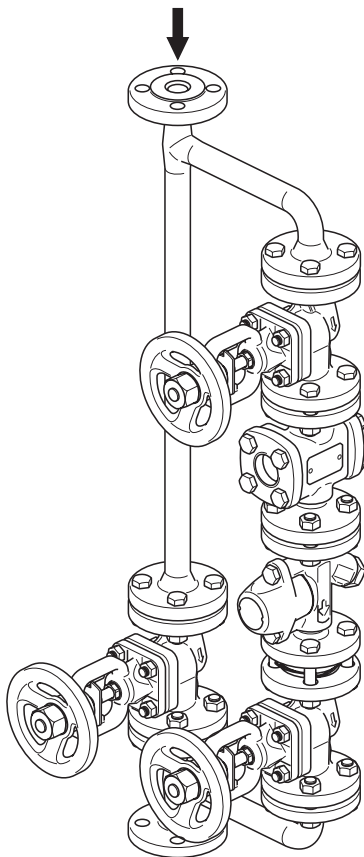


QuickEM MK without bypass, vertical position



QuickEM BK with bypass, vertical position

Drain Module

QuickEM, PN 16 / PN 40, DN 15, 20, 25, 40, 50
QuickEM Control, PN 16 / PN 40, DN 15, 20, 25, 40, 50

Description

GESTRA QuickEM is a pre-assembled drain module to be used in installations for heat recovery. The drain module is suitable for discharging condensed water. The QuickEM assembly consists of two or three shut-off valves, one steam trap type BK..., MK... or UNA..., one sightglass, one wafer-type non-return valve RK... as well as pipes and all necessary flanges, flange gaskets and bolts. Counterflanges with bolts and gaskets are not part of the delivery.

The QuickEM Control is designed for electronic condensate monitoring. Instead of the sightglass the measuring electrode NRG 16... is installed as sensor for electronic condensate monitoring.

If the QuickEM Control assembly is fitted with steam traps type BK 45, MK 45 and UNA 4... the measuring electrode NRG 16... is installed directly in the steam trap.

If the QuickEM Control assembly is fitted with steam traps type BK 15, MK 25 and UNA 1... the measuring electrode NRG 16... is installed in a test chamber VKE.

QuickEM and QuickEM Control are available for horizontal or vertical installation. Note that QuickEM Control with trap type UNA... is only available for horizontal installation!

QuickEM and QuickEM Control are available with or without bypass line.

Function

QuickEM:

Steam and condensate flows through the shut-off valve to the steam trap. The regulator in the steam trap discharges the condensate from the live steam system through the second shut-off valve into the condensate collecting system. The two shut-off valves can isolate the steam trap if the need arises (e. g. for maintenance work). The integrated bypass line is designed for bypassing the steam trap if necessary.

QuickEM Control:

Same function as QuickEM but the measuring electrode NRG 16... is used as sensor for electronic condensate monitoring. The steam traps are monitored for banking-up of condensate (waterlogging) and steam loss.

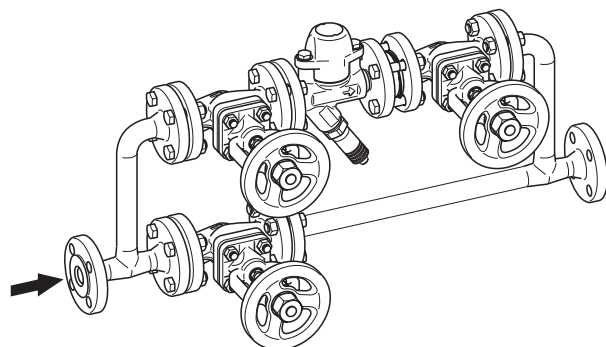
The two shut-off valves can isolate steam traps equipped with measuring electrode or with test chamber if the need arises (e. g. for maintenance work). The integrated bypass line is designed for bypassing the steam trap if necessary.

