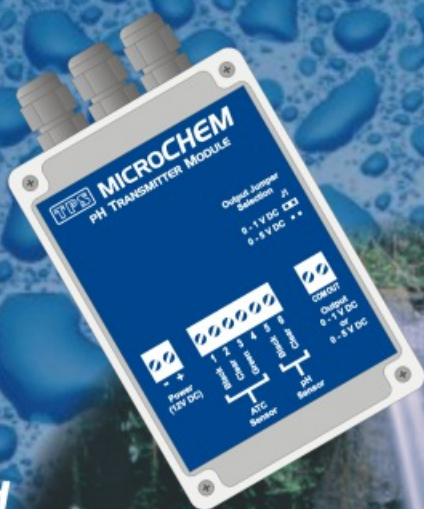




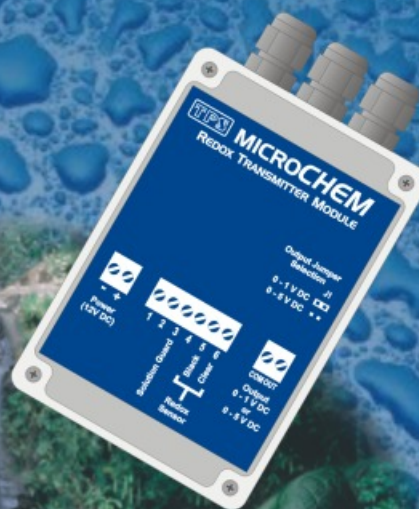
MICROCHEM

Transmitter Modules

pH



Redox



*Dissolved
Oxygen*



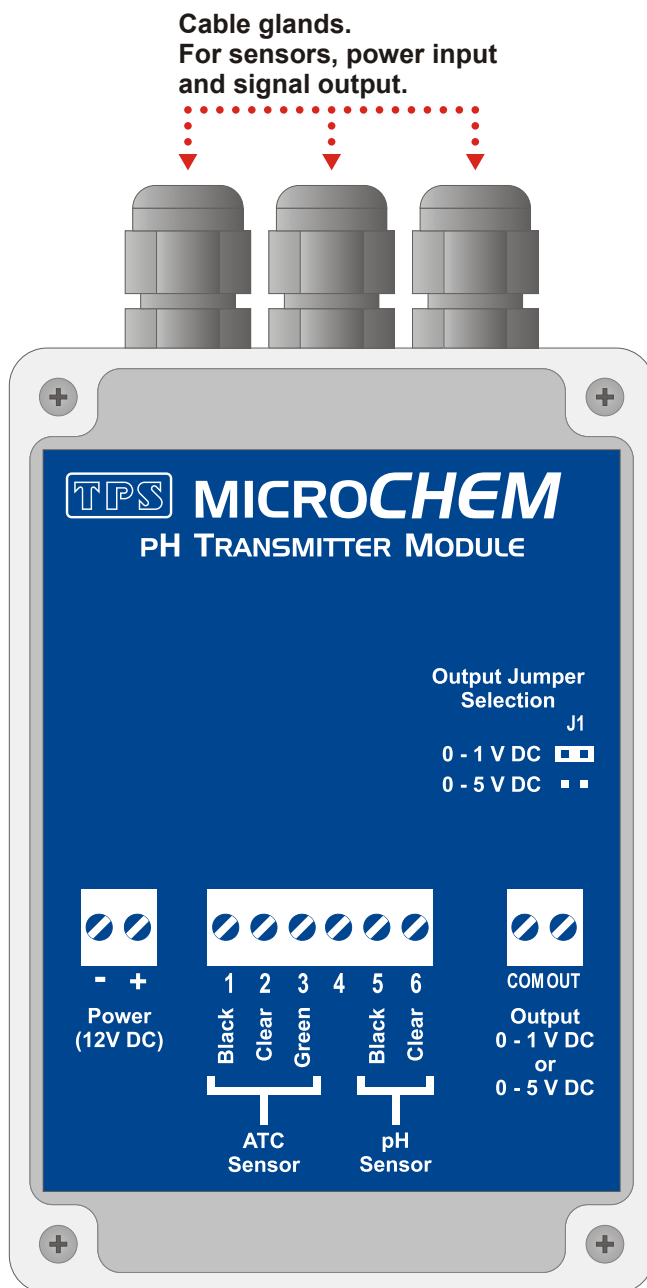
Temperature



*Salinity /
TDS*

Conductivity

www.tps.com.au



microCHEM unit shown actual size.



General Specifications

Enclosure Polycarbonate,
waterproof to IP65

Outputs 0 to 1 V DC
0 to 5 V DC

Isolation
Galvanic isolation of sensor inputs
for all models.

