



sartorius



Competence
for safety
Economy Ex series

Economy and PMA series scales with capacities ranging from 0.1g to 150 kg



Economy series, design "a"

Economy EB

Thanks to their rugged construction, high degree of overload protection and side-impact protection, these scales are ideal for use in industrial settings. All feature a backlit display, which ensures error-free operation. In addition, a special, optimally combined mechatronic system consisting of Sartorius strain gauges, an A/D converter and interference compensation provides for reliable weighing results with a display resolution of 30,000 digits. And if you need quick weight readouts, Sartorius SPEED UP technology delivers results in no time.



Design "b"

Scales in this series are available with the following applications that can be selected by menu code: Counting, mass unit conversion by toggling, weighing in percent (absolute readout or difference – with automatic taring function), second tare memory, 1-l standard formula calculation, totalizing, toggling between gross/net values, and averaging.



Design "c"

An RS-232C data interface (for printer/PC) comes standard.

The power supply must always be ordered separately – models for use within or outside hazardous areas and for specific countries are available (please refer to the typical scale configuration and accessories).



Standard PMA scale, design "d"

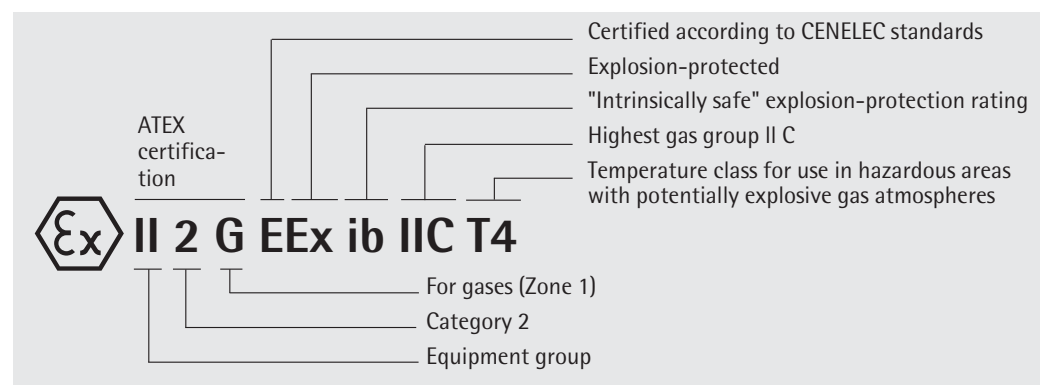
PMA

When it comes to performance under rugged ambient conditions, PMA scales meet all your demands. The round, stainless steel weighing pan features a wrap-around design, which means the edges of the pan extend over the sides of the unit to protect the weighing system from dust and spillage of liquids.

Using the scale's built-in formula calculator, you can calculate and weigh the contents of paint cans in various sizes just as easily as the standard, one-liter can.

All scales in the PMA series come with an AC adapter for use outside hazardous areas. Power supplies for use within a hazardous area are also available upon special request – these must be ordered separately.

ATEX certification for Economy series scales: for use in Zones 1 and 2



Economy | PMA

| Model | EB6DCE-IX | | EB15DCE-IX | EB35EDE-IX | EB60EDE-IX |
|---|-----------|-----------|------------|------------|------------|
| Capacity | kg | 6 | 15 | 35 | 60 |
| Readability | g | 0.2 | 0.5 | 1 | 2 |
| Platform size | mm | 320 × 240 | 320 × 240 | 400 × 300 | 400 × 300 |
| Protection rating against foreign objects and water | | IP54 | IP54 | IP54 | IP54 |
| Net weight | kg | 5 | 5 | 8 | 8 |
| Design | | a | a | b | b |

| Model | EB60FEG-IX | | EB150FEG-IX | PMA7500-X | PMA7500D-X | PMA7200-XCEV3 |
|---|------------|-----------|-------------|-----------|------------|---------------|
| Capacity | kg | 60 | 150 | 7.5 | 2.0/7.5 | 7.2 |
| Readability | g | 2 | 5 | 0.1 | 0.05/0.1 | 0.1 |
| Platform size | mm | 500 × 400 | 500 × 400 | Ø 233 | Ø 233 | Ø 233 |
| Verification scale interval | g | – | – | – | – | 1 g |
| Minimum capacity (EC directive for the EU) | g | – | – | – | – | 5 g |
| Accuracy class | | – | – | – | – | K |
| Protection rating against foreign objects and water | | IP54 | IP54 | IP40 | IP40 | IP40 |
| Net weight approx. | kg | 24 | 24 | 5 | 5 | 5 |
| Design | | c | c | d | d | d |