End Connections

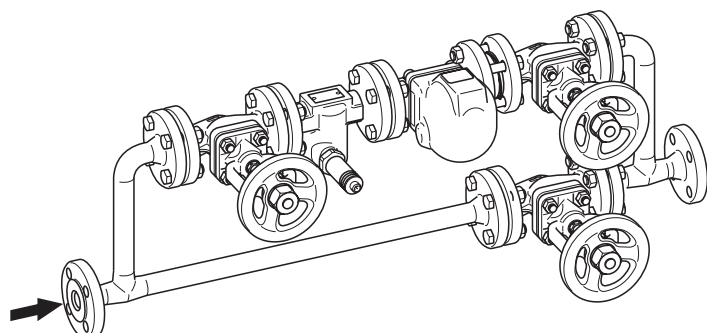
■ Flanged EN 1092-1 B1 PN 16, PN 40

Position of Installation

- Horizontal
- Vertical



QuickEM Control BK... with bypass, horizontal position



QuickEM Control UNA... with bypass, horizontal position

Temperature/Pressure Ratings

Note that the pressure/temperature ratings for the QuickEM are limited by the sightglasses.

The pressure/temperature ratings for the QuickEM Control are limited by the measuring electrodes.

For information on the limiting conditions of the incorporated component parts refer to the corresponding data sheet.

Materials for QuickEM (steel version)

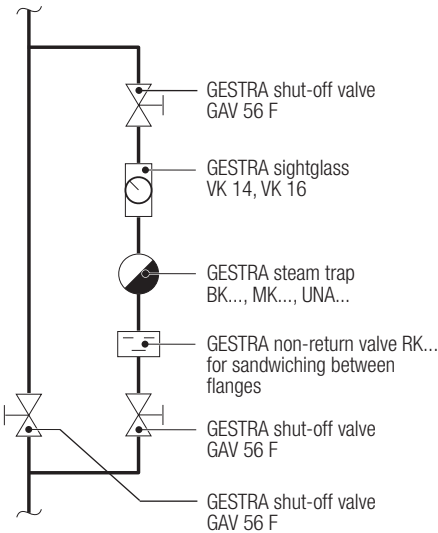
Part	Material
Pipes and fittings	P235GH
Gaskets	PSM graphite/perforated steel
Hexagon nuts and bolts	5.6/5.2

Werkstoffe für QuickEM in Edelstahlausführung

Part	Material
Pipes and fittings	1.4571
Gaskets	PSM graphite/perforated steel
Hexagon nuts and bolts	A2/70

For information on the materials of the incorporated component parts refer to the corresponding data sheet.

Schematic arrangement



Temperature/Pressure Ratings

Limiting conditions for steel version QuickEM PN16/QuickEM-Control PN16

pH value	≤ 9					
Pressure p	[barg]	16.0	14.4	12.8	11.2	9.6
Temperature T	[°C]	20	100	200	250 ²⁾	280 ²⁾

Limiting conditions for steel version QuickEM PN40/QuickEM-Control PN40

pH value	≤ 10					
Pressure p	[barg]	40.0	37.3	30.0	28.4	25.8
Temperature T	[°C]	20	100	200	250 ²⁾	300 ²⁾

Limiting conditions for stainless steel version QuickEM PN16/QuickEM Control PN16

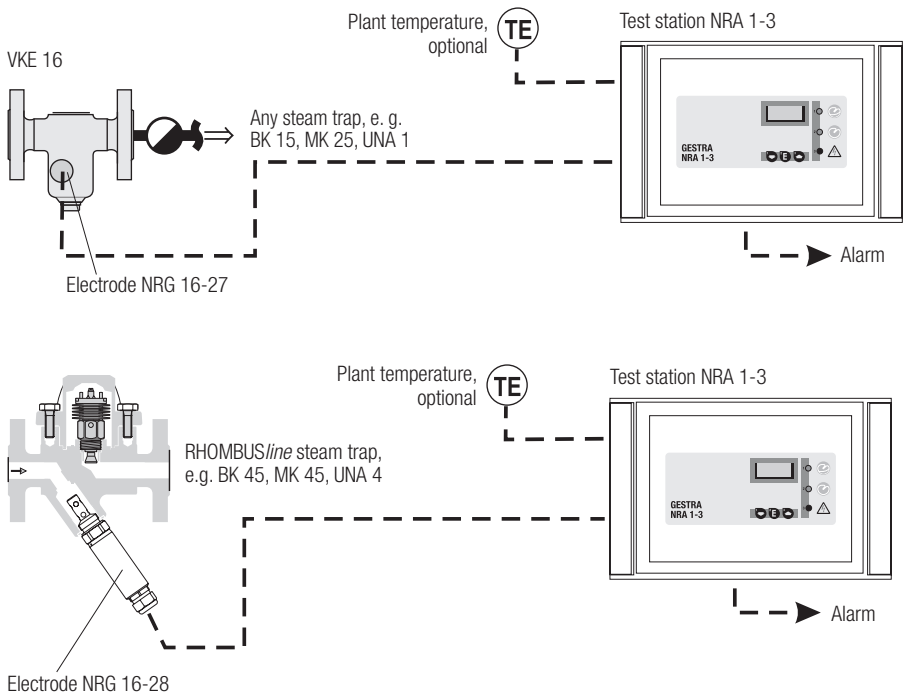
pH value	≤ 7 ¹⁾					
Pressure p	[barg]	16.0	12.5	10.0	9.0	9.0
Temperature T	[°C]	20	100	200	250 ²⁾	280 ²⁾

