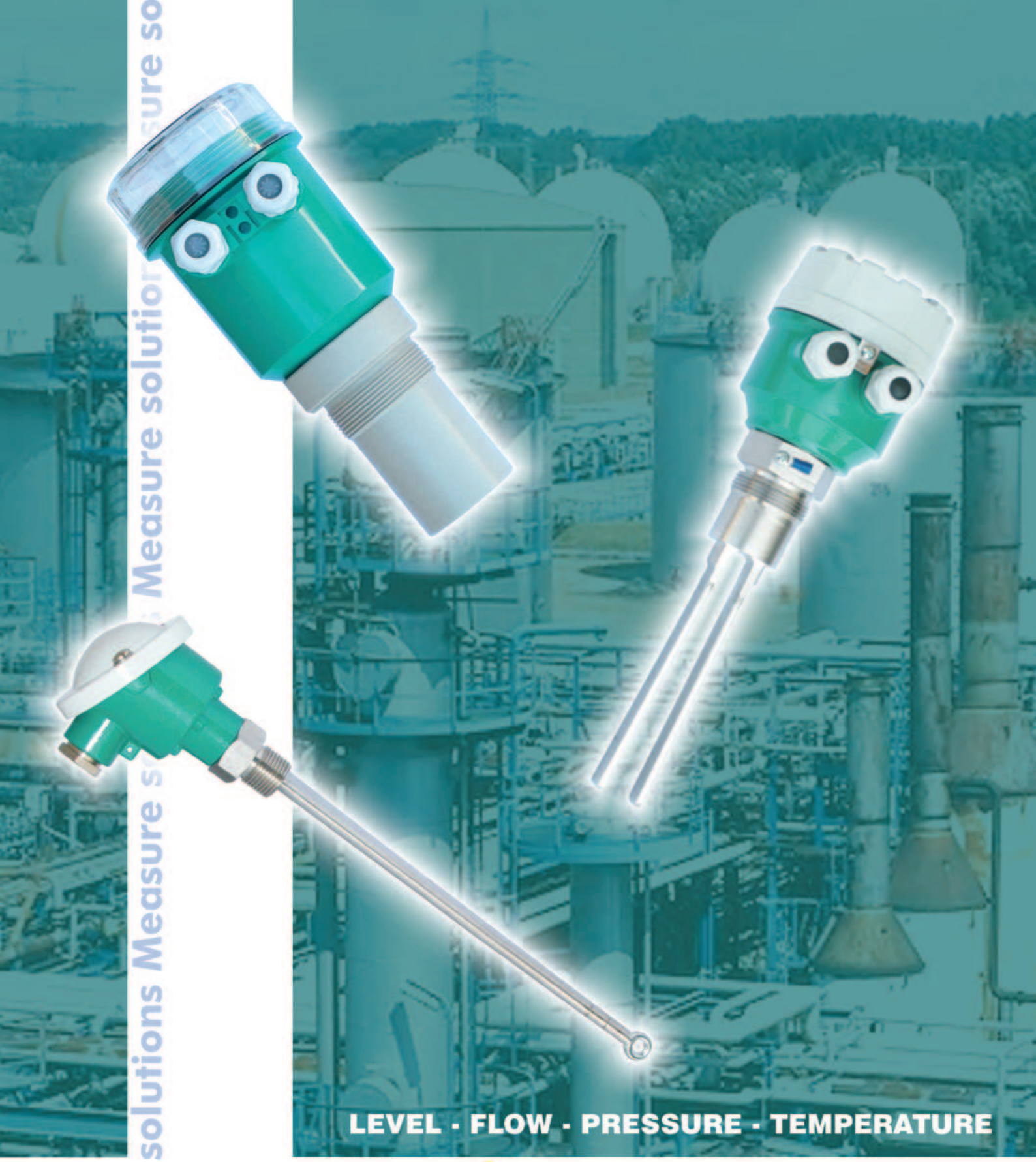


measure SOLUTIONS

SGM LEKTRA

2013 General Catalogue - Rev.0

Industrial processes







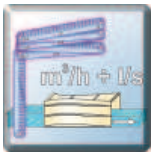



Drinkable water
Waste treatment
Food and beverage
Cement works
Paper mills
Chemicals
Energy
Cereals and mills
Plastics

Symbols

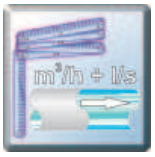
Level continuous measure

ON-OFF level control



Open channel flow measure

Open channel flow control



Full pipe flow measure

Full pipe flow control

Pressure measure

Differential pressure measure

Temperature profile monitor

Index: measure&controls

Index: measure&controls

Index: measure&controls

METER Ultrasonic level transmitter

Ultrasonic - 4÷20mA output
G 2"A / PP threaded connection (for ATEX version in PVDF)
+ nr. 1 2" BSP/PP fixing bolt
Setting by keyboard/graphic LCD display detachable module (optional)
Temperature range : -30° ÷ +70°C (80° non continuous)

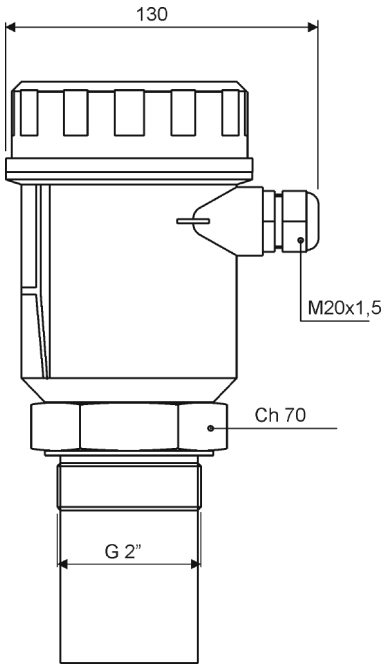
Version	
-	2-wire, range 5m, HART, ATEX II 1/2G Ex ia II C T6 (amb. temp. -20÷+60°C)
0	2-wire, range 8m, HART, ATEX II 1/2G Ex ia II C T6 (amb. temp. -20÷+60°C)
1	2-wire, range 5m
2	2-wire, range 5m, HART
3	2-wire, range 5m, ATEX II 1/2G Ex ia II C T6 (amb. temp. -20÷+60°C)
4	4-wire, range 5m, 2 relays, MODBUS
5	2-wire, range 8m
6	2-wire, range 8m, ATEX II 1/2G Ex ia II C T6 Tamb -20÷+60°C
7	2-wire, range 8m, HART
8	4-wire, range 8m, 2 realys, MODBUS
9	Special

Housing material	
F	PC with transparent cap, IP67
L	PC with blind cap, IP67
M	PC with transparent cap and anticondensate, IP67
N	PC with blind cap and anticondensation, IP67
U	Aluminum with transparent cap, IP67 (obligatory for ATEX versions)
Z	Special

Power supply	
4	24Vdc (20÷30Vdc)
5	12Vdc (20Vdc) range 5m (only for version 1)
9	Special

Optional (opt.)	
A	None
C	DN80 PN6 UNI 1092-1/PP flange
D	VL601 keyboard/display programming module (VL601SGM)
L	MC601, module for connection to VLW601 (MC601SGM); 4 wires versions only
S	MODBUS communication software (010F105A)
T	HART communication software (010E105A)
Z	Special

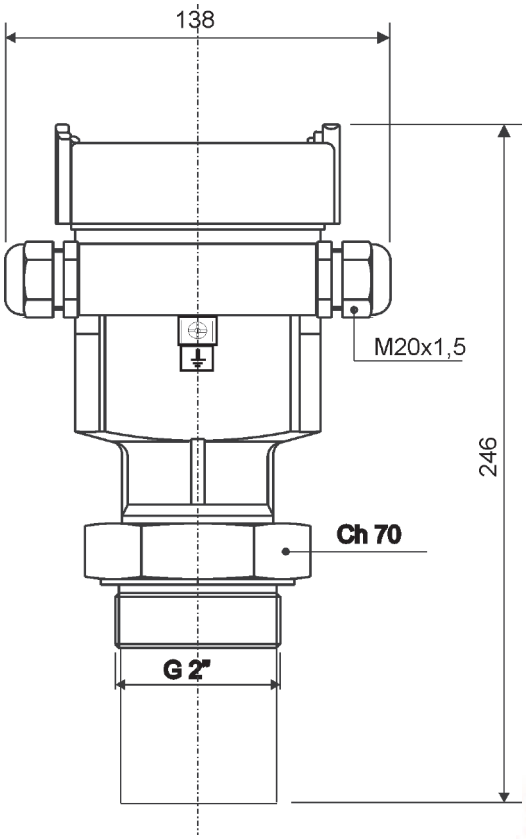
Ultrasonic



VL601 module

MC601 module

VLW601



MODBUS software
Cod. 010F105A

KTU5 Level control and measure unit

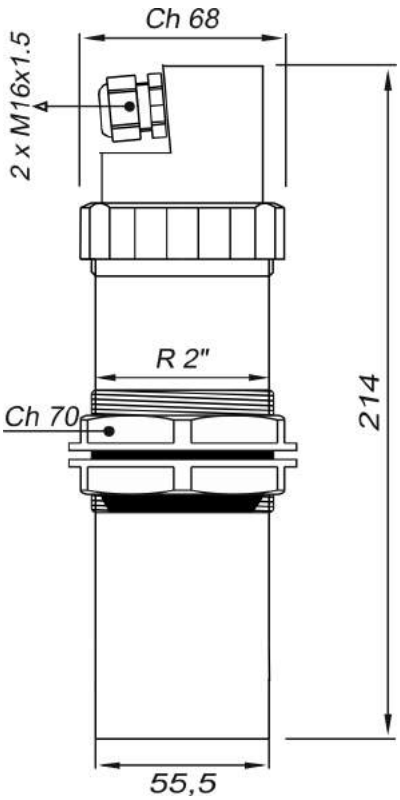
Ultrasonic - G 2"A/PP threaded connection + n.2 2" BSP/ PP fixing bolts
4÷20mA output with 2 relays for alarms or pumps control
Calibration by 2 push-buttons, VL611 programming display
or via MODBUS RTU
Working temperature: -30 ÷ +70°C

