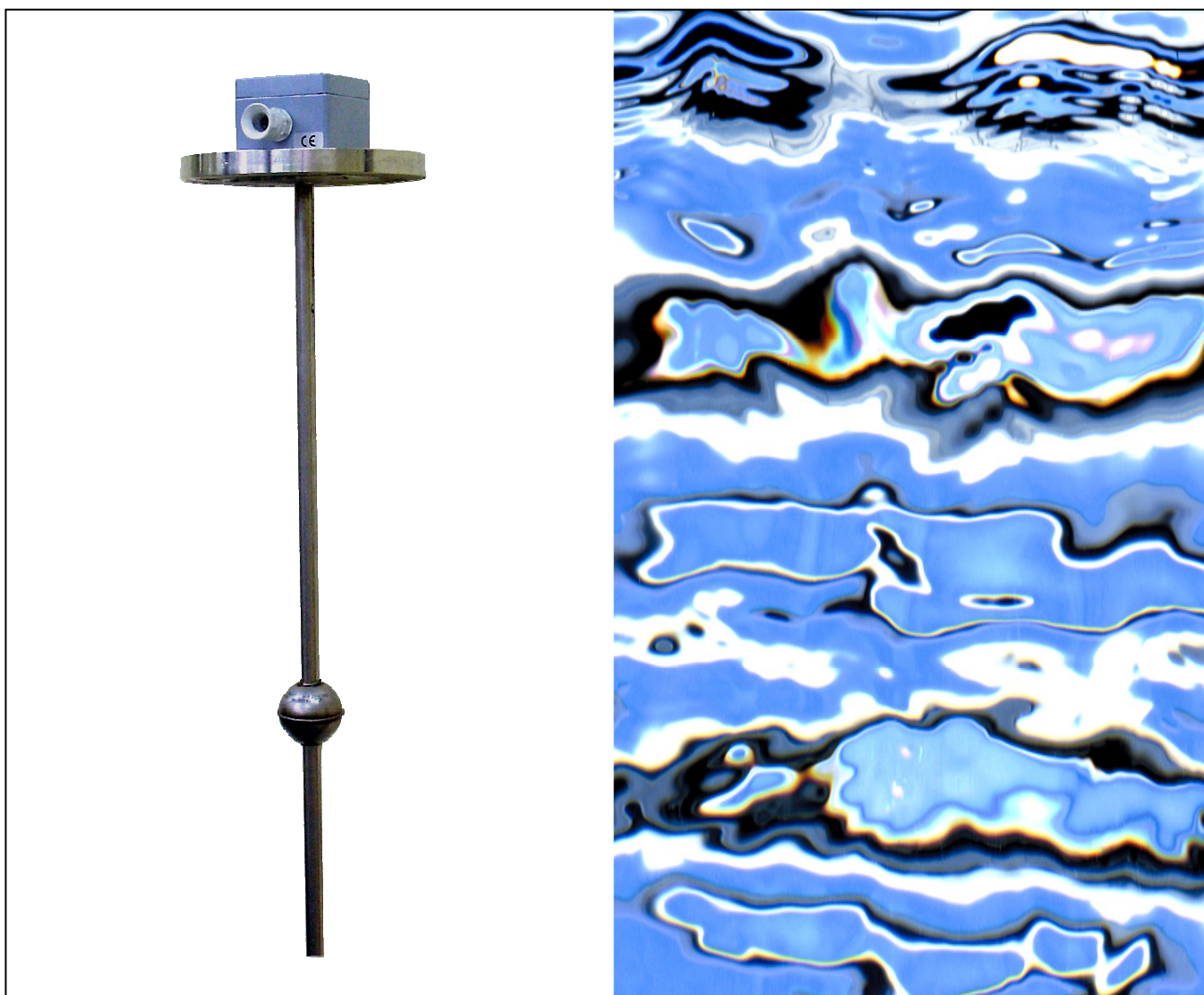


Type MC 1000

Continuous liquid level transmitter

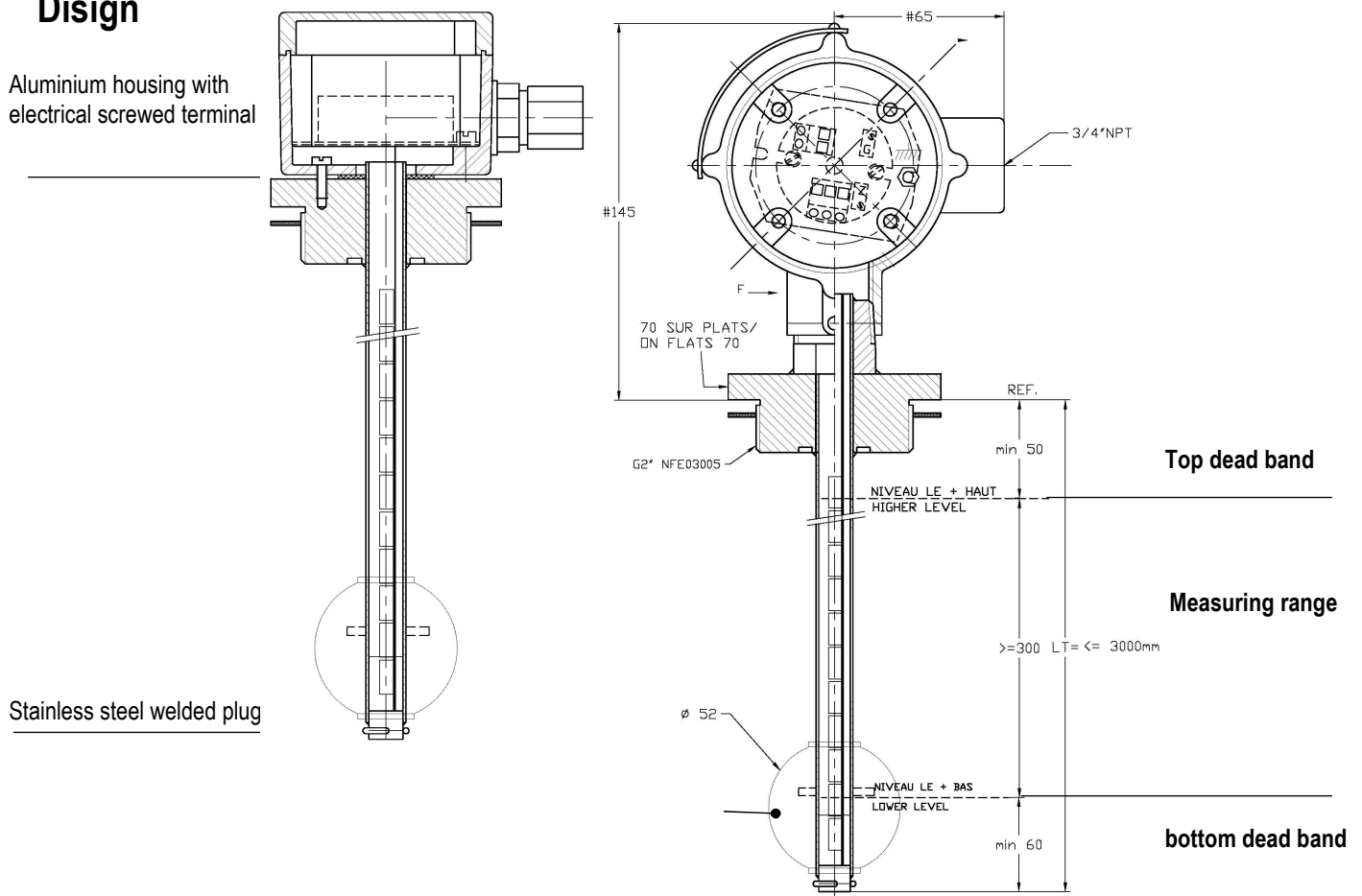


Type MC 1000 General description

A float fitted with a magnet slides along a guide tube and follows variations of fluid level. The float unit consist of a magnet-carrying float mounted around a stainless steel tube. As the float passes up or down the tube, a reed switch chain is actuated inside the guide tube.

