Disinfectant Sensor Selection
For RPH-250 & RPH-260

	Disinfectant Probe			
	F1	**F2**	**F3**	**T1**
Measurement Type:	Free Chlorine	Free Chlorine	Free Chlorine	Total Chlorine
Available Range:	0.5, 2, 5, 10 & 20 PPM	2, 5, 10, 20 & 200 PPM	1, 2 & 5 PPM	0.5, 2, 5, 10 & 20 PPM
Range Selection:	$target_{PPM}$ x1.5 = range	$target_{PPM}$ x 1.5 = range	$target_{PPM}$ x 1.5 = range	$target_{PPM}$ x 1.5 = range
Conductivity:	Fresh water only	Fresh water or Sea water (10 µS/cm – 50 mS/cm)	Fresh water only	Fresh water (Sea Water w/ MCH-F2 cap)
Measurement Method:	Amperometric 2-electrode	Amperometric Potentiostatic 3-electrode	Amperometric Potentiostatic 3-electrode	Amperometric Potentiostatic 3-electrode
Membrane Cap:	MCH-F1	MCH-F2	-	MCH-T1
Electrolyte:	REH-F1	REH-F2	REH-F3	REH-T1
Flow Cell Type:	Open Flow Cell with Bubble Trap & Diverter	Open Flow Cell with Bubble Trap & Diverter	Pressurized Flow Cell	Open Flow Cell with Bubble Trap & Diverter
Sample Flow:	approx. 15-30 l/h (4-8 gal/h)	approx. 15-30 l/h (4-8 gal/h)	approx. 45-90 l/h (12-24 gal/h)	approx. 15-30 l/h (4-8 gal/h)
Max. Pressure:	0.5 bar (7 PSI)	0.5 bar (7 PSI)	1 bar (15 PSI)	0.5 bar (7 PSI)
Water Temp :	0-45°C (113°F)	0-45°C (113°F)	0-50°C (122°F)	0-45°C (113°F)
pH Range:	6-8 pH	4-9 pH	5-9 pH	4-12 pH
pH Dependence:	Natural ⇒ pH 7.5 = 80% signal ⇒ pH 8.0 = 40% signal ⇒ pH 8.5 = Not suitable	Reduced	Natural	Reduced
pH Compensation:	Recommended	Optional	Optional	Optional
Self Cleaning:	No	No	Yes (CEH-F3 Cleaning Head)	No
Measurement Interferences:	ClO_2, O_3 Water cannot contain: • Surfactants	ClO_2, O_3 Combined Cl_2 will increase measurement value. Water cannot contain: • Hardness stabilizers • Corrosion inhibitors	ClO_2, O_3 Chlorite will increase measurement value. Water cannot contain: • Corrosion inhibitors	ClO_2, O_3 Water cannot contain: • Hardness stabilizers • Corrosion inhibitors
Response Time:	T_{90}: approx. 30 sec.	T_{90}: approx. 2 min	T_{90}: approx. 30 sec.	T_{90}: approx. 2 min
Start-up Time:	approx. 1 hour	approx. 2 hours	1 hour up to 2 days	approx. 2 hours
Absence of Cl2:	24 hours max.	24 hours max.	24 hours max.	24 hours max.
Control of Signal:	Once per week minimum.			
Maintenance:	• Change membrane cap once per year • Change electrolyte every 3-6 months • Clean electrode every 3-6 months	• Change membrane cap once per year • Change electrolyte once per year • Clean electrode once per year	• No cleaning head: Clean gold electrodes every 4-12 weeks • With cleaning head: Clean gold electrodes every 6-12 months • Change electrolyte every 3-6 months	• Change membrane cap once per year • Change electrolyte every 3-6 months • Clean electrode every 3-6 months

NOTES:

1. Some values (e.g. maintenance) are dependent on sample water quality and chlorine residual levels.
2. This information should be used as a guideline only.

600 Emlen Way, Telford, PA 18969 ● Telephone: (215) 799-0980 ● Fax: (215) 799-0984
US Toll Free: (888) 38-HYDRO ● www.hydroinstruments.com ● sales@hydroinstruments.com