Version	
1	IP66, range 0,25÷5m, with electrical connection by 2 internal plug-in connectors
3	IP66, range 0,4÷8m, with electrical connection by 2 internal plug-in connectors

Housing material	
B	PP polypropilene
Z	Special

Power supply	
0	24Vac 50÷60Hz
1	115Vac 50÷60Hz
2	230Vac 50÷60Hz
4	24Vdc
5	12Vdc Attention! Max 3m distance (only for version 1)
9	Special

Optional (opt.)	
A	None
C	DN80 PN6 UNI 1092-1 / PP flange
D	VL611 keyboard/display programming module (VL611SGM)
S	S/W for communication MODBUS (010F105A)
Z	Special



Ultrasonic


SMART

Level control and measure unit

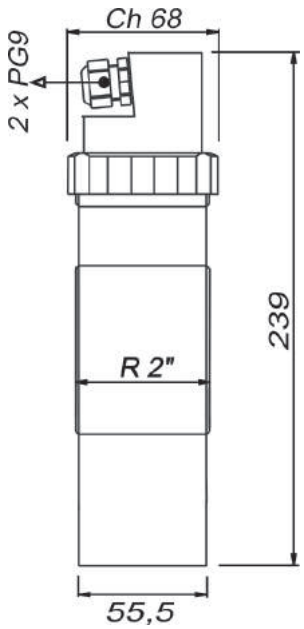
Ultrasonic - G 2"A/PP threaded connection + n.2 2" BSP/ PP fixing bolts
4÷20mA output with 2 relays for alarms or pumps control
Calibration by 2 push-buttons or via RS485 by PC
Working temperature: -30 ÷ +70°C

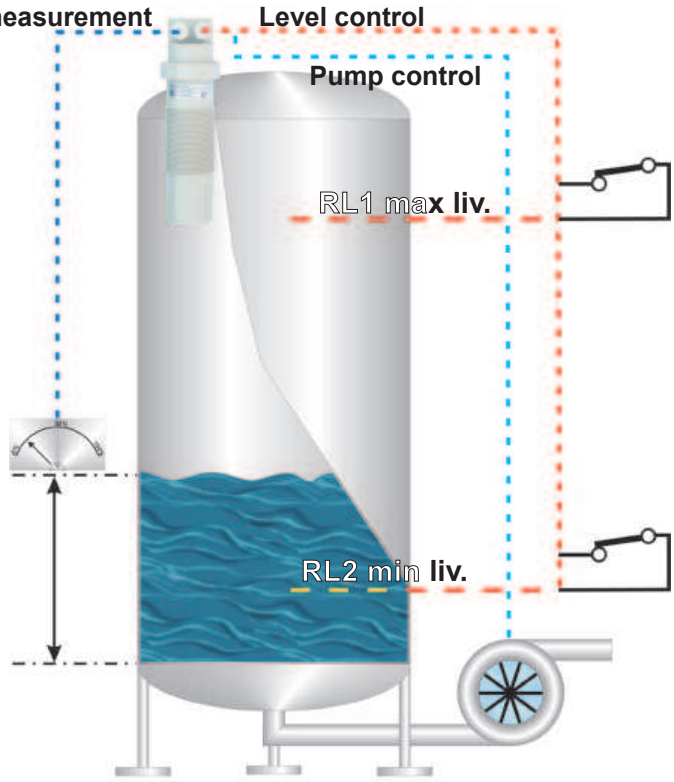
Version	
1	IP66, range 0,25÷5m, with electrical connection by 2 internal plug-in connectors
2	IP68, range 0,25÷5m, with n.2 electrical cable (3m length) connection
3	IP66, range 0,4÷7m, with electrical connection by 2 internal plug-in connectors
4	IP68, range 0,4÷7m, with n.2 electrical cable (3m length) connection
5	IP66, range 0,25÷5m, with electrical connection by 2 internal plug-in connectors suggested for installation into calm-pipes
9	Special

Housing material	
B	PP polypropilene
Z	Special

Power supply	
0	24Vac 50÷60Hz
1	115Vac 50÷60Hz
2	230Vac 50÷60Hz
4	24Vdc
5	12Vdc Attention! Max 3m distance-no relays inside
9	Special

Optional (opt.)	
A	None
C	DN80 PN6 UNI 1092-1 / PP flange
E	IP66 Junction-box for remote calibration (programming push-buttons built in)
F	S/W for communication with SGM LEKTRA ultrasonic units (010D034A)
Z	Special





521SMART Level control and measure unit

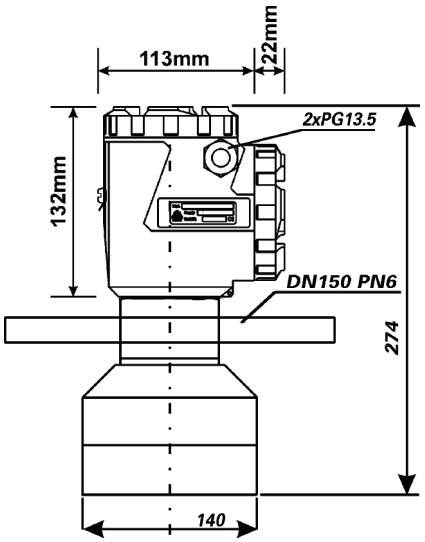
Ultrasonic - designed for liquids and bulk-solids (max 5m)
Range: 0,6÷10m; Mechanical protection IP65
4÷20mA output with 2 relays for alarms or pumps control
Calibration by 2 push-buttons or via RS485 by PC
Working temperature: -30 ÷ +70°C

Version	
1	G2"½ (G 2 ½ A) bracket mechanical connection
2	Flanged DN150 PN6 UNI 1092-1 / PP
9	Special

Housing material	
D	PBT + PP (Polypropilene)
Z	Special

Power supply	
0	24Vac 50÷60Hz
1	115Vac 50÷60Hz
2	230Vac 50÷60Hz
4	24Vdc
9	Special

Optional (opt.)	
A	None
E	IP66 Junction-box for remote calibration (programming push-buttons built-in)
F	PC S/W for the communication to the SGM LEKTRA ultrasonic units (010D034A)
Z	Special



Ultrasonic

VLW90M

Level, open channels flow and pumps control unit

Directly connectable to PTU ultrasonic sensors
Matrix 320 x 240 backlighted color LCD display
USB port for memory pen connection (logger)
Wall or DIN rail mounting
5 calibrating push-buttons
IP66 mechanical protection; temperature range : -20 ÷ +60°C

Version	
2	For connection up to Max. 8 PTU family sensors
9	Special

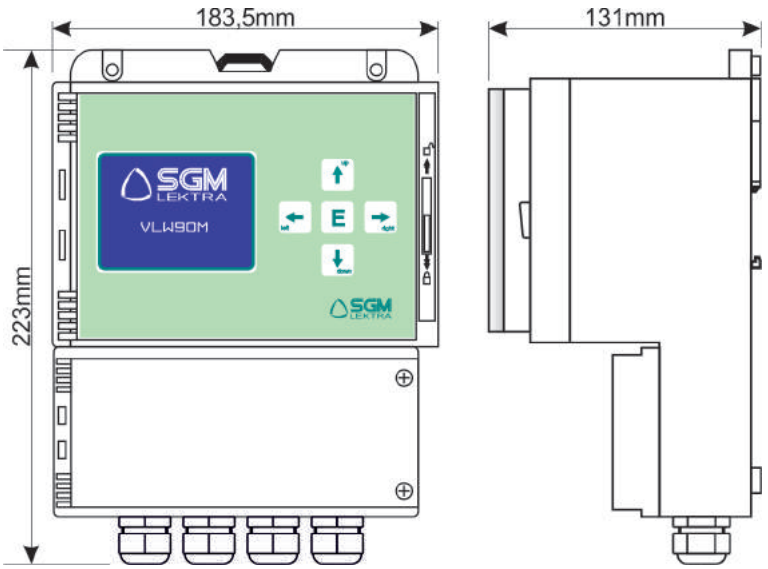
Relay	
C	5 Relays with change over contact (SPDT)

