

# 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

### Industries

- Petrochemical industry
- Refineries
- Chemical industry
- Spirits

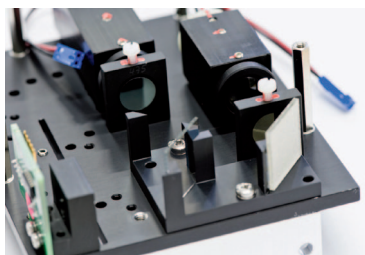
### Advantages

- 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

# ColorPlus Ex

In-line absorptiometer in Ex-version

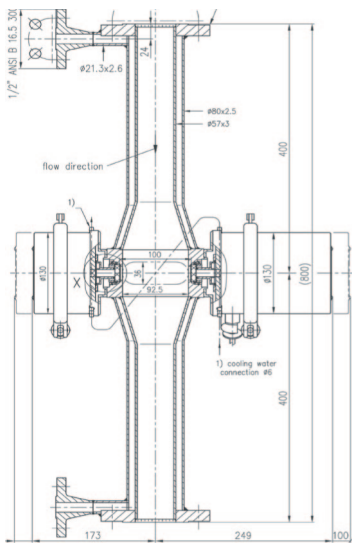
## Innovations with tangible benefits



### 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.

## Technical data

### Sensor:

Measuring principle:	Absorption
Wave length UV-lamp:	254, 313, 365, 436, 546 nm
Wave length LED:	365 .. 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:

Windows:	Stainless steel 1.4301 Borosilicate glass, quartz or sapphire
Seals:	NBR, EPDM, FPM or FFPM
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

Your representative:



photometer.com/56c4

**SIGRIST**  
PROCESS-PHOTOMETER

SIGRIST-PHOTOMETER AG

Hofurlistrasse 1 · CH-6373 Ennetbürgen  
Tel. +41 41 624 54 54 · Fax +41 41 624 54 55  
www.photometer.com · info@photometer.com