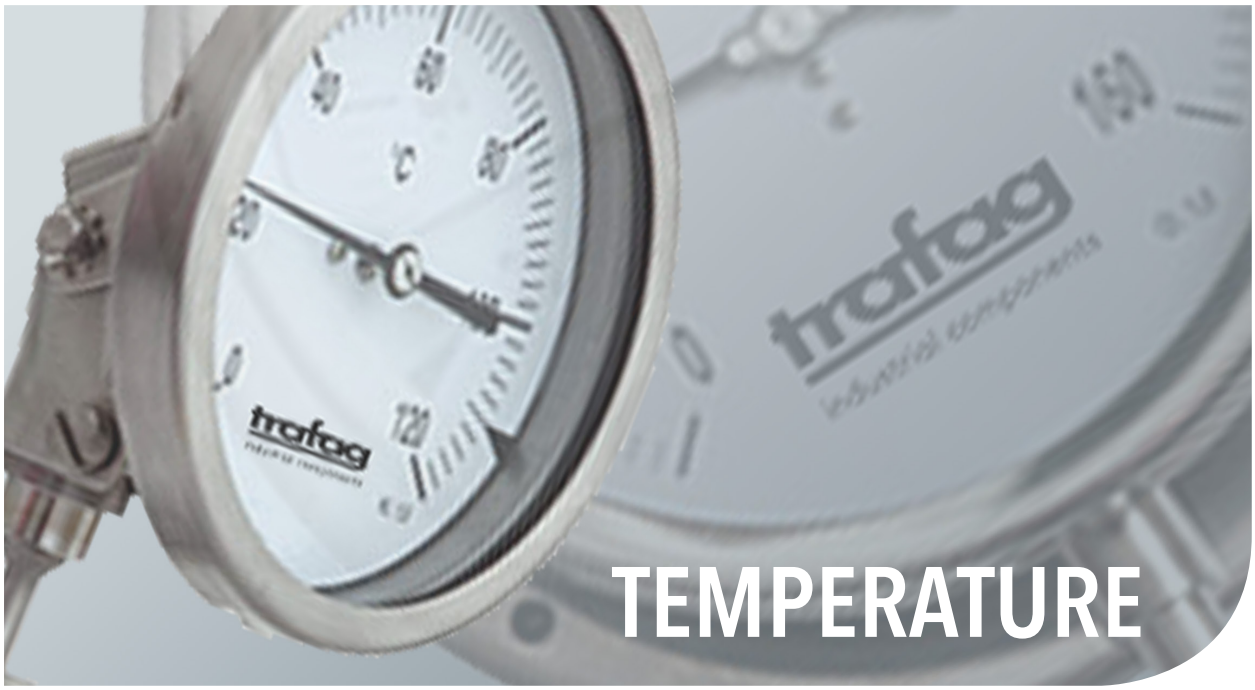
PRESSURE & TEMPERATURE GAUGES



Catalogue H20200a

trafag
industrial components

Applications

The label *Trafag Industrial Components* extends the Trafag brand name to instruments manufactured by qualified partner companies.
Trafag Industrial Components complement the genuine Trafag product range to offer customers a complete portfolio from one single source.

Pressure and temperature applications

Oil & Gas

Petrochemical

Food and Beverages

Water and waste water treatment

Steel and power

Cement

Glass

Pharmaceutical

Product lines: pressure gauges

In order to get a precise pressure measurement in a wide range of different application, it's possible to choose between different measurement systems as Bourdon tube, diaphragm or capsule. Pressure elements are also available in different materials as copper alloy, stainless steel or special alloys, in order to satisfy requirements of every industrial applications.

Bourdon tube pressure gauges for generic applications

These gauges are used for liquid or gaseous fluids, not highly viscous or crystallizing and are manufactured according to EN 837-1.
For any measurements with high dynamic loads, we recommend the use of liquid filling with glycerin or silicone oil.

Diaphragm pressure gauges for aggressive fluids

The application areas for these gauges with diaphragm measuring element are aggressive gaseous and liquid fluids. Gauges are also available with flanged connections forhighly viscous and contaminated fluids, also suitable for aggressive environments.
Special materials for wetted parts are available as option.

Capsule pressure gauges for very low pressures

This type of pressure gauges is particularly suitable for gaseous fluids. These instruments are mainly used in medical, vacuum technology and laboratories applications.

Pressure gauges for differential pressure

Differential pressure gauges are available with a wide range of measuring elements.
They are used to monitor the degree of clogging in filter systems, the level in closed tanks and the flow of gaseous and liquid fluids.

TMP101

Data sheet
www.trafag.com/H20001

The TMP101 All Stainless Steel Pressure Gauge with bourdon tube sensing element offers a robust design in housing size ≥ DN100.

Features

- All SS measuring system
- Socket-case, direct welded
- Dry / liquid filled
- CE marking

Reference

- EN 837-1
- PED 97/23/EC

Standard parameters		
Accuracy	CL 1.0	
Ambient temperature	-40 ... +65°C (without dampening liquid)	-20 ... +65°C (with dampening liquid)
Service temperature	300°C max	
Pressure limits	Steady pressure up to FS value Fluctuating pressure up to 90% of FS value	Short time 1.3 x FS value for range up to 100 bar Short time 1.15 x FS value for range above 100 bar
Measuring range	-1 ... 0 to 0 ... 1600 bar	
Weld joints	TIG argon arc welding	

TMP102

Data sheet
www.trafag.com/H20002

The TMP102 All Stainless Steel Pressure Gauge with bourdon tube sensing element offers a robust design with external zero adjustment.

Features

- All SS measuring system
- Socket-case, direct welded
- Threaded / Flanged connection
- Over-pressure safety up to 10 times FS max. 40 bar

Reference

- EN 837-1
- PED 97/23/EC

Standard parameters		
Accuracy	CL 1.0	
Ambient temperature	-40 ... + 65°C (without dampening liquid)	-20 ... + 65°C (with dampening liquid)
Service temperature	300°C max	
Pressure limits	Steady pressure up to FS value Fluctuating pressure up to 90% of FS value	Short time 1.3 x FS value for range up to 100 bar Short time 1.15 x FS value for range above 100 bar
Measuring range	-1 ... 0 to 0 ... 1600 bar	
Weld joints	TIG argon arc welding	

TMP103

Data sheet
www.trafag.com/H20003

The TMP103 All Stainless Steel Pressure Gauge with bourdon tube sensing element offers a robust design in housing size ≤ DN100.

Features

- All SS measuring system
- Socket-case, direct welded
- Dry / liquid filled

Reference

- EN 837-1

Standard parameters		
Accuracy	CL 1.6 (DN63 / DN80 / DN100) & CL 2.5 (DN50)	
Ambient temperature	-40 ... + 65°C (without dampening liquid)	-20 ... + 65°C (with dampening liquid)
Service temperature	300°C max	
Pressure limits	Steady pressure up to FS value Fluctuating pressure up to 90% of FS value	Short time 1.3 x FS value for range up to 100 bar Short time 1.15 x FS value for range above 100 bar
Measuring range	-1 ... 0 to 0 ... 1000 bar	
Weld joints	TIG argon arc welding	

TMP104

Data sheet
www.trafag.com/H20004

The TMP102 All Stainless Steel Pressure Gauge with bourdon tube sensing element offers a robust design in DIN style case and ring.

Features

- All SS measuring system
- Socket-case, direct welded
- Dry / liquid filled
- CE marking

Reference

- EN 837-1
- PED 97/23/EC

Standard parameters		
Accuracy	CL 1.0 (DN100 / DN150) & CL 1.6 (DN63)	
Ambient temperature	-40 ... + 65°C (without dampening liquid)	-20 ... + 65°C (with dampening liquid)
Service temperature	300°C max	
Pressure limits	Steady pressure up to FS value Fluctuating pressure up to 90% of FS value	Short time 1.3 x FS value for range up to 100 bar Short time 1.15 x FS value for range above 100 bar
Measuring range	-1 ... 0 to 0 ... 1600 bar	
Weld joints	TIG argon arc welding	

TMP201

Data sheet
www.trafag.com/H20005

The TMP201 High Safety Pressure Gauge is equipped with a solid front with full blow-out back.

Features

- Safety pattern type
- All stainless steel system
- Dry / liquid filled
- CE marking

Reference

- EN 837-1
- PED 97/23/EC

Standard parameters		
Accuracy	CL 1.0	
Ambient temperature	-40 ... + 65°C (without dampening liquid)	-20 ... + 65°C (with dampening liquid)
Service temperature	300°C max	
Pressure limits	Steady pressure up to FS value Fluctuating pressure up to 90% of FS value	Short time 1.3 x FS value for range up to 100 bar Short time 1.15 x FS value for range above 100 bar
Measuring range	-1 ... 0 to 0 ... 1600 bar	
Weld joints	TIG argon arc welding	

TMP202

Data sheet
www.trafag.com/H20006

The TMP202 All Stainless Steel Pressure Gauge is equipped with a solid front with external zero adjustment.

Features

- Solid front with full blow back
- All stainless steel system
- External zero adjustment
- Dry / liquid filled
- CE marking

Reference

- EN 837-1
- PED 97/23/EC

Standard parameters		
Accuracy	CL 1.0	
Ambient temperature	-40 ... + 65°C (without dampening liquid)	-20 ... + 65°C (with dampening liquid)
Service temperature	300°C max	
Pressure limits	Steady pressure up to FS value Fluctuating pressure up to 90% of FS value	Short time 1.3 x FS value for range up to 100 bar Short time 1.15 x FS value for range above 100 bar
Measuring range	-1 ... 0 to 0 ... 1600 bar	
Weld joints	TIG argon arc welding	

TMP203

Data sheet
www.trafag.com/H20007

The TMP203 High Safety Pressure Gauge in miniature design DN63 is ideally suited where space is tight.

Features

- All SS measuring system
- Socket-case, direct welded
- Dry / liquid filled

Reference

- EN 837-1

Standard parameters		
Accuracy	CL 1.6	
Ambient temperature	-40 ... + 65°C (without dampening liquid)	-20 ... + 65°C (with dampening liquid)
Service temperature	300°C max	
Pressure limits	Steady pressure up to FS value Fluctuating pressure up to 90% of FS value	Short time 1.3 x FS value for range up to 100 bar Short time 1.15 x FS value for range above 100 bar
Measuring range	-1 ... 0 to 0 ... 1000 bar	
Weld joints	TIG argon arc welding	

TMP204

Data sheet
www.trafag.com/H20008

The TMP204 Pressure Gauge Phenol case with a solid front, with full blow back.

Features

- Solid front with full blow back
- All stainless steel system
- Dry / liquid filled
- Light weight
- Stabilized accuracy

Reference

- ANSI B 40.100

Standard parameters		
Accuracy	Grade 2A (± 0.5%)	
Ambient temperature	-20 ... + 65°C (without dampening liquid)	10 ... + 65°C (with dampening liquid, glycerin)
Service temperature	120°C max	
Pressure limits	Steady pressure up to FS value Fluctuating pressure up to 90% of FS value	Short time 1.3 x FS value for range up to 100 bar Short time 1.15 x FS value for range above 100 bar
Measuring range	-1 ... 0 to 0 ... 1600 bar	
Weld joints	TIG argon arc welding	

TMP301

Data sheet
www.trafag.com/H20015

The TMP301 All Stainless Steel Differential Pressure Gauge with double diaphragm type Single Side static up to 200 bar sustainable.

Features

- Single side static sustainable
- Static pressure 400 bar max.
- External Zero adjustment
- Electric contact version
- Dry / liquid filled
- ATEX certified

Reference

- EN 837-3

Standard parameters		
Accuracy[1]	CL 1.6 (AISI 316L SS / Hastelloy C276)	CL 2.5 (Monel 400)
Ambient temperature	-40 ... + 60°C (without dampening liquid)	-20 ... + 60°C (with dampening liquid)
Service temperature	100°C max	
Static pressure limits (on either side)	100 bar / 250 bar / 400 bar	
Over-pressure safety	400 bar for ranges 0 ... 0.4 bar up to 0 ... 40 bar	
Zero shift	Max. ± 2% at 20°C and max. static pressure	
Measuring range	0 ... 60 mbar to 0 ... 40 bar	

TMP501

Data sheet
www.trafag.com/H20009

The TMP501 All Stainless Steel Pressure Gauge with bourdon tube sensing element offers a robust design with electric contact, dome style.

Features

- All SS measuring system
- Socket-case, direct welded
- CE marked contacts
- Liquid filled versions

Reference

- EN 837-1

Standard parameters		
Accuracy	CL 1.0	
Ambient temperature	-40 ... + 65°C (without dampening liquid)	-20 ... +65°C (with dampening liquid)
Service temperature	200°C max	
Pressure limits	Steady pressure up to FS value	Fluctuating pressure up to 90% of FS value
Weld joint	TIG argon arc welding	
Measuring range	-1 ... 0 to 0 ... 1600 bar	

TMP502

Data sheet
www.trafag.com/H20010

The TMP502 All Stainless Steel Pressure Gauge with bourdon tube sensing element offers a robust design with electric contact, hi-version case.

Features

- All SS measuring system
- Socket-case, direct welded
- CE marked contacts
- Liquid filled versions

Reference

- EN 837-1

Standard parameters		
Accuracy	CL 1.0	
Ambient temperature	-40 ... + 65°C (without dampening liquid)	-20 ... + 65°C (with dampening liquid)
Service temperature	200°C max	
Pressure limits	Steady pressure up to FS value	Fluctuating pressure up to 90% of FS value
Weld joint	TIG argon arc welding	
Measuring range	-1 ... 0 to 0 ... 1600 bar	

TMP601

Data sheet
www.trafag.com/H20012

The TMP601 All Stainless Steel Pressure Gauge with welded capsule allows the monitoring of low pressures down to 6 mbar.

Features

- All SS measuring system
- Socket-case, direct welded
- Low pressure application (<0.6 bar)
- Zero adjustment on dial

Reference

- EN 837-3

Standard parameters		
Accuracy	CL 1.6	
Ambient temperature	-40 ... + 65°C	
Service temperature	150°C max	
Pressure limits	Steady pressure up to FS value	Fluctuating pressure up to 90% of FS value
Weld joints	TIG argon arc welding	
Measuring range	-600 ... 0 mbar to 0 ... 600 mbar	

TMP602

Data sheet
www.trafag.com/H20013

The TMP602 All Stainless Steel Pressure Gauge with diaphragm sensor allows the monitoring of low pressures down to 6 mbar.

