



KIT FOR WATER ANALYSIS

**TOTAL HARDNESS**

GESAMTHÄRTE - TITRE HYDROTIMETRIQUE TOTAL  
DUREZZA TOTALE - TITOLO HIDROTIMETRICO

Instant  
Precision  
Test

ppm

**DiST 1**

by HANNA



# 13.0

**Dosing and analysis  
systems**

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# 13.1 RAPID ANALYSIS KITS

## IPT ANALYSIS KIT

Code	Description	€
HI3810	Dissolved oxygen titre analysis kit	
HI3810-100	Spare reagent kit for 110 dissolved oxygen tests	
KA300313	Hydrogen peroxide analysis kit (0 - 25 ppm)	
KA001001	Acidity kit m tit.	
KA001002	Kit alkalinity tit. p. ed m	
KA001003	Boiler alkalinity kit t. p and m (1 epm)	
KA001004	Alkalinity kit M tit. (1 °f)	
KA001005	Alkalinity kit p tit. (1 epm)	
KA001006	Ammonia kit col. (Nessler)	
KA001007	Carbon dioxide kit tit.	
KA001008	Strong anion tit. kit (to be used in conjunction with KA001001)	
KA001009	Football kit tit. (1 °f)	
KA001010	Kit o-tol. col. 0,1 - 1,5 ppm	
KA001011	DPD chlorine kit col. 0,1 - 1,5 ppm	
KA001012	Chloride titration kit (1 °f)	
KA001013	Chrome kit col. 0,05 - 1 ppm	
KA001014	Demineralisation kit col.	
KA001015	Titanium hardness kit	
KA001016	Iron kit col. 0,05 - 15 ppm	
KA001017	Phosphate kit col. (1 - 20 ppm)	
KA001018	Hydrazine kit col. 0,1 - 1,5 ppm	
KA001019	Nitrite kit col.	
KA001020	pH 0 - 5 colourimetric kit	
KA001021	pH kit 6.8 - 8.4 colorimetric	
KA001022	pH 1 - 11 Colorimetric Kit	
KA001024	Kit silica col.	
KA001025	Sulphite kit 2 ppm tit.	
KA001025.1	Sulphite kit 10 ppm tit.	
KA001026	Total alkalinity kit tit.	
KA001027	Boiler hardness kit tit. (1 °f)	
KA001028	Nitrate kit col.	
KA001029	Hardness precipitation kit	
KA001030	Phosphate kit col. (5 - 100 ppm)	
KA001031	Colorimetric chloride kit	
KA001032	Residual hardness kit col. (0.5 - 3 ppm CaCO <sub>3</sub> )	
KA001035	Molybdenum titration kit	
KA001039	Kit manganese col.	
KA006261	Soap Solution Kit 6 x 250	
KA300314	Arsenic analysis kit 0.005-0.5 mg/l (1x100 tests)	



## CHEAP TEST KITS

Code	Description	€
KA005001	Hardness kit 2 fl. single reagent 1°f tit. in blister pack	
KA005006	Hardness kit 1 fl. single reagent 1°f tit. in blister pack	
KA005010	Col. swimming pool kit (o-tol. chlorine and pH) in blister pack	
KA005011	Residual titration hardness kit in blister pack	
KA005030	Colorimetric pH 5 - 9.5 kit in blister pack	
KA005007	Hardness kit 1 fl. single reagent 1°Dh tit. in blister pack	



## KIT KIT

Code	Description	€
KA002001	Water analysis kit	
KA002002	Basic boiler kit	
KA002004	Simple boiler kit	
KA002006	Swimming pool kit	

## TITRATION REAGENTS

Code	Description	€
KA003203	Kick Kit A x 6 (to be used in conjunction with KA003001)	
KA003207	Chloride kit tit. A x 6	
KA003208	Chloride kit tit. B x 6	
KA003221	Sulphite Kit A x 6	
KA003222	Sulphite Kit B x 6	
KA003247	Hardness kit A x 6 (for boilers)	
KA003250	Kit precipitated dur. A x 6	
KA003251	Kit precipitated dur. B x 6	
KA003252	Hardness precipitation kit 1 x 250 A + 1 x 250 B	
KA003253	Spare reagent A prec. hardness 2 x 250	
KA003254	Spare reagent B pre-hardness 2 x 250	
KA003260	Soap Solution Kit 6 x 25	
KA003263	Molybdenum tit. A x 6	
KA003265	Molybdenum tit. B x 6	