Reed switches is act as a variable resistance. The variable resistance signal is converted into an analog 4-20mA signal by a 2 wires transducer . The current output is proportional to the liquid l level in the tank. The transducer is mounted in a standard or flam-proof atex housing outside of the tank. The IS version is also available.

Design



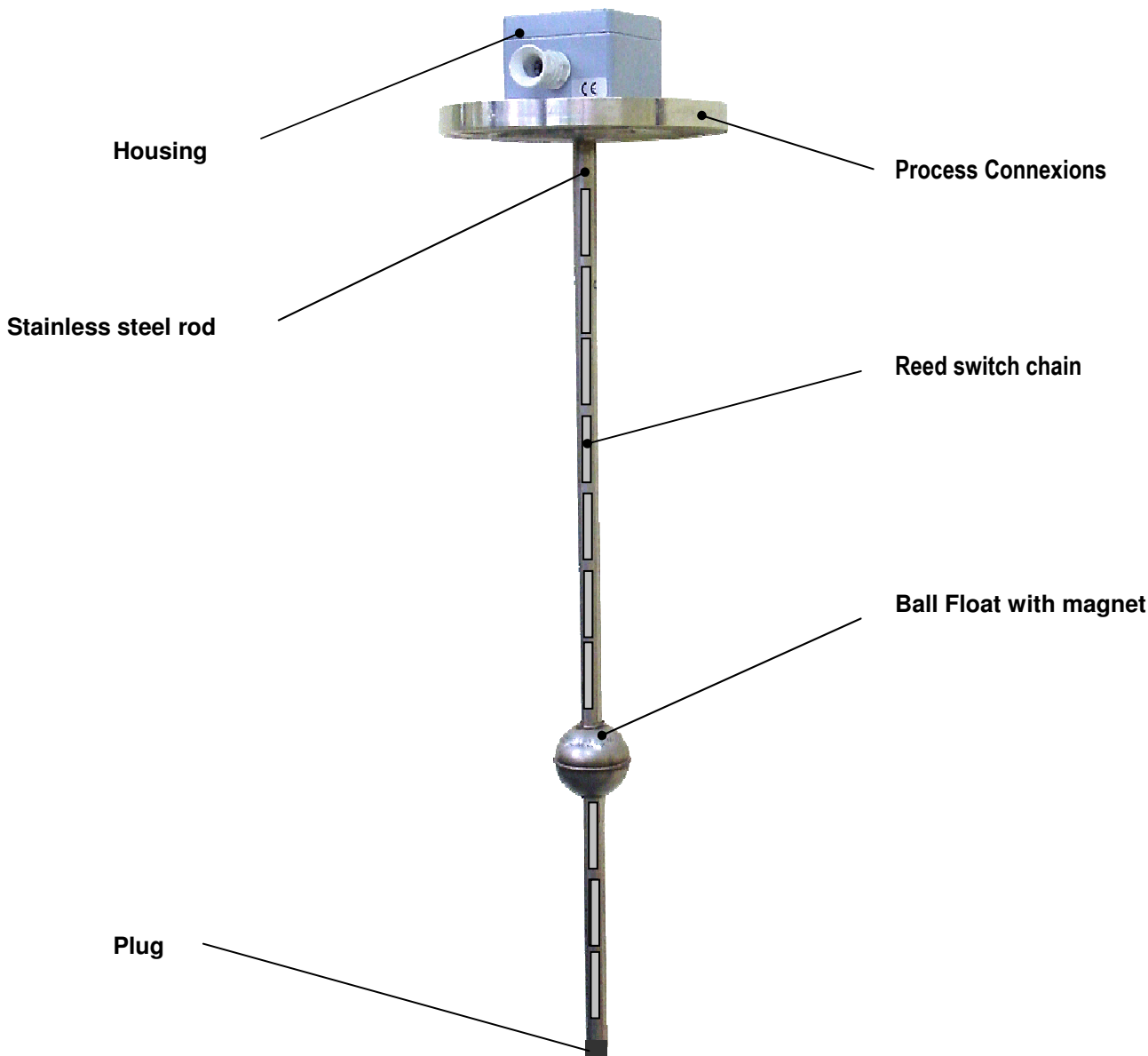
Operating condition

Type	MC 1000 I (ST-Steel)	MC1000 PVC	MC 1000 PVDF
Minimum specific G.	0,75	0,8	0,8
Max. temperature	100°C	40°C	70°C
