

MESSKO® MTrab® PREMIUM SERIES MAINTENANCE-FREE DEHYDRATING BREATHER



ORDERING SPECIFICATIONS.

MESSKO INSTRUMENTS

Project/Reference: _____

MESSKO® MTrab® version *)

- ☐ DB100
- ☐ DB100T
- ☐ DB200T
- ☐ DB200D-T (twin)
- ☐ DB200G (twin) γ control
(not available as offshore version)

*) refer to application table page 2

Supply voltage

- ☐ 230 V \pm 10%
- ☐ 120 V \pm 10%
- ☐ Voltage type AC
- ☐ Voltage type DC
- ☐ Additional Overvoltage protection *)

*) Recommended for known overvoltage problems outside the specification up to 400 V (eg. voltage spikes during switching operations).
Only for use with MTrab with 230 V AC supply voltage.

Color terminal box

- ☐ RAL 7033 standard cement grey
- ☐ RAL 7038 standard gate grey
- Other colors on request

Cable glands

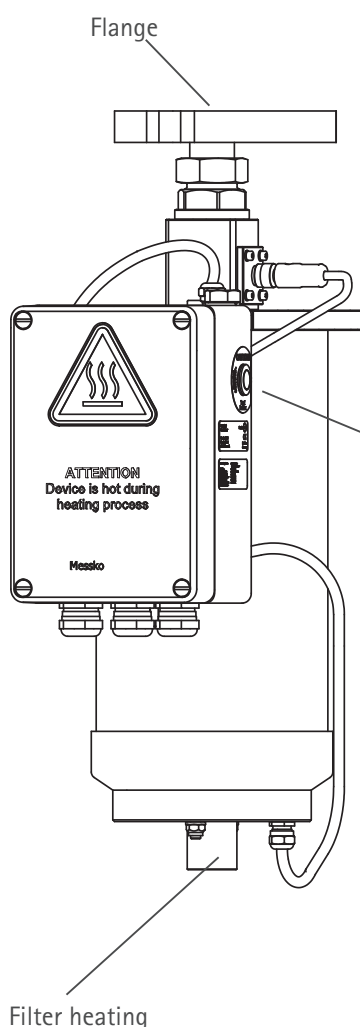
- ☐ 3x M20x1.5
- ☐ 3x 1/2" - 14NPT
- Other connections on request

Analog output

- ☐ 4 - 20 mA
- ☐ 0 - 20 mA
- ☐ 0 - 1 mA

Connecting flange

- ☐ DIN flange
(similar to DIN 42 562-3)
refer to pages 3 and 7
- ☐ RM flange
(acc. DIN 2558)
only for type DB100, refer to pages 3 and 8
- ☐ Flange for 1/2" screws
refer to pages 3 and 8
- Customer specific flange on request



Test button

Filter heating

Options

- ☐ Data logger incl. software (CD) and USB cable (refer to page 8)
- ☐ Test button *)
- ☐ Filter heating (HT version) *)
- ☐ Protection of electrical cables from damage (for example through animal bite)
- ☐ Insect protection for highgrade-steel filter **)
- ☐ Protection grid (refer to page 8)
- ☐ Lateral fixing (refer to page 3)
- *) refer to technical data page 2
- **) not together with filter heating

Offshore model

- ☐ Offshore model
- includes:
 - Flange in offshore version
 - Color of terminal box acc. protection class C5M
 - Cable gland in high-grade steel
- Further models on request

Please enclose this order form filled in the order.

MESSKO® MTrab® PREMIUM SERIES

TECHNICAL DATA.

Application	MTrab® type	Max. power cons.*		Silicagel	Control**
		U _v = 120 V	U _v = 230 V		
Tap changers	DB100	480 W	920 W	1.1 kg	α
Arc suppression coil (Petersen coil)	DB100	480 W	920 W	1.1 kg	α
Air-filled cable boxes	DB100	480 W	920 W	1.1 kg	α
Traction transformers	DB100	480 W	920 W	1.1 kg	α
Network transformers ≤ 40 MVA	DB100T	480 W	920 W	1.1 kg	β
Network and generator step-up transformers > 40 MVA ≤ 200 MVA	DB200T	960 W	1780 W	2.2 kg	β
Generator and network intertie transformers > 200 MVA	DB200D-T or 2 x DB200T	1920 W	3680 W	4.4 kg	β
Phase shifting transformers ≤ 40 MVA	DB100T	480 W	920 W	1.1 kg	β
Phase shifting transformers > 40 MVA ≤ 200 MVA	DB200T	960 W	1780 W	2.2 kg	β
Phase shifting transformers > 200 MVA	DB200D-T or 2 x DB200T	1920 W	3680 W	4.4 kg	β
Shunt reactors ≤ 40 Mvar	DB100T	480 W	920 W	1.1 kg	β
Shunt reactors > 40 Mvar ≤ 200 Mvar	DB200T	960 W	1780 W	2.2 kg	β
Shunt reactors > 200 Mvar	DB200D-T or 2 x DB200T	1920 W	3680 W	4.4 kg	β
HVDC transformers	DB200D-T or 2 x DB200T	1920 W	3680 W	4.4 kg	β
Furnace transformers	DB200G	960 W	1780 W	4.4 kg	γ
Cavern transformers	DB200G	960 W	1780 W	4.4 kg	γ
GSU transformers	DB200G	960 W	1780 W	4.4 kg	γ

