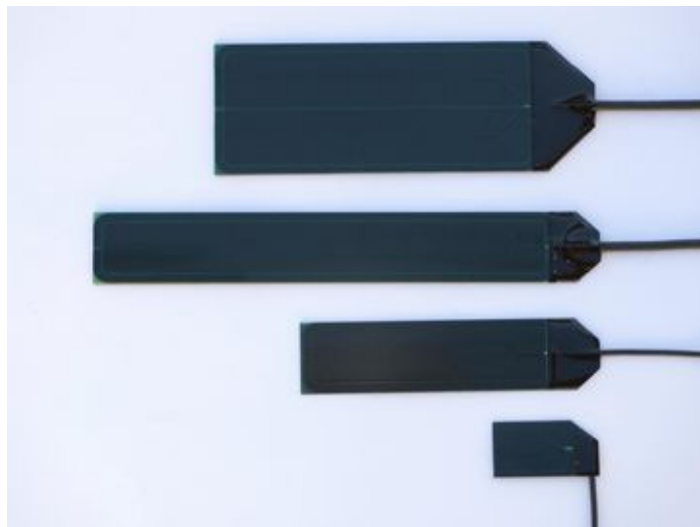


AGS

Air gap distance sensor

Low profile capacitive air gap measuring sensor



Low profile Air Gap Sensor for wind and hydro-generators and electrical motors
High accuracy, non contact capacitive type distance measuring sensor
High stability FR4 carbon particles sensor probe made for deep-inside or edge instalation
Stator or rotor installation possible
Temperature compensated, immune to strong magnetic fields, vibrations and deposits
Insulated DC/DC power supply and optocoupler output 0...20mA or 4...20mA
Stable operation over a wide temperature range of -20...140 °C (sensor probe)
Splash-proof electronics case (IP66) well suited for field applications

	AGS-4S	AGS-7,5S	AGS-13	AGS-25	AGS-50	AGS-51
Measuring range (mm) (from sensor surface)	0...4	0...7,5	0...13	0...25	0...50	
Linear measuring range (mm) (from sensor surface)	0,8...4	1,5...7,5	2,6...13	5...25	10...50	5...50
Min / Max true air gap (mm)	1,7...4,9	2,7...8,7	3,8...14,2	8,3...28,3	13,3...53	8,3...53
Linearity FSD (25°C)	+/-1,5%	+/-1,5%	+/-1,5%	+/-1,5%	+/-3%	
Linearity FSD (-20...50/80/125°C) (1)	+/-3%				+/-5%	
Linearity FSD (-20...50/80/140°C) (2)	+/-3%				+/-5%	
Output noise (% of FSD)	0,5%					
Output pole profile	0...20mA, (0mA=0mm), or 4...20mA (4mA=0mm) with 500 Ohm termination resistor 0...10V (2...10V), opto-insulated					
Sensitivity 0...20mA output	5mA/mm	2,667mA/mm	1,539mA/mm	0,8mA/mm	0,4mA/mm	
Sensitivity 0...10V output	2,5V/mm	1,334V/mm	0,769V/mm	0,4V/mm	0,2V/mm	
Sensitivity 4...20mA output	4mA/mm	2,134mA/mm	1,231mA/mm	0,64mA/mm	0,32mA/mm	
Sensitivity 2...10V output	2V/mm	1,067V/mm	0,615V/mm	0,32V/mm	0,16V/mm	
Typical frequency response	0...1000Hz, (-3dB) other bandwidth optional					
Magnetic flux density withstand	+/-2 Tesla					
Operating temp. (AGS probe)	-20...125°C or -20...140°C					
Operating temp. (AGS preamp.)	-20...80°C					
Operating temp. (AGS conditioner)	-20...50°C					
Storage temperature (AGS conditioner)	-20...80°C					
Power input	+24Vdc, ±10%, 0,15A max.					
Warm-up time	approx. 20 min.					
Relative humidity	95% non condensing					
Vibration	IEC 68 2.27, 5 g peak, 10 Hz to 150 Hz					
Shock	IEC 68 2.27, 15 g peak, 11ms					
EMC	Sensor probe not affected by magnetic fields +/- 2 Tesla, 50/60 Hz					
Probe immunity	magnetic fields, dust and oil vapours, without degradation of material					
AGSP probe dimension (mm)	51x25x0,8	68x29x1,1	120x29x1,1	232x32x3,3	175x60x3,3	
AGSP cable length (m)	0,8 or 1,8 + 10					
AGSC sig. conditioner dimension (mm)	220 × 120 × 80 w/o cable inlets					
AGSC sig. conditioner protection class	IP66					
Weight AGS probe + cable	6g + 230g	10g + 230g	15g + 230g	50g + 250g	100g + 250g	
Weight AGSC signal conditioner	1500g					



