adding or subtracting
Control	NPN, PNP, Floating contact, Pulses 10...260 VAC/VDC

ISI31

Function	Counting with direction signal Difference counter
Count modes	INP A and INP B (up/down) INP A - INP B
Control	NPN, PNP, Pulses 10...260 VAC/VDC

ISI32

Function	Counting with direction signal
Count mode	INP B and INP A (Up/Down)
Control	Pulses 10...260 VAC/VDC

Technical data - electrical ratings

ISI33

Function	Position display
Count modes	A 90° B phase evaluation x1 A 90° B phase evaluation x2
Control	NPN, PNP

Technical data - mechanical design

Ambient temperature	-10...+60 °C
Storing temperature	-20...+70 °C
Relative humidity	80 % non-condensing
Core cross-section	2.5 mm ² fine wire AWG 12
Protection DIN EN 60529	IP 65 (face with seal)
Housing type	Built-in housing
Housing colour	Deep grey, RAL 7021
Dimensions W x H x L	48 x 24 x 48 mm
Installation depth	47.7 mm
Mounting	Clip frame or screw mount
Cutout dimensions	45 x 22.2 mm (+0.3)
Weight approx.	50 g

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Type table

ISI30 - Impulse counter

Without backlit With backlit	ISI30.010AA01 ISI30.010AB01	ISI30.012AA01 ISI30.012AB01	ISI30.013AA01 ISI30.013AB01
Version	NPN	PNP	AC/DC
Brief description	Fast and slow counting processes	Fast and slow counting processes	Slow counting processes
Signal input INP A	Fast counting NPN 7 kHz	Fast counting PNP 12 kHz	Slow counting AC/DC 30 Hz
Signal input INP B	Slow counting NPN or floating contact 30 Hz	Slow counting NPN or floating contact 30 Hz	External reset AC/DC –
Operating mode	Adding or subtracting	Adding or subtracting	Adding

ISI31 - Up/down counter / Difference counter

Without backlit With backlit	ISI31.010AA01 ISI31.010AB01	ISI31.011AA01 ISI31.011AB01	ISI31.013AA01 ISI31.013AB01
Version	NPN	PNP	AC/DC
Brief description	Fast counting processes with direction signal (Up/Down) or difference counting	Fast counting processes with direction signal (Up/Down) or difference counting	Slow difference counting
Signal input INP A, INP B	NPN, 7 kHz	PNP, 12 kHz	AC/DC, 30 Hz
Operating mode	Counting with direction signal INP A - Counting input INP B - Direction signal Difference counting INP A - Adding INP B - Subtracting	Counting with direction signal INP A - Counting input INP B - Direction signal Difference counting INP A - Adding INP B - Subtracting	Difference counting INP A - Adding INP B - Subtracting

ISI32 - Up/down counter / ISI33 - Position display

Without backlit With backlit	ISI32.013AA01 ISI32.013AB01	ISI33.010AA01 ISI33.010AB01	ISI33.011AA01 ISI33.011AB01
Version	AC/DC	NPN	PNP
Brief description	Slow, direction-controlled counting processes	For position display or length measurement in conjunction with an incremental encoder	For position display or length measurement in conjunction with an incremental encoder
Signal input INP A	Direction signal AC/DC 30 Hz	Counting input 0° NPN 3 kHz	Counting input 0° PNP 6 kHz
Signal input INP B	Direction signal AC/DC 30 Hz	Counting input 90° out of phase NPN 3 kHz	Counting input 90° out of phase PNP 6 kHz
Operating mode	Counting with direction signal	INP A 90° INP B x1 or INP A 90° INP B x2	INP A 90° INP B x1 or INP A 90° INP B x2

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Part number

ISI30.01

	A		01
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Display
A Not backlit
B Backlit

Design
0 NPN 7 kHz, contact 30 Hz
2 PNP 12 kHz, contact 30 Hz
3 AC/DC 30 Hz

ISI31.01

	A		01
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Display
A Not backlit
B Backlit

Design
0 NPN 7 kHz (Up/Down, A-B)
1 PNP 12 kHz (Up/Down, A-B)
3 AC/DC 30 Hz (A-B)

ISI32.01

3	A		01
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Display
A Not backlit
B Backlit

Design
3 AC/DC 30 Hz (Up/Down)

ISI33.01

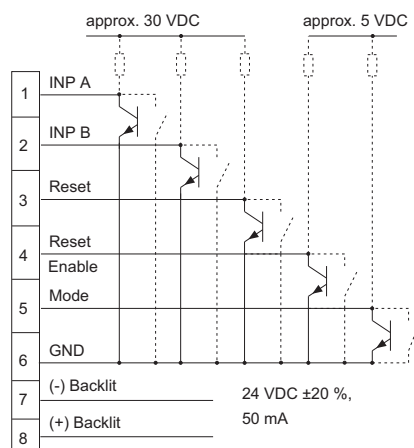
1	A		01
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Display
A Not backlit
B Backlit