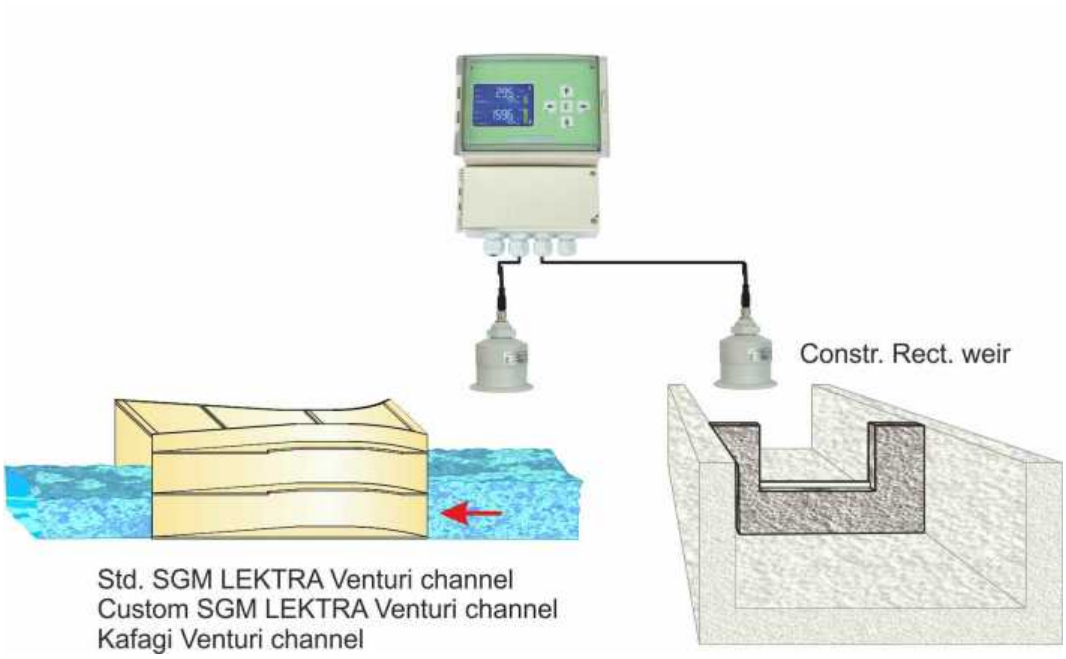
Power supply	
1	85÷265Vac 50÷60Hz
4	24Vdc

Output	
B	n.2 optoisolated 4÷20mA + n.2 optoisolated open collector

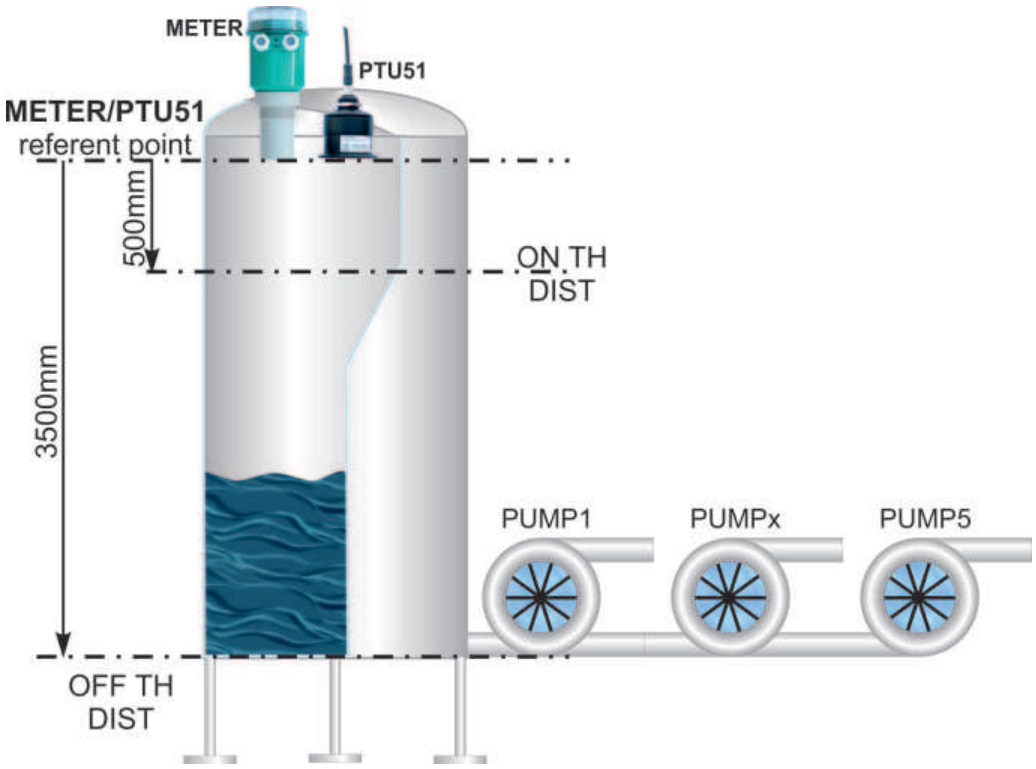
Field Bus	
1	MODBUS RTU
9	Special

Accessories	
A	None
S	MODBUS RTU communication protocol (010F111A)
U	1GB USB Pen Drive for datalogger





Std. SGM LEKTRA Venturi channel
Custom SGM LEKTRA Venturi channel
Kafagi Venturi channel



Ultrasonic

SWING

Level, open channels flow and pumps control unit

Directly connectable to PTU/SMART ultrasonic sensors
Matrix 58 x 31mm backlighted LCD display
5 calibrating push-buttons
IP66 mechanical protection; temperature range : -20 ÷ +60°C

Version	
2	For connection up to 2 PTU/SMART family sensors
3	For very low-power consumption self-switch-off 1 sensor connection
9	Special

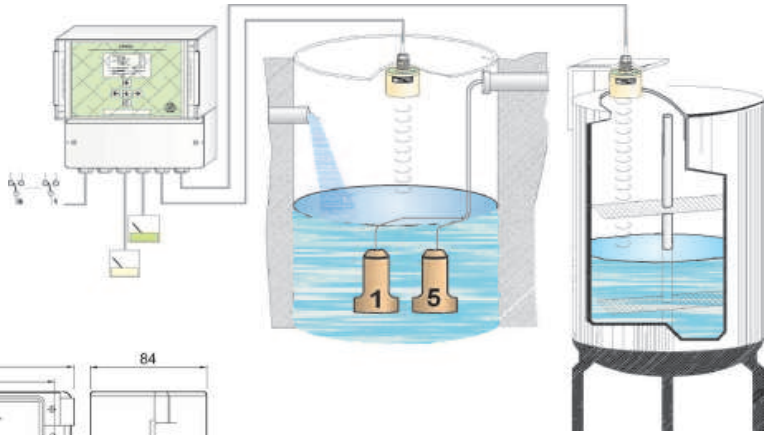
Relay	
A	None
C	5 Relays with change over contact (SPDT)

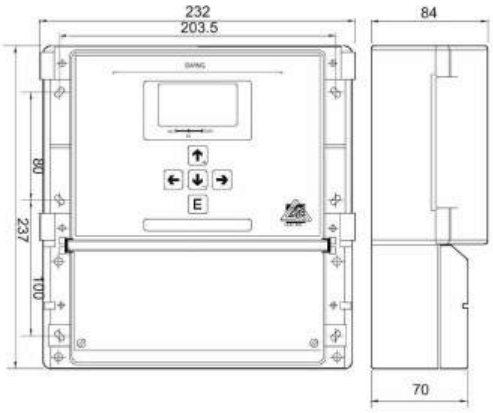
Power supply	
0	115Vac 50÷60Hz
1	230Vac 50÷60Hz
2	24Vac 50÷60Hz
4	24Vdc

Output	
A	None
B	n.1 4÷20mA
C	n.2 4÷20mA

Field Bus	
0	None
1	RS485 (SWING "Pump Control" not available in this version)
9	Special

Accessories	
A	None
S	RS485 communication software (010D038A)





