



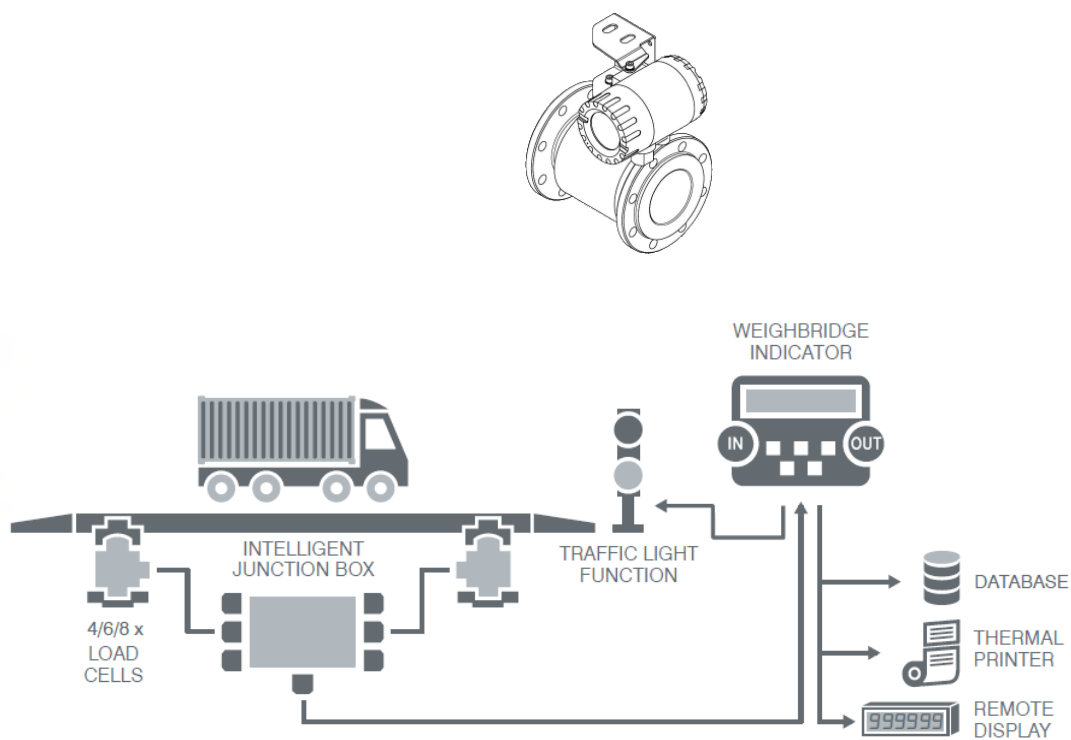
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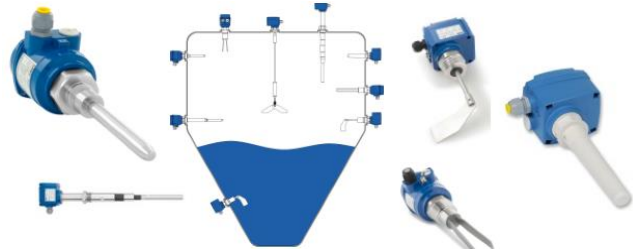
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Point Level Measurement

Point Level Measurement (Solids)

Limit detection is required in all silos and containers to avoid overfilling or unnecessary downtime. This means that the sensor needs to handle a variety of process conditions within a wide range of industries. In meeting all the conditions that are presented we are able to offer an appropriate sensor for each application:

Rotonivo® Rotary paddle switch, Vibranivo® Vibration fork, Mononivo® Vibration rod, Capanivo® Capacitive sensor, RFnivo® Capacitive sensor & Flexinivo® Height adjustable switch



RF Point Level Measurement (Liquids)

High-frequency level sensors RFLS-35

Level sensor with elimination of rests or foam on the electrode. Designed for reliable limit level sensing of wide-range of fluids (electrically conductive or non-conductive), mashed and paste-like materials. Resistant to adhesion of viscous and sticky media (ketchup, yoghurt, spreads, syrups, creams, pastes, cleaning agents, alkalis, etc.)



Capacitive level Switch (Liquids & Solids)

For limit level sensing of liquid and bulk-solid materials
Direct mounting into various containers, silos, vessels, tanks, filling inlets, reservoirs, etc.