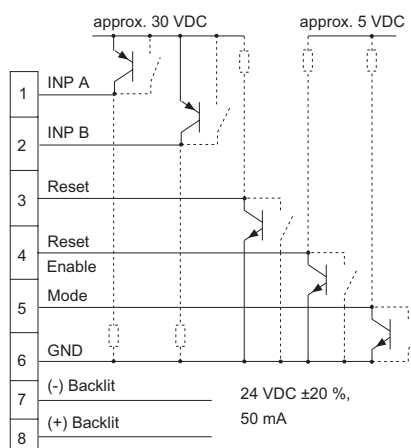
Design
1 PNP 6 kHz (A 90° B)

Connection diagram

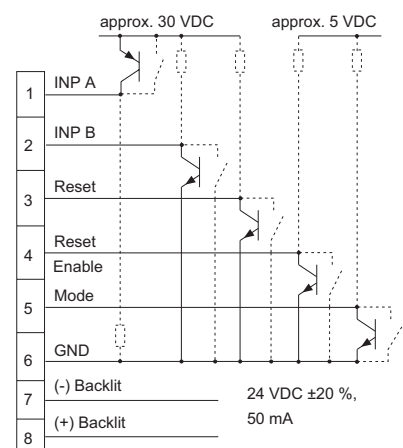
ISI30, ISI31, ISI33, DC, NPN



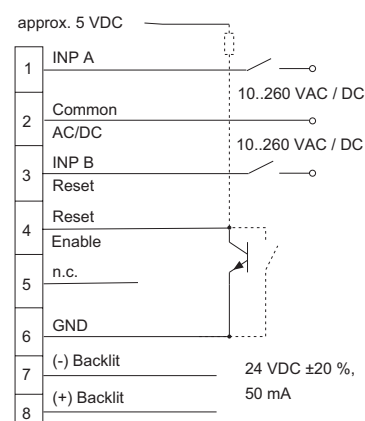
ISI31, ISI33, DC, PNP



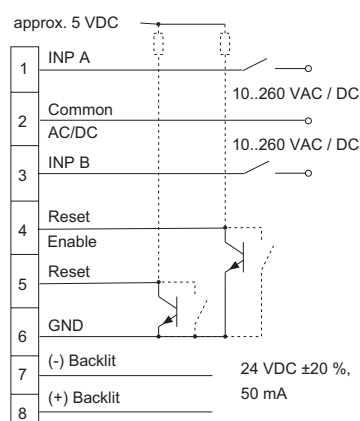
ISI30, DC, PNP



ISI30, AC/DC



ISI31, ISI32, AC/DC



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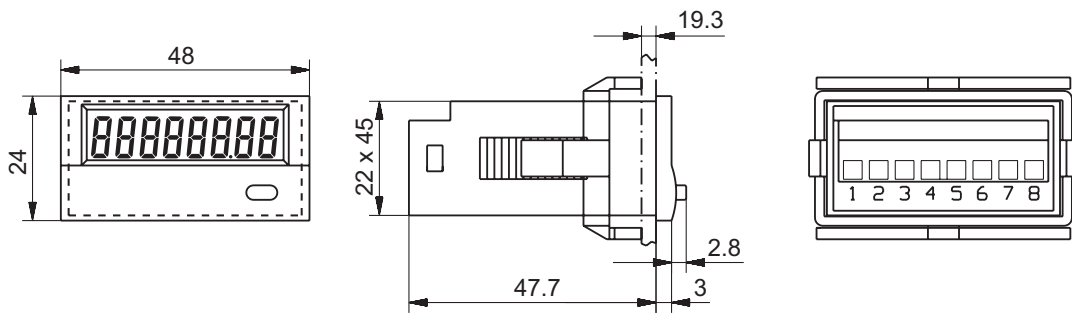
Trigger level

Inputs NPN inputs	Input circuit Comparator (pin 1+2)	Inputs AC/DC inputs	Input circuit Optocoupler (pin 1+3)
Input level Low	0...0.7 VDC	Input level Low	0...2 VDC/VAC
Input level High	3...30 VDC	Input level High	10...260 VDC/VAC
Input resistance	1 MΩ	Input resistance	160 kΩ

PNP inputs	Comparator (pin 1+2)	NPN control inputs	Pin 4, 5
Input level Low	0...0.7 VDC	Input level Low	0...0.7 VDC
Input level High	4...30 VDC	Input level High	3...5 VDC
Input resistance	100 kΩ	Input resistance	2.2 MΩ

Dimensions

ISI30, ISI31, ISI32, ISI33



Front frame for screw/clip mount (included with delivery)