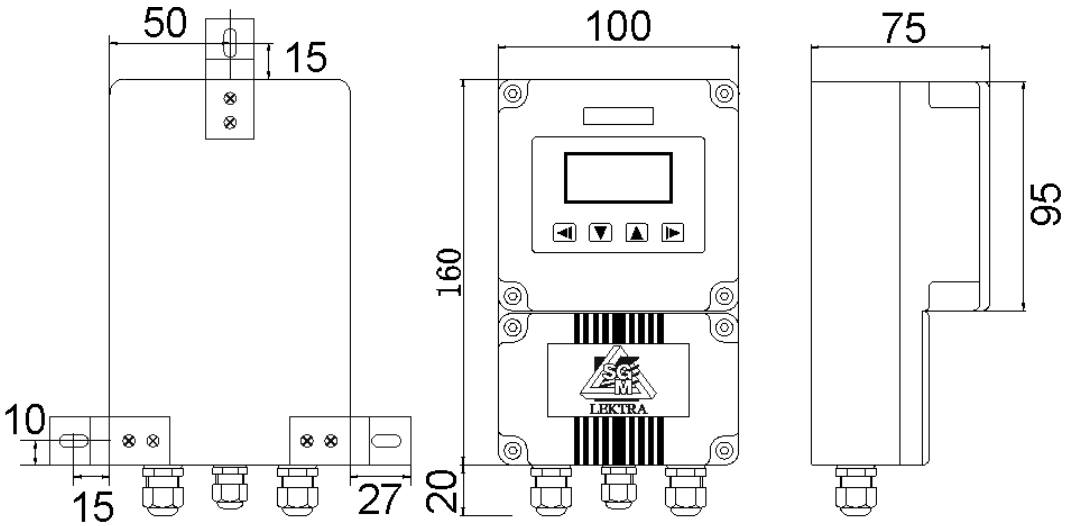
VLW601 Display unit

IP67 protection
Suitable for 4- wire METER, FLOWMETER and PTU51/56 transmitters

Version	
A	Standard
Z	Special

Power supply	
0	24Vac 50÷60Hz
1	115Vac 50÷60Hz
2	230Vac 50÷60Hz
4	24Vdc
9	Special

Accessories	
A	None
L	MC601, module for connection to 4 wires METER and FLOWMETER transmitters
Z	Special



Ultrasonic

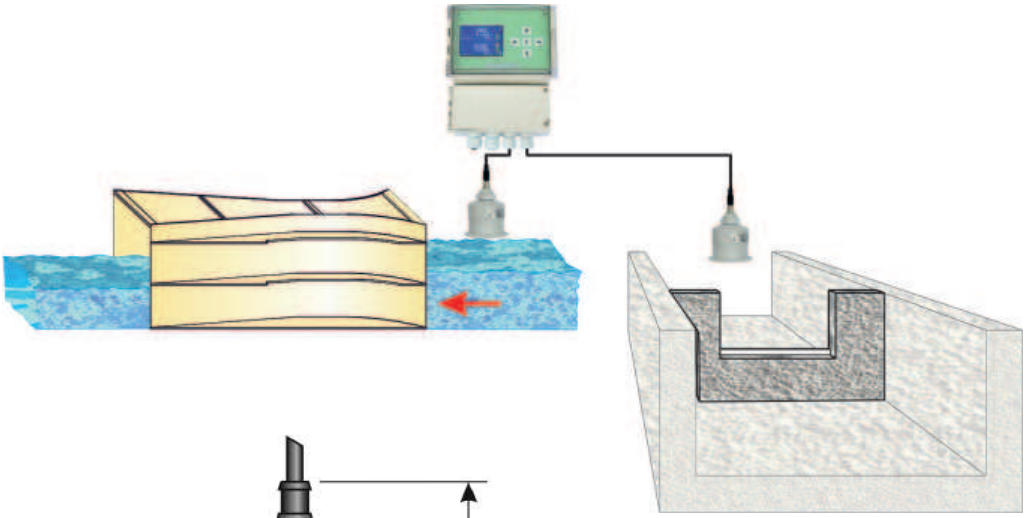
PTU51 Level transmitter

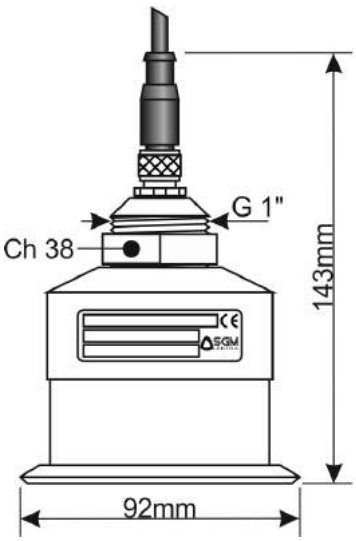
Ultrasonic - for measurement in liquids, muds and acids;
Range: 0,3 ÷ 6m; IP68 proof
Housing in polypropylene (PP)
Calibration via MODBUS or by VLW601 module
Power supply 24Vdc
Temperature range -25 ÷ +75°C

Version	
C	Designed to be connected to VLW90M or Swing unit + male connector
D	4÷20mA + MODBUS output transmitter + male connector
Z	Special

Process connection / Sensor material	
0	G 1" A / PP + n.1 1" BSP/ PP fixing bolt
1	DN100 PN6 UNI 1092-1 / PP flange
9	Special

Optional (opt.)	
A	None
F	MODBUS PC communication S/W
T	IP68 female connector with 5m linking cable
U	IP68 female connector with 10m linking cable
V	IP68 female connector with 15m linking cable
W	IP68 female connector with 20m linking cable
Z	Special





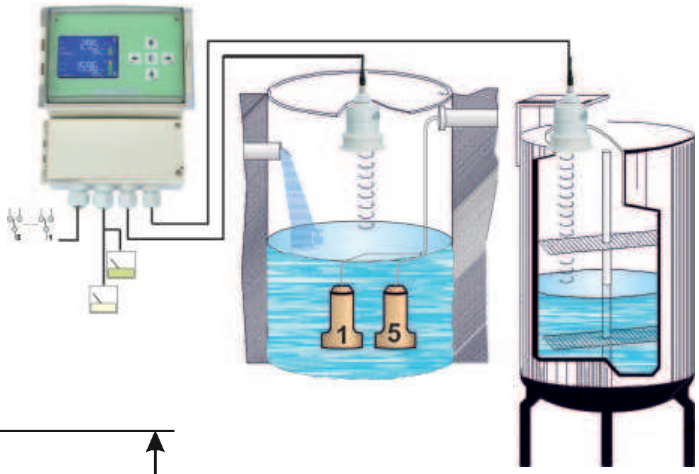
PTU56 Level transmitter

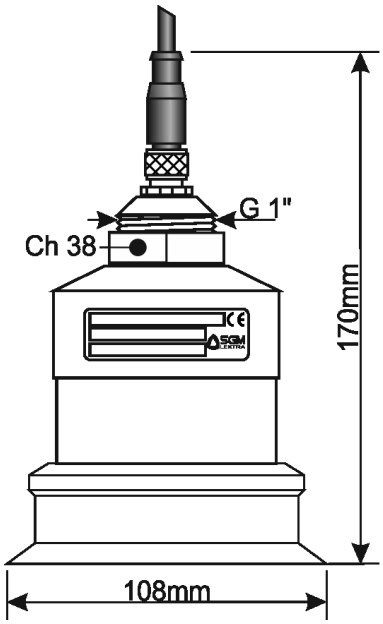
Ultrasonic - for measurement in liquids, muds and acids
Range: 0,5 ÷ 12m; IP68 proof
Housing in polypropylene (PP)
Calibration via MODBUS or by VLW601 module
Power supply 24Vdc
Temperature range -25 ÷ +75°C

Version	
C	Designed to be connected to VLW90M or Swing unit + male connector
D	4÷20mA + MODBUS output transmitter + male connector
Z	Special

Process connection / Sensor material	
0	G 1" A / PP + n.1 1" BSP fixing bolt/ PP
1	DN100 PN6 UNI 1092-1 flange / PP
9	Special

Optional (opt.)	
A	None
F	MODBUS PC communication S/W
T	5m linking cable for IP68 connection
U	10m linking cable for IP68 connection
V	15m linking cable for IP68 connection
W	20m linking cable for IP68 connection
Z	Special





Ultrasonic

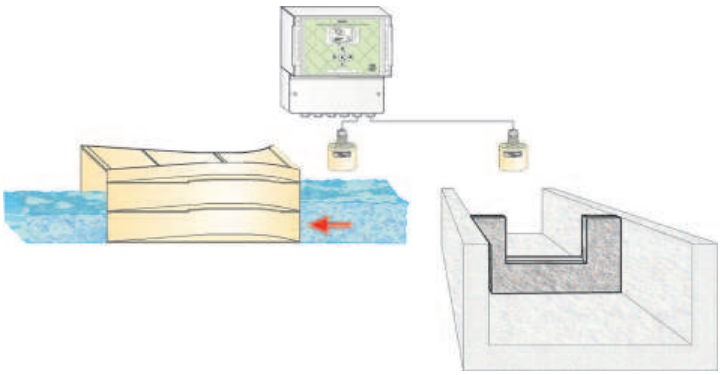
PTU05 Level transmitter

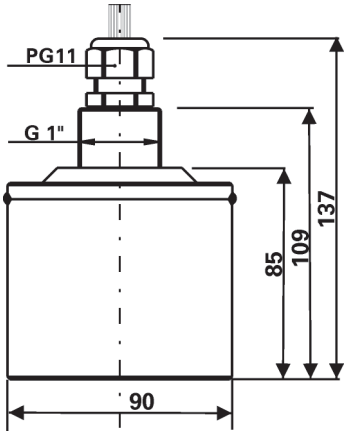
Ultrasonic - for measurement in liquids, muds and acids; range 0,3 ÷ 5m
Calibration by 2 remote push-buttons or via RS485 by PC
PP enclosure; IP68 proof; power supply 24Vdc
Temperature range -25 ÷ +75°C

