

LOOP PARTITOR self-powered



ELIT 93 - SI

The ELIT 93-SI has an **intrinsic safety output**:

This is an associated equipment, placed in safe area. It allows insulating an input signal from a safe area and an output signal connected to the hazardous area.

This instrument has obtained a **UE** examination certificate of the type according to the prescriptions of the standards EN 60079-0 (2006), EN 60079-11 (2007), EN 60079-26 (2007), EN 61241-0 (2006) and EN 61241-11 (2006), in accordance with the directive ATEX 2014/34/UE: marking Ex II(1)GD, [Exia]IIC and [Ex iaD]

♦ **Type :**

The **ELIT 93-SI** is a **loop partitor, self-powered by the input signal**, which insulates a 4-20 mA DC current into an **INTRINSIC SAFETY** signal.

The ELIT 93-SI solves the common point problems which may occur on measure loops, and lowers the rejections of disturbances induced in the cables.

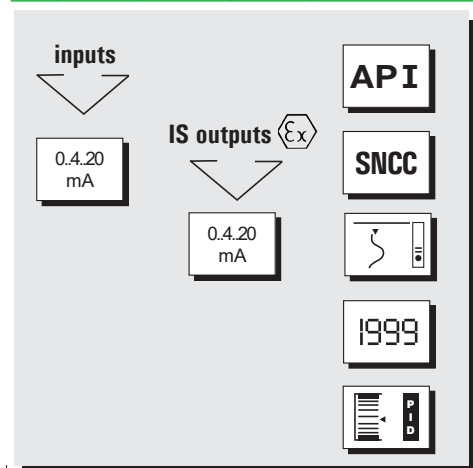


CONVERTER

ACCESSIBILITIES

- ♦ Reduced dimensions
- ♦ Plug-off connectors for screwed connectings

FUNCTIONS



- ♦ Galvanic partition: Input / Output: 3.8 kV
- ♦ Self-powered by the input signal
- ♦ Low response time: 3ms max.

APPLICATIONS

- ♦ IS barrier for analog signals
- ♦ Display, regulation, recording, watching of signals.

ENVIRONMENT

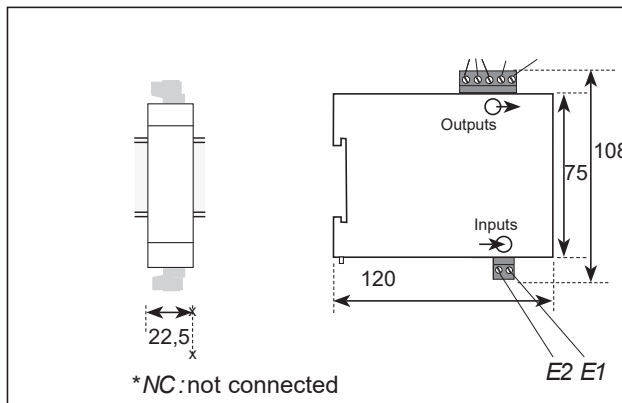
- ♦ Operating temperature: 0°C to +55°C.
- ♦ Storage temperature: -30°C to +80°C.

Standards EMC 2014/30/UE

- ♦ CE according to IEC 61000-6-4, IEC 61000-6-2 (industrial environment).
- ♦ Directives ATEX 2014/34/UE Standards EN 60079-0 (2006), EN 60079-11 (2007), EN 60079-26 (2007), EN 61241-0 (2006) and EN 61241-11 (2006)

GENERAL DATA

- ♦ **Housing:** (H x L x D) 75 x 22.5 x 120 mm (H=108, with terminals)



- ♦ **Protection:** case/terminals: IP 20
- ♦ **Housing:** Self-extinguishing case of black UL 94VO ABS, for latching on symmetrical DIN rail. Plug-off connectors for screwed connectings (2.5mm², flexible or rigid).
- ♦ **Weight:** 170g (with packaging).



The friendly interface

CA
C0/77

TECHNICAL FEATURES AT 23°C

TYPES	ELIT93 - SI50	ELIT93 - SI100	ELIT93 - SI150
INPUT	Current (mA)	0...4...20	0...4...20
	Internal voltage drop at 20mA	10 V	6.5 V
	Waste load (V)	$I \times L_r + 10$	$I \times L_r + 6.5$
	Impedance in Ω at 20mA	$L_r + 500\Omega$	$L_r + 325\Omega$
	Max. voltage appearing on the input terminals, for the =20mA and on endless load on the output	19 V	19 V
OUTPUT	INTRINSIC SAFETY Ex		
	Current (mA)	0...4...20	0...4...20
	Max. load at 20mA	330 Ω	510 Ω
SUP.	Power supply	Self-powered by the input loop	Self-powered by the input loop
GENERALS	Nominal response time (0 to 90%)		
	For load $L_r = 50\Omega$	3 ms	2 ms
	L_r influence	± 0.7 ms / 100 Ω	± 0.7 ms / 100 Ω
	Accuracy		
	Grade for $L_r = 50\Omega$	0.2	0.2
	Influence of the temperature	$\pm 0.013\%/^{\circ}\text{C}$	$\pm 0.006\%/^{\circ}\text{C}$
	Influence of the load resistance:	0.15% / 50 Ω	0.15% / 50 Ω $L_r > 200\Omega$
			0.15% / 50 Ω $L_r > 250\Omega$
	Temperatures		
	Operation	0°C to 55°C	0°C to 55°C
	Storage	-30°C to 80°C	-30°C to 80°C
	Others		
	Transforming ratio	1/1	1/1
	Galvanic insulation input/output	3.8kV 50Hz 1min.	3.8kV 50Hz 1min.
	Condense free dampness	85%	85%

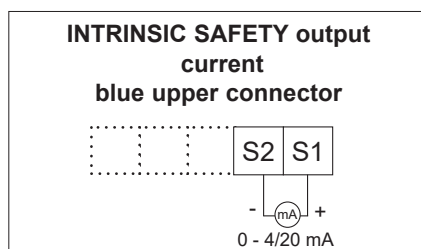
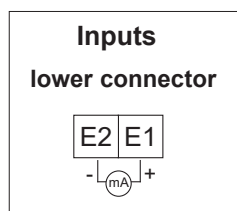
CODING

ELIT 93 - SI 50

ELIT 93 - SI 100

ELIT 93 - SI 150

WIRING



PARAMETRES ELECTRIQUES RELATIFS A LA SECURITE SAFETY ELECTRICAL PARAMETERS			
Of the (mA) current output S1 S2 :			
	ELIT 93 - SI 50	ELIT 93 - SI 100	ELIT 93 - SI 150
U _o	15.8V	15.8V	15.8V
I _o	50mA	100mA	150mA
P _o	198mW	395 mW	593 mW
L _o	15 mH	4 mH	1 mH
C _o	478 nF	478 nF	478 nF
Um < 350 Vdc and Um < 265 Vac			

This appliance is dedicated to industrial applications. It has to be installed in an electrical switchbox or equivalent.

Société Française d'Etudes et de Réalisations Electroniques - SFERE

RCS Lyon 423-502-608 · Printed in France

Route de Brindas - Parc d'Activité d'Arbora - N°2
69510 SOUCIEU EN JARREST - FRANCE

Tél. : 04 78 16 04 04 Fax. : 04 78 16 04 05
Tel. Intern. : 33 4 78 16 04 04 Fax Intern. : 33 4 78 16 04 05
e-mail : info@sfere-net.com <http://www.sfere-net.com>

Your representative