*) Brief heating power at start of regeneration. The power consumption decreases quickly after activation of the heating.

**) α control: Dehydrating breather is baked out based on its state, which is monitored for humidity.

β control: Self-learning system with state-dependent control of the baking out process through control of the humidity and temperature dependent determination of the favourable baking out time.

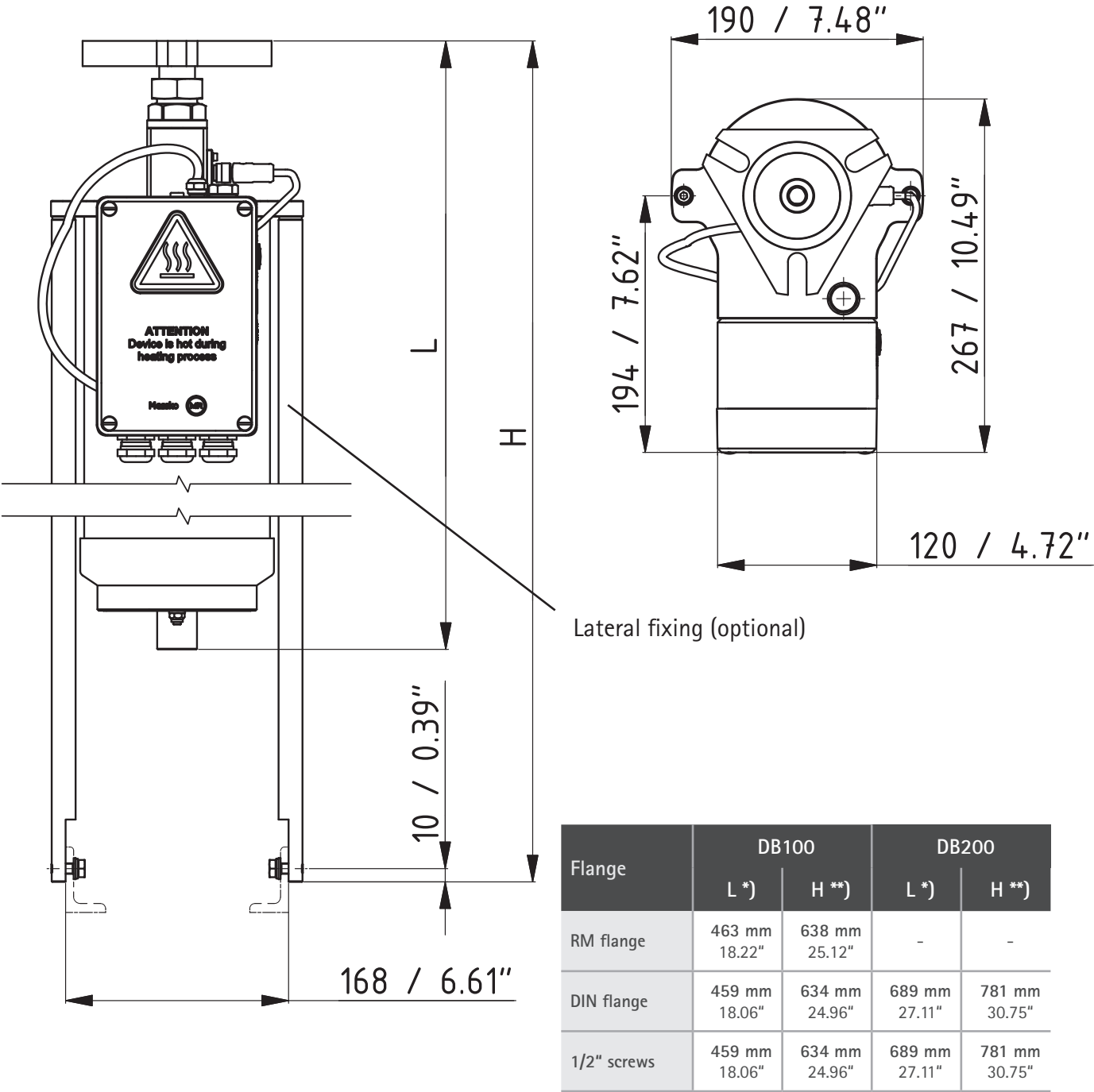
γ control: System for applications with non-periodic breathing behaviour. If the moisture content of the air flowing in the direction of the transformer exceeds a specific value, the silicagel chambers are regenerated alternately.