Features

- All SS measuring system
- Socket-case, direct welded
- Threaded / Flanged connection
- External zero adjustment

Reference

- EN 837-3

Standard parameters		
Accuracy	CL 1.6	
Ambient temperature	-40 ... + 65°C	
Service temperature	100°C max	
Pressure limits	Steady pressure up to FS value	Fluctuating pressure up to 90% of FS value
Weld joints	TIG argon arc welding	
Measuring range	-1 ... 0 to 0 ... 25 bar	
	0 ... 6 to 0 ... 600 mbar	

TMP603

Data sheet
www.trafag.com/H20014

The TMP603 Stainless Steel Case Brass Pressure Gauge with welded capsule allows the monitoring of low pressures with external zero adjustment.

Features

- Compact design
- Stainless steel case
- Zero adjustment on dial
- Low pressure application (<0.6 mbar)

Reference

- EN 837-3

Standard parameters	
Accuracy	CL 1.6
Ambient temperature	-40 ... +65°C
Service temperature	100°C max
Pressure limits	Steady pressure up to 75% of FS value, No over-pressure
Weld joint	Silver alloy brazing
Measuring range	-600 ... 0 to 0 ... 600 mbar

TMP604

Data sheet
www.trafag.com/H20016

The TMP604 All Stainless Steel Pressure Gauge with diaphragm sensor allows the monitoring of low pressures down to 6 mbar with one or two micro switches.

Features

- All SS measuring system
- Socket-case, direct welded
- Threaded / Flanged connection
- Over-pressure safety up to 10 times FS max. 40 bar

Reference

- EN 837-3

Standard parameters		
Accuracy	CL 1.6	
Ambient temperature	-20 ... +60°C / -40 ... +60°C with silicon oil dampening	
Service temperature	100°C max	
Pressure limits	Over pressure up to 1.3 FS value Steady pressure up to FS value	Fluctuating pressure up to 90% of FS value
Weld joint	TIG argon arc welding	
Measuring range	0 ... 10 to 0 ... 250 mbar	
	0 ... 0,4 to 0 ... 40 bar	

TMP801

Data sheet
www.trafag.com/H20011

The TMP801 Test Gauge with high accuracy CL0.25 is designed for calibration and test applications.

Features

- Precision measuring system
- High resolution dial
- Knife Edge pointer
- Anti-parallax mirror band
- Jewel bearing movement
- Easy to read scale

Reference

- EN 837-1

Standard parameters	
Accuracy	CL 0.25
Ambient temperature	20 ... +65°C
Service temperature	65°C max
Pressure limits	Steady pressure up to 75% of FS value
Weld joints	Silver alloy brazing
Measuring range	-1 ... 0 to 0 ... 700 bar

Product line: temperature gauges

Temperature gauges work with bimetallic or gas expansion measuring principle and temperature ranges from -200 ° C to +700 ° C with different classes of accuracy, response time and the ability to withstand environmental changes. They are available with different process connection, diameter and length of the bulb, allowinga flexible design for reaching the measuring point. If required by the application, the thermometers can be installed inside a thermowell.

Bimetal temperature gauges

Temperature measurement is made by a bimetal system placed inside the thermometric sensor.
The temperature variation causes the bimetal spiral or helix to rotate on its axis: value of this rotation is then indicated on a graduated temperature scale. Bimetal thermometers are available for temperature ranges from - 70°C up to 500°C with an accuracy according to class 1, standard EN 13190.

Inert gas temperature gauges

These thermometersare made with a bulb sensor, a capillary and a case containing a tubular spring filled with a pressurized inert gas. Any temperature changes causes a change in the inner gas pressure: this pressure variation is then measured by a Bourdon tube system and indicated on a dial with a scale with temperature units. Inert gas temperature gauges are available for temperature ranges from -200°C to 700°C with an accuracy according to class 1. They are designed for heavy applications, and can sustain severe shocks, vibrations and resist to high ambient temperatures and humidity.

TMT501

Data sheet
www.trafag.com/H20017

The TMT501 Industrial Bimetal Thermometer offers a wide range of options and features for general purpose applications.

Features

- Bimetal helix system
- Hermetically sealed
- Stem length max 1.5 Mtr
- Optional External Zero adjustment

Reference

- EN 13190

Standard parameters		
Accuracy	CL 1.0 (Class 1)	
Ambient temperature	-20 ... +60°C	
Over range limits	110% full scale	
Stem pressure rating	25 bar (Without thermowell)	
Weld joints	TIG argon arc welding	
Measuring range	-80 ... 0 to 0 ... 600°C	-110 ... 0 to 0 ... 1100°F

TMT502

Data sheet
www.trafag.com/H20018

The TMT502 Industrial Bimetal Thermometer offers a wide range of options and features for general purpose applications.

Features

- Bimetal helix system
- Hermetically sealed
- Every angle entry
- External zero adjustment

Reference

- EN 13190

Standard parameters		
Accuracy	CL 1.0 (Class 1)	
Ambient temperature	-20 ... +60°C	
Over range limits	110% full scale	
Stem pressure rating	25 bar (Without thermowell)	
Weld joints	TIG argon arc welding	
Measuring range	-80 ... 0 to 0 ... 600°C	-110 ... 0 to 0 ... 1100°F

TMT701

Data sheet
www.trafag.com/H20019

The TMT701 Industrial Filled System Thermometer, with external zero adjustment offers a wide range of options and features for general purpose applications.

Features

- Inert gas filled expansion
- Filled versions
- Bi-metal compensation

Reference

- EN 13190

Standard parameters		
Accuracy	CL 1.0 (Class 1)	
Permissible ambient temperature	-40 ... +60°C with/without dampening	
Storage & Transport temperature	-50 ... +70°C without liquid dampening	-20 ... +60°C with liquid dampening
Over range limits	110% full scale	
Stem pressure rating	25 bar (Without thermowell)	
Weld joints	TIG argon arc welding	
Measuring range	-200 ... 0 to 0 ... 700°C	-330 ... 0 to 0 ... 1290°F

TMT702

Data sheet
www.trafag.com/H20020

The TMT702 Industrial Filled System Thermometer offers a wide range of options and features for general purpose applications.

Features

- Inert gas filled expansion
- Filled versions
- Bi-metal compensation

Reference

- EN 13190

Standard parameters		
Accuracy	CL 1.0 (Class 1)	
Permissible ambient temperature	-40 ... +60°C with/without dampening	
Storage & Transport temperature	-50 ... +70°C without liquid dampening	-20 ... +60°C with liquid dampening
Over range limits	110% full scale	
Stem pressure rating	25 bar (Without thermowell)	
Weld joints	TIG argon arc welding	
Measuring range	-200 ... 0 to 0 ... 700°C	-330 ... 0 to 0 ... 1290°F

TMT703

Data sheet
www.trafag.com/H20021

The TMT702 Industrial Filled System Thermometer with electric contact, offers a wide range of options and features for general purpose applications

Features

- Inert gas filled expansion
- Filled versions
- Bi-metal compensation

Reference

- EN 13190

Standard parameters		
Accuracy	CL 1.0 (Class 1)	
Permissible ambient temperature	-40 ... +60°C with/without dampening	
Storage & Transport temperature	-50 ... +70°C without liquid dampening	-20 ... +60°C with liquid dampening
Over range limits	110% full scale	
Stem pressure rating	25 bar (Without thermowell)	
Weld joints	TIG argon arc welding	
Measuring range	-200 ... 0 to 0 ... 700°C	-330 ... 0 to 0 ... 1290°F

Accessories

TA102

GAUGE SIPHON

Data sheet
www.trafag.com/H20022

Standard specifications	
Type	Coiled type
Material	AISI 316 SS
Instrument connection[1]	½" BSP or ½" NPT (F)
Pipe size & schedule	Pipe ½" Schedule 80
Connection type	Weld-in connection
Process connection[1]	½" BSP or ½" NPT (M)
Maximum working pressure	200 bar
Maximum working temperature	400°C

1) Other process/instruments connections are available through adaptors.

TA201

PULSATION DAMPENER / GAUGE SNUBBER

Data sheet
www.trafag.com/H20022

Standard specifications	
Type	Adjustable needle
Material	AISI 316 SS
Instrument connection[1]	½" NPT (F)
Process connection[1]	½" NPT (M)
Gaskets / Seals	Viton
Maximum working pressure	400 bar
Maximum working temperature	180°C

1) Other process/instruments connections are available through adaptors.

TA202

OVERLOAD PROTECTOR / GAUGE SAVER

Data sheet
www.trafag.com/H20022

Standard specifications	
Type	Bellow or Piston
Working range	200 mbar … 400 bar
Material	AISI 316 SS
Instrument connection[1]	½" NPT (F)
Process connection[1]	½" NPT (M)
Gaskets / Seals	Viton
Maximum working pressure	600 bar
Operating temperature	180°C

1) Other process/instruments connections are available through adaptors.

TA203
COOLING TOWER

Data sheet
www.trafag.com/H20022

Standard specifications	
Type	5 cooling fins
Material	AISI 316 SS
Instrument connection[1]	1/2" NPT or ½" BSP (F)
Process connection[1]	1/2" NPT or ½" BSP (M)
Maximum working pressure	1000 bar
Maximum working temperature	300°C

1) Other process/instruments connections are available through adaptors.

Diaphragm seal

TD101
THREADED DIAPHRAGM SEAL

Data sheet
www.trafag.com/H20022

Standard specifications	
Range	-1 … 0 to 0 … 400 bar
Top chamber material	AISI304 SS
Diaphragm	AISI 316 SS, laser welded on upper parts
Gaskets	PTFE
Bottom chamber material	AISI 316 L SS
Instrument connection[1]	½" NPT (F) or ½" BSP (F)
Sealing fluid	Silicon DN200 (-40 … + 205°C)
Process connection[1]	½" NPT (M) or ½" BSP (M)
Assembly	Direct

1) Other process/instruments connections are available.

TD103
THREADED DIAPHRAGM SEAL

Data sheet
www.trafag.com/H20022

Standard specifications	
Range	-1 … 0 to 0 … 600 bar
Chamber material	AISI316 SS
Diaphragm	AISI 316 L SS
Instrument connection[1]	½" NPT (F) or ½" BSP (F)
Sealing fluid	Silicon DN200 (-40 … + 205°C)
Process connection[1]	½" NPT (M) or ½" BSP (M)
Assembly	Direct

1) Other process/instruments connections are available.

TD104

THREADED DIAPHRAGM SEAL

Data sheet
www.trafag.com/H20022

Standard specifications	
Range	0 … 4 to 0 … 600 bar
Body material	AISI316 SS
Diaphragm	AISI 316 L SS
Instrument connection[1]	½" NPT (F) or ½" BSP (F)
Sealing fluid	Silicon DN200 (-40 … + 205°C)
Process connection[1]	½" NPT (M) or ½" BSP (M)
Assembly	Direct

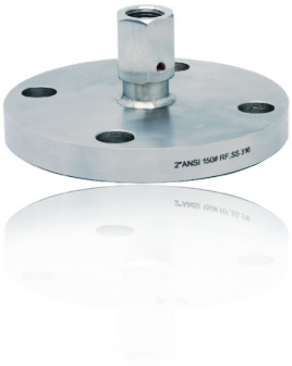
1) Other process/instruments connections are available.

TD202

FLANGED DIAPHRAGM SEAL

Data sheet
www.trafag.com/H20022

Standard specifications	
Range	-1 … 0 to 0 … 400 bar
Chamber / Flange material	AISI316 SS
Diaphragm	AISI 316 L SS
Instrument connection[1]	½" NPT (F) or ½" BSP (F)
Sealing fluid	Silicon DN200 (-40 … + 205°C)
Process connection[1]	Flange as for ANSI B16.5 / EN1092-1 / JIS B 2210
Flange facing type	Raised face
Assembly	Direct



1) Other process/instruments connections are available.

TD301

SANITARY DIAPHRAGM SEAL

Data sheet
www.trafag.com/H20022

Standard specifications	
Range	-1 … 0 to 0 … 40 bar Tri-Clover
Chamber material	AISI316 SS
Diaphragm	AISI 316 L SS
Instrument connection[1]	½" NPT (F) or ½" BSP (F)
Sealing fluid	Food Grade oil (-20 … + 140°C)
Process connection[1]	1" up to 2.5" Connection
Assembly	Direct

1) Other process/instruments connections are available.

TD302

SANITARY DIAPHRAGM SEAL

Data sheet
www.trafag.com/H20022

Standard specifications	
Range	0 … 1 to 0 … 40 bar
Chamber material	AISI316 SS
Diaphragm	AISI 316 L SS
Instrument connection[1]	½" NPT (F) or ½" BSP (F)
Sealing fluid	Food Grade oil (-20 … + 140°C)
Process connection[1]	Union-nut (DIN 11851 / SMS / RJT / APV / IDF / ISS)
Assembly	Direct

1) Other process/instruments connections are available.

TD303

SANITARY DIAPHRAGM SEAL

Data sheet
www.trafag.com/H20022

Standard specifications	
Range	0 … 1,6 to 0 … 40 bar DIN 11851
Chamber material	AISI316 SS
Diaphragm	AISI 316 L SS
Instrument connection[1]	½" NPT (F) or ½" BSP (F)
Sealing fluid	Glycerine (10 … + 150°C)
Process connection[1]	1.5" Connection
Assembly	Direct
Capillary	Optional
Armour	Optional
Remote mounting length	Optional

1) Other process/instruments connections are available.

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Pressure and Temperature Gauges

The label *Trafag Industrial Components* extends the Trafag brand name to instruments manufactured by qualified partner companies. *Trafag Industrial Components* complement the genuine Trafag product range to offer customers a complete portfolio from one single source.

