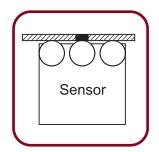


ROLAND ELECTRONIC

Weld Seam Detection System SND8 - NS9SC

One sided weld seam detection on ferromagnetic and austenitic materials in coils



- For tool protection in front of cutting lines, presses, tube mills,
 and other metal forming machinery with automatic feed of material
- Filtering and analysis of sensor signal
- Fail safe operation
- Visual display of signal level
- One constant magnetic field for all sheet thicknesses up to approx. 3 mm (0.12 in)
- Improved dynamic performance at variable surface speeds







Application

The automatic processing of coils and strips requires the dependable detection of weld seams. This applies to body shops in the automotive industry or the production of welded tubes and similar products.

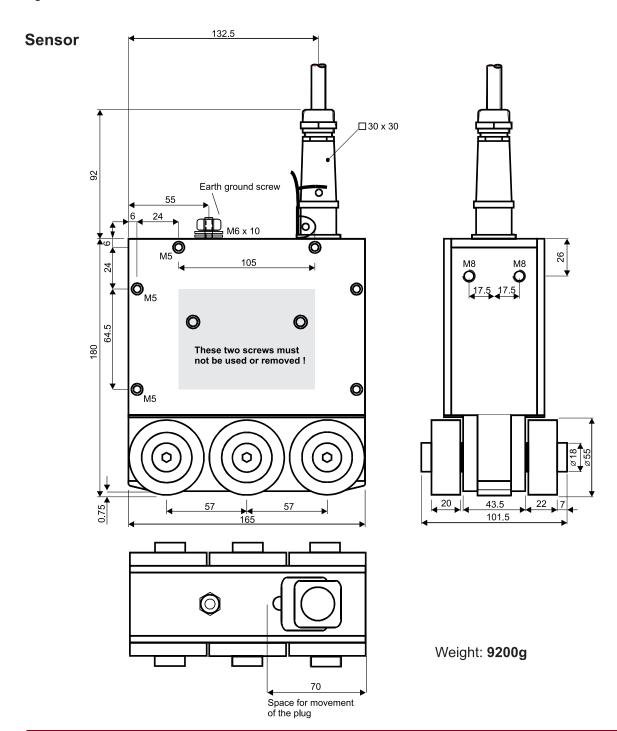
Weld seams that are not detected in the production process may lead to the destruction of dies and machine break down, faulty production and costly repairs. The Weld Seam Detector SND 8 has been specifically developed for such applications.

The sensor NS 9 SC was specifically designed for butt welds in coils up to a sheet thickness of approx. 3 mm.

Measuring Principle

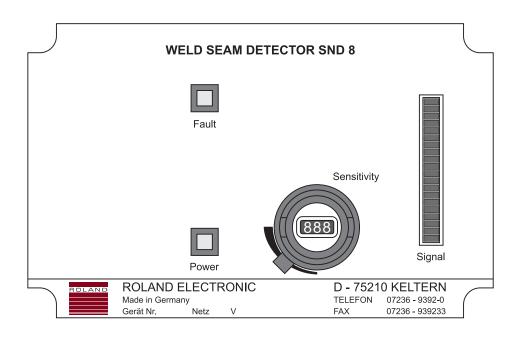
The sensor reacts to the magnetic properties of the materials. Weld seams lead to characteristic changes in the magnetic field. These changes are detected by the sensor and processed by the control unit resulting in a switch signal for the machine controls.

Sophisticated methods of signal filtering and analysis are applied to discriminate between noise and the weld seam signal.





WELD SEAM DETECTION SYSTEM SND8 - NS9SC



Technical data

Operating voltage

Fuse

Power consumption

Sensor control

Ambient temperature

Relay outputs for weld seam and fault

Relay switching voltage

Relay switching current

Relay switching power

Contact life (mechanical)

Relay on delay

Relative motion sensor/object

Opto coupled inputs for sensor switch

and reset

Weight of control unit (without sensor) 4000g

± 10% 230 / 115VAC, 50-60Hz

(5 X 20) 1,25A mtr

ca. 50VA

1 LED

5 - 45^o C

dry two way contacts

250V

max. 8A AC

max. 400W / 2kVA

5 x 10⁷ operations

110ms, ±20%

The velocity can range between 0,1 to 1000meters/min.

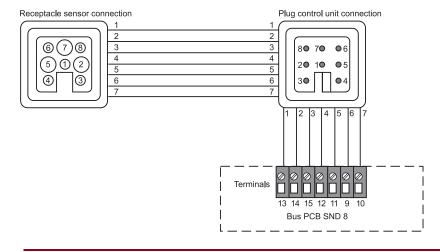
5 - 30V DC = Sensor ON

0 - 2V DC = Sensor OFF

maximum current < 10 milliamps

4000g

Cable SKNS8S



Order data:

SND8S Weld Seam Detector

NS9SC Sensor for coils

SKNS8S-5 Cable between detector and

sensor (standard length 5m)

PgdS Plexiglass cover with lock

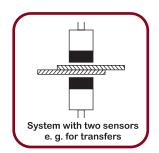


PRODUCT PROGRAM DOUBLE SHEET CONTROL SYSTEM



Simple and complex double sheet monitoring systems can be assembled from a broad product programme:

- for ferrous and non ferrous materials
- touch and no touch systems
- with or without force of attraction
- adjustment via teach in or potentiometer
- stand alone systems or remote control via PLC
- one channel or up to 255 pre-programmable channels
- For original equipment or retrofitting

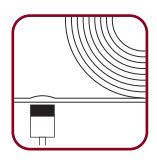






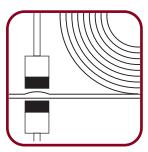
Double Sheet Detection System UDK20

PRODUCT PROGRAM SHEET THICKNESS MEASUREMENT SYSTEM



From a broad product program suitable sheet thickness measurement and sheet thickness control instrument can be selected.

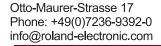
- For ferrous and non ferrous materials
- Non contact or contact measurement
- Simple units for limit control
 Sophisticated systems with elaborate documentation satisfying SPC requirements







ROLAND ELECTRONIC GMBH



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