Increased resistance to electromagnetic interference
Simply sensitivity setting by means of magnetic pen
NPN, PNP or Namur output



Thru-wall level switches

For limit level sensing of liquids in non-conductive plastic and glass vessels



Continuous Level Measurement Liquids & Solids

Contents Level Measurement (solids)

In the area of continuous level measurement of bulk solids within silos, process vessels or open bunkers varying conditions need to be considered to ensure the perfect measurement solution is to be found for the application.

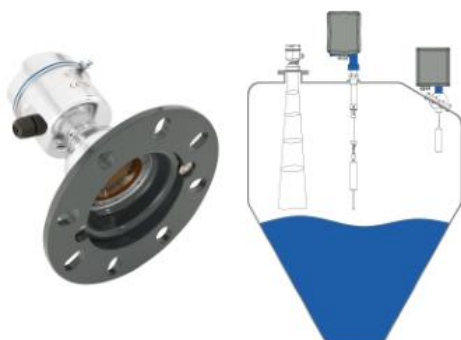


Ultrasonic Level measurement (Liquid/Solid)

For continuous non-contact level measurement of liquids and bulk-solid materials. Outstanding contrast OLED display. Quick view measured values on the display. Advanced intelligent signal processing, mapping of false reflections. Easy adjustment without measured material. Current output (4 ... 20 mA), HART®, RS-485 Modbus/RTU

Guided Wave Radar (Liquid/Solid)

Radar level meters with guided wave (principle TDR) Suited to continuous level measurement of various liquid, mush and bulk-solid materials. Universal use, direct mounting into containers, silos, vessels, reservoirs, etc. Stainless steel rod or rope electrode, Measuring range up to 40m. Linear measurement in non-conductive and in differently shaped containers. Quick view measured values on the display. Simple installation and setting. Current output (4 ... 20 mA), HART® protocol



Radar Level Measurement (Liquid/Solid)

NivoRadar sensors are a compact sensor measuring distances up to 100m. Due to its high sensitivity it is suitable for measurement of almost all bulk materials. The 78GHz FMCW radar uses two-wire technology and is commissioned via a local programmer with display and an easy to operate. The Radars beam angle of 4° with range up to 100m. The ability to withstand high process temperatures and dusty atmospheres means that this free radiating radar sensor provides accurate and reliable measurement results making it the perfect all-rounder for most types of bulk solids.

CAPACITIVE LEVEL METERS

Capacitive level meters are designed for continuous level measurement of liquids, powders and bulk-solid materials in vessels, tanks, sumps, containers, silos, etc. CLM consists of the stainless steel housing with electronic module and the measuring electrode. The electronic part converts the capacity into the current signal (4 ... 20 mA) or voltage signal (0 ... 10 V). Sensitivity (SPAN) and initial capacity compensation (ZERO) can be fluently set.



Hydrostatic Submersible Level Measurement

- Any range from: 0 - 2 m up to 0 - 20 m
- Perfect for thick or viscous mediums
- Excellent long term stability
- Integrated over voltage protection circuit
- Optional Hastelloy C diaphragm
- Atex
- HART

Microwave Liquid Level Sensor

- Any range from: 0 - 2 m up to 0 - 20 m
- Perfect for thick or viscous mediums
- Excellent long term stability
- Integrated over voltage protection circuit
- Optional Hastelloy C diaphragm
- Atex
- HART



Capacitive sensor-compact

- Short circuit proof
- Reverse protection
- Switching frequency [Hz] 5
- Ambient temperature [°C] housing: – 25...+70
- Sensor tip: – 25...+120
- EMC-class A
- Protection [EN 60529] IP 67
- LED display
- Housing material PTFE / AISI 316 Ti
- Compressive strength [bar] 30 (25 °C)

Relative Pressure & Differential Pressure Measurement

Smart HART Pressure Transmitter

Ranges: 0 to 0.1 kPa up to 100,000 kPa, 0.075% accuracy.
Optional 316SS housing, HART, IP66/IP67, SIL 2
MID (Measurement Instruments Directive, cert 2004/22/WE) Medium temperature up to 120 C without HT option, Atex



Smart HART Differential Pressure

4...20 mA, 0...20 mA or 0...5 mA output signal + HART
Display with backlight
SIL 2 certificate
Intrinsic safety certificate (ATEX, IECEx)
Explosion proof certificate (ATEX, IECEx)
PED Conformity (97/23/EC)
Programmable zero range, shift, characteristic and damping ratio with local panel keys
Static pressure limit up to 420bar
Accuracy 0,075% (0,05% on request)
Marine certificate – DNV, BV
Gold plated diaphragms
Wetted parts material Hastelloy C276