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Subject to change H20200a Trafag Italia Srl 06/2017

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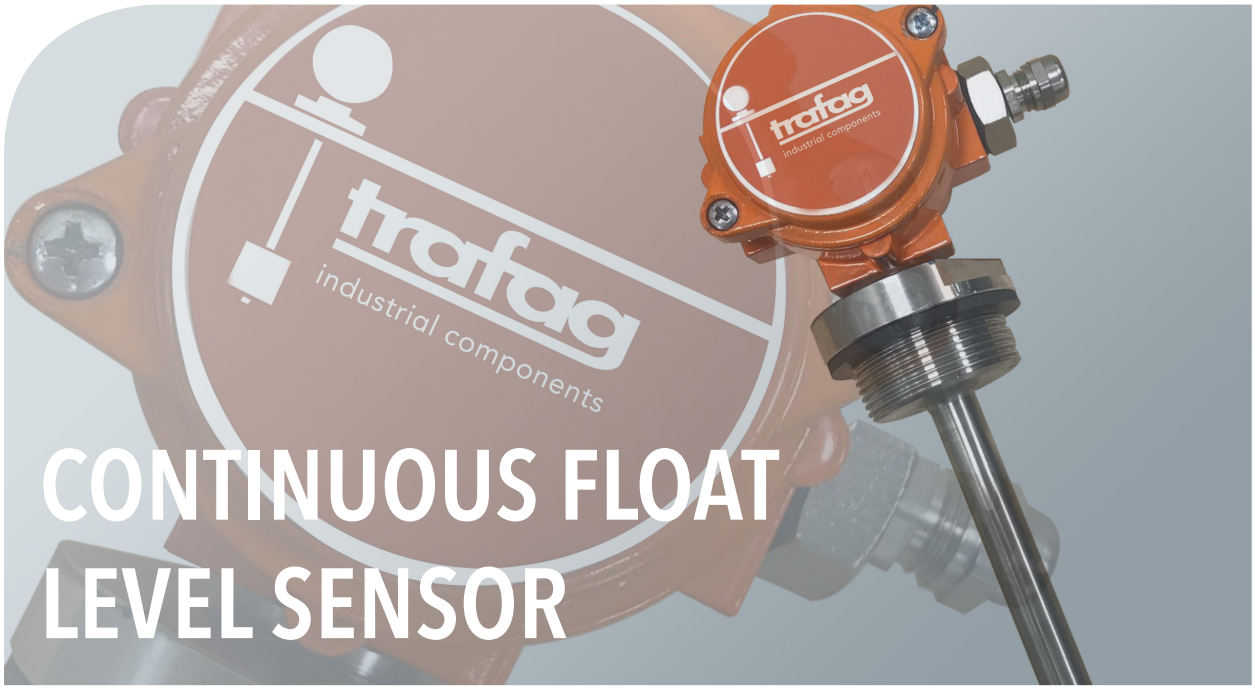
LEVEL MEASUREMENT



CONTINUOUS FLOAT LEVEL SENSOR

FLOAT LEVEL SWITCH
OPTICAL LEVEL SWITCH

Catalogue H20201c

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Applications

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Trafag Industrial Components complement the genuine Trafag product range to offer customers a complete portfolio from one single source.

Level Sensors applications

Water treatment

Machine tools

Mobile hydraulics

Food and Beverages

Chemical

Pharmaceutical

Product lines: level sensors and level switches

In order to get a precise level measurement in a wide range of different application, it's possible to choose between different measurement systems as reed contact, conductive or optoelectronic.
The level sensors or level switches are also available in different materials as stainless steel, PP, PVFD, PVC or brass, in order to satisfy requirements of every industrial applications.

Level sensor - TFC

The principle of operation is of potentiometric type, based on the gradual shutdown of a chain of resistors and reed contacts, placed inside the guiding rod, by a magnetic float. An analogue output signal in provided with a measuring resolution of 5, 10 or 20mm.

Level switch - TFS

The principle of operation of these instruments is based on the drive of one or more magnetic reed contacts, placed inside of the measuring rod, by one or more floats. Up to 6 floats with individual switchpoints are available for comprehensive monitoring of the liquid level.

Optical level - TOS

The optical sensor is located in a metallic body which includes a polysulfone prism inside of which there is inserted an infrared transceiver. As soon as the sensor is immersed in the liquid, the refraction index of the prism changes and a large part of the infrared beam is dispersed in the liquid, causing the output to change state.

Conductive level - TCS

Conductive probes constitute a valid solution for controlling the level of liquid with minimum value of conductivity of 5µS/cm.
The resistance between two measuring electrodes changes by the presence or absence of a medium. In single-rod probes, the electrically conductive tank wall serves as a counter electrode.

TFC - Continous float level sensor

Data sheet
www.trafag.com/H20040

The principle of operation is of potentiometric type, based on the gradual shutdown of a chain of resistors and reed contacts, placed inside the guiding rod, by a magnetic float. An analogue output signal in provided with a measuring resolution of 5, 10 or 20mm.

Features

- Measuring resolution 5, 10, 20 mm
- Analogue output 4 ... 20 mA, 0 ... 5 or 0 ... 10 VDC
- Optional temperature sensor PT1000
- Minimum degree of protection IP65

Reference

- EN61326-1

Standard parameters			
Type	TFCO	TFCS	TFCP
Floats	Spansil – Butadiene – Acrylonitrile Copolymer	Stainless steel AISI316	PVDF – PP – PVC
Ambient temperature	-30 ... + 55°C	-30 ... +55°C	-30 ... +55°C
Media temperature	Up to 105°C, optional 120°C	Up to 105°C, optional 150°C	Up to 130°C (PVDF) Up to 90°C (PP) Up to 60°C (PVC)
Working pressure[1]	20 bar max	50 bar max	6 bar (PVDF or PVC) max 3 bar (PP) max

[1)] Depend of type of float.

TFS - Float level switch

Data sheet
www.trafag.com/H20041

The principle of operation of these instruments is based on the drive of one or more magnetic reed contacts, placed inside of the measuring rod, by one or more floats. Up to 6 floats with individual switchpoints are available for comprehensive monitoring of the liquid level.

Features

- Up to 6 switch points
- Minimum degree of protection IP65
- Optional temperature sensor PT1000 or thermostat
- Potted electrical contacts

Reference

- EN61010-1

Standard parameters			
Type	TFSO	TFSS	TFSP
Floats	Spansil – Butadiene – Acrylonitrile Copolymer	Stainless steel AISI316	PVDF – PP – PVC
Ambient temperature	-30 ... + 55°C	-30 ... +55°C	-30 ... +55°C
Media temperature	Up to 105°C, optional 120°C	Up to 105°C, optional 150°C or 180°C	Up to 130°C (PVDF) Up to 90°C (PP) Up to 60°C (PVC)
Working pressure[1]	20 bar max	50 bar max	6 bar (PVDF or PVC) max 3 bar (PP) max

[1)] Depend of type of float.

TOS - Optical level switch

Data sheet
www.trafag.com/H20042

The optical sensor is located in a metallic body which includes a polysulfone prism inside of which there is inserted an infrared transceiver. As soon as the sensor is immersed in the liquid, the refraction index of the prism changes and a large part of the infrared beam is dispersed in the liquid, causing the output to change state.

Features

- No moving parts
- Hermetic construction, sealed electronics
- Minimum degree of protection IP65

Reference

- EN61010-1

Standard parameters	
Sensor	Infrared transceiver
Ambient temperature	-30 ... +55°C
Media temperature	-40 ... +85°C
Working pressure	260 bar max (25°C) or 200 bar max (85°C)

TCS - Conductive level probe

Data sheet
www.trafag.com/H20044

Conductive probes constitute a valid solution for controlling the level of liquid with minimum value of conductivity of 5µS/cm. The resistance between two measuring electrodes changes by the presence or absence of a medium. In single-rod probes, the electrically conductive tank wall serves as a counter electrode.

Features

- No calibration required
- Coated electrodes
- Hermetic construction, epoxy resin sealed
- Minimum degree of protection IP65
- No moving parts in the tank

Reference

- EN61010-1

Standard parameters	
Max electrodes length	2000 mm
Electrodes material	Inox 316 SS
Electrodes coating	Kynar, PTFE or Polyolefins
Working pressure	-1 ... 6 bar
Media temperature	100°C max
Degree of protection	IP65

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industrial components

Level measurement

The label *Trafag Industrial Components* extends the Trafag brand name to instruments manufactured by qualified partner companies. *Trafag Industrial Components* complement the genuine Trafag product range to offer customers a complete portfolio from one single source.

Main contact for Trafag Level measurement
Trafag Italia Srl

Trafag Group Headquarters
Switzerland

Trafag Subsidiaries
Austria
Czech Republic
France
Germany
Great Britain
India
Japan
Spain
USA
Poland (Joint Venture)
Russia (Joint Venture)

Representatives
in more than 40 countries

Subject to change H20201c Trafag Italia Srl 03/2018

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FLUID RESISTANCE GUIDE

The information in this document is to be used only as a guide to select equipment for appropriate chemical compatibility. Before permanent installation, test the equipment with the chemicals and under the specific conditions of your application. Factors such as variations in the material, temperature, pressure, concentrations and exposure time can cause equipment to fail, even though the material probes passed tests in laboratory or initial tests in the application.
Trafag does not warrant (neither express nor implied) that the information in this chart is accurate or complete or that any material is suitable for any purpose.

09/2020
Data sheet H70332a
Subject to change

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trafag
sensors controls

CODES: S - SATISFACTORY F - FAIR U - UNSATISFACTORY T - TEST FOR SPECIFIC APPLICATION

RESILIENT MATERIALS													PLASTICS																			METALS											
BUNA 'N' (NBR)	ETHYLENE PROPYLENE (EPDM)	HYPALON (CSM)	NEOPRENE (CR)	URETHANE	SILICONE	VITON (FKM/FPM)	BUTYL	FLUOROSILICONE	HYTREL	CELCON	DELRIN	LEXAN	NYLON	POLYSULFONE	PVC	TEFLON	POLYPROPYLENE	POLYETHYLENE	POLYPHENYLENE SULFIDE	POLYCARBONATE	ULTEM	ST. ST. DIN 1.4435/1.4404	STEEL	ST. ST. AISI430	ST. ST. DIN 1.4301/1.4305/1.4542	SILVER	49 - NICKEL - IRON	MONEL	LEAD	IRON	INCONEL	COPPER	BRONZE	BRASS	ALUMINUM	
U	S	T	U	U	U	U	F	U	F	S	T	U	U	U	U	S	U	U	S	U		S	U	F	F	S		S	S	S	T	U	U	U	S	Acetaldehyde
S	S		F	U	F	F	F	F					S	U		S	S	S	S	U		S	U	S	S	S		U	S	F		U	U	U	U	Acetamide
U	S		U	U	U	U	T	U	U	S					U	S								S	S			S		S	S	S	S	F	F	Acetate, Amyl
T	S		T	U	T	T	T	U	U	T	T	S	S	S	T	S	F	T	S	S	S	S	U	F	S	F		F		U	U	U	U	U	F	Acetic acid, 10%
T	F		F	U	S	U	F	U	U	U	U	S	U	T	U	S	F	T	S	T	T	F	U	F	F	S	U	S	F	U	U	U	U	U	S	Acetic acid, Glacial
U	F	T	T	U	U	U	F	U	U	F	U		U	U	U	S	T	U	S	U		T	U	U	T	S		S	U	T	S	U	U	U	S	Acetic anhydride
U	S	U	U	U	U	U	F	U	U	F	F	U	S	U	U	S	S	T	S	U	U	S	S	F	F	S		S	F	S	S	S	S	S	F	Acetone
S	S	T	F		U	S	T	U	T		S	T	S	U	S	S	U	F	S	U		S	S	S	S	U		S	U	S		U	U	T	S	Acetylene gas
U	U		U		U	S	U						U			S						U	U	U	U			U	U	U					F	Acetylene tetra-chloride
U		S	U			S																S	T	T	T	T									S	Acrylic acid
U	S	S	F	U	U	S	F	T	T		S		S	S	S	S		T	S					F	S	S		S				S	S	F		Alcohol amyl
F	S	S	F	T	F	F	F	T	T	S	S		S		S	S		T			S		S	F	S	S		F	F	F	S	F	F	F	T	Alcohol ethyl (Ethanol)
S	S	S	F	U	S	U	F	S	T	S	S		S	U	S	S	S	S			S	S	S	F	S	S		S	F	S	S	S	S	S	T	Alcohol methyl (Methanol)
U	U	U	U	U	U	S	U	T					S			S								S	S							S		S		Alkazine
S			S	S	S								S			S												S				S	S	S	S	Alumina
S	S	S	S	S	S	S	F	T	F	F	S	S	S	S	S	S	S	S	S	T		U	U	U	U	F		F	U	U	S	T	T	U	U	Aluminum chloride
S	S	S	S	S	S	S	F	T		U	U		S	S	S	S	S	F	S			U	T	U	U	F		F	F	T		T	F		S	Aluminum uoride
S	S	S	S	S	S	S	T	T		F			S	T	S	S	S	S		U		F	F	F	F	S		F		F		F	F	F	F	Aluminum hydroxide
S	S		S	S	T	S	F						S		S	S	S	F		T		F	U	U	T	F		T	F	U		T	T	T	F	Aluminum potassium sulfate
F																S							U	T	T			F			F			U	F	Aluminum potassium 10%
F	F		F	S	T	F	F									S						T	U	U	U	T		U	F	U	U	T	T	U	U	Aluminum sodium sulfate
S	S	S	S	S	S	S	F	T	T	F	S	S	U	S	S	S	S	F	S	S		T	U	U	T	F		T	F	U	T	T	T	T	U	Aluminum sulfate (Alum)
F	T	U	S	U	U	U	F	U	U	U	U		S	F	T	S	F	T	S	U		S	S	S	S	T	S	U	F	S	S	T	U	U	F	Ammonia
S	F		S	S	S					F	T	T	S	S	S	S		F				F	F	F	F	F		S	F	F	F	U	U	U	F	Ammonium bicarbonate
S	T		T			U	T			F			T		S	S	F	F				F	U	U	U	F		F		U		U	U	U	U	Ammonium bromide
U	S		S		U	S	F			S	S		T	S	S	S	S	F	S			T	F	F	F	S		F		F	T	U	U	U	F	Ammonium carbonate
S	S		S	S	U	S	F	U	F	F	S	S	S	S	S	S	S	T	S	S		U	U	U	U	F		U	T	U	S	U	U	U	U	Ammonium chloride
T	S	S	S	U	S	F	T	T	U	S	U	U	S	S	S	S	S	S	S	U	T	S	U	S	S	U		U			S	U	U	U	F	Ammonium hydroxide
S			S			S							S			S	S						U		F											Ammonium monophosphate
S	S	S	S	T	U	F	S	U	F	F	S	S	S	S	S	S	S	S	S	U		S	T	F	S	S		U	U	F	S	U	U	U	T	Ammonium n trate
S		S	S	S	S	U							S			S							F	F	F			U		F	S	U	U	U	F	Ammonium nitrate hydroxide 25%
F	S			U	U	S	S									S	S	T				S	U	S	T	U	S	U			S	F	F	U	U	Ammonium persulfates 5%
S	S	S	S	S	S	S	F	U	F	F	F	S	S	S	S	S	S	S	S	S		T	S	F	S	F		F	F	T	S	U	F	U	T	Ammonium phosphate
S	S	S	S		S					F	F	U	U	S	S	S	S	S	S				T	U	T	S		F	F	T	F	U	U	U	U	Ammonium sulfate
S			S	S									S			S							U	U	T	F		U	F	U		U	U	U	U	Ammonium sulfite
S			S		T											S							T	S	S			S	S	S		F		T	F	Ammonium triphosphate
U	S	U	U	U	U	U	T	U	U	F	U	U	T	U	U	U	U	U	S	U		S	F	F	F	S		S			S	U	S	S	S	Amyl acetate
U	F	F	F	U	U	U	F	F	U	T	T	S	S	U	U	S						S		F	F	S		S	S	S		T	T	T	U	Aniline dyes
U	F	T	U	U	U	F	U	T								S	U	U	U	U		U	U	U	U	T		F			U	T	U	U	U	Aniline hydrochloride
F	F		F			S																														Animal fat
T			T										S		S	S							U	U	U			F			F			U	U	Antimony trichloride
S			S		S					S						S												S								Antioxidents
F	T		S		F	F			S	S			S				S					S	F	S	S	S	S	S	T	T	T	T	T	T	T	Argon gas
T	U		U		U	S				S			S		U	S							S	S	S	S	S	S	S	S		S	S	S		Aromatic hydrocarbons
S	S	S	S	T	S	S	F	S					S	S		S	S	F	S	T		F	T	F	T	U		U	F	U	U	T	T	T	U	Arsenuc acid
S	U		S		S	U	U									S						U	T		U	F		S				U			T	Arsenic trichloride
F	U	U	F	S	U	S	U	F	S	S	S	F	F		S	S	S	F				S	S	F	S			S		S	S	S	S	F	S	Asphalt
S	S	S	S	S	S	S	F	S	F	S	S	S	S	S	S	S	S	F	S	S		U	T	S	S	S		S			S	F	F	U	U	Barium chloride 5%
S	S	S	S	U	S	S	F	S	F				S	S		S	S	F	S	U		T	T	S	S	S		S			S	U	U	U	U	Barium hydroxide
F	F		S		T	S	T	S				S	S		S	S	S	F		U		F	T	S	S	S		T			F	U	U	U	F	Barium nitrate
U	S	S	S	S	S	S	F	S		S			U	S	S	S	S	F				F	U	F	S	U		S				U	U	U	U	Barium sulphide
S	S		F	U	S	S	S	S	F	S	S	S	S		S	S	S	S	S	S		S	S	F	S			S		S	S	S	F	F	S	Beer
S	S	S	S	S	S	S	S					S	S	S		S	S	F	F			S	S	F	S		S	S		S	S	S	S	F	S	Beet sugar liquid
U	U	U	U	U	T	F	U	F	U	F	T	U	S	U	U	S	U	U	S	U		F	S	S	S	S		F	F	S	S	S	S	S	S	Benzene benzol (Benzene)
U	S	U	U	U	U	U	F	U	F				T	U	U	S	U	U	S	U		T	F	F	F	U		F			F	T	T	T	T	Benzaldehyde
U	U	T	U	U	U	F	U	F	U	F	T		F	U	S	S	T	F	S	S		F	F	F	F	S		F	U	U	S	T	T	F	T	Benzoic acid
S	F	S	U	S	S	F	T	T					U		S	S	S					T	T	T	F			F	U	T		U	U	U	U	Black sulfate liquor
T	U	U	T	U	T	T	U	T	T		S	S	T		S	S							S		T			T	U	S		U				Blast furnace gas
S	S		S		S	S							S			S								U	T			U				F	F	U	U	Bleaching powder, wet
U	T		T		T	U				S		S		S	U	S						S	U	S	S			S			S				T	Blood
F	S	F	T	U	S	S				F	F	U	S	S	S	S	S	S					S	S	S			S		S	S	F	S	F	U	Borax
S	S	S	T	U	S	S	F	T	F	U	U		T		S	S	S	S	S	T		F	U	F	T	S	S	T	F	U	S	T	T	T	T	Boric acid
U	S		F	U	U	U	F	U		T											U			S	S	S							S	S	S		Brake fluid (non-petroleum)
S	S	S	S		S	S				S	S	S	S	S	S	S		T					U					S		F	S	F	F	U		Brine
U	U	U	U	U	U	F	U	T	U	U	U	U	U	U	U	S	U	U	U	U		U	U	U	U	S		T	T	U	F	T	T	T	U	Bromine, dry
U	U	U	U	U	U	F	U	T	U	U	U	U	U	U	U	S	U	U	U	U		U	U	U	U	F		U	U	U	U	U	U	U	U	Bromine, wet
S	S	T	T	S	U	S				S			S	U		S	U	U	S	U		S	S	S	S	T		S		S		S	S	S	T	Butadiene (gas)

