

HandySpec® WCM: Whisky Colour Meter

Taking samples and measuring in the laboratory belongs to the past. This portable instrument with its in-built special design of fibre-optic immersion probe from Hellma allows for direct, easy measurement of the colour of fluids directly in a bottle, drum (or similar container), sample tube etc..

The hand-held Ex photometer HandySpecWCM was developed by tec5 AG in cooperation with Hellma GmbH & Co KG and the DIAGEO Global Supply Brand Technical Centre, Glenochil to check the colour of Whisky. This instrument is also suitable for colour measurements of other spirits, wines, fruit juices and other liquids.

Advantages

- Moves analysis out of the laboratory
- Easy to use
- Short measurement time (approx. 2 s)
- Stores up to 2300 data sets
- Ex protection
- Battery powered, > 8 hours operating time
- Compact and robust
- Splash-water proofed (IP 53)

Technical Description

HandySpecWCM is a battery powered Ex-proofed hand-held device for colour measurements of fluids. An integrated Hellma probe is directly immersed into the media without the time consuming procedure of taking samples followed by measurements in the lab. The measurement is activated by the single press of a button.

The probe length, the optical path length and the number of optical measurement channels (typ. 2 / max. 4) can be adapted to the application.

The operating time of the rechargeable battery is > 8 hours. The measurement data can be displayed as extinction, EBC units or as arbitrary units which can be easily matched to other colour check instruments by using programmable calibration and/or display factor.



© tec5 AG




© tec5 AG



© tec5 AG

HandySpec® WCM

Ex Protection

Basis for Examination	Annex II of Directive 94/9/EC
Standards Basis	EN 1127-1:1997 Explosion prevention and protection - Basic concepts EN 60079-0:2004 General requirements IEC 60079-11:2004 (31G/159/FDIS) Intrinsic safety prEN 60079-28:2005 Optical radiation
Marking	 II 1/2G [Ex op is] Ex ib IIB T4

Systems

Product Information HandySpec® WCM

Technical Data

Temperature Range Operating	-20°C to +40°C
IP Protection Glass	IP 53 (Splash-water up to 60°)
Probe	Ultra-mini immersion probe (Hellma type 661.656 – UV): Probe length: 400 mm, other available
Optical Path Length	10mm (2*5mm), other available
Optical Channels	2 (standard: measurement and reference channel), optional: up to 4 channels
Light Sources	LEDs or LDs
Detector	Single chip detector
Measurement Time	Approx. 2 s
Operating Time	> 8h (fresh battery pack, charged, 6 measurements/minute)
Extinction Range	Depends on the optical path length
Repeatability	Approx. 0.001 Extinction units
Long Term Stability	Approx. 0.002 Extinction units per hour (without new referencing)
Power Supply	Changeable battery module (battery module can be changed in Ex Area), rechargeable
Power Consumption	Idle: approx. 90mA Active (with LCD light on): approx. 130mA
Display	2*12 character LCD-display 2 classification LEDs for; in/out of tolerance
Result Buffer	Prototype: 2300 result data sets (consecutive number, data set index, extinction, intensities λ_1 and λ_2 , calibration factor, display factor)
Data Interface	EIA-485 Serial computer interface for measurement data transfer and unit setup, Wireless (Bluetooth) in preparation



Contents of Delivery

- HandySpec WCM (with battery pack)
- Battery charger
- EIA-485-USB communication cable with driver CD (D-Sub9-pin-connector – USB) (2-wire EIA-485)
- CD with WCM administration and application software HandySpec WCM Control, manuals

tec5_PL_Systems_HandySpecWCM1_e_07/2011

tec5^{five}**USA**
Technology for Spectroscopy

80 Skyline Drive
Plainview, NY 11803
www.tec5USA.com

Tel.: 516-653-2000
Fax: 516-939-0555
info@tec5USA.com

tec5^{five}
Technology for Spectroscopy

Headquarters
tec5 AG | In der Au 27
61440 Oberursel, Germany
Tel: +49 6171 9758-0
info@tec5.com | www.tec5.com
www.tec5uk.com | www.tec5usa.com