

Application Area:	Industry, Chemical Industry, Petrochemical Industry
Resolution:	5 +/- 2 mm
Min. Mounting Length:	400 mm
Max. Mounting Length:	3000 mm

XT-800R-Ex transmitters provide a reliable option for level supervision in tanks or containers containing explosive liquids. The transmitters are manufactured in accordance with customers' specifications and have proved to be successful for many years in a wide range of applications connected to the industrial and chemical sector, and in many special applications.

The float is fitted with magnets, and works by moving with the level of reed contacts located in the switching tube. The transmitter operates in accordance with the principle of voltage division. It provides a voltage proportional to the float position as an output signal, which is then converted by an integral converter to a standardised 4...20 mA signal.

PTFE spacers are placed in front of the set collars to prevent impact sparking.

The appropriate output devices can be connected to provide analogue or digital displays, optical and acoustic alarms and computer inputs.

Safety instructions:

- The transmitter may be used in Zone 0, 1 and 2 and with gas groups IIA, IIB and IIC that are at risk of explosion because of inflammable materials in the temperature classes T1 to T4.
- The highest permitted ambient temperature is 70 °C.
- The transmitter may only be connected to a certified, intrinsically safe electrical circuit having the maximum values (e.g. Zener barriers).
- The equipment must be included in the routine pressure test of the tank.
- The transmitter must be electrically connected to the system's equipotential system.

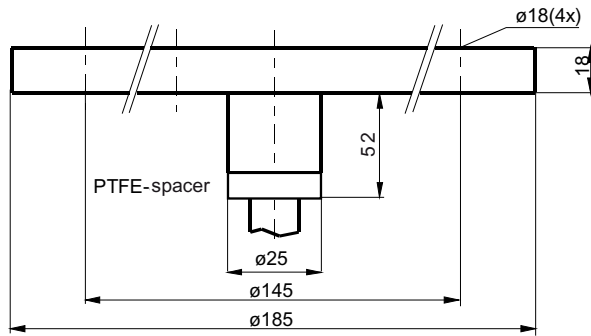
XT-800R-Ex



EEx ia IIC T4
See 99 ATEX
2447X
IIIG

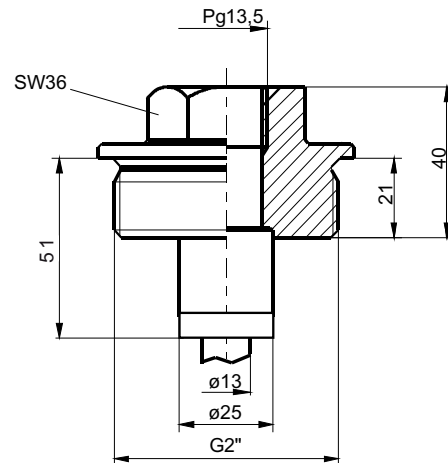


Mounting



Flange DN65/PN16 EN1092-1 *

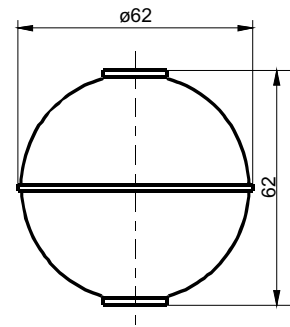
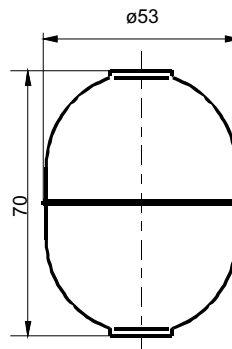
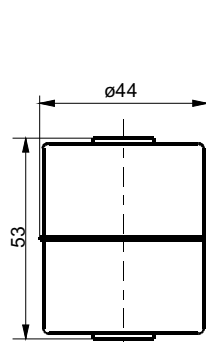
- BCCC 316/316L
- Other flanges on request
- Min. DN65 od. 2 1/2" ANSI



Tank screw fixing 2" *

- TC 2 316/316L

Floats

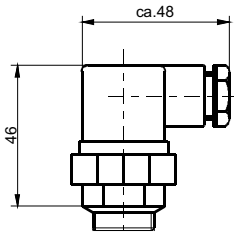


Type	• C44 *	• C53 *	• Ti62
Material	316/316L	316/316L	Titanium
Max. pressure	12 bar	20 bar	15 bar
Operating temp.	-20 °C...150 °C	-20 °C...150 °C	-20 °C...150 °C
Minimum density of the liquid	0.85 g/cm ³	0.75 g/cm ³	0.60 g/cm ³
Immersion depth at density = 1 g/cm ³	40 +/- 2mm	42 +/- 2mm	32 +/- 2 mm

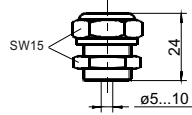
* Versions with protection tube (damping tube) on request

Electrical connection XT-800R-Ex (2-wire)

