Measuring technology
is our job ...

Pressure   Temperature   Fill level   Analyse   Interpretation

seli GmbH
Automatisierungstechnik

... with ideas
containing know how!

The development of the company

Formation and aims

In 1990, the company seli Automatisierungstechnik was formed as Ltd. One aim of the company was, among others, to establish an alternative supplier of components used in automation technology. Here, the priority objective was to guarantee complete technical advisory service both on office duty and on-site. The company also placed special emphasis on the development and fabrication of products right from the beginning. The target group primarily consisted of industrial final consumers.

The company today

Today, the company seli, employing more than 30 members of staff, is one of the biggest system houses for automation technology and a well-known producer of measurement technology in the industry.

One of the main pillars of the company is the representation or distribution of well-known business associates.

Here, not only obtaining products for the industry is important also the application on-site by our technical field service is an absolute "must" for our company.

The know-how that our employees have gained in many years is an important reason for many customers for the successful and trust-based cooperation..

seli has set new directions in the fields of e-commerce and e-procurement.

Special action directed at the target groups has led to us becoming a specialist for the food industry and the drinks and tobacco industry during the last couple of years.

Especially developments and fabrication of products for measurement engineering and control engineering can be taken as a characteristic of this. Here, products and solutions could only be realized by long-time experience and our good customer contact.

Another important domain of seli was created by our customers` requests.

Services like the re-calibration of test media, the creation of customised systems engineering and the realisation of integrated solutions nowadays have been part of our business for a couple of years.
Our employees will assist you by giving advisory as well as practical support

Make use of our experience for your succes.

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The management of seli GmbH Automatisierungstechnik

Central Office in Neuenkirchen

Central Office

Order handling and technichal support

Seminar Center

Store and Dispatch

Accounting and controlling

Insides of the fabrication

Final assembly and fabrication

Mechanical and electronical fabrication

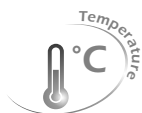**Mounting, computer controlled calibribration and temperature compensation**

Mounting, final check with calibribration-report

Quality check

This one works any time

Type TF 14

▶ Protective fitting with spherical welding sleeve (Diameter 25 mm), protective pipe diameters 6 x 1 mm from material 1.4571 (V4A). This execution is locked to the process The high-grade steel connection head can be connected with different connecting pieces with the protective fitting. With changeable measuring element, temperature of the process -50 °C bis +400 °C (other temperature fields on request)

The universal one

Type TF 35

▶ Welding sleeve system with modular process connections
▶ Aseptic measuring point
▶ Freely programmable sensor-head transducer optional
▶ Wetting parts made of high-grade steel Material No. 1.4404
▶ FDA, EHEDG-conformal

The small one

Type TF 43

▶ Compact design
▶ Variable depth of sensor immersion
▶ Aseptic measuring point
▶ Measuring transducer optional
▶ Wetting parts made of high-grade steel Material No. 1.4404
▶ FDA, EHEDG-conformal

The cheap one

Type TF 45

▶ Welding sleeve system with modular process connections
▶ Aseptic measuring point
▶ Measuring transducer optional
▶ Wetting parts made of high-grade steel Material No. 1.4404
▶ FDA, EHEDG-conformal

Pressure

The universal

Type SDT 01

▶ Thick-film ceramic sensor
▶ High accuracy
▶ High temperature range
▶ Nominal pressure ranges
   from -1 bar to 400 bar
▶ Absolute and relative pressure
▶ Wetting parts made of high-grade steel
   No. 1.4305, FKM, ceramics A1203
▶ Gehäuse aus Edelstahl 1.4305
▶ Case made of high-grade steel

The cheap one for food and pharma

Type SDT 02

▶ High temperature range
▶ Nominal pressure ranges up to 40 bar
▶ Relative pressure
▶ PC-telecontrolled parametrizable
▶ Wetting parts made of high-grade steel 1.4435
▶ Housing made of high-grade steel 1.4404
▶ Fourfold overload
▶ Totally front-flush membrane
▶ Modular process connection technology
▶ Special units possible
▶ FDA, EHEDG-conformal