Approval for Economy* power supplies

| Country | Approval rating for Economy Ex scales | Power supply for use in hazardous areas | Power supply for use in non-hazardous areas |
|------------------|---------------------------------------|---|---|
| EU except the UK | EEx ib IIC T4 II 2 G | YPS03-XDR | 609308-011 |
| UK | EEx ib IIC T4 II 2 G | YPS03-XGR | 609308-211 |
| USA | IS CLI DIV 1 GP A, B, C, D T4 | YPS03-XKR | 609308-61 |
| Canada | INT. SAFE CLI DIF 1 GP A, B, C,DT4 | YPS03-XKR | 609308-61 |

Cable lengths of the power supply (m) primary/secondary/maximum extension: hazardous area 3/3/20

Non-hazardous area 2/20/–

* Economy Ex explosion-protected scales do not include a power supply. Please order one separately (see Accessories for Economy/PMA series scales)

Certification for PMA* power supplies

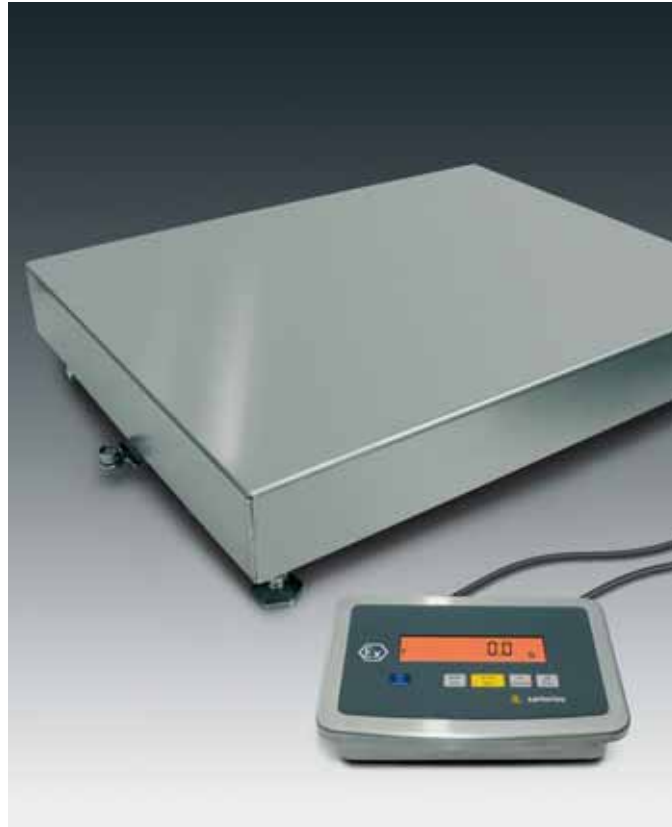
| Country | Approval rating for PMA series scales | Power supply for use in hazardous areas | Power supply for use in non-hazardous areas |
|-----------------------|---------------------------------------|---|---|
| EU | Except the UK EEx ib IIC T4 II 2 G | YPS03-XDR | 609308-011 |
| UK | EEx ib IIC T4 II 2 G | YPS03-XGR | 609308-211 |
| USA | IS CLI DIV 1 GP C, D T4 | YPS03-XKR | 609308-61 |
| Canada | INT. SAFE CLI DIV1 GP C, D T4 | YPS03-XKR | 609308-61 |
| Australia/New Zealand | Ex ib IIC Class I Zone I | – | 609308-4 |