## INDICATOR SPARE PARTS 6 BOTTLES

Code	Description	€
KA003001	Replacement calcium polv. indicator (to be used in conjunction with KA003001)	
KA003002	Spare hardness indicator conf. 6 X 15 ml.	
KA003003	Spare indicator m conf. 6 X 15 ml.	
KA003004	Spare indicator p conf. 6 X 15 ml.	
KA003005	Replacement pH indicator 0 - 5 pack. 6 X 25 ml.	
KA003006	Replacement pH indicator 6.8 - 8.4 conf. 6 X 25 ml.	
KA003007	Replacement pH indicator 1 - 11 pack. 6 X 25 ml.	
KA003008	Replacement pH indicator 6.8 - 8.4 conf. 6 X 15 ml.	

## SPARE PARTS REAGENTS COLOUR METERS

Code	Description	€
KA003201	Ammonia replacement A	
KA003202	Ammonia replacement B	
KA003204	Total chlorine reagent A	
KA003209	Chrome-plated replacement A	
KA003210	Chrome-plated replacement B	
KA003211	Iron replacement	
KA003212	Replacement residual hardness	
KA003213	Phosphate replacement 1 - 20 ppm A	
KA003214	Phosphate replacement 1 - 20 ppm B	
KA003215	Hydrazine replacement	
KA003216	Nitrite exchange	
KA003218	Replacement silica A	
KA003219	Replacement silica B	
KA003220	Replacement silica C	
KA003239	Chlorine Replacement DPD A	
KA003240	Chlorine Replacement DPD B	
KA003241	DPD Chlorine Refill C	
KA003244	Nitrate replacement	
KA003255	Chloride replacement col. A	
KA003256	Chloride replacement col. B	
KA003257	Phosphate replacement 5 - 100 ppm A	
KA003258	Phosphate replacement 5 - 100 ppm B	
KA003276	Replacement manganese col. A	
KA003278	Replacement manganese col. B	
KA003279	Replacement manganese col. C	

## TITRATION SPARE PARTS 25ML

Code	Description	€
KA003101	Alkalinity titrant refill 1f conf. 6-pack	
KA003103	Spare alkalinity titrant 1 epm conf. 6-pack	
KA003105	Spare acidity titrant 1°f conf. 6-pack	
KA003107	Calcium titrant refill 1f conf. 6-pack	
KA003109	Chloride titrant refill 1f conf. 6-pack	
KA003111	Replacement hardness titrant 1°f conf. 6-pack	
KA003113	Spare sulphite titrant 2 ppm conf. 6-pack	
KA003113.1	Spare sulphite titrant 10 ppm conf. 6-pack	
KA003123	Spare molybdenum titrant 10 ppm conf. 6-pack	

## TITRATION SPARE PARTS 250ML

Code	Description	€
KA003102	Alkalinity titrant refill 1f conf. 6-pack	
KA003104	Spare alkalinity titrant 1 epm conf. 6-pack	
KA003106	Spare acidity titrant 1°f conf. 6-pack	
KA003108	Calcium titrant refill 1f conf. 6-pack	
KA003110	Chloride titrant refill 1f conf. 6-pack	
KA003112	Replacement hardness titrant 1°f conf. 6-pack	
KA003114	Spare sulphite titrant 2 ppm conf. 6-pack	
KA003114.1	Spare sulphite titrant 10 ppm conf. 6-pack	
KA003124	Spare molybdenum titrant 10 ppm conf. 6-pack	

## TUBES

Code	Description	€
KA003310	10 round 25 ml test tubes	
KA003312	12 x 10 ml round tubes	



