

SBI 915 – Single Burning Item

Measurement method	By a single burner item in accordance with EN 13823, Euroklassen A2, B, C and D
Assembly frame	<ul style="list-style-type: none"> ▪ Welded square tube construction, steel, painted, RAL 7012 ▪ Lined with calcium silicated panels, T: 2.0 cm ▪ Dimensions (H x W x D): 245 cm x 148 cm x 148 cm
Auxiliary burner*	<ul style="list-style-type: none"> ▪ Stainless steel, firmly mounted to the assembly frame ▪ Sample protection shield of calcium silicate ▪ Check valve, ignition burner, flame detector ▪ Dimensions (W x D): 35 cm x 55 cm ± 0.5 cm
Collector	<ul style="list-style-type: none"> ▪ Insulation with mineral fiber plates, 5.0 cm ▪ 2 air shields mounted with the exhaust hood ▪ Dimensions (H x W x D): 70 cm x 58 cm x 58 cm

Specimen Trolley

Main burner*	<ul style="list-style-type: none"> Check valve, ignition burner, flame detector
Sample dimensions	<ul style="list-style-type: none"> Max. specimen thickness (W): 20 cm ± 1.0 cm

Gas Supply Control

Gas installation	<ul style="list-style-type: none"> Controller for pressure and mass flow Magnetic and stop valves
Total weight	1295 kg

Test Chamber

Test chamber walls	<ul style="list-style-type: none"> Knob W111 F30 Ceiling self-supporting, max. load: to 100 kg/m²
Railing	Steel, coated, mounted on the test chamber
Dimensions (W x D x H)	320 cm x 320 cm x 250 cm
Weight	1325 kg

Process fan	<ul style="list-style-type: none"> Directly driven radial fan 90 kg, 400V/50Hz, d_p = 336 Pa, P = 1,1 KW V = 0.5 m³/s – 1 m³/s, infinitely variable Base frame 600 mm x 600 mm
Dimensions (W x D x H)	600 mm x 600 mm x 650 mm
Weight	145 kg
Power supply	380 V, 50 Hz

* Gas to be provided by the user

'SBI Control' Measuring and Control Unit

Controller	<ul style="list-style-type: none"> ■ Colour Touch Screen 10,1", 1280 x 800 ■ Single Board Computer with 32 GB SSD memory
Temperature measurement	<ul style="list-style-type: none"> ■ 4x inputs for thermal voltage ■ Measurement range -100°C – 1300°C, resolution: 0.1 K ■ Cold junction compensation
MFC control	<ul style="list-style-type: none"> ■ 2x digital outputs (RS232) for MFC1/MFC2
Gas control	<ul style="list-style-type: none"> ■ Valves for propane, main burner, auxiliary burner ■ Valves for calibration gas and zero gas ■ Valves for measuring gas and pump measuring gas
Peltier cooler & flame control	<ul style="list-style-type: none"> ■ 2x inputs for flame control ■ 1x control Peltier cooler, gas processing
Differential pressure and light measurement	<ul style="list-style-type: none"> ■ 16 bit ADC, measurement range: ± 10 V, resolution 1 mV
Measuring light receiver	<ul style="list-style-type: none"> ■ Silicon photo receiver ■ Spectral filter with CIE distribution ■ Dimension (l x Ø) 190 x 40 mm
Measuring light transmitter	<ul style="list-style-type: none"> ■ Halogen point light source 10 W, 2900 K color temperature ■ Beam diameter 25 mm, $d/f = 0.0375$ ■ Dimensions (l x Ø) 190 x 40 mm
Gas processing	<ul style="list-style-type: none"> ■ Particle filter ■ Measurement gas pump 60-300 l/min ■ Measurement gas cooler, Peltier cooler to -10°C with condensate outlet and collection vessel ■ Container for drying agent (Drierite), plugable
Analyzer	<ul style="list-style-type: none"> ■ SIEMENS ULTRAMAT/OXYMAT 6E ■ Measurement components O₂, CO₂, display in Vol % ■ Operation monitoring error message ■ 19" rack, 3HE
Overall structure	<ul style="list-style-type: none"> ■ 19" industry cabinet ■ Dimensions (W x D x H): 65 cm x 65 cm x 175 cm
Weight	168 kg

SBI Software

Software for measured value acquisition, processing and presentation for test systems in accordance with DIN EN 13823 under Windows 7/8.1/10 operating systems

Graphical and numeric presentation of all measured values