Cable lengths of the power supply (m) primary/secondary/maximum extension: hazardous area 3/3/20

Non-hazardous area 2/20/–

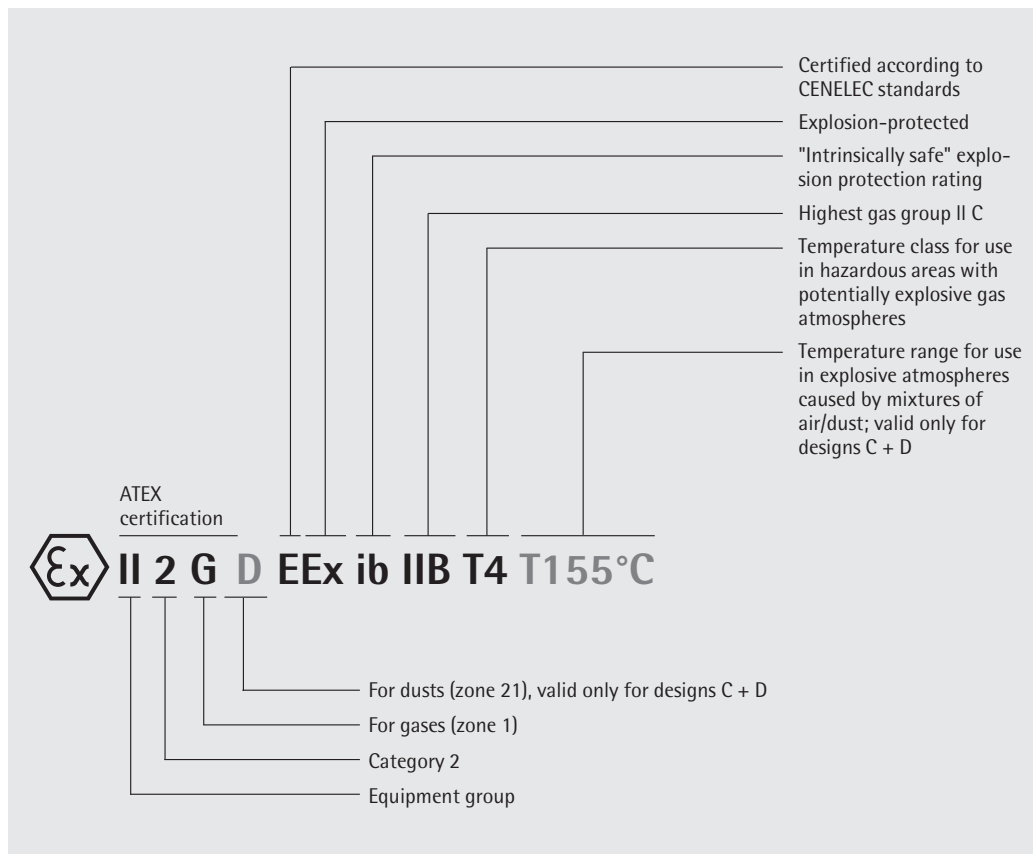
* PMA Ex explosion-protected scales include an AC adapter for use in non-hazardous areas.

