

**On-line analysis device
type Colormetry CMU 324 HE**

determination of residual water hardness

function	on-line alarm device for automatic detection of hardness leakages behind water treatment installations
measurement principle	colorimetry: limit value monitoring
methode	colour change
mixing chamber principle	flow-injection with self-cleaning effect
monitoring range	0 ... 5 mg/l
corresponding units	0 ... 5 ppm CaCO ₃ 0,01 ... 0,05 mmol/l CaCO ₃ 0 ... 0,25 °dH 0,1 ... 0,5 °df
display	graphic
power supply	DC 24V according to EN60950-1
power apply option	- on site - via wall power supply / order no. 00730455 - via Konverterbox (optional equipment) / order no. 00730454
power consumption	15 W (in operation)
feed water pressure	0,5 ... 5,0 bar integrated constant flow valve
limit value monitoring	thresholds adjustable in device: ⇒ 1 mg/L ⇒ 2 mg/L ⇒ 3 mg/L ⇒ 5mg/L
reagent residual hardness	only one indicator for all limits provided in a clean and easy to handle service cartridge for low maintenance operation ⇒ cartridge replacement is also wearing parts exchange
output function	3 x open collectors for max. load: DC 24V 70mA ⇒ limit alarm and device errors (automatic self-check-mode) ⇒ lack of reagent alert (BOB-alert [regarding German TÜV]) ⇒ water passing/monitoring active 1 x serial interface RS232
input function	1 x potential free contact ⇒ e.g. remote signal input for external analysis start
scope of delivery	Colormetry CMU-324HE on line monitor water hardness / pipe fitting for feed water tube diameter $\phi 1/4''(\phi 6\text{mm})$ / app. 5 m feed water tube $\phi 1/4''(\phi 6\text{mm})$ / pipe fitting for drain water tube diameter $\phi 5/16''(\phi 8\text{mm})$ / app. 3 m drain water tube $\phi 5/16''(\phi 8\text{mm})$ / fine filter casing assembly with fine filter cartridge / ball valve and plumbing parts for hydraulic connection / mounting bracket and other miscellaneous parts / user`s manuals

dimension H x W x D	device in operation	app. 550 x 125 x 100	[mm]
	transport packing	app. 460 x 290 x 155	[mm]
wight	device	app. 2,5 kg	
	transport wight	app. 3,5 kg	
customs commodity code	90278017		
type	Colormetry CMU 324 HE	order no.	00730451
consumables	HE service-cartridge with reagent	order no.	00730452
	fine filter cartridge	order.no.	00730457

HE service-cartridge with reagent for Colormetry CMU 324 HE

reagent function	determination of residual hardness in water		
measuring range	0 ... 5 mg/l		
	limit values adjustable in device		
	- alarm if	> 1 mg/l	> 0,01 mmol/l CaCO ₃
	- alarm if	> 2 mg/l	> 0,02 mmol/l CaCO ₃
	- alarm if	> 3 mg/l	> 0,03 mmol/l CaCO ₃
	- alarm if	> 5 mg/l	> 0,05 mmol/l CaCO ₃
expiry	genuine packed:	app. 2 years from manufacturing	
	in operation:	app. 4-6 month	
storage	cool, dry and dark / avoid direct sunlight		
delivery condition	vacuum packing		
service function	cartridge replacement is also wearing parts exchange		
dimension H x W x D	cartridge	app. 240 x 90 x 45	[mm]
	transport packing	app. 260 x 100 x 50	[mm]
wight	cartridge	app. 0,5 kg	
	transport wight	app. 0,6 kg	
customs commodity code	38220000		
type	service cartridge CMU 324 HE	order no.	00730452

OPTION

**KONVERTER BOX for Colormetry CMU 324 series
24V DC-power supply unit and interface adapter**

primary voltage	180...230V
secondary voltage	24 VDC 20VA
outputs	3 x potential free relay 1 x analog 0/4...20mA
inputs	1 x digital potential free
scope of supply	1 pc. power supply unit 180-230VAC/24VDC in enclosure IP65 6 pc. PG screws [2xM16, 4xM12] 1 pc. communication plug-in card [3 x pot.free relay OUT, 1x pot.free IN, 1x 0/4-20mA OUT] 1 pc. RS232 counter plug app.3m confectioned connecting cable with plugs, 14 strands, 1 shield 1 pc. operation manual
protection class	if closed enclosure IP 65
dimension H x W x D	Konverterbox in operation app. 230 x 120 x 80 [mm] transport packing app. 320 x 250 x 160 [mm]
wight	Konverterbox app. 1,0 kg transport wight app. 1,5 kg
customs commodity code	90278017
type	Konverterbox for Colormetry CMU 324 order no. 00730454