



# Mi405/Mi407/Mi408/Mi412

## Ammonia, Iron & Phosphate Photometers

These user-friendly Colorimeters will give you direct readings in mg/L.

Ammonia detection in water treatment systems is particularly important for aquarium owners and fish farm operators.





Ammonia is highly soluble in water and extremely toxic to fish. Fish farm owners must monitor and maintain careful control of ammonia levels to ensure optimum water conditions for their stock. Milwaukee offers 2 instruments for low and medium concentrations: **Mi405** with a range of 0.00 to 9.99 mg/L and **Mi407** from 0.00 to 3.00 mg/L

Iron is naturally present in water supplies and its presence in both potable and industrial applications is regarded as objectionable. Milwaukee offers **Mi408** Iron meter with a range of 0.00 to 5.00 mg/L.

Phosphates are present in natural waters and at concentrations typically found, do not pose any specific health threats to humans.

However, excessive contamination of water courses from agricultural fertilizer run off or wastewater/effluent discharge can promote excessive algae or plant growth. Milwaukee offers **Mi412** with range 0.00 to 2.50 mg/L.



Specifications		 <b>Mi405</b> Ammonia MR	 <b>Mi407</b> Ammonia LR	 <b>Mi408</b> Iron HR	 <b>Mi412</b> Phosphate LR
Range	Ammonia Iron Phosphate	0.00 to 9.99 mg/L ( $\text{NH}_3\text{-N}$ )	0.00 to 3.00 mg/L ( $\text{NH}_3\text{-N}$ )	0.00 to 5.00 mg/L (Fe)	0.00 to 2.50 mg/L ( $\text{PO}_4$ )
Resolution	Ammonia Iron Phosphate	0.01 mg/L	0.01 mg/L	0.01 mg/L	0.01 mg/L
Accuracy	Ammonia Iron Phosphate	$\pm 0.10$ mg/L @ 5.00 mg/L	$\pm 0.04$ mg/L @ 1.50 mg/L	$\pm 0.03$ mg/L @ 1.50 mg/L	$\pm 0.04$ mg/L @ 1.00 mg/L
Method		adaptation of Nessler method	adaptation of Nessler method	adaptation of the USEPA method 315 B and Standard method 3500 - Fe B	adaptation of the Ascorbic Acid method
Light Source		Blue LED 466 nm	Blue LED 466 nm	tungsten lamp	tungsten lamp
Light Detector		silicon photocell and 466 nm narrow band interference filter	silicon photocell and 466 nm narrow band interference filter	silicon photocell and 525 nm narrow band interference filter	silicon photocell and 610 nm narrow band interference filter
Environment		0 to 50°C / 32 to 122°F max RH 100%	0 to 50°C / 32 to 122°F max RH 100%	0 to 50°C / 32 to 122°F max RH 100%	0 to 50°C / 32 to 122°F max RH 100%
Battery Type		1 x 9 V	1 x 9 V	1 x 9 V	1 x 9 V
Auto-off		after 10 minutes of non-use	after 10 minutes of non-use	after 10 minutes of non-use	after 10 minutes of non-use
Dimensions		192 x 104 x 52 mm	192 x 104 x 52 mm	192 x 104 x 52 mm	192 x 104 x 52 mm
Weight		380 g	380 g	380 g	380 g

### Accessories

**Mi505-100** Ammonia MR liquid reagent (100 tests)  
**Mi507-100** Ammonia LR liquid reagent (100 tests)  
**Mi508-100** Iron HR liquid reagent (100 tests)  
**Mi512-100** Phosphate LR powder reagent (100 tests)

**Mi0001** Glass cuvetts (2 pcs)  
**Mi0002** Caps for cuvetts (2 pcs)  
**Mi0003** Stoppers for cuvetts (2 pcs)



### Ordering Information

**Mi405**, **Mi407**, **Mi408** and **Mi412** are supplied complete with 2 cuvetts, reagents for 100 tests, hard carrying case, wiping tissue, 9V battery and instructions.

# Mi404/Mi406/Mi413/Mi414

## Free & Total Chlorine and Chloride Photometers

Milwaukee provides a range of chlorine photometers for all applications: swimming pool treatments, household cleaners, dishwasher additives, laundry powders/liquids and cooling water treatment products all contain chlorine as an oxidizing biocide. Drinking water contains residual chlorine to maintain water purity throughout the supply lines.

Milwaukee offers 3 microprocessor-based instruments with greater resolution, better accuracy and immediate results.

You can choose between three different models:

**Mi404** for measuring free (0.00 to 5.00 mg/L) and total (0.00 to 5.00 mg/L) chlorine, **Mi406** for measuring free (0.00 to 5.00 mg/L) chlorine and **Mi413** for measuring free (0.00 to 10.00 mg/L) and total (0.00 to 10.00 mg/L) chlorine.