"Stainless steel" Economy series with capacities ranging from 0.2 g to 3 t



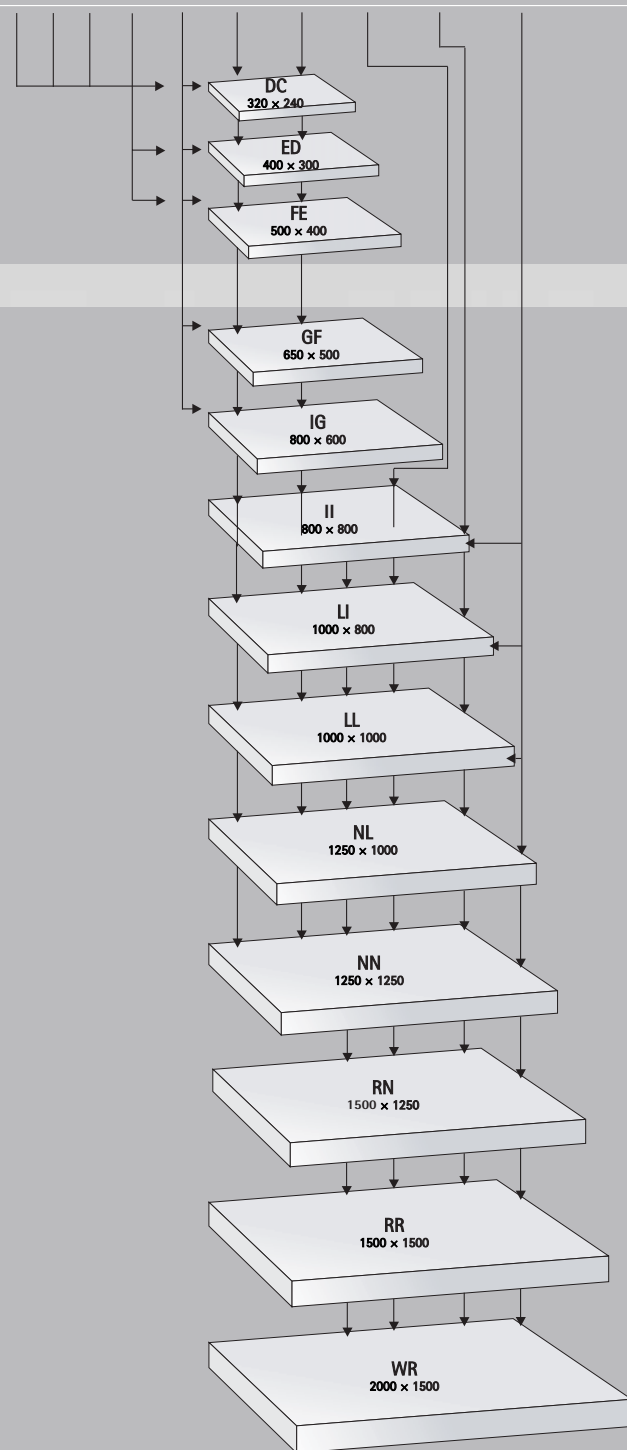



This intrinsically safe series of scales is intended for use in industrial production areas located in zones 1 and 21 that are at risk of explosion from gas or dust. Their completely stainless steel design and high IP protection rating make Economy "Stainless Steel" scales ideal for use in rugged production areas. The series features models with capacities ranging from 3 kg to 3 t in 45 different platform sizes.

Depending on your local conditions with regard to line voltage, you can choose to use a power supply within or outside the hazardous area. To enable data transfer to a printer or a controller in the non-hazardous area, the scales are equipped with an RS-232C data interface (or an RS-422 interface as an option for distances up to 1,000 m). An interface converter (RS-232C-RS-232C or optionally RS-422-RS-232C) ensures that the hazardous area is separated from the non-hazardous area.