trafag sensors controls

CODES: S - SATISFACTORY F - FAIR U - UNSATISFACTORY T - TEST FOR SPECIFIC APPLICATION

RESILIENT MATERIALS															PLASTICS															METALS													
BUNA N° (NBR)	ETHYLENE-PROPYLENE (EPDM)	HYPALON° (CSM)	NEOPRENE° (CR)	URETHANE	SILICONE	VITON (FKM/FPM)	BUTYL	FLUOROSILICONE	HYTREL	CELCON	DELRIN	LEXAN	NYLON	POLYSULFONE	PVC	TEFLON	POLYPROPYLENE	POLYETHYLENE	POLYPHENYLENE SULFIDE	POLYCARBONATE	ULTEM	ST. ST. DIN 1.4435/1.4404	STEEL	ST. ST. AISI430	ST. ST. DIN 1.4301/1.4305/1.4542	SILVER	49 - NICKEL-IRON	MONEL	LEAD	IRON	INCONEL	COPPER	BRONZE	BRASS	ALUMINUM	
F	U	F	F		T	S	U	S	F	S	S	U	S		T	S	U	U	S	U		S	S	S	S	S		S	S	S	T	S	S	S	S	Butane
S	F	S	F	U	F	S	F	T	T				S	S		S					S	S	S	S	S	F		S				S	S	S	S	Butanol
S	S	S	F	S	T	S		T		S			S			S	S	S		S		S	U	S	F			S		U	S	U	U	U	S	Buttermilk
U	T	U	U	U	U	U	U	U	U	F	F	U	S	U	U	S	U	U	S	U		S	S	F	F	S		F	F	F		F	F	F	S	Butyl acetate
S	F	S	S	F	T	S				S			S			S	S	T				S		F				S		S		S	S	S	S	Butyl alcohol
T	U	U	U		U	S	U	T	U							S						F	F	F		F						F	F	F	F	Butyl stearate
U	F	U	U		S	F	T	T	T	U	U		U	U		S	T		S	U		F	T	U	U	S		T	U	U	S	T	T	U	T	Butyric acid
F	S	U	F	U	U	U	F	U														T	T	F	T	F						F	F	F	U	Calcium acetate
S	U	S	S		S	F	U	T	U	U	U	U	U	S	S	S	S	S	S	U		T	U	U	F	F		U	F	U	U	T	F	U	U	Calcium bisulfite
																S	S					S		F		S		F		S		U			U	Calcium carbide
S	S	S	S	U	S	S	T	T		S	S		S		S	S	S	S		U		F	F	F	S	S		F	U	F	T	F	S	F	S	Calcium carbonate
F	S		F			S	F			F	S		U		S	S	S	S				F	F	F	F	T		T		F	T	T	U	T	T	Calcium chlorate
F	S	S	S	S	S	S	S	F	T	F	F	S	S	U	S	S	S	S	S	S	U		T	S	T	F	S	S	T	U	T	S	T	F	T	U	Calcium chloride
																S							T	T		F	S						F	F	U	T	Calcium uoride
S	T	S	T	U	S	S	S	T	T	T	S	S	S	S	S	S	S	S		U		F	F	F	S	S	S	F	U	F	S	F	F	U	U	Calcium hydroxide
U	S	S	U	U	S	F	T	F	T	F	F		T	S	S	S	S	S	S	U		U	U	U	U	T		U	U	U	U	U	U	U	U	Calcium hypochlorite
S	S	S	S	U	F	S	T	T		S			T	S	S		S	S	S	T		T	T	F	T	F						F	F	F	T	Calcium nitrate
S	S	S	U	S	S	S	S	T			S			S	S	S	S		S	S		T	T	F	F	S		F	F	F		U	F	U	F	Calcium sulfate
S	S	S	S	S	F													U					F	F	F	U							U	U	U	T	Calcium sulphide
S	T	S	S	U	S	S	F	T		S	S		S			S						F	U	F	S			S		U			U			Calgon
S			S			S										S							S														Caliche liquid
S	S	S	S	U	S					S	S	S		S	S	S	S							F	S			S				S	S	F	F	Cane sugar syrups
U	F	U	U		U	F				U			S			S							T	F	S	S		F	F	T		F	S	F	T	Carbolic acid (Phenol)
U	U	U	U	S		S				S	S	S	S	S	U	S	U						S	F	F	F		F	F	F	S	F	F	F	F	Carbon bisulfide
S	T	T	T	S	U	T	T	T	F	S	S		U	S	S	S	S	S	S	T		S	S	S	S	S		S	S	S	S	S	S	S	S	Carbon dioxide dry
U	U	U	U	U	U	S	U	T	U	F	F	U	U	U	U	S	U	U	S	U		T	S	S	S	F		F			S	U	F	U	S	Carbon disulfide
F	S		T		S	S	T	F	F	S	T		T		S	S	S	S	S			S	S	F	S	F		S	S	S	S	S	S	S	S	Carbon monoxide
U	U	U	U	U	U	S	U	U	U	F	F	U	U	U	T	S	U	U	T	U	S	F	T	F	F	F		F	T	U	S	T	F	T	U	Carbon tetrachloride
S			S		S	S							S			S								S	S			S				T	F	F	F	Carbonated water
T	S	S	S	T	S	S	F	T	U	S			F	S		S	S	S	S	F		S	U	F	F	F		S	U	U	S	T	T	F	F	Carbonic acid
S	F	S	S	F	S					S	S	S	S	S	S	S	S						S	T	S			S		S	S	S	S	S	S	Castor oil
											S																										Cellosolve (see Ethyle acetate)
U	S	U	U	U	T	T										S							S	S	S	S	S	S	S	S		F	S	S	F	Cellulube
S	U	T	F	T	T	S					F	S	S		S	S							S	T	S			S		S		F	T	F	S	China wood oil (Tung)
U	U		U	U	U	S	U	T	U													T	T		T	T						T		T	T	Chlordane
F			S										U			S								S	S			T		U					U	Chlorides, organic
U										U	U					S	U	T	U			U	U	U	U	U		U			U			U	U	Chloric acid
F	F			S		F							U			S	F							U	U									U		Chlorinated water
U	U	U	U	U	U	S	U	T	U			U	U	U	T	S	U					T	F		F	T						T	S	T	U	Chlorinated solvents
U			U		F	S				U	U	U	U	U	T	S	T							F	U			S	F	U		T	T	U		Chlorine anhydrous liquid
U	U	U	U	U	U	F	U	T		U	U	U	U	U	U	S	U	U	U	U		T	T	U	U	F		T	F	T	T	T	T	U	U	Chlorine, gas
U	U	U	U	U	U	T	U	T		U						S	U					U	U		U	S						U	U	U	T	Chlorine, dioxide
U	U	U	U	U	U	U	U	U		U	U	U		U	U	F						T	S	T	T			S				T	T		T	Chlorine trifluoride
U	F	T	U	U	U	S	T	U	U	U	U		S	U		S	S	U	S	U		T	U	U	U	U		F			F	U	F	U	U	Chloroacetic acid
U	U	U	U	U	U	S	U	T	U	S	S	U	T	U	U	S	U	U	S	U		T	T	T	F	F		F		T	T	F	F	F	S	Chlorobenzene
U	U	U	U	U	T	T	U	U	U	F	F	S	S	U	U	S	U	U	U	U	F	T	T	F	S	S		S	F	T	T	T	F	T	U	Chloroform
U	U	U	U	U	U	U	U	U	U	U	U		U	U		S	U	U	U	U		U	U	U	T			F			F	U		U	F	Chlorosulfonic, acid, diluted
U			U	U		T	U	T														T	T	T	T	F						T	U	T	T	Chlorothene (trichloroethane)
U	F	U	F		S	S					U		S		T	S							U	U	U			F		U			U	U	U	U	Chlorox
F					S	T				U						S												S					U	U		Choline chloride
U	F	U	U	U	F	F				U																										Chrome plating solution
U	U	F	U	U	T	U	T	T	U	U	U		U	U	T	S	T	T	T	T		T	U	U	T	U		U	F	F	F	U	U	U	U	Chromic acid
S	S		F	T	T	S	F						S			S	S					T	U	U	F			T	F	U		T		T	U	Chromium-potassium sulfate
													S			S							U	F	F			T	F	U		F		F		Chromium sulfate (basic)
S	S		S	U	S	S	U	T	T	S			T			S	S					S	U	S	S			S				S	S	U	F	Cider
S	S	S	S	S	S	S	S	T	F	S			S	T	S	S	S	F	S	T	T	T	U	T	T			T	U	U	F	U	U	U	T	Citric acid
T	U		U	U	U	T	U	T	U				U			S						S			S			S							S	Coal tar
S	F	U	U	U	U	S	F	T		S			T			S	T					F	F	S	S			S		S			T		T	Cocoanut oil
T	S	U	F	S	F	S	F	T		S			T			S	T			T			U			U		S		U		U	U	U	S	Cod liver oil
S	T		S	U	S	S	T	T		S			S			S	T			T		S		S	S			S				S	S	S	S	Coffee
T	U	U	T	U	T	F	U	T			S	T	T		S	S	T					T	S	S	S	S		S	U	S		T	T	U	S	Coke oven gas
	T					S				S														S	S								S		S		Cooking oil
T	S	U	F	U	U	U	T	U								S						T	U	F	F	S		F		U		F	T	U	U	Copper acetate
U	S		U	U	U	U		U		S	S	U			U	S						T	S	S	S	U				S		U	U	U	U	Copper ammonium acetate
S	S	F	F	S	S	S	F	T	T	U	U	U	U	S	S	S	S	S	S	T		T	U	U	U			U	U	U	U	U	U	U	U	Copper chloride
S	S	S	S	S	S	S	S	T	T		S			T	S		F	S	S	S	U		T	S	S	S	S	F		S	U	U	U	U	U	Copper cyanide (elect. pl. sol.)
S	S		S	T	S	S	F			S	S	S	S	S	S	S	S	S	S	S	U		F	U	F	F	F	U		U	U	U	U	U	U	Copper nitrate
S	S	S	S	S	S	S	F	T	F	S	S	S	F	S	S	S	S	S	S	T		F	U	F	F	F		T	F	U	U	U	U	U	U	Copper sulfate
S	S	S	S	S	S					S	S	S	S	S	S	S		S					U	F	F			F	F	U		U			U	Copper sulfate (elect. pl. sol.)

