

ColorPlus Ex

In-line absorptiometer in Ex-version



Applications

- Colour (ASTM, Saybolt) of diesel/gasolin
- 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

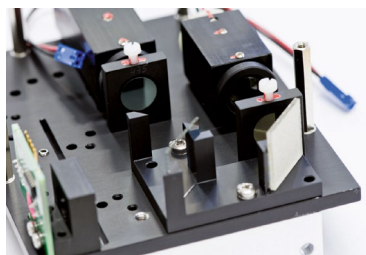
Advantages

- Certification according to ATEX/IECEx
ColorPlus Ex: Ex Zone 1, Ex db IIC T3/ T4/ T5/ T6 Ga/Gb
SICON (M) Ex: Ex Zone 1, Ex db de IIB T6 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

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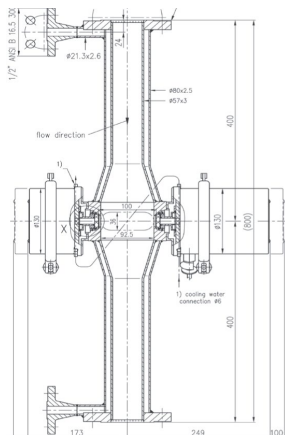
Innovations with tangible benefits



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

Process integration of the ColorPlus 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



Intelligent control system

Control unit SICON with the latest touchscreen technology and colour display.



Protection Ex

Operation is carried out either via the control unit SICON (M) in a safe zone or via the SICON (M) Ex:

- Operating concept is adapted to the respective needs.
- With the SICON (M) Ex a full range of function is available including display and touchscreen in the hazardous area.
- With the SICON M with connecting box Conn-A and the SICON M Ex, up to 8 photometer can be connected.



Your representative:

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 flow cell

Material sensor head:	Stainless steel 1.4435
Window:	Borosilicate glass, quartz or sapphire
Seals:	NBR, EPDM, FPM oder FPM
Housing:	Aluminium AlSi1MgMn, coated
Sample temperature:	-20 .. +195 °C
Ambient temperature:	-20 .. +50 °C
Protection type:	IP65
Ex-group/device category:	II 1/2G
Ex-proof type:	Ex db 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 units

SICON (M)/SICON (M) Ex

Power supply:	VIS: 9.. 30 VDC / UV:24 VDC
Power input:	7 W + photometer
Display:	1/4 VGA, 3.5"
Operation:	Touchscreen
Protection class:	IP 66
Output:	4 × 0/4 .. 20mA, with galvanic isolation, max. 50V to earth and max. 500 Ω load 7 × digital, freely configurable
Input:	5 × digital, freely configurabl
Digital interfaces:	Ethernet, Modbus TCP (only SICON), microSD card optional
Moduls (max. 2):	Modbus RTU, Profibus DP, HART 4 × 0/4 .. 20mA output, with galvanic isolation 4 × 0/4 .. 20mA input
Dimensions:	SICON (M): 160 × 157 × 60 mm SICON (M) Ex: 322 × 558 × 191 mm
Weight:	SICON (M): approx. 0.6 kg SICON (M) Ex: approx. 30 kg
Ex-group/device category:	SICON (M) Ex: II 2G
Ex-proof type:	SICON (M) Ex: Ex db eb IIB T6 Gb
Ex certification:	SICON (M) Ex: BVS 17 ATEX E xxx X IECEx BVS 17.00 xx X