



Signum® Ex Complete Scales

Supreme SIWXSBBP | SIWXSDCP SIWXSBBBS | SIWXSDCS



- Monolithic weighing system
- Resolution up to 620,000 d
- Class II "calibrated ex works" with internal calibration weights
- Overload protection 300 kg
- Options for special requirements | Data communication
- IP65 protection available
- Can be used in explosive areas (certificates: IECEx | ATEX Zone 1 | 2 | 21 | 22, FM Class I, II, III Div. 1)

Signum® Ex – this outstanding, reliable product range from Sartorius offers extraordinary safety for the most stringent of requirements. Based on the established Signum scales range, the Signum® Ex guarantees high precision, reliability and durability.

With its many years of experience in scales applications for explosive areas, Sartorius is an expert in this field, which is in turn reflected in the development of our products and solutions. Signum® Ex therefore complies with all current international requirements for use in explosive areas. The following certificates are available: IECEx | ATEX Zone 1 | 21 | 2 | 22 and FM Class I, II, III Div. 1, 2.

As with all Sartorius scales, user-friendliness is the top priority. Key here is the impressively intuitive operating concept. No matter how complex your task, Signum® Ex makes it child's play, while minimising the risks of entry errors. The integrated calibration weights ensure that the scales are precise. Moreover large data volumes can be stored on the device itself, thanks to an internal product memory.

Signum® Ex is available in stainless steel or painted versions, in order to fit in with your own working processes to the best possible extent.

The corresponding display unit Signum® 3 offers a wide range of applications:

- SQ Min (minimum sample weight)
- Comprehensive functions for printing and formatting labels
- Counting
- Checkweighing
- Totalizing
- Formulation
- Classification

There are various connection options to ensure that the Signum® Ex fits seamlessly into your existing infrastructure, e.g. RS232, RS422 and RS485. To make integration into any working process simpler, the Signum® Ex standard version features a housing with protection class IP65 (IP4X for 0.6 kg version).

Signum® Ex has extensive overload protection (up to 300 kg) and high resistance to external forces such as shocks and vibrations. This makes it ideal for use in industrial environments and guarantees exact measurement results every time.

Whatever your specialist application, Signum® Ex gives you full support. With its versatile options and individually adaptable performance features, it is always the perfect choice when working in explosive production environments.

Signum® Ex – safety you can rely on.

General technical data

Material

SIWXSBBP, SIWXSDCP:
Stainless steel display unit
Platform: Industrial-strength epoxy resin coating
Colour: NCS S3502-B (RAL 7040)
Stainless steel load plate

SIWXSBBBS, SIWXSDCS:
Stainless steel 1.4301 brushed

Humidity

85% rel. (non-condensing)
up to 31°C; 50% rel. 40°C

Use at an altitude above sea level

Up to 2,000 m; inside

Weighing system

Monolithic weighing system

Resolution (not verifiable)

SIWXSBBP | SIWXSBBBS:
Up to 620,000 d, depending on model
SIWXSDCP | SIWXSDCS:
Up to 350,000 d, depending on model

Resolution (verified at the factory)*

SIWXSBBP | SIWXSBBBS:
Up to 62,000 e, depending on model
SIWXSDCP | SIWXSDCS:
Up to 35,000 e, depending on model

Transient emissions

In compliance with EN 61326-1, Class B
(IEC 61326-1)

Electrical safety

In compliance with EN 61010-1
(IEC 61010-1)

Interference resistance

In compliance with EN 61326-1
Industrial areas
(IEC 61326-1)

Preload

Up to 100 % of weighing area

IP protection

IP65
SIWXSBBP | SIWXSBBBS 0.6 kg: IP4X

Net weight | Gross weight

SIWXSBBP | SIWXSBBBS: 9.0 | 10.8 kg
SIWXSDCP | SIWXSDCS: 15.0 | 18.0 kg

Packaging dimensions

SIWXSBBP | SIWXSBBBS: 570 × 400 × 370 mm
SIWXSDCP | SIWXSDCS: 510 × 440 × 410 mm

Ambient temperature

SIWXSBBP | SIWXSBBBS: +10°C to +40°C
SIWXSDCP | SIWXSDCS: -10°C to +40°C

Ambient temperature

(for use in legal metrology only)
+10°C to +30°C

Data interfaces

RS232
Can be switched to RS485 or RS422
Connection via 14-pin round socket

Internal alibi memory

Optional 130,000 data records

Comprehensive range of accessories

Hazardous area certification

ATEX:
II 2G Ex d ia IIB T4 Gb (models with internal motor calibration device)
II 2G Ex ia IIC T4 Gb (models without internal motor calibration device)
II 2D Ex ia IIIC T80°C Db (IP6x models)
IECEX:
Ex d ia IIB T4 Gb (models with internal motor calibration device)
Ex ia IIC T4 Gb (models without internal motor calibration device)
Ex ia IIIC T80°C Db (IP6x models)