MESSKO® MTrab® PREMIUM SERIES	Technical data
Materials	All outside parts resistant to weather, transformer oil and UV radiation
Color	Flanges: natural anodized (aluminium), terminal box: acryl-coated RAL 7033 or 7038
Location	Indoors and outdoors
Ambient temperature	DB100/200/200D: 0 ... +80 °C / -50 ... +80 °C HT version DB200G: 0 ... +70 °C / -20 ... +70 °C HT version
Degree of protection	IP 55 acc. EN 60 529
Weight	DB100(T): approx. 8 kg; DB200T: approx. 12 kg; DB200D-T: approx 23 kg; DB200G: approx. 31 kg
Desiccant	Colorless, non-poisonous silicagel; amount according application table above
Terminal box	
Terminal box	Ventilated and heated to prevent moisture condensation
Cable gland	M20 x 1.5 or 1/2" – 14 NPT or M20 x 1.5 high-grade steel for offshore application
Connection terminals	4 mm², AWG 24–10 (solid and stranded conductors)
Status indication	3 LED's visible from outside, 2 LED's inside the terminal box
Power supply	
Rated voltage	230 V AC/DC or 120 V AC/DC; tolerance ± 10%
Current consumption	Max. 100 mA (during normal operation); increased current consumption during regeneration
Fuse	16 A automatic fuse, delayed-action
Rated insulation voltage	500 V AC 50/60 Hz 1 min, voltage supply against ground / analog output against ground 2.5 kV AC 50/60 Hz 1 min, relay contact against ground
Analog output	
Output	-40 ... +80 °C (temperature in pipe nozzle)
Output signal	4...20 mA (0...1 mA or 0...20 mA optional); error signal < 3.6 mA (for 4...20 mA output signal)
Signaling contacts	
Silicagel heating system	1 x change-over contact, contact load max. 5 A/230 V AC or 5 A/24 V DC
Device malfunction	1 x normally closed contact, contact load max. 5 A/230 V AC or 5 A/24 V DC (Fail Safe)
Options	
Filter heating system	HT version with heated high-grade steel filter, recommended in cold regions (ambient temperature continuously under -5°C over a period of 20 days), to ensure functionality (P=20 Watt).
Test button	Start of device self test and check of silicagel heating system
Offshore	As recommended per DIN EN ISO 12944 part 5 with protection class C5M
Data logger	Recording of important MTrab events / Data interface to PC via USB (refer to page 8)

MESSKO® MTrab® PREMIUM SERIES

DIMENSIONS.

MESSKO® MTrab® with DIN flange, RM flange or 1/2" screws
(lateral fixing optional)