The universal for food & pharma

Type SDT 12

▶ High accuracy
▶ High temperature range
▶ Nominal pressure ranges up to 40 bar
▶ Relative pressure
▶ Absolute pressure
▶ Manually zeroing
▶ Triple overload
▶ Totally front-flush membrane
▶ Wetting parts made of high-grade steel
   No. 1.4435 und 1.4404
▶ Case made of high-grade steel 1.4301, 1.4305
▶ Modular process connection technology
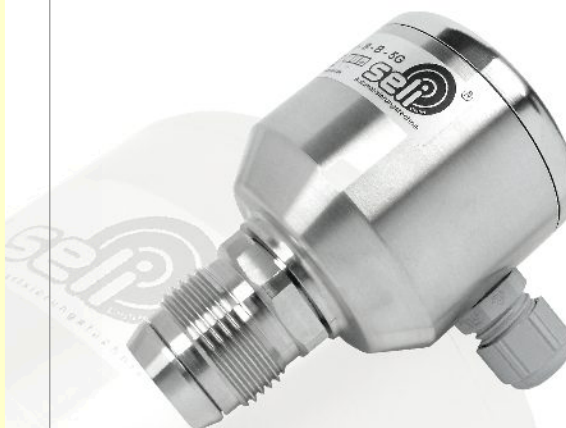▶ Special units possible
▶ FDA, EHEDG-conform

The modular one for food & pharma

Type SDT 03

- ▶ High accuracy
- ▶ High temperature range
- ▶ Nominal pressure ranges up to 40 bar
- ▶ Relative pressure
- ▶ Integrated control + indicator display optional
- ▶ Programmable on unit or PC-telecontrolled parametrizable
- ▶ Very quick compensation of temperature jump
- ▶ Wetting parts made of high-grade steel 1.4435
- ▶ Housing made of high-grade steel 1.4404
- ▶ individual mesuring range adjustment
- ▶ smallest measuring range 100 mbar
- ▶ Turndown 4:1
- ▶ Fourfold overload
- ▶ Absolute front-flush membrane
- ▶ Modular process connection technology
- ▶ Special units possible
- ▶ FDA, EHEDG conformal

The unit to dive

Type SDT 09

- ▶ Less temperature error
- ▶ Very good linearity
- ▶ Long-time stability
- ▶ Accuracy at IEC 60770: 0,35% FSO
- ▶ High-grade steel sensor
- ▶ Small diameter of 27 mm
- ▶ Measuring of liquid level in water and clean or/ and dirty media
- ▶ Effective range from 0...40 mbar to 0...25bar

Fill level measurement

The universal one

Type SMW

- ▶ Limit switch of the fill level for liquids Adjustable for various media
- ▶ Welding sleeve system with modular process connections
- ▶ Aseptic measuring point
- ▶ defined position of the gland
- ▶ Wetting parts made of high-grade steel Material No. 1.4404
- ▶ FDA, EHEDG-conformal

The conductive ones

Type KS 15/25/35

- ▶ Welding sleeve system with modular process connection
- ▶ Aseptic measuring point
- ▶ Elektrodes free cuttable
- ▶ Wetting parts made of high-grade steel Material No. 1.4404
- ▶ 1-3 electrodes
- ▶ Deliverable with level module optional
- ▶ FDA, EHEDG-conformal

The alternative

Type KS 17

- ▶ Welding sleeve system GEA Tuchenhagen without polymer-seal
- ▶ Aseptic measuring point possible
- ▶ Elektrodes free cuttable
- ▶ Wetting parts made of high-grade steel Material No. 1.4404
- ▶ Electrode Ø 10 mm
- ▶ optional: integriated level module
- ▶ FDA, EHEDG-conformal

The intelligent one

Type SMP

- ▶ Particularly suitable for the fill level measuring in small-sized blending tanks with viscous, paste-like and highly adhesive media
- ▶ Application in all electrically conductive media with a minimum conductivity of 1µS/cm
- ▶ Automatic detection of the fitting position top/bottom
- ▶ Device completely made of high-grade steel 1.4404
- ▶ Compact Design with integrated evaluation circuit 4...20mA
- ▶ FDA, EHEDG-conformal

Conductivity measuring

The universal conductivity measuring

Type SLI

- ▶ Measuring system for conductivity measurement in processes
- ▶ small compact construction
- ▶ Installation in pipings ex nominal width DN 40
- ▶ Effective range free configurable, reversible
- ▶ Device completely made of high-grade steel 1.4301
- ▶ LCD display for conductivity, temperature and handling
- ▶ Extremely fast response time
- ▶ FDA, EHEDG-conformal

The compact turbidity measurement

Type STS 01

- ▶ Phase-Separation
- ▶ Qick product-change
- ▶ Reduced costs for waste water
- ▶ Filter-monitoring
- ▶ Colour-independent concentration measurement
- ▶ Compact Design with integrated electronic and display for parameterisation
- ▶ Robust saphir-windows, CIP/SIP-suitable
- ▶ Hygienc Design, polymerfree-sealing system
- ▶ LED-light, stable and durable signal guaranteed
- ▶ Integrated digital- and analog-output
- ▶ Simple parameterization
- ▶ Process-monitoring and documentation