	Disinfectant Probe			
	D1	**D2**	**D3**	**C1**
Measurement Type:	Chlorine Dioxide	Chlorine Dioxide	Chlorine Dioxide	Chlorite
Available Range:	0.5, 2, 5, 10 & 20 PPM	0.5, 2, 5, 10, 20 & 200 PPM	1 & 2 PPM	2 PPM
Range Selection:	$target_{PPM}$ x1.5 = range	$target_{PPM}$ x1.5 = range	$target_{PPM}$ x 1.5 = range	$target_{PPM}$ x 1.5 = range
Conductivity:	Fresh water only	Fresh water or Sea water	Fresh water only	Fresh water only
Measurement Method:	Amperometric 2-electrode	Amperometric 2-electrode	Amperometric Potentiostatic 3-electrode	Amperometric Potentiostatic 3-electrode
Membrane Cap:	MCH-F1	MCH-H4 MCH-D2-L1 for 200 PPM	-	MCH-T1
Electrolyte:	REH-D1	REH-D1	REH-F3	REH-C1
Flow Cell Type:	Open Flow Cell with Bubble Trap & Diverter	Open Flow Cell with Bubble Trap & Diverter	Pressurized Flow Cell	Open Flow Cell with Bubble Trap & Diverter
Sample Flow:	approx. 15-30 l/h (4-8 gal/h)	approx. 15-30 l/h (4-8 gal/h)	approx. 45-90 l/h (12-24 gal/h)	approx. 15-30 l/h (4-8 gal/h)
Max. Pressure:	0.5 bar (7 PSI)	0.5 bar (7 PSI)	1 bar (15 PSI)	0.5 bar (7 PSI)
Water Temp :	0-45°C (113°F)	0-50°C (122°F)	0-50°C (122°F)	0-40°C (104°F)
pH Range:	1-12 pH	1-12 pH	1-12 pH	6-9 pH
pH Dependence:	ClO2 decomposition begins at pH ≥12	ClO2 decomposition begins at pH ≥12	ClO2 decomposition begins at pH ≥12	-
Self Cleaning:	No	No	Yes (CEH-F3 Cleaning Head)	No
Measurement Interferences:	Cl_2, O_3	O_3 Sudden temp. changes must be avoided.	Cl_2 Chlorite will increase measurement value. Sudden temp. changes must be avoided. Water cannot contain: • Corrosion inhibitors	Fe^{2+}, Mn^{2+}, Nitrite Water cannot contain: • Hardness stabilizers • Corrosion inhibitors
Response Time:	T_{90}: approx. 15 sec.	T_{90}: approx. 1.5 min.	T_{90}: approx. 30 sec.	T_{90}: approx. 1 min
Start-up Time:	approx. 1 hour	approx. 1 hour	1 hour up to 2 days	approx. 24 hours
Absence of disinfectant:	24 hours max.	24 hours max.	24 hours max.	24 hours max.
Control of Signal:	Once per week minimum.			
Maintenance:	• Change membrane cap once per year • Change electrolyte every 3-6 months • Clean electrode every 3-6 months	• Change membrane cap once per year • Change electrolyte every 3-6 months • Clean electrode every 3-6 months	• No cleaning head: Clean gold electrodes every 4-12 weeks • With cleaning head: Clean gold electrodes every 6-12 months • Change electrolyte every 3-6 months	• Change membrane cap once per year • Change electrolyte every 3-6 months • Clean electrode every 3-6 months

NOTES:

1. Some values (e.g. maintenance) are dependent on sample water quality and chlorine residual levels.
2. This information should be used as a guideline only.

600 Emlen Way, Telford, PA 18969 ● Telephone: (215) 799-0980 ● Fax: (215) 799-0984
US Toll Free: (888) 38-HYDRO ● www.hydroinstruments.com ● sales@hydroinstruments.com

	Disinfectant Probe			
	PE4	**H4**	**B1**	**O1**
Measurement Type:	Peracetic Acid	Hydrogen Peroxide	Free Bromine	Ozone
Available Range:	200, 500, 1000 & 2000 PPM	200, 500 & 2000 PPM	2, 5, 10 & 20 PPM	0.5, 2, 5, 10 & 20
Range Selection:	$target_{PPM}$ x1.5 = range	$target_{PPM}$ x 1.5 = range	$target_{PPM}$ x 1.5 = range	$target_{PPM}$ x 1.5 = range
Conductivity:	All water	All water	Fresh water	Fresh Water
Measurement Method:	Amperometric 2-electrode	Amperometric 2-electrode	Amperometric Potentiostatic 3-electrode	Amperometric 2-electrode
Membrane Cap:	MCH-H4	MCH-H4	MCH-T1	MCH-F1
Electrolyte:	REH-PE4	REH-H4	REH-T1	REH-O1
Flow Cell Type:	Open Flow Cell with Bubble Trap & Diverter	Open Flow Cell with Bubble Trap & Diverter	Open Flow Cell with Bubble Trap & Diverter	Open Flow Cell with Bubble Trap & Diverter
Sample Flow:	approx. 15-30 l/h (4-8 gal/h)	approx. 15-30 l/h (4-8 gal/h)	approx. 15-30 l/h (4-8 gal/h)	approx. 15-30 l/h (4-8 gal/h)
Max. Pressure:	0.5 bar (7 PSI)	0.5 bar (7 PSI)	0.5 bar (7 PSI)	0.5 bar (7 PSI)
Water Temp :	0-45°C (113°F)	0-45°C (113°F)	0-45°C (113°F)	0-45°C (113°F)
pH Range:	1-6 pH	2-11 pH	6.5-9.5 pH	2-11 pH
pH Dependence:	-	-	Reduced	-
Self Cleaning:	No	No	No	No
Measurement Interferences:	ClO_2, O_3, H_2O_2	Water cannot contain: • Cl_2, O_3 or PAA • Sulfides • Phenol	Cl_2, ClO_2, O_3 Water cannot contain: • Hardness stabilizers • Corrosion inhibitors	Cl_2, ClO_2
Response Time:	T_{90}: approx. 3 min.	T_{90}: approx. 5-10 min.	T_{90}: approx. 2 min	T_{90}: approx. 15 sec.
Start-up Time:	approx. 1-3 hours	approx. 5 hours	approx. 2 hours	approx. 1 hour
Absence of disinfectant:	24 hours max.	24 hours max.	24 hours max.	24 hours max.
Control of Signal:	Once per week minimum.			
Maintenance:	• Change membrane cap once per year • Change electrolyte every 3-6 months • Clean electrode every 3-6 months	• Change membrane cap once per year • Change electrolyte every 3-6 months • Clean electrode every 3-6 months	• Change membrane cap once per year • Change electrolyte every 3-6 months • Clean electrode every 3-6 months	• Change membrane cap once per year • Change electrolyte every 3-6 months • Clean electrode every 3-6 months

NOTES:

1. Some values (e.g. maintenance) are dependent on sample water quality and chlorine residual levels.
2. This information should be used as a guideline only.

600 Emlen Way, Telford, PA 18969 ● Telephone: (215) 799-0980 ● Fax: (215) 799-0984
US Toll Free: (888) 38-HYDRO ● www.hydroinstruments.com ● sales@hydroinstruments.com