

Thermo Scientific CQM FLEX

PGNAA Coal Quality Manager

The Thermo Scientific ™ Coal Quality Manager FLEX (CQM FLEX) provides minute-by-minute quality analysis of your most critical coal streams. The CQM FLEX is the ultimate analyzer with the best accuracy available, which allows you to minimize variations in coal quality, ensure contract compliance, and improve your efficiency. The CQM FLEX is designed to improve your bottom line.

The CQM calculates and reports

- Heating value (kcal/kg, kJ/kg or BTU/lb)
- Lbs SO_2 per million BTU
- Volatile matter
- Fixed carbon
- Ash fusion temperature (based on customer specific empirical relations)

The CQM measures and reports

- Ash
- Sulfur
- Moisture
- SiO_2
- Al_2O_3
- Fe_2O_3
- Na_2O (in some cases)
- CaO
- TiO_2
- K_2O
- Nitrogen
- Chlorine
- Carbon (with neutron generator option)
- Hydrogen (with neutron generator option)
- Oxygen (with neutron generator option)

The CQM FLEX is a second generation analyzer developed from the highly successful and accurate Thermo Scientific CQM. It is a full-featured analyzer that incorporates Prompt Gamma Neutron Activation (PGNAA) technology and is designed to accept feed from a sample system, control the flow through the analyzer and measure the major coal quality parameters of interest to coal producers and coal-fired power generators.

CQM FLEX – PGNAA Coal Quality Manager

Description	Quantity
Physical dimensions	
Channel support frame	4,507 mm (177 in) long x 1,631 mm (64 in) wide
Total length of the unit	5,555 mm (219 in)
Clearance height required	2150 mm - 2350 mm (85 in - 93 in)
Clearance width required	2632 mm (104 in)
Unit weight	5700 kg (12.566 lbs)
Hopper capacity	1000 lbs of coal (assuming 55 lbs/ft3)
Electrical control box	Part of the main assembly – does not need any additional mounting
Motor control box	600 mm height x 400 mm width x 300 mm length (24 x 16 x 12 in)
Electrical specifications	
Electronics enclosure	NEMA 4X stainless steel box
Motor control box	NEMA 4X stainless steel box
Electronic requirements	
Electronics enclosure	230VAC 50 or 60 Hz, 5 Amps 4 wire (L1, L2, N, GND)
Motor control box	460VAC 50 or 60 Hz, 10 Amps 4 wire (L1, L2, N, GND)
Communication links	
Electronics enclosure to operator console (customer supplied)	Fiber Optic 62.5/125 multimode (minimum of 2 fibers) 4000m (13,000 ft.) max.
Operator console to customer control system (customer supplied)	OPC client/server link
Off-site communication	One data quality phone line or internet link required
Neutron source options	
Cf 252	Neutron source
Neutron generator	Electrically driven neutron source
Operating temperature	-30°C to +50°C (-22°F to +122°F)



Learn more at **thermofisher.com/coal**

For research use only. Not for use in diagnostic procedures. For current certifications, visit thermofisher.com/certifications
© 2018, 2026 Thermo Fisher Scientific Inc. All rights reserved. All trademarks are the property of Thermo Fisher Scientific and its subsidiaries unless otherwise specified. **PPA-DS1712-EN 2/26**