Figure 1. Stator (left) and rotor pole (right) installed Air Gap Sensors

Outline drawings

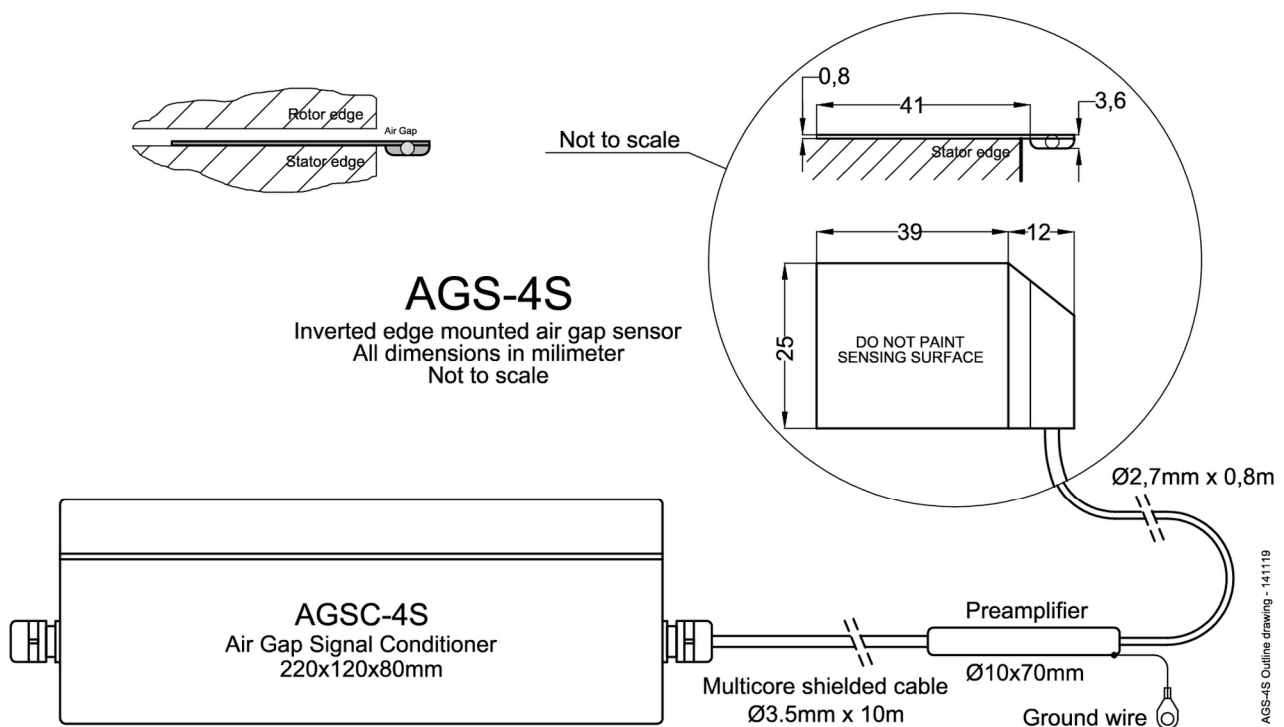


Figure 2. AGS-4S outline drawing

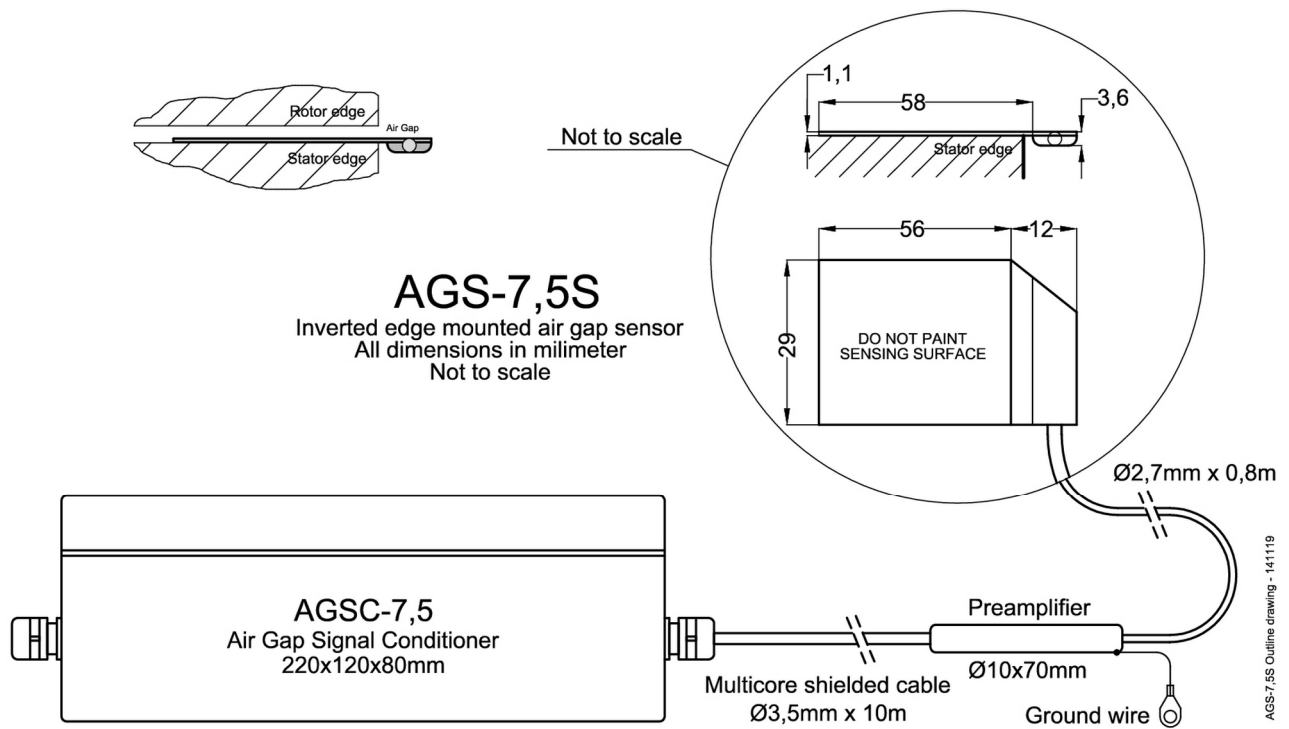


Figure 3. AGS-7,5S outline drawing

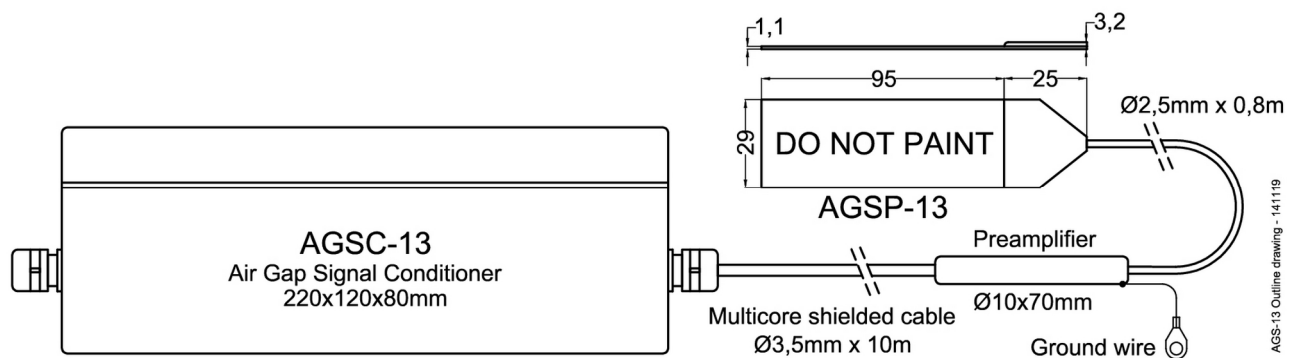


Figure 4. AGS-13 outline drawing

