



Main features:

- Amplifies the strain between the 2 mounting areas mechanically
- With high grade variable analog amplifier
- Ideal for tension and compression mode
- For dynamic applications
- Used on high speed machinery, especially injection molding and stamping press
- Quick and easy mounting
- Solid steel housing
- M12 connector

The SL-VAA strain link sensor captures surface strain between two mounting points and mechanically amplifies the strain occurring within these areas. Its built-in analogue processes the signal directly, reducing electromagnetic compatibility (EMC) issues. Designed for heavy industrial use, these rugged sensors are resilient in challenging environments. They necessitate a cyclical reset for continued accurate functioning, making them suitable for various industrial applications where precise strain measurements are essential.

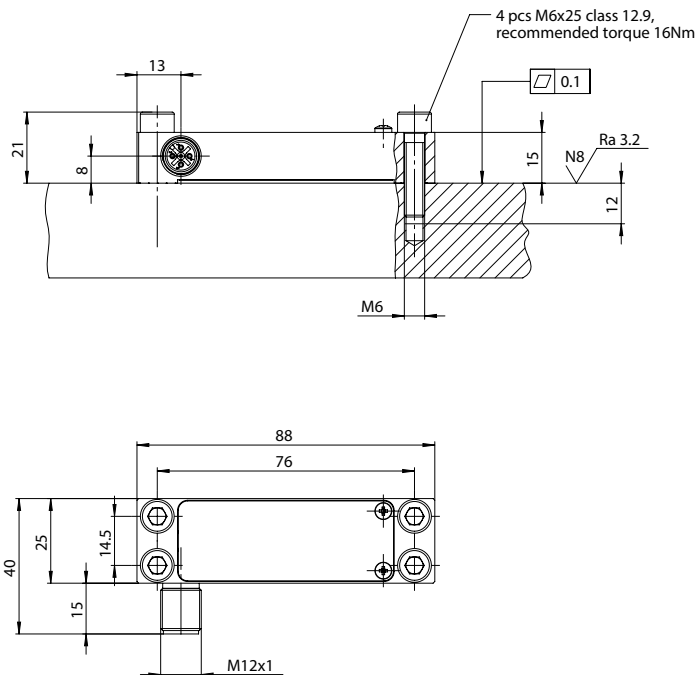
TECHNICAL DATA

| | |
|---|--|
| Measuring range | +/- 50µε to +/- 800µε |
| Output signal at 100% measuring range | +/- 10.0 V |
| Maximum voltage output signal | +/- 12 V |
| Noise on output signal | 50-100µε : <10mV RMS; <80 mV p.p. >100µε: <3mV RMS; <30 mV p.p. |
| Accuracy (1) | +/- 1% FS |
| Linearity error | <±0.5% FS |
| Hysteresis | <±0.3% FS |
| Repeatability | < 1% FS |
| Low pass filter | 16 kHz |
| Overload rating | 150% FS |
| Rise time from 10 to 90 % of F.S. | < 30µs |
| Internal pull-down resistor at reset input | 10 kOhm |
| Resolution | infinite |
| Zero offset after reset | 0.2% FS |
| Minimum Reset pulse duration | 5ms |
| Output protection | Output short circuit protection |
| Signal output voltage in case of sensor break | >11.5V always |
| Observation of the low voltage guideline | According to Directive 2014/30/EU |
| Supply voltage | 18V...30V, Reverse polarity protection |
| Supply current | <1W (current depends on Supply voltage) |
| Operating temperature range | -5...+80°C |
| Electromagnetic compatibility (EMC) | According to Directive 2014/30/EU |
| Shock resistance (Shock) | 100 g / 4 ms according to IEC60068-2-27 |
| Vibration resistance | 5-1000 Hz, 20g according to IEC60068-2-27 |
| IP Protection | IP66 |
| Production guideline | RoHS |
| Electric connection | M12x1, 5-pole male connector |
| Weight | 135 g |