Version	
A	Designed to be connected to Swing unit (RS485) with 3m linking cable
B	4÷20mA + RS485 output transmitter with 3m linking cable
C	Designed to be connected to Swing unit (RS485) + IP67 male connector
D	4÷20mA + RS485 output transmitter + IP67 male connector
Z	Special

Process connection	
0	G 1" A / PP + n.1 1" BSP/ PP fixing bolt
1	DN100 PN6 UNI 1092-1 / PP flange
9	Special

Optional (opt.)	
A	None
E	IP66 Junction-box for remote calibration (programming push buttons built-in)
F	PC communication S/W (010D034A)
O	IP67 female connector with 5m linking cable; for C and D version connection
P	IP67 female connector with 10m linking cable ; for C and D version connection
R	IP67 female connector with 15m linking cable ; for C and D version connection
S	IP67 female connector with 20m linking cable ; for C and D version connection
Z	Special





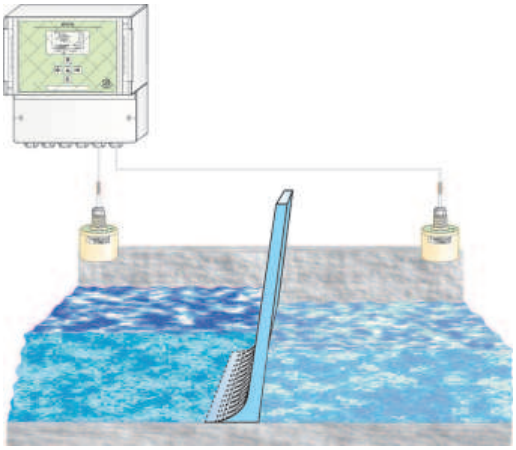
PTU10 Level transmitter

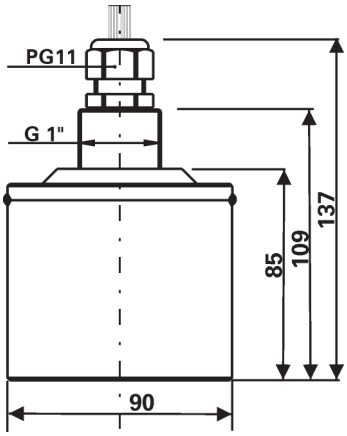
Ultrasonic - for measurement in liquids, muds and acids; range 0,4 ÷ 8m
Calibration by 2 remote push-buttons or via RS485 by PC
PP enclosure; IP68 proof; power supply 24Vdc
Temperature range -25 ÷ +75°C

Version	
A	Designed to be connected to Swing unit (RS485) with 3m linking cable
B	4÷20mA + RS485 output transmitter with 3m linking cable
C	Designed to be connected to Swing unit (RS485) + IP67 male connector
D	4÷20mA + RS485 output transmitter + IP67 male connector
Z	Special

Process connection	
0	G 1" A / PP + n.1 1" BSP/ PP fixing bolt
1	DN100 PN6 UNI1092-1 / PP flange
9	Special

Optional (opt.)	
A	None
E	IP66 Junction-box for remote calibration (programmation push buttons built-in)
F	PC communication S/W (010D034A)
O	IP67 female connector with 5m linking cable; for C and D version connection
P	IP67 female connector with 10m linking cable; for C and D version connection
R	IP67 female connector with 15m linking cable; for C and D version connection
S	IP67 female connector with 20m linking cable ; for C and D version connection
Z	Special





Radar

RPL51 Radar level transmitter

Micro-waves pulse group C
For liquids measurement also with strong erosive products
Max. distance: 30m
Accuracy: ±10mm
Process pressure: -1,0÷3bar
Conic antenna length: 270mm

Version	
I	Intrinsically safe CENELEC EExia IIC T6
P	Standard

Antenna shape / Material / Process temperature	
A	Mono-pole / PP / -20 ÷ +100°C
B	Mono-pole / PTFE / -40 ÷ +120°C

Antenna extension (blind zone H)	
A	68mm (standard)
B	118mm
C	168mm
D	218mm
E	268mm
F	318mm
Z	Special

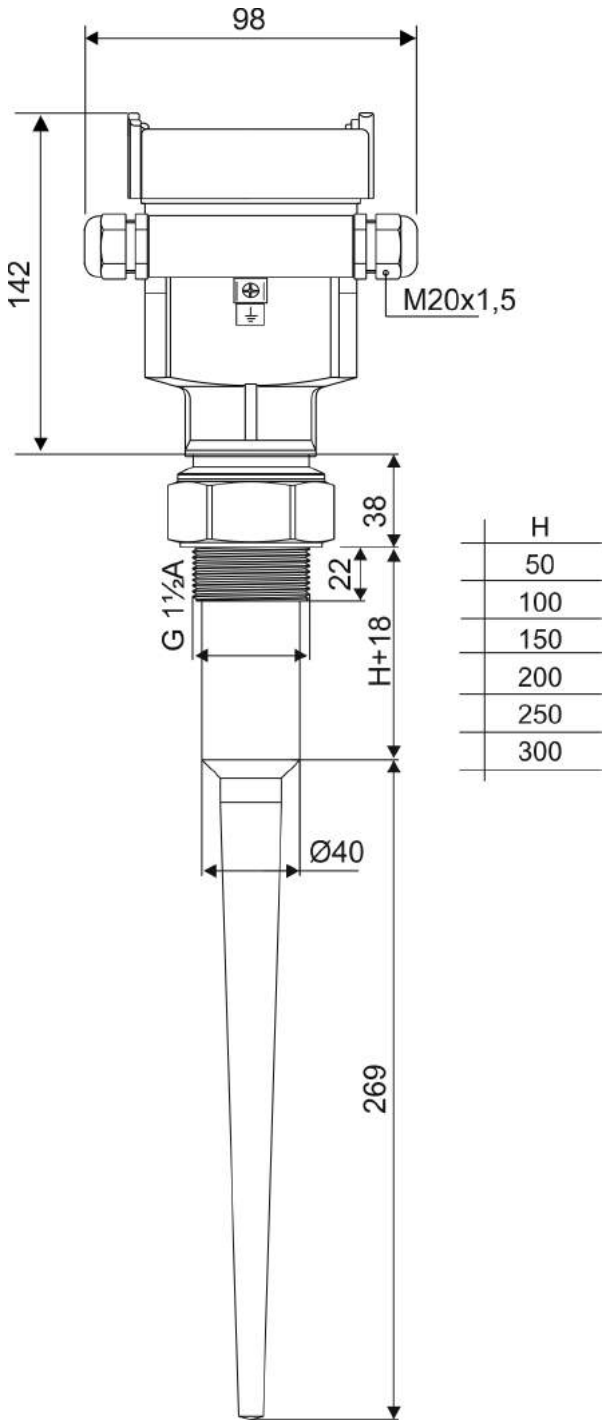
Process connection / Material	
GP	Thread G1" ½ A / PVDF (PN3)
ZZ	Special

Electronic preamplifier	
B	4÷20mA HART (2-wire); 24Vdc
C	4÷20mA HART(4-wire); 24Vdc
D	4÷20mA HART(4-wire); 230Vac

Housing / Housing protection / Antenna protection	
D	Aluminum 2 chambers (for 4-wire versions) / IP67 / IP67
U	Aluminum with transparent cap / IP67 / IP67
Z	Special

Cable entry	
M	M20x1,5

Keyboard/display programming module VL602	
A	Yes
X	No



H
50
100
150
200
250
300

HART®
FIELD COMMUNICATION PROTOCOL

Radar

RPL52 Radar level transmitter

Micro-waves pulse group C
For liquids measurement also with strong erosive products
Max. distance: 30m
Accuracy: ±10mm
Process pressure: -1,0÷16bar
Conic antenna extension: 270mm

Version	
I	Intrinsically safe CENELEC EExia IIC T6
P	Standard

Antenna shape / Material / Process temperature	
B	Mono-pole / PTFE / -40 ÷ +150°C

Antenna extension (blind zone H)	
A	68mm
B	118mm
C	168mm
D	218mm
E	268mm
F	318mm
Z	Special