# 13.2 TOOLS FOR ANALYSIS

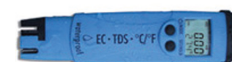
## POCKET TOOLS

### CONDUCTIVITY METERS

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Dosing and analysis systems

Code	Description	€
HI98129	COMBO - Pocket instrument for measuring pH - Conductivity - TDS - Temperature, automatic calibration, replaceable pH electrode	
HI98301	DiST 1 - Pocket instrument for TDS measurement scale 0 - 1999 ppm manual calibration, replaceable probe (TDS conversion factor 0.5)	
HI98302	DiST 2 - Pocket instrument for measuring TDS scale 0 - 10.00 ppt (g/l) manual calibration, replaceable probe	
HI98303	DiST 3 - Pocket instrument for Conductivity measurement scale 0 - 1999 $\mu\text{S}/\text{cm}$ manual calibration, replaceable probe	
HI98304	DiST 4 - Pocket instrument for Conductivity measurement scale 0 - 1999 $\mu\text{S}/\text{cm}$ manual calibration, replaceable probe	
HI98309	UPW - Pocket instrument for measuring Conductivity in ultrapure water scale 0.000 - 1.999 $\mu\text{S}/\text{cm}$ (resolution 0.001 $\mu\text{S}/\text{cm}$ )	
HI98311	Dist 5 - Watertight pocket instrument for measuring Conductivity scale 0 - 3999 $\mu\text{S}/\text{cm}$ - TDS - Temperature, automatic calibration, replaceable probe	
HI98312	Dist 6 - Waterproof pocket instrument for measuring Conductivity scale 0 - 20.00 mS/cm - TDS - Temperature, automatic calibration, replaceable probe	
OI022080	TDS METER - Pocket instrument for measuring TDS scale 10 - 1990 ppm manual calibration	



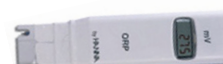
### PH-METERS

Code	Description	€
HI98103	CHECKER - Pocket instrument for pH measurement scale 0.00 - 14.00 , manual calibration, replaceable electrode	
HI98100	CHECKER - Pocket instrument for pH measurement scale 0.0 - 14.0, automatic calibration, replaceable electrode	
HI98107	pHep - Pocket instrument for pH measurement scale 0.0 - 14.0 , manual 2-point calibration	
HI98127	pHep 4 - Watertight pocket instrument for temperature measurement - pH scale -2.0 - 16.0, automatic calibration	



### REDOXIMETERS

Code	Description	€
HI98120	Watertight pocket instrument for measuring Redox potential - temperature, replaceable ORP electrode	
HI98201	Watertight pocket instrument for measuring Redox potential - temperature, replaceable ORP electrode	



## DIGITAL THERMOMETER

Code	Description	€
HI98509	Checktemp 1 C - Digital thermometer scale -50.0 +150.0 °C complete with steel probe and 1 m cable	



## ORIGINAL

Code	Description	€
HI73127	Replacement pH electrode for HI98127	



## CONDUCTIVITY METERS

Code	Description	€
BLUCOND	Conductivity meter with display set point 10/400 µs complete	



## CALIBRATION SOLUTION

Code	Description	€
HI70004P	Calibration Solution pH 4.01 - 25 sachets 20 ml	
HI70007P	Calibration Solution pH 7.01 - 25 sachets 20 ml	
HI70010P	Calibration Solution pH 10.01 - 25 sachets 20 ml	
HI70031P	Conductivity calibration solution 1413 µS - 25 sachets 20 ml	
HI70032P	TDS 1382 ppm calibration solution - 25 x 20 ml sachets	
HI70038P	Calibration solution TDS 6.44 ppt - 25 x 20 ml sachets	
HI7004L	Calibration Solution pH 4.01 500 ml bottle	
HI7007L	Calibration Solution pH 7.01 500 ml bottle	
HI7009L	Calibration Solution pH 9.18 500 ml bottle	
HI7010L	Calibration Solution pH 10.01 500 ml bottle	
HI77400P	Solutions pH 4 and 7, pack of 5+5 20 ml sachets	