Max. Pressure	30 bar	3 bar	3 bar

For flanged connections max operating conditions have to be in conformity with flange rating.

Continuous liquid level transmitter

Type MC 1000 Codification



Example:

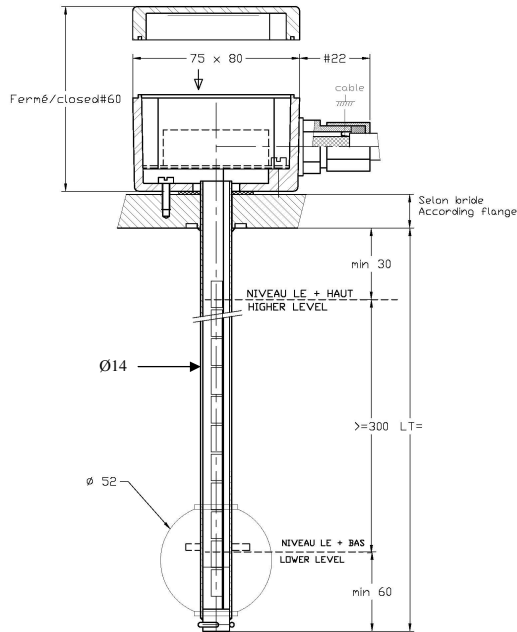
MC1000	I	3"	M1	C2	H3	T6	Z9
Instrument code	Material	Connection size	float Type	connection Type	housing Type	Transmitter type	Option

Type MC 1000 Dimensions

MC1000-I

Aluminium housing Versions

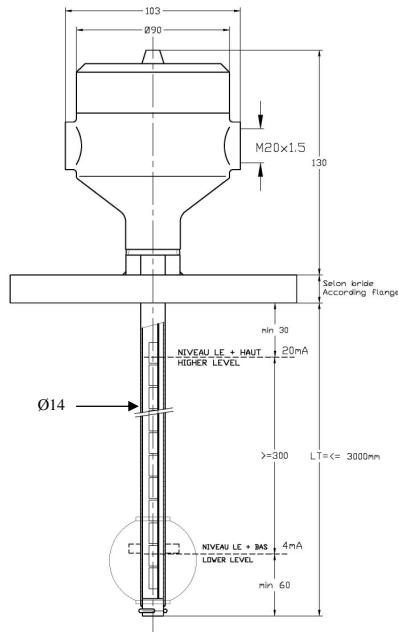
IP65 in standard
Flange process connection
ISO NP/ND
(represented model)



