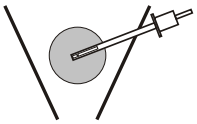
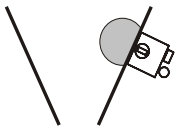
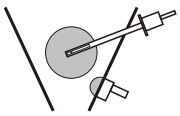
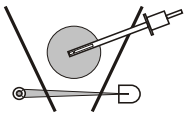
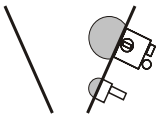
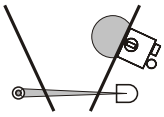
Technical Information

Moisture Measurement LB 350

Moisture Measurement
Feuchtemessung

Field mounted components
Messstellen-Komponenten

1 Measurement arrangements / Messanordnungen

	Bunker probes / Bunkersonden	Surface probes / Oberflächensonden
without density compensation / ohne Dichte-kompensation	 Version 1: Bunker probe without density compensation Variante 1: Bunkersonde ohne Dichtekompensation	 Version 2: Surface probe without density compensation Variante 2: Oberflächensonde ohne Dichtekompensation
with density compensation / mit Dichte-kompensation	 Version 1a: Bunker probe with density compensation via *backscattering measurement* Variante 1a: Bunkersonde mit Dichtekompensation über *Rückstreumessung*  Version 1b: Bunker probe with density compensation via *transmission measurement* Variante 1b: Bunkersonde mit Dichtekompensation über *Transmissionsmessung*	 Version 2a: Surface probe with density compensation via *backscattering measurement* Variante 2a: Oberflächensonde mit Dichtekompensation über *Rückstreumessung*  Version 2b: Surface probe with density compensation via *transmission measurement* Variante 2b: Oberflächensonde mit Dichtekompensation über *Transmissionsmessung*

BERTHOLD TECHNOLOGIES

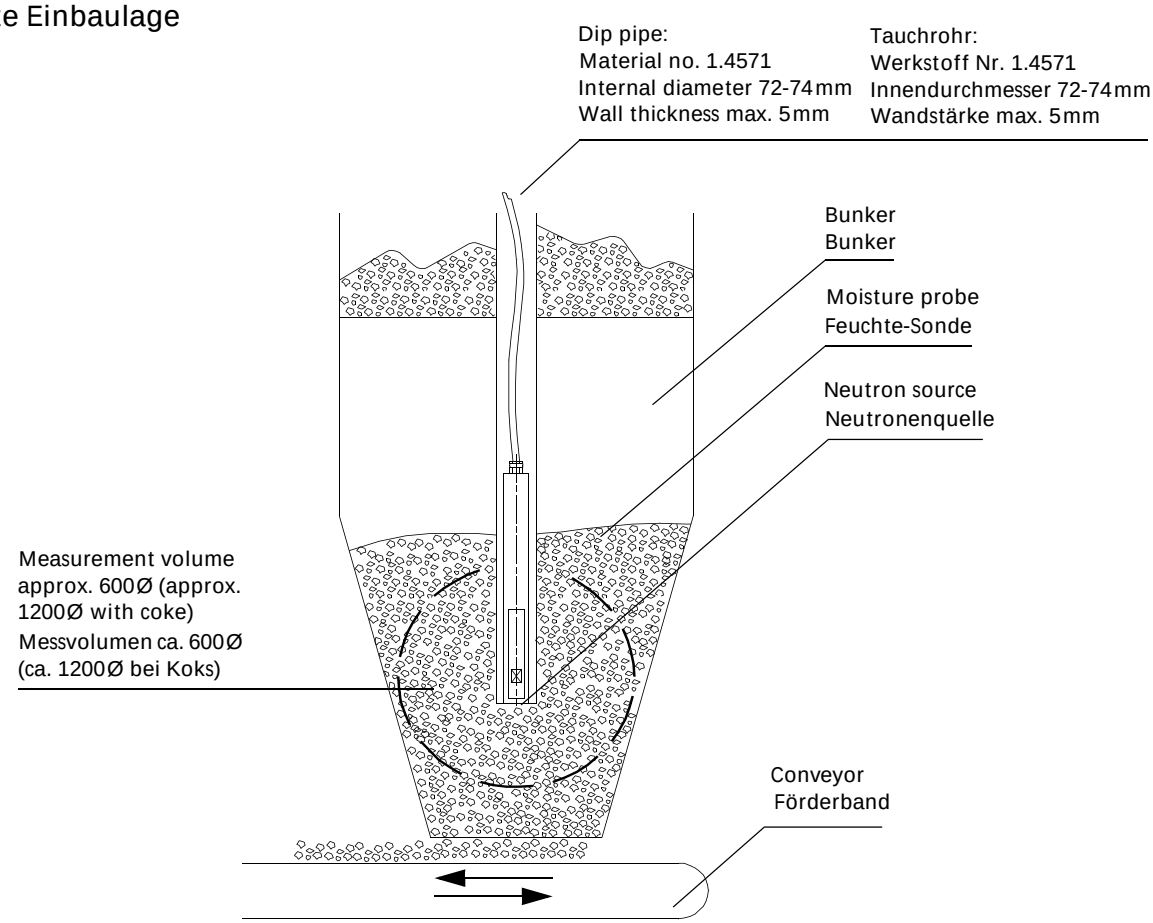
LB 350

Dimensions in mm
Abmessungen in mm

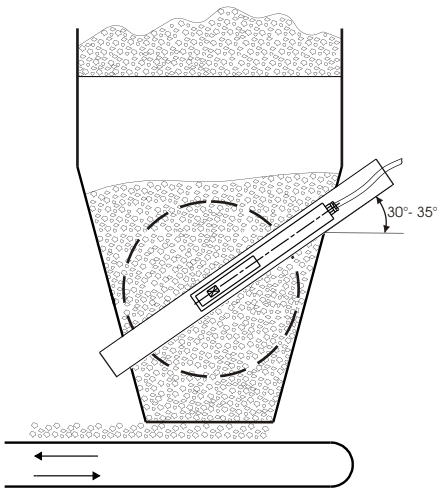
2 Bunker probe / Bunkersonde

2.1 Installation version 1 / Einbauvariante 1

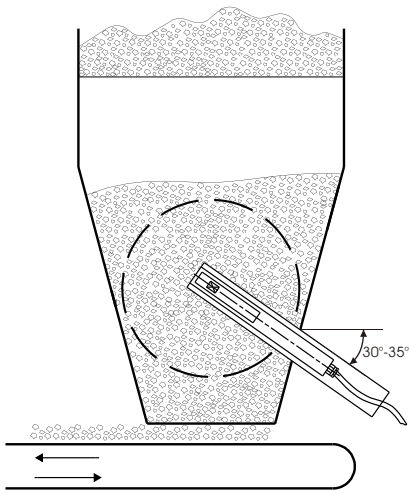
Vertical installation position /
Senkrechte Einbaulage



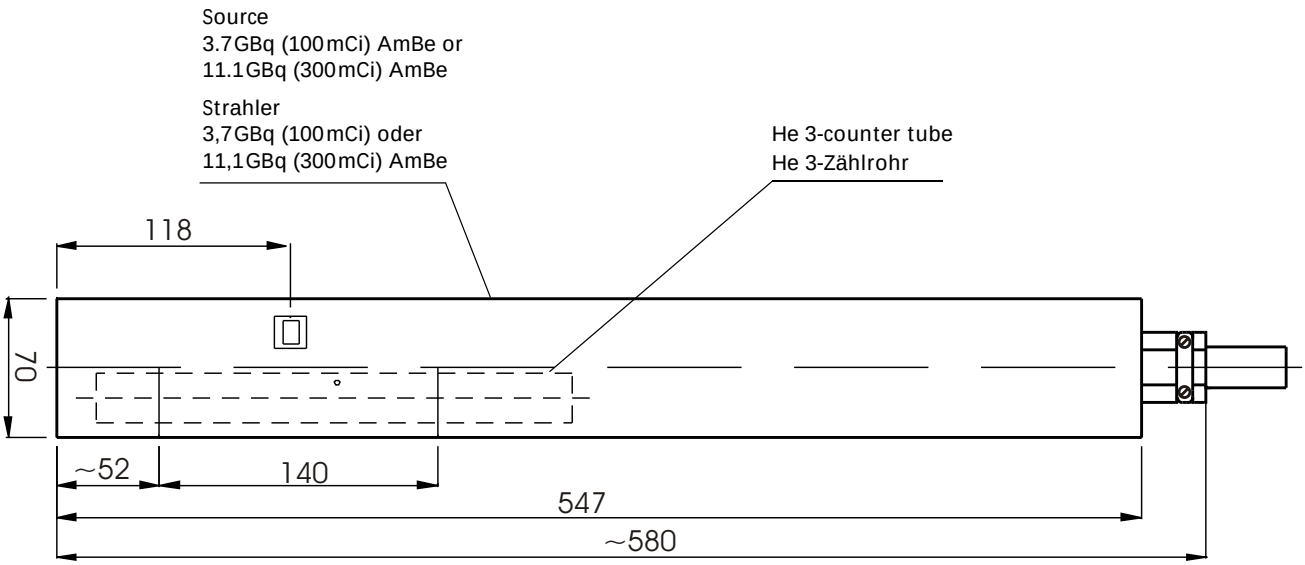
Moisture probe installed inclined /
Feuchtesonde schräg eingebaut



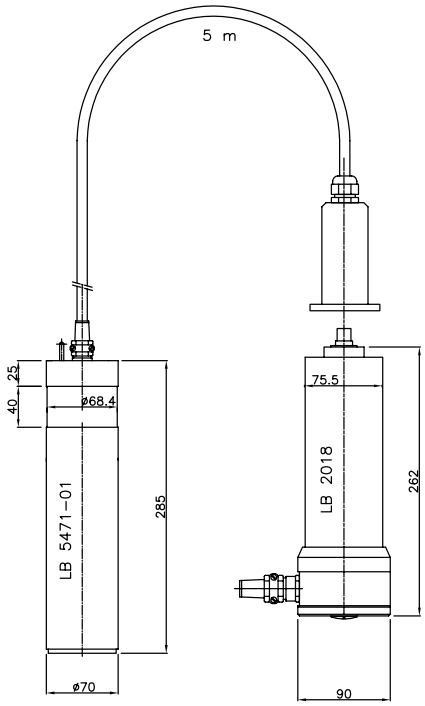
Installation with end-to-end dip tube /
Einbau mit durchgehendem Tauchrohr



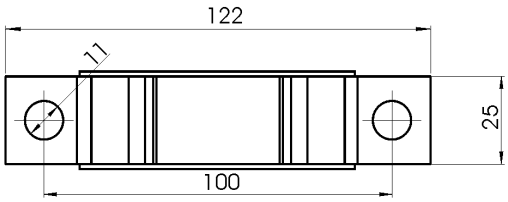
2.2 Moisture bunker probe LB 6666 / Feuchte-Bunkersonde LB 6666

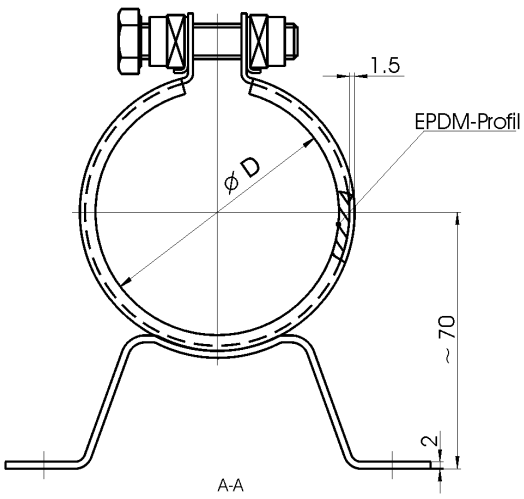


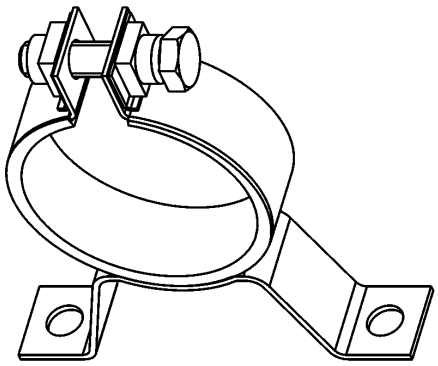
2.3 Moisture probe LB 6669 / Feuchtesonde LB 6669



Fixing clamps for preamplifier LB 2018 /
Befestigungsschellen für Vorverstärker LB 2018







