

3590EGT 3GD Touchscreen Indicator for ATEX 2 and 22 Zones



Standard Features

- 5,7" colour touch screen display
- Multilanguage software
- 15-key alphanumerical waterproof keyboard
- 3-way control light
- Selectable QWERTY, AZERTY o QWERTZ keyboard integrated in the touch screen
- **Stainless steel waterproof** enclosure, with new **IP68** protection system
- Dimensions: 280x143x185mm
- Suitable for use on the table, column or wall
- Real time clock and permanent data storage
- Fitted alibi memory, integrated on the motherboard

- Slot for built-in micro SD for recording the configuration, logos, and customized screens (upon request)
- **Functions available with DINITOOLS utility**
 - Configuration, data entry and print formatting
 - Recording and filing of all the information on PC
 - Complete retrieval of the configuration
 - Instrument calibration with numeric values
 - Customization of the screens
- 24-bit A/D converter, 4 channels, up to 3200 conv./sec. and up to 8 signal linearisation points
- 4 independent analogue channels for reading of the weight
- Connection with up to 16 analogue load cells of 350 Ohm (45 load cells of 1000 Ohm)
- Up to 10.000e OIML or 3 x 3000e @ 0,3 μ V/e CE-M legal for trade
- Up to 1.000.000 displayable divisions for internal factory use, with internal resolution up to 3.000.000 points
- Connectable to printers and labellers with free programming of the printout formats
- Power supply from 110-240Vac line or external rechargeable battery (recharge in safety zone).

3590EGT 3GD Touch Screen Indicator for ATEX 2 and 22 Zones

Weight indicator with a big touch screen display, for ATEX 2 & 22 areas classified at risk of explosion.

Protection methods according to:

- ATEX II 3G Ex nR IIB T6 Gc X for gases
- ATEX II 3D Ex tc IIIC T85°C Dc IP68 X for dust.

Suitable for advanced industrial applications, it's fitted with 3 serial ports, configurable printouts and integrated alibi memory. CE-M approvable (OIML R-76 / EN 45501).

3590EGT 3GD Specifications

I/O Section:

- Two RS232 serial ports, for connection to printer, radio module, PC or PLC, badge reader or remote scale.
- One RS485/RS232 serial port, for connection to printer, PC, PLC, or digital load cells.
- 4 optoisolated outputs, up to 16 with optional board.
- 2 optoisolated inputs, up to 8 with optional board.
- Profibus or Modbus/TCP interface to install in safety zone (optional).
- External Profinet, Ethernet/IP, EtherCAT, CANopen and DeviceNet interface to install in safety zone. (optional, only with standard AF01 weighing program).
- Modbus RTU Interface.
- Analog output DAC16O needs the expansion board IOEXPB.

Available Languages:

- Menu selectable languages: IT, EN, FR, DE, ES, PT, PL*
 - * Polish available only on EGT-AF01, EGT-AF02, EGT-AF03, EGT-AF04, EGT-AF09, EGT-BATCH, EGT-BATCH1
- Code pages available for the translation of messages and screens, using the Custom Language Tool program (downloadable in the Download section):
- Windows 1252: EN, GA, IT, NO, PT, ES, SV, DE, FI, IS, FR, NL, SL
 - Windows 1250: PL, CS, SK, HU, SL, SH, RO, SQ, EN, DE
 - Windows 1251: RU, UK, BE, BG, SR, MK, EN
 - Windows 1253: EL, EN
 - Windows 1258: VI, EN, FR

Main Certifications:

- EU Type Examination Certificate (45501:2015)
- OIML R76
- OIML R51 - MID
- OIML R134 (AF09)
- Australian legal for trade certificate of approval (NMI S788)

Application Software:

- **SUPPLIED AS STANDARD:**
- **AF01:** Totalization and formula weighing
- **OPTIONAL:**
- **AF02:** Pieces/quantity counting
- **AF03:** Weighbridges - Input/Output vehicle
- **AF04:** Statistical checking of prepackaged goods
- **AF05:** Price computing and industrial labelling
- **AF08:** Wheel and axle static weighing with 2 or various platforms
- **AF09:** Dynamic and static axle weighing with 2 platforms
- **BATCH1:** Single product dosage systems in loading and unloading
- **BATCH:** Multicomponent

dosage systems in
loading and
unloading (IOEXPB
board must be
included)

Parts

Part #	Description
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Available Versions

3590EGTC3GD	Colour Touch Screen indicator, ATEX 3GD, with AF01 software. Stainless steel waterproof IP68 case. Protection degree: ATEX II 3G Ex nR IIB T6 Gc X for gases and ATEX II 3D Ex tc IIIC T85°C Dc IP68 X for dust. Provided with safety instructions and the ATEX EU declaration of conformity (EN, DE, FR, ES and IT).
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Options

Part # Description

Optional Power Supply Cords

EXACB4 4x0.5 mm² armoured cable (suitable for Ex zones). PVC inner sheath. Armour: galvanised steel wire braid. Outer sheath PVC, diameter 7.3 mm. Temperature range: -30 / +80 °C. Minimum bending radius $\geq 10 \times \text{O.D.}$ €/m. Maximum orderable length: 100 m (longer lengths available only upon request).