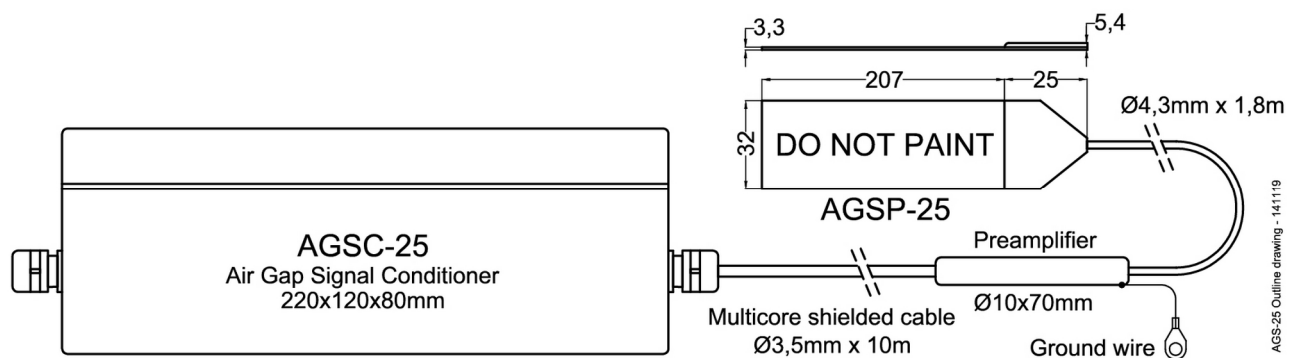


Figure 5. AGS-25 outline drawing

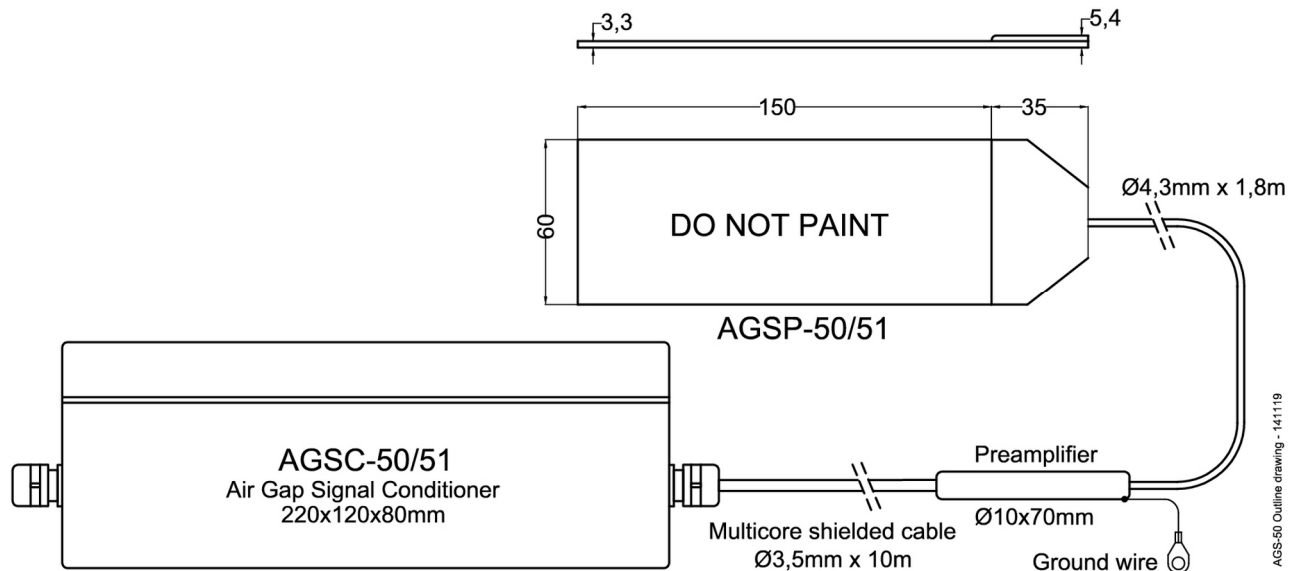


Figure 6. AGS-50/51 outline drawing

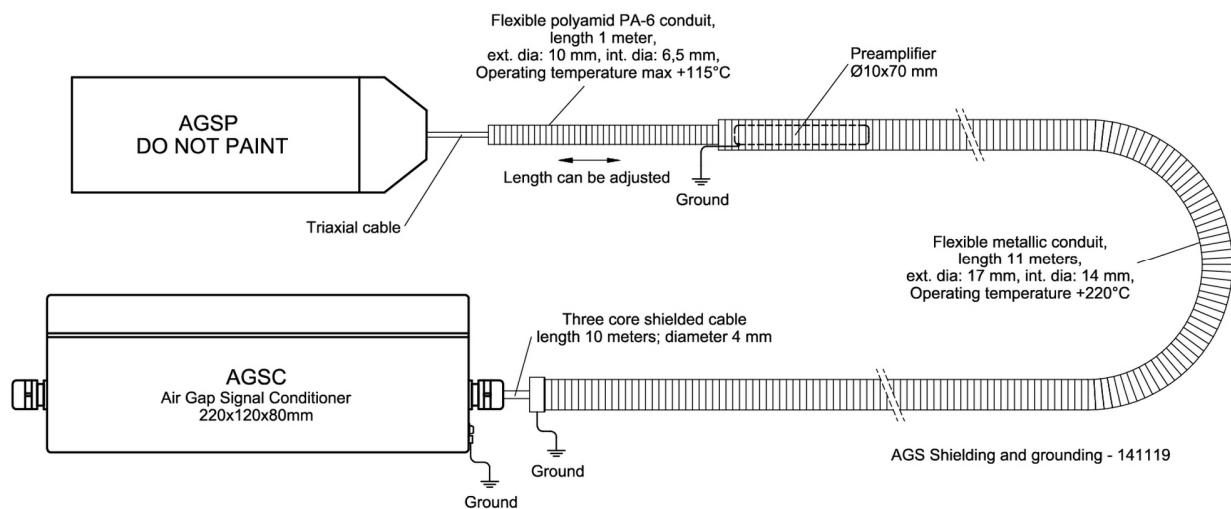


Figure 7. AGS- Shielding and grounding diagram

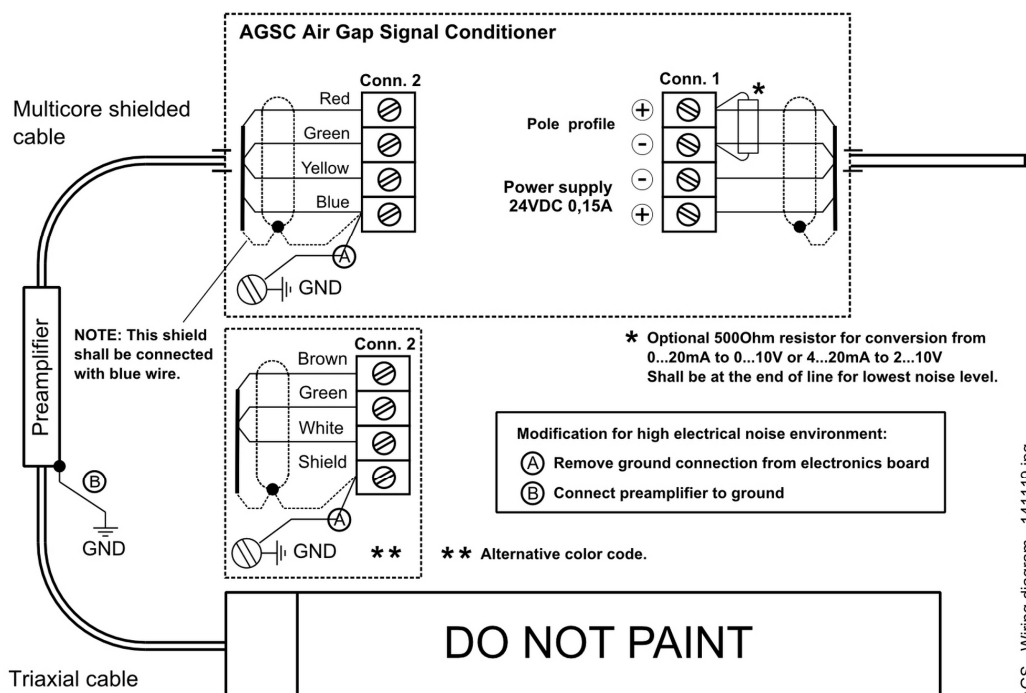


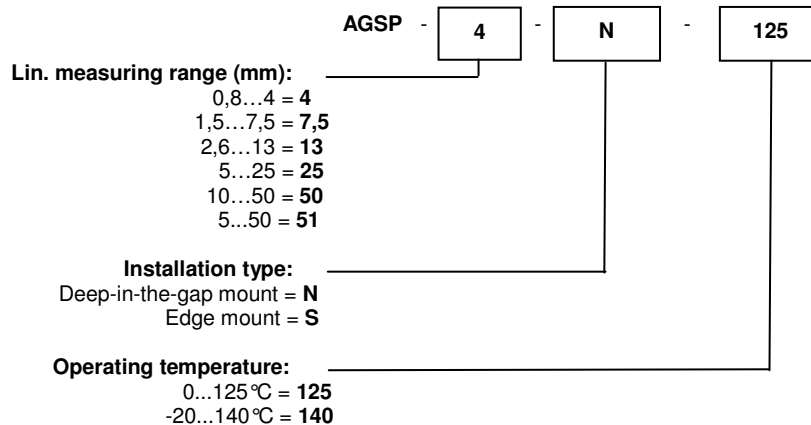
