



Main features

- Smallest press-on sensor with integrated amplifier (active)
- Direct surface strain reading like bonded strain gages, good linearity on tension and compression
- For dynamic applications
- Presses, injection moulding and die-casting machines
- Quick and easy mounting
- Replicates the accuracy of bonded strain gauges
- Protection against overload

Press-on strain sensors measures the surface-strain directly at the mounting location, similar to bonded strain gages. The integrated amplifier amplifies the signal on the spot, avoiding EMC problems.

The SB50 presses strain gages under the stainless protective foil that strongly onto the surface to be measured that friction replaces the bonding normally used to fix strain gages.

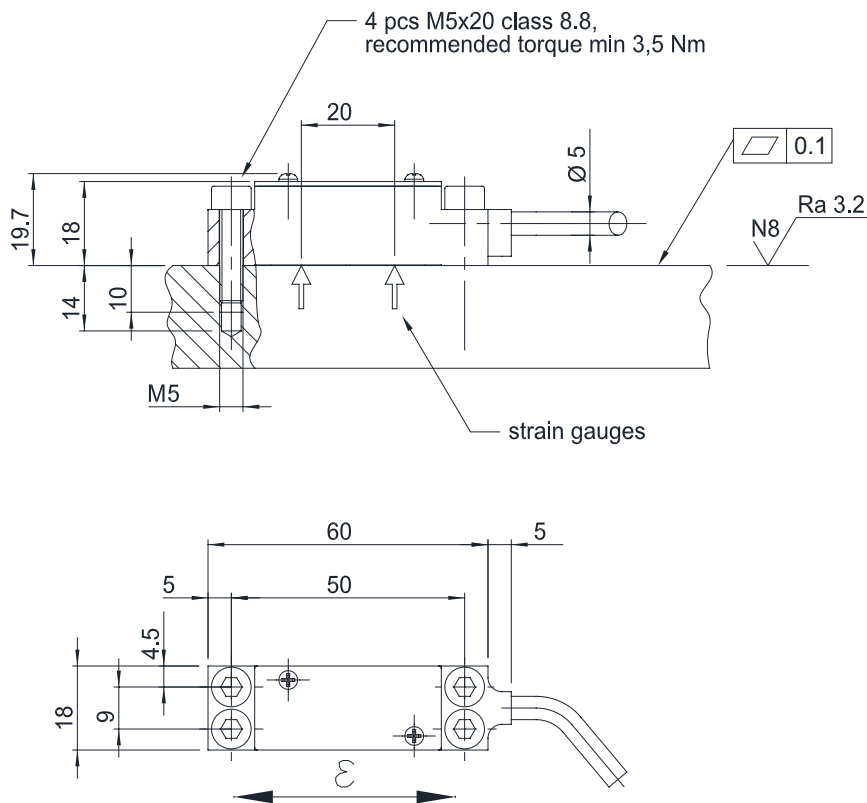
The mounting is very fast, and the strain gage is protected.

The sensor can not be overloaded. The sensors do not need to be recalibrated once they have been replaced or remounted. They need a cyclical reset (for cycles >5min.). Our amplifier can handle the occurring large offset range.

TECHNICAL DATA

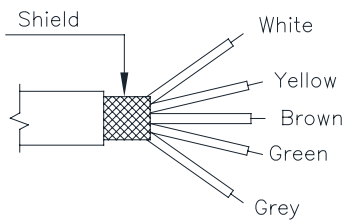
Strain gauge type	Foil (GF = 2.0)
Bridge resistance	350Ω
Measuring range	±100...±1000με
Span adjustment	±10% FS
Zero adjustment	±100% FS
Low-pass filter	100Hz
Output signal	0...±10VDC
Noise	< 20mV
Sensitivity tolerance	± 0.2%
Accuracy	< ± 1% FS
Accuracy of zero point	< ± 0.5% FS
Linearity	< ± 0.8% FS
Hysteresis	< ± 0.8% FS
Repeatability	< 0.4% FS
Output resistance	100Ω
Reset time	> 1ms
Reset voltage	15...28VDC
Supply voltage	20...28VDC
Supply current	< 20mA
Inverse polarity protection	Yes
Accidental short-circuit protection	Yes
Operating temperatur range	0...55°C
Storage temperatur range	0...55°C
Temperature coefficient at 10°C	< 0.2 (0.1 typical)
Overload capability	indefinite (offset occurs)
Protection class	IP54
Case material	Aluminium
Cover material	Aluminium
Weight, including cable	90g

MECHANICAL DIMENSIONS

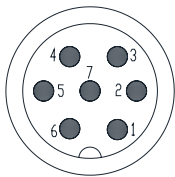


ELECTRICAL CONNECTIONS

Option O :
PUR screened cable (standard); 5 x 0.14; Ø 5mm; bending 10xØ

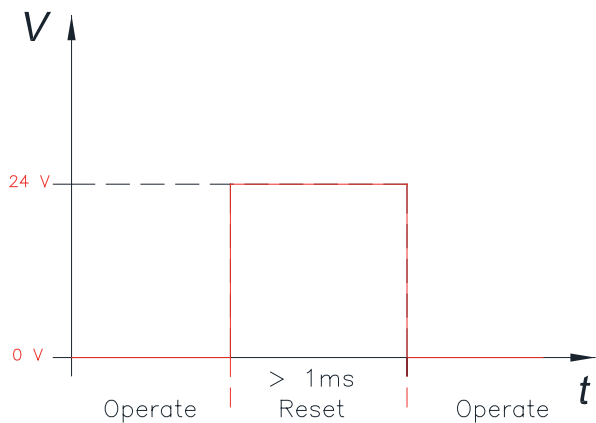


Option C :
connector 7 Pin



OPTION O (CABLE EXIT)	OPTION C (CONNECTOR OUTPUT)	FUNCTION
White	1	Power (24V)
Brown	2	Test-Out
Green	4	Reset
Yellow	3-7-6	GND (0V)
Grey	5	Signal +

RESET FUNCTION



Reset control input	Reset	24V (15V...28V)
	Operate	0V/open
Minimum reset pulse duration	>1 ms	

ORDER CODE

Press-on strain sensor

SB50 - MBA - - - - - -

Housing	
Aluminium housing with four holes	A4
Steel housing with four holes	S4

Measurement range	
100 $\mu\epsilon$	0100
250 $\mu\epsilon$	0250
500 $\mu\epsilon$	0500
750 $\mu\epsilon$	0750
1000 $\mu\epsilon$	1000

Bridge	
2/4 bridge	2

Cable length	
0.5m	005
3m	030
5m	050
10m	100
Define your own length (0,5m..15m)	XXX

Connection	
Open leads	O
Cable and connector	C

Reset type	
External reset(24V), without power-on reset	HO
Static(no external reset)	ST

Example: **SB50 - MBA - A4 - 0250 - 2 - 030 - O - HO**

Strain transmitter model SB50-MBA with 4 holes, 2/4 bridge, 250 $\mu\epsilon$ = 10 V, 3m cable length and reset function.



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