Supply voltage

Via external power supply
Connection via 14-pin round socket
(20 cm cable)

Within hazardous area:

ATEX: YPSC01-X
FM (US): YPS02-XUR
CSA: YPS02-XKR

Outside hazardous area:

ATEX: YPSC01-Z
FM | CSA: YPS02-ZKR

Battery operation

Via external battery YRB02-X
ATEX | FM | CSA

Cable length between display unit and platform

2 m

* Models "verified at the factory"
with built-in motorized calibration weight
(all non-verifiable scales come without built-in
motorized calibration weight by default)

Order code

| Range | Sensor technology | Dimensions | Base frame material | – | Application level | – | Maximum load | – | Display resolution | CE approval |
|-------|-------------------|------------|---------------------|---|-------------------|---|--------------|---|--------------------|-------------|
| SIWX | S | BB | P | – | 3 | – | 06 | – | H | HCE |
| | | DC | S | | | | 3 | | | |
| | | | | | | | 6 | | | |
| | | | | | | | 16 | | | |
| | | | | | | | 35 | | | |

Signum® Ex Supreme resolution

| Non-calibratable | | Calibrated ex works | |
|------------------|------------------------|---------------------|---|
| -H | Resolution > 100,000 d | -HCE | Single area class II > 10,000 e, e = 10 d |

Display and operating unit



Application levels

| | Level 3 |
|---|--|
| Keyboard | 28 keys |
| Display | 14 sectors 20 mm weighing value display plus application symbols |
| Weighing | • |
| Data transfer to printer PC | • |
| ISO test | • |
| Counting | • |
| Percentage weighing | • |
| Averaging | • |
| Checkweighing | • |
| Totalizing | • |
| Combination of 3 applications | • |
| Weighing and counting to target value (from memory) | • |
| SQ Min (minimum sample weight) | • |
| Identifier (4 × 40 characters) | • |
| Product data memory | • |
| Date Time | • |
| Bulk counter connection | • |
| Internal alibi memory | • |

Technical weighing data Signum® Ex SIWXSBSB | SIWXSBBP**Non-verifiable model**

| | | | |
|---------------------------------|----------------|-------|-------|
| Capacity code | -06* | -3 | -6 |
| Resolution code | -H | -H | -H |
| Weighing capacity (kg) | 0.62 | 3.1 | 6.1 |
| Readability (g) | 0.001 | 0.01 | 0.01 |
| Verification scale interval (g) | 500 | 2,000 | 5,000 |
| Accuracy class | E2 | E1 | E2 |
| Preload (kg) | 0 | 3 | 0 |
| Repeatability (g) | 0.001 | 0.01 | 0.01 |
| Linearity (g) | 0.002 | 0.02 | 0.02 |
| Ambient temperature | -10°C to +40°C | | |

Verified model

| | | | |
|---|----------------|-------|-------|
| Capacity code | -06* | -3 | -6 |
| Resolution code | -HCE | -HCE | -HCE |
| Weighing capacity (kg) | 0.62 | 3.1 | 6.1 |
| Readability (g) | 0.001 | 0.01 | 0.01 |
| Verification scale interval (g) | 0.01 | 0.1 | 0.1 |
| Calibration weight value (g) | 500 | 2,000 | 5,000 |
| Accuracy class | E2 | E1 | F1 |
| Preload (kg) | 0 | 3 | 0 |
| Repeatability (g) | 0.001 | 0.01 | 0.01 |
| Linearity (g) | 0.002 | 0.02 | 0.02 |
| Ambient temperature (for use in legal metrology only) | +10°C to +30°C | | |