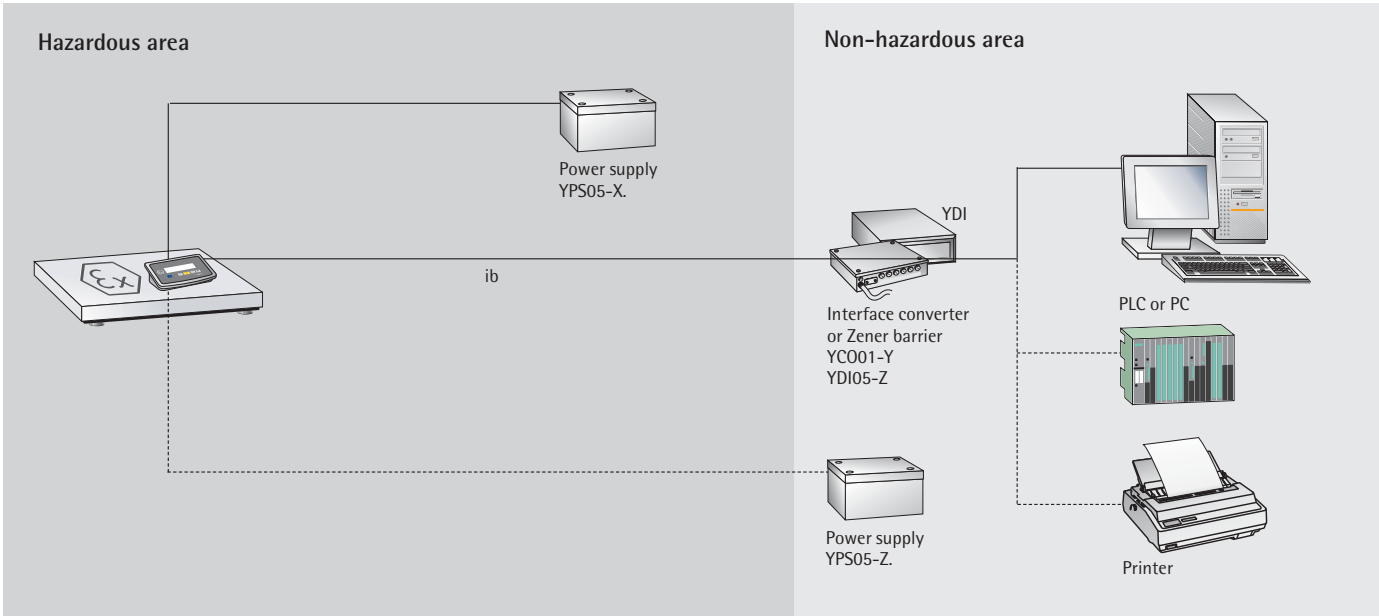


Economy Ex complete scale

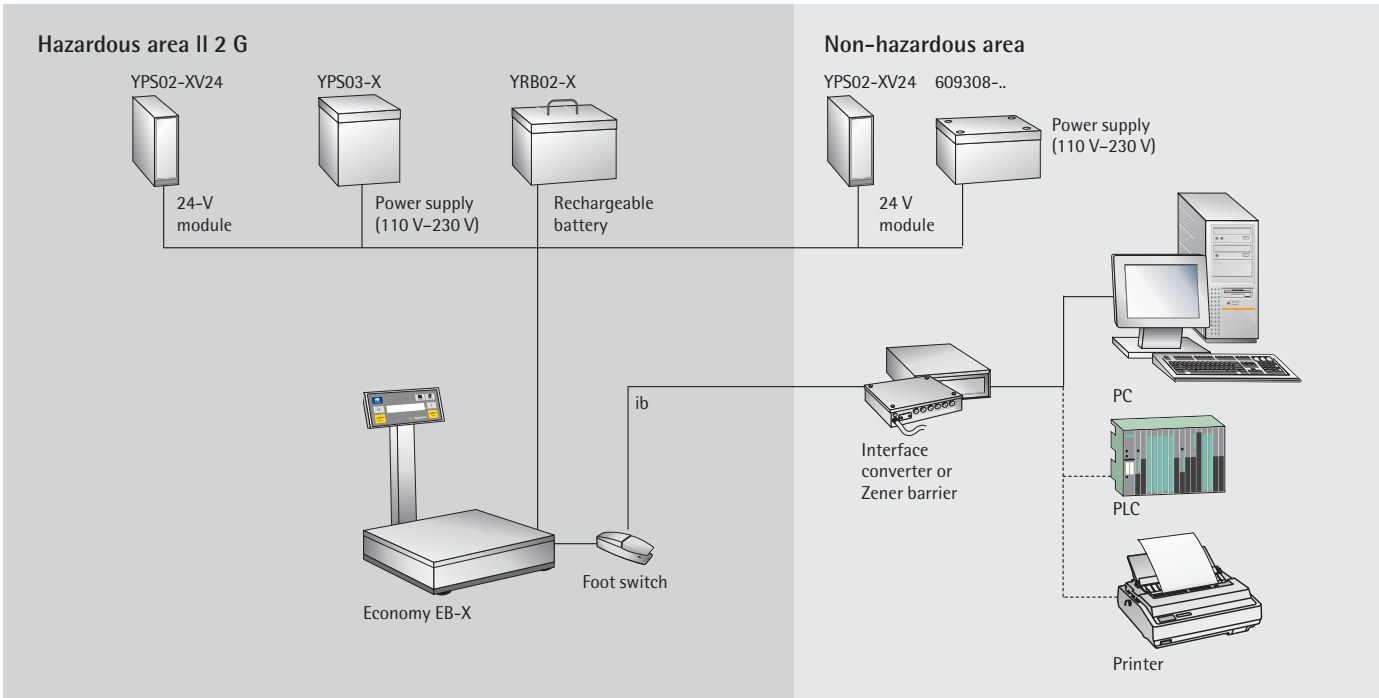
| | | | | | | | |
|---|----------------------------------|---|--|-----|----|---|-----------------------------|
| EC1X | S | 1 | - | 300 | FE | - | L |
| Display unit | Material: S = stainless steel | Number of load cells  | <div>Selection of capacities in kg</div> <div></div> <div>0.2 0.5 1 2 5 10 20 50 100 200</div> <div>Readability in g</div> | | | | Resolution: 15,000 d = L |
| EC1X | S | 4 | <div></div> | | | | |
| | | Number of load cells  | | | | | |
| <div>Code for platform dimensions for EC1XS</div> <div>C = 240</div> <div>D = 300 320</div> <div>E = 400</div> <div>F = 500</div> <div>G = 600 650</div> <div>I = 800</div> <div>L = 1,000</div> <div>N = 1,250</div> <div>R = 1,500</div> <div>W = 2,000</div> | | | | | | | |