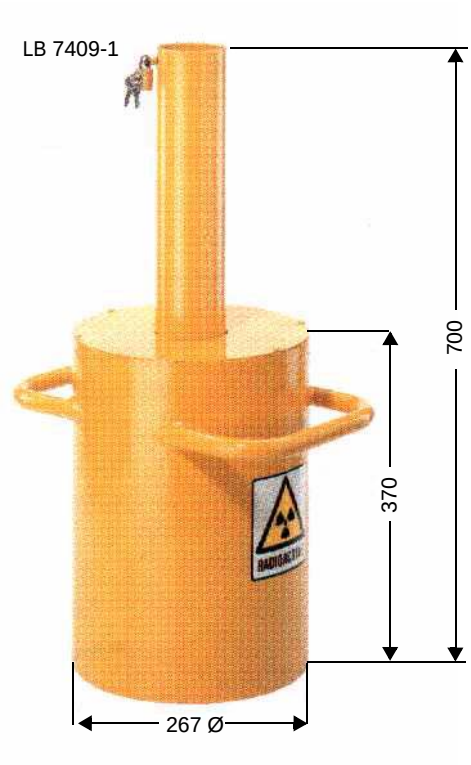
LB 350

Dimensions in mm
Abmessungen in mm

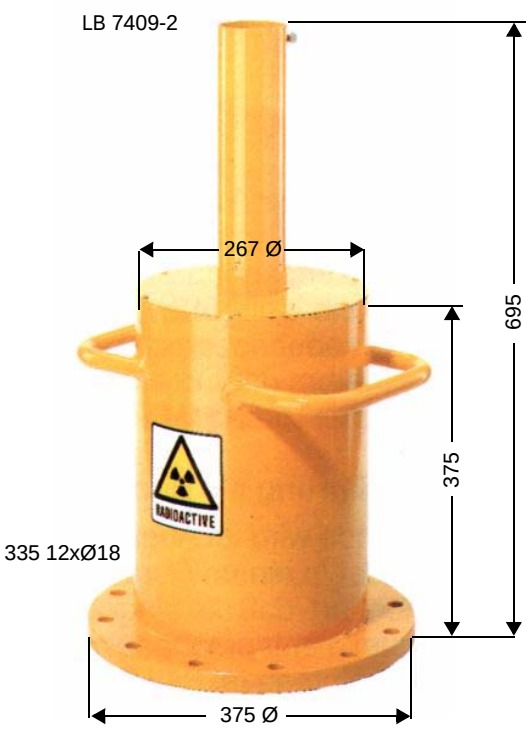
2.4 Shielding and transport vessel / Abschirm- und Transportbehälter

2.4.1 Dimensions / Abmessungen

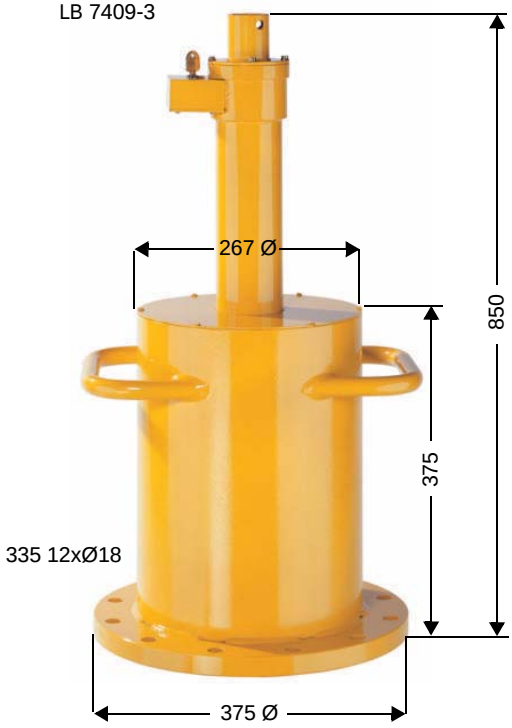
LB 7409-1



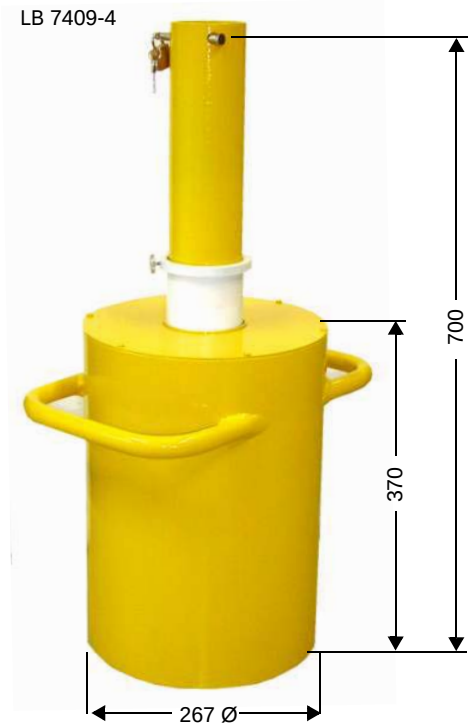
LB 7409-2



LB 7409-3



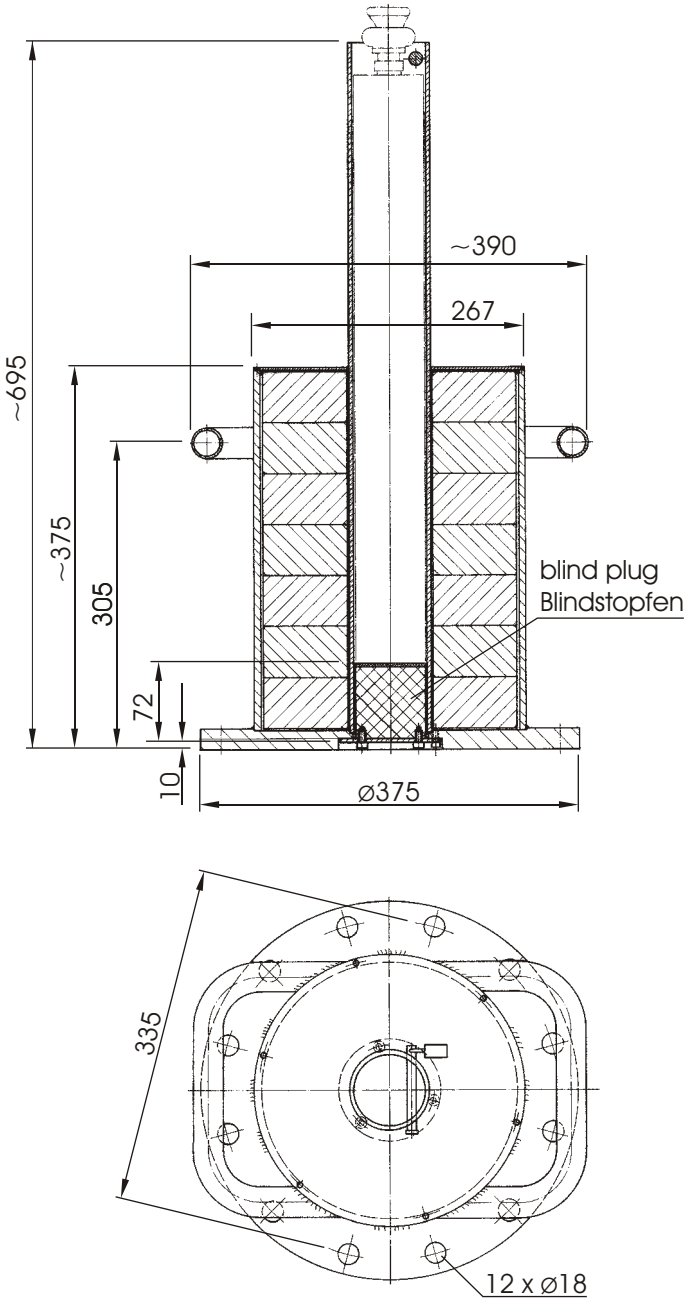
LB 7409-4



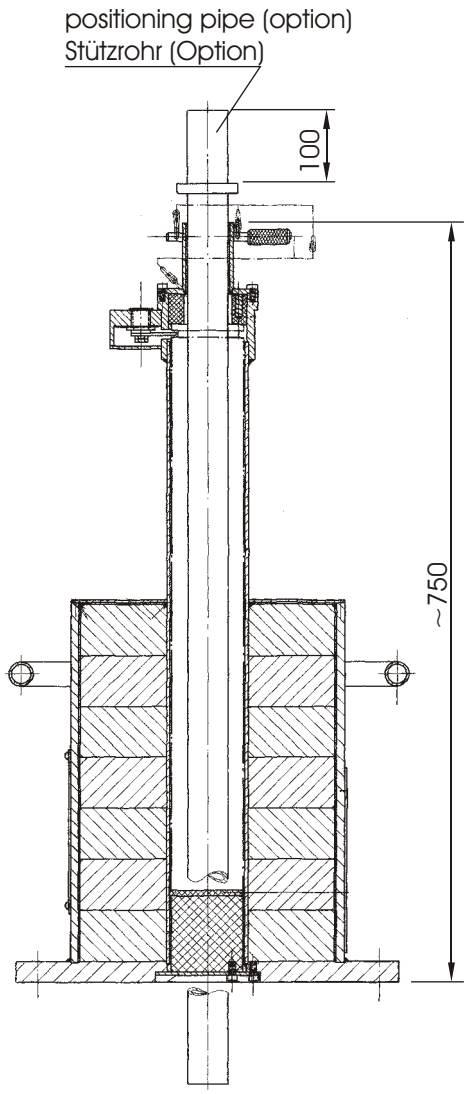
LB 350

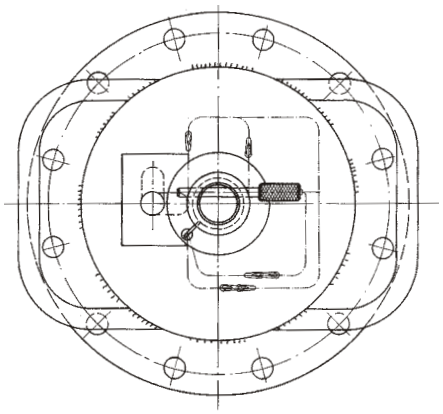
Dimensions in mm
Abmessungen in mm

LB 7409-02



LB 7409-03



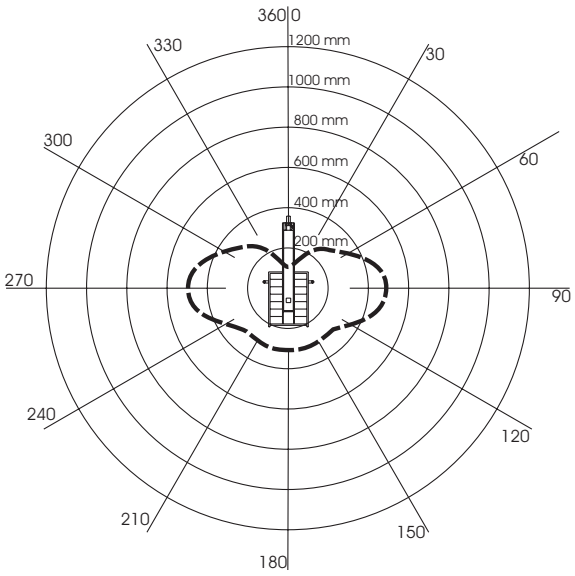


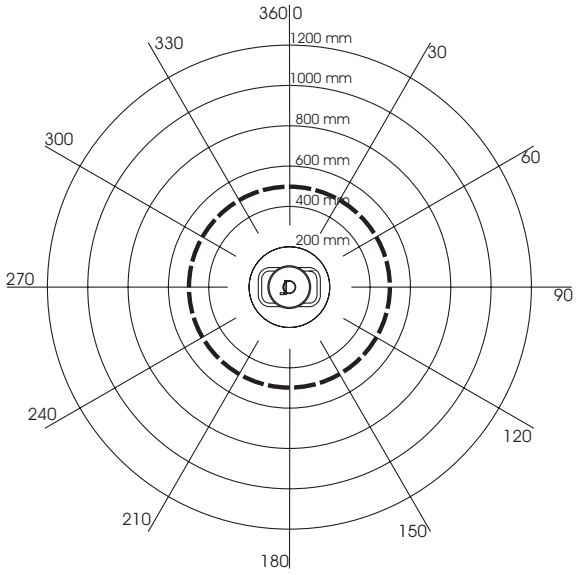
LB 350

Dimensions in mm
Abmessungen in mm

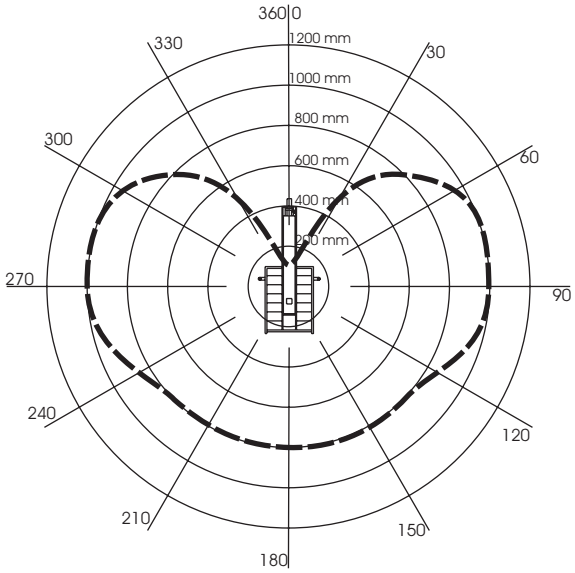
2.4.2 Isodose curves for shielding / Isodosenkurven für Abschirmung