Smart HART Differential Level Measurement

4...20 mA output signal + HART protocol
Accuracy 0,1%
Intrinsic safety certificate (ATEX, IECEx)
Explosion proof certificate (ATEX, IECEx)
Fully welded sensor guarantees tightness of oil system for many years
Ability to configure measuring range locally



Fixed Range Relative & Differential Pressure

Ranges from 0 to 0.5 up to 0 to 100,000 kPa
IP65, 66, 67 or 68.
Medium temperature up to 120 C without HT option
Temperature compensation standard
ATEX approval



Electromagnetic Flowmeter

Flow 38 Electromagnetic Flowmeter

Industrial inductive flow meter with display unit
Flanged, Sandwich (wafer), Dairy(DIN 11851) or Clamp
Compact or remote transmitter
IP 68



Flow 33 Ex (atex Approved)



Flow 33 Blind Electromagnetic Flowmeter

Compact Flow Sensor
Bluetooth Programming

Flow 38 Batch

Potentiometer for batch size adjustment
Industrial design batch meter
Simple automatic dosing (PLC not required)
Dose set and reset



Flow 45 Battery Electromagnetic Flowmeter

Battery Powered EMF flow meter
Micro SD Archiving Logging
GSM Data Transfer
6 Year Battery Life

FLOW 32 Compact Mag Flowmeter

24 V DC \pm 15 %
Lining material PVDF
Compact Transmitter Design
Small Footprint
Diameter Nominal DN 4÷32
Active Outputs OUT1 – impulse (max. 800 Hz), OUT2 – impulse/status (max. 800 Hz), OUT3 – status , 4÷20 mA



Flow Measurement & Flow Switch

Flow Measurement for compressed air

Leakage detection
Additional measurement of temperature and pressure
User levels configurable
Manipulation detection
Easy configuration via IO-Link interface



Flow Switch

Flow controller compact model G1/4 L=25 mm PNP-normally open



Thermal flow sensor

Air flow controller compact inline
Fluid controllers The thermal flow controllers by EGE can be used wherever flows have to be monitored.



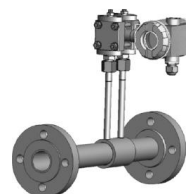
Electromagnetic flowmeter

Nominal size: DN10...1000 (ANSI 0,5...40")
Maximum static pressure 1,6MPa, 2,5MPa or 4MPa
Accuracy: +/-0,5%
Analog outputs: 4...20mA,
Communication protocol: Modbus RTU / RS 485



DP Flow & Flow Nozzle Measurement

- nominal pressure PN6÷PN100
- size of flowmeter DN25÷DN800
- material of flow element (orifice, nozzle): stainless steel 1.4301
- temperature up to 500°C
- material certification
- calculation acc. to PN-EN ISO 5167, ISO/TR 15377



Temperature Measurement

Smart Temperature Transmitter

- 4-20 mA HART protocol
- Local display and keypad
- 0.075% accuracy
- MID Certificate
- ATEX Explosion proof and Intrinsically safe
- Auto Diagnostics
- Galvanic isolation of input and output



Head/Rail Programmable Transmitter

- Head mounted
- Programmable measuring ranges
- Universal Programmable input
- 0.2% accuracy
- Alarm signal
- Thermo-resistance line compensation
- Programmable
- HART
- Thermo-resistance line compensation
- Galvanic insulation between input and output



Temperature Sensors (PT100 Thermocouple)

Material of wetted parts: 304ss or 316Lss (other materials on request). Process connection: M20x1.5, G1/2", 1/2"NPT, flanges according to DIN or ANSI (other process connection on request)
Certificate ATEX



Cable temperature sensors

PT100
Thermocouple
2 3 4 wire



The Cable Temperature Sensors are used as signal sensors for electronic thermostats, regulators and thermometers. The sensors can be used virtually anywhere where you want to monitor temperature especially for applications in the industrial refrigeration industry. The sensor can be mounted in a sensor well or directly.