Example of an order number for an EC1XS scale with 4 load cells:
EC1XS4-1500 LL-L

Typical weighing configuration for the EC1XS



Typical weighing configuration for the EB-X | PMA



----- Alternative configuration variation

Accessories

EB-X and PMA

| Description | Order no. |
|---|---------------|
| Interfaces | |
| Interface converter for installation in non-hazardous areas or zones 2 and 22 to connect peripheral devices in the non-hazardous area; intrinsically safe data interfaces: RS-232C, RS-485, RS-422, TTY, 4 digital I/O, data interfaces in the non-hazardous area: RS-232C, RS-485, RS-422, TTY, USB, 4 digital I/O | YC001-Y |
| Printers and printer accessories | |
| Label printer verifiable for use in legal metrology with thermal printing head, up to 60 mm paper width, with external 100–240-volt AC adapter | YDP04IS-OCEUV |
| Labels for YDP04IS-OCEUV + YDP12IS-OCEUV: | |
| Labels, 58 × 30 mm (quantity: 1,000) | 69Y03092 |
| Labels, 58 × 76 mm (quantity: 500) | 69Y03093 |
| Labels, 58 × 100 mm (quantity: 380) | 69Y03094 |
| Printer paper for YDP04IS-OCEUV + YDP12IS-OCEUV: 3 paper rolls; 60 mm x 75 mm, thermal-sensitive paper | 69Y03090 |
| Printer verifiable for use in legal metrology with date, time and statistics program | YDP03-OCE |
| 5 paper rolls, 50 m each, for YDP03-OCE/YDP04 | 6906937 |
| Ink ribbon cassette (spare) for YDP03-OCE/YDP04 | 6906918 |
| Mechanical accessories | |
| Display holder for bench or wall mounting (for remote use) | YDH03EA |
| Holder (for the YDH03IS column, YDH02CIS or wall mounting) for explosion-protected rechargeable battery YRB02-X | YBPH01 |
| Power supplies | |
| Power supply for installation outside the hazardous area – EU except the UK (220–240 V) | 609308-011 |
| Power supply for installation outside the hazardous area – UK (220–240 V) | 609308-211 |
| Power supply for installation outside the hazardous area – USA (100–120 V) | 609308-61 |
| Power supply for installation inside the hazardous area – EU except for the UK (220–240 V) | YPS03-XDR |
| Power supply for installation inside the hazardous area – UK (220–240 V) | YPS03-XGR |
| Power supply for installation inside the hazardous area – USA (100–120 V) | YPS03-XKR |
| Explosion-protected rechargeable battery for zones 1, 21, 20 | YRB02-X |
| Cables | |
| Connecting cable for explosion-protected rechargeable battery in hazardous areas; for EB-X scales with round female connector to round male connector, 7-pin | YCC02-XRBEX |
| Cable without connectors LiY6x(2x0.14C)Y Blue sheathing; recommended, for example, for RS-422 interface, digital IN, 1 m = 1 cable | YCC422-X |
| Cable without connectors LiY6x(2x0.14C)Y Blue sheathing; recommended, for example, for RS-232C interface, 1 m = 1 cable | YCC232-X |
| Cable without connectors 5x0.52 LiYCY Blue sheathing; recommended, for example, for TTY 10 mA interface (fits optional TTY interfaces), 1 m = 1 cable | YCCTTY10-X |
| Cable without connectors, 2x0.22 LiYCY Blue sheathing; recommended, for example, for RS-485 interface, 1 m = 1 cable | YCC485-X |
| Cable without connectors, 6x2xAWG24; recommended, for example, for RS422 interface, digital OUT, RS232C, 1 m = 1 cable | YCC422-Y |
| Round male connector for configuring own cable, 14-pin, IP65 | 69Y03166 |