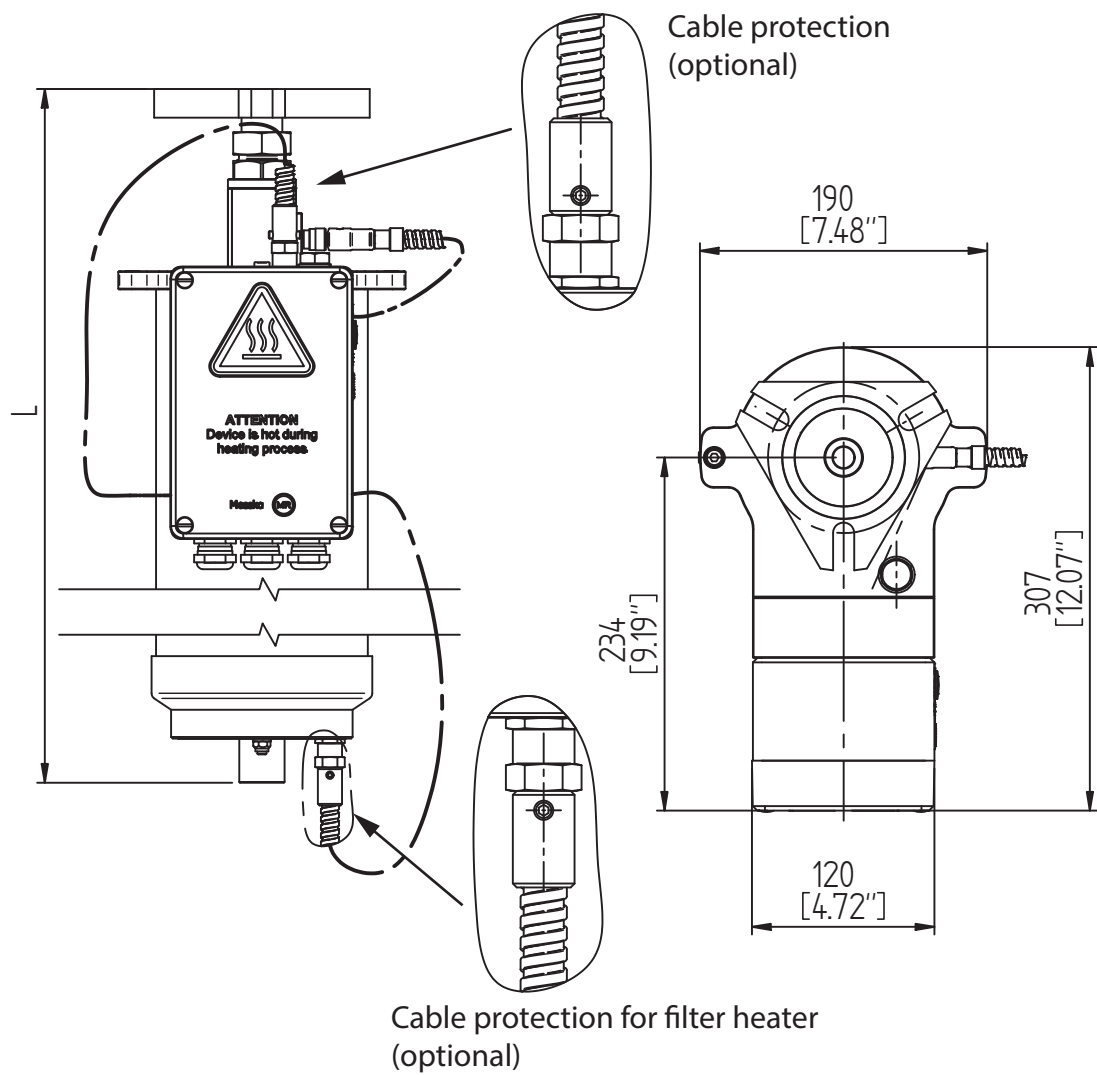


*) Without lateral fixing
**) With lateral fixing

MESSKO® MTrab® PREMIUM SERIES

DIMENSIONS.