Limiting conditions for stainless steel version QuickEM PN40/QuickEM Control PN40

pH value	≤ 7 ¹⁾					
Pressure p	[barg]	40.0	32.5	25.0	23.0	21.0
Temperature T	[°C]	20	100	200	250 ²⁾	280 ²⁾

- 1) Fluids with pH value above 7 have the potential to cause glass corrosion. As the temperature and pH value of the fluid increases, the possibility of etching the glass also increases.
- 2) If QuickEM Control together with measuring electrode NRG 16-27 or NRG 16-28 is used, the max. admissible temperature limit is 238 °C.

Example of Installation QuickEM Control with measuring electrode NRG 16...



Note that the test station NRA is not part of the delivery.

Dimensions and weights

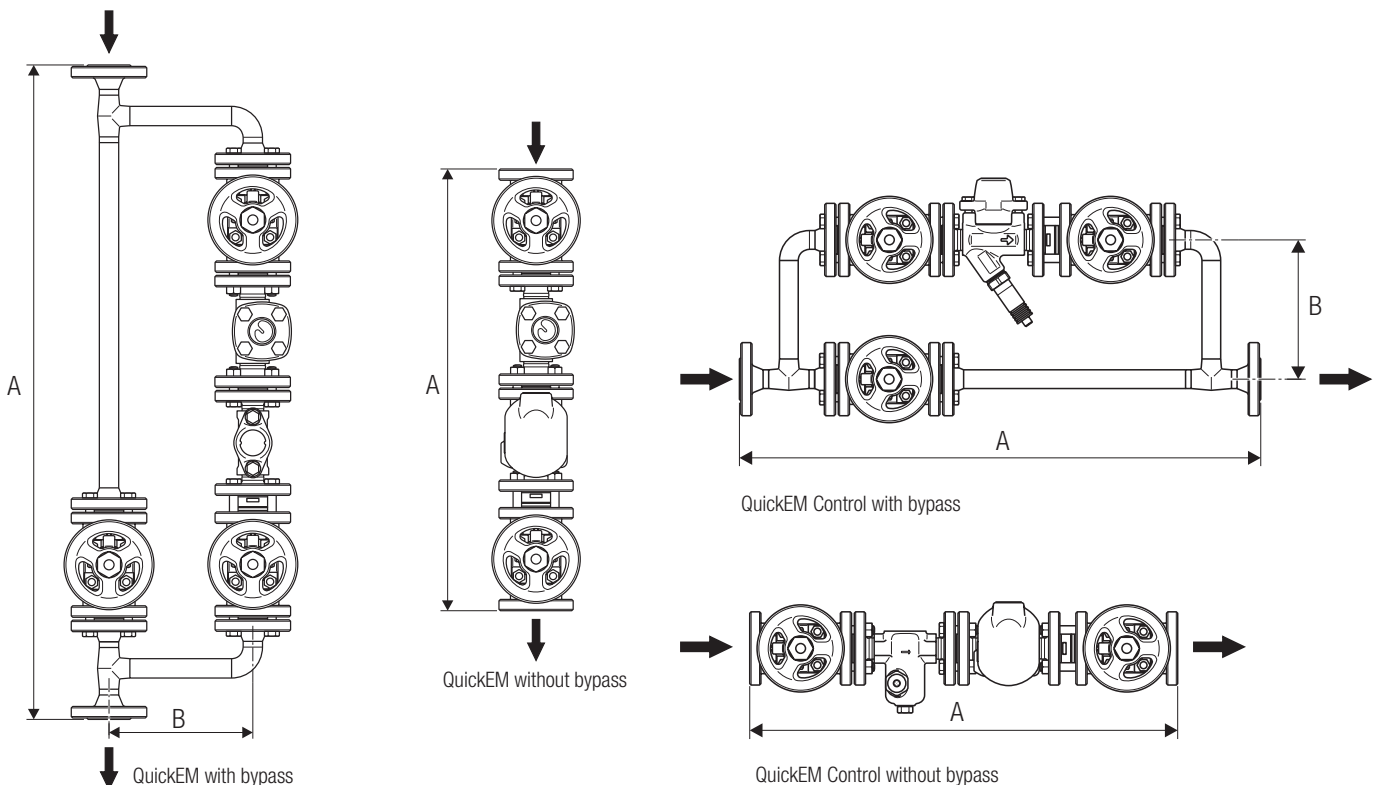
QuickEM with bypass	DN 15				DN 20				DN 25				DN 40				DN 50			
	Dimensions [mm]		Weight [kg]		Dimensions [mm]		Weight [kg]		Dimensions [mm]		Weight [kg]		Dimensions [mm]		Weight [kg]		Dimensions [mm]		Weight [kg]	
	A*)	B	PN 16	PN 40	A	B	PN 16	PN 40	A	B	PN 16	PN 40	A	B	PN 16	PN 40	A	B	PN 16	PN 40
QuickEM-BK ¹⁾	821/841	200	21	25	908	200	27	31	988	200	45	49	1290	300	83	82	1452	300	102	101
QuickEM-MK ²⁾	821/841	200	21	25	908	200	27	31	988	200	45	49	1290	300	83	82	1452	300	103	102
QuickEM-UNA 14 ¹⁾	821/841	200	26	–	908	200	33	–	988	200	51	–	–	–	–	–	–	–	–	–
QuickEM-UNA 16	821/841	200	–	27	908	200	–	34	988	200	–	53	–	–	–	–	–	–	–	–
QuickEM-UNA 45 ¹⁾	–	–	–	–	–	–	–	–	–	–	–	–	1290	300	97	–	1452	300	115	–
QuickEM-UNA 46	–	–	–	–	–	–	–	–	–	–	–	–	1290	300	–	96	1452	300	–	114