Available Firmwares

AF02 Software for piece/quantity counting.

AF03GT Software for weighbridges, vehicle In/Out. For 3590 "TOUCH SCREEN" weight indicators.

AF04GT Software for statistical checking of prepackaged goods. For 3590 "TOUCH SCREEN" weight indicators.

AF05 Software for price computing and industrial labelling.

AF08 Software for static wheel and axle weighing with 2 or more pads.

AF09 Software for dynamic and static axle weighing with 1 or 2 pads.

BATCH1 Software for single product dosage systems in loading and unloading.

BATCH Software for multicomponent dosage systems in loading and unloading. NOTE: For 3590, IOEXPB expansion board is required.

CHECK Software for packages weighting on a conveyor belt functions. R51 approvable.

Software to Fill in the Databases

DBM PC software for quick filling out of the databases. For 3590Exx and CPWExx instruments (the price is intended for the license to manage one scale).

Junction Box / Boards - Load Cell Cables

3590E4CH Built-in board for multiple quick scale connection.

JB4QA ATEX equalisation box made of ABS IP67, for up to 4 cells. 4 + 1 fairleads. Marking: ATEX II 2G Ex ib IIC T6 Gb for gases, ATEX II 2D Ex tb IIIC T115°C Db IP65 for dust. Provided with safety instructions and the ATEX EU declaration of conformity (EN, DE, FR, ES and IT).

JB4QAI ATEX equalisation box made of stainless steel IP66 for up to 4 cells. 4 + 1 fairleads. Marking: ATEX II 2G Ex ib IIC T6 Gb for gases, ATEX II 2D Ex tb IIIC T115°C Db IP65 for dusts. Provided with safety instructions and the ATEX EU declaration of conformity (EN, DE, FR, ES and IT).

LCCB Shielded cable 6x0.25 mm² (suitable for Ex zones). PVC inner sheath. Tinned copper braid shielding. PVC outer sheath, diameter 5.8 mm. Temperature range: -40 / +80 °C. Minimum bending radius $\geq 6 \times \text{O.D.}$ €/m. Maximum orderable length: 100 m (longer lengths available only upon request).

LCCBA Armoured cable 6x0.25 mm² (suitable for Ex zones). PVC inner sheath, diameter 5mm. Iron-zinc alloy armour. Transparent PVC outer sheath, 8 mm diameter. Temperature range: -15 / +70 °C. Minimum

Part #**Description**

bending radius $\geq 5 \times \text{O.D.}$ €/m. Maximum orderable length: 100 m (longer lengths available only upon request).

Approval for Sale to Third Parties**KCEM**

Plates and Welmec form for legal trade use of a scale. NET PRICE. Service available in combination with a Dini Argeo indicator.

ECEM-AU

Single platform/scale legal-for-trade approval for Australia.

ATEX battery and battery charger**BP6ESTATEX3GD**

IP65 stainless steel, external ATEX battery pack, for 2 and 22 zones. Marking: ATEX II 3G Ex ec IIC T6 Gc X for gas and ATEX II 3D Ex tc IIIC T85°C Dc IP65 X for dust. For Dini Argeo ATEX 3GD instruments. ATTENTION: rechargeable in safe zone only, connectable and disconnectable from the weighing system also in hazardous area. (Battery charger not included).

BTCB3GD

Cable for BP6ESTATEX3GD battery connection. (indicator side).

BP6CB

Battery charger for safe area, for BP6ESTATEX3GD ATEX battery.

Declaration of ATEX Conformity**DCATEX3590E3GD**

Declaration of ATEX conformity of the assembly. Ex II 3G IIB T6 Gc X and Ex II 3D IIIC T115°C Dc X system, with relative label of whole system, for ATEX certified (3590EGTC3GD) or NOT ATEX certified Dini Argeo indicator (in the latter case to be installed in a safe area) connected to a mechanical structure with ATEX load cells (each cell must be certified with CCATEX or CCATEX3GD option). Provided with descriptive document of the assembly and ATEX EU declaration of conformity of the assembly (EN, DE, FR, ES and IT). Includes IP68 connection between platform and weight indicator.

Storing Weighments**SWM**

"WeiMonitor" PC program to monitor and record in real time weighs performed on the connected scale (the price is intended for the license to manage one scale).