MC1000-I

Stainless steel housing Versions

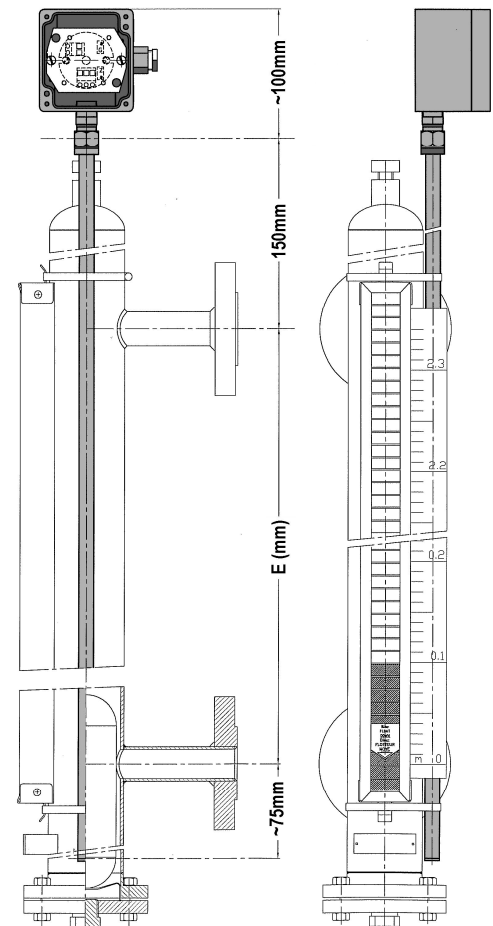
IP65 in standard
Flange process connection
ISO NP/ND
(represented model)



MC1000-I

MC1000 for 810 Versions

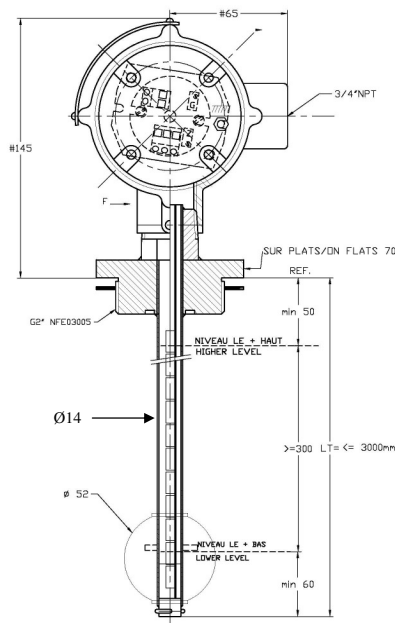
IP65 in standard (represented model)
See data sheet 810 n°50466-605



MC1000 I

Aluminium flame-proof Versions

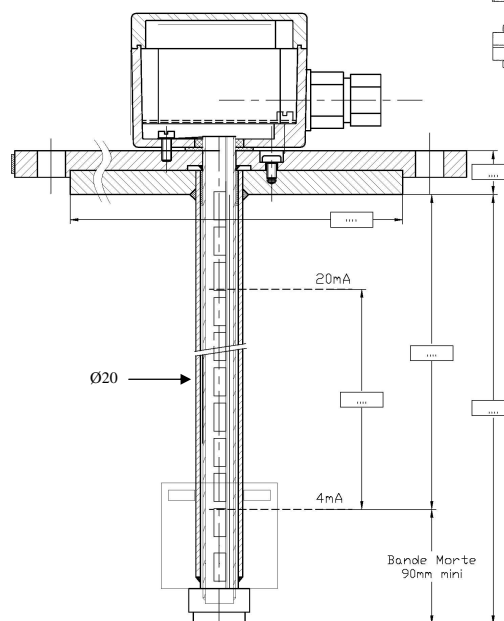
(Represented model)
2" thread process connection



MC1000-PVC/PVDF

Aluminium housing Versions

IP65 in standard
Flange process connection
ISO NP/ND
Wetted part PVC or PVDF...



