Flamonitec®
BFI AUTOMATION

The Retrofit Kit
KLC 20/230 cpl.

for replacement when using e-fuels from MZ770, QRB1 or QRB3 used on burner controls DKO..., LAL..., LME7..., LMO..., LMV... und LOA...

1 | Description

The KLC 20 conversion kit has been specially composed for the simple replacement of an existing flame sensor and includes a KLC 20/230 compact UV flame detector approved to EN298 for direct connection to the existing burner control box. A connection cable, mounting flanges, angled mirror adapter and detailed conversion instructions are included for easy installation of the KLC 20/230 flame detector.

The KLC 20 is a compact UV flame detector designed for use in single burner applications and reacts to the flickering frequency of the flame. It is specially designed for blue-burning flames and is therefore ideally suited for switching from conventional fuels to cerosene, HVO, biogas and other e-fuels, as the existing burner control unit does not need to be replaced when using the KLC 20.

The flame detector is equipped with an optical interface that visibly indicates the intensity of the flame signal. The KLC 20 can be connected directly to the ionisation/LDR input of the burner control box. The plug-in solution means that the flame detector can be easily replaced.

2 | Components

Mounting flange

UV flame detector KLC 20

Connection cable

Angle adapter

3 | Replacement instruction

9

2
1
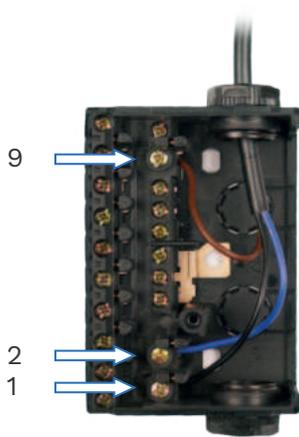
First remove the old cable connection. Once you have disconnected the old cable connection, reconnect the cables as described in chapter 4. Loosen the two screws used to fasten the old mounting flange. The screws must be kept for further assembly. The previous flame monitoring device can now be removed. Then remove the old mounting flange. The KLC mounting flange can be replaced directly and fastened with the old screws.

Now fit the flame detector. The viewing angle, especially for sight tubes, must be dimensioned in such a way that the flame radiation is not impaired. The sensor must be protected from other light sources. No new holes required for mounting.

The KLC 20 should be mounted close to the flame in a straight line. The flame scanner should be mounted using the KLC mounting flange or another suitable bracket with a 14 mm opening.

With the optionally available angle adapter, the radial alignment of the KLC 20 to the flame axis is carried out by means of an optimally shaped mirror surface. The angle adapter simultaneously replaces the KLC holder. A separate flame detector type is therefore not required.
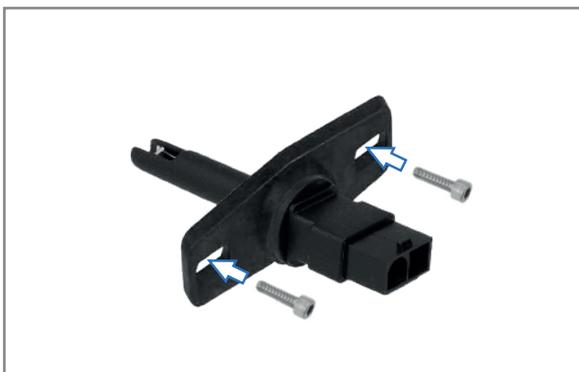
4 | Connector Diagram KLC 20

The cable connection of the previous application must be disconnected from the control unit. Then connect the cable as shown in the table. The assignment of the terminals in the control unit depends on the old flame monitoring system.

Further information on maintenance and fault diagnosis can be found in the enclosed operating manual.

Blue Terminal no.

Black Terminal no.

Brown Terminal no.

LED
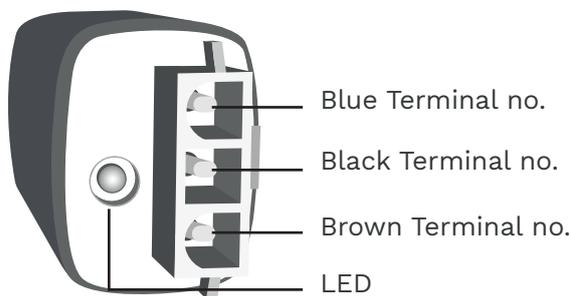
Type of control box	DKO...	LOAxx	LMOxx	LME7	LMV2/3	LAL1
Blue Terminal no.	2	11	11	4	x10-05 4	22
Black Terminal no.	1	12	12	3	x10-05 3	23
Brown Terminal no.	9	1	1	5	x10-05 5	1

5 | Diagnostic with BST-Com

With the data interface BST-Com, consisting of optical adapter with cable, USB interface (KLCcom) and software, the pulses, and thus the flame signal strength, can be read out from the KLC 20. Further information can be found in the BST-Com manual.
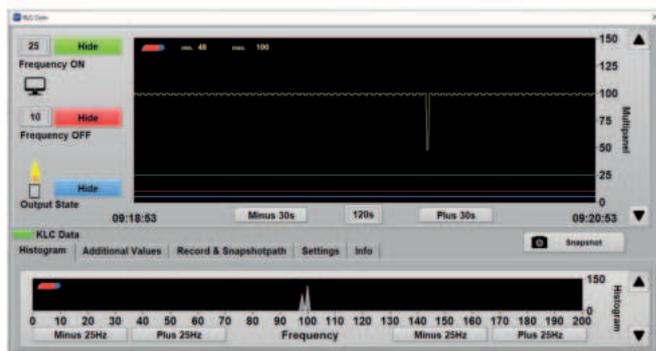
6 | Overview of articles

Part	Version	Part number
Retrofit-Kit KLC 20/230	for the replacement from MZ770, QRB1 consisting of a KLC 20/230, 7 mm and 13 mm flange, angle adapter, connection cable 600 mm and operating manual KLC 20	2001-0025-00
Mounting flange KLC	overall height 7 mm	1550-4220-07
Mounting flange KLC	overall height 13 mm	1550-4220-13
Angle adapter KLC	Standard mirror	1550-4225-10
Connection cable KLC	600 mm long	6060-2220-06
Connection cable KLC	1000 mm long	6060-2220-10
Connection cable KLC	2000 mm long	6060-2220-20
Connection cable KLC	Different length	On request
Read out unit KLC-Com	Opto-adapter, USB interface	6040-4830-10
Software BST-Com	via Download	9030-2000-05

NOTICE

This flame detector version is not suitable for replacing customised versions.

Disposalinformation

The flame detector is equipped with electrical and electronic components and must be disposed separate from household waste. Follow the local and actual regulations for waste disposal.

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