QuickEM Control with bypass	DN 15				DN 20				DN 25				DN 40				DN 50			
	Dimensions [mm]		Weight [kg]		Dimensions [mm]		Weight [kg]		Dimensions [mm]		Weight [kg]		Dimensions [mm]		Weight [kg]		Dimensions [mm]		Weight [kg]	
	A	B	PN 16	PN 40	A	B	PN 16	PN 40	A	B	PN 16	PN 40	A	B	PN 16	PN 40	A	B	PN 16	PN 40
QuickEM-Control-BK ¹⁾	689	250	21	21	756	250	27	27	826	300	45	45	1320	400	81	80	1452	400	100	99
QuickEM-Control-MK ²⁾	689	250	21	21	756	250	27	27	826	300	45	45	1320	400	81	80	1452	400	101	100
QuickEM-Control-UNA 14 ¹⁾	841	200	27	–	908	200	33	–	988	200	51	–	–	–	–	–	–	–	–	–
QuickEM-Control-UNA 16	841	200	–	27	908	200	–	33	988	200	–	51	–	–	–	–	–	–	–	–
QuickEM-Control-UNA 45 ¹⁾	–	–	–	–	–	–	–	–	–	–	–	–	1090	400	88	–	1222	400	103	–
QuickEM-Control-UNA 46	–	–	–	–	–	–	–	–	–	–	–	–	1090	400	–	87	1222	400	–	102