Process connection / Material	
FC	PTFE protected flange DN50 PN16 / SS316L
FD	PTFE protected flange DN80 PN16 / SS316L
FE	PTFE protected flange DN100 PN16 / SS316L
FK	PTFE protected flange DN150 PN16 / SS316L
ZZ	Special

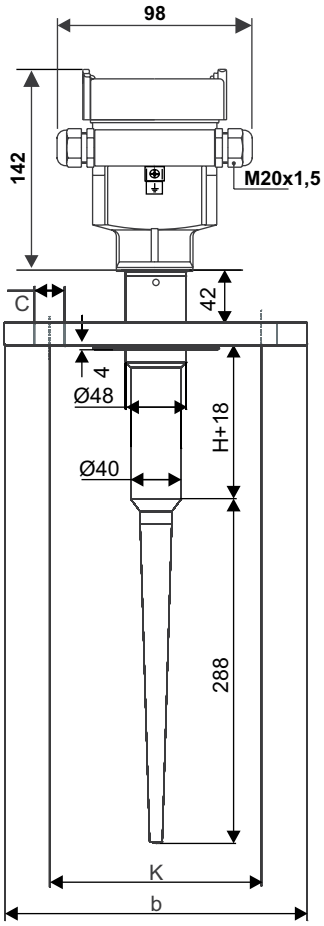
Electronic preamplifier	
B	4÷20mA HART (2-wire); 24Vdc
C	4÷20mA HART (4-wire); 24Vdc
D	4÷20mA HART (4-wire); 230Vac

Housing / Housing protection / Antenna protection	
D	Aluminum 2 chambers (for 4-wire versions) / IP67 / IP67
U	Aluminum with transparent cap / IP67 / IP67
Z	Special

Cable entry	
M	M20x1,5

Keyboard/display programming module VL602	
A	Yes
X	No

HART® FIELD COMMUNICATION PROTOCOL



H
50
100
150
200
250
300

	K	b	C
DN50	Ø125	Ø165	Ø16x4
DN80	Ø160	Ø200	Ø16x8
DN100	Ø180	Ø220	Ø16x8
DN150	Ø240	Ø285	Ø20x8

Radar

RPL55 Radar level transmitter

Micro-waves pulse 26GHz group K
For liquids measurement also with strong erosive products
Max distance: 10m
Accuracy: ±5mm
Process pressure: -1÷3bar

Version	
I	Intrinsically safe CENELEC EExia IIC T6
P	Standard

Antenna shape / Material / Process temperature	
B	Mono-pole / PTFE / -40° ÷ +130°C

Process connection / Material	
GP	Thread G 1"½ / PTFE
ZZ	Special

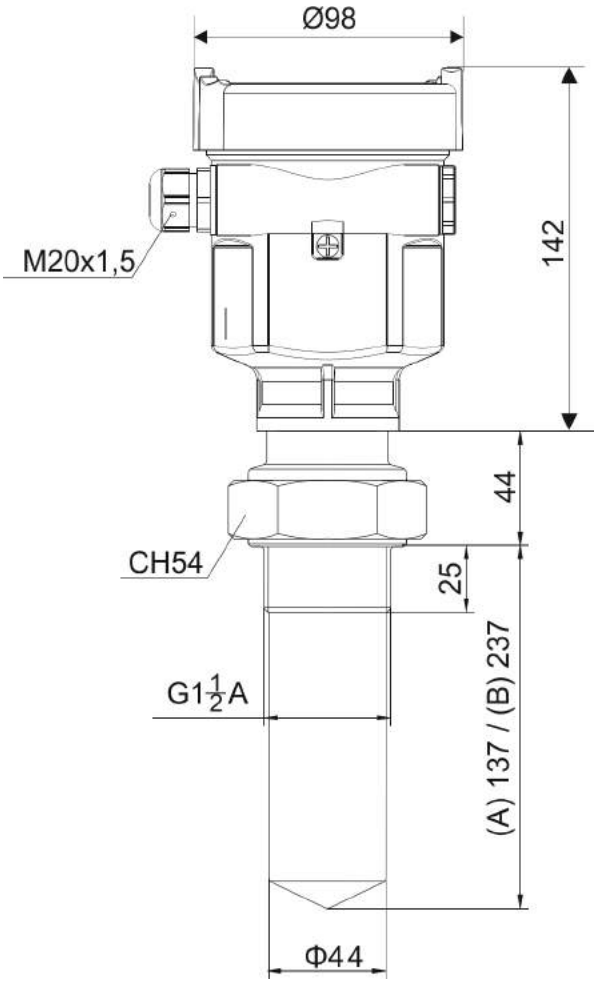
Non sensitive part (for nozzle mounting)	
A	100 mm
B	200 mm

Electronic preamplifier	
B	4÷20mA HART (2-wire); 24Vdc
C	4÷20mA HART (4-wire); 24Vdc
D	4÷20mA HART (4-wire); 230Vac

Housing / Housing protection / Antenna protection	
D	Aluminum 2 chambers (for 4-wire versions) / IP67 / IP67
U	Aluminum with transparent cap / IP67 / IP67
Z	Special

Cable entry	
M	M20x1,5

Keyboard/display programming module VL602	
A	Yes
X	No


Ø98
142
M20x1,5
44
CH54
25
G1 1/2 A
(A) 137 / (B) 237
Φ44

Radar

RPL56 Radar level transmitter

Micro-waves pulse 26GHz group K
For liquid storage or process applications
Max distance: 30m
Accuracy: ±3mm
Process pressure: -1÷40bar

Version	
I	Intrinsically safe CENELEC EExia IIC T6
P	Standard

Antenna shape / Material	
B	Horn antenna Ø48mm / SS316L
C	Horn antenna Ø78mm / SS316L
H	Horn antenna Ø98mm / SS316L
K	Horn antenna Ø98mm / PP with PTFE cap

Process connection / Material	
GC	Thread G 1" ½ with cooling fin / SS316L (-60 ÷ +250°C)
GD	Thread G 1" ½ with cooling fin and flange / SS316L (-60 ÷ +400°C); pressure 40MPa
GE	Thread G 1" ½ / SS316L with blowing in connection (-40° ÷ +130°C)
GP	Thread G 1" ½ / SS316L (-40° ÷ +130°C)
ZZ	Special

Additional flange (DN / Material)	
FA	DN50 / PP
FB	DN50 / PTFE
FC	DN50 /SS316
GA	DN80 / PP
GB	DN80 / PTFE
GC	DN80 / SS316
HA	DN100 / PP
HB	DN100 / PTFE
HC	DN100/ SS316
OO	None
ZZ	Special

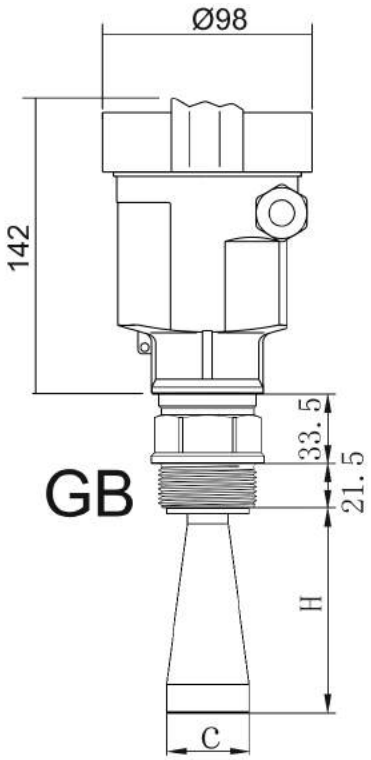
Seal / Process temperature	
2	Viton / -40÷130°C
3	Kalrez / -60÷250°C
4	Graphite / -60÷400°C

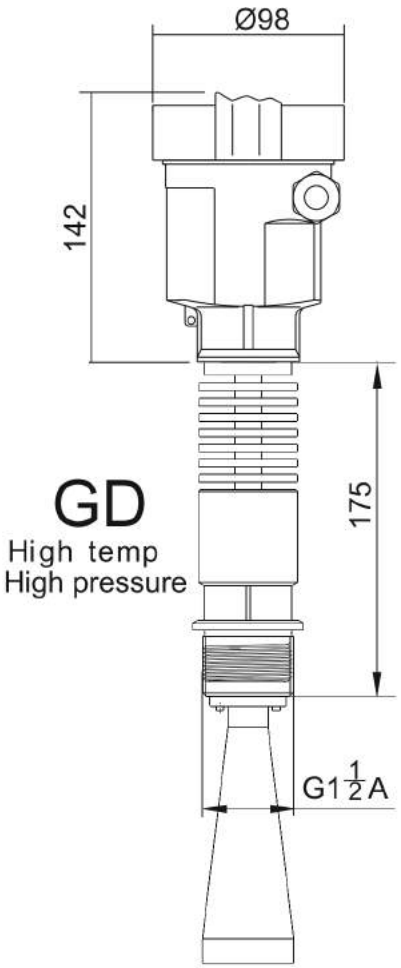
Electronic preamplifier	
B	4÷20mA HART (2-wire); 24Vdc
C	4÷20mA HART (4-wire); 24Vdc
D	4÷20mA HART (4-wire); 230Vac

