

SL76-VDA

STRAIN LINK SENSOR WITH
VARIABLE DIGITAL AMPLIFIER



Main features:

- Amplifies the strain between the 2 mounting areas mechanically
- With high grade variable digital amplifier
- Ideal for tension mode
- For dynamic applications
- Used on presses, injection moulding and die-casting machines
- Quick and easy mounting
- Solid steel housing (IP67)

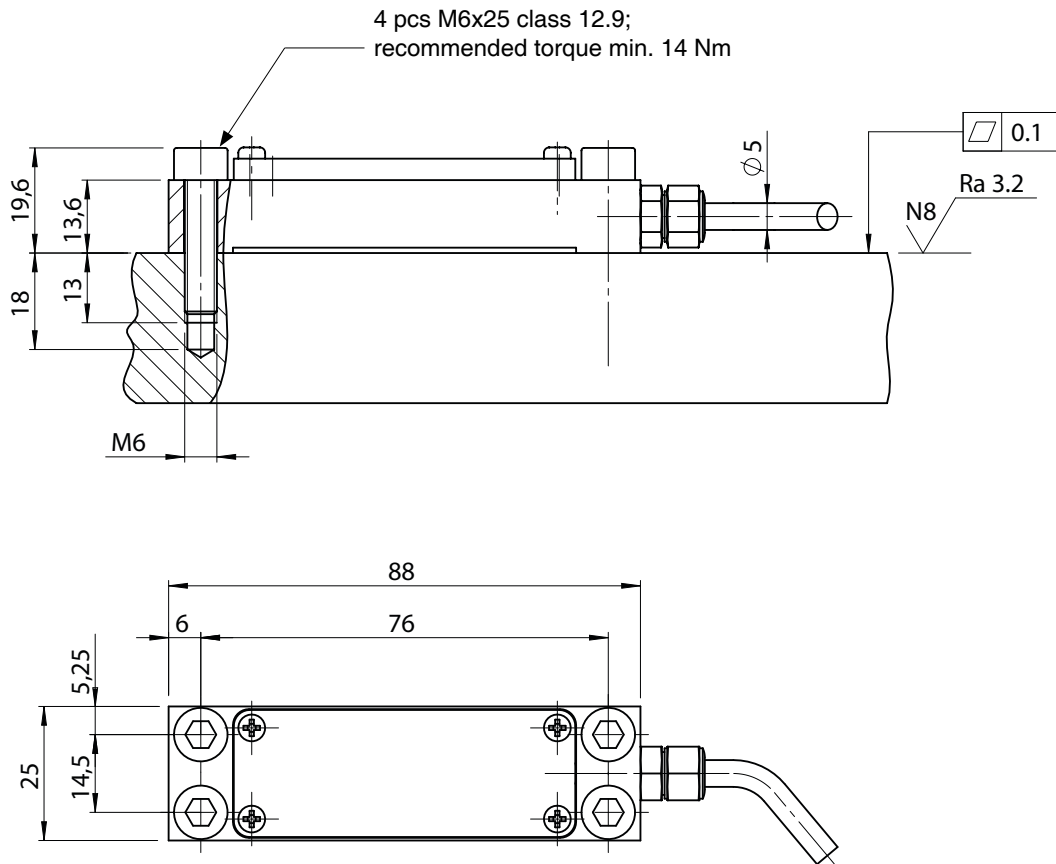
The strain link sensor SL76-VDA picks up surface-strain between the 2 mounting locations. The strain occurring between the mounting areas is mechanically amplified inside of the sensor. The integrated digital amplifier processes the signal on the spot avoiding EMC problems. Thanks to the rugged design, these sensors are used in heavy industrial environment. They require a cyclical reset.