Type MC1000-Technical Specifications

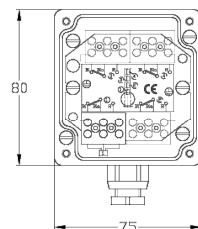
Process connection:

- Threaded plug 2" BSPP
- Flange NP16/NP 20 ND...according to codification (29203 standard)
- On request, others connection types and sizes

Housings selection

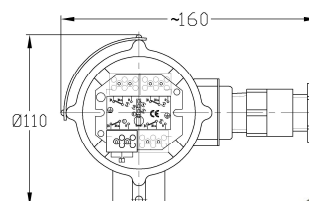
Aluminium Standard IP65 type (code H3)

Dimensions (LxIxh)	80mm x 75mm x 57mm
Material	Aluminium
Rod	Ø 14mm 316L St. St. on ¾" NPT brass connection
Connection	PG9 Polyamid cable gland for Ø 5 à 9mm cables
Protection	IP65 – 4 screws cover
Coating	Polyester paint



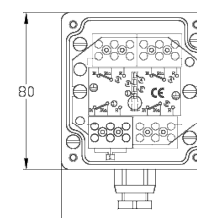
Aluminium Explosion proof type ("d") with ATEX certified (code H2)

Dimensions (LxIxh)	See below drawing
Material	Aluminium
Rod	Ø 14mm 316L St. St. ¾" NPT
Connection	¾"NPT Aluminium cable gland (Ø 5 à 12mm cables) (supplied) ATEX certified ("d")
Protection	IP65/IP66 – screwed cover
Coating	No – Raw Aluminium finish
Certificate	ATEX N° LCIE01ATEX6060X
Marking***	CE 0081 Ex II 2G ExdIICT6Gb
Electrical data	Supply Max.: 230V ; Current Max. : 15A ; Power Max. : 20W
Temperature	Ta = -40°C = +75°C
Name plate	Aluminium / St. St rivets



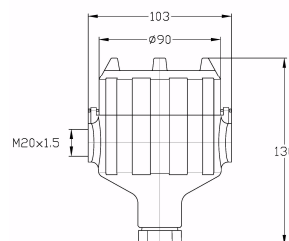
Intrinsically safe type ("ia")* with ATEX certified (code H4)

Dimensions (LxIxh)	See below drawing
Rod	Ø 14mm 316L St. St. on ¾" NPT brass connection
Connection	
Protection	IP65
Coating	Polyester paint
Certificate	ATEX N° LCIE05ATEX6034X
Marking **	CE 0081 Ex II 1 G ExialICT6/T5/T4Ga
Electrical data	Ui≤30V; li≤101mA; Pi≤758mW Or Ui≤28,4V; li≤116mA; Pi≤824mW Ci=0nF ; Li=0mH
Temperature	T6: Ta=50°Cmax./ T5:Ta=65°Cmax./ T4: Ta=80°Cmax.
Plaque signalétique	Aluminium / St. St rivets



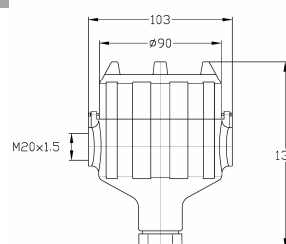
316L St. St. Explosion proof type ("d") with ATEX certified (code H5)

Dimensions (Øxh)	Ø 103mm, h=117mm
Rod	Ø 14mm 316L St. St.
Connection	M20x1, 5 cable gland (cables Ø 5 à 9mm)
Protection	IP66– screwed cover
Coating	No - Raw Stainless steel finish
Marking ***	CE 0081 Ex II 2G Exd II T6-T5Gb
Certificate	LCIE01ATEX 6060X ; IECEx LCI09 0017X
Paramètres électriques	Ui ≤ 30V ; li = 50mA ; Pi = 0,4W ; Ci = 0nF ; Li=0mH
Températures	T6: Ta=50°Cmax./ T5:Ta=65°Cmax
Plaque signalétique	Aluminium / rivets inox



316L St. St Intrinsically safe type ("ia") with ATEX certified (code H6)