* only SIWXSBBP

Technical weighing data Signum® Ex SIWXSDCS | SIWXSDCP**Non-verifiable model**

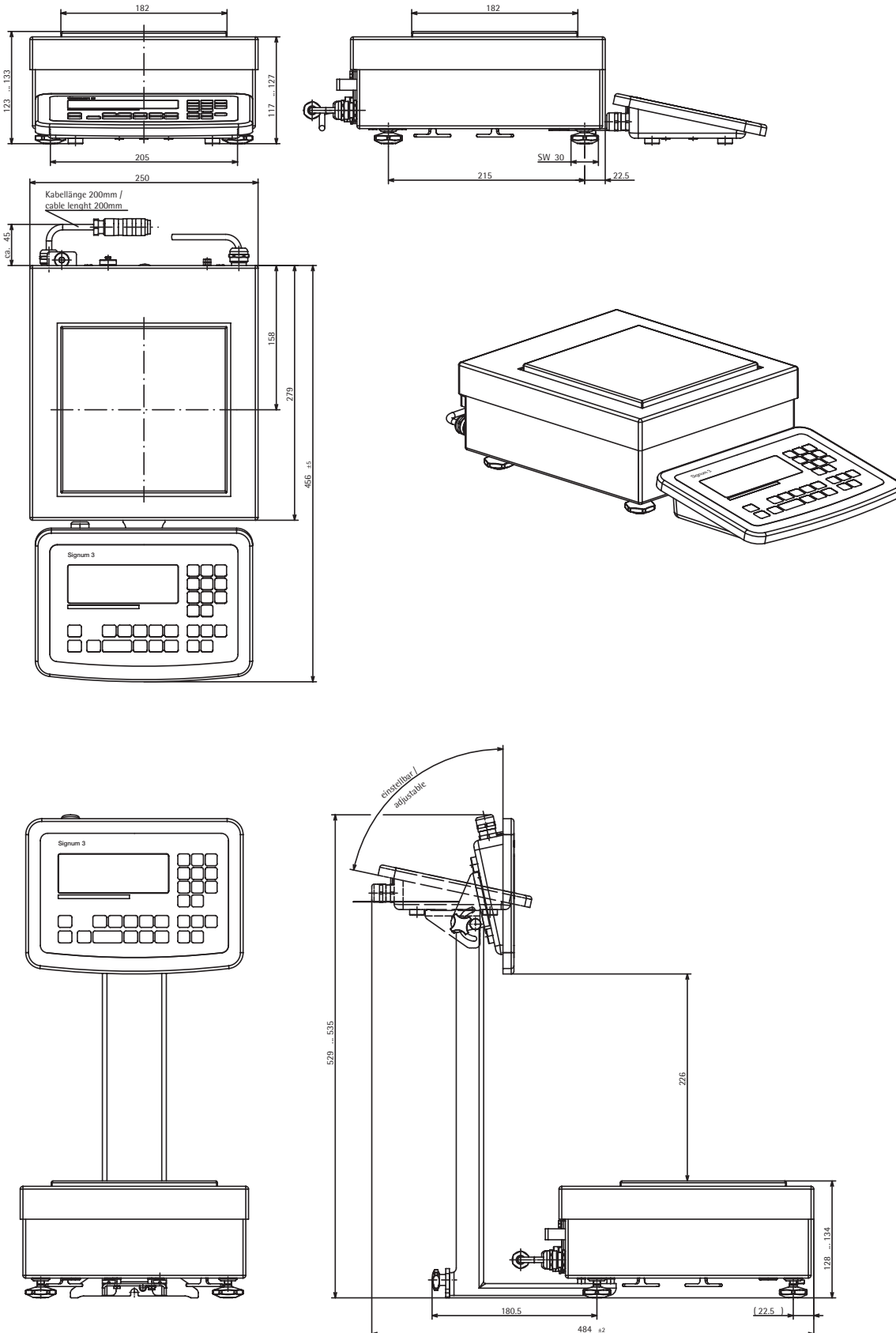
| | |
|---------------------------------|----------------|
| Capacity code | -35 |
| Resolution code | -H |
| Weighing capacity (kg) | 35 |
| Readability (g) | 0.1 |
| Verification scale interval (g) | 10,000 |
| Accuracy class | F1 |
| Preload (kg) | 5 |
| Repeatability (g) | 0.08 |
| Linearity (g) | 0.2 |
| Ambient temperature | -10°C to +40°C |