trafag sensors controls

CODES: S - SATISFACTORY F - FAIR U - UNSATISFACTORY T - TEST FOR SPECIFIC APPLICATION

RESILIENT MATERIALS													PLASTICS																METALS																
BUNA 'N' (NBR)	ETHYLENE PROPYLENE (EPDM)	HYPALON (CSM)	NEOPRENE (CR)	URETHANE	SILICONE	VITON (FKM/FPM)	BUTYL	FLUOROSILICONE	HYTREL	CELCON	DELRIN	LEXAN	NYLON	POLYSULFONE	PVC	TEFLON	POLYPROPYLENE	POLYETHYLENE	POLYPHENYLENE SULFIDE	POLYCARBONATE	ULTEM	ST. ST. DIN 1.4435/1.4404	STEEL	ST. ST. AISI430	ST. ST. DIN 1.4301/1.4305/1.4542	SILVER	49 - NICKEL-IRON	MONEL	LEAD	IRON	INCONEL	COPPER	BRONZE	BRASS	ALUMINUM	
S	U	F	F	T	S	S	F	T	S	F	F		T	S	S	S	S				U		S	S		S	S		S	S	S		S	U	F	S	Corn oil
S	T		S	T	S	T		T		S						S							S	F	S	S	F	T	S	S		S	S	F	F	Corn starch slurrys
S	T	S	U	T	S	F	U	T	T	S	S		S	S	S	S	S	S	S				S	S	S			S	S	S	S	T	S	U	S	Cottonseed oil
U	U	U	U	T	U	S	U	T	U	U	U		U	U	T	S	U	U	S	U		F	S	F	S			F	U	F	S	F	S	F	S	Creosote
U	U	U	U	U	U	F	U		U	U	U		U			S	U	U		U		T	U	F	S	F		F	U	F		F	F	U	F	Cresylic acids (alkyl phenols)
F					S																		U	U	U			U			U			U	U	Cupric chlorides 5%
U	S	U	U	U	T	S	U	U	T	F	F	U	T	F	U	S	F	U	S	U		T	U		T	T		T			T	T	T	T	F	Dibutyl phthalate
S	U		U	U	U	S	U	T	T	S			S	S		S	S	U	S	S		S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	Diesel fuel
U	U			U	U	S				S			S			S		U				S	S	S	S	S	S	S	S	S	S	S	S	S	S	F	Diesel oil, light
U	U	U	U	S	U	U				F													F	F	F			F		F		F	F	F	F	Diethyl ether
U	U		U	U	U	F	U	U	U	T	T		U			S	T	U		U		F	U	T	F	T		S			F	T		U		Dichlorethane
																S						F	U		F			S	F	F		F	F	F	F	Difluoroethane (dow chem. # 200)
F			S		S					S			S		S	S	S							S	S	S		S		U					S	Distilled water
F	U		T	S	U	S	U	T	F	S			S			S						S	S	S	S	S	S	S	S	S	S	S	S	S	S	D.T.E. Lubricating oil
U	U	U	U	U	U	S	U	S	T	S	T		U	U		S	U		S	T		S	S	S	S					U			T	T	T	Dowtherm A or E
T			S	F					T	S	S	T	S		U	S						S	S	S	S	S	S	S		S	S	S	S	S	T	Enamel
S	U		F	S	S	S	U	T					S			S						S	S	S	S	S	S	S	S	S	S	S	S	S	S	Esso # 90 line
S	U	F	F	U	U	S	U	T		S	S	U	S		U	S	U					S	S	S	S	S		S		S		S	S	S	S	Ethane
U	U	U	T	U	U	U				S			S		U	S	U						S	F	S	S		F	F	F	S	F	S	F	S	Ether
U	T	U	U	U	U	U	T	U		F	F	U	S	U	U	S	S	U	S	U	U	S	S	F	S	S		F		T	T	F	S	F	T	Ethyl acetate
U	U	U	U	U	U	F	U	F		F	F		S	U		S	U	U		U		F	T	F	F	S						F	F	F	T	Ethyl benzene
S	F	F	F	F	F	U	T	U	T	S	S	U	S		T	S						F	T	F	F	S						F	F	F	F	Ethyl cellulose
S	S	U	U	U	U	S	T	T	U	S	S	U	S	U	U	S	U	U	S	U		T	T	T	T	S		F		F	T	T	T	T	T	Ethyl chloride
U	U	U	F			S				T												F	F	F	U						U	U	U	F		Ethyl metcaptan
U	S		S	U	T	U	T	U		S			S			S	T					U	F					T				F	F	F			Ethyl sulfate
S	U		U	T	U	S	T	T		S			S		F	S						S	S	S	S	S		S		S		S	S	S	S	Ethylene
										S					U		U	U					T			F		F	F	T		T	T	T	T	Ethylene bromide
	T	T	U	U	T	T				S				U		S			S				T	T	T	F		F		T		T	F	F	T	Ethylene chloride
U	U	U	U	U	U	S	U	U		S			S			S	T					T	U	T	T	F		T		U		T	T	T	U	Ethylene dibromide
U	U	U	U	U	U	T	U	U	U	T	T		S	U	U	S	U	U	S	U		F	T	T	F	S		F	F	T	T	U	F	F	F	Ethylene dichloride
S	S	S	F	U	T	S	S	S	T	S	S		S	S	S	S	S	S	S			F	S	F	S	S		F	F	F	S	F	F	F	F	Ethylene glycol
U	T	U	U	U	U	U	T	U	T	S	S		S	S	U	S	U	U	U	U		F	S	S	F	T		S		F		T	T	T	U	Ethylene oxide
F																							T	F	S	S		F	F	T		F	S	F	U	Embalming fluid
																																					Ethanol (see alcohol-ethyl)
S	T	U	U		T	S				S			S		S	S	T						U	S	S	S		T	U	U	S	U	U	U	S	Fatty acids
S	S	F	F	S	F	S	F	T	F	F	S	S	U	S	S	S	S	S	S	S		U	U	U	U	U		U	U	T	U	U	U	U	U	Ferric chloride
T	S	S	S	S	U	S	T	T		F			T	S	S	S	S	S	S	T		S	U	F	S	U		U		U	U	U	U	U	U	Ferric nitrate
S	F		S	T	S	S	F	T	T	F	F		S	S	S	S	S	S	S	T		T	U	T	T	T		T	F	U	F	U	U	U	U	Ferric sulfate
			T			T										S							U			U			F	U		U	U	U	F	Ferrous ammonium sulfate
S	S		S	T	S	S	F		T	F	F	S	U	S	S	S	S	S	S	U		U	U	U	U	F		U	U	U	U	T	U	T	U	Ferrous chloride
S	S		S	T	S	S	F	T	T	F	F	S	S	S	S	S	S	S	S	T		F	U	S	S	U		T	T	U	F	T	T	U	S	Ferrous sulfate
S	U		F	S	T	S		T					S			S	S	S		T		S	S	S	S			S		S		S	S		U	Fish oil
S	S	S	S	U	T	S	U	T	U					S		S	S	F	S			T		S	S			T			T		T		T	Fluoboric acid
U	T	T	U	U	U	T	U		U	U	U		U	U		T	U	U	U	U		T	U	F	F	S		S	F		F	T	T	T	F	Fluorine
S	S	S	S	U	S	U	T	U	F	U	U			S		S	S	T	S			T	U	T	T	T		S			T	T	U	U	U	Fluosilic acid
S	S	T	T	U	S	U	T	U	U	S	T	U	S	T		S	S	T	T	S		S	T	F	S	S		F	U	T	S	F	F	F	S	Formaldehyde
U	F	S	S	U	S	U	F	U	U	U	U	S	U	F	T	S	S	U	S	T	T	F	U	U	T			F	U	U	F	T	U	T	U	Formic acid
F	U	S	F	U	U	U	U	F	T	S			S	U	T	S	U	U	U	U		S	U	S	S	S		F		U	T	S	S	S	S	Freon 11
S	U	S	S	S	U	T	U	U	T	S			S	U	S	S	U	U	U	U		S	U	S	S	S		F		U	S	S	S	S	S	Freon 12
S	U	S	S	U	U	U	U	U		S			S	U		S	U	U	U	U		S	U	S	S	S		F		U	S	S	S	S	S	Freon 13
U	U	T	T		U	U	U			S			S	U	U	S	U	U	U	U		S	U	S	S	S		F		U	S	S	S	S	S	Freon 21
U	T	T	T	U	U	U	U	U	U	S			S	U	U	S	U	U	U	U		S	U	S	S	S		F		U	S	S	S	S	S	Freon 22
U	T		F			U	T			S			S	U		S	U	U	U	U		S	U	S	S	S		F		U	S	S	S	S	S	Freon 31
S	T	S	S				T			S			S	U		S	U	U	U	U		S	U	S	S	S		F		U	S	S	S	S	S	Freon 32
F	U	F	T	F	U	T	U			S			S	U		S	U	U	U	U		S	U	S	S	S		F		U	S	S	S	S	S	Freon 112
S	U	S	S		U	U	U	U	S	S			S	U		S	U	U	U	U		S	U	S	S	S		F		U	S	S	S	S	S	Freon 113
S	U	S	S	T	U	F	U	F	T	S			S	U		S	U	U	U	U		S	U	S	S	S		F		U	S	S	S	S	S	Freon 114
S	S		S		U	T	T			S			S	U		S	U	U	U	U		S	U	S	S	S		F		U	S	S	S	S	S	Freon 115
S			S							S			S			S							U	S	S	S			U		S	S	S	S	S	Freon 218
U			S			U				S			S	U		S	U	U	T	U		S	U	S	S	S		T		U	T	S	S	S	S	Freon 502
S	S		S	U	U	S	S	U	U	F	F		U	U		S	U	U	U	U		S	T	S	S	S		F			S	S	S	S	T	Freon 503
S													S											S	S							S		S			Freon 13B1
S			S							S			S			S							U	S	S	S			U		S	S	S	S		Freon 6316
S			S							S			S			S							U	S	S	S			U		S	S	S	S		Freon 6318
S	U	S	S	T	U	S	U	U	S	S	S		U	T		S	T	U		T	S	S	T	S	S	S		F			S	S	S	S	T	Freon TF (solvent)
T	T	S	T	S	U	S	T			S	S					S	T	U		T		U	U	S	T						S	S	S	S	T	Freon TWD 602 (solvent)
F		F	T			S	T			S	S					S	T	U		T		S	T	F	F			F			F	S	F	S	F	Freon TE 35