Dimensions (Øxh)	Ø 103mm, h=117mm
Rod	Ø 14mm 316L St. St.
Connection	M20x1, 5 cable gland (cables Ø 5 à 9mm)
Protection	IP66– screwed cover
Coating	No - Raw Stainless steel finish
Marking ***	CE 0081 Ex II 1/2G Eia II CT6-T5-T4Ga
Certificate	LCIE05ATEX 6034X ; IECEx LCI08 0048X
Paramètres électriques	Ui≤30V; li≤101mA; Pi≤758mW Or Ui≤28,4V; li≤116mA; Pi≤824mW Ci=0nF ; Li=0mH
Températures	T6: Ta=50°Cmax./ T5:Ta=65°Cmax./ T4: Ta=80°Cmax.
Plaque signalétique	Aluminium / rivets inox



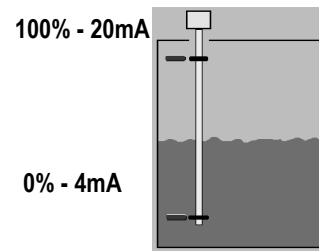
* The transmitter electronic unit must be chosen among the ATEX IS certified units (see next page)

** The ATEX marking complies with the 94/09/EC Directive and certify the transmitter, the reed switch line and the housing.

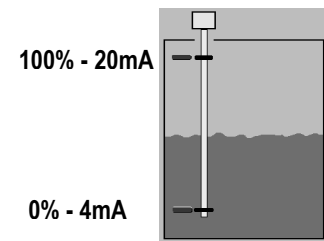
*** The ATEX marking complies with the 94/09/EC Directive and certify the reed switch line and the housing

Type MC 1000 4-20mA Output / Level transmitter

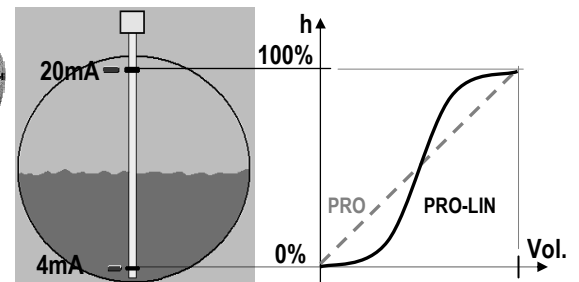
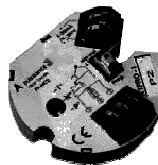
Transmitter range	
Type	XT42-NIV T1/T4/T22)
Output	4-20mA 2 wires
Maximum Range	5,5 m
Power supply	12V < V < 30V
Temperature	-20°C < T < 70°C
Accuracy	0,15% full scale
Resolution	15mm



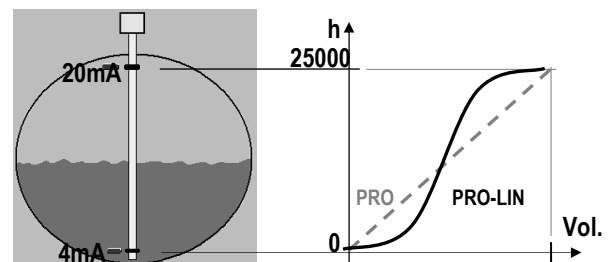
Type	XT42-NIV I.S.(T2/T21)
Output	4-20mA 2 wires
Maximum Range	5,5 m
Power supply	12V < V < 30V
Temperature	-20°C < T < 65°C
Accuracy	0,15% full scale
Resolution	15mm
ATEX certified	Intrinsically safe Exia



Types	XT PRO-HART(T5/T7/T25)
	XT PRO-HART LIN(T9/T11/T28)
Output	4-20mA 2 wires
Maximum Range	5,5 m
Power supply	9,5V < V < 30V
Temperature	-20°C < T < 70°C
Accuracy	0,1% full scale
Resolution	15mm
Protocol	HART
Data Acquisition	10/s
Burnout	3,8mA / 22mA
Linearization	XTPRO LIN version only