Verified model

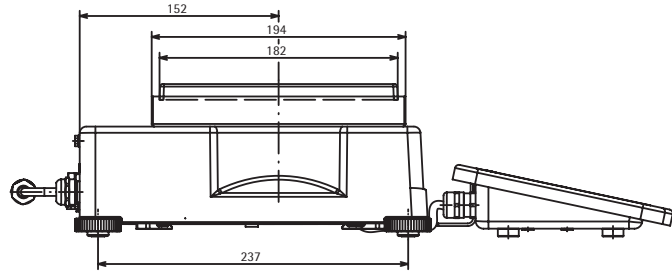
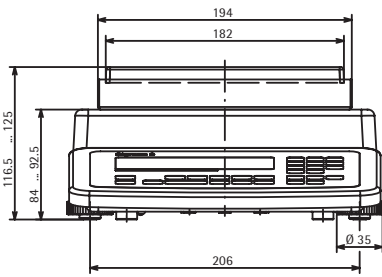
| | |
|---|----------------|
| Capacity code | -35 |
| Resolution code | -HCE |
| Weighing capacity (kg) | 35 |
| Readability (g) | 0.1 |
| Verification scale interval (g) | 1 |
| Calibration weight value (g) | 10,000 |
| Accuracy class | F1 |
| Preload (kg) | 5 |
| Repeatability (g) (in compliance with EN45501) | 0.08 |
| Linearity (g) (in compliance with EN45501) | 0.2 |
| Ambient temperature (for use in legal metrology only) | +10°C to +30°C |

Dimension drawings:

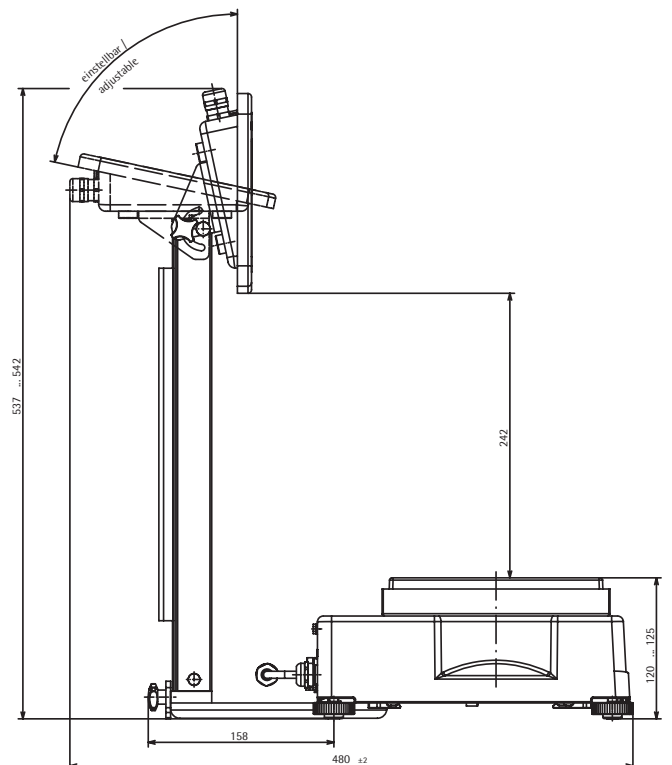
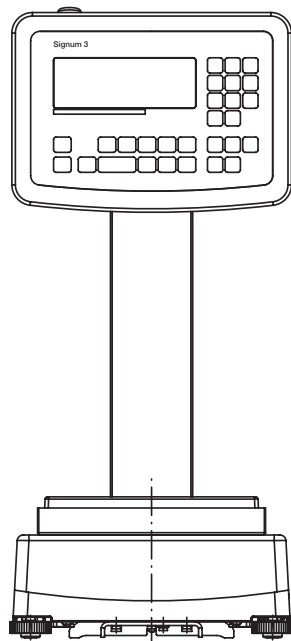
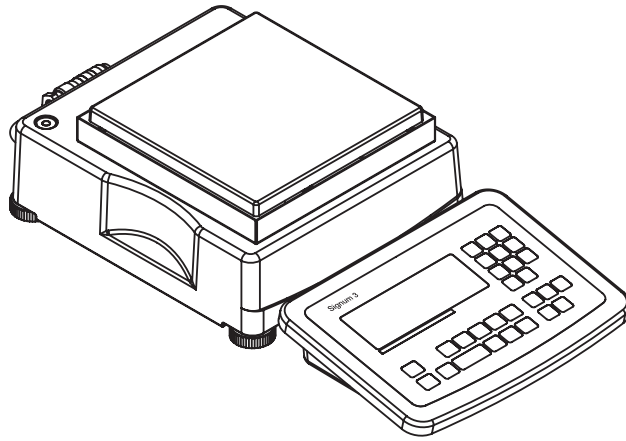
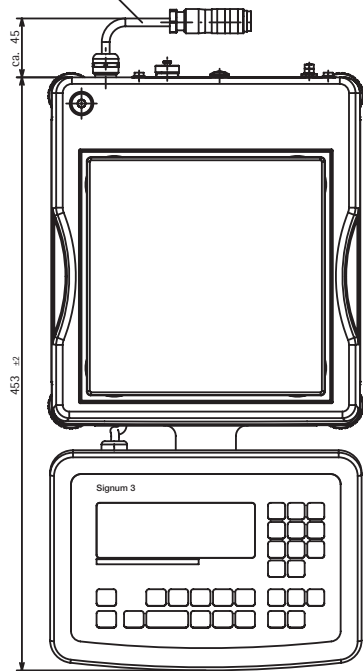
SIWXSBB5