trafag sensors controls

CODES: S - SATISFACTORY F - FAIR U - UNSATISFACTORY T - TEST FOR SPECIFIC APPLICATION

RESILIENT MATERIALS														PLASTICS												METALS											
BUNA 'N' (NBR)	ETHYLENE PROPYLENE (EPDM)	HYPALON (CSM)	NEOPRENE (CR)	URETHANE	SILICONE	VITON (FKM/FPM)	BUTYL	FLUOROSILICONE	HYTREL	CELCON	DELRIN	LEXAN	NYLON	POLYSULFONE	PVC	TEFLON	POLYPROPYLENE	POLYETHYLENE	POLYPHENYLENE SULFIDE	POLYCARBONATE	ULTEM	ST. ST. DIN 1.4435/1.4404	STEEL	ST. ST. AISI430	ST. ST. DIN 1.4301/1.4305/1.4542	SILVER	49 - NICKEL-IRON	MONEL	LEAD	IRON	INCONEL	COPPER	BRONZE	BRASS	ALUMINUM	
																																				Freon TM
T	T		T	T	U	S	T			S	S			U		S	T	U		U		S	T	F	T			F			F	F		S	U	Freon TMC (solvent)
F	U		U	U	U	U	U	T	T	F	F			U		S	U	U	U	U		S	T	S	S	S		F			S	S	S	S	T	Freon MF (solvent)
F	U		U	T	U	S	U			F	F			U		S	U	U	U	U		S	T	S	S	S		F			S	S	S	S	T	Freon BF (solvent)
S	S	S	S	S	S	S		S	T	T	T	S	S		S	S	S	S	S			S	U	F	F			S		U		F	F	U	T	Fruit juices
T	U		U	T	U	S	U	T	T	S	S	S	S	F	S	S			S				T	S	S	S		S	S	T	S	T	S	S	S	Fuel oils
U	F	U	U	U	U	U	S	U	T	F	F	S	U	U	U	S	U	U	S	U		S	S	S	S	S	F		F	T	T	F	F	S	F	S	Furfural
T			S				S			F	F			U		S	U	U	U	U		S	T	S	S			F			S	S	S	S	T	Freon 123
U	S		S	U	U	U	U	U	U	F	F		T	U		S	U	U	U	U		S	T	S	S			F			S	S	S	S	T	Freon 134A
S	U	T	U	U	U	F	U	T	F	U	U		S	F	S	S	T	U	S	T		S	U	F	S	S		F			S	F	S	F	S	Gallic acid
T	U	U	U	T	U	S	U	S	T	S	F	S	S	T	S	S	U	U	S	T	S	S	S	S	S	S	S		S	S	T	S	T	S	S	F	Gasoline
S	S	S	S	U	S	S	T	T		S	S		S	S	S	S	S	S	S			S	U	S	S			S		U		S	S	F	S	Gelatin
S	S	S	S	U	S	S	F	T	F	S	S	S	S	S	S	S	S	S		T		S	S	S	S			S		S		S	S	F	S	Glucose, edible
S	S	S	S	U	S					S	S	S	S	S	S	S							S	T	S			S		S		S	S	F	S	Glue (non acid)
S	S	S	S	U	S	S	F	T	T	S	S	S	S	S	S	S	S	S	S	S		S	S	S	S	S		S	F	F	S	F	S	S	S	Glycerine (Glycerol)
S	U		U	S	U	S	U	T	T	S	S		S			S	T					S	S	S	S	S		S		S		S	S	S	S	Grease, petroleum base
S			S	S	S	S							S			S						S	S	S	S	S	S	S	F	S		S	S	S	U	Goulac (core binder)
S	S		S	T	T	S	F	T	U				U	S		S						F	T	U	F			F	U	T		U	U	U	U	Green sulfate liquid
S	S	S	S	U	S					S								S					S	S	S							S	S	S		Glycol solution
U	U		U	U		F		U	U	U	U		U	U		S	U	U	U	U		S	U	S	S	S						S		F	U	Halon 1011
F			U			U												U																S		Halon 1202
T						S		T										U				S	S	S	S							S	S	S	S	Halon 2402
T			S	T	F	F	S	U		S	S		S			T		U				S	T	T	S						S	S		S	T	Halon 1301
T			U			F		U					S									U	S	S	S							S	S	S	S	Halon 1211
S	U	F	F	F	U	S	U	T	T	S	S		S	U		S	U	U	S	U		S	S	S	S	S		S				S	S	S	S	Heptane (liquid)
F	U	S	F	S	U	S	U	T	T	S	S		T	S		S	U	U	S	U	S	S	S	S	S	S	S	S		F		F	F	S	F	Hexane
S	U	S	T	F	U	S		T	S	S	S		T	S		S	T	U	S	T		S	S	S	S	S	S	S	S	S		S	S	S	S	Hydraulic oil
F	S		F	U	U	U	S	U	U	F		S	S		S	S	U					S	U	F	S	U		U	U	U		U	U	U	S	Hydrazine
U	S	S	U	U	U	F	T	U		U	U	S	U	S		S	S	T	U	U		U	U	U	U			U			U	U	U	U	U	Hydrobromic acid
T	U	T	U	T	U	F						U	U	U	U	S							F	F	F			S				S	S	S	S	Hydrocarbons (chlorinated)
T	F	T	T	U	U	T	T	T	U	U	U	S	U	S	S	F	T	T	T	T	T	U	U	U	U	T		U	U	U	F	U	U	U	U	Hydrochloric acid (aerated)
T	F	T	U	U	U	T	T	T	U	U	U	S	U	S	S	F	T	T	T	T	T	U	U	U	U	F		U	U	U	T	U	U	U	U	Hydrochloric acid (air free)
S	S	S	S	U	U	S	F	T	U	U	U	S	U	S	S	S	S	S				F	U	S	S	T		F		U	T	U	U	U	S	Hydrocyanic acid
T	T	S	U	T	U	S	U	U	U	U	U	S	U	S		S	T	T	T	T		T	T	U	U	F		U	U	U	U	U	U	U	U	Hydrofluoric acid (aerated)
U	T		U	T	U	S	U	U	U	U	U	S	U	S		S	T	T	T	T		T	T	U	U	S		F	T	U	U	T	T	U	U	Hydrofluoric acid (air free)
S	S	S	S		U					U	U	S		S	S								U	U	U			S			S			U	U	Hydrofluosilicic acid
S	S	S	S	S	T	S	S	U	F	U	U	S	S	U	S	S	S	S	S	S		S	S	S	S	S		T	S	S		S	S	S	S	Hydrogen 377
U	T		U	U	U	S	F	U		U	U			T		S	F		T	U		T	T	U	U	U		U	U		U	U	U	U	U	Hydrogen bromidę anhydrous)
U	S		T		S	T	T	U		U	U		U			S	S	S				S	T	U	T	F		T	F	T	S	T	T	T	U	Hydrogen chloride(anhydrous)
T	F		U	U	U	S	U	U		U						F	T	T					F	F	F	F		S			S	T	T	T	U	Hydrogen ßoride
U	T	U	U	T	T	T	T	T	U	T	U		U	T	S	S	T	T	T	T		T	T	T	T	U		T	U	T	F	U	U	U	F	Hydrogen peroxide
T	S	T	F	U	T	U	F	U	T	U	U	S	U	S	S	S	S	S	S	T		T	T	T	T	U		T	F	T	S	U	U	U	F	Hydrogen sulfide
T		S	T	S		S							F		S	S							S	S	T			S		U					T	Ink (non aniline)
U	F	F	U	U	U	S	T	T	T	U	U		S	S	U	S	T	U	U			T	T	T	T	U		T	U	U	S	T	T	U	U	Iodine
																							U	U	U			T	F	U		T			U	Iron potassium sulfate
T	U		F	T	U	F	U	T		S			S			S						S	S	S	F	S	S	S	S	S		S	S	S	S	Isobutane
S	U	S	F	S	U	S	U	S	S	S	F	S	T		S	S	T	T	S	T		S	S	S	S	S	S	S	S	S		S	S	S	S	Isooctane
U	F	U	U	U	U	U	F	U	U	S			T	U		S	T	T		U		F	S	T	F	U		T				U		T	T	Isopropyl acetate
F	S	S	F	U	S	S	F	T	T	S	S		S	F		S	S	F	S	S	S	F		S	S	S		S			F	S	S	S	S	Isopropyl alcohol (Isopropanol)
F	U		U	U	U	S	U	T					U					U																		JP-1, JP-A, JP-A1
F	U		U	U	U	S	U	T					U					U																		JP-2
F	U		U	U	U	S	U	T		T	T		U	S		S	T	U	S	T		S	S	S	S			S			S	S	S	S	S	JP-3
T	U	U	U	U	T	S	U	T	S	F	F	S	S	S	S	S	T	U	S	T	S	S	S	S	S	S	S	S	S	F	S	F	S	F	S	JP-4
S	U		U	T	U	S	U	T		F	F			S		S	T	U	S	T		S	S	S	S			S			S	S	S	S	S	JP-5
T	U		U	U	U	S	U	T										U				S	S	S				S				S	S	S		JP-6
																		U																		JP-7
T	U		U	U	U	S	U	T										U				S	S	S	S			S				S	S	S		JP-8
S	U	U	F	F	U	S	U	T	F	S	S	S	S	F	S	S	U	U	S	T	S	S	S	S	S	S	S		S	S	S	S	S	S	S	S	Kerosene
S	T	S	S	S	T	S		T					S		S	S						S	U	S	S			S		U			U		U	Ketchup
T			U		U		U	S										U																		JP-B
T	U		U		U	S	U	U										U																		JP-X
U	U	U	U	U	U	U	U	U	U	S			S			S	U	T		U		S	T	F	F	S		S		T		S	S	S	S	Lacquers & Lacquer solvents
T	T	T	T	U	S	F	T	T	U	U	U		T	S	T	S	S	T	S	F		U	U	T	T	F		T	U	U	S	T	U	U	U	Lactic acid
S	F	U	U	U	F	S	U	T	T	F	F		S			F	T	T		S		S	T	F	F	S		F	U			U	U	T	U	Lard
S	S	T	S	U	U	U	F	U		F	S	U	S	S	S	S	S	S	S	S			F	U	F	F	F		S			F	U	U	U	U	Lead acetate
U	S															S	S							S	S											Light water (fire ext.)

trafag sensors controls

CODES: S - SATISFACTORY F - FAIR U - UNSATISFACTORY T - TEST FOR SPECIFIC APPLICATION

RESILIENT MATERIALS													PLASTICS														METALS															
BUNA 'N' (NBR)	ETHYLENE PROPYLENE (EPDM)	HYPALON (CSM)	NEOPRENE (CR)	URETHANE	SILICONE	VITON (FKM/FPM)	BUTYL	FLUOROSILICONE	HYTREL	CELCON	DELRIN	LEXAN	NYLON	POLYSULFONE	PVC	TEFLON	POLYPROPYLENE	POLYETHYLENE	POLYPHENYLENE SULFIDE	POLYCARBONATE	ULTEM	ST. ST. DIN 1.4435/1.4404	STEEL	ST. ST. AISI430	ST. ST. DIN 1.4301/1.4305/1.4542	SILVER	49 - NICKEL-IRON	MONEL	LEAD	IRON	INCONEL	COPPER	BRONZE	BRASS	ALUMINUM	
S	S		S		S	S						S				S								F	F	S		S				S	S	S	F	Lime slurry
S	S	T	S	T	S	S	F	T				S				S	S	S				S	S	F	S			S		S		U	U	U	U	Lime sulfur
	S	U	U	U	T	U				S																										Lindol (TCP)
S	U	F	U	S	S	S	F	T	T	S	S		S	T	S	S	S	U	S	S		S	S	S	S	S		S		S		U	S	S	S	Linseed oil
F	U	U	U	U	U	S	U	T	T	S	S		F			S	U		S			S	S	S	S	S		T				S	S	S	S	Liquid petroleum gas (LPG)
S	S		F	U	T	S		T							S	F								F	S	S			S				F	F	F		Lithium bromide
S	F		S	T		S	T			S			S		S	S	S	S		F			S	F	F	T		F	U	F		F	F	F	U	Magnesium carbonate 437
S	S	S	S	S	S	S	F	T	T	S	S	S	T	S	S	S	S	S	S	S		T	U	U	T	F		F	U	T	S	U	U	U	U	Magnesium chloride
S	S	S	S	U	S	S	F		U	S	S	U	S	S	S	S	S	S	S	F		S	S	S	S	T		S	U	F	S	F	S	F	U	Magnesium hydroxide
S	T		S		S	T										S						S	S	S	S	S		S					S	S	S	Magnesium oxide
S	S	S	S	U	S	S	F	T	T	S			S	S	S	S	S	S	S	F		F	S	F	S	F		S	F	F	F	T	T	T	F	Magnesium sulfate
S	S	S	S		S	S	S	S		S			S									S	U	T	T	S		U	F	U		U	U	U	F	Magnesium sulfite
S	S	S	S	S	S	S	S						S			S						S	F	S	S			S		U		F	F	U	S	Malt beverages
S	S		F	T	U	S	F			F	F	S		S	S	S	T			T			U			F		F		U	F	F				Manganese sulfate
S		S	S	S	S	S				S			S			S							F	S	S			S		U		F	F	U	S	Margarine
S	U	S	S	U	S	S				S			S			S	S					S	F	S	F			S		U		F	F	U	U	Mayonnaise
S	S	S	S	T	T	S	F	T		F	F	S	U	S	S	S	S	S		S		U	U	U	U	U		U	U	U	U	U	U	U	U	Mercuric chloride
F	T		F			T	F			S					S	S	S	S				F	U	U	F			U			F	U	U	U	U	Mercuric cyanide
S	S	S	S	T	S	S	T	U	T	U	U	F	S	S	S	S	S	S				S	S	S	S	U		U	U	S	S	U	U	U	U	Mercury
S		S	S		S	S							S			S								T	U			F		U		U	U	U	U	Mercury salts
U	T					U										S							T	F	F			U		F		U	U	U	F	Methallylamine
T				S	U								U		U	S							T	F	U	F		F		S	S	F	S	S	U	Methallyl chloride
S	U	T	F	U	U	S	U	U	T	S			F		S	S	T	U				S	S	S	S	S		S	S	S		S	S	S	S	Methane
																																					Methanol (see alcohol-methyl)
U	F	U	F	U	U	U	T	U	U	F	F		F	U	U	S	T					S	S		T	T			S		F			T	Methyl acetate
U	U	U	U	U	U	F	U	T	U	F	F	F	S	U	U	S	U	U	T	U		T	T	T	T	F		F		S	T	F	S	T	U	Methyl chloride
U	F	U	U	U	U	U	F	U	T	F	T		S	U	U	S	U	U	S	U	U	S	S	F	F	F		S	S	S		S	S	S	S	Methyl ethyl ketone (MEK)
U	U	U	U	U	U	F	U	F	U	S			U	U	U	S	T	U	S	U	U	F	T	T	T	S		F	T	F	T	T	U	S	U	Methylene chloride
S													S			S								S	S	S							S		S		MIL-F-5516
S													S			S								S	S	S							S		S		MIL-F-5572
S													S			S								S	S	S							S		S		MIL-F-5624
S						S																		S	S	S							S		S		MIL-F-25558
S	U		S	S		S							S			S								S	S	S							S		S		MIL-H-5606
S	U		S	S		S																	S	S	S	S							S		S	S	MIL-L-7808
S	S	S	S	U	S	S	U	T	F	S	F	S	S	U	S	S	F	S		S		S	S	S	S	U		U		S	S	U	U	U	S	Milk 474
S			S		S	U				U	T	S	S	S	S	S								U	F		F	S	T	U		U	U	U	F	Mine water (acid)
S	U		F	F	S	S	U	T	T	S			S	S	S	S	U	U	S	F		S	S	S	S	S		S	S	S	S	S		S	S	Mineral oil, USP
F	U		U		U	S				S							U						S	S	S							S		S	S	Mineral spirits
										U			U			S								F	F	U		U	U			U	U	U	U	Mixed acids (H_2SO_4 & HNO_3)
S	T	S	S	T	S	S	F	T	T	S	S	S	S		S	S	S	S	S		S	S	S	S	S	S		S		S	S	S	S	F	S	Molasses
S	U	S	T	T		S			T	S			T	S	S	S	U	U	S	S	S	S	S	S	S	S		S			S	S	S	S	S	Motor oil - sae #10, etc.
F	U	U	U	U	U	S	U	T	T	S		F	S	T	T	S	U	U	S			S	S	S	S	S		F		T	S	F	F	F	S	Naphtha
U	U	U	U	T	U	S	U	T	T	S			S		U	S	F	U	S			S	S	S	S	S		F	F	F		F	F	F	F	Naphthlene
F	U	U	U		U	S	U	T		U						S						T	T	F	T	S		T		T		F	U	F	F	Naphthenic acid
S	U	S	S	U	U	S	U	U	T	S			S		S	S	S	U				S	S	S	S	S		S		S		F		S	S	Natural gas
S	S	S	F	U	S	S	F	T	U	F	F	S	U	S	S	S	S	S	S	S		T	U	U	T			T	F	U	F	U	U	U	U	Nickel chloride
S	S		S		S	S	F			F			S		S	S	S	S	T	S		T	T	F	F			T			U	U	U	U	U	Nickel nitrate
S	S	S	S	U	S	S	F	T	U	F	F	S	U	S	S	S	S	S	S	S		F	U	T	F			T	F	U	F	T	T	T	U	Nickel sulfate
U	T	T	U	U	U	U	T	U	U	U	U	S	U	U	T	S	T	T	T		T		U	T	S	U		U	U	U	F	U	U	U	T	Nitric acid with 40% H_2O 493
U	T	U	U	U	U	F	T	T	U	U	U	S	U	U		S	T	T	S	U	T	S	U	T	T	U		U		U	T	U	U	U	U	Nitric acid vapors
U	U	U	U	U	U	U	U	U	U	U	U	S	U	U		S	S	U	T	U		T	U	T	T	U		U		U	F	U	U	U	T	Nitric acid (red ßuming)
										U	U		U	U									U	U	U			U	U	U		U	U	U	U	Nitric + HCL acids
													U										S	S	S					S		S					Nitriding gases
U	F	U	U	U	U	U	T	U	U	S	S	U	S	U	U	S	S		S	U		T	S	S	S	S		F	U	F		T	F	F	T	Nitrobenzene
U	T	U	U	U	U	U			U	F			U			S							F	F	F	U	U	U	U	U		U	U	U	S	Nitrogen tetroxide-dry
		S	S				T			U												T	S	F	F	T		F	U	S	S	F	F	F	S	Nitroglycerine
U	T	S				T				U			U			S	U	U				T	U	U	U			U	U		F	U	U	U	U	Nitrous acid
F	F	U	F	S	F	U	T	T		S			S			S	U	U				T	S	F	F	U		U		U		U	F	F	T	Nitrous oxide
																							S	S	S		S						S	S	S	S	Nyval (Mobil)
S	S		S	S	S	S	F	T	F	S	S		S	S		S	S	S	S			S	S	S	S	S					S		S	S	S	S	Nitrogen
S	U	U	S	S	U	S																	S	S	S	S							S	S	S	S	Oronite 8200
											S																	S								Oakite
F	U	U	T	T	T	S	U	S	T	F			S	S	S	S	F	U	F	F		T	F	F	S	S		F	U	F	T	T	T	T	T	Oleic acid
U		U	U							U			S		U	S	U						S	S			F								F	Oleum
S	F	U	S	S	S	S	T	T		S			T	U		S	S	T		S		S		S	S			S		S	S	T		S	S	Olive oil 514