TECHNICAL DATA

Output signal	VOLTAGE	CURRENT
Strain gauge type	Foil strain gage (GF=2.00)	
Linearity	< ± 0.5% FS	
Hysteresis	< ± 0.3% FS	
Repeatability	< ± 1% FS (max < ± 2% FS)	
Zero accuracy	< ± 0.1% FS	
FS accuracy	< ± 1% FS	
Accuracy at room temperature (1)	< ± 0.5% FS	
Bridge resistance	350 Ω	
Measuring range	+100...+800µε, -100...-250µε	
Output resolution	16-Bit	
Sampling rate	5 kHz	
Low-pass filter	1 kHz	
Case	Stainless steel	
Cover	Aluminum	
Reset time	> 25 ms	
Reset voltage	12...36 VDC	
Supply voltage	12...36 VDC	
Power consumption	0.5 W	1 W
Zero output signal	0 V (N)	4 mA (E)
Full scale output signal	+ 10 V (N) stretching	20 mA (E) stretching
	- 10 V (N) compression	-
Allowed load	≥ 5 kΩ	0..500 Ω
Operating temperature range	-5...+80°C	
Storage temperature range	-5...+80°C	
Overload capability	indefinite (offset occurs)	
Weight, without cable	~ 110 g	
Protection class	IP67	
Output short circuit protection	Yes	
Reverse polarity protection	Yes	
Dielectric strenght (2)	250V	
EC Conformity	According to Directive 2014/30/EU	
(1) incl. Non-linearity, Hysteresis, Repeatability, Zero-offset and Span-offset		
(2) Uses 50V 2J Voltage suppressor		

DIMENSION

SL76-VDA



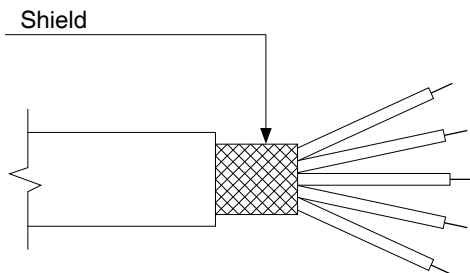
Accessories included:

4 pieces mounting screws M6x25, class 12.9

Dimensions in mm

ELECTRICAL CONNECTION

PUR screened cable (standard); 5 x 0.14mm²; Ø 5mm; bending 10 x Ø

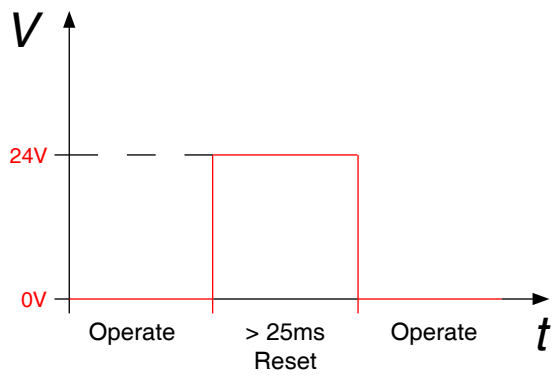


Cable	Function
White	Power 12...36VDC
Yellow	GND (0V)
Brown	Signal -
Green	Reset
Grey	Signal +

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

RESET FUNCTION

24V - TYPE



Reset control input	Reset	12...36V
	Operate	0V / open
Minimum reset pulse duration	>25ms	

With the power-on reset function the amplifier generates a reset signal when power is applied to device.

ORDER CODE

Strain link sensor with variable digital amplifier

SL76-VDA - 4 - O - - - 0 0 - 4 - - -

Cable length	
1 m	010
3 m	030
5 m	050
10 m	100
15 m	150

Output signal	
0...±10 Vdc	N
4...20 mA	E

Measuring range	
100 µε	0100
250 µε	0250
500 µε	0500
800 µε	0800

Reset type	
External high-reset (24V), without power-on reset, zero stored (2·10 ⁶ reset cycles allowed)	HO11
External high-reset (24V), with power-on reset (infinite reset cycles allowed)	HR11

Peak feature	
No peak-hold	O

Example: SL76-VDA - 4 - O - 010 - N - 00 - 4 - 0100 - HO11 - O

Strain link sensor with variable digital amplifier, cable length = 1m, output signal = 0...±10VDC, measuring range = 100µε, reset type = external high-reset (24V) without power on reset and zero stored, no peak-hold