

Kjelflex K-360



Buchi KjelFlex K-360 – modular and flexible

The new Buchi KjelFlex K-360 is logically matched to the performance requirements and safety needs of modern laboratory environments. It sets standards in laboratories for foodstuff, beverage, fodder, chemical and pharmaceutical analysis, as well as in the environmental and agricultural sector. The primary focus is on classic nitrogen and protein determination such as Kjeldahl, TKN and Devarda in accordance with the official methods (section 64 LFGB (German law on foodstuffs and commodities), AOAC, EPA, ISO, DIN). The K-360 also provides first-class service during the determination of alcohol, sulphur dioxide, volatile acids, formaldehyde and phenols.



K-360 as stand-alone instrument

- The sample tube is emptied automatically after distillation
- All internal and external components are easily accessed from the front
- Automatic dosing of boric acid, sodium hydroxide and water
- The steam output is continuously regulated from 30 to 100%
- Memory capacity for 50 specific methods and 500 determinations
- Cost-optimized design: two variants are available. Ideally adaptable to your applications
- Acid-resistant pump for non-Kjeldahl applications available as an option
- The software supports routine GLP functions such as password protection, results memory (ml consumption) etc.



K-360 combined with a titrator

By connecting an external titrator, the K-360 is expanded to form a semi-automatic nitrogen and protein determination unit in accordance with Kjeldahl. This configuration gives you the following advantages:

- Time saving due to automatic titration start and automatic aspiration of the sample and receiver solutions after titration
- Integrated solution due to transfer of the titrant consumption to the K-360
- Processes samples efficiently:

The determination is started at the press of a button. The subsequent steps are fully automatic without the interaction of the user. All parameters are stored in the methods saved.



With four modules you can exactly match your K-360 to your current needs and effortlessly expand it at any time. As a result you will always have the configuration that best matches your requirements. Never too much and never too little.

A Two splash protection variants

The right design of the splash protector is crucial for reproducible protein and nitrogen determinations. Buchi offers two variants: the proven glass variant and the new variant made of glass-fibre reinforced polypropylene.

With the glass variant optimal visual monitoring of the entire process is possible through the transparent distillation area.

The PP variant is particularly durable and is ideal wherever a large number of samples are processed.

Both variants are manufactured to the highest Buchi precision and prevent distillation solutions splashing over.



Glass splash protection



PP splash protection

B Acid pump for non-Kjeldahl applications

Along with the classic Kjeldahl, TKN and Devarda applications, it is also possible to perform other steam distillations using the K-360. Applications involving the dosing of strong acids are possible with the acid-resistant pump.

Additional applications K-360

- Alcohol distillation
- Determination of sulphur dioxide
- Phenol distillation
- Determination of volatile acids
- Determination of formaldehyde
- TVBN in fish



With acid-resistant pump

C Titration set

The titration set makes it possible to connect an external titrator. This configuration increases the level of automation and therefore the sample through-put.



With titration set

Changing applications and new needs – no problem!

Thanks to the modular and therefore very flexible concept, at any time you can quickly and easily add to the configuration of the K-360 or adapt it to changing applications.

These configurations are available

	K-360 with glass splash protection			
For users with standard Kjeldahl applications				
Order no. 43600				

	K-360 with PP splash protection			
For users with high sample through-put				
Order no. 43601				

			K-360 with glass splash protection and acid-resistant pump	
For users with Kjeldahl and non-Kjeldahl applications				
Order no. 43605				

			K-360 with PP splash protection and acid-resistant pump	
For users with high sample through-put, Kjeldahl and non-Kjeldahl applications				
Order no. 43604				

			K-360 with glass splash protection and titration set	
For users with a need for automated Kjeldahl applications				
Order no. 43607				

			K-360 with PP splash protection and titration set	
For users with high sample through-put and a need for automated Kjeldahl determination				
Order no. 43606				

					K-360 with glass splash protection, acid-resistant pump and titration set	
For users with non-Kjeldahl applications and a need for automated Kjeldahl determination						
Order no. 43609						

					K-360 with PP splash protection, acid-resistant pump and titration set	
For users with high sample through-put, automated Kjeldahl determination and non-Kjeldahl applications						
Order no. 43608						

Safety and convenience with Buchi original accessories

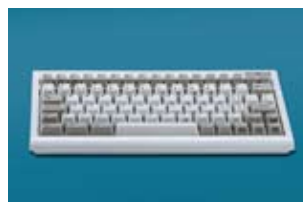
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	Order no.
Sample tube 300 ml (set of 4)	37377
Sample tube graduated 300 ml (set of 4)	43049



	Order no.
Sample tube 500 ml (set of 4)	26128
Sample tube 500 ml (set of 4)	43982