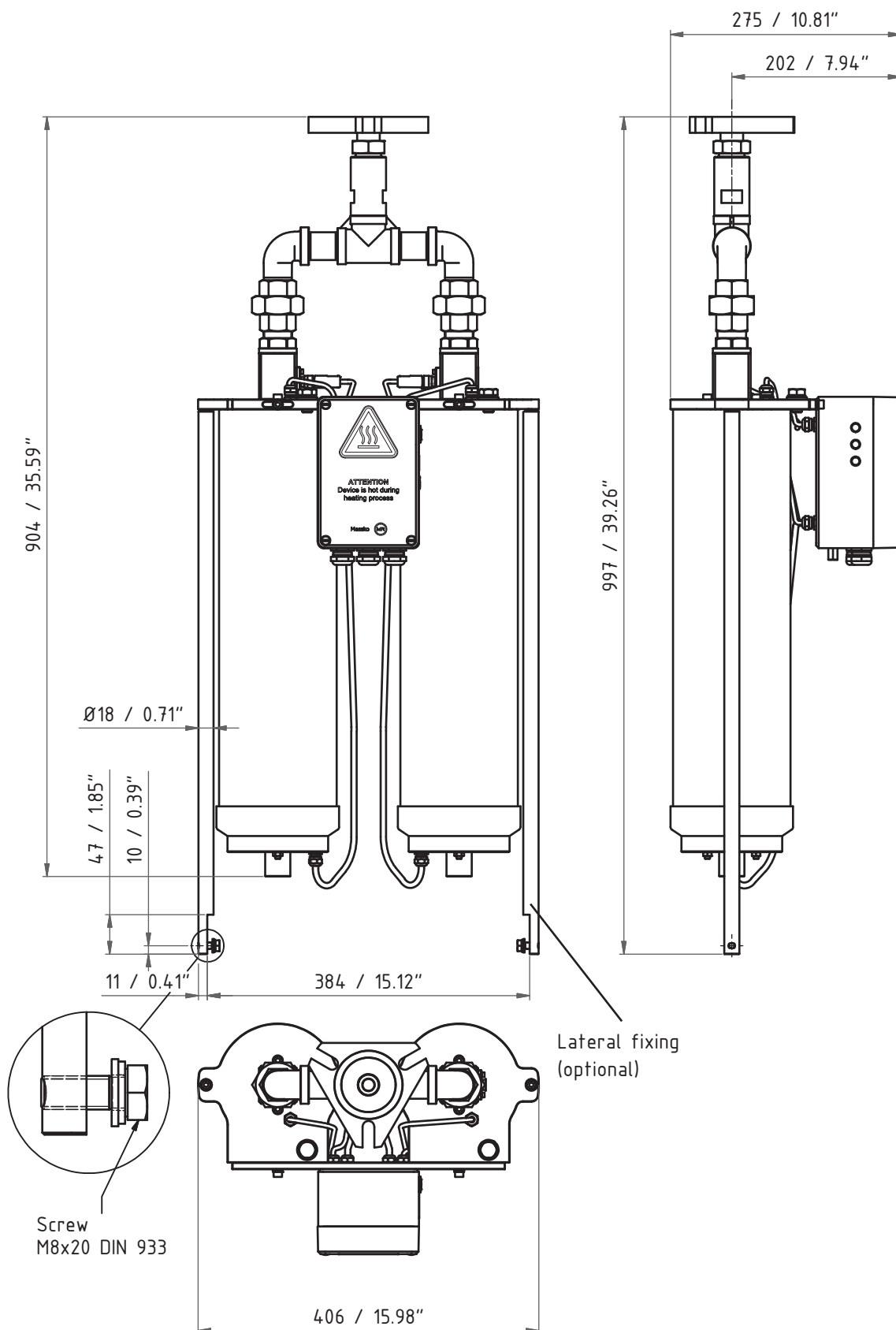
MESSKO® MTrab® variant with optional cable protection



Flange	DB100 L	DB200 L
RM flange	463 mm 18.22"	-
DIN flange	459 mm 18.06"	689 mm 27.11"
1/2" screws	459 mm 18.06"	689 mm 27.11"

MESSKO® MTrab® PREMIUM SERIES DIMENSIONS.