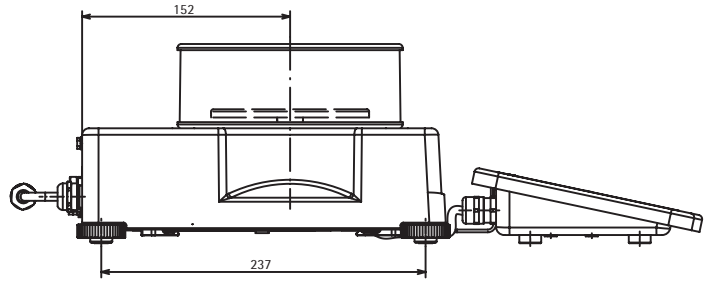
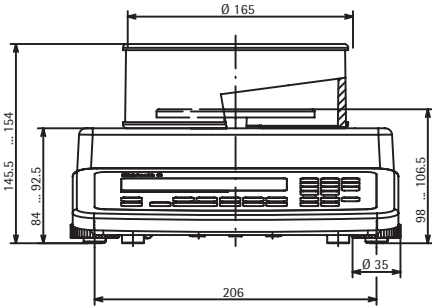
SIWXSBBP
3 kg | 6 kg



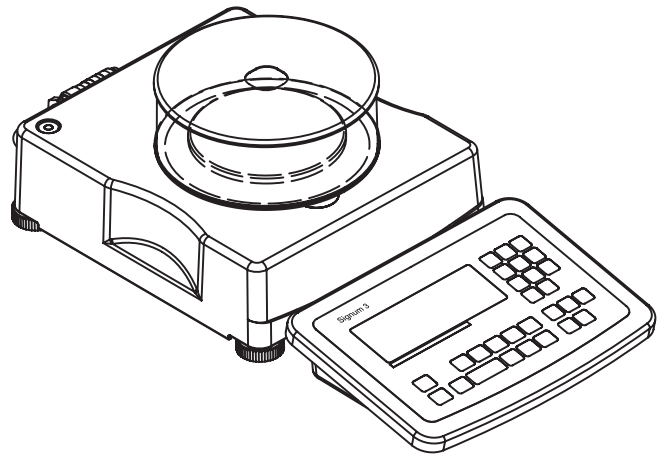
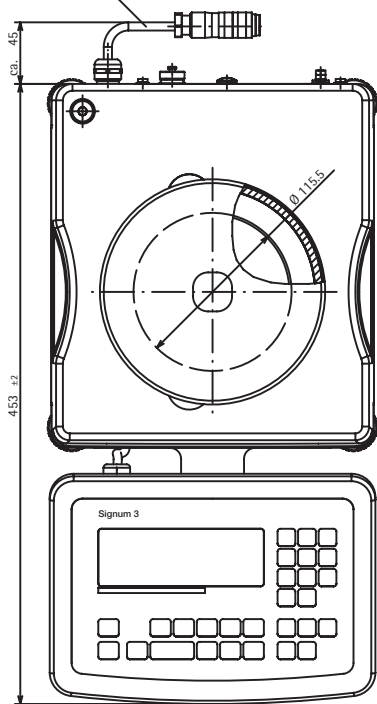
Kabellänge 200mm /
cable length 200mm



