

Subdividing Electronics ZE

ZE-xx Subdividing Electronic is available for applications where the Linear Encoder has a sinusoidal micro-current or sinusoidal voltage output. It is connected between the Linear Encoder and the Control or Digital Readout.

The ZE-xx divides the scale grating pitch to achieve finer resolutions and outputs square wave signals.

In addition, differential (complementary) Line Driver signals are output.

The Subdividing Electronic units are supplied in rugged housings, meeting the sealing requirements of IP 64.

ZE-Sx

- For Linear Encoders with sinusoidal voltage signals

ZE-Vx

- For Linear Encoders with sinusoidal micro-current signals

Interpolation:

ZE-S5, ZE-V5	=	times	5
ZE-S10, ZE-V10	=	times	10
ZE-S20, ZE-V20	=	times	20
ZE-S25, ZE-V25	=	times	25
ZE-S50, ZE-V50	=	times	50
ZE-S100, ZE-V100	=	times	100
ZE-S200, ZE-V200	=	times	200
ZE-S400, ZE-V400	=	times	400

Power supply: +5 V ±5%

Current consumption: 150 mA

(< 270 mA for ZE-S/V200 and ZE-S/V400)

- Linear Encoder not connected
- output signals loaded

Connectors:

(pin-outs and dimensions on page 56)

Input: chassis connector female

9-pin FB 91 (ZE-V) or 12-pin FB 121 (ZE-S)

Output: chassis connector male

12-pin FS 121 or 1 m cable with male connector 12-pin L121

Input signals ZE-Sx:

Encoder signals: sinusoidal voltage signals

0,6 to 1,2 V_{pp} (1V_{pp} typical)

Reference pulse: 0,2 to 0,85 V

0,2 to 0,85 V_{pp}

typical 0,4 V (useable component)

with terminating impedance Z_o = 120 Ω

Input signals ZE-Vx:

Encoder signals: sinusoidal micro-current

signals 7 to 16 μA I_{pp} (11,5 μA typical)

Reference pulse: 2 to 8 μA I_{pp} (5 μA typical)

Max. input frequency:

ZE-S5, ZE-V5 = 100 kHz, t_F > 300 ns

ZE-S10, ZE-V10 = 50 kHz, t_F > 300 ns

ZE-S20, ZE-V20 = 56 kHz, t_F > 200 ns

ZE-S25, ZE-V25 = 45 kHz, t_F > 200 ns

ZE-S50, ZE-V50 = 45 kHz, t_F > 100 ns

ZE-S100, ZE-V100 = 22,5 kHz, t_F > 100 ns

ZE-S200, ZE-V200 = 10 kHz, t_F > 100 ns

ZE-S400, ZE-V400 = 5 kHz, t_F > 100 ns

Output signals:

Square wave signals + Reference pulse

via Line Driver RS 422 standard or single

ended phaseshift 90° el.

Dimensions::