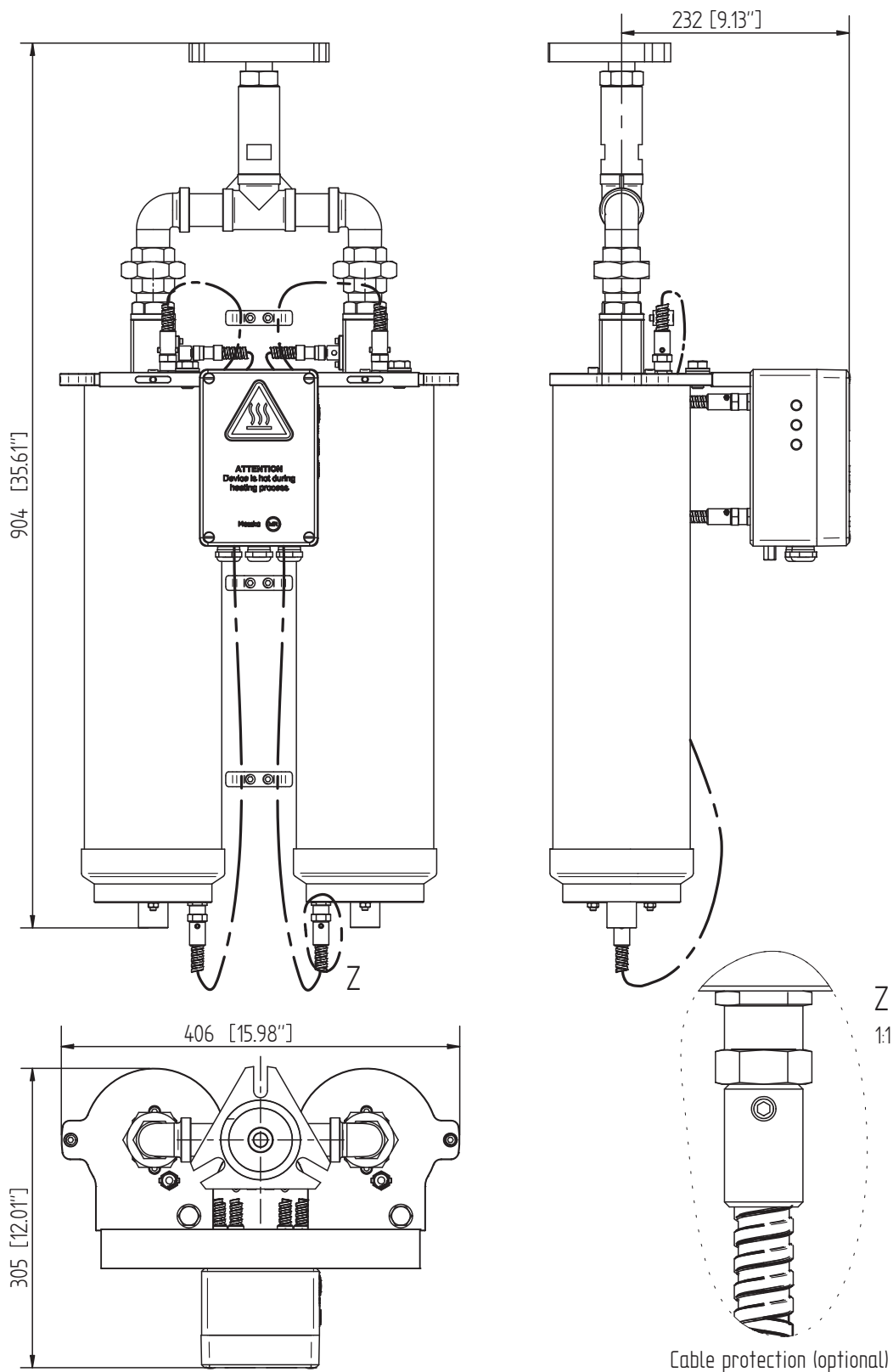
MESSKO® MTrab® – Twin Dehydrating Breather DB200D-T



MESSKO® MTrab® PREMIUM SERIES

DIMENSIONS.

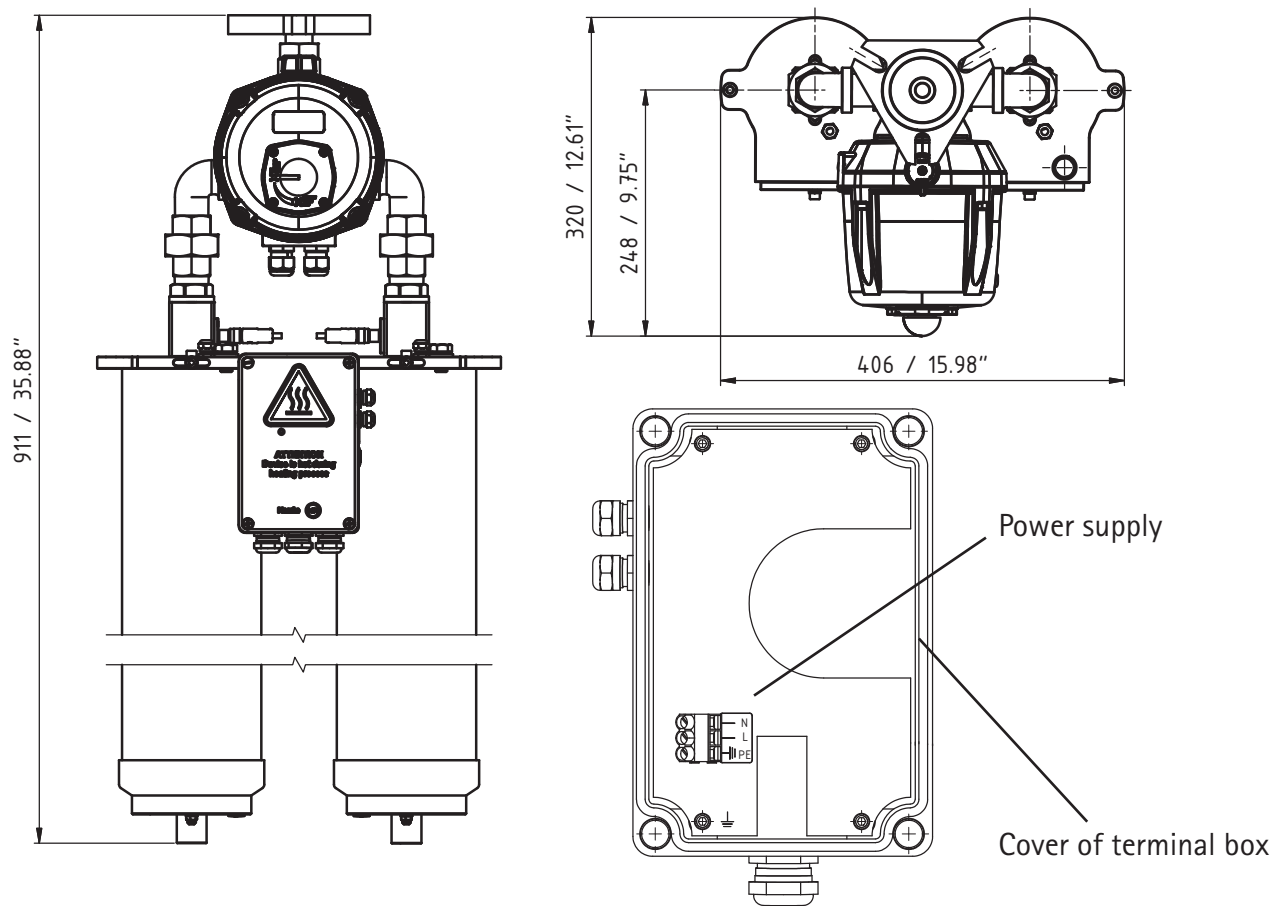
MESSKO® MTrab® – Twin Dehydrating Breather DB200D-T with cable protection (optional)