Proximity Sensors

Inductive Proximity Sensors – Intrinsically Safe

Inductive proximity sensors IGEXH for Ex zones 0/20 heat resistant up to 140 °C. Sensors of the Series IGEXH are intrinsically safe inductive sensors for high-temperature applications in zone 0 hazardous gas atmospheres and zone 20 dust atmospheres



Capacitive proximity switches

Capacitive proximity switches are available as IP 69K sensors up to 90 °C for corrosive environments & for temperatures up to 200 °C. Large switching distances up to 120 mm and sensors made from PTFE or PEEK, especially well-suited for the food industry, are also part of the product program.. EX-proof sensors in accordance with ATEX are available as dust-EX and gas-EX sensors.

Inductive Proximity Sensors High Temperature 160°C

High temperature 160 °C
Series IGMH - Proximity switches
M12 / M18 / M30
Stainless steel sleeve
DC 10...30 V
IP 68 Water-proofed
IP 69K Resistant to
high pressure cleaning



Capacitive proximity switches

Dust - Intrinsically safe • Zone 20
Series KGEX - Level controller
Category 1
Dust Zone 20
Proximity sensors
Level sensors

Infrared Sensors, Opto Sensors, Metal Detectors & IO-Link



Infrared detectors

EGE infrared detectors are characterized by an especially robust, industrial design and construction that protects the unit from mechanical stresses. IP 68 & IP 69K.

Opto sensors

Opto High capacity systems & converters to control the edges of bands or detect band interruptions as well as high performance photoelectric barriers and reflex sensors for large distances.



Metal Detectors

EGE metal detectors are reliable and robust. They are designed for outside applications in harsh climates. The metal detector System 3000 is designed to detect medium-sized and larger parts. The system has a very effective sensitivity setting

IO-Link

IO-Link is a point-to-point communication interface include enabling parametrization of sensors and actuators using a PC / Notebook and an interconnected master module. Sensors with IO-Link can with help of a suitable IO-Link master module easily be integrated into any common bus-system. The Sensor delivers via IO-Link continuously process data.



Ex-Classified Devices

EGE offers a broad spectrum of sensors for industrial automation and process technology applications. All of these are approved for use in hazardous environments. EGE has many years of experience with EX protection and was the first company to globally market inductive and capacitive proximity switches also approved for use in dust atmospheres prone to explosions.

Recording, Indication & Control

KD Paperless Recorder

Up to 12 measuring Inputs
Modbus
Alarm Outputs
FDA Approval
Data Archiving



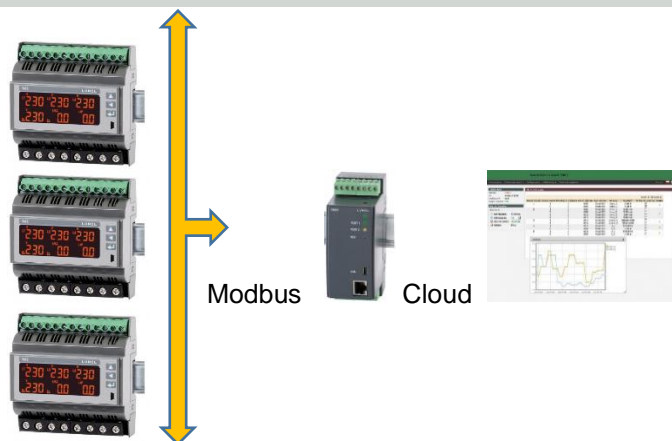
SM61 Web Server



SM61 is a new and practical solution, which provides you continuously visualization of process parameters by any web browser from the most distant places of the world. For communication with SM61 you can use PC, tablet or mobile phone with a web browser. Modbus input with Ethernet webserver

Digital & Analogue Indicators

Universal Input
Alarm outputs
Modbus
PC Configurable



N43 Rail mounted 3-phase power network meter

3-phase power network measurement of:
rms values of voltage and current, active, reactive and apparent power, active, reactive energy, power factors, Frequency THD.
Alarm outputs & Modbus

PID Control

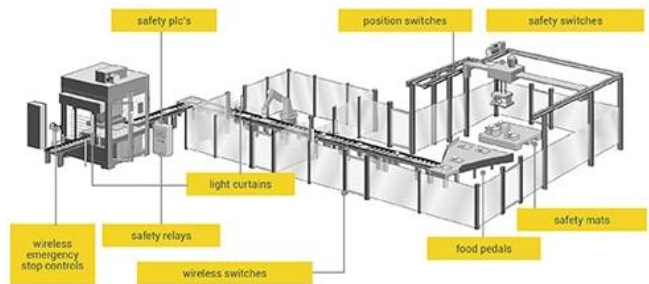
Single and Dual loop PID controllers.
SMART PID Control
Gain Scheduling
Auto / Manual Control
Modbus



Safety Automation

A TOTAL PACKAGE OF MACHINE SAFETY PRODUCTS

In industries, the safety of man and machine and the productivity of the plant go hand in hand. What is required in order to allow the secure and safe installation according to the latest standards? To solve such problems Wolf Process Automation offers support and advice on these current issues.



