Lico – Competence In Colour

Spectral Colour Measurement Of Clear Liquids

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Be Right™

Professional Colour Measurement: Lico 690

The spectral colour measurement of clear liquids is indispensable in many fields and serves as a quality assurance method for solvents, paints and pharmaceuticals. The highest measuring reliability is essential. Hach® ensures simple, fast measurements for the user. 25 years of expertise in the development of colorimeters have gone into the new Lico 690.

7" TFT WVGA colour touchscreen

Accurate measurement results thanks to the automatic cuvette identification

High measurement reliability via a comprehensive set of test aids

Easy-to-change cuvette compartment facilitates cleaning and/or replacement

Measurement process starts automatically when the cuvette is inserted

Data transfer available via an Ethernet interface

The appropriate cuvettes for each application:

- 11 mm round cuvettes
- 50 mm rectangular cuvettes
- Disposable or reusable high precision cuvettes

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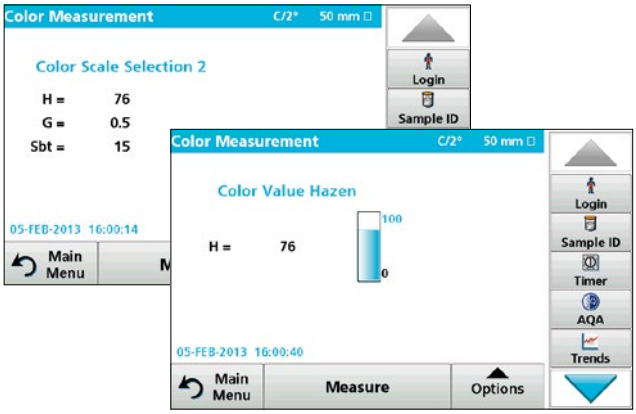
Specialist in many fields

The Lico 690 is flexible to use and works with many applications. Thanks to its flexibility, it is particularly suited to the chemical, pharmaceuticals, oil industries and the food and drinks industry. Additional investment in reliability is provided by the 26 integrated colour scales:

- Conventional scales such as iodine, Hazen (Pt Co), Gardner, Pharm. Eur.
- Specific scales such as Saybolt or ASTM

In addition, Lico makes quality control very flexible: Measured values can be evaluated in all scales, even post-measurement with archived spectral data.

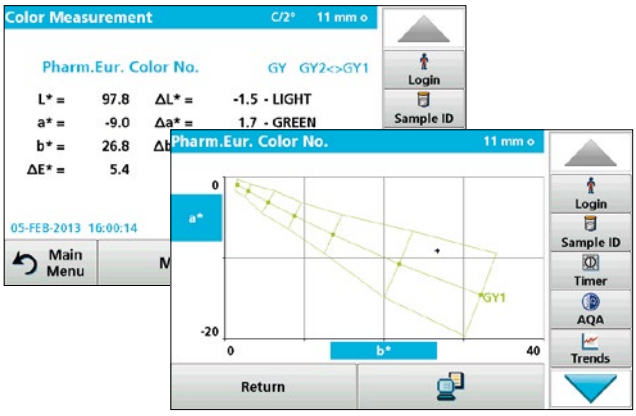


Depending on the individual customer field and application, the three most important colour values can be viewed at a glance. Individually configurable bar diagrams with adjustable measuring range limits.

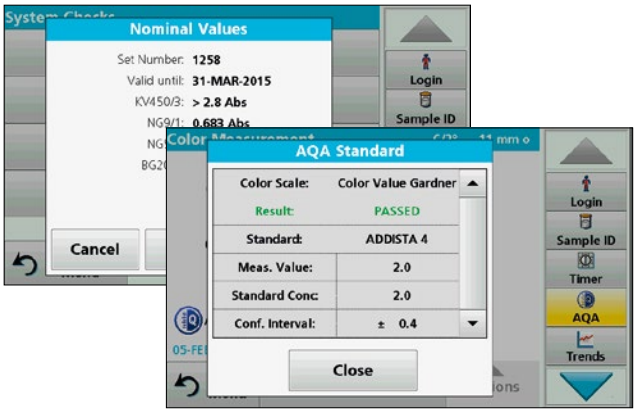
Up to date routine analysis

Technical data:

- Simple integration into the existing laboratory network through an Ethernet connection
- Working storage for 3,000 measured values and 100 colour value references
- Minimum training effort thanks to clear instructions on the colour touchscreen
- Easy handling as measurements are carried out in an open compartment



Graphical display of Pharm. Eur. colour values and quantitative results in the CIE Lab colour space*



Certified test filters, reproducible standard Addista colour solutions and an integrated implementation of AQA (Analytical Quality Assurance) ensure optimum measurement reliability.

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The sipper module facilitates flow measurement, even with difficult samples.

The rectangular cuvette compartment can be easily removed for cleaning.

Functionality	Lico 690	Lico 620
Colour and colour difference measurement	Standard colour values; transmission grades; standard chromaticity coordinates; DIN 5033 colour measurement (ASTM E308); DIN 6174 CIE Lab*; CIE LCh*; Delta CIE Lab* dE*; Delta CIE LCh*; Hunter Lab; Delta Hunter Lab	–
Colour numbers	European, US and Chinese Pharmacopoeia (EP, USP, CP); DIN 6162 Iodine; ISO 6271 Hazen (Pt/Co, APHA, ASTM D1209, D5386); ISO 4630 Gardner (ASTM D1544, D6045, D6166); ISO 27608 Animal and Vegetable Fats and Oils; ASTM D156 Saybolt; ASTM D1500 Mineral Oil (ISO 2049); ASTM D848 Acid Wash Test; ASTM D1925 Yellowness Index (ASTM D5386); AOCS Cc13e, BS 684 Ly/Lr; ADMI, ICUMSA, EBC, ASBC, Hess-Ives	DIN 6162 iodine; ISO 6271 Hazen (Pt/Co, APHA, ASTM D1209, D5386); ISO 4630 Gardner (ASTM D1544, D6045); ASTM D 156 Saybolt; ASTM D 1500 mineral oil
Standard light type	A, C, D65	C
Standard observer	2°, 10°	2°
Photometer mode	320 - 1,100 nm	–
Sipper	Yes	–
Data storage	**Lico 690**	**Lico 620**
Colour reference values	100	–
Colour measurements	3,000	400
Photometer measured values	1,000	–
Wavelength scans	20	–
Time scans	20	–

Subject to change without notice.

The compatibility of Lico 690/620 to Lico 200/300/400/500 ensures the comparability of measurements.

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