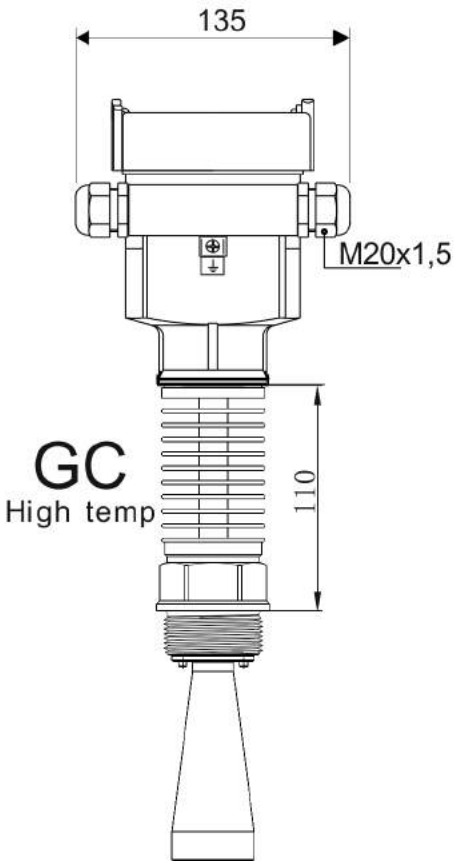
Housing / Housing protection / Antenna protection	
D	Aluminum 2 chambers (for 4-wire versions) / IP67 / IP67
U	Aluminum with transparent cap / IP67 / IP67
Z	Special

Cable entry	
M	M20x1,5

Keyboard/display programming module VL602	
A	Yes
X	No







c	H 316L
(B) Φ 48	140
(C) Φ 78	227
(H) Φ 98	288
(K) Φ 98 + Cap	300

Radar

RPL57 Radar level transmitter

Micro-waves pulse 26GHz group K
For highly corrosive liquid storage or process applications
Max distance: 20m
Accuracy: ±3mm
Temperature: -40÷150°C
Process pressure: -1÷5bar

Version	
I	Intrinsically safe CENELEC EExia IIC T6
P	Standard

Antenna shape / Material / Process connection	
B	(U Type) SS316L / DN50 PTFE flange
C	(U Type) SS316L / DN80 PTFE flange
D	(U Type) SS316L / DN100 PTFE flange
Z	Special

Electronic preamplifier	
B	4÷20mA HART (2-wire); 24Vdc
C	4÷20mA HART (4-wire); 24Vdc
D	4÷20mA HART (4-wire); 230Vac

Housing / Housing protection / Antenna protection	
D	Aluminum 2 chambers (for 4-wire versions) / IP67 / IP67
U	Aluminum with transparent cap / IP67 / IP67
Z	Special

Cable entry	
M	M20x1,5

Keyboard/display programming module VL602	
A	Yes
X	No

	a	b	c
DN50 PN16	Φ 165	Φ125	Φ99
DN80 PN16	Φ200	Φ160	Φ132
DN100 PN16	Φ220	Φ180	Φ156

RPL58 Radar level transmitter

Micro-waves pulse 26GHz group K
For bulk solids and powders storage or process applications
Max distance: 70m
Accuracy: ±15mm
Process pressure: -1÷40bar

Version	
I	Intrinsically safe CENELEC EExia IIC T6
P	Standard

Antenna shape / Material	
B	Horn antenna Ø48mm / SS316L
C	Horn antenna Ø78mm / SS316L
H	Horn antenna Ø98mm / SS316L
J	Horn antenna Ø123mm / SST316L
K	Horn antenna Ø98mm / PP with PTFE cap
M	Horn antenna Ø98mm / SST316L with PTFE cap
P	Horn antenna Ø123mm / SST316L with PTFE cap
Q	Parablic horn Ø198mm / SST316L
R	Parablic horn Ø246mm / SST316L

Process connection / Material	
GC	Thread G 1" ½ with cooling fin / SS316L (-60°÷ +250°C)
GE	Thread G 1" ½ / SS316L with blowing in connection (-40°÷ +130°C)
GP	Thread G 1" ½ / SS316L (-40°÷ +130°C)
ZZ	Special

Additional flange (DN / Material)	
FA	DN50 / PP
FB	DN50 / PTFE
FC	DN50 / SS316
GA	DN80 / PP
GB	DN80 / PTFE
GC	DN80 / SS316
HA	DN100 / PP
HB	DN100 / PTFE
HC	DN100 / SS316
HE	Aiming device DN100 / SS316
JA	DN150 / PP
JB	DN150 / PTFE
JC	DN150 / SS316
JE	Aiming device DN150 / SS316
KA	DN200 / PP
KB	DN200 / PTFE
KC	DN200 / SS316
KE	Aiming device DN200 / SS316
LA	DN250 / PP
LB	DN250 / PTFE
LC	DN250 / SS316
LE	Aiming device DN250 / SS316
OO	None
ZZ	Special

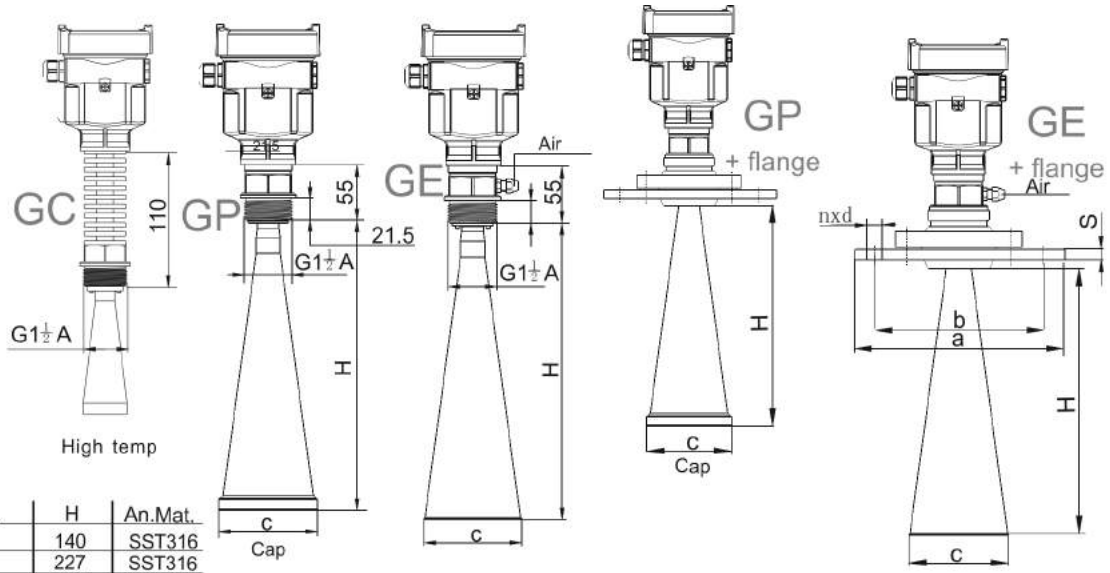
Seal / Process temperature	
2	Viton / -40÷130°C
3	Kalrez / -60÷250°C

Electronic preamplifier	
B	4÷20mA HART (2-wire); 24Vdc
C	4÷20mA HART (4wire); 24Vdc
D	4÷20mA HART (4-wire); 230Vac

Housing / Housing protection / Antenna protection	
D	Aluminum 2 chambers (for 4-wire versions) / IP67 / IP67
U	Aluminum with transparent cap / IP67 / IP67
Z	Special

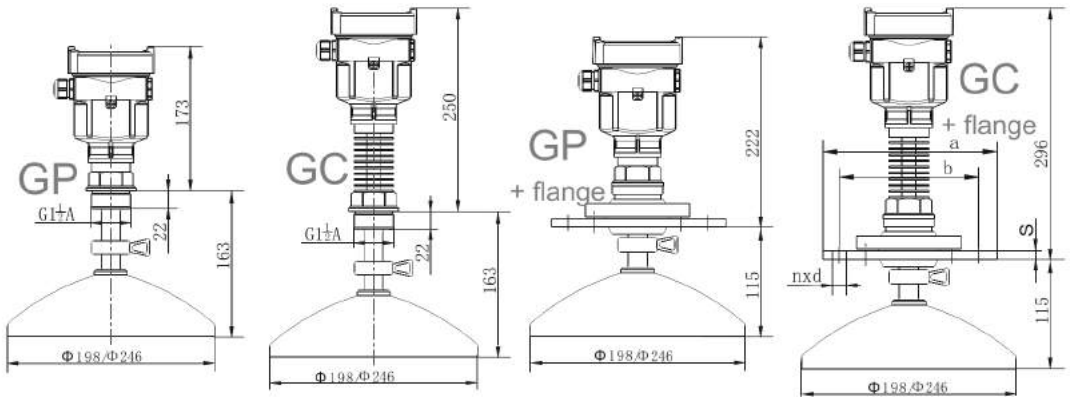
Cable entry	
M	M20x1,5

Keyboard/display programming module VL602	
A	Yes
X	No



(Cod.)ΦAnt.	H	An.Mat.
(B) Φ48	140	SST316
(C) Φ78	227	SST316
(H) Φ98	288	SST316
(J) Φ123	620	SST316
(K) Φ98 + Cap	280	PP
(M)Φ98 + Cap	300	SST316
(P) Φ123 + Cap	625	SST316

