



Thermo Scientific CQM FLEX

PGNAA/PFTNA 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 SO₂ per million BTU
- Volatile Matter
- Fixed Carbon
- Ash Fusion Temperature (based on customer specific empirical relations)

The CQM Measures and Reports

- Ash
- Sulfur
- Moisture
- SiO₂
- Al₂O₃
- Fe₂O₃
- Na₂O (in some cases)
- CaO
- TiO₂
- K₂O
- 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 CQM. The CQM FLEX is a full-featured analyzer that can incorporate either Prompt Gamma Neutron Activation (PGNAA) technology or Pulsed Fast Thermal Neutron Activation (PFTNA). The CQM FLEX 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 /PFTNA Coal Quality Manager

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)



Find out more at thermofisher.com/coal