Types	XT PRO-HART S.I. (T6/T24)
	XT PRO-HART LIN S.I.(T10/T27)
Output	4-20mA 2 wires
Maximum Range	5,5 m
Power supply	9,5V < U < 30V
Temperature	-20°C < T < 65°C
Accuracy	0,1% full scale
Resolution	15mm
Protocol	HART
Data Acquisition	10/s
Burnout	3,8mA / 22mA
Linearization	XTPRO LIN version only
ATEX certified	Intrinsically safe Exia



Measuring length

From 300mm to a maximum length of 2900mm in increments of 15mm. Provision has been made for a "dead band" (non measured zone, of 60 to 100mm depending the models) on the top and the bottom of the instrument. Please contact us.

Type MC 1000 CODIFICATION

CODE	WETTED PARTS MATERIAL
MC1000 I	316L Stainless steel Version +float in 316Ti
MC1000 PVC	PVC Version (wetside material)
MC1000 PVDF	PVDF Version (wetside material)

CODE	CONNECTION SIZE
2"	BSPP or NPT thread – Stainless steel
2"1/2	BSPP thread– PVC - PVDF
65	ISO NP...ND65 – Stainless steel, PVC, PVDF
80	ISO NP...ND80 – Stainless steel, PVC, PVDF
100	ISO NP...ND100 – Stainless steel, PVC, PVDF
125	ISO NP...ND125 – PVDF
150	ISO NP...ND150 – PVDF
2"1/2	ANSI B.16-5 ND 2 "1/2 - Stainless steel; PVC, PVDF
3"	ANSI B.16-5 ND 3 "– Stainless steel, PVC, PVDF
4"	ANSI B.16-5 ND 4 "– Stainless steel, PVC, PVDF
5"	ANSI B.16-5 ND 5 "– PVDF
6"	ANSI B.16-5 ND 6 "– PVDF

CODE	FLOAT TYPE
M1	316L Stainless steel 0,75 < SG < 1,6 p < 30b T < 100°C
	PVC 0,8 < SG < 1,6 p < 3b T < 40°C
	PVDF 0,8 < SG < 1,6 p < 3b T < 70°C
MX	special Float on request

CODE	CONNECTION TYPE
C1	thread BSPP ou NPT
C2	Flange ISO NP 16 ND...
C3	Flange ANSI 150# NP20 ND...
C4	Flange ANSI 300# NP50 ND...
CX	Special connection on request

CODE	HOUSING TYPE
H2	ATEX "ADF" Exd IIC T6 Gb housing
	T4 XT42 Standard
	T7 XT PRO HART
	T11 XT PRO HART+ Linearization
H3	Standard IP65 aluminium housing
	T1 XT42
	T5 XT PRO HART
	T9 XT PRO HART + Linearization
H4	ATEX IP65 aluminium housing / IECEx "IS" Exia IIC T6-T5-T4 Ga (just on MC1000I)
	T2 XT42 I.S.
	T6 XT PRO HART I S
	T10 XT PRO HART I S + Linearization
H5	IP66 stainless steel housing / IECEx "ADF" Exd IIC T6-T5 Gb
	T22 XT42
	T25 XT PRO HART
	T28 XT PRO HART + Linearization
H6	IP66 stainless steel housing / IECEx "IS" Exia IIC T6-T5-T4 Ga(just on MC1000I)
	T21 XT42 I.S.
	T24 XT PRO HART I S
	T27 XT PRO HART I S + Linearization

CODE	OPTIONS
Z1	ATEX flame-proof Cable gland for type H2 (3/4" NPT)
Z9	Epoxy paint for housing (for aluminium housing)
Z11	ADE4F Nickel brass cable gland for type H2 (3/4" NPT) cable 8.5 to 16
Z12	ADE1F 316Lst. steel cable gland for type H5 (M20x1.5) cable 6 to 12
ZX	Electrical welding control

MC1000 I	3"	M1	C2	H3	T6	Z9
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