Chloride is a major constituent of sea water and is extremely corrosive in acidic environments. It requires close monitoring in applications such as marine boiler systems that are effected by seawater contamination.

Chlorides are used by the water treatment professional to determine cycles of concentration in low pressure boilers and cooling systems.

It is essential to monitor chloride concentrations in boiler systems to prevent metal parts being damaged. In high levels, chloride can corrode stainless steel.

Milwaukee offers the **Mi414** microprocessor-based photometer for measuring chloride (0.00 to 20.00 mg/L).



Specifications	 <b>Mi404</b> Free & Total Chlorine	 <b>Mi406</b> Free Chlorine	 <b>Mi413</b> Free & Total Chlorine HR	 <b>Mi414</b> Chloride
<b>Range</b>	Free Chlorine 0.00 to 5.00 mg/L (Cl <sub>2</sub> ) Total Chlorine 0.00 to 5.00 mg/L (Cl <sub>2</sub> )	0.00 to 5.00 mg/L (Cl <sub>2</sub> )	0.00 to 10.00 mg/L (Cl <sub>2</sub> ) 0.00 to 10.00 mg/L (Cl <sub>2</sub> )	0.00 to 20.00 mg/L (Cl <sup>-</sup> )
<b>Resolution</b>	Free Chlorine 0.01 mg/L (0.00 to 3.50 mg/L); 0.10 mg/L (above 3.50 mg/L) Total Chlorine 0.01 mg/L (0.00 to 3.50 mg/L); 0.10 mg/L (above 3.50 mg/L)	0.01 mg/L (0.00 to 3.50 mg/L); 0.10 mg/L (above 3.50 mg/L)	0.01 mg/L (0.00 to 3.50 mg/L); 0.10 mg/L (above 3.50 mg/L) 0.01 mg/L (0.00 to 3.50 mg/L); 0.10 mg/L (above 3.50 mg/L)	0.01 mg/L
<b>Accuracy</b>	Free Chlorine ±0.04 mg/L @1.50 mg/L Total Chlorine ±0.04 mg/L @1.50 mg/L	±0.04 mg/L @1.50 mg/L	±0.10 mg/L @5.00 mg/L ±0.10 mg/L @5.00 mg/L	±0.4 mg/L @10.0 mg/L
<b>Method</b>	adaptation of USEPA method 330.5 and Standard Method 4500-Cl G	adaptation of USEPA method 330.5 and Standard Method 4500-Cl G	adaptation of USEPA method 330.5 and Standard Method 4500-Cl G	adaptation of mercury (II) thiocyanate method
<b>Light Source</b>	tungsten lamp	tungsten lamp	tungsten lamp	Blue LED 466 nm
<b>Light Detector</b>	silicon photocell and 525 nm narrow band interference filter	silicon photocell and 525 nm narrow band interference filter	silicon photocell and 525 nm narrow band interference filter	silicon photocell and 466 nm narrow band interference filter
<b>Environment</b>	0 to 50°C / 32 to 122°F max RH 100%	0 to 50°C / 32 to 122°F max RH 100%	0 to 50°C / 32 to 122°F max RH 100%	0 to 50°C / 32 to 122°F max RH 100%
<b>Battery Type</b>	1 x 9 V	1 x 9 V	1 x 9 V	1 x 9 V
<b>Auto-off</b>	after 10 minutes of non-use	after 10 minutes of non-use	after 10 minutes of non-use	after 10 minutes of non-use
<b>Dimensions</b>	192 x 104 x 52 mm	192 x 104 x 52 mm	192 x 104 x 52 mm	192 x 104 x 52 mm
<b>Weight</b>	380 g	380 g	380 g	380 g

### Accessories

**Mi504-100** Free & Total Chlorine liquid reagent set (100 tests)

**Mi506-100** Free Chlorine liquid reagent set (100 tests)

**Mi513-045** Free & Total Chlorine liquid reagent set (45 tests)

**Mi514-100** Chloride liquid reagent set (100 tests)

**Mi524-100** Total Chlorine powder reagents (100 tests)

**Mi526-100** Free Chlorine powder reagents (100 tests)

**Mi0001** Glass cuvetts (2 pcs)

**Mi0002** Caps for cuvetts (2 pcs)

**Mi0003** Stoppers for cuvetts (2 pcs)



### Ordering Information

**Mi404, Mi406, Mi413 and Mi414** are supplied complete with 2 cuvetts, reagents, hard carrying case, wiping tissue, 9V battery and instructions.