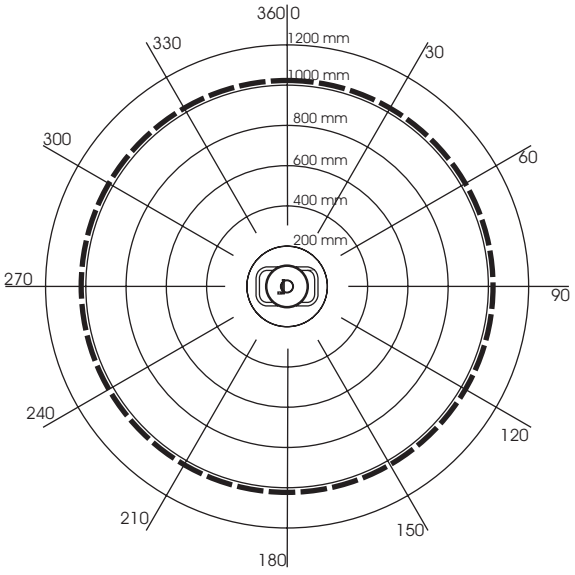
100 mCi AmBe-241





300 mCi AmBe-241





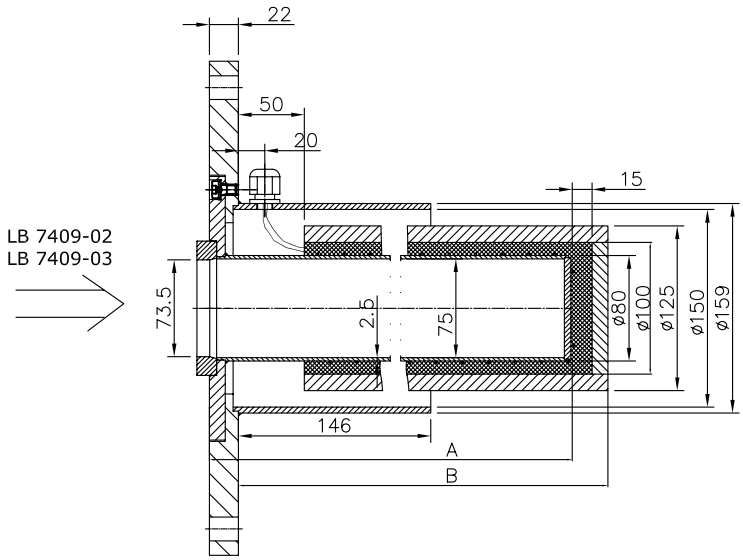
Distance indicated for 3 µSv/h
Distance information in mm from the surface of the shielding vessel

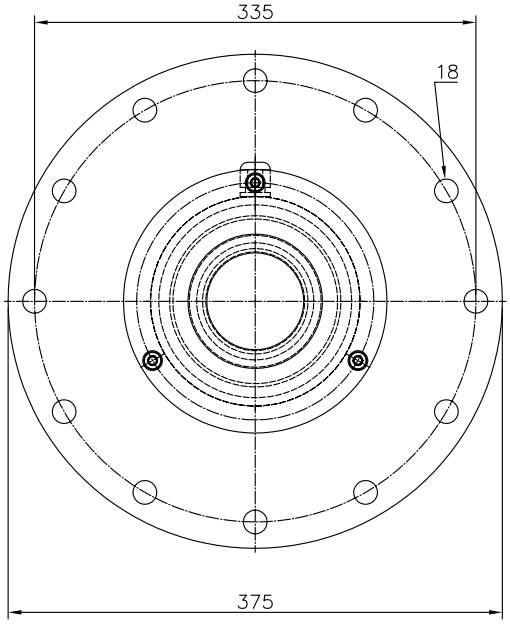
Abstand angegeben für 3µSv/h
Abstandsangaben in mm von der Oberfläche des Abschirmbehälters

LB 350

Dimensions in mm
Abmessungen in mm

2.5 Ceramic dip pipe / Keramiktauchrohr



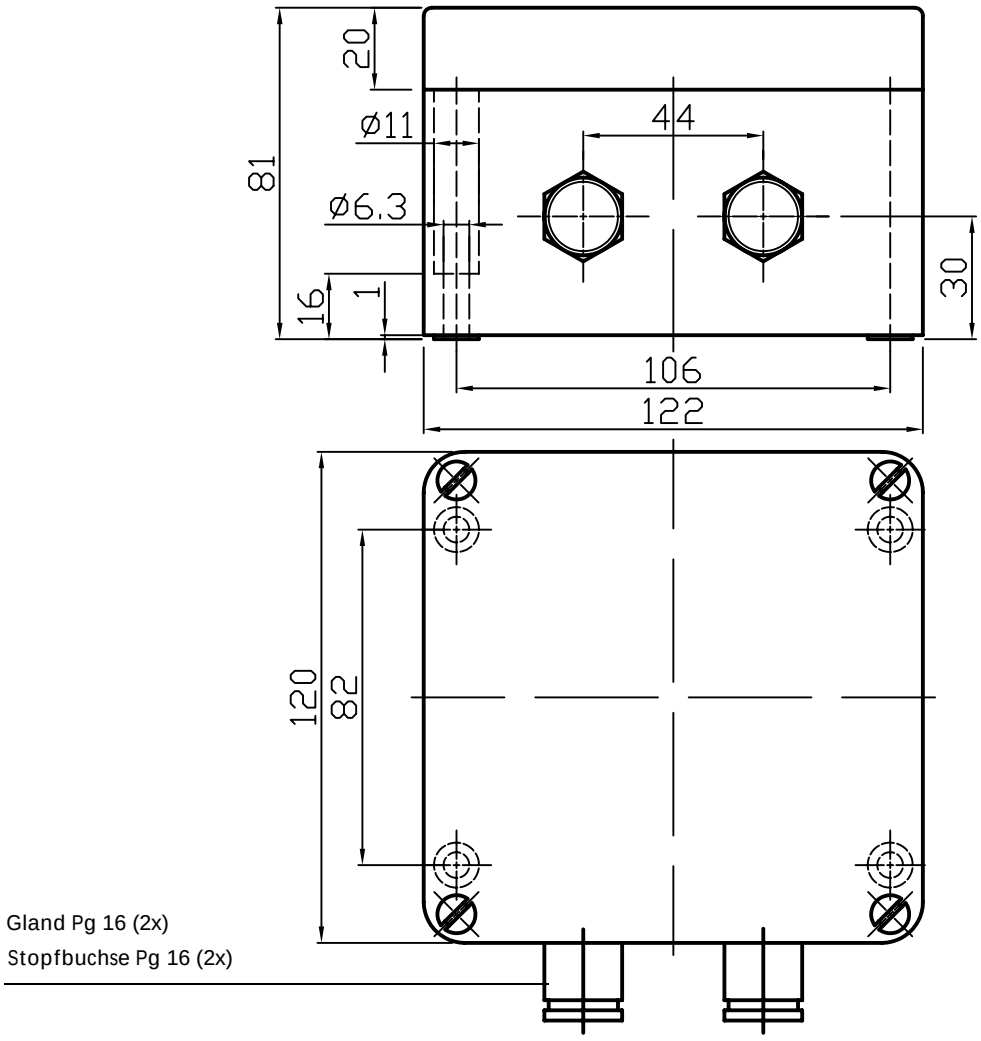


Dip Pipe / Tauchrohr		
Part no. ID No.	A	B
34669-01	650	666
34669-02	950	966
34669-03	1250	1266

LB 350

Dimensions in mm
Abmessungen in mm

2.6 Terminal box for connection of the bunker probe LB 6666 / Klemmkasten zum Anschluss der Bunkersonde LB 6666



Gland Pg 16 (2x)
Stopfbuchse Pg 16 (2x)

Weight: approx. 1150 g
Color: Structural varnish gray, similar to RAL 7001
Material aluminum pressure casting

Gewicht: ca. 1150 g
Farbe: Strukturlack grau, ähnlich RAL 7001
Material Alu-Druckguss

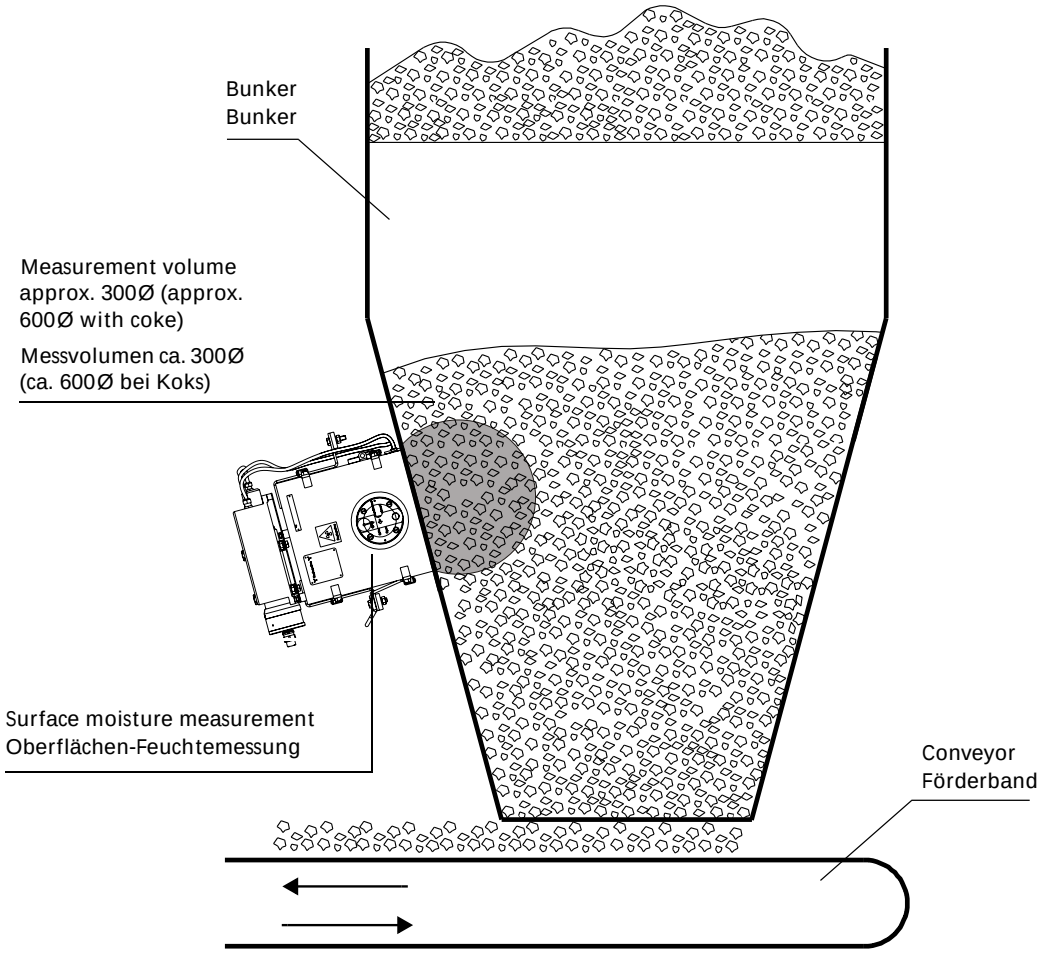
LB 350

Dimensions in mm
Abmessungen in mm

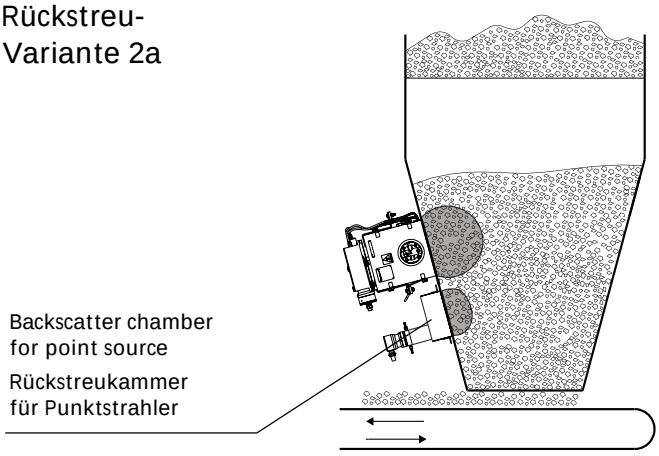
3 Surface probe / Oberflächensonde

3.1 Measurement arrangements / Messanordnungen

Measurement arrangement with surface probe version 2 /
Messanordnung mit Oberflächensonde Variante 2