Voltage outputs are not isolated.

Power 12 V DC
approx 10 mA

Dimensions
Enclosure. 125 x 85 x 56 mm
PCB only 115 x 77 mm
(82 x 58 mm mounting hole centres)

Mass
Instrument only Approx 250 g
Full Kit Approx 1.0 kg

Instrument Operating Environment
Temperature. 0 to 45 °C

MICROCHEM Series

The all-new **MICROCHEM** series are a simple, no fuss solution for many water quality monitoring applications. With industry-standard 0 to 1 V DC and 0 to 5 V DC outputs, they are designed specifically to interface with commercial dataloggers and PLC units.

All **MICROCHEM** units are easy to install. The enclosure is waterproof to IP65, so a separate cabinet is not required. Waterproof cable glands are provided for the input and output cables.

The **MICROCHEM** series is the best value range of water quality transmitter available today. They are ideal for environmental monitoring, cooling tower control, and any industrial site utilising centralised control systems.

The **MICROCHEM** series is an excellent solution for Original Equipment Manufacturers (OEM's) who wish to incorporate water quality monitoring into

their own designs. Over 30 years experience in this industry ensures that the **MICROCHEM** series provide accuracy and reliability without the OEM needing to spend any time or money on R & D.

For even greater output flexibility, ask about the **420 ToolBox**. This module provides such features as reversing the voltage signal, 4 - 20 mA output, control relay, RS232 interface or pulsed output.

The **MICROCHEM** series is proudly designed and manufactured in Australia. The TPS Quality System has been certified in accordance with AS/NZS ISO9001 standards. You can always be assured of the best quality, service and value for money.

Specifications and Ordering Information

MICROCHEM pH

Specifications

Range 0 to 14.00 pH
Resolution 0.01 pH
Accuracy +/-0.01 pH
Linearity +/-0.01 pH
Repeatability +/-0.01 pH
Ambient Drift .. <0.01 pH per 10°C
..... change
Long Term Drift .. <0.1% per year
Temperature Compensation
Automatic, 0 to 100 °C
Asymmetry Range +/- 1 pH
Slope Range 80 to 110%
Input Impedance .. >3x10¹² Ohms
Common Mode
Rejection 120dB

Ordering Information

microCHEM - pH 111144

Kit Includes:

pH6.88 Buffer, 200mL 121306
pH4.00 Buffer, 200mL 121381
Handbook 130050

"Dip" mounted sensors and submersible assembly:

Submersible, pH Sensor, 5m . 111228
Intermediate Junction pH. . . . 111227
(for use in slurries, sewage etc)
ATC Probe, #316 s/s, 5m 111275
Submersible Assembly 111303
Extended cable / metre 130040

Screw-in sensors and adaptor for 40mm PVC pipe:

Screw-in pH Sensor, 5m 111244
Screw-in ATC Sensor, 5m. . . 111265
Screw-in thread adaptor 111305
Extended cable / metre 130040

See brochure number B-1 for full details on industrial pH & ATC sensors.

MICROCHEM Redox

Specifications

Range 0 to +1000 mV
..... (0 to -1000 mV optional)
Resolution 1 mV
Accuracy +/-1 mV
Linearity +/-1 mV
Repeatability +/-1 mV
Ambient Drift <0.02% span/°C
Long Term Drift .. <0.1% per year
Zero Range +/-100 mV
Input Impedance .. >3x10¹² Ohms
Common Mode
Rejection 120dB

Ordering Information

microCHEM - Redox . 111146

Kit Includes:

ZoBell Standard 121309
(200mL each of Part A and Part B)
Handbook 130050

"Dip" mounted sensors and submersible assembly:

Submersible, Redox, 5m 111260
Intermediate Junction Redox. 121267
(for use in slurries, sewage etc)
Earth Rod, #316 s/s, 5m. . . . 121360
Submersible Assembly 111303
Extended cable / metre 130040

Screw-in sensors and adaptor for 40mm PVC pipe:

Screw-in Redox Sensor, 5m . 111262
Earth Rod, #316 s/s, 5m . . . 121360
Screw-in thread adaptor 111305
Extended cable / metre 130040

See brochure number B-2 for full details on industrial Redox (ORP) sensors.