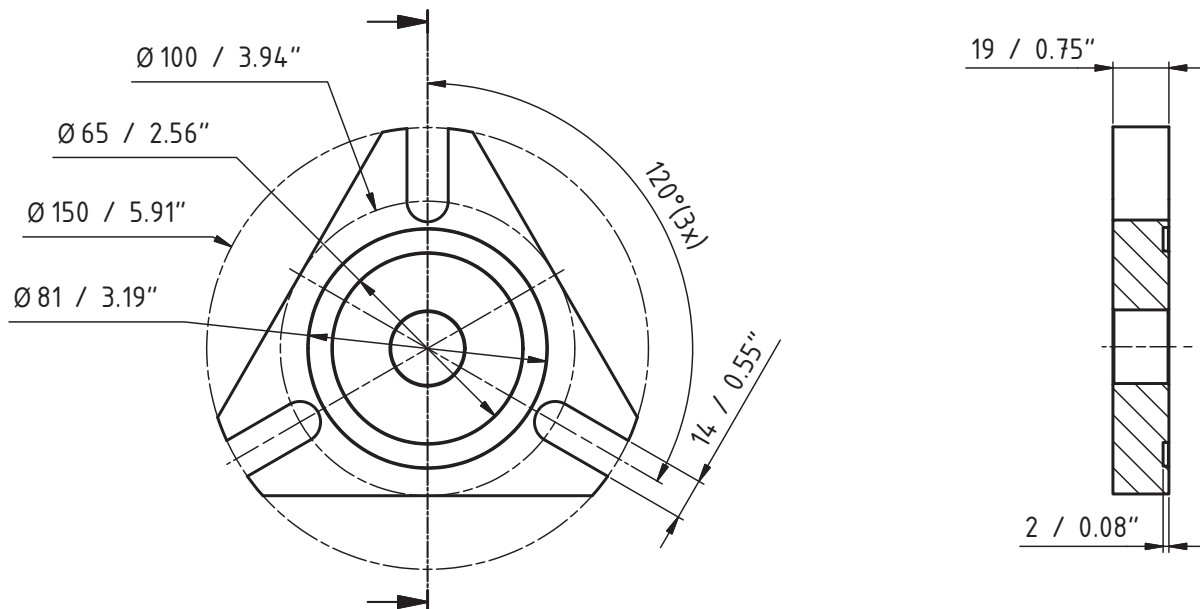
MESSKO® MTrab® PREMIUM SERIES

DIMENSIONS.