Safety Light Curtains & Safety Sensors

Safety Light curtains are electro sensitive devices using one or more light beams, emitted by an Emitter and received by a Receiver, to create an intangible controlled area.

Modular Safety Controllers & Safety Relays

Mosaic is a modular, configurable safety controller for protecting machines or plants. Mosaic is capable of monitoring several safety sensors and commands, such as safety light curtains, laser scanners, photocells, mechanical switches, mats, emergency stops, two-hand controls, concentrating management of these in a single, flexible device.



Programmable safety light curtain with integrated muting functions.



The new SAFEGATE type 4 range of safety light curtains is the ideal solution for the protection of a vast number of high-risk industrial applications, in particular those requiring a high level of integration of the muting functions. SAFEGATE guarantees the integration of the muting sensors that can be connected directly to the safety light curtain.

Valves

PILOT OPERATED SOLENOID VALVES

Valves of this type require a pressure differential in the operating pressure for opening and closing.



FORCE PILOT OPERATED SOLENOID VALVES

Valves of this type operate from 0 bar and can also be used wherever directly controlled valves are used.



DIRECT ACTING SOLENOID VALVES

Valves of this design operate the sealing element directly via the solenoid system.



PRESSURE CONTROLLED VALVES

Valves of this design are controlled by an externally operated pilot valve.



High Pressure and Cryogenic Valves ATEX Rated Valves



GSR VENTILTECHNIK GMBH & CO. KG
Im Meisenfeld 1
D-32602 Vlotho-Exter
Germany

Automation Solutions

Monitoring Machine Temperature

Process measurement and control panels for visualization of measured parameters, equipped with meters with 3-color visual alarm display & HMI operator panel. Digital Indicators feed process variable via Modbus to HMI for logging, control & remote SCADA viewing over Ethernet.

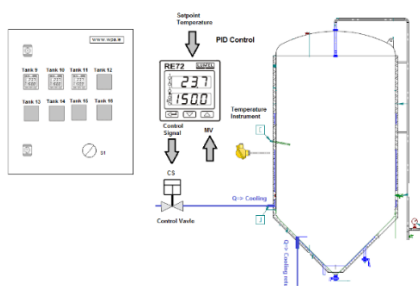
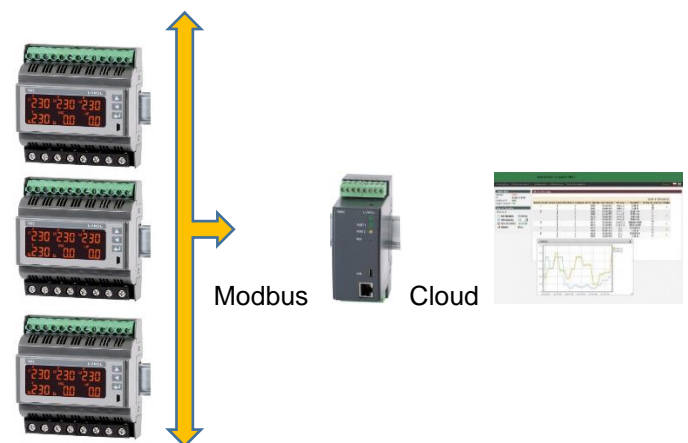


Monitoring & Visualisation of Process Level

Level Visualisation via Webserver
Standardised, cost-effective level visualisation. Easy to use software for up to 30 silos and bins. Access to multiple computers simultaneously via Ethernet using the browser software. No license costs. Level sensors connected via Modbus RTU and all other level sensors using analog signal 4-20mA. Fully wired in the control cabinet or on a DIN rail mounting module with electrical design.