QuickEM without bypass	DN 15				DN 20				DN 25				DN 40				DN 50			
	Dimensions [mm]		Weight [kg]		Dimensions [mm]		Weight [kg]		Dimensions [mm]		Weight [kg]		Dimensions [mm]		Weight [kg]		Dimensions [mm]		Weight [kg]	
	A*)	B	PN 16	PN 40	A	B	PN 16	PN 40	A	B	PN 16	PN 40	A	B	PN 16	PN 40	A	B	PN 16	PN 40
QuickEM-BK ¹⁾	564/584	–	11	14	627	–	14	17	670	–	16	20	870	–	50	49	968	–	59	58
QuickEM-MK ²⁾	564/584	–	11	14	627	–	14	17	670	–	16	20	870	–	50	49	968	–	59	58
QuickEM-UNA 14 ¹⁾	564/584	–	16	–	627	–	20	–	670	–	23	–	–	–	–	–	–	–	–	–
QuickEM-UNA 16	564/584	–	–	17	627	–	–	21	670	–	–	23	–	–	–	–	–	–	–	–
QuickEM-UNA 45 ¹⁾	–	–	–	–	–	–	–	–	–	–	–	–	870	–	64	–	968	–	73	–
QuickEM-UNA 46	–	–	–	–	–	–	–	–	–	–	–	–	870	–	–	63	968	–	–	72

QuickEM Control without bypass	DN 15				DN 20				DN 25				DN 40				DN 50			
	Dimensions [mm]		Weight [kg]		Dimensions [mm]		Weight [kg]		Dimensions [mm]		Weight [kg]		Dimensions [mm]		Weight [kg]		Dimensions [mm]		Weight [kg]	
	A	B	PN 16	PN 40	A	B	PN 16	PN 40	A	B	PN 16	PN 40	A	B	PN 16	PN 40	A	B	PN 16	PN 40
QuickEM-Control-BK ¹⁾	432	–	11	11	475	–	14	14	508	–	16	16	900	–	46	46	968	–	55	55
QuickEM-Control-MK ²⁾	432	–	11	11	475	–	14	14	508	–	16	16	900	–	47	47	968	–	56	56
QuickEM-Control-UNA 14 ¹⁾	584	–	17	–	627	–	20	–	670	–	22	–	–	–	–	–	–	–	–	–
QuickEM-Control-UNA 16	584	–	–	17	627	–	–	20	670	–	–	22	–	–	–	–	–	–	–	–
QuickEM-Control-UNA 45 ¹⁾	–	–	–	–	–	–	–	–	–	–	–	–	668	–	50	–	736	–	56	–
QuickEM-Control-UNA 46	–	–	–	–	–	–	–	–	–	–	–	–	668	–	–	50	736	–	–	56

*) PN 16 / PN 40 1) Not available in S.S. 2) Only MK 45 (DN 15 - 25) also available in S.S.



Drain Module

QuickEM

QuickEM Control

When ordering please state:

Fluid, condensate flowrate, service pressure and temperature.

Standard designation of pipe flanges.

The following test certificates can be issued on request, at extra cost:

In accordance with EN 10204-3.1 .

All inspection requirements have to be stated with the order. After supply of the equipment certification cannot be established. Charges and extent of the above mentioned certificates as well as the different tests confirmed therein are listed in our price list "Test and Inspection Charges for Standard Equipment". For other test certificates please consult us.

Specification Text

GESTRA Drain module
QuickEM, QuickEM Control
DN 15 to DN 50

Type	QuickEM / QuickEM Control
Material:	Steel/stainless steel
Installation position	Horizontal / vertical
End connection	Flanged to EN 1092-1 B1
Nominal size	DN 15 / 20 / 25 / 40 / 50
Pressure rating	PN 16 / PN 40
Version:	with bypass / without bypass
Steam trap	BK ... MK ... UNA ... Duplex Orifice 4 / 13 / 22

Pressure Equipment Directive

The equipment conforms to this directive (see "Manufacturer's Declaration" section) and can be used for the following media:

■ Fluids of group 2

The CE markings of the individual components are described in the respective installation & operating manuals.

ATEX Directive

QuickEM

The equipment does not have its own potential ignition source and is not subject to this directive (see "Manufacturer's Declaration" section).

When installed, static electricity may arise between the equipment and the connected system. When used in potentially explosive atmospheres, the plant manufacturer or plant operator is responsible for discharging or preventing possible static charge.

If it is possible for medium to escape, e.g. through actuating mechanisms or leaks in threaded joints, the plant manufacturer or plant operator must take this into consideration when dividing the area into zones.

