

Formula

Type: Methane Sensor METS

Serial number: **G63-E277**

$$c = \exp \left[1,802 * \ln \left\{ \left(-0,072 + 1,347 * \exp \frac{-V_t}{1,297} \right) * \left(\frac{1}{V_{CH_4}} - \frac{1}{-10,227 + 18,442 * \exp \frac{-V_t}{3,188}} \right) \right\} \right]$$

$$t = (V_t * 22,80) - 2,14$$

O₂ correction:

$$c_{CH_4} (corr) = \left(-0,251 + 0,286 * \exp \frac{c_{O_2}}{68,144} \right) * c_{CH_4}$$

c_{CH_4} = methane concentration [$\mu\text{mol/l}$]

t = gas temperature [$^{\circ}\text{C}$]

V_{CH_4} = methane voltage [V]

V_t = temperature voltage [V]

c_{O_2} = O₂ concentration [%]

Methane range: 10 nmol/l - 1 $\mu\text{mol/l}$

Temperature range: 10 – 30 $^{\circ}\text{C}$

Calibrator : J.G.

Date :