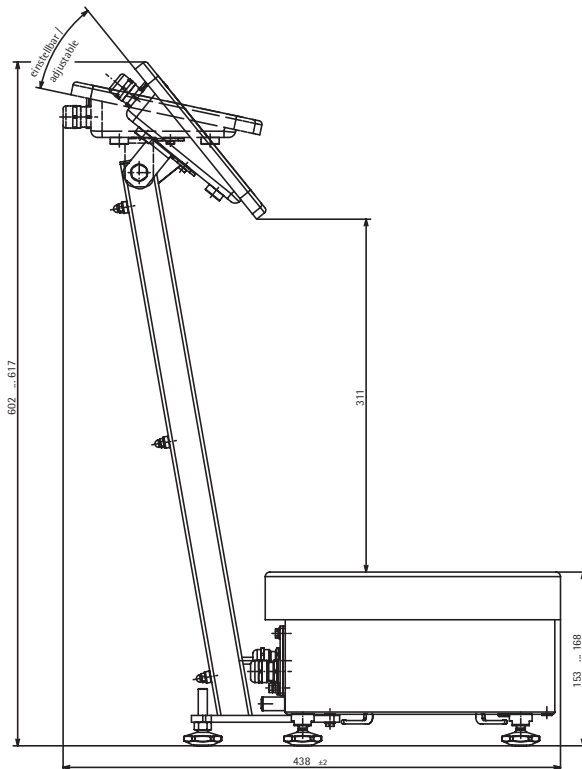
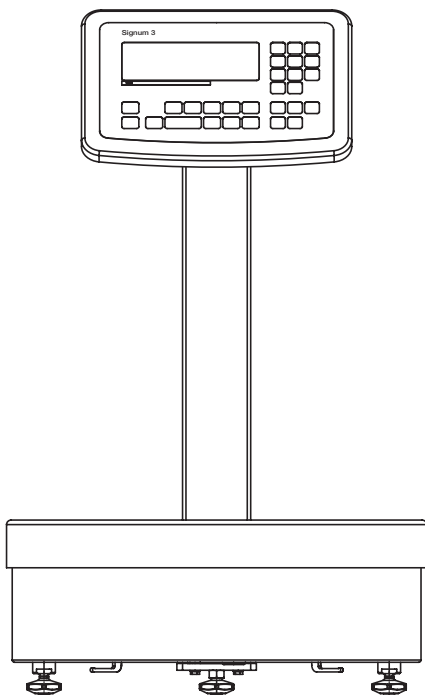
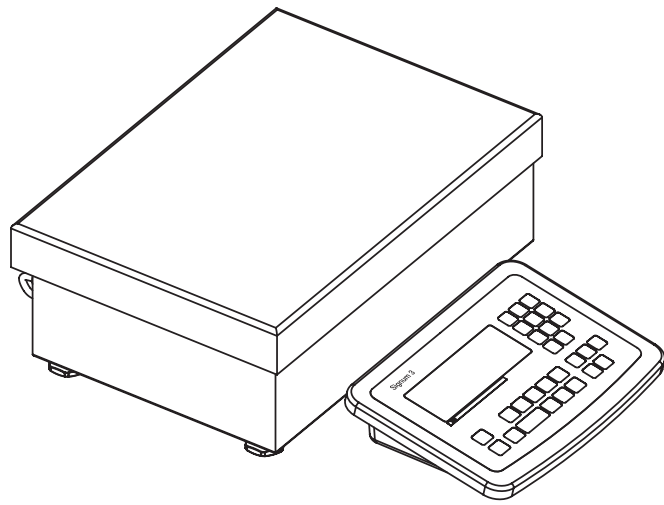
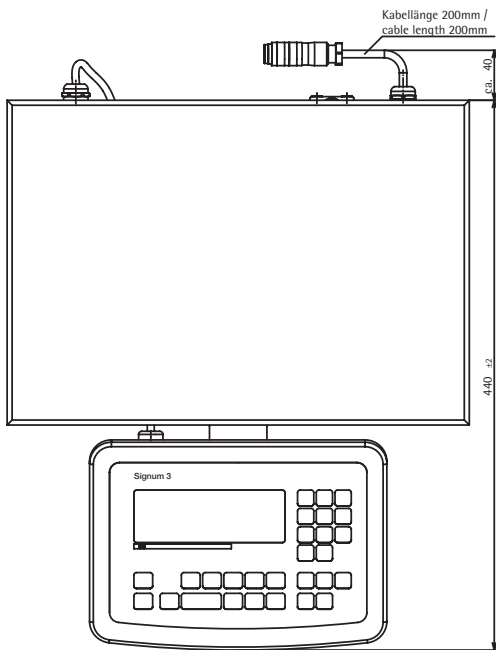
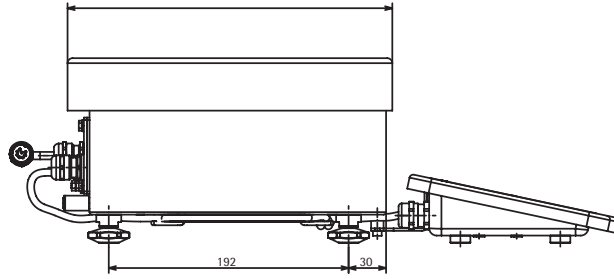
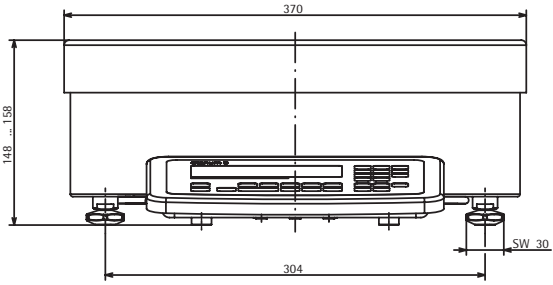
SIWXSBBP
620 g