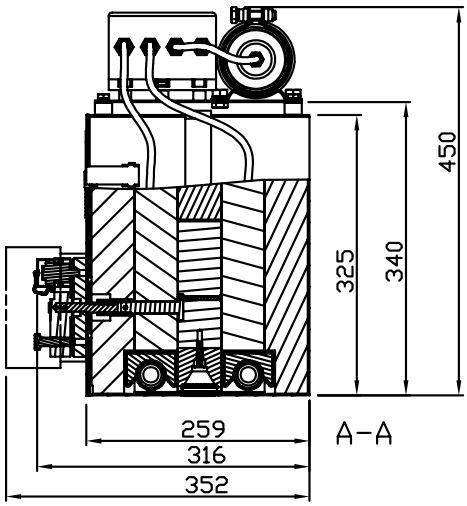


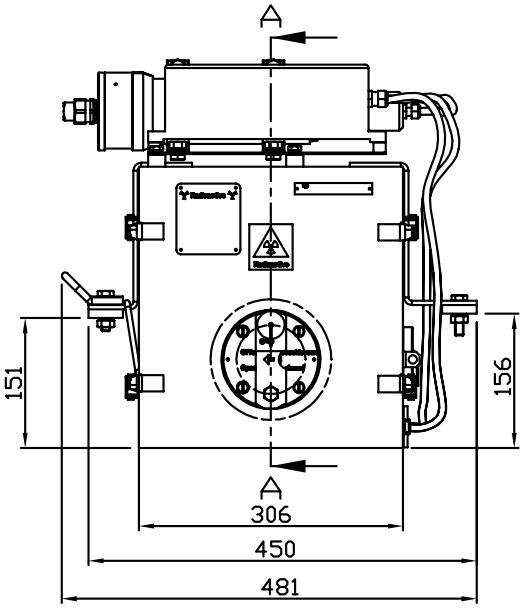
Surface moisture measurement with backscatter chamber as density compensation version 2a /
Oberflächenfeuchtemessung mit Rückstreukammer als Dichtekompensation Variante 2a

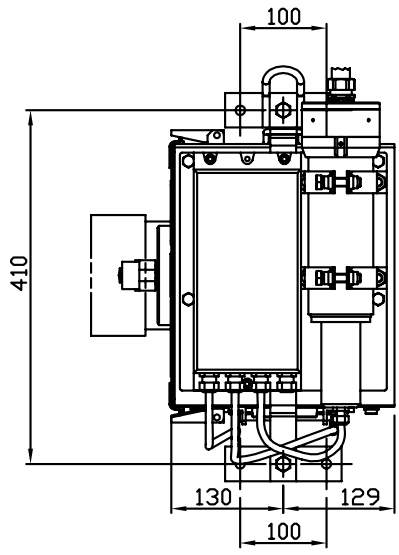


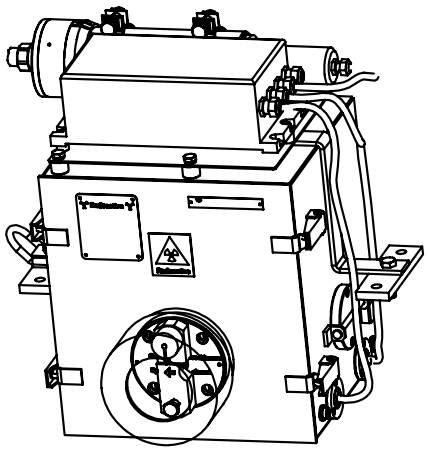
3.2 Shielding LB 7410 / Abschirmung LB 7410

3.2.1 Dimensions / Abmessungen







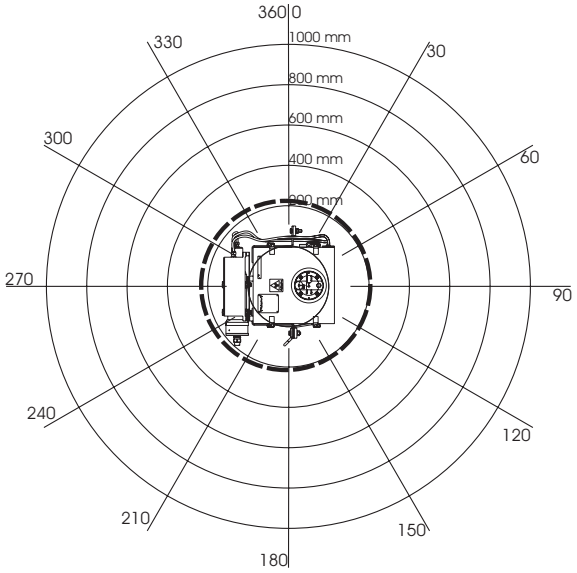


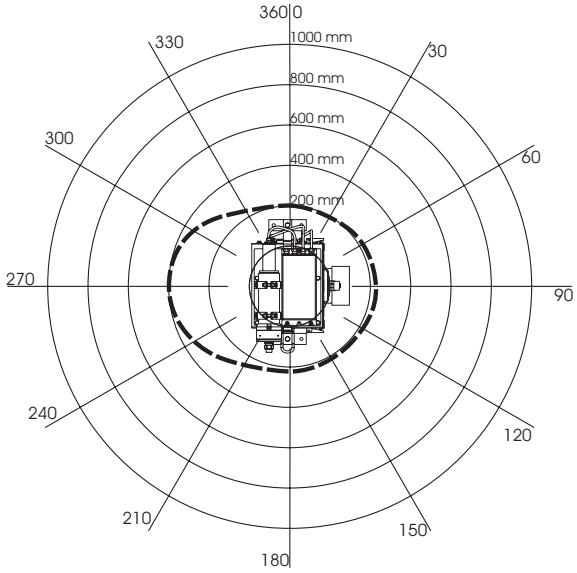
LB 350

Dimensions in mm
Abmessungen in mm

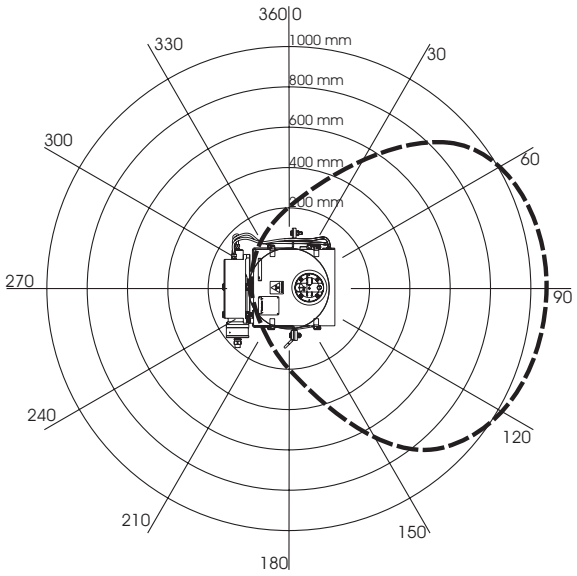
3.2.2 Isodose curves for shielding with 100 mCi / Isodosenkurven für Abschirmung mit 100 mCi

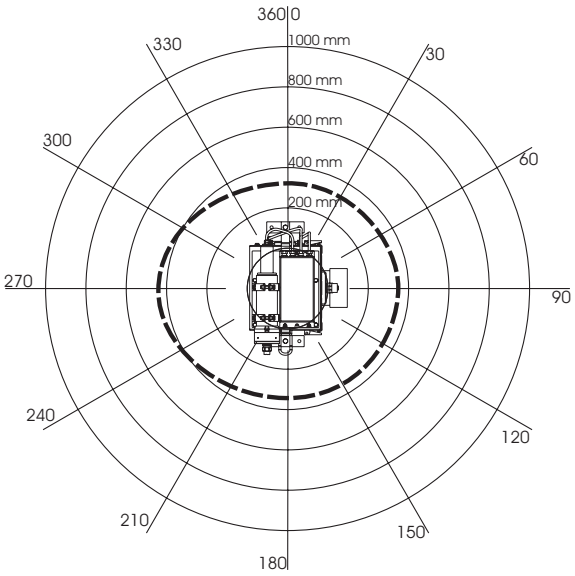
Radiation path closed / Strahlengang geschlossen





Radiation path open / Strahlengang offen





Distance indicated for 3 µSv/h
Distance information in mm from the surface of the shielding vessel
Source activity 100 mCi / 3700 MBq AmBe-241

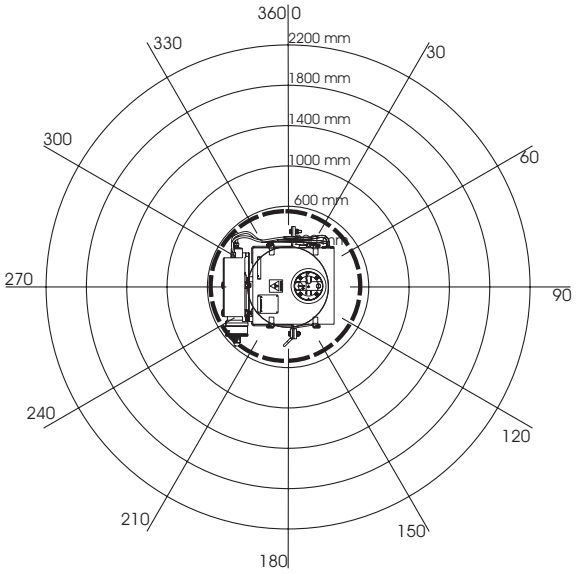
Abstand angegeben für 3 µSv/h
Abstandsangaben in mm von der Oberfläche des Abschirmbehälters
Strahleraktivität 100 mCi / 3700MBq AmBe-241

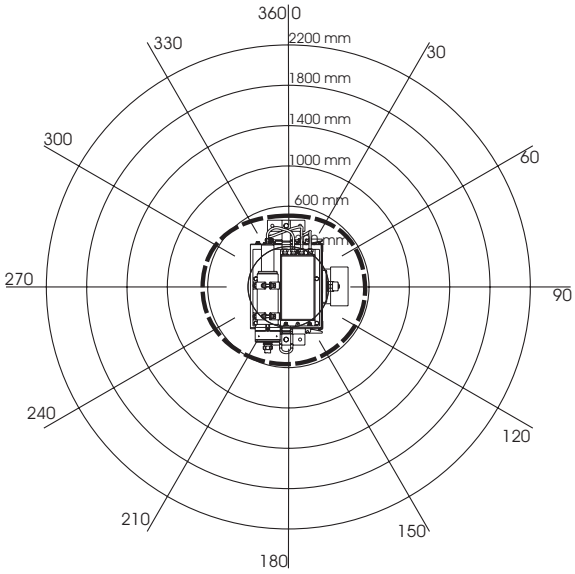
LB 350

Dimensions in mm
Abmessungen in mm

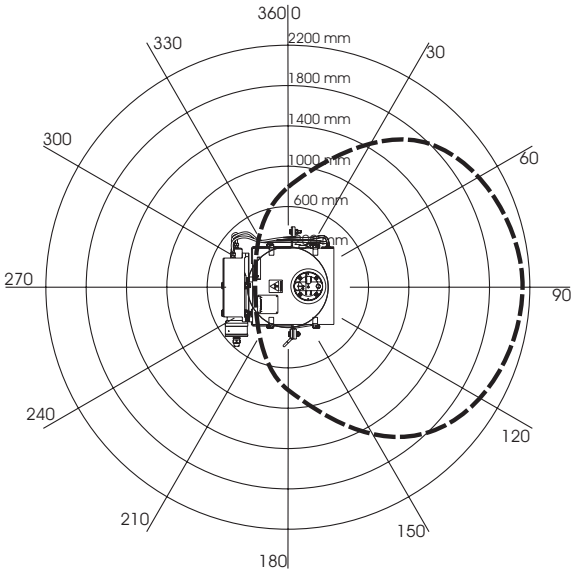
3.2.3 Isodose curves for shielding with 300 mCi / Isodosenkurven für Abschirmung mit 300 mCi

