



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 Vpp (1Vpp typical)

Reference pulse: 0,2 to 0,85 V

0,2 to 0,85 Vpp

typical 0,4 V (useable component)

with terminating impedance $Z_0 = 120 \Omega$

Input signals ZE-Vx:

Encoder signals: sinusoidal micro-current signals

7 to 16 μ A Ipp (11,5 μ A typical)

Reference pulse: 2 to 8 μ A Ipp (5 μ A typical)

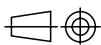
Max. input frequency:

| | | |
|------------------|---|--------------------------|
| 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 |

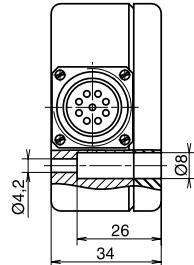
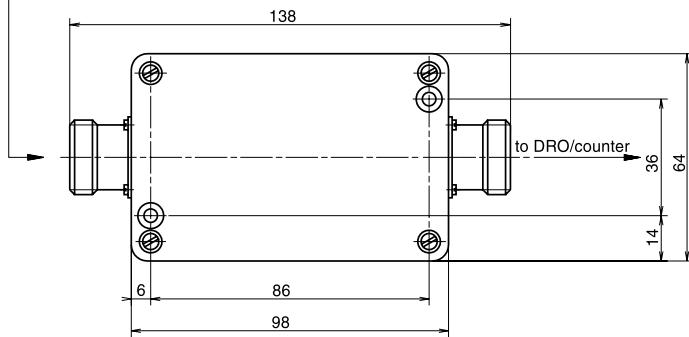
Output signals:

Square wave signals + Reference pulse via Line Driver RS 422 standard or single ended phaseshift 90° el.

Dimensions::



from Encoder



from Encoder