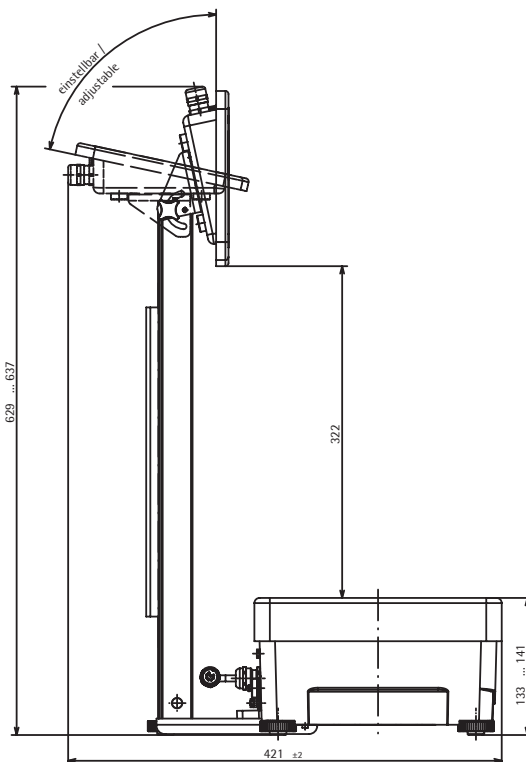
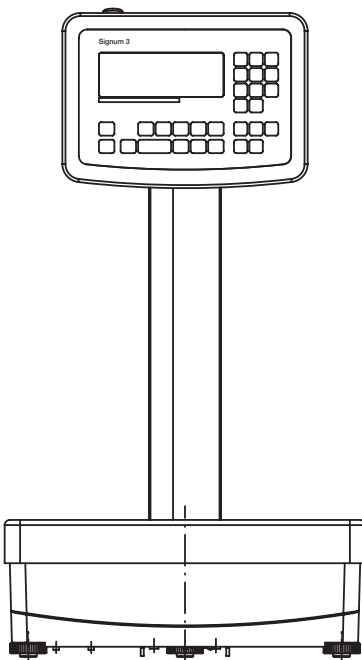
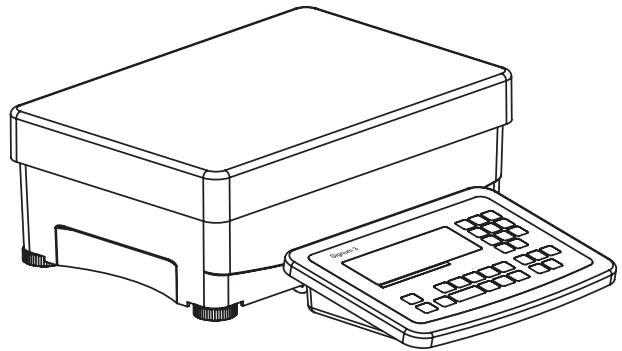
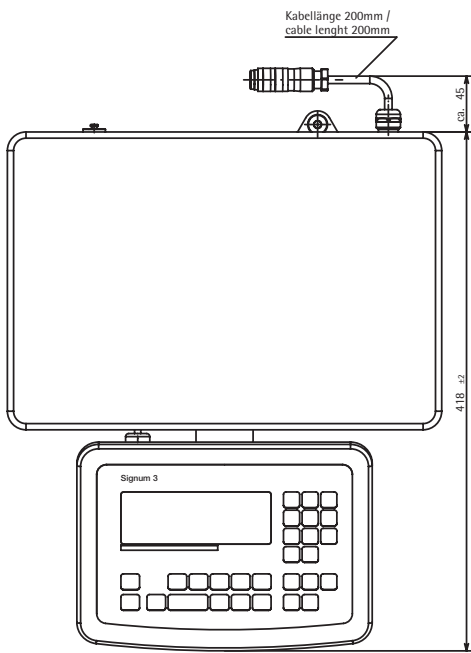
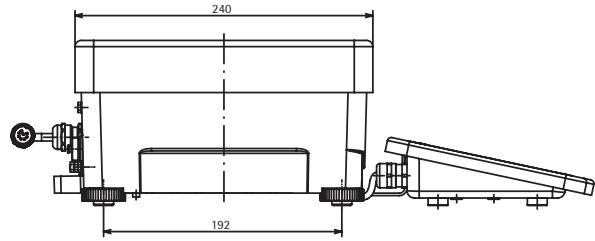
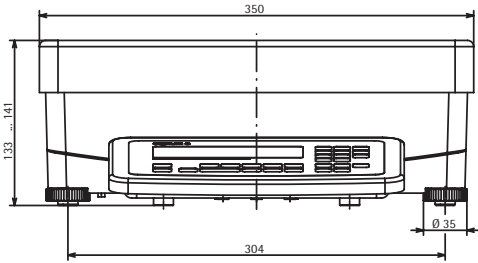
Kabellänge 200mm /
cable length 200mm



