

Weighing whole with Dini Argeo indicator + Dini Argeo JBxxx Atex junction box + zener barriers + Dini Argeo Atex load receptor (s/n 123456)

Description of the system

The system is made up of the following parts:

1. a Dini Argeo weight indicator;
2. a kit of three ATEX certified zener barriers;
3. an ATEX certified JBxxx junction box;
4. a Dini Argeo Atex load receptor and relative accessories;
5. one or more ATEX certified Dini Argeo load cells.


This document is made in order to verify the connection of these parts, without considering further risks, in accordance with the EN 60079-25:2004 / IEC 60079-25:2003 norm.

Composition

1) A Dini Argeo weight indicator which belongs to one of these series: TRI, DFW, DGT, 3590, CPW, TRS, and which must be **positioned in a safe zone**.

2) A PEPPERL+FUCHS Z996.H zener barrier for the excitation cable of the load cells; and two PEPPERL+FUCHS Z961.H zener barriers for the reference and the load cell signal cables; Dini Argeo MB4 code of the whole system of these three zener barriers.

ATEX certificate: BAS01ATEX7005 - Issue 7

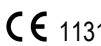

Marking:  II (1) GD [Ex ia] IIC (-20°C ≤ Ta ≤ +60°C)
[Ex iaD]

Ex data:	Z966.H	Z961.H
	U ₀ = 24 V	U ₀ = 17,4 V
	I ₀ = 164 mA	I ₀ = 25 mA
	P ₀ = 0,98 W	P ₀ = 0,05 W
	C ₀ = 0,125 μF	C ₀ = 0,346 μF
	L ₀ = 0,33 mH	L ₀ = 14,8 mH

3) Atex DINI ARGEO SRL JBxxx junction box.

ATEX certificate: CEC 08 ATEX 019

Marking:

 1131  II 2G Ex ib IIC T6

 1131  II 2D Ex tD A21 IP65 T115°C

Ex data:

U₀=U_i= 24V I₀=I_i= 174mA C₀=C_i=0mF L₀=L_i=0mH

or:

U₀=U_i= 12V I₀=I_i= 3,33A C₀=C_i=0mF L₀=L_i=0mH

4) Dini Argeo Atex load received and relative accessories:

- Electronic weighing platforms: T, RPLC, ET, EL, LP, PW, BP

- Accessories: CSP, TSNC, TTNC, TQNC, TMNC, TLNC, ETATF, ETMTF, ETBTF, ETDTF, ETETF, ETFTF, ETHTF, ETLTF, ETAR, ETBR, ETDR, ETER, LPER, LPFR, ETPFI, ETPFIM20

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- Carts: TB, TA
- Raising frames: SGAQ, SGAX
- Load cell assembly kit: KSPOT, KSPOC, KSB, KDSBN, KCPN, KRCK, KST



AETF01 technical file Dep.n° CEC-04/2036-ADF088

Marking:  II 2 GD c IIC T6 85 °C

5) DINI ARGEO SRL Atex load cells which belongs to one of these series: SOT –SPSE - IBM3 - BM3 - SBX - STD - HM9B - IBM2 - BM2 - SPSC –CS – CSI – CF - CFI – STFC - SBCW –SBK -SBC –CFI - CP –SPSB - IBM1 - BM1 –FXC -STG – IBM - BM - SBK- 1KL - SBK-1K – SBK5000-1KL -CSG – CSGI - CCI – RCK - CBC – CBCI - DSBI - STFU – SPGS - SBH – SBCS - RSB - SBU – SPO – SPBC – SPH – SPG - CB17 - TH1042 - L6E - CZL6 - L6G - L6F - PW12C - SBZ.

ATEX certificate: CEC 07 ATEX 093 X rev1

Marking:

-  II 1G EExia IIC T6 (Ta -20++40°C) TX (Ta -20++65°C)
-  II 1D tD A20 TX°C (Ta -20++40°C) TX°C (Ta -20++65°C)

Ex data:

- U_i= 24V, I_i= 174mA, C_i= trascurabile/negligibile, L_i= trascurabile/negligibile
- U_i= 12V, I_i= 3,33A, C_i= trascurabile/negligibile, L_i= trascurabile/negligibile

Cable features between the zener barriers connection to the JBxxx Atex junction box:

LY02506 manufacturer code (6x0,25mmq), Dini Argeo code LCCB

Conforms to the following norms: CEI 20-22 III cat. C; CEI 20-29, IEC 60228, CEI 20-11, CEI 20-35, IEC 60332.1, CEI 20-22 II, IEC 60332.C, CEI 20-37, IEC 60754, CEI 20-52