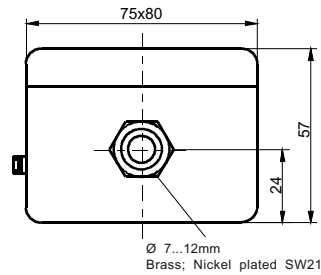
• S Plug connection



• P Cable gland

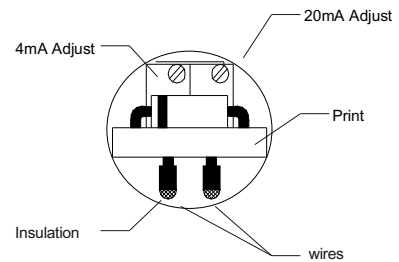
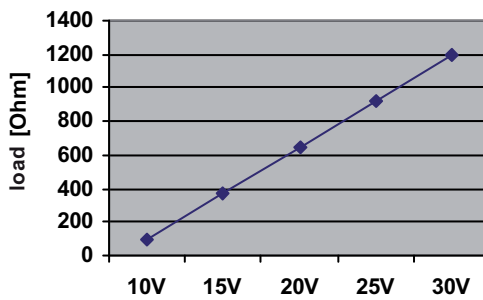
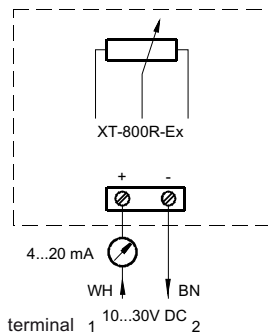


• K11 Junction box



• Cable (82667)
PVC, blue 2x 0.75², shielded
WH = + / BN = -

Wiring diagram XT-800R-Ex with voltage output



Function

The fundamental operating principle of the XT-800R transmitter is the same as that for the XM-800E series. However, when it is connected to a voltage of 10... 30VDC, the XT-800R transmitter functions as a current sink, superimposing a 4 ... 20mA current analogous to the float position onto the signal. Two potentiometers are located in the top section of the tube and are visible when the tube is opened (see sketch above). These are used to adjust the upper and lower limiting values (4 and 20mA) within a range of 5%, based on the total length. This makes it possible to make readjustments if the set collar has to be moved slightly. The transmitter will have been adjusted before delivery and will not need to be reopened.

Technical data

Max. ambient temperature 70 °C
Supply voltage 10...30 V DC
Output signal 4...20 mA; current sink
Max. load 100 Ω (10 V)
1.2 kΩ (30 V)
Max. current 20 mA
Enclosure IP 65

EEx ia IIC T4 or

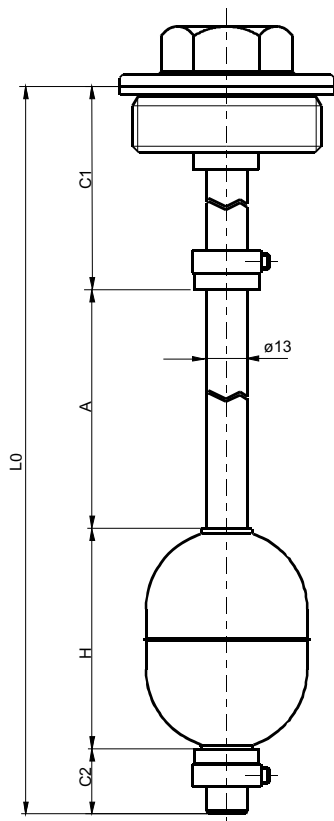
U: 30 V
I: 150 mA
P: 1.13 W
C: 120 nF
L: 0 mH

EEx ib IIC T4

U: 30 V
I: 150 mA
P: 1.13 W
The effective internal inductance and capacitance are negligibly small.

Order data

Type key:
XT-800R-Ex-...-...-...



- Electrical connection
 - S Plug connection
 - K11-Ex Junction box
 - P-PVC PVC cable, with cable gland (Standardlength 3m)
- Float
 - C44 316/316L
 - C53 316/316L
 - Ti62 Titanium
- Mounting elements
 - BCCC Flange 316/316L
 - Other flanges on request
 - TC 2 Tank screw 316/316L

Dimensions

- LO Mounting length (LO max. = 3000 mm)
- A Indication length (float displacement)
- C1 Upper deadline
- C2 Lower deadline min. 15 mm
- H Float height

$LO = A + C1 + C2 + H$

For versions with an upper set collar:

C1 = minimum measure* + set collar thickness (8mm)

* minimum measure see below mounting elements

Typical order data XT-800R-Ex-TC2-C53-P-PVC3 (example)

- LO Mounting length 740 mm
- A Indication length 590mm
- C1 Upper deadline 65mm
- C2 Lower deadline 15 mm
- TC 2 Tank screw 316/316L 2"
- C53 Float H=70 mm
- P cable gland
- PVC3 3 m PVC-cable