| Description | Order no. |
|---|-----------|
| Electrical accessories | |
| Zener barrier (4 data lines) to connect accessories in non-hazardous areas, e.g., printer/PC; cable length between scale and Zener barrier 20 m | YDI02-Z |
| T-connector (1 input, 2 outputs), 14-pin Round connector, 1-m cable for connecting the foot switch and a printer | YTE02-X |
| Foot switch to activate tare or print functions 2-m cable (installation by Fast Factory) | YPE05-X |
| Charger for explosion-protected rechargeable battery YRB02-X (located in non-hazardous area) | YRB02LD |

Economy "Stainless Steel" EC1XS

| Description | Order no. |
|---|--------------|
| Power supplies | |
| Power supply for installation outside the hazardous area, includes country-specific cord with female connector (IEC 320/7) | YPS05-ZD |
| Power supply for installation within a hazardous area | YPS05-XD |
| Mechanical accessories | |
| Column for the complete scale | YBH01CWS |
| Floor-mounted column | YDH03CIS |
| Base for installing the YDH03CIS floor-mounted column | YBP03CIS |
| Bracket for wall-mounting the display unit | YDH01CIS |
| Bracket for wall-mounting the display unit (tiltab6) | YDH02CIS |
| Retainer plate for display unit | YDH12CWS |
| Cable gland | YAS04CIS |
| Electrical accessories | |
| Interface converter (with various options; s. 65710-740-50-A4) standard: RS-232C <--> RS-232C option A25: RS-422 <--> RS-232C for YD005-X | |
| Indicate cable length to scale when ordering | YDI05-Z |
| Interface converter and cable without connectors (please refer to Accessories for the EB-X) | YC001-Y |
| Foot switch with cable gland (M16x1.5) YAS04CIS must be installed at the weighing location | YPE05-X |
| Interfaces | |
| RS-422 data interface | YD005-X |
| Printers | |
| Printer | YDP03-OCE |
| Printer | YDP04IS-OCE |
| Cables | |
| Cable (5 m), 12-pin round to 25-contact D-SUB (PC) | YCC01-03ISM5 |
| Cable (5 m), 12-pin round to 9-contact D-SUB (PC) | YCC01-09ISM5 |
| Cable (3 m), 12-pin round to 9-contact D-SUB for YDP03-OCE | YCC01-0016M3 |
| Cable (3 m), 12-pin round to 9-contact D-SUB for direct connection to a YDP03-OCE | YCC01-0019M3 |
| Cable (1.5 m) for connection to a YDP04IS-OCE | 69Y03142 |

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