R max a 20 °C = 75Ω/Km

C_c= 115 pF/m

C_s= 258,3 pF/m

L_c= 1,33 mH/Km

Cond./cond. test voltage= 2000 V x 5 minutes

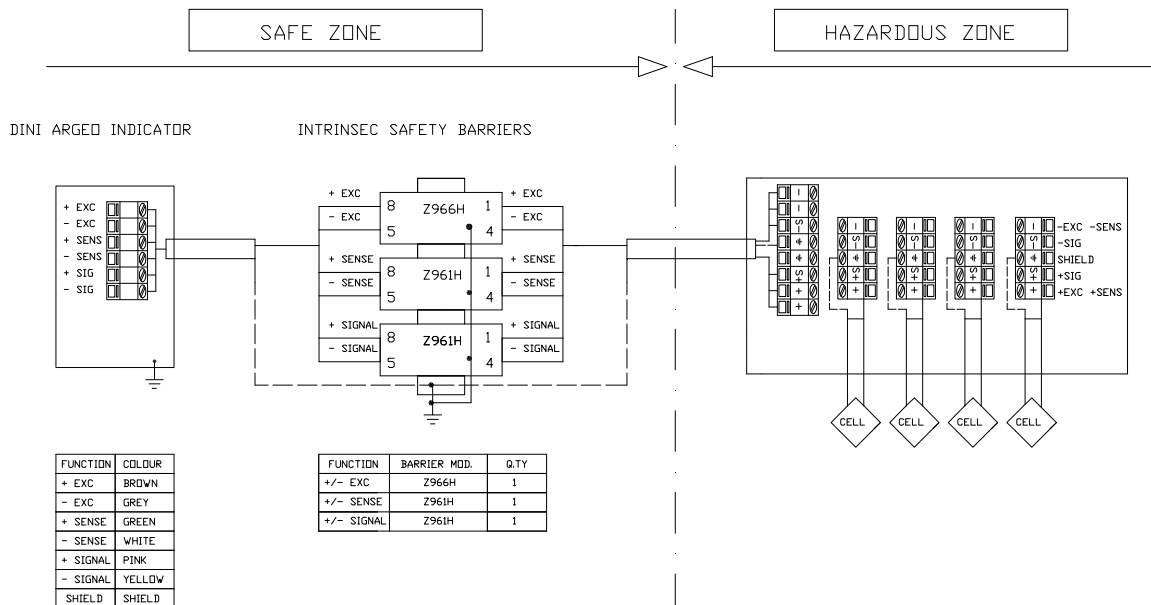
Cond./shield test voltage= 2000 V x 1 minute

Rated voltage= 300/500 V

Operating temperature= -10/+70 °C

The verification of the Ex parameters of the whole has been executed, taking into consideration a **maximum length of the cable** between the zener barriers connection to the JBxxx Atex junction box of **50 m**.

Electrical connection



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CAREFUL

- The barriers and the weight indicator **must be installed outside** of the hazardous area!
- The safety requirements are respected only with a **grounding** of the zener barriers, Atex load cells, JBxxx Atex junction box, load cell shieldings, Atex load receptor, and of all the other parts of the whole Atex system (indicator holder column, etc.).
- See the supplied instructions manual of all the parts which make up the whole atex system.

Conclusions

This whole of components does not produce and added risk.

The whole Atex system resulting from this union can be used in a hazardous area, with the sole limitation of each single element and the Atex marking of the whole system (see Atex declaration of the whole system at the end of this document).



- The use of the whole in hazardous areas requires a particular attention and precautionary measures both during use and maintenance.
- Do not install and use the various components in environments different than those provided for.
- The installation, maintenance, and repair of the components must be executed by competent and authorised personnel.
- The safety of the explosion-proof whole is guaranteed **only** if the system is installed, used, and taken care of following the instructions in this manual and in the relative manuals of the single components.
- Avoid accumulations of electrostatic charges; therefore, in order to operate in a hazardous area, the operator or maintenance person must wear adequate work clothing.
- Do not cover the single components with coverings made of materials which could be electro statically charged.
- It is forbidden to modify or repair the Ex components with components which are non conforming to the relative certifications; this action could compromise the safety of these (**with subsequent loss of the Ex approval**) and the voiding of the product warranty.
- It is forbidden to connect modules not listed in this document; this action could compromise the safety of the whole (**with subsequent loss of the Ex approval**). Contact Dini Argeo srl for further details.
- Be very careful during the use: eventual sparks could cause an explosion.
- Read the documents of all the devices which make up the whole system (zener barriers, junction boxes, load cells, etc.) and carefully follow the various instructions.



INSTRUCTIONS FOR INSTALLING IN A HAZARDOUS AREA



This Atex whole must be installed and maintained, according to the applicable norms relative to the installations in a hazardous zone (different from the mines) classified for the presence of gas as ZONE 1, and/or the presence of dusts like ZONE 21, for example: EN 60079-14:2008 / IEC 60079-14:2007, EN 60079-17:2007 / IEC 60079-17:2007, EN 1127-1:2007 and all the norms applicable in the zone and in the installation environment.

- Ground the zener barriers, the weight indicator, the Atex load cells, the Atex JBxx junction box, the cable shieldings, the Atex load receiver, and of all the other parts of the whole atex system (indicator holder column, etc.).

WE DECLINE ALL RESPONSIBILITY FOR DAMAGES CAUSED BY THE UNOBSERVANCE OF THESE WARNINGS

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CE DECLARATION OF CONFORMITY

We **DINI ARGEO Srl,**
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41042 Spezzano di Fiorano - MODENA - ITALY

We declare under our responsibility that the whole described in this document conforms to the following directives:

- **ATEX 94/9/EC**

The conformity is showing by observing the following norms:

- EN 60079-0:2006
- EN 60079-11:2007
- EN 60079-25:2004 / IEC 60079-25:2003
- EN 61241-0:2007
- EN 61241-1:2006
- EN 61241-11:2006
- EN 1127-1:2007
- EN 13463-1:2009
- EN 13463-5:2003

Markings:

- **CE**  **II 2GD IIC T6 T125°C (Ta -20÷+40°C) X**

Spezzano di Fiorano, Italy 12/01/2012

Signature
Marco Bertoni
President