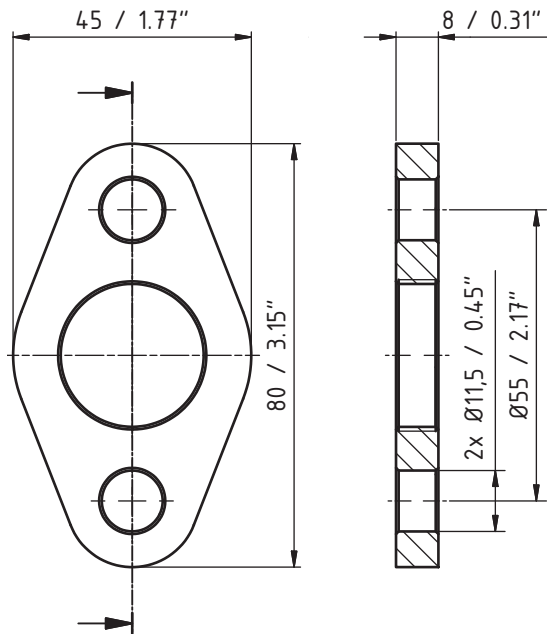
MESSKO® MTrab® – Dehydrating Breather with γ control DB200G



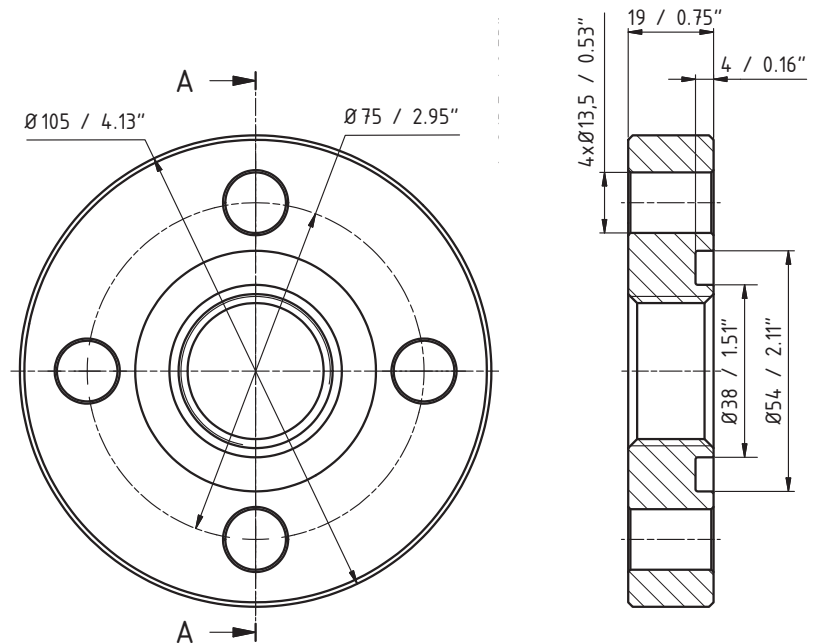
DIN flange similar to DIN 42 562-3



RM flange acc. DIN 2558



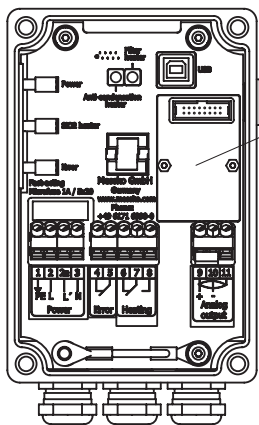
Flange for 1/2" screws



Customer specific flanges available on request

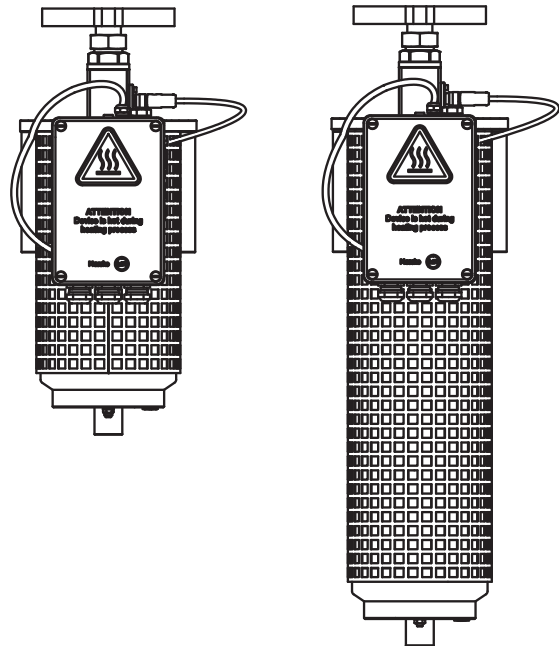
MTraB® data logger

The MTraB data logger is used to record important MTraB events which can be evaluated and visualized using the MTraB data logger software.



Data logger

MTraB® with protection grid



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Important note:

The information contained in all of our publications may differ in detail from the actual equipment delivered. We reserve the right to make alterations without notice.

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THE POWER BEHIND POWER.