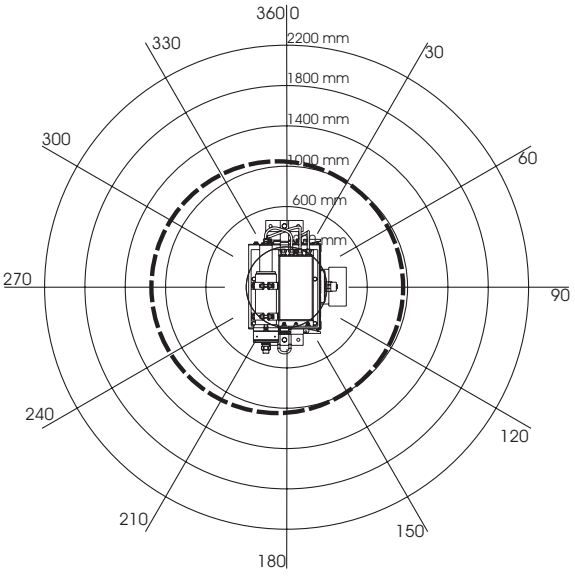
Radiation path closed / Strahlengang geschlossen





Radiation path open / Strahlengang offen





Distance indicated for 3 µSv/h
Distance information in mm from the surface of the shielding vessel
Source activity 300 mCi / 11100 MBq AmBe-241

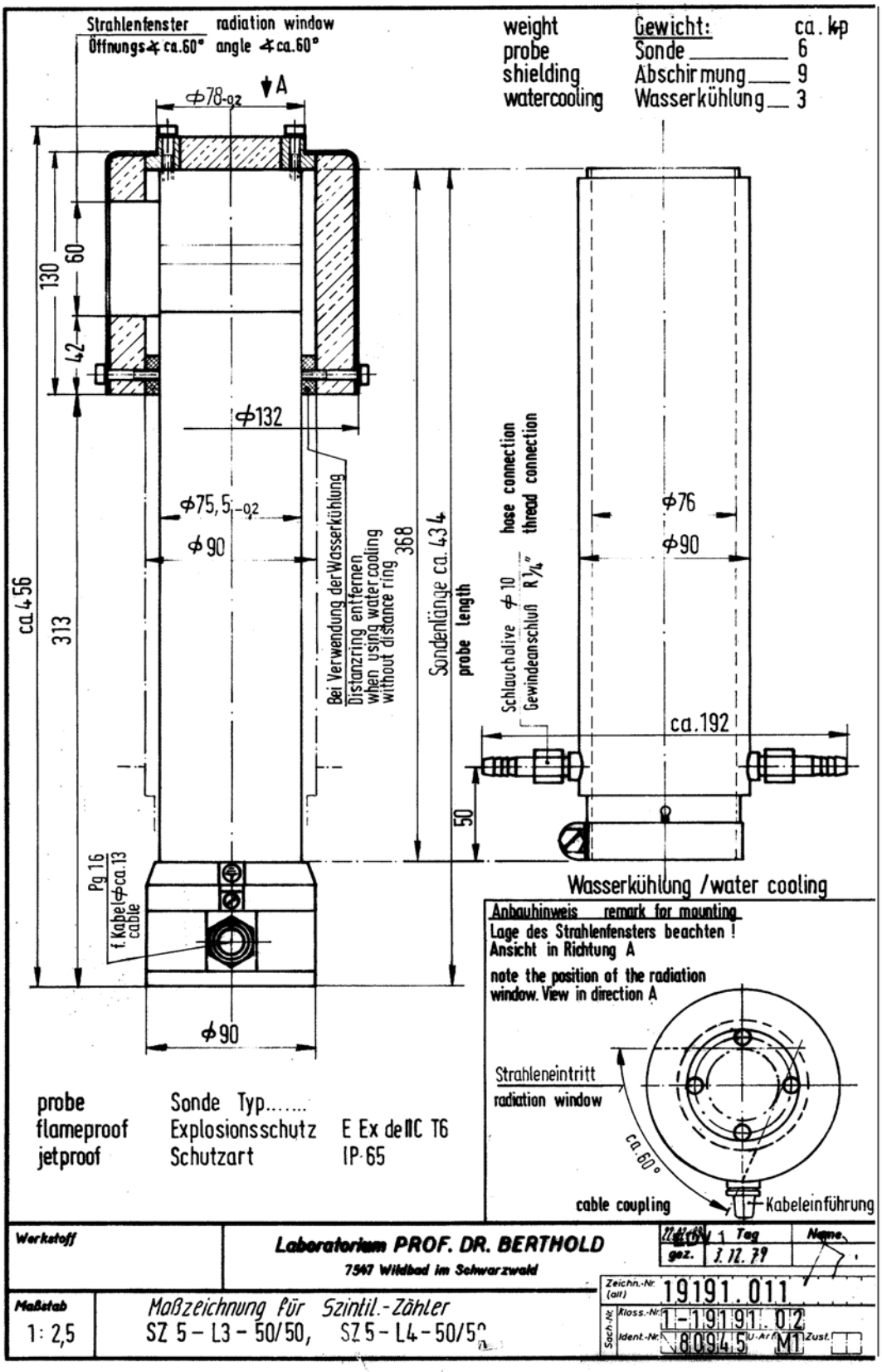
Abstand angegeben für 3 µSv/h
Abstandsangaben in mm von der Oberfläche des Abschirmbehälters
Strahleraktivität 300 mCi / 11100MBq AmBe-241

LB 350

Dimensions in mm
Abmessungen in mm

3.3 NaI-detector / NaI-Detektor

3.3.1 Detector / Detektor

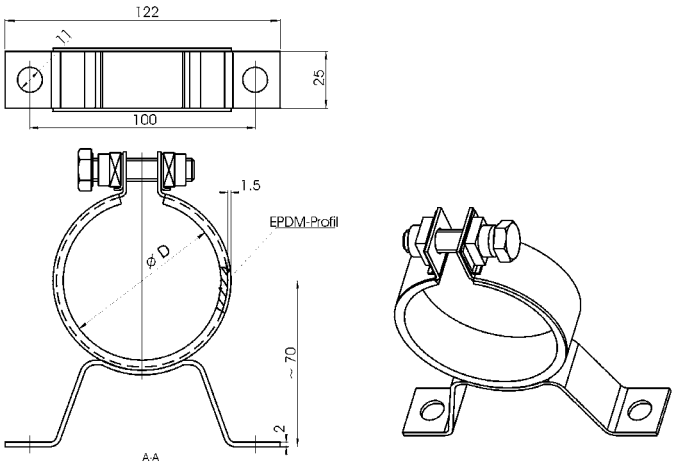


LB 350

Dimensions in mm
Abmessungen in mm

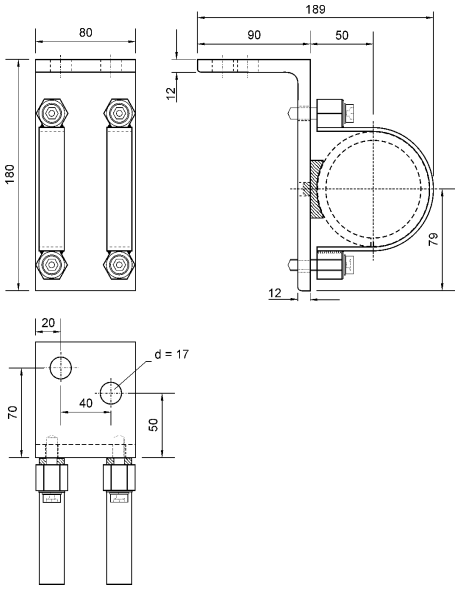
3.3.2 Fixing clamps for GM- and NaI-detectors / Befestigungsschellen für GM- und NaI-Detektoren

Standard clamps / Standard-Schellen



Clamps for detector without water cooling D = 75 Halterung für Detektor ohne Wasserkühlung D=75	**Clamps for detector with water cooling D=90 Halterung für Detektor mit Wasserkühlung D=90**
ID NO 31346 (1 set = 2 clamps) IDTNR 31346 (1 Satz = 2 Schellen)	ID NO 31347 (1 set = 2 clamps) IDTNR 31347 (1 Satz = 2 Schellen)

Detector support / Detektor-Halterung



Detector support for point detector without water cooling **Halterung für Punktdetektor ohne Wasserkühlung**	**Detector support for point detector with water cooling** **Halterung für Punktdetektor mit Wasserkühlung**
ID NO 39247 (1 set = 2 clamps) IDTNR 39247 (1 Satz = 2 Schellen)	ID NO 39247 (1 set = 2 clamps) IDTNR 39247 (1 Satz = 2 Schellen)

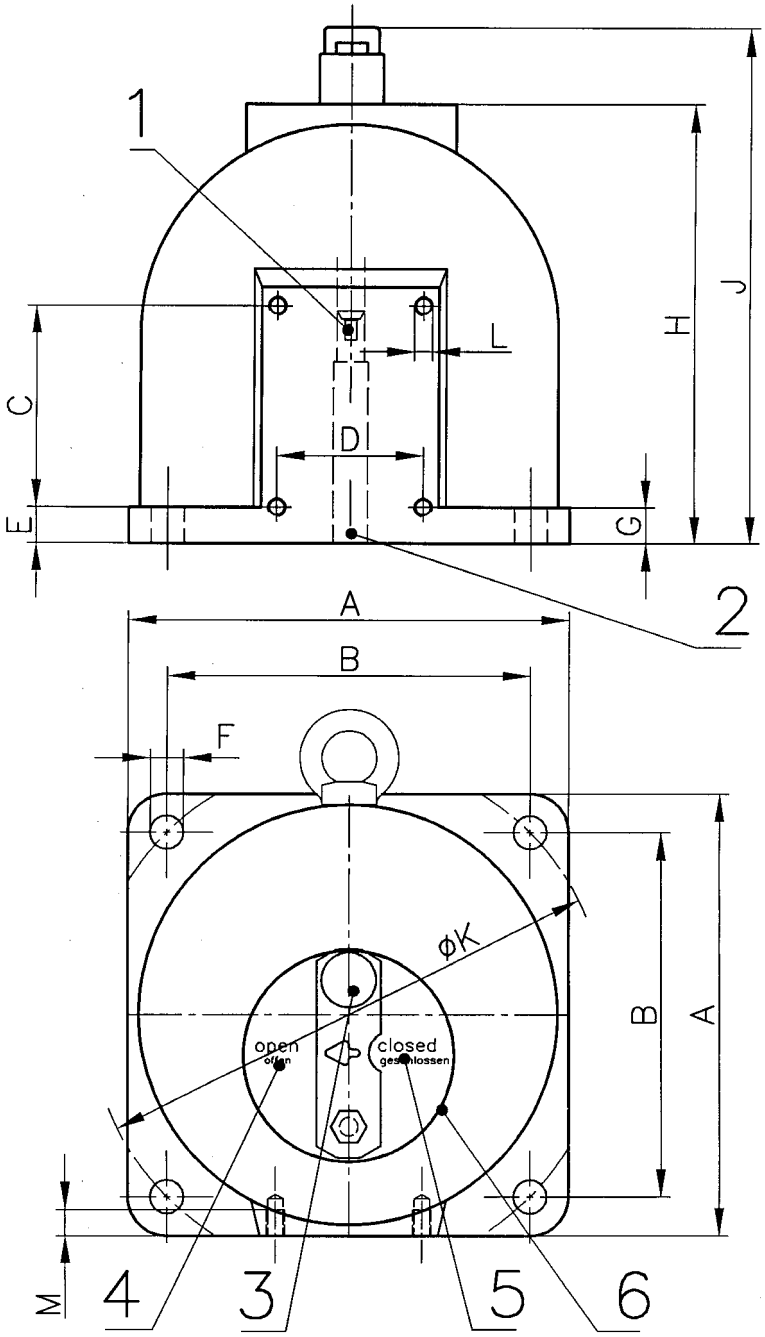
This detector support consists of two clamps mounted on an angle. It may be used instead of the mounting clamps. The angle can be welded or screwed directly onto the bracket. Moreover, the detector support is very robust and can be used where little space is available. All metal parts of this fixture are made of stainless steel.