The clean turbidity measurement

Type STS 02

- ▶ Automatic Cleaning possible by use of Process Fitting SAW-830
- ▶ Securely Phase-Separation
- ▶ Qicker product-changes
- ▶ Reduced costs for waste water
- ▶ Filter-monitoring
- ▶ Colour-independent concentration measurement
- ▶ Compact Design with integrated electronic and display for parameterisation
- ▶ Robust saphir-windows, CIP/SIP-suitable
- ▶ Hygienc Design, elastomer-free sealing system
- ▶ LED-light, stable and durable signal guaranteed
- ▶ Integrated digital- and analog-output
- ▶ Simple parameterization
- ▶ Process-monitoring and documentation

Conductivity measuring

The static holder

Type SAS 310

- ▶ For all kind of Ø12/120 with thread PG13,5 (pH-,Glas-,ISFET-,CO2-, Redox- and other sensors)
- ▶ Chemikal industry
- ▶ Food industry
- ▶ Pharmaceutical industry
- ▶ Water treatmant

The retractable holder

Type SAW 830

- ▶ For all kind of 12/225 mm or Ø12/280 with thread PG13,5 (pH-,Glas-,ISFET-,CO2-, Redox- and other sensors)
- ▶ Food industry
- ▶ Pharmaceutical industry
- ▶ Requirement of automated sensor cleaning or calibration

The only one for orbital cleaning plants

Typ SOR

▶ Welding Sleeve System with modular process connections
▶ Aseptic Measuring point
▶ Wetted parts made of peek
▶ FDA, EHEDG-conformal
▶ For controling of orbital cleaning plants

The only one for rotational cleaning plants

Typ SRS

▶ welding sleeve-system with modular process connections
▶ aseptic measuring point
▶ wetting parts made of peek
▶ further settings via PC and programming interface (optional)
▶ FDA, EHEDG-conformal
▶ For controling of rotational cleaning plants

Evaluation electronics

The universal measuring transducer

Type SMU

- ▶ Universal power supply 24 VAC/DC - 230 VAC/ 250 VDC
- ▶ Galvanic separation of all In-/Outputs/ auxiliary power
- ▶ Universal input for RTD (Pt100 etc), TC Potentiometer, Lin. R, mA and V
- ▶ 2-wire sensor supply
- ▶ 2 relays-output and analogue output (mA, V)
- ▶ Programmable per optionally frontdisplay
- ▶ 5 years guarantee

The compact measuring transducer

Type MUK

- ▶ 4..20 mA measuring transducer for Pt100 sensors
- ▶ Connection in 2-, 3- or 4-wire technology
- ▶ Accuracy < 0,25 °C
- ▶ Correction of the actual value
- ▶ Automatic/configurable cable resistance compensation (2-wire)
- ▶ Sensor error detection
- ▶ Programmable linearization, absorption infor- mation of condition and serial number
- ▶ PC datalogging

The measuring transducer with housing

Type MUK-VG

- ▶ 4..20 mA measuring transducer for Pt100 sensors
- ▶ Connection in 2-, 3- or 4-wire technology
- ▶ Accuracy < 0,25 °C
- ▶ Correction of the actual value
- ▶ Automatic/configurable cable resistance compensation (2-wire)
- ▶ Sensor error detection
- ▶ Programmable linearization, absorption infor- mation of condition and serial number
- ▶ PC datalogging

The switching device just in case

Type SNG-1

- ▶ Processor-controlled level switchs
- ▶ Up to 4 level-probes + earth probe
  - single level
  - level control
  - wire breakage detection
  - parameter switching
- ▶ Wide-range power supply unit
- ▶ PC-configurable (optional) process monitoring + documentation incl.

The intelligent one

Type SDA-2000

▶ 4-digit 14 segment LED indicator
▶ Input for mA, V, Pt100, TC and poti
▶ 2 relays and analogue output
▶ Universal supply voltage
▶ Front key programmable
▶ Safety class IP65 (IP67 optional)
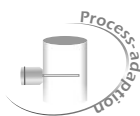▶ 5 Years guarantee
▶ Plain text error-message

