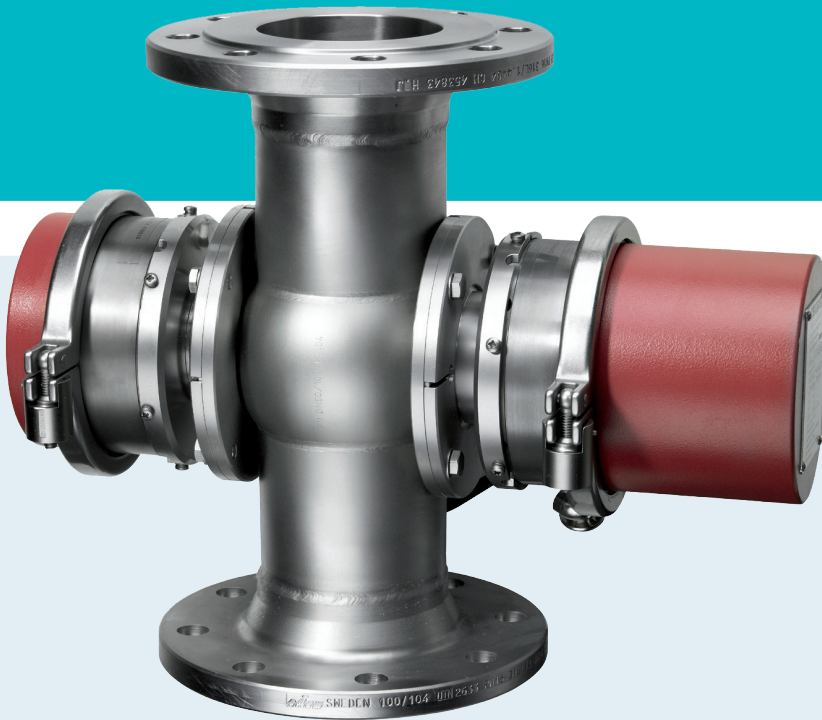


ColorPlus Ex

In-line absorptiometer in Ex-version



Applications

- Colour (ASTM, GOST) of diesel/gasoline
- Colour (Hazen) of acrylic and metacrylic acid
- Colour (Hazen) of maleic acid and phthalic anhydride
- Colour (Hazen, Saybolt) in organic based oils
- Colour of spirits at the blending unit

Advantages

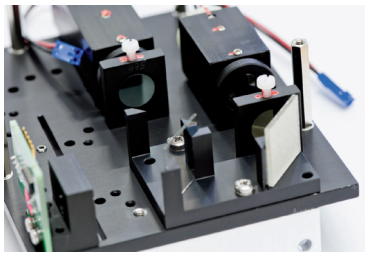
- Certification according to IECEx/ATEX, protection class Zone 0, Ex d IIC T3/T4/T5/T6 Ga/Gb
- Easy installation using standard Varivent® In-line housing
- Customer specific flow cells on request
- Various window and sealing materials available
- Turbidity compensation by a second wavelength (optional)

- Easy functional check with integrated checking filter
- Optional calibration with unique sliding measuring cell

Industries

- Petrochemical industry
- Refineries
- Chemical industry
- Spirits

Innovations with tangible benefits



Precise colour measurement

High-quality components, LED-light sources and Swiss precision guarantee reliable colour measurement also in the Ex-field and, if need be, with turbidity compensation:

- Long-term stable, reproducible results for a reliable process flow
- A minimum of service and maintenance work
- Low operating costs



Flexible system integration

The process integration of the Color-Plus Ex can be adapted exactly to the customers' applications:

- Standard Varivent® housing with or without flanges
- Flow cell available with heating or cooling jacket
- Available in different materials
- Individual path length adaptation for optimum measuring range and sensitivity



Quality control

The installed checking glass or the optionally available sliding measuring cell is used for quality control:

- Fast verification of the optically correct measurement
- Option of a real calibration during an on-going process using a sliding measuring cell

Continuous Ex-protection

Operation is carried out either via the control unit SIREL SMD in a safe zone or via the SIREL Ex:

- Operating concept is adapted to the respective needs
- With the SIREL Ex a full range of function is available including display in the hazardous area

Main technical details

Measuring principle:	Absorption
Wave length:	254 ... 760 nm
Measuring span:	0 .. 3 E
Resolution:	0.001 E
Measuring ranges:	8, freely configurable
Sample temperature:	-20 .. +195 °C
Ambient temperature:	-20 .. +50 °C
Protection type:	IP65
Ex-proof type:	Ex d IIC T3/T4/T5/T6 Ga/Gb

Full details and technical data:



ColorPlus Ex

Technical data

Sensor

Measuring principle:	Absorption
Wave length:	254 ... 760 nm
Measuring span:	0 .. 3 E
Resolution:	0.001 E
Measuring ranges:	8, freely configurable
Installation:	In-line Varivent® housing or compatible. Optional: Customer specific measuring cell
Material sensor head:	Stainless steel 1.4301
Windows:	Borosilicate glass, quartz or sapphire
Seals:	NBR, EPDM, FPM or FFKM
Housing:	Aluminium AlSi1MgMn, coated
Sample temperature:	-20 .. +195 °C
Ambient temperature:	-20 .. +50 °C
Protection type:	IP65
Ex-proof type:	Ex d IIC T3/T4/T5/T6 Ga/Gb

Measuring cells

Standard:	In-line Varivent® housing or compatible, DN 40 .. 150
Customized:	As agreed
Materials:	Stainless steel, PVDF, PVC, Hastelloy®
Connections:	Customized

Control unit SIREL SMD/SIREL Ex

Power supply:	85 .. 264 VAC, 47 .. 63 Hz or 24 VDC
Power input:	25 W
Display:	LC display with plain text information

Output:

2 × 0/4 .. 20mA, max. 600 Ω max. 24V with galvanic isolation, max. 50V to earth. 2 × relay contacts max. 250 VAC, max. 4A. Digital input and output, max. 5V

Dimensions:

SIREL SMD: 200 × 157 × 96 mm
SIREL Ex: 320 × 645 × 203 mm

Weight:

SIREL SMD: approx. 1.5 kg
SIREL Ex: approx. 25 kg

Protection class:

SIREL SMD: IP65
SIREL Ex: IP66

Ex certification:

SIREL Ex:
PTB 07 ATEX 1021X
IECEx BKI 07.0019
EX NESPI GYJ 02109