Diese Halterung besteht aus zwei Schellen montiert auf einem Winkel. Sie kann als Option anstelle der Befestigungsschellen verwendet werden. Sie bietet den Vorteil eines Winkels der direkt auf der Konsole angeschweißt oder verschraubt werden kann. Zudem ist die Halterung sehr robust und auf engem Raum einsetzbar. Alle Metallteile dieses Befestigungssatzes sind aus Edelstahl gefertigt.

LB 350

Dimensions in mm
Abmessungen in mm

3.4 Point source shielding / Punktstrahler-Abschirmung



1 Point source / Punktstrahler
2 Radiation exit / Strahlenaustritt
3 Lock / Schloss
4 Position Open / Stellung Auf
5 Position Closed / Stellung Zu
6 Type label / Typenschild

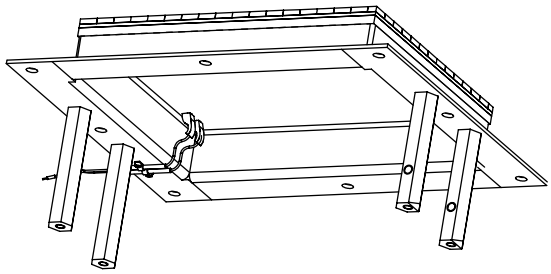
	A	B	C	D	E	F	G	H	J	K	L	M	Flange	kg
LB 7440	180	142	60	60	15	18	20	173	238	200	M8	12	ND125/PN6	31
LB 7442	240	198	110	80	20	18	20	242	306	280	M10	14	ND200/PN6	81

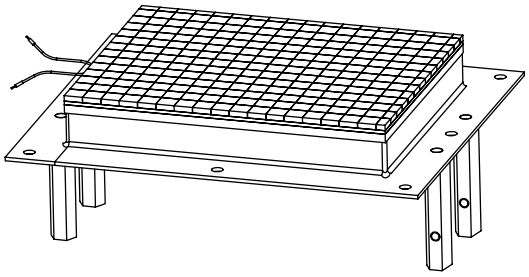
LB 350

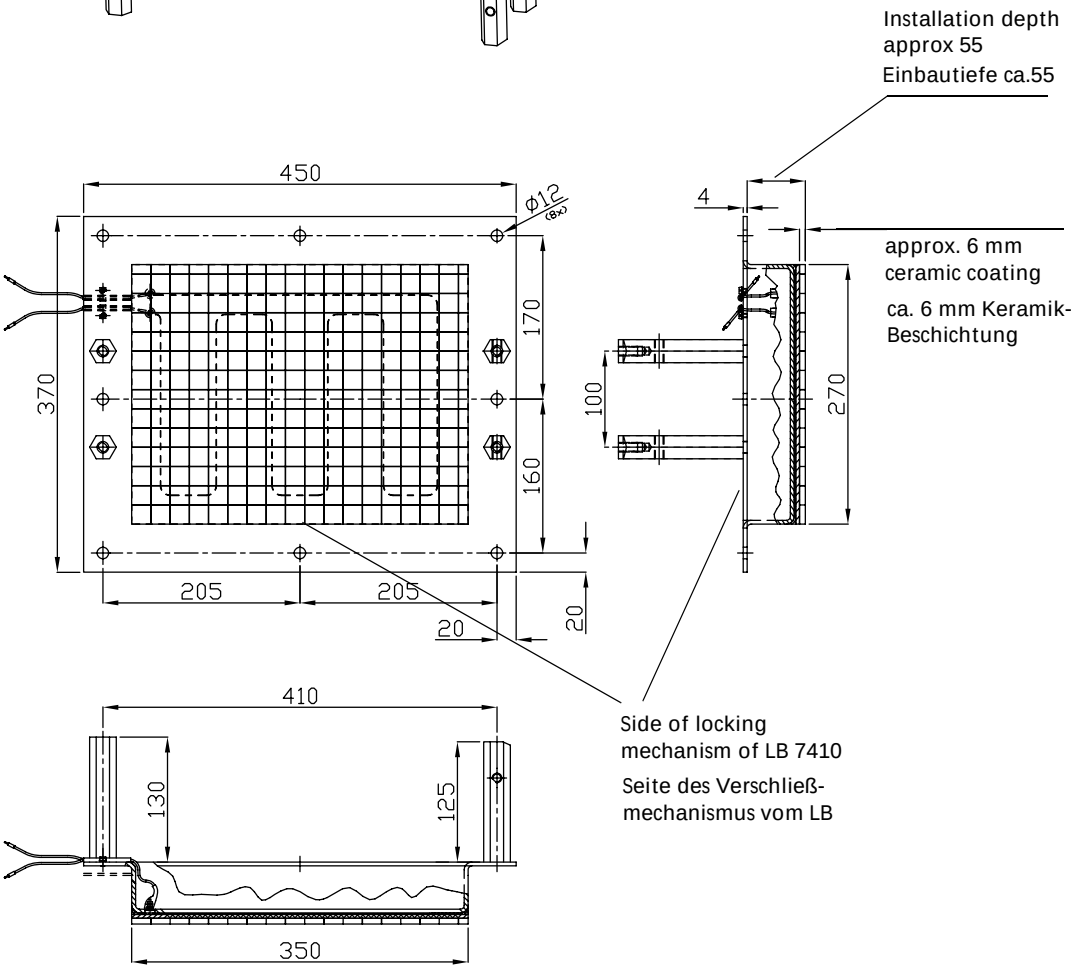
Dimensions in mm
Abmessungen in mm

3.5 Mounting frame for surface probe / Montagerahmen für Oberflächen-Sonde

3.5.1 Mounting frame without density compensation / Montagerahmen ohne Dichtekompensation



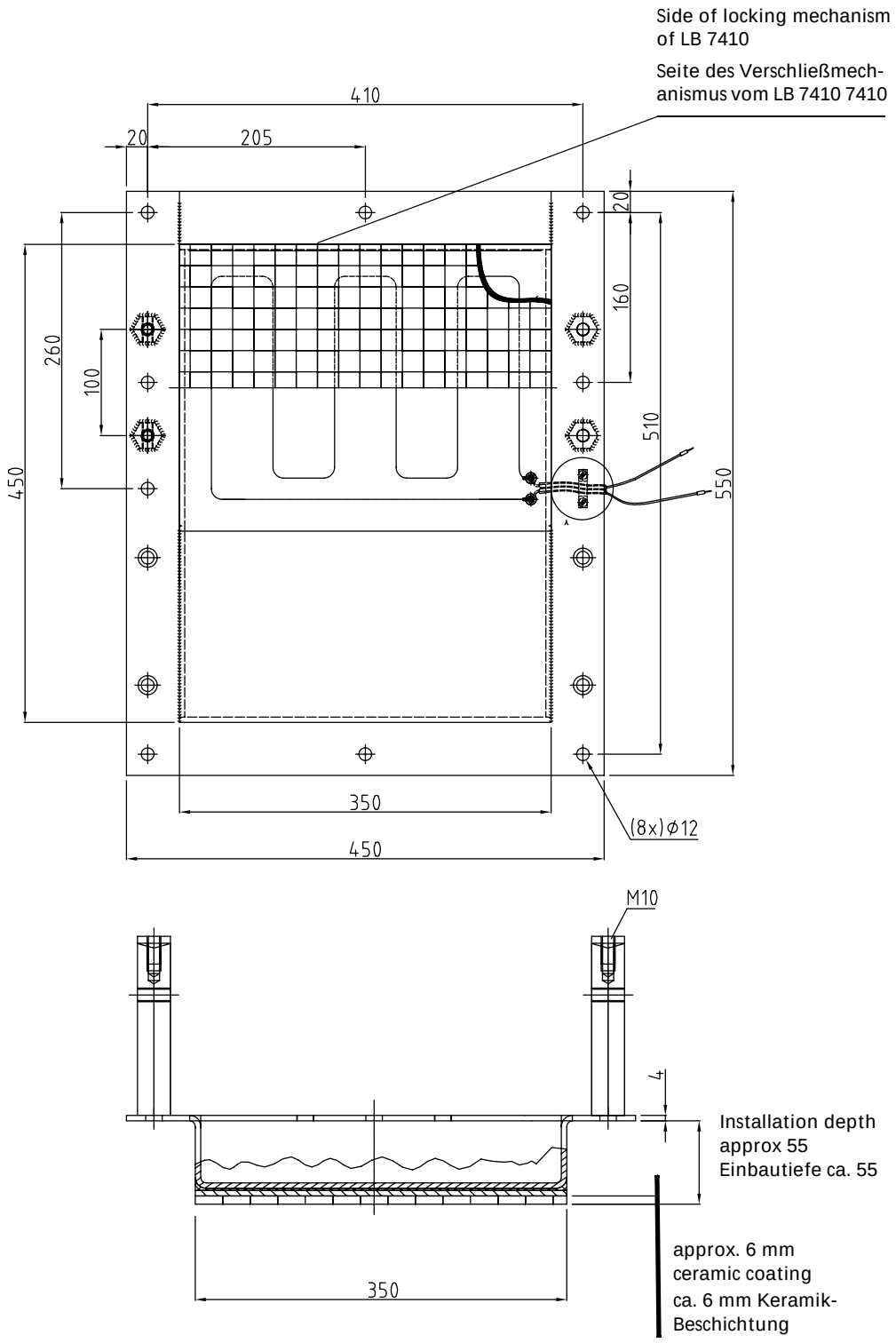




LB 350

Dimensions in mm
Abmessungen in mm

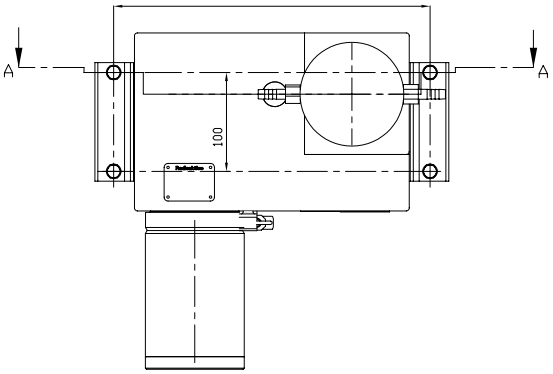
3.5.2 Mounting frame with density compensation / Montagerahmen mit Dichtekompensation