Paperless recorder and Data Logger

Type SBS

▶ Easy operation by control button and through menu guidance
▶ Interface to SCADA-Systems, to SPS-controls and to PC-systems
▶ Integrated Webserver
▶ Measurement display via web browser
▶ Simultaneous recording of up to 3 batch reports
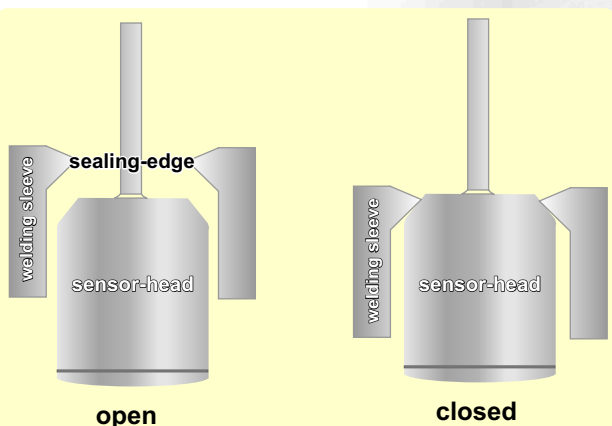▶ Data transfer via Compact-Flash-card or USB-keychain
▶ Modbus-Master-function

The hygenic modular process adaptation

- ▶ Hygienic process-adaption
- ▶ dead volume- and elastomer-free
- ▶ aseptic measuring point
- ▶ EHEDG-conform
- ▶ modular concept for multiplicity process connection

The technology

- ▶ Adaption for following threads: M12, G1/2", G1"
- ▶ Position for thread and/or M12-plug defined and marked (Welding sleeve system)

welding sleeve

sealing-edge

sensor-head

open

welding sleeve

sensor-head

closed

Welding reference

- ▶ Weld into tanks/pipings
1. Please drill a hole with outside diameter of the sleeve. Tolerance max.: +0,2 mm
2. Attach the sleeve with 4 points (fig. 1)
3. Screw in welding assistance plug
4. Weld the sections between the points (fig. 2)
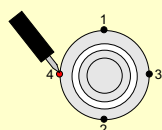   - 4 parts if M12 and G1/2"
   - 8 parts if G1"
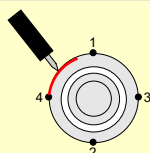
Fig. 1

Fig. 2

e. g. G1/2"-system

in temperatue measurement

in fill-level-measurement

e. g. G1"-system

in pressure measurement

examples

of modular process connections

varivent   tri-clamp   milk-pipe

modular @ process

Hygienic adaption with welding-sleeve systen and modular process-connections

Welding sleeve system M12

for small pipes / bent tubes and slanted installation		small containers	small pipes with border crimping
AP 05	not available	CP 05	UP 05

Welding sleeve system G 1/2"

for pipes / bent tubes and slanted installation	containers	for fill level limit switch smw extended version	thick walled containers	pipes with border crimping
AP 15	BP 15	BP 15-L	CP 15	UP 15

Welding sleeve system G 1"

containers/ pipes			
AP 35	BP 35	not available	not available

Examples of order codes

Order Code BP15				
BP15-		☐ ☐	-	☐ ☐
Control drilling				
without control drilling		-	-	
with control drilling		K	B	
Certification				
without material-certification				- -
with 3.1B-certification				31 B

06/2008

modular process connection system

modular *@* process

G1/2"

Milk-pipe screwing according to DIN 11851   Varivent   Triclamp

Cone-nut   **Union- nut**

Nominal sizes and types

DP 15 -DN 25	DÜ 15 -DN 25	HP 15 -DN 50 Typ N	TP 15
EP 15 -DN 32	EÜ 15 -DN 32	IP 15 -DN 25 Typ F	
FP 15 -DN 40	FÜ 15 -DN 40		
GP 15 -DN 50	GÜ 15 -DN 50		
LP 15 -DN 65	LÜ 15 -DN 65		
MP 15 -DN 80	MÜ 15 -DN 80		

Nominal sizes and types (centre column header)

G1"

Milk-pipe screwing according to DIN 11851   Varivent   Triclamp   DRD-flange

Cone nut   **Union-nut**

Nominal sizes and types

FP 35 -DN 40	FÜ 15 -DN 40	HP 35 -DN 50 Typ N	TP 35	GA 35
GP 35 -DN 50	GÜ 15 -DN 50	IP 35 -DN 25 Typ F		
LP 35 -DN 65	LÜ 15 -DN 65			

Nominal sizes and types (centre column header)
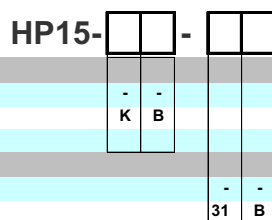
GP 35: Combination cone nut
        also suitable for DRD-flange

Techn. Information:
Complete process connection
consists of GP 35 GA 35

Examples of order codes

HP15-☐☐ - ☐☐

Control drilling		
without control-drilling	-	-
with control-drilling	K	B

Certificate		
without material-certificate	-	-
with 3.1B certificate	31	B

10/2006

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