(1) incl. Non-linearity, Hysteresis, Repeatability, Zero-offset and Span-offset

DIMENSION

SL76 - 4 HOLES



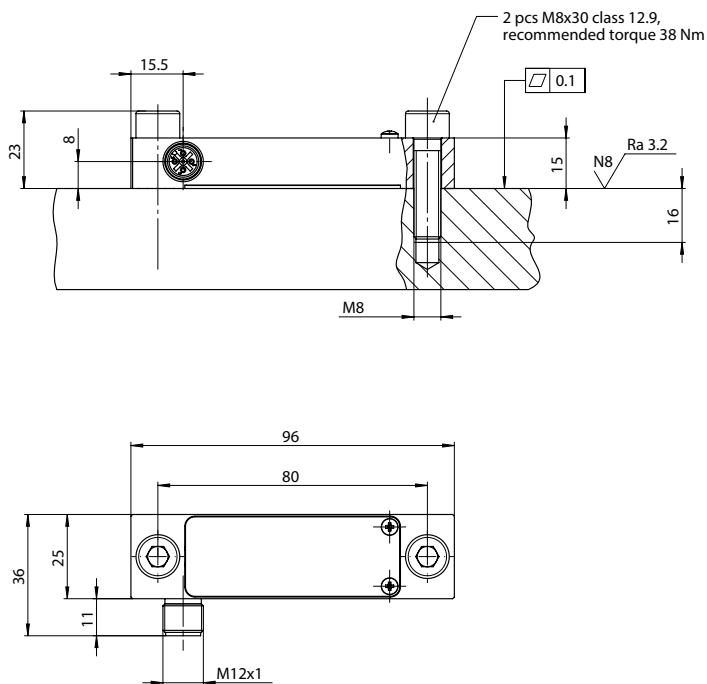
Important:

If the signal is unstable, this indicates that the sensor is not properly secured. Adjust the sensor within the permissible range for proper tightening.

Dimensions in mm

DIMENSION

SL80 - 2 HOLES



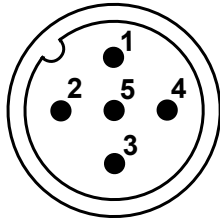
Important:

If the signal is unstable, this indicates that the sensor is not properly secured. Adjust the sensor within the permissible range for proper tightening.

Dimensions in mm

ELECTRICAL CONNECTION

M12 connector, 5 pol male

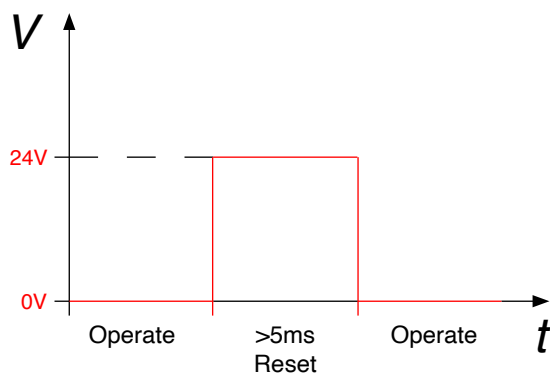


1. Power + VDC (18-30 V)
2. Power GND
3. Signal GND
4. Signal OUT
5. Reset (24V active)

Stretching (positive strain) gives positives signal.
Compression (negative strain) gives negative signal.

RESET FUNCTION

24V - TYPE



| | | |
|------------------------------|---------|-----------|
| Reset control input | Reset | 12V..30V |
| | Operate | 0V / open |
| Minimum reset pulse duration | >5ms | |

ACCESSORIES

| Description | Code | |
|---------------------------------------|------|--------|
| Cable with female connector M12 5-pin | 2 m | CAV011 |
| | 5 m | CAV012 |
| | 10 m | CAV013 |
| | 15 m | CAV015 |

ORDER CODE

SL - 80 - VAA - 2 - C - M12 - N - 00 - 4 - 0100 - OOOO - O

Mounting holes distance

| | |
|-------|-----------|
| 76 mm | 76 |
| 80 mm | 80 |

Numbers of holes

| | |
|--------------|----------|
| 2 holes - M8 | 2 |
| 4 holes - M6 | 4 |

Connection output

| | |
|-----------|----------|
| Connector | C |
|-----------|----------|

Connector

| | |
|-----------|------------|
| M12, 5pol | M12 |
|-----------|------------|

Output signal

| | |
|-------------|----------|
| 0...±10 Vdc | N |
|-------------|----------|

Measuring range (FS)

| | |
|-------|-------------|
| 50µε | 0050 |
| 100µε | 0100 |
| 250µε | 0250 |
| 350µε | 0350 |
| 500µε | 0500 |
| 750µε | 0750 |
| 800µε | 0800 |

Example: SL80-VAA - 2 - C - M12 - N - 00 - 4 - 0100 - OOOO - O

Strain link sensor with 2 holes, full bridge, M12 connector output, voltage output signal, 100µε at +10V

GEFRAN spa reserves the right to make any kind of design or functional modification at any moment without prior notice.

GEFRAN

GEFRAN spa

via Sebina, 74 - 25050 Provaglio d'Iseo
(BS) - ITALIEN
Tel.: +39 030 9888.1 - Fax: +39 030 9839063
Internet: www.gefran.com

Gefran Schweiz AG

Steigweg 8, - CH-8355 Aadorf, Schweiz
Tel.: +41 52 523 25 00
Fax: +41(0)52-3661884
Internet: www.gefran.com

DTS_SL_VAA_06-2025_ENG