

SPN Series Single Point Load Cells



Standard Features

- C3 precision class
- Off center load compensated
- Aluminium alloy construction
- IP67 protection
- Max. capacities from 300 to 750 kg
- For platforms with dimensions up to 800 x 800 mm
- Shielded connection cable
- OIML certificate available upon request
- Test certificate available upon request

CAPACITIES (kg): 300, 500, 750.

OIML R60. C3 precision class.

Aluminum alloy. **IP67** protection.

Load cells for off center loads, suitable for example to build CE-M approved scales with a single load cell; maximum platform dimensions of 800x800 mm.

Specifications

Minimum load cell verification interval:

$V_{min} = E_{Max} / 10.000-15.000$

Maximum number of verification intervals:

$n_{LC} = 3000$

Sensitivity:

$2mV/V \pm 10\%$

Temperature effect on zero:

from $\pm 0,0093\%$ F.S./10K to $\pm 0,0140\%$

Temperature effect on Full Span:

$0,0117\%$ F.S./10K (-10°C/+20°C)

$0,0175\%$ F.S./10K (+20°C/+40°C)

Compensated Temperature Range:

-10°C/+40°C

Operating Temperature Range:

-10°C/+50°C

Creep at nominal load in 30 minutes:

0,01% F.S.

Maximum excitation voltage without damage:

15 Vdc

Input Resistance:

300..500 Ohm

Output Resistance:

300..500 Ohm

Insulation Resistance:

>2000 MOhm

Mechanical limit load in service:

150% F.S.

Destructive load:

300% F.S.

Deflection at nominal load:

<0,5mm

Shielded cable:

6-wire shielded cable, 3m long

Wiring Code

Wiring Code	
<i>Colour</i>	<i>Function</i>
YELLOW	SHIELD
WHITE	OUTPUT +
GREEN	SENSE +
BLUE	INPUT +
RED	OUTPUT -
GREY	SENSE -
BLACK	INPUT -

ATEX Version

The CCATEX certificate makes the load cell suitable for use in hazardous areas with protection methods according to:

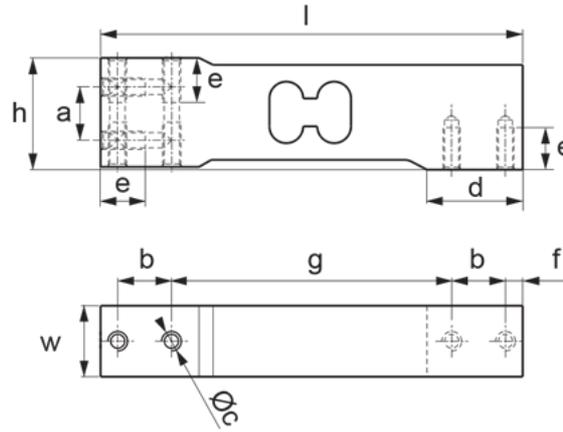
ATEX II 1G Ex ia IIC T6 (Ta -20÷+40°C) TX (Ta -20÷+65°C) Ga

ATEX II 1D Ex ta IIIC TX°C (Ta -20÷+40°C) TX°C (Ta -20÷+65°C) Da IP65.

The certificate includes the manual and the ATEX CE conformity declaration (available in EN, DE, FR, and IT).

IMPORTANT: the certificate refers to the single load cell. For systems with more load cells, it is necessary to order one certificate for each load cell.

Dimensions



Code	Max (kg)	Plate Max (mm)	l (mm)	w (mm)	h (mm)	a (mm)	b (mm)	c Ø (mm)	d (mm)	e (mm)	f (mm)	g (mm)
<u>SPN300</u>	300	800 x 800	191	76	75	25	60	N°8 x M8	40	16	12	8
<u>SPN500</u>	500	800 x 800	191	76	75	25	60	N°8 x M8	40	16	12	8
<u>SPN750</u>	750	800 x 800	191	76	75	25	60	N°8 x M8	40	16	12	8

Parts

Part # **Description**

Available Versions

SPN300	Single point approved load cell, C3, Max=300kg in aluminium alloy, IP67 protection degree, 300..500 Ohm output resistance.
SPN500	Single point approved load cell, C3, Max=500kg in aluminium alloy, IP67 protection degree, 300..500 Ohm output resistance.
SPN750	Single point approved load cell, C3, Max=750kg in aluminium alloy, IP67 protection degree, 300..500 Ohm output resistance.

Options

Part # **Description**

Options for ATEX Version

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 ben orderable length: 100 m (longer lengths available only upon request).
LCCBA	Armoured cable 6x0.25 mm ² (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. Maximum orderable length: 100 m (longer lengths available only upon request).
EXCB6	Blue shielded cable 6x0.22 mm ² , only for EX i (2GD) assemblies. PVC inner sheath. Tinned copper braid shielding. Polyurethane outer sheath, diameter 5.8 mm. Temperature range: -40 / +80 °C. Maximum orderable length: 100 m (longer lengths available only upon request).
CCATEX-1	Optional ATEX version for single load cell. Marking: ATEX II 1G Ex ia IIC T6 (Ta -20/+40°C) TX (Ta -20/+65°C) Ga and ATEX II 1D Ex ta IIIC TX°C (Ta -20/+40°C) TX°C (Ta -20/+65°C) Da IP65. ATEX EU declaration of conformity (EN, DE, FR, ES and IT).
CCATEX3GD	ATEX certificate for each load cell. Marking: ATEX II 3G Ex nA IIC T6 Gc for gas and ATEX II 3D Ex tc IIIC T115°C Dc IP65 for dusts. Complete with manual and ATEX CE conformity declaratic