Communication Interfaces**OBRF2G4-3GD**

2.4 GHz radio frequency module for ATEX 2 & 22 zones. ABS IP66 case, 3 m shielded cable, and power supply from indicator. Protection: ATEX II 3G Ex ec IIC T6 Gc X for gases and ATEX II 3D Ex tc IIIC T85°C Dc IP66 X for dust. Max. functioning distance, in appropriate environmental and installation conditions: 45 m indoors, 140m outdoors. 39 configurable channels. Provided with safety instructions and the ATEX EU declaration of conformity (EN, DE, FR and IT).

ETHD

Built-in Ethernet interface. Speed from 10 to 100 Mbps, TCP, UDP, IP, ARP, ICMP, Ethernet Mac protocols.

OBWIFI3GD-5

WIFI module for ATEX zones, with ABS IP66 case, 3 m shielded cable, and power supply from indicator. Protection: ATEX II 3G Ex ec IIB T6 Gc X for gases and ATEX II 3D Ex tc IIIC T85°C Dc IP66 X for dust. Max. functioning distance, in appropriate environmental and installation conditions: 30m indoors, 70m outdoors. Provided with safety instructions and the ATEX EU declaration of conformity (EN, DE, FR and IT).

WPAN-CL

Classic WPAN device, complete with AMP cable and integrated antenna.

Fieldbus Interfaces

Part #	Description
PROFINET1S	RS485 to ProfiNET interface, for DIN rail mounting. With UL marked PCB, Terminal block, plastic box and labels (if expected).
ETHERNETIP1S	RS485 to Ethernet IP interface, for DIN rail mounting. With UL marked PCB, Terminal block, plastic box and labels (if expected).
ETHERCAT1S	RS485 to EtherCAT interface, for DIN rail mounting. With UL marked PCB, Terminal block, plastic box and labels (if expected).
DEVICENET1S	RS485 to DeviceNET interface, for DIN rail mounting. With UL marked PCB, Terminal block, plastic box and labels (if expected).
CANOPEN1S	RS485 to CANOPEN interface, for DIN rail mounting. With UL marked PCB, Terminal block, plastic box and labels (if expected).
FB1SINST	Installation, configuration and testing of Fieldbus Module 1S (RS485 connection cable for fieldbus series, 191750 included). NET PRICE.
191750	Cable,Fieldbus option WE503

Digital Input / Output

IOEXPB	Built-in board with 12 OUT and 6 IN (mounting and cable gland excluded). It includes expansion circuit of the power supply range of the indicator (8-40Vdc). NOT COMPATIBLE WITH 3590E4CH AND TPRXT. With UL marked PCB, Terminal block, plastic box and labels (if applicable). Note: Accessory that can only be ordered in combination with a suitable weight indicator.
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Analog Output

DAC16OSER	Built-in RS232 / RS485 optoisolated analog output, 0-4/20 mA, 0-10VDC .
DAC160-2	Built-in optoisolated analog output, 0-4/20 mA, 0-10VDC (cable gland excluded). For DFW, 3590 and CPW indicators. Output -10/+10VDC upon request, only at time of order. NOTE: For 3590, IOEXPB option board is required, available depending on the model.

ATEX 2GD Remote Button Control

EXPHBN	EX 2GD hand control with 2 buttons and cable gland (optional connection cable). Protection II 2G Ex db eb IIC T6 Gb for gases, II 2D Ex tb IIIC T80°C Db for dust.
EXACB4	4x0.5 mm ² armoured cable (suitable for Ex zones). PVC inner sheath. Armour: galvanised steel wire braid. Outer sheath PVC, diameter 7.3 mm. Temperature range: -30 / +80 °C. Minimum bending radius >/= 10 x O.D. €/m. Maximum orderable length: 100 m (longer lengths available only upon request).

Printers / Labelers for Safe Zones

OBTPRB	Table thermal printer. For weight indicator, with IP40 ABS case, 1,5 m connection cable and internal power supply. Thermal paper roll included as standard.
CODEPG	Service for loading a customised code-page on TPR printer (standard is PC437 - Central Europe, USA)
LP542TE	Thermal transfer or direct thermal labelling machine Supplied with standard peel mechanism. Maximum printing size 25400 x 108 mm. Maximum roll Ø 127 mm and width up to 112 mm. Label roll and ribbon not included.

Part #	Description
PRNSERV	Custom-made ticket (up to 4 layouts). NET price.
APRNSERV	Custom-made label (up to 4 layouts). NET price.
SMTPLUS-2	Thermal transfer or direct thermal labeller. Peel-off kit in option. Maximum print size 25400 x 108 mm. Maximum roll Ø 203 mm and width up to 118 mm. Label roll and ribbon not included.