trafag sensors controls

CODES: S - SATISFACTORY F - FAIR U - UNSATISFACTORY T - TEST FOR SPECIFIC APPLICATION

RESILIENT MATERIALS												PLASTICS															METALS													
BUNA 'N' (NBR)	ETHYLENE PROPYLENE (EPDM)	HYPALON (CSM)	NEOPRENE (CR)	URETHANE	SILICONE	VITON (FKM/FPM)	BUTYL	FLUOROSILICONE	HYTREL	CELCON	DELRIN	LEXAN	NYLON	POLYSULFONE	PVC	TEFLON	POLYPROPYLENE	POLYETHYLENE	POLYPHENYLENE SULFIDE	POLYCARBONATE	ULTEM	ST. ST. DIN 1.4435/1.4404	STEEL	ST. ST. AISI430	ST. ST. DIN 1.4301/1.4305/1.4542	SILVER	49 - NICKEL-IRON	MONEL	LEAD	IRON	INCONEL	COPPER	BRONZE	BRASS	ALUMINUM		
T	U		T	S	U	S	U	T	S							S	S	S	S													F	S	S	S	Oronite hydraulic fluid
F	S	T	F	T	F	U	F	T	U	U			S	S		S	S	T	S	T		T	U	T	T	F		T	U	U	S	T	F	T	T	Oxalic acid
										U													T	T	T			T	F	T			T	T	T	F	Oxidizing gases
U	T	T	S	T	T	S	F	T	F	U	U	T	T	T	T	T	U	U	S	T		S	S	S	S	S	F		S		S		S	S	S	S	Oxygen
U	S	S	T	S	S	T	F	S	U	U	U		U	T	T	S	U	U		T		F	U	F	F	F										F	Ozone
F			F	F		U	U						S	T	S	F						S	S		S			S						S	T	T	Paint, oil base
T			T		T								S			S												S									Paint vechicles (except soya)
S	U		U	T	T	S	U	T														S	S	S	S			S						S	T	S	Palm oil
F	F	U	U	T	U	F	T	T	T				U	S		S	F	T				S	S	S	S	T		F				F	F	U	S	Palmitic acid
S	U		U	F	T	S	U			F	F	S	S	S	S	S	T	U		T		S	S	S	S			S			S	S	S	S	S	Paraffin
S			S	F	T	S				F						S		U				S		S	S			S				S	S	S	S	Paraffin oil
S			S		F			F								S												T								S	Pencillin solution
F	U	F	S	U	U	S	U	U		S						S		U		S		F	F	F	F	S	F	S				F	F	F	S	Pentane
U	F	T	F	U	U	F	T	S	U	U	U		U	U		S	T	U	S	U		T	U	T	T			U		U		U	U	U	T	Perchloric acid
U	U	U	U	U	U	S	U	T	U	F	F		T	U	U	S	U	U	T	U	U	F	F	F	F	S		F	T	F	S	F	F	F	T	Perchloroethylene 539
S	U	T	T	T	T	S				S													S	S		S		S		S		S	S	S	S	Petroleum oils
				S																																Petroleum residue from distillation
U	U	U	U	U	T	F	F	T	U	U	U	S	U	U	T	S	U		S	U	U	T	U	F	S	S		F	F	T	T	F	S	F	T	Phenol
	S		F	F	F	F				U	U		T	U	U	S							S	S	S	S	S	S	S	S		F	S	S	F	Phosphate ester non-inflammable oils
T	F	S	T	T	U	S	F	T	U	U	U	S	U	S	S	S	S	T	S	T	T	T	U	U	T	F		U	T	U	S	U	U	U	T	Phosphoric acid (aerated)
T	F	S	T	T	T	S	F	T	U	U	U	S	U	S	S	S	S	T	S	F	T		U	U	T	F		T	T	U	T	T	T	T	U	Phosphoric acid (air free)
U										U					S	S	T					T	F		S			S	S	F		T	T	T	S	Phosphorous
	F		T			S				U	U	S	U			S	S						U	U	T			T	U	U		U	U	U	U	Phosphoric acid vapors
	T	U	U	U	U	U				U																										Pickling solution
F	F	S	S	T	T	U	U	T	U	U	T	F	S	S	S	S	T	T				F	U	F	S	S		U	T	U	U	U	U	U	U	Picric acid
F	U	U	U	S	U	S	U	S					S			S						S			S			S		S			U		S	Pine oil
S	S	U	F	U	U	U	F	U		F			T			S	T	T				F	S	F	F	S		F		S		F	F	F	U	Potassium acetate
S	S		S		S	S				S			S		S	S							U		S			F	F	U		F				Potassium aluminum sulfate
S	S		F	U	F	S	T	T		F			T		S	S	S	S				F	F	F	S			F	U	F		F	F	F	U	Potassium bicarbonate
S	S		S		S	S	T			S			T		S							T	U		U	S		U	F	U	U	F	U	U	F	Potassium bisulfate
S	S		S	U	S	S	T	T		T			T	S	S	S	S	S	S	T		F	U	U	F	U		F	F	U	S	F	F	F	U	Potassium bromide
S	S		S	U	S	S	F	T	U	F	F	U	U	S	S	S	S	S	S		T	T	F	F	S	F		F	U	T	S	U	U	U	U	Potassium carbonate
T	S		S	S	S	S	F			U	F	F	S	S	S	S	S	S	S			F	F	F	S	F		U			S	T	U	U	U	Potassium chlorate
S	S	S	S	S	S	S	S	F	T	T	S	F	F	U	F	S	S	S	S	S	T		F	T	T	T	U		F	U	T	F	F	F	T	U	Potassium chloride
S	S		T	T	S	S	T			U			S		S	S	S	S	S				F	T	F	F	F		F	F	F	S	F	S	F	F	Potassium chromates
S	S	S	S	S	S	S	S	S	T	U	U	F	S	F	S	S	S	S	S	S			F	S	S	S	U		F	U	T	F	U	U	U	U	Potassium cyanide
	S	S	S	S	S	S	F	T	T	U			T	S	S	S	S	S	S	S	T		T	F	F	F	S		F	F	F	S	F	F	F	F	Potassium dichromate
U	T		T			S	T			S			T		S	S	S	S					T	U	U	F	U		F	U	T		F	F	F	S	Potassium ferricyanide
S	S	S	F	U	T	T	F	U		S	F	F	F	F	S	S	T	F	T	U	S	T	T	F	S	F		F	U	T	S	T	T	U	U	Potassium hydroxide
F	S		F	T		U	U						T			S	U	U	S			T	T	U	U	U		U			U	U	U	U	U	Potassium hypochlorite
S	S	S	S	S	S	S	S	S	T	F	F	F	S	F	S	F	S	S	S	S		T	F	F	F	T		F	F	F	T	F	F	F	F	Potassium nitrate
U	S	S	S	U	S	S				U	S		U	S		S	S	S	S	S		F	F	S	S	U		F	U	F	F	F	F	F	F	Potassium permanganate
										U			U	S								F	T	T	F	U		F	U	U		U	U	U	U	Potassium peroxide
S	S		U	T		S	T			S			T			S	S	S				T	T	S	S	U		U	U	U		U	U	U	U	Potassium persulfate
S	S	F	S	S	S	S	S	S	T	S	F	F	S	S	S	S	S	S	S	S	T		T	S	S	S	F		F	F	U	S	F	F	U	S	Potassium sulfate
S	S		S	S	S	S	S						S			S	S	S	S			F	U	F	F	U		U			S	U	U	U	U	Potassium sulfide
F	S	F	S	S	S	S	F	T					T			S	S	S				T	T	U	T	S		U	F	U		F	F	U	U	Potassium sulfite
S	S	S	U	U	U	S	T	T	T	S			S			S						S		F	S	S		S				F	F	F	S	Prestone anti-freeze
S	U	F	F	S	F	S				F	F	F			S	S							S														S	Producer gas
S	U	S	U	U	U	S	U	T	T	S	S		S	U	S	S	U	U		U		S	S	S	S	S		S	S	S	S	S	S	S	S	Propane
U	S		U	U	T	U	T			U						F						T	T		F	S		T	U	U		T	T	T	T	Propionic acid
S	S	S	S		S	S				S					S		S						S	S	S	S		S		S		S	S	S	T	Propyl alcohol
U	U		U	U	U	S	U	T							U	S	U	U				T	T	S	T			S				S	S	F	U	Propylene dichloride
U	U		F	T	U	S	U	T					T			S	T		S			S	S	S	S	S	S	U	S	F	U	U	U	U	U	Pyranol (dielectric)
U	T	U	U	U	F	S	T	U	U				T			S		U		U		S	S	S	S	S	S	S	S	S		F	S	S	F	Pydraul (mansanto)
U	F	T	U	U	U	U	F	U	U	F	F	U	S	U	U	S		T	S			T	T	F	F			F	F	U		T	F	F	F	Pyridine
		T				U				U						S							F	F	F			S			F			F	F	Pyrogallic acid
F	S	U	U	U	U											S																S				Pyrogard (mobil) 5%
	F	U	U	U						U												T		F			T		U		T				F	Pyroligneous acid
																											(see Sodium thiosulfate)									Photo solution
U						F										S						S	S	S	S							S		S	S	Propylene
S	S		U	T	T	S	U	T		S				U		S	S	F		T	S	F	T	S	S	S		F			F	S	F	S	F	Propylene glycol
F			S			S							F			S						T	F	F				S		T	S	F	F	F	F	Rosin emulsion
F	T		F	U	T	T	F			F						S						T	T	F	F			F	F	T		F	F	F	F	Sacchrin solution
F	S		U		S	S				U			S		S	S	S	F		F		F	U	F	F	S		F	F	U	F	F	F	F	T	Salicylic acid
S	S	S	F	U	S	S	T	T	T	S	T	S	S	S	S	S	S	S				T	U	U	T			T			T	F	F	U	U	Sewage
T	S	S	U	U		U				F	F	U	S		U	S	T	T				S	S	S	S			S		S		S	S	S	S	Shellac

