

HKS - sensors to measure the welding process data:

welding current and welding voltage

MIG / MAG, TIG
Stud welding (arc)

Submerged welding
Stud welding (arc)

Resistance welding
Stud welding (CD)

process sensor
P1000-S3



process sensor
P1500-S3



process sensor
P100K-H-S3



mode of operation:
The process sensor guarantees a galvanic isolation of the process signals.

Effective range

current: +/- 1000 A,
voltage: +/- 100 V
output: 0 ... +/- 10 V
bandwidth: current 100 kHz
voltage 20 kHz
100 kHz (option)
accuracy: +/- 1%

current: +/- 2000 A
voltage: +/- 100 V
output: 0... +/-10 V
bandwidth: 10 kHz
accuracy: +/- 2%

current: +/- 20, 30, 60, 100, kA
drift DC/MF <1% full scale
voltage: +/- 10 V or 300 V
output: 0 ... +/-10 V
bandwidth: 10 kHz
accuracy **U:** +/- 1,0 % full scale
I: +/- 1,5 % full scale

Dimensions, attachment

sensor:
LxWxH: 120 x 120 x 105 mm
weight: 1 kg

alignment: Ring-type transducer

sensor:
LxWxH: 120 x 120 x 105 mm
weight: 1 kg
additional current sensor:
LxBxH: 120 x 200 x 90 mm
weight: 1 kg
alignment: Ring-type transducer

sensor:
LxWxH: 60 x 200 x 120 mm
weight: 0,7 kg
Rogowski-coil:
Ø 100 mm
weight: 0,5 kg
alignment: Ring-type transducer

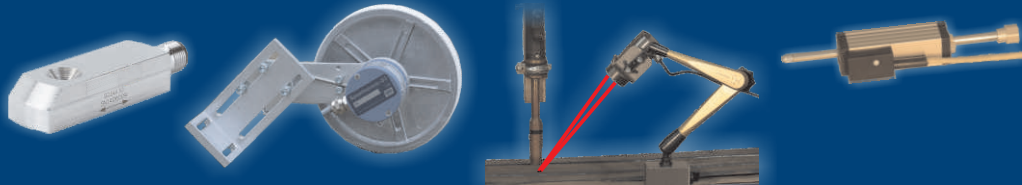
additional sensors for the measurement of:

force

welding speed

temperature

distance



wire feed speed

MIG / MAG,
TIG

MIG / MAG ,
TIG, Laser

Submerged
welding

MIG / MAG,
TIG

DV25M-S3



mobil

DV25ST-S3



stationary

DV25UP-S3



stationary

GM30L10B-S3



mode of operation:
the wire speed is scanned over a role mechanism via a pulse trigger

mode of operation:
calorimetric principle

Effective range

0...25 m/min
wire diameter:
0,8...2,0 mm
output:
25 m/min: 3660 Hz
accuracy: +/- 1 %

0...25 m/min
wire diameter:
0,8...2,0 mm
output:
25 m/min: 3660 Hz
opt.: 0...5 V analogue outp.
accuracy: +/- 1 %

0...25 m/min
wire diameter:
2...6 mm
output:
25 m/min: 1515 Hz
accuracy: +/- 1 %

0...30 l/min; argon
for all non-combustible
welding gases up to 10 bar
output: 0...5 V
analog output
accuracy: +/- 3%

Dimensions, attachment

sensor:
LxWxH: 60x35x85 mm
weight: 465 g

alignment: magnetic
base

sensor:
LxWxH: 60x60x50 mm
Gewicht: 300 g

alignment: mandrel

sensor:
LxWxH: 170x120x70 mm
weight: 960 g

alignment: mandrel

sensor:
LxBxH: 98x65x28 mm
weight: 500 g

alignment:
G 1/4 (external thread)

many other measurable process parameters, e.g:

- preheating temperature
- powder temperature
- acoustic emission
- coolant flow
- contact pressure

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