Flange	a	b	S	d
DN 50/2"	165mm	125mm	11.5mm	4xΦ18mm
DN 80/3"	200mm	160mm	11.5mm	4xΦ18mm
DN 100/4"	220mm	180mm	11.5mm	8xΦ18mm
DN 125/5"	250mm	210mm	11.5mm	8xΦ18mm
DN 150/6"	285mm	240mm	11.5mm	8xΦ22mm
DN 200/8"	340mm	295mm	11.5mm	12xΦ22mm
DN 250/10"	405mm	355mm	11.5mm	12xΦ26mm



RPL59 Radar level transmitter

Micro-waves pulse 26GHz group K
For bulk solids and powders storage or process applications
Max distance: 15m
Accuracy: ±10mm
Process pressure: -1÷40bar

Version	
I	Intrinsically safe CENELEC EExia IIC T6
P	Standard

Antenna shape / Material	
B	Horn antenna Ø48mm / SS316L
C	Horn antenna Ø78mm / SS316L
H	Horn antenna Ø98mm / SS316L
J	Horn antenna Ø123mm / SST316L
K	Horn antenna Ø98mm / PP with PTFE cap
M	Horn antenna Ø98mm / SST316L with PTFE cap
P	Horn antenna Ø123mm / SST316L with PTFE cap
Q	Parablic horn Ø198mm / SST316L
R	Parablic horn Ø246mm / SST316L

Process connection / Material	
GC	Thread G 1" ½ with cooling fin / SS316L (-60° ÷ +250°C)
GE	Thread G 1" ½ / SS316L with blowing in connection (-40° ÷ +130°C)
GP	Thread G 1" ½ / SS316L (-40° ÷ +130°C)
ZZ	Special

Additional flange (DN / Material)	
FA	DN50 / PP
FB	DN50 / PTFE
FC	DN50 / SS316
GA	DN80 / PP
GB	DN80 / PTFE
GC	DN80 / SS316
HA	DN100 / PP
HB	DN100 / PTFE
HC	DN100 / SS316
HE	Aiming device DN100 / SS316
JA	DN150 / PP
JB	DN150 / PTFE
JC	DN150 / SS316
JE	Aiming device DN150 / SS316
KA	DN200 / PP
KB	DN200 / PTFE
KC	DN200 / SS316
KE	Aiming device DN200 / SS316
LA	DN250 / PP
LB	DN250 / PTFE
LC	DN250 / SS316
LE	Aiming device DN250 / SS316
OO	None
ZZ	Special

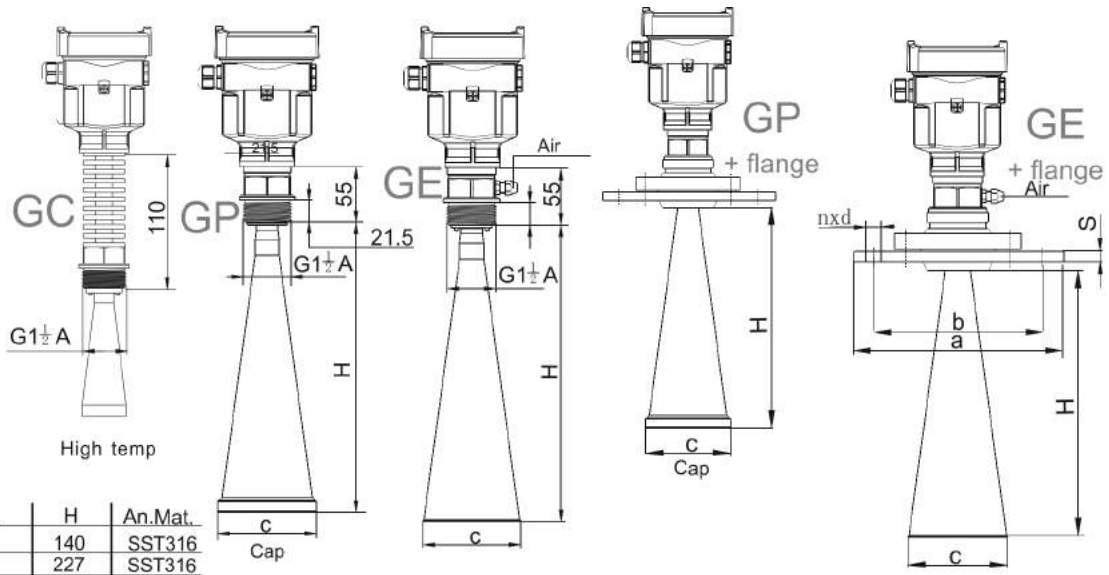
Seal / Process temperature	
2	Viton / -40÷130°C
3	Kalrez / -60÷250°C

Electronic preamplifier	
B	4÷20mA HART (2-wire); 24Vdc
C	4÷20mA HART (4wire); 24Vdc
D	4÷20mA HART (4-wire); 230Vac

Housing / Housing protection / Antenna protection	
D	Aluminum 2 chambers (for 4-wire versions) / IP67 / IP67
U	Aluminum with transparent cap / IP67 / IP67
Z	Special

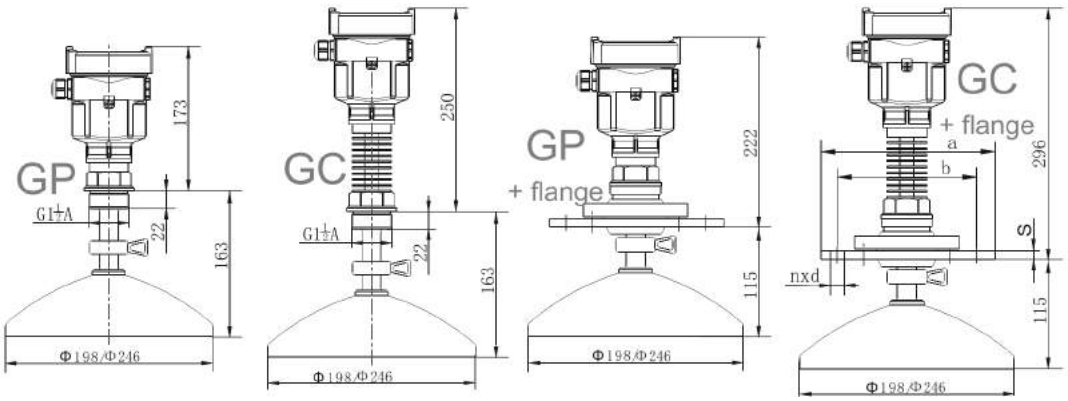
Cable entry	
M	M20x1,5

Keyboard/display programming module VL602	
A	Yes
X	No



(Cod.)ΦAnt.	H	An.Mat.
(B) Φ48	140	SST316
(C) Φ78	227	SST316
(H) Φ98	288	SST316
(J) Φ123	620	SST316
(K) Φ98 + Cap	280	PP
(M)Φ98 + Cap	300	SST316
(P) Φ123 + Cap	625	SST316

Flange	a	b	S	d
DN 50/2"	165mm	125mm	11.5mm	4xΦ18mm
DN 80/3"	200mm	160mm	11.5mm	4xΦ18mm
DN 100/4"	220mm	180mm	11.5mm	8xΦ18mm
DN 125/5"	250mm	210mm	11.5mm	8xΦ18mm
DN 150/6"	285mm	240mm	11.5mm	8xΦ22mm
DN 200/8"	340mm	295mm	11.5mm	12xΦ22mm
DN 250/10"	405mm	355mm	11.5mm	12xΦ26mm



RWL51 Guided microwave radar level transmitter

Microwaves pulse TDR
For liquids and bulk solids measurement
Max. length: rod 3m , rope 30m (Ø4mm or Ø6mm according to the application)
Accuracy: ±10mm
Process pressure: -1÷40 bar

Version	
I	Intrinsically safe CENELEC EExia IIC T6
P	Standard

Antenna shape / Material / Sealing	
A	Rope Ø4mm (up to 5m) or Rope Ø 6mm (over 5m) / SS316L / PTFE
B	Rod Ø10mm / SS316L / PTFE
X	None

Process connection / Material	
GP	Thread G1 ½" A / SS316L
KP	Thread G2" A / SS316L
ZZ	Special

Seal / Process temperature	
A	Viton / -30÷130°C
B	Kalrez / -40÷150°C