Figure 8. AGS - Wiring diagram

Ordering information

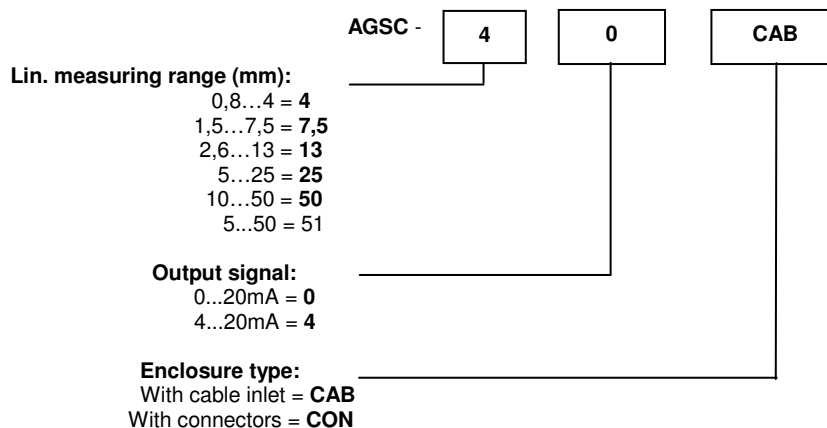
AGS Air Gap Sensor is delivered in factory calibrated sets containing:

- P/N: **AGSP** sensor probe with integrated preamplifier and connection cable,
- P/N: **AGSC** signal conditioner.

When ordering **AGSP** sensor probe please use the following format:



When ordering **AGSC** Signal Conditioner please use the following format:



Mikrotrend d.o.o. reserves the right to change specifications to improve products without notice.

MIKROTREND d.o.o.
 4.Bizek 14, 10090 Zagreb
 Croatia, EU
 tel: +385 98 504838,
www.mikrotrend.com
info@mikrotrend.com

USA and Canada:
PYRAMID LABS
 Mr. Michael Perika
 tel/fax: +1 416-878-4936
 tel/fax: +1 416-7694-554
info@pyramid-labs.com

China, Hong Kong, Macau and Taiwan
Star Royal Industry & Engineering Co., Ltd.
 Shanghai 200011, P.R.China
 tel: +86-21-53076253, mobile: +86-13916555847
www.starroyal.com.cn
zhenggang.qin@starroyal.com