

## AN1068

#### STRAIN RING





#### Main features:

- Fast and easy strain measurement on cylinders (magnetic or not)
- Very easy installation (need only 2 screw's)
- 0.5% accuracy
- Without calibration
- All parts of the sensor are made in stainless materials.
- Ideal for cyclical applications, e.g. clamping force measurements on presses

The strain ring AN1068 is based on the proven press-on technology of strain gages. The strain ring presses strain gages under the stainless protective foil that strongly onto the surface to measured the friction. It replaces the bonding normally used to fix strain gages, without calibration necessary.

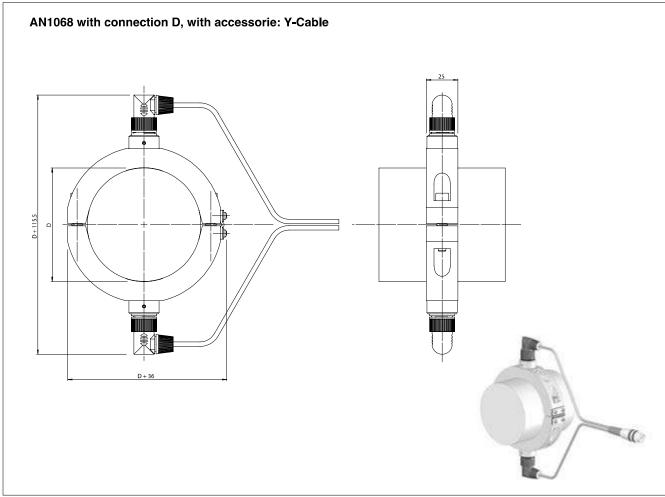
Mounting: Clamp the strain ring with 2 screw's (torque of 3Nm) around the tie bar. Connect the cable for measurements. The surface at the measuring location should be free of any loose material (e.g. rust, paint etc). The measuring location does not need to be chemically clean, just clean it with some solving agent.

The zero-offset of the pressed on strain gages after mounting is usually high. Our amplifiers are able to handle this reset by the simple push of a button or a reset signal.

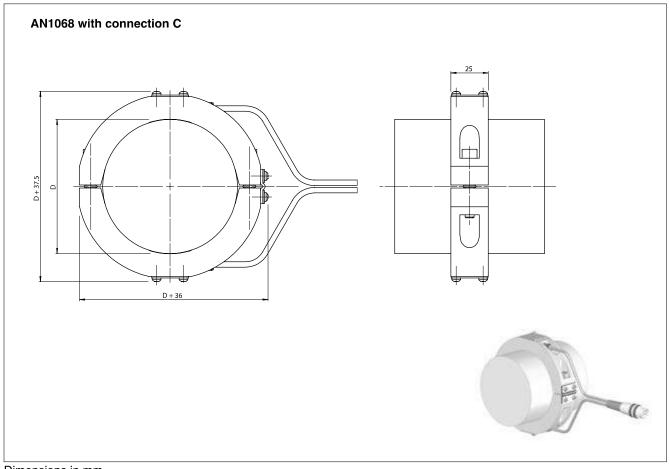
### **TECHNICAL DATA**

Strain gauge type	Foil (GF = 2.0)	
Bridge resistance	350Ω	
Measuring range	±1000με	
Sensitivity tolerance	± 0.2%	
Transverse sensitivity	0.9 ± 0.2%	
Accuracy	< ± 0.5% FS	
Linearity	< ± 0.5% FS	
Hysteresis	< ± 0.2% FS)	
Repeatability	< ± 0.1% FS	
Nominal input resistance	350Ω	
Supply voltage	5VDC (max 8VDC)	
Supply current	< 15mA	
Operating temperatur range	055°C	
Storage temperatur range	055°C	
Overload capability	indefinite (offset occurs)	
Protection class	IP66 (connection C) IP40 (connection D)	
Case material Anodised	aluminium	
Cover material	Stainless steel	

### **DIMENSION**



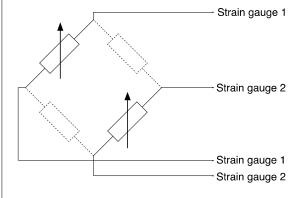
Dimensions in mm



Dimensions in mm

# **ELECTRICAL CONNECTIONS**

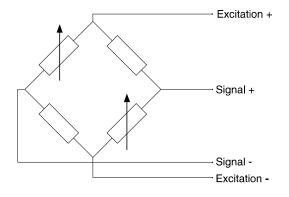
## Version 2/4 bridge





Connector PIN	Function	
1	Strain gauge 1	
2	Strain gauge 1	
3	n.a.	
4	Strain gauge 2	
5	Strain gauge 2	
6	n.a.	

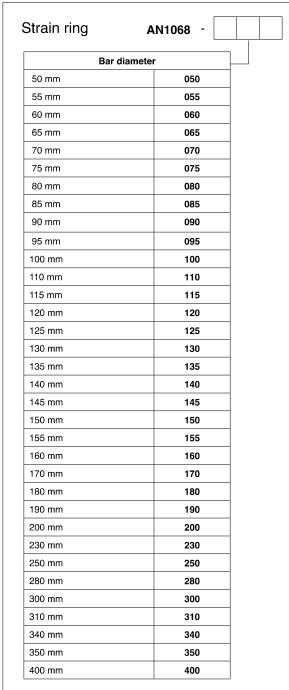
# Version 4/4 bridge (only available with Option C, Cable and Connector)





Connector PIN	Function	
1	Excitation +	
2	Excitation +	
3	Excitation -	
4	Signal +	
5	Signal -	
6	Excitation -	

### **ORDER CODE**



Cable length for connection C		
005	0.5 m	
030	3 m	
050	5 m	
100	10 m	

Connection	
D	Direct (without cable)
С	Cable with connector

Bridge		
2	2/4 Bridge	
4	Full bridge (only available with connection C)	

Example: AN1068-080-2-C-050

Strain ring, Bar diameter 80mm, 2/4 Bridge, Connection C, Cable length 5m

#### **ACCESSORIES**

Description		Order code	Code
Y - Cable with connection D	3 m	C - 678 - 030 - 680 - Y	F061939
	5 m	C - 678 - 050 - 680 - Y	F060629
	10 m	C - 678 - 100 - 680 - Y	F060630

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



#### Sensormate AG

Steigweg 8, - CH-8355 Aadorf, Switzerland ph: +41(0)52-2421818 - fax: +41(0)52-3661884 Internet: http://www.sensormate.ch

GEFRAN spa



via Sebina, 74 - 25050 PROVAGLIO D'ISEO (BS) - ITALY ph. +39 030 9888.1 - fax. +39 030 9839063 Internet: http://www.gefran.com