SIWXSDCS



SIWXSDCP



The Signum® Ex Supreme display unit and weighing module are mechanically entirely separate and are only linked with a cable.



Flexible positioning of display unit

Can be positioned anywhere with a 2 m connection cable

Benefits:

1. Vibrations from rough movements cannot cause errors in weighing results.

2. Display unit position can be adapted to any room, allowing ergonomic working at all times.



Display unit mounted in front

Securely fixed in place with bracket



Display unit mounted above

Stand with protected cable duct and smoothly adjustable tilt angle (optional)

Options

| | |
|--|----|
| Internal calibration weights (included as standard in *-CE model) | E7 |
| Test report, manufacturing end test (scales) | Z3 |

Printer for installation in safe area (connection via YDI05-Z)

| | |
|---|-----------------|
| Data printer with date, time and statistics program | YDP20-OCE |
| Strip/label printer, 60 mm paper width | YDP04IS-OCEUV |
| Strip/label printer, 108 mm paper width | YDP14IS-OCEUV |
| Thermal transfer printer, 108 mm paper width | YDP14IS-OCEUVTH |

Mechanical accessories

| | |
|--|----------|
| Stand for BBP model, aluminium, height 400 mm | YDH02P |
| Stand for BBS model, stainless steel, height 400 mm | YDH02S |
| Stand for DCP model, aluminium, height 500 mm | YDH01P |
| Stand for DCS model, stainless steel, height 330 mm | YDH01CWS |
| Stand for DCS model, stainless steel, height 500 mm | YDH02CWS |
| Stand for DCS model, stainless steel, height 750 mm | YDH03CWS |
| Wall bracket for display, stainless steel | YDH01CIS |
| Wall bracket for display, stainless steel, tilting indicator | YDH02CIS |
| Kit for switch panel mounting | YAS03MI |

Miscellaneous

| | |
|--|----------|
| Round socket for creating your own cable harness, 14-pin, IP65 | 69Y03166 |
|--|----------|

Safety barrier

| | |
|----------------------------------|---------|
| Explosive area interface adapter | YDI05-Z |
|----------------------------------|---------|

Supply voltage

| | |
|---|------------------------------------|
| Via external power supply, connection via 14-pin round socket (20 cm cable) | |
| Power supplies for installation in explosive area ATEX FM (US) CSA | YPSC01-X YPS02-XUR YPS02-XKR |
| Power supplies for installation outside explosive area ATEX FM CSA | YPSC01-Z YPS02-ZKR |
| External battery for installation in explosive area ATEX, FM, CSA | YRB02-X |

Software

| | |
|--|------------|
| SNLE Sartorius Nice Label Express Software | YAD02IS |
| WinScale | YSW03 |
| SartoCollect | YSC02 |
| Sartorius GMP Connect | YSW03-0001 |
| Sartorius OPC Server | 62890PC |

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