Energy Monitoring

Kilowatt hour measurement
Modbus RS485
Remote visualisation of current and archived data
FTP and web servers
Email Alarms



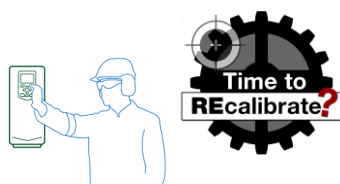
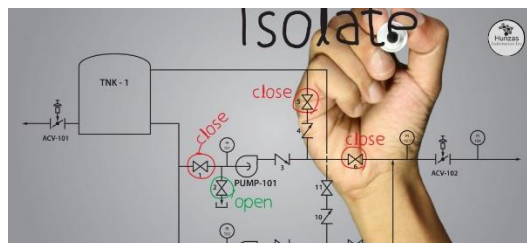
PID Control

Kilowatt hour measurement
Modbus RS485
Remote visualisation of current and archived data
FTP and web servers
Email Alarms

Service

Instrument Design Specification / Documentation

DQ-Design Qualification
IQ-Installation Qualification
OQ- Operational Qualification
PQ-Performance Qualification
URS-User Requirement Statement
FRS-Functional Design Specification



Commissioning & Calibration

Instrument Installation Qualification
Instrument Commissioning & Programming
Traceable Calibration

Loop Checking

Loop Simulation
Range Verification
Loop result documentation



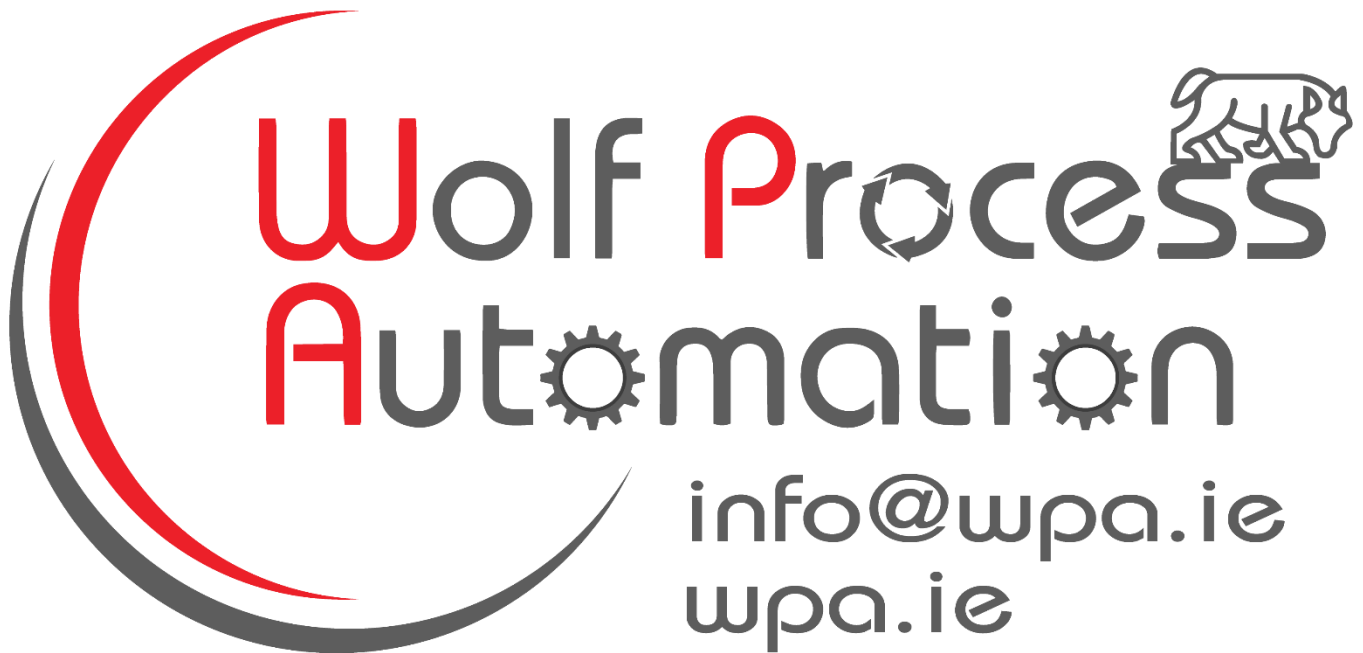
Fault finding

On site fault analysis & solution provision

Training

1. Instrumentation terminology
2. Instrument calibration theory
3. Continuous & point level measurement
4. Continuous fluid flow measurement
5. Continuous temperature measurement
6. Continuous pressure measurement
7. Data acquisition (Recording & Indication)
8. Control
9. Loop checking / testing
10. Instrument sizing and application Calculation





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