QuickEM-Control

QuickEM Control equipment must NOT be used in potentially explosive areas.

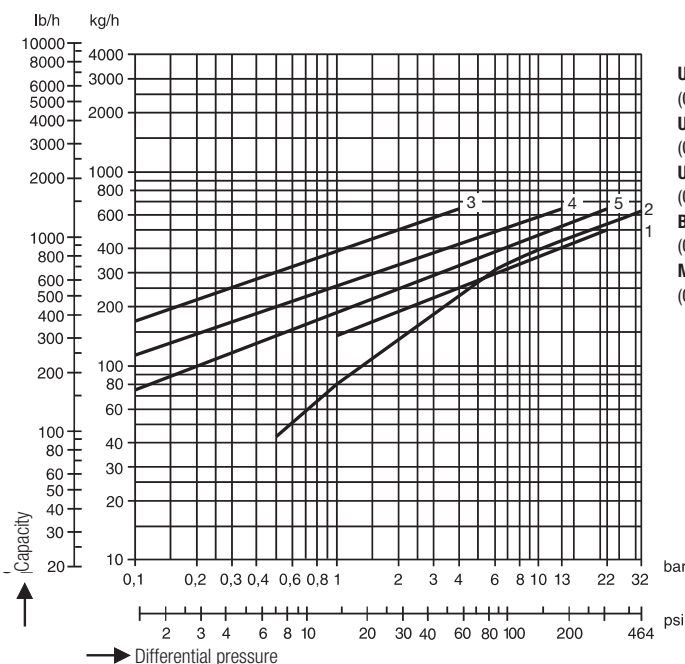
Supply in accordance with our general terms of business.

Capacity Charts

The selection of QuickEM and QuickEM Control depends on the operating parameters pressure, temperature, pH value and condensate flowrate.

The max. condensate flowrate that can be discharged is a function of the selected steam trap type. The charts show the max. capacity of hot condensate. The differential pressure (service pressure) is the difference between the upstream pressure and the pressure downstream of the steam trap.

QuickEM, QuickEM Control DN 15 – DN 25



UNA 14 DN 15-25 Orifice 4

(Curve 3)

UNA 14 / UNA 16 DN 15-25 Orifice 13

(Curve 4)

UNA 16 DN 15-25 Orifice 22

(Curve 5)

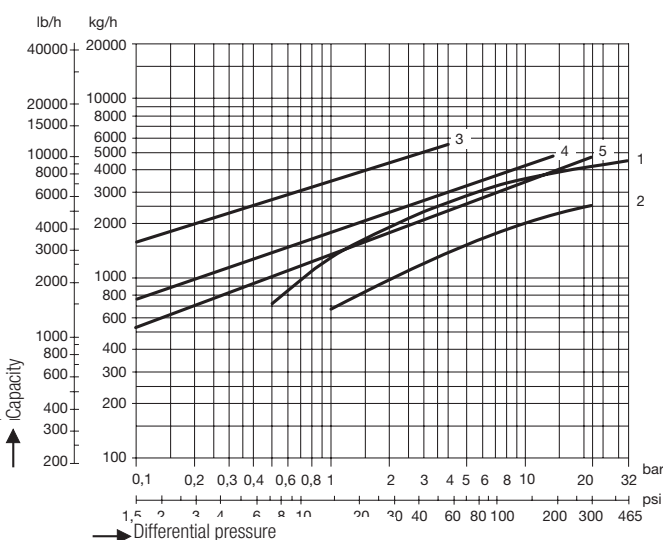
BK 45

(Curve 1)

MK 45-1

(Curve 2)

QuickEM, QuickEM Control DN 40 – DN 50



UNA 45 / UNA 46 DN 40-50 Orifice 4

(Curve 3)

UNA 45 / UNA 46 DN 40-50 Orifice 13

(Curve 4)

UNA 46 DN 40-50 Orifice 22

(Curve 5)

BK 15

(Curve 2)

MK 25-2

(Curve 1)

Spare Parts

For lists of spare parts see the installation manuals of the devices installed in the QuickEM and QuickEM Control subassemblies.

No spare parts are available for the GESTRA shut-off valve GAV 56F and the GESTRA wafer-type non-return valve RK...

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