Connection Cables

RSCBTW	4-core twisted shielded cable (2x2x0.34 mm ²), for RS485 communication or analogue output. Polyolefin inner sheath. Tinned copper braid shielding. Outer sheath PVC, diameter 7mm. Temperature range: -30 / +80 °C. Minimum bending radius >= 6 x O.D. €/m. Maximum orderable length: 100 m (longer lengths available only upon request).
ETHCBEX	Multi-core cable (4x2xAWG24) suitable for Ethernet connections in Ex-zones (connectors and cable gland only installed with S6 service). First shield: aluminium/polyester tape, second shield: tinned copper braid (coverage = 85% - EMC 89/336). Outer sheath: PVC, diameter 6.3mm. Temperature range: -30 / +80 °C. Minimum bending radius >= 8 x O.D. Minimum length 10 m. €/m. Maximum orderable length: 100 m (longer lengths available only upon request).
ETHCBEX10M	ETHCBEX cable complete with cable gland and connectors. Length 10 m.

Columns, Supports Brackets, Visors

STFI-1	AISI 304 stainless steel fixing bracket. For weight indicator wall mounting.
STFR-1	AISI 304 stainless steel fixing bracket with adjustable inclination. For weight indicator wall mounting.
STFA12	Stainless steel bracket for mounting the ATEX battery on column. Compatible with "DFWBP76ATEX..", "IECEXB", "BP6ESTATEX3GD.." and "BP6V12A".
PANEL-ST	Bracket for mounting the indicator on the panel.
CSP38I-1	AISI 304 stainless steel column 450x450mm, h=917mm, Ø 38mm. For the indicators of the DINI ARGEO and SCALE HOUSE range.

Zener Barriers for Load Cells

ZBA1S	Intrinsic protection three channel Zener barrier. Specific for connection to load cells, for mounting on DIN rail in a safe area, or in a flame-proof case. Marking: ATEX/IECEx II (1) GD [Ex ia Ga] IIC [Ex ia Da] IIC. Provided with safety instructions and the ATEX EU declaration of conformity (EN, DE, FR, ES and IT).
ZBINST	Installation of the ZBA1S / PFB485EX zener barrier inside the indicator case. Note: The cable (LCCB for barrier ZBA1S, RSCBTW for barrier PFB485EX) of the desired length must also be purchased. NET PRICE.
LCCB	Shielded cable 6x0.25 mm ² (suitable for Ex zones). PVC inner sheath. Tinned copper braid shielding. PVC outer sheath, diameter 5.8 mm. Temperature range: -40 / +80 °C. Minimum bending radius >= 6 x O.D. €/m. Maximum orderable length: 100 m (longer lengths available only upon request).
PFB485EX	Protection barrier for RS485, for direct connection in safe area. Max cable length: 200m.
RSCBTW	4-core twisted shielded cable (2x2x0.34 mm ²), for RS485 communication or analogue output. Polyolefin inner sheath. Tinned copper braid shielding. Outer sheath PVC, diameter 7mm.

Part #**Description**

Temperature range: -30 / +80 °C. Minimum bending radius $\geq 6 \times \text{O.D.}$ €/m. Maximum orderable length: 100 m (longer lengths available only upon request).

KMB4-1

Kit of 3 ATEX Zener barriers for load cells, in an ABS box. For up to 4 load cells of 350 ohm, for intrinsic protection weighing systems in a dangerous area. Marking of the whole box with three Zener barriers: ATEX II 3(1)G Ex nA [ia Ga] IIC T4 Gc (-20°C = Ta = +40°C) for gas, ATEX II 3(1)D Ex tb [ia Da] IIIC T130°C Dc IP65 (-20°C = Ta = +40°C) for dusts. Provided with safety instructions and the ATEX EU declaration of conformity (EN and IT).

KZBA-1

ATEX ABS housing kit with Zener Barrier ZBA1S for load cells. For intrinsically safe weighing systems in a dangerous zone. Dimensions 179x359x166,5mm. Marking of housing + Zener Barrier ZBA1S: ATEX II 3(1)G Ex nA [ia Ga] IIC T4 Gc X for gas, ATEX II 3(1)D Ex tc [ia Da] IIIC T135°C Dc IP66 X for dust. Provided with safety instructions and the ATEX EU declaration of conformity (EN and IT).

PG Cable Glands**PG7EX**

10 PG7 metallic cable gland set for ATEX indicators. Complete with ferrules and seals. Cable diameter: 3 to 6.5 mm.

PG9EX

10 PG9 metallic cable gland set for ATEX indicators. Complete with ferrules and seals. Cable diameter: 4 to 8 mm.

Other Options**TECSUP**

Technical assistance by telephone upon request.

ECEMDOC

Printed EU declaration of conformity, EU certificate of verification, test certificate and metrological book (free download from our website, only for approved CE-M products). NET €.

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