

Formula

Type: Methane Sensor METS

Serial number: **G63-E277**

$$c = \exp \left[1,927 * \ln \left\{ \left(0,464 + 0,715 * \exp \frac{-V_t}{0,722} \right) * \left(\frac{1}{V_{CH_4}} - \frac{1}{-1,441 + 12,609 * \exp \frac{-V_t}{1,160}} \right) \right\} \right]$$

$$t = (V_t * 22,56) - 4,72$$

O₂ correction:

$$c_{CH_4}(corr) = \left(-1,432 + 1,425 * \exp \frac{c_{O_2}}{186,814} \right) * c_{CH_4}$$

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.

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Date :