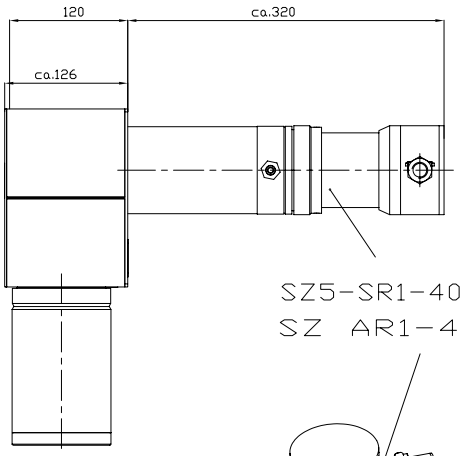


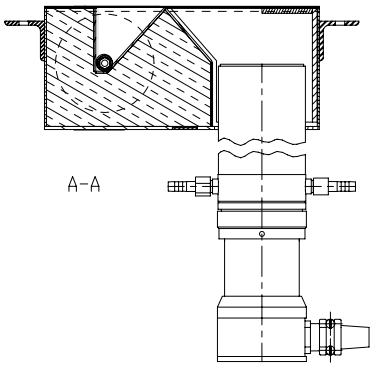
LB 350

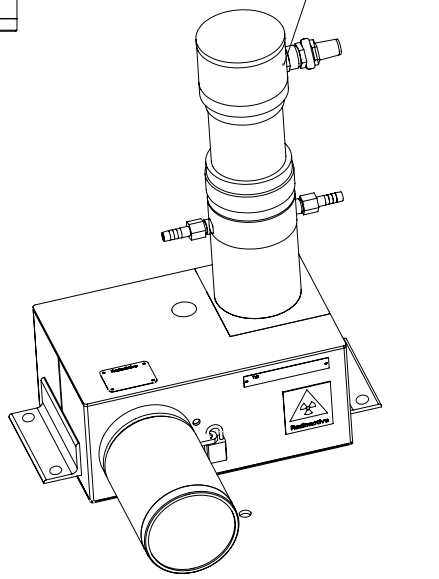
Dimensions in mm
Abmessungen in mm

3.6 Backscatter chamber for density compensation / Rückstreukammer für Dichtekompensation









Technical Information

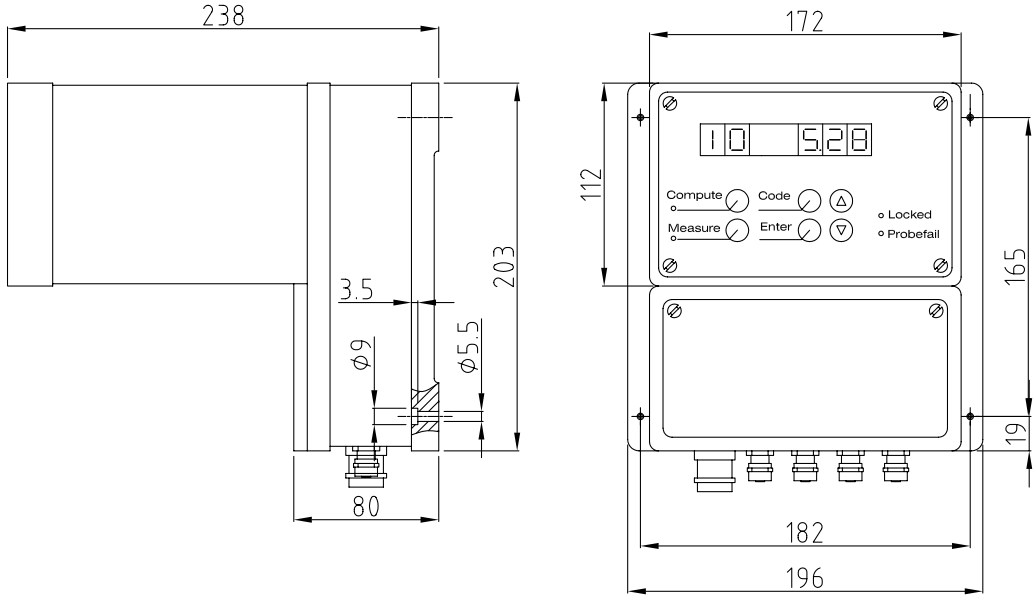
Moisture Measurement LB 350

Moisture Measurement
Feuchtemessung

Evaluation Unit
Auswerteeinheit

1 Housing / Gehäuse

1.1 Wall mounted / Wandgehäuse

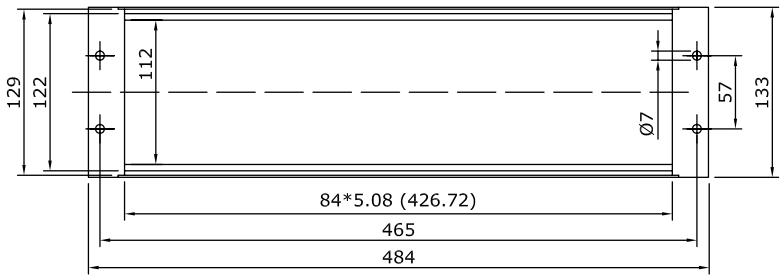


BERTHOLD TECHNOLOGIES

LB 350

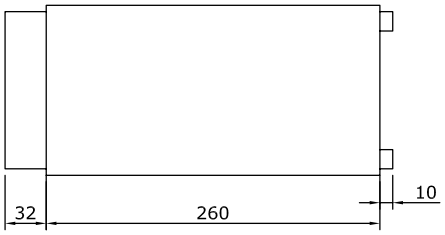
Dimensions in mm
Abmessungen in mm

1.2 In a 19 rack (for LB350-2 or LB350-3) / im 19"-Einschubrahmen (für LB350-2 oder LB350-3)



Projection: Fastening screws (front panel) = 10 mm
Cable holder (rear panel) = 32 mm

Überhang: Befestigungsschrauben (Frontplatte)= 10 mm
Kabelhalterung (Rückwand) = 32 mm

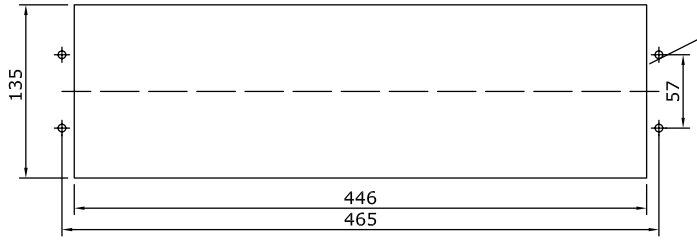


Additionally:Fasteners = 15 mm
Cable holder = 32 mm

Additionally:Fasteners = 15 mm
Cable holder = 32 mm

Cut-out-dimensions for 19"-rack
Ausbruchmaße für Baugruppenträger

Drilling for screw M6 or equal
Bohrung für Schraube M6

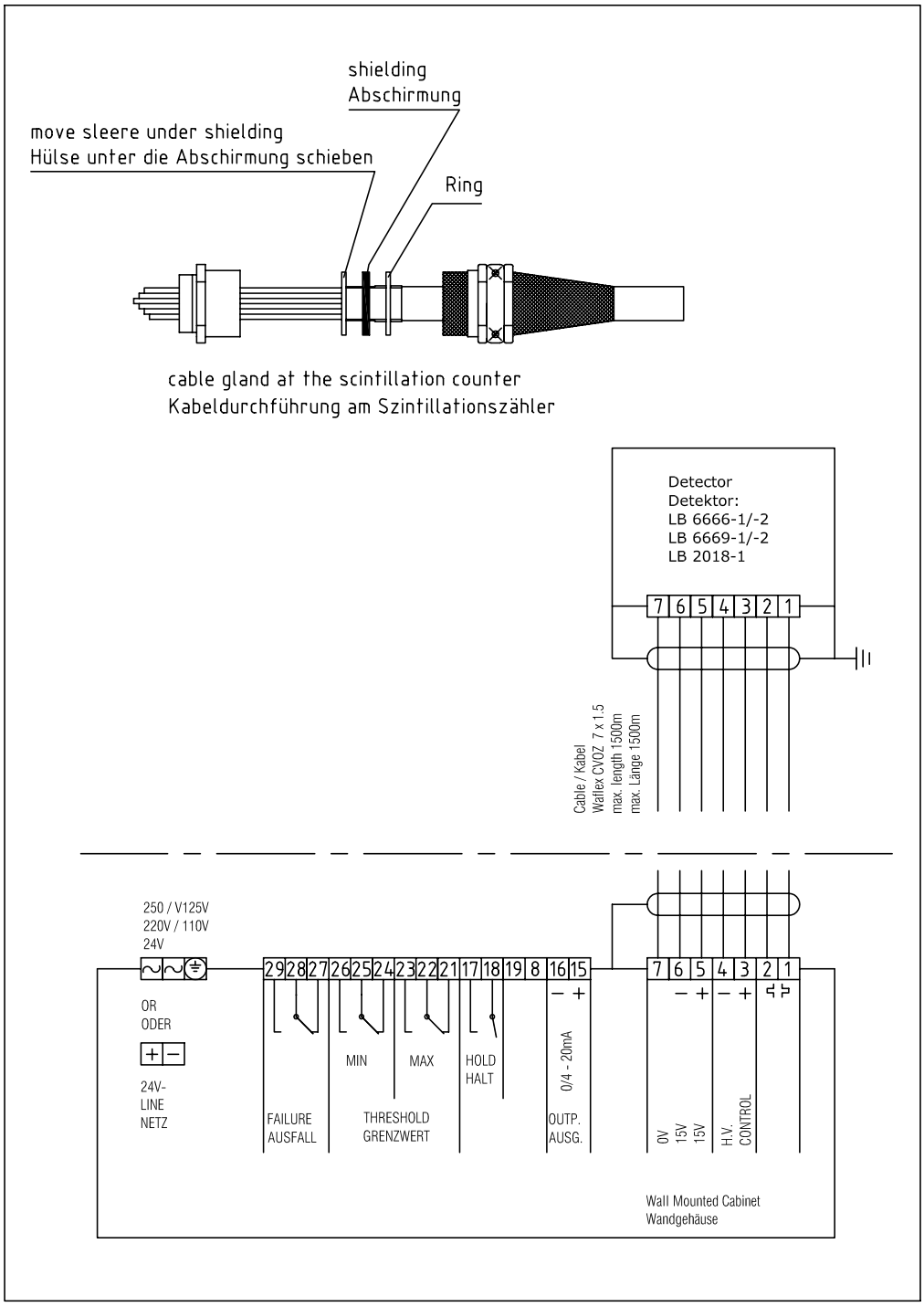


LB 350

Dimensions in mm
Abmessungen in mm

2 Wiring diagrams / Anschlusspläne

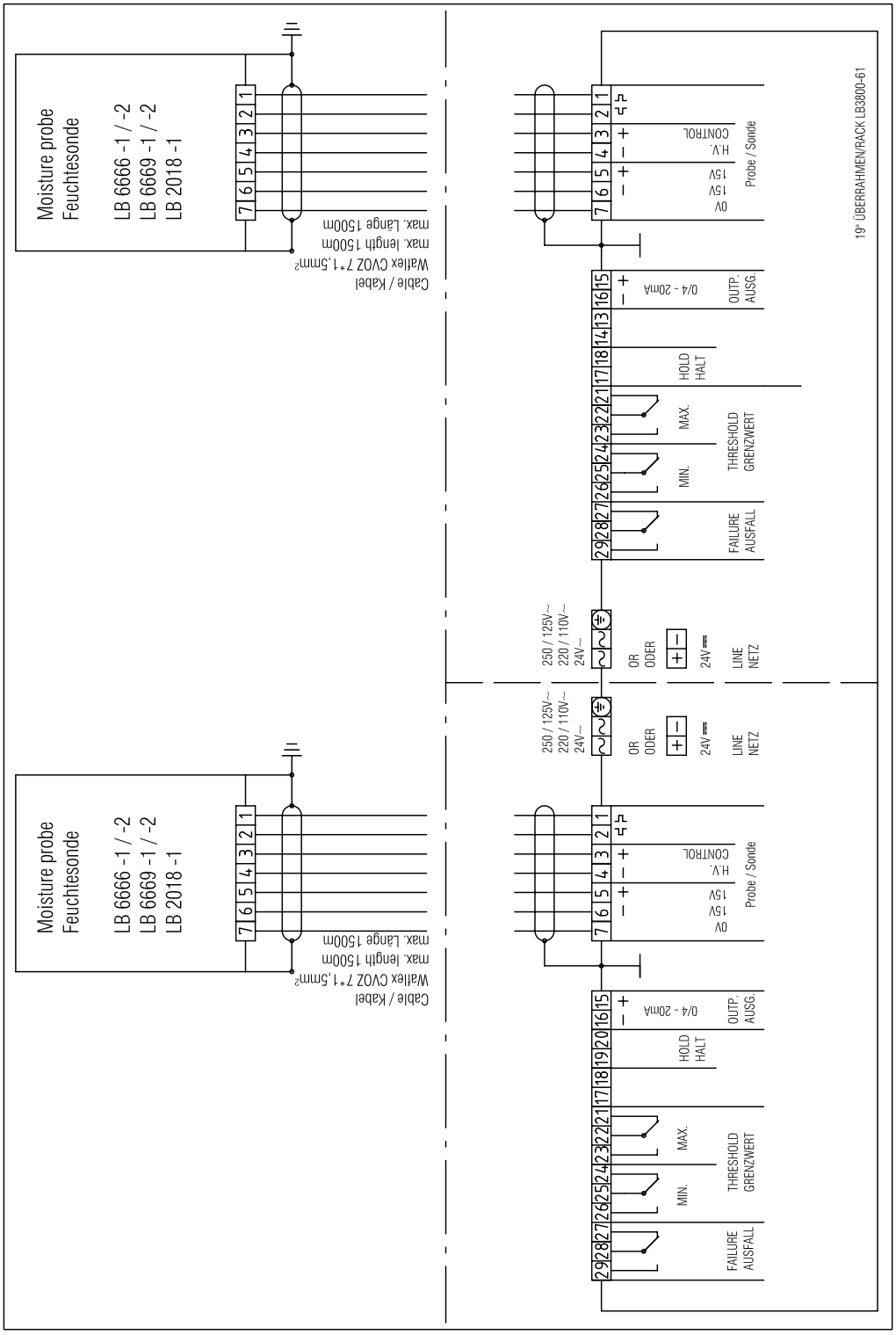
2.1 Wiring diagram wall housing LB350-1 / Anschlussplan Wandgehäuse LB350-1