	Order no.
External PC keyboard	
US	31456
CH	31457



	Order no.
Tanks	
10 l: chemicals/waste	
	43468/43470
20 l: chemicals/waste	
	43469/43471
Tanks with level sensors	
10 l: chemicals/waste	
	43472/43474
20 l: chemicals/waste	
	43473/43475



	Order no.
External dosage device	
110 V	43367
230 V	43596
Cable K-360/external dosage device	43621



	Order no.
Titration set (receiving vessel with holder, stirrer, extraction valve)	43698



	Order no.
Connection cable K-360 to external titrator	
Mettler titrator	43616
Metrohm/Mettler titrator	43617
Schott titrator	43618
Radiometer titrator	43619



	Order no.
Sample tube holder	
6 300 ml tubes	43039
12 300 ml tubes	43041
4 500 ml tubes	16951



	Order no.
Sher indicator, 100 ml	03512



	Order no.
IQ/OQ set (en)	93189
IQ/OQ set (de)	45541



	Order no.
Glass splash protection for Devarda	43335



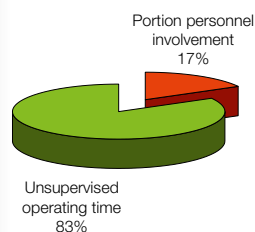
	Order no.
Glass set for SO ₂ determination	48680

Typical Buchi – advantages

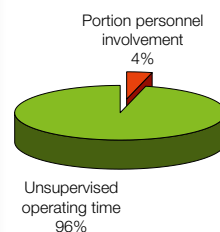


Four-times less personnel involvement for reduced analysis costs

Distillation in accordance with Kjeldahl with manual system



Distillation in accordance with Kjeldahl using Buchi K-360



Manual distillation units need significantly more personnel involvement in front of the instrument. The new K-360 reduces your analysis costs as the integrated automation takes over expensive manual tasks.

Versatile: classic and alternative applications



An acid-resistant pump in a separate module expands the range of applications of the K-360 with numerous additional tasks, for example for the determination of:

- SO₂, formaldehyde, volatile acids and phenols
- Nitrate in fertilisers
- TKN and ammonium in waste water
- TVBN in fish

for high efficiency and low process costs

The latest safety package for comprehensive personnel protection



With its numerous safety features, the K-360 provides maximum personnel protection and helps to prevent the loss of samples:

- Protective door sensor
- Sample tube sensor
- Front door sensor
- Warnings and error messages
- Cooling water flow rate sensor
- Optional level sensors
- Drip tray
- Automatic dosing of chemicals

Combine modules and upgrade at any time as required



The K-360 sets new standards in flexibility. The system adapts modularly to your needs. Whether for the initial order or a subsequent upgrade, you only procure the functions you actually need.

Very straightforward user prompting incl. method memory



The clearly structured software was developed in collaboration with Buchi customers worldwide. It is easy and intuitive to use:

- Seven languages available
- High contrast, high resolution LC display
- Control panel with integrated keyboard
- 50 customer-specific methods can be saved

Password protection/ documentation/GLP



The K-360 also meets the documentation requirements of the pharmaceutical industry. A password protects against unauthorised access. The name of the user, method, titration solution consumption as well as the date and time are saved with every sample result. These data can be printed out using a USB interface.

Buchi Kjeldahl line proven worldwide



... in pharmaceuticals,
chemicals and cosmetics



... in foodstuff technology



... in the agricultural
industry



... in beverage production



... in fodder production



... in environmental analysis

Technical data

Mains voltage	230 V
Frequency	50/60 Hz
Power consumption	2200 W
Current consumption	(230 V) 9.5 A
Weight	22 kg
Dimensions (W x H x D)	400 x 660 x 360 mm
Recovery rate	≥ 99.5%
Reproducibility	(RSD) ≤ ±1%
Detection limit	≥ 0.1 mg nitrogen
Standard pumps configuration	Boric acid, sodium hydroxide, water Optional: acid-resistant pump
Regulation of steam output	30–100%
Automatic dosing	Boric acid, sodium hydroxide, water, optional: strong acids
Automatic emptying	Sample tube and receiver vessel
Memory capacity	50 methods and 500 results (consumption of titration solution)
Data security	Password protection against unauthorised access can be enabled
Safety	Sensors on sample tube, service door, cooling water
Printer interface	USB 2.0, PCL6
Titration	Tested with following titrators Mettler: DL 15, DL 22, T50 / Metrohm: Food Titrino 785, 719, 702 Schott: TitroLine Easy / Radiometer: TitraLab 840

Order information

KjelFlex K-360, 220–240 V, 50/60 Hz, incl. three 10 l tanks, connection hoses, one pair flask tongs, one 300 ml sample tube. The connection cable to the titrator is not included in the set. Please order to suit your titrator configuration.

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