

Arges-45 *reflective colorimeter*

Colour measurement according the human eye



The Arges colorimeter has been designed to operate in areas where colour reproduction is extremely important and where long term stability needs to be guaranteed without the need for periodic calibrations. Colours are measured according the human eye (CIE1931). The Arges uses XYZ interference filter based technology which guarantees long term stability and consistency among devices. The light source is stabilised through an optical feedback loop. It can measure up to 10,000 colour points per second.

Highlights:

- **45/0 in line colour measurement (small form factor)**
- **measure colour : XYZ, Yxy, Yu'v', CIEL*a*b*, LCH ...**
- **stabilised LED light source**
- **high speed**
- **high stability**
- **stabilised light source**

Fields of applications:

- **plastics**
- **paper**
- **solar cells**
- **coatings**
- **paints**
- **fabrics**



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System features:

Measurement system

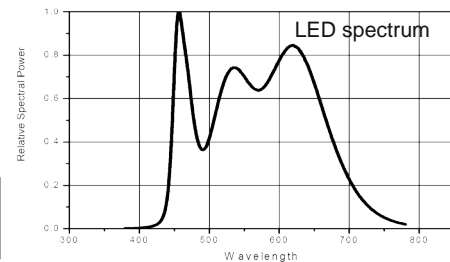
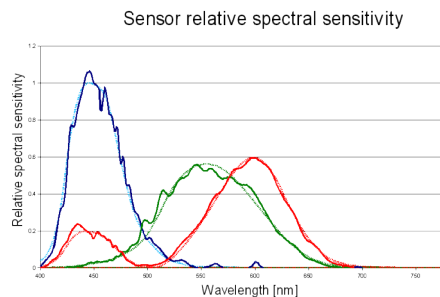
Photo detector	Silicon photo diodes using interference based XYZ filters
Spectral response	Approximates CIE 1931 2 degree colour matching functions
Colour systems	XYZ, Yxy, CIEL*a*b*, Luv, LCH, dE (CIE1976, CIE1994, CIE2000, CMC)
Optical system	45° lighting, 0° measurement, specular component excluded
Mesurement speed	10.000 colour point per second
Measurement spot	3mm

Interfaces

USB 2.0	USBTMC compliant, SCPI command set, full speed device
RS232	Same command set as USB
I/O	8 lines 5V general purpose IO
Trigger IN/OUT	5V compliant

Size

LxWxH	65x55x106 mm
Mounting	4xM4 threat holes on bottom plate and 4xM4 on the top



Colorimeter specification:

Parameter	Range	Accuracy	Repeatability
Resolution	16 bit for X, Y and Z	>60dB without averaging	
light source output (Y)	White LED is optically stabilised	Within 0.3% over full lifetime	±0.1% (internal stability)
Illuminant	D65, D50, C, etc		
Inter instrument agreement	Delta E < 1.5		
Delta E	> 0.05	0.02	±0.03 (CIE 1976)
Absolute accuracy	Delta E <0.5 (measured on grey tiles of gretag chart) Delta E < 3 (average of 24 measurement on the gretag chart)		Delta E is 0.2
Operating temperature	10-40° C		