trafag sensors controls

CODES: S - SATISFACTORY F - FAIR U - UNSATISFACTORY T - TEST FOR SPECIFIC APPLICATION

RESILIENT MATERIALS																PLASTICS																METALS																
BUNA 'N' (NBR)	ETHYLENE PROPYLENE (EPDM)	HYPALON (CSM)	NEOPRENE (CR)	URETHANE	SILICONE	VITON (FKM/FPM)	BUTYL	FLUOROSILICONE	HYTREL	CELCON	DELRIN	LEXAN	NYLON	POLYSULFONE	PVC	TEFLON	POLYPROPYLENE	POLYETHYLENE	POLYPHENYLENE SULFIDE	POLYCARBONATE	ULTEM	ST. ST. DIN 1.4435/1.4404	STEEL	ST. ST. AISI430	ST. ST. DIN 1.4301/1.4305/1.4542	SILVER	49 - NICKEL-IRON	MONEL	LEAD	IRON	INCONEL	COPPER	BRONZE	BRASS	ALUMINUM	
S	S	S	S	S	U	S	S	S	T	S	S	S	T	S	S	S	S		T	S		S	S	S	S	S						S	S	S	S	Silicone oil
					S	S										S				S		T	U	T	S			F			T	U	U	U	U	Silver bromide
																S	F	F		S		U	U	U	U			F			T	T	T	U	U	Silver chloride 602
U	S	S	U	S	S	S	F	T		F	F	F	S	F	S	S	S	S	S	S		T	U	F	S			U	U	U	S	U	U	U	U	Silver nitrate
S		S		S	S	S				S	S	T	S	S	S	S	S						S	S	S			T	S	S		S	S	F	F	Soap (molten)
U	F	U	U	U	T	U	T	U	U					T				U			T	S	S	S	S	S						U	U	U	S	Skydrol
F	S					U				U	U	U			U	U						S	S	S	S			S			S	U	U	U	S	Sodium
F	S	U	F	U	U	U	T	U		S			S	S	S	S	S	S	S	F		T	U	F	S	F		T	T	T	S	F	F	F	S	Sodium acetate
S			S		S	S	T						S			S						S	T	F	S	T		S	U	S		S	F	U	U	Sodium aluminate
S	S	S	S	T	S	S	F	T	T	F	U	U	S	S	S	S	S	S	S	S		T	T	F	F	T		F	F	T	T	F	F	T	U	Sodium bicarbonate
													S		S	S							F	F	F							U	U	U	F	Sodium bichromate
S	F		S	T	S	S	F	T	U	F	F	S	U	S	S	S	S	S	S	T		T	T	T	T	F	S	T	F	U	F	T	T	U	U	Sodium bisulfate
S			S		S	S					S	S		S	S		S	S						U	S		S									Sodium bisulfate 10%
S	S		S	T	S	S	F	T	T	U	U		S		S	S	S	S		T		T	U	T	T	F	S	F	F	U	T	F	F	U	T	Sodium bisulfite
S	S	S	S	T	S	S	F	T	T	S			S	S		S	F	S	S	T		F	T	F	F	T		F			T	F	T	T	U	Sodium borate
S	T		T			T	T			S			F		S	F	S	S				T	U	U	T	U		F		U	F	T	T	T	S	Sodium bromide
S	S		S	T	S	S	F	T	T	S	S	U	S	S	S	S	S	S	S	S		T	F	F	S			F	T	F	S	F	F	U	U	Sodium carbonate (soda ash)
S	S	S	S	S	S	S	F	T	T	S	T		S	S	S	S	S	S	S	F		T	T	T	T	F		F	F	T	S	F	F	T	T	Sodium chloride
S			T		S	S	T			U			S	S		S	S		S	S		F	F	F	F	F		F		F		T	F	F	F	Sodium chromate
																S						T	T	F	F	U		F		U	F	U	T		U	Sodium citrate
S	S	S	S	S	S	S	F	T	T	F	F	S	S	S	S	S	S	S	S			T	F	S	F	U		T	U	F	F	U	U	U	U	Sodium cyanide
T	T	S	T	T	S	T	T	U					T		S	S	S	S	T			F	U	F	F			T			T	U	U	U	T	Sodium dichromate
S	S		T			S	T			S			T		S	F	S	S				T	F	F	F	U				F		U	U	U	T	Sodium ferricyanide
S	S		S	T	S	S	T			S			S		S	S	S	S				T	T	U	U	S		S		F	T	T	S	F	Sodium fluoride
T	S	S	T	S	S	T	T	T	U	S	U	F	S	S	S	S	F	F	T	T	T	T	T	F	F	S	S	T	U	T	S	U	T	T	U	Sodium hydroxide (caustic soda)
U	F	T	U	U	T	S	T	T	T	U	U		U	S	T	S	F	F	S	T		T	U	U	U	F		U	U	U	T	U	U	U	U	Sodium hypochlorite
																S							U	U	F			S			F	U	U	U	U	Sodium hyposulfite
S	S	F	F	T	T	S	T	T		F	F	S	T	F	F	S	T	T				S	U	F	F	S		T				F	F	U	U	Sodium metaphosphate
S	S		S	T	S	S	F			F	F	S	F	S	S	F						S	F	F	F	S		F		F	S	F	F	F	T	Sodium metasilicate 563
F	S	S	F	T	U	S	F		T	S	F	S	S	F	S	S	S	S	S			T	T	F	T	F		F	U	F	S	T	T	U	F	Sodium nitrate
S	S		T		S	S	T			S			S	S	S	S	S	T				F	F	F	F	T		S		F		F	F	F	F	Sodium nitrite
F	S	F	F	T	S	S	F	T	T	F	F	S	T	F	S	S	S	T				F	F	F	F	U		F	U	F	S	F	T	U	U	Sodium perborate
T	S	S	T	U	U	S	S	T	T	U	U		T		S	S	F	F		S		S	U	T	F	U		F	U	F	S	U	U	U	U	Sodium peroxide
																						S	U	S	S	S				S		T	T		U	Sodium phenolate
S	S	S	F	S	U	S	T	T	T	F	F	S	U	S	S	F	S	S				F	F	F	F	S		F		F	T	F	F	F	U	Sodium phosphate
F	S	S	U	S	T	S	T	T	T				T			S	S	S				F	F	F	F	F		F	U	F	S	F	T	T	U	Sodium phosphate (tri-basic)
T				T		T	T						T									F	F	F	F			F		F	S				U	Sodium plumbite
S			S		S		S			S			S			S						F	F		F			F								Sodium resinate 642
																						F	U	F	F	T		F		F		T		T	T	Sodium salicylate
S	S	S	S	F	S	S	T		T	S	S	S	S	S	S	S	S	S	S			S	T	F	F	F		F	U	F	S	F	F	F	U	Sodium silicate
S	S	S	S	S	S	S	F	T	T	S	S	S	S	S	S	S	S	S	S	S		T	T	T	T	S		F	F	F	F	F	F	T	S	Sodium sulfate
F	S	S	S	S	S	S	T	T	T	S	S	S	S	S	S	S	S	S	S	U		T	T	U	S	U		F	F	U	S	U	U	U	U	Sodium sulÞde
S	S	S	S	S	S					S	S	S	S	S	S	S							F	T	F			F	F	U	T	T	F	U	F	Sodium sulÞte
S	T		S	T	S	S	F		T	U	U		S	S		S	F	S	S	T		F	F	T	F			F		F	F	F	T	T	U	Sodium tetraborate
F	S		T	T	F	S	F	T	T		T		S																					U		Sodium thiophosphate (aeroßoat)
F	S	S	S	S	S	S	F			T	T	S	S	U	S	S	S	F	S	S		S	U	T	F	U		F			F	U	U	U	F	Sodium thiosulfate
S			S	S	S	S							S			S																				Solvac (socony)
S	U	F	F	F	U	S	U	T					S			S																				Sovasol #1
S	U	F	F	F	U	S	U	T					S			S																				Sovasol #2
S	U	F	F	F	U	S	U	T					S			S																				Sovasol #3
S	U	F	F	F	U	S	U	T					S			S																				Sovasol #73
S	U	F	F	F	U	S	U	T					S			S																				Sovasol #74
S	S	S	U	U	T	T	S	F	T	T	F		S	U	S	S	S	S	S	S			T	T	U	U	T		T			U	U	U	U	U	Stannic chloride
F	U	S	S	U	F	T	F	T	T	T	F			U			S	S	F	T	T		T	T	U	U			T	U	T	F	U	U	U	U	Stannous chloride
S	F	S	S	T	S	S			T	F	F	S	S	S	S	S	S	F	S			S	S	F	S	S		S		T		S	T		S	Starch
U	T	U	U	U	U	T	T	U	U	U	U	U	U	T	U	T	U	U	T	U		S	F	S	S	F		F		F	S	F	S	F	T	Steam
S	S		S	U	U	U		U		T																		F							S		Steam condensate 663
F	F		S	T	S	T	T	U	T	F			S	U	S	S	S	S		F		T	T	T	T	S	S	F	U	U		U	U	U	U	Stearic acid
S	U	U	F	S	U	S								S	U		S		S					S	S								S	S		Stoddards solvent
	F			T						F	F	S		S	S	T						F	U	F	F		F		U			F	F	F	F	Stronitium nitrate
U	U	T	U	U	U	T				S						S							S	S	S			S					F	F	F		Styrene 666
T	T					T				U			T			S	T					F	F		U	F							F	F	F	T	Succinic acid
																																					Sul (dil)
T	F		F		T	S	T	T	U				U			S	T	S				F	U	F	T		S	S		S		U	U	U	U	Sulfate liquor
U	S		U	T	S	S	T	T	F	S			S		S	S	S	S	S	T		T	T	F	F	U		T	U	T	S	U	U	T	S	Sulfur
U	U	U	U	U	U	S	U	T	U	U	U		U	T	S	S	U	U		U		T	U	T	T	U		U	F	U	F	U	U	U	U	Sulfur chloride
U	S		F	U	F	S	F	F	U	F			U	U	U	S	T	T	S	T		T	T	T	T	T		T	F	T	U	T	T	T	F	Sulfur dioxide

trafag sensors controls

CODES: S - SATISFACTORY F - FAIR U - UNSATISFACTORY T - TEST FOR SPECIFIC APPLICATION

RESILIENT MATERIALS															PLASTICS												METALS												
BUNA 'N' (NBR)	ETHYLENE PROPYLENE (EPDM)	HYPALON (CSM)	NEOPRENE (CR)	URETHANE	SILICONE	VITON (FKM/FPM)	BUTYL	FLUOROSILICONE	HYTREL	CELCON	DELRIN	LEXAN	NYLON	POLYSULFONE	PVC	TEFLON	POLYPROPYLENE	POLYETHYLENE	POLYPHENYLENE SULFIDE	POLYCARBONATE	ULTEM	ST. ST. DIN 1.4435/1.4404	STEEL	ST. ST. AISI430	ST. ST. DIN 1.4301/1.4305/1.4542	SILVER	49 - NICKEL-IRON	MONEL	LEAD	IRON	INCONEL	COPPER	BRONZE	BRASS	ALUMINUM	
T	S		F	S	U	U	T	T	T		S		T			S							T	T	S	T					S	S		S			Sulfur hexaßuoride
	U					S											T				F	F	F	F	U		F		F		F	F	F	F	Sulfur oils
U	F	U	U	T	F	S	U	T	U	U			S			S	U	U			T	T	T	T	U		F	F	T		T	T	T	F	Sulfur trioxide dry
T	T	T	U	U	U	S	T	U	T	U	U	S	U	U	T	S	T	T	T	T	T	T	T	T	T		U	U	U	U	U	U	U	U	Sulfuric acid
T	F	S	T	U	U	S	F		U	U	U	S	U	U	S	S	S	S	S			T	U	U	U	F		U	F	U	U	U	U	U	T	Sulfurous acid
S	T	S	S		T					F	F	S	S	F	F	S									S			S		F		F		F	S	Soybean oil
T	U		U	T	T	S				S	S		S	T	U	S	T	T	S			S	S	S	S	S					S		S	S	(Synthetic lubricant -diester type)
S			S		S					S			S			S											S								Talc slurry
S	U	F	U	T	U	S	U	T							S	F	S	F				T	U	U	T			F		U	T	U		U	U	Tall oil
S	F		S		S	S				F	F	T	S		S	S												S		S						Tallow, molten
T	S		T	F	S	S	T	F	T	U			S	S	S	S	S	S	S	U		T	T	F	F	S		F		F	F	T	T	T	T	Tannic acid 686
T	U	U	T		U	F				F	F	F	S		S	S							S	F	S			S		S	S	S	S	F	S	Tar
																																				Water (see types below)
S	S		S	T	S	S		T					S			S								S	S			S				F	F	F	F	Carbonated
T	S	S	F			S	F			S	S		S	S	S	S	S	S	S		T	S	U	S	S	S		S	U	S	S	T	T	T	S	Distilled, demineralized, deionized
S	S	S	T	T	S	S	T	S	T	S	S		S	S	S	S	S	S	S	S		S	T	S	S	S		S		U	S	S	S	F	F	Fresh
T	S		U	U	U	U		T		S			T			S						S	T	S	S	S		S			S	F	F	T	F	Boiler feed
S	S		T	U	S	T				S			T			S							T	S	S	S						F	F	T	F	Return condensate
T	T		T	U	T	S	F									S		S	S			F	T	F	F	S		S	S	U	S	S	S	U	U	Brackish
S	S	S	S	U	F	S	F	T	T	S	S	F	S	S	S	S	S	S	S			U	U	U	T	S	U	S	S	U	F	F	S	U	U	Sea
			S							S				S	S													S							S	Wax molten
T	T	T	U	U	S	T		T		S	S	F	S	S	S	S	S	U				S	U	F	F			S		U		S	T	F	U	Whiskey and wines
T	T	T	T	U	S	T	F	T	T	S	S	F	S	S	S	S	S	S		T		S	U	S	S			U			S	F	F	F	T	Wine
S	S		U	U	T	S	F	T					T			S						S	S	S	S							U	T	T	S	Xanthates
			S							S			S			F								S	S											X-ray development solution
U	U	U	U	U	U	U				S	S	U	S	S	U	S	U	U					S	S	F		S	S		S		S	S	S	F	Xlol (dry & no alkalies)
U	U	U	U	T	U	F	U	T	U	S	S	U	S	U	T	S	U	U	S	U	U	S	F	S	S	S		S			S	S	S	S	S	Xylene
T	S	S	T	T	S	S	F	T	T	F	S	F	U	S	S	S	S	S	S	S	T	T	T	U	U	F		T	T	T	F	U	U	U	U	Zinc chloride
S	S	S	S	T	S	S	F	T	U		S	F	U	S	S	S	S	S		S		T	U	T	F	S		T	F	U	F	T	T	U	U	Zinc sulfate
T	U	S	T	T	S	F	F	T	T	U			S	S	S	S	S	F	S	T		T	U	T	T	S		T	U	U	S	T	T	U	T	Tartaric acid
		S																																		Tetrabutyl titrate
	U	U	U	U	U																		T	S	S	S						S	S	S	T	Tetrachloroethylene
U	U	U	U	U	U	U	T	U	U	S			T	U		S	U	S	S	U		S													F	Tetrahydrofuran
										U	U					S			S			T	U	U	T			U	U	U		U	U	U	U	Tetraphosphoric acid
										U												U	U	U	U					U		U	U	U		Tin ammonium chloride
S	T									U	S	U			U	S							S		U			T		U						Tin tetrachloride
S																F						T	U	T	F			T	F	U		T	T	U	U	Titanium sulfate
U	U	U	U	U	U	S	U	T								S	U	U		S		T	T	T	T			T				T	T	U	U	Titanium tetrachloride
U	U	U	U	T	U	S	U	T	U	F	F		S	U	U	S	U	U	S	U	U	S	S	S	S	S		S	S	S	S	S	S	S	S	Toluene (Toluol)
S										S													S	S	S	S						S		S	S	Transmission fluid (type A)
U	U	U	U	U	U	U	U	T	U	U	F	F	F	F		U	S	F	U			S	S		S											Tributyl phosphate
U	F	U	U	U	T	U	T	U	U	U			U			S	F	U	S	T		U	U	U	U			T	U	U	T	U	U	U	U	Trichloroacetic acid
U	U	U	U	U	U	U	F	U	U	U	S	F	U	U	U	U	S	U	S	U		T	T	F	F			F	U	T	S	T	T	T	F	Trichloroethylene
S			S	S		S	U									S						S	T		S	T		S		S		F	S	S		Trichloropropane
U	S	U	U	U	U	S	F	T	U				T			S	F	T	S			S	S	S	S							S	S	S	U	Tricresyl phosphate
			F							T						S							U	U	U			U	U	U		U	U	U	U	Trifluoroacetic acid
S			S		S					S			S			S	S						S	F	F	F		F	U	S		T			U	Trisodium phosphate
S	U	T	S	U	U	T	U	T	T				S			S	S					S	F		S			T			T	T	T	T	S	Tung oil
						S																														Turco # 2976
		T																																		Turco oil # 15
S	U	U	T	U	U	F	U	T	T	S			S	U		S	U	U	T	U		S	F	F	F	S		F	F	F	S	F	F	F	F	Turpentine
U	S		U		U	U							S			S							S		S			S		U		U	U	U	S	Udmh (Hydrazine)
F	F	S	S	T	S	F	F		T	S	T	F	S	F	S	S	S	S	S	U		T	T	F	F	S		T	S	F		T	S	T	F	Urea
					T	T										S						T	S		T		T					T	T	T	S	Uranium hexafluoride
																								S	S											Vanadium pentoxide
F	U	U	U	U	U	T	U	T					S	U	U	S	T	U				S	T	T	S			S		T	S	S	T	F	S	Varnish
S			S			S										S						F		F	F	F						F	F	F		Varsol #1 & #2 (mineral spirits)
F	S	S	U	T	S	S	F	T		F	F	S	S	S	S	S						S	S	F	S			F			S			U	S	Vegetable oils
T	S	S	T	U	S	S	T	U	T		F	T	T	S		S	S	S	S	S		S	U	F	F	S		S		T	S	F	F	U	T	Vinegar
	T	U	S	S			U			S						S						T	T	T	T	S		F	U	T	T	U	U	U	T	Vinyl chloride