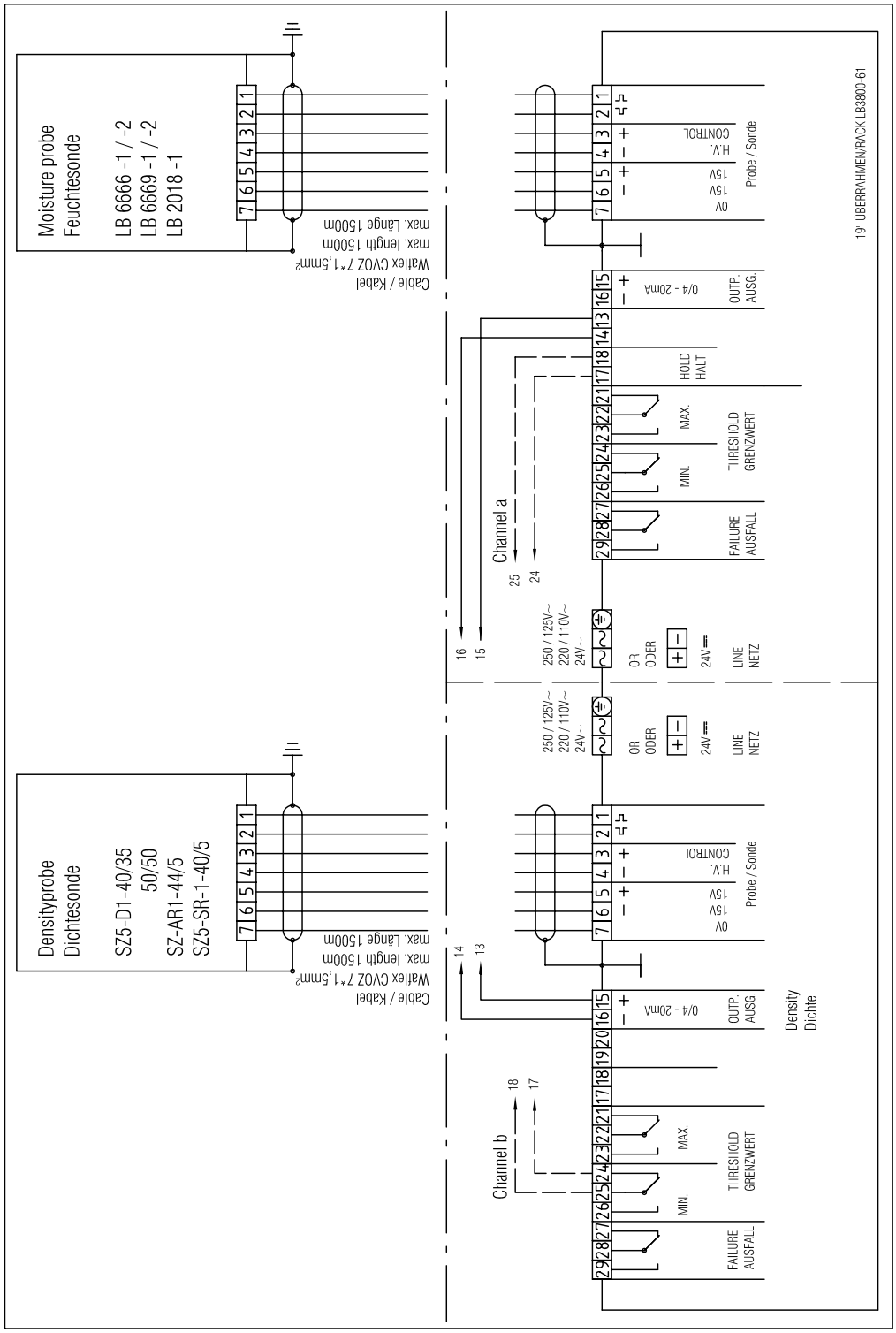
LB 350

Dimensions in mm
Abmessungen in mm

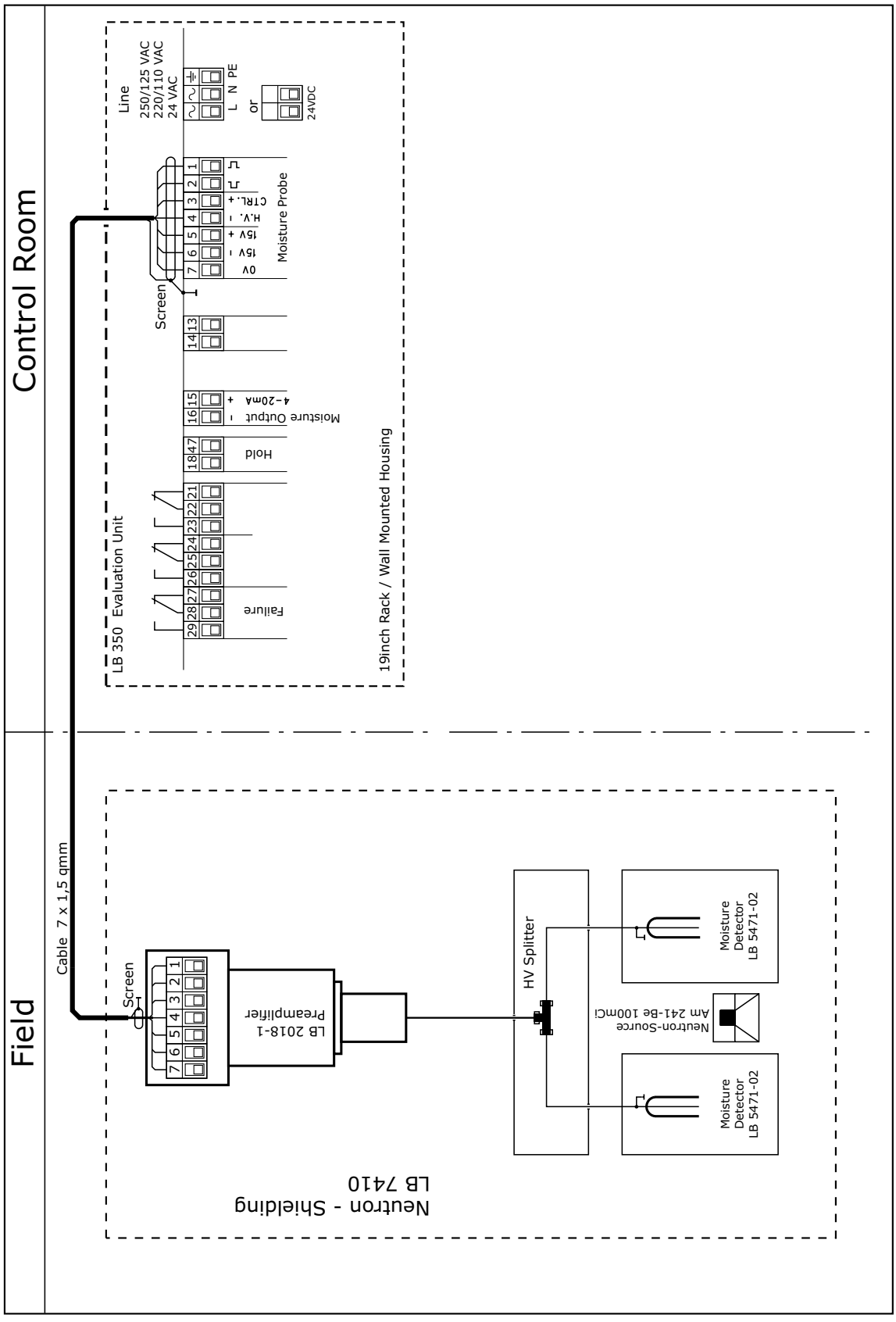
2.2 Wiring diagram 19" rack for 2-channel moisture measurement LB 350-2 / Anschlussplan 19" Rahmen für 2-Kanal Feuchte-Messung LB 350-2



2.3 Wiring diagram 19" rack LB 350-3 moisture measurement with density compensation / Anschlussplan 19" Rahmen LB 350-3 Feuchtemessung mit Dichtekompensation

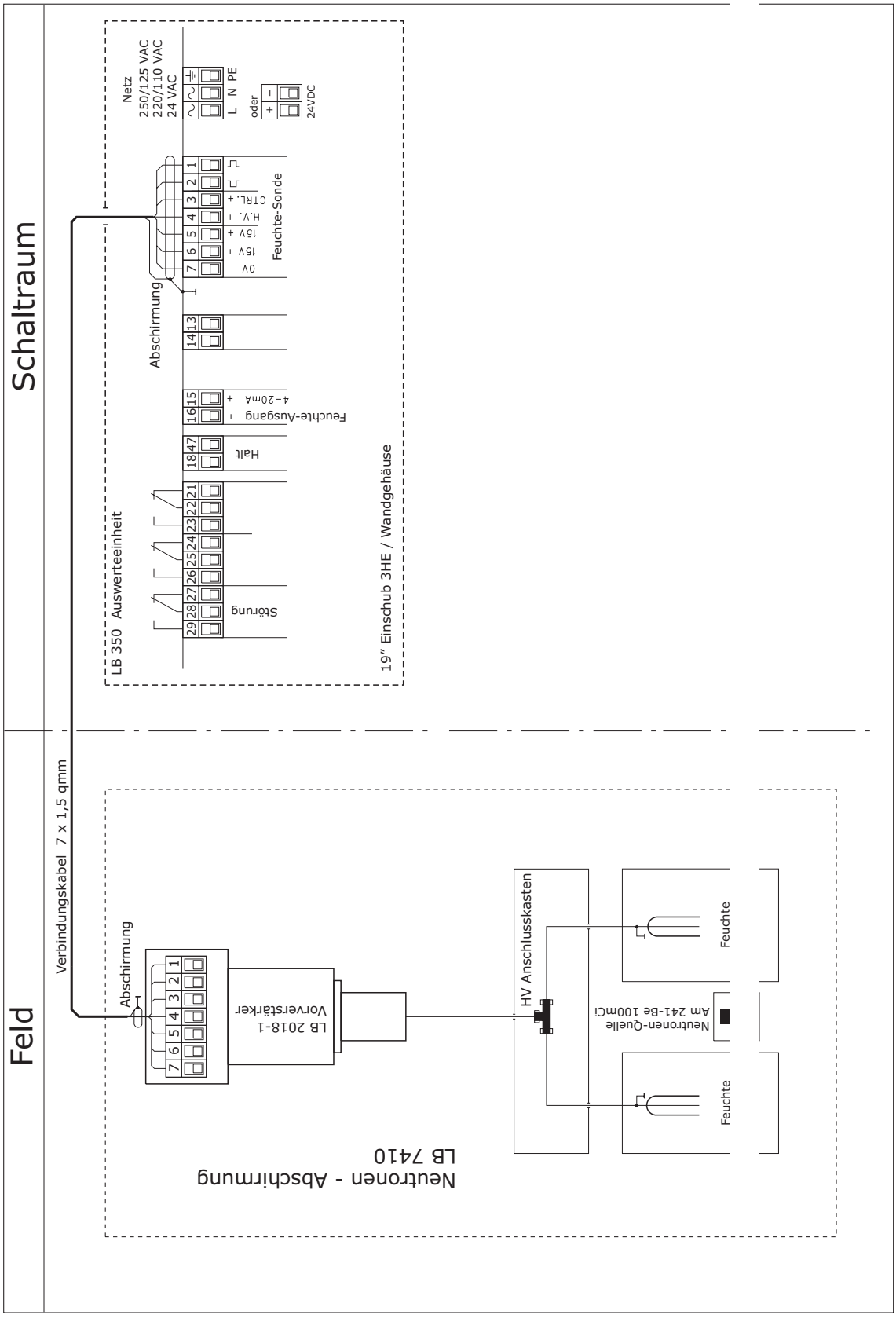


2.4 Wiring diagram 7410 with LB350-1/2 / Anschlussplan 7410 mit LB350-1/2



LB 350

Dimensions in mm
Abmessungen in mm



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