MICROCHEM Temperature

Specifications

Range 0 to 199.9 °C
..... (sensor limit 120 °C)
Resolution 0.1 °C
Accuracy +/-0.1 °C
Linearity +/-0.1 °C
Repeatability +/-0.1 °C
Ambient Drift <0.02% span/°C
Long Term Drift .. <0.1% per year
Zero Range +/-10 °C

Ordering Information

microCHEM - Temp. . 114144

Kit Includes:

Handbook 130050

"Dip" mounted sensor:

Silicon Temp Sensor, 114200
#316 s/s body, 5m
Extended cable / metre 130040

Screw-in sensor and adaptor for 40mm PVC pipe:

Screw-in Silicon Temp 114201
Sensor, #316 s/s, 5m
Screw-in thread adaptor 111305
Extended cable / metre 130040

See brochure number B-1 for full details on industrial temperature sensors.

MICROCHEM

Dissolved Oxygen

Specifications

Ranges 0 to 199.9% Saturation
 OR
 0 to 19.99 ppM (mg/L)
 (Factory set)

Resolution 0.1 % Saturation
 OR
 0.01 ppM (mg/L)

Accuracy +/-0.2% of full scale

Linearity +/-0.1%

Repeatability +/-0.2%

Ambient Drift <0.05% span/°C

Long Term Drift <0.2% per year

Temperature Compensation
 Dual automatic temperature compensation system, 0 to 50 °C (sensor limit).

Zero Range +/-10%

Span Range 70 to 130%

Sensor
 Polarographic sensor with inbuilt ATC sensor.
 Factory set for TPS ED1M or EDYSI dissolved oxygen sensor.

Ordering Information

microCHEM - DO 113144

Standard Kit Includes:

Handbook 130050

TPS ED1M DO₂ sensor and cable (Submersible to 3m max)

ED1M DO₂ Sensor, 123440 (NO CABLE)

5m cable for ED1M, 123236

Extended cable / metre 130040

YSI DO₂ sensor and cable

EDYSI DO₂ Sensor, 123204 (NO CABLE)

5m cable for EDYSI 123210

Extended cable / metre 130040

MICROCHEM

Conductivity

Specifications

Ranges
 k=0.1 Sensor 0 to 19.99 uS/cm
 0 to 199.9 uS/cm
 0 to 1999 uS/cm

k=1.0 Sensor 0 to 199.9 uS/cm
 0 to 1999 uS/cm
 0 to 19.99 mS/cm

k=10 Sensor 0 to 1999 uS/cm
 0 to 19.99 mS/cm
 0 to 199.9 mS/cm

Resolution 0.1% of full scale

Accuracy +/-0.2% of full scale
 at 25°C

Linearity +/-0.05% of full scale

Repeatability +/-0.05% of full scale

Ambient Drift <0.02%/°C

Long Term Drift <0.1% per year

Temperature Compensation
 Automatic, 0 to 100 °C

Zero Range +/-5%

Span Range 70 to 130%

Sensors Platinised Platinum
 k=0.1, k=1.0 or k=10.

Ordering Information

microCHEM - Cond . . 112144

Standard Kit Includes:

Handbook 130050

Conductivity standard to suit customer-specified range.

Conductivity Sensors

k=0.1 Industrial Sensor, 5m . 112205

k=1.0 Industrial Sensor, 5m . 112206

k=10 Industrial Sensor, 5m . 112207

Extended cable / metre 130040

Flow-through chamber

Cond flow chamber 112205

1/2" BSP input and output ports

MICROCHEM

Salinity / TDS

Specifications

Ranges
 k=0.1 Sensor 0 to 10.00 ppM
 0 to 100.0 ppM
 0 to 1000 ppM

k=1.0 Sensor 0 to 100.0 ppM
 0 to 1000 ppM
 0 to 10.00 ppK

k=10 Sensor 0 to 1000 ppM
 0 to 10.00 ppK
 0 to 100.0 ppK

Resolution 0.1% of full scale

Accuracy +/-0.2% of full scale
 at 25°C

Linearity +/-0.05% of full scale

Repeatability +/-0.05% of full scale

Ambient Drift <0.02%/°C

Long Term Drift <0.1% per year

Temperature Compensation
 Automatic, 0 to 100 °C

Zero Range +/-5%

Span Range 70 to 130%

Sensors Platinised Platinum
 k=0.1, k=1.0 or k=10.

Ordering Information

microCHEM - Salinity.112146

Standard Kit Includes

Handbook 130050

Salinity / TDS standard to suit customer-specified range.

Salinity/TDS Sensors

k=0.1 Industrial Sensor, 5m . 112205

k=1.0 Industrial Sensor, 5m . 112206

k=10 Industrial Sensor, 5m . 112207

Extended cable / metre 130040

Flow-through chamber

Cond flow chamber 112205

1/2" BSP input and output ports



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 TPS reserves the right to change this specification without notice.
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