## 13.3 DOSING PUMPS

### DLX SERIES

#### DLX-VFT/MBB DOSING PUMP

Proportional dosing pump Operating functions Manual: manual adjustment of flow rate from 0 to 100%. 1xn: for each pulse received the pump delivers the number of injections selected by the operator. 1xn(M): for each impulse received, the pump delivers the number of injections selected by the operator. If one or more pulses occur during the dosing phase, these are taken into account and the pump delivers a number of injections equal to the product between the received contacts and the selected digit 1:n the pump only delivers an injection of additive when it has detected a number of pulses (contacts) corresponding to the selected digit. TTL: Proportional through input pulses. Available in a version without flow sensor (VFT/MB).

Dosing pump for wall (DLX) or base mounting (DLXB).



Code	Description	€
ET10373	DLX-VFT/MBB pump 1 l/h - 15 bar; 2 l/h - 10 bar; 3 l/h - 5 bar	
ET10374/S	DLX-VFT/MBB pump 1 l/h - 15 bar; 2 l/h - 10 bar; 3 l/h - 5 bar with automatic bleed	
ET10375	DLX-VFT/MBB pump 5 l/h - 7 bar; 6 l/h - 5 bar; 8 l/h - 2 bar	
ET10376	DLX-VFT/MBB pump 8 l/h - 10 bar; 10 l/h - 7 bar; 12 l/h - 3 bar	
ET10334	DLX-VFT/MBB pump 15 l/h - 4 bar	
ET10335	DLX-VFT/MBB pump 20 l/h - 3 bar	

#### DLX-PH-RX-CL DOSING PUMP

Dosing pump with built-in instrument for controlling and adjusting pH, RX(mV) and Chlorine (ppm).

- Backlit LCD display
- ON/OFF operation • proportional
- Measuring range 0÷14pH; -1000mV ÷ +1400mV; 0÷20ppm output 4÷20mA
- Input from pH electrode, RX (10 Tera Ohm)
- Probe gain adjustment 40÷80 mV/pH
- Manual/automatic temperature compensation 0÷100°C
- Set point hysteresis programming • Set point delay programming
- Measurement resolution: 0.01pH; ±1mV; 0.1ppm; 0.1°C
- Dosing pump for wall (DLX) or base mounting (DLXB)
- Plastic case; IP 65 protection

Features vary depending on the model.



Code	Description	€
ET10525	DLX-pH-Rx-Cl pump with built-in instrument 5 l/h - 7 bar	

# PKX SERIES

## DOSING PUMP PKX MA/A

The new range of electromagnetic dosing pumps is characterised by its ease of use, high reliability and small overall dimensions. Thanks to its features and versatility, the PKX range is the ideal equipment for dosing chemicals in many sectors including: swimming pools, car washes, industrial water treatment, detergents, etc.

Dosing pump for wall (DLX) or base mounting (DLXB)

### PKX MA-A & MA-AL

The flow rate is adjusted by varying the frequency, using a knob with a 0-100% scale. The MA-AL version also incorporates the provision for level control. The equipment is equipped with an on/off switch

### PKX FT

Pump with proportional dosing to a remote voltage-free input signal (e.g. pulse counter). The proportionality can be of the 1:1 (F) or time (T) type, adjustable via a knob from 0 to 60 seconds. A button selects F or T mode.



Code	Description	€
ET10380	Pump PKX-MA/A 1 l/h - 5 bar	
ET10380L	Pump PKX-MA/AL 1 l/h - 5 bar with level probe arrangement	
ET10380FT	Pump PKX-FT/A 1 l/h - 5 bar for meter and level probe preparation	
ET10385	Pump PKX-MA/A 2 l/h - 6 bar	
ET10385L	PKX-MA/AL pump 2 l/h - 6 bar with level probe arrangement	
ET10385FT	Pump PKX-FT/A 2 l/h - 6 bar for meter and level probe preparation	
ET10390	Pump PKX-MA/A 5 l/h - 5 bar	
ET10390L	PKX-MA/AL pump 5 l/h - 5 bar with level probe arrangement	
ET10390FT	PKX-FT/A pump 5 l/h - 5 bar for meter and level probe preparation	

## ACCESSORIES

### PUMP CABLES

Code	Description	€
2.105.005	Coaxial cable for electrodes length 9 m complete with BNC and connector	
2.105.007	Coaxial cable for electrodes length 15 m complete with BNC and connector	
2.105.037	Double cable for proportional pumps (2m + 2m)	

### ELECTRODES

Code	Description	€
1ELT.005	Plastic pH electrode complete with 5 m cable	
1ELT.006	Plastic pH electrode with screw connection without cable	
1ELT.011	Plastic electrode for Redox complete with 5 m cable	
1ELT.012	Plastic electrode for Redox with screw connection without cable	



## BUFFER SOLUTIONS

### 50ML BOTTLES

Code	Description	€
20400598	Ph-4 buffer solution	
20400578	Ph-7 buffer solution	
20400579	Ph-9 buffer solution	
20400580	Buffer solution RX 468 mV	

## PROBE HOLDER

Code	Description	€
2143.001	In-line pvc electrode holder for piping coupl. 1/2-GM	
DPS0001601	Inline stainless steel electrode holder for coupl. pipes 1/2-GM	
2143.002	Monotubular pvc immersion electrode holder length 0.5 m	
2143.003	Monotubular pvc immersion electrode holder length 1 m	
2143.004	Monotubular pvc immersion electrode holder length 1.5 m (1.5 m)	
2.PRS.001	Flow electrode holder for max. 2 electrodes	



## LEVEL PROBES

Code	Description	€
ET10397SL	Level probe with connector and fixing bracket	
1ACS.001	Filter fixing bracket - level probe	

## ORIGINAL PROBE HOLDER

Code	Description	€
ET2083030	Pump housing 2-15 l/h, for DLX(B) also 1 l/h, PP FPM - Viton	
ET2082702	Pump housing with automatic bleeding 2-15 l- Viton	
ET2083148	Pump housing 20 l/h PP FPM - Viton	
ET2084001	Standard PTFE membrane	
ET2142001	PP filter with FPM foot valve up to 20 l/h	
ET2144009	Viton cylinder injection valve	
ET2061002	Standard kit viton valve	
ET2061005	Standard EPDM valve kit	
ET4144016	Viton lip valve TGL	
ET0002703	Silicone lip valve + valve pusher kit 20 pcs.	
ET4147001	Pusher valve	
ET0000101	Manual purge valve kit	
ETKRA0005701	Connection kit + Ring + O-ring PP FPM (20 pcs.)	

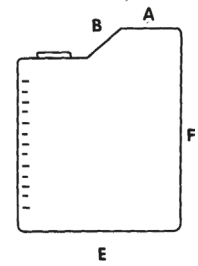


# 13.4 PLASTIC TANKS

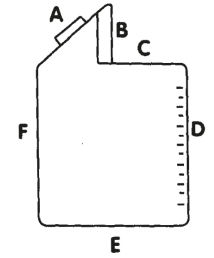
## POLYETHYLENE TANKS

**Code**      **Description**      €

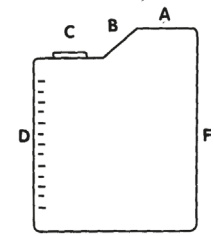
PD050      PE tank for dosing station 50 l



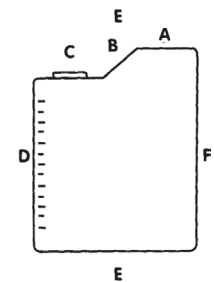
PD120V      PE tank PD 120 V - 120 l with backrest for dosing pump



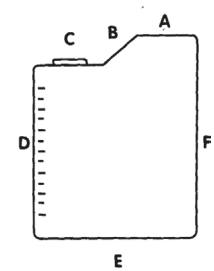
PD100      PE tank for dosing station 100 l



PD250      PE tank for dosing station 250 l



PD500      PE tank for dosing station 500 l



Code	A mm	B mm	C mm	D mm	E mm	F mm	Cap Ø mm
PD050	210	40	-	-	410	465	140
PD120V	320	245	220	770	440	1010	140
PD100	230	50	210	600	460	640	140
PD250	325	45	265	825	595	870	140
PD500	330	80	390	1115	760	1185	215

# 13.5 COUNTERS PULSE COUNTERS

## THREADED/FLANGED

Turbine counters with reed-type pulse emitter. The threaded version is supplied complete with a pair of nozzles.

Water temperature 30°C

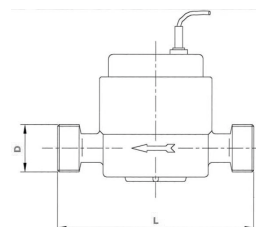
Operating pressure: 16 Bar

### STANDARD

Code	Description	€
1.CNT.028	Pulse lance counter 1/2" K 0.25	
1.CNT.086	Pulse counter 3/4" connections K 0.25	
1.CNT.087	Pulse counter 3/4" K 1 connections	
1.CNT.066	Pulse counter lance connections 1" K 0.25	
1.CNT.067	Pulse lance counter connections 1" K 1	
1.CNT.065	Pulse lance counter connections 1" K 10	
1.CNT.053	Pulse lance counter connections 1 1/4" K 1	
1.CNT.054	Pulse lance counter connections 1 1/4" K 10	
1.CNT.040	Pulse lance counter connections 1 1/2" K 1	
1.CNT.042	Pulse lance counter connections 1 1/2" K 10	
1.CNT.041	Pulse lance counter connections 1 1/2" K 100	
1.CNT.000	Pulse counter 2" K 1 connections	



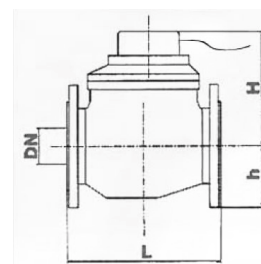
Gauge	length (L) mm
1/2"	110
3/4 "	130
1"	260
1 1/4"	260
1 1/2"	300
2	300



### FLANGED REED

Code	Description	€
1.CNT.200	Pulse lance counter DN50 K 1 connections	
1.CNT.201	Pulse lance counter DN50 K 10 connections	
1.CNT.202	Pulse counter lance connections DN50 K 100	

Gauge	length (L) mm
DN 50	300



## WOLTMAN-TYPE FLANGES

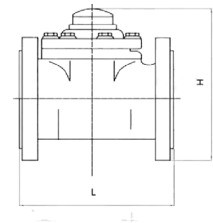
Woltmann-type reel counters.

Water temperature 30°C

Operating pressure: 16 Bar

Code	Description	€
1.CNT.074	Pulse counter lance connections DN50 K 100	
1.CNT.068	Pulse counter lance connections DN65 K 100	
1.CNT.088	Pulse lance counter DN80 K 100 connections	
1.CNT.093	Pulse lance counter DN100 K 100 connections	
1.CNT.097	Pulse counter lance connections DN125 K 100	
1.CNT.100	Pulse counter lance connections DN150 K 1000	
1.CNT.150	Pulse counter lance connections DN200 K 1000	

Code	Gauge	length (L) mm	Depth mm	Height mm	Wt Kg
1.CNT.074	DN 50	200	175	250	12
1.CNT.068	DN 65	200	185	255	13
1.CNT.088	DN 80	225	200	265	15
1.CNT.093	DN 100	250	220	275	19
1.CNT.097	DN 125	250	245	285	22
1.CNT.100	DN 150	300	285	375	47
1.CNT.150	DN 200	350	345	400	48



## ORIGINAL

Code	Description	€
WRE0003	Reed contact with cable for Andromeda counter Ø 2"	
WRE0007	Reed contact with cable for Andromeda meter Ø 1/2" - 3/4" - 1" - 1 1/4" -	
WRE0011	Reed contact new model with cable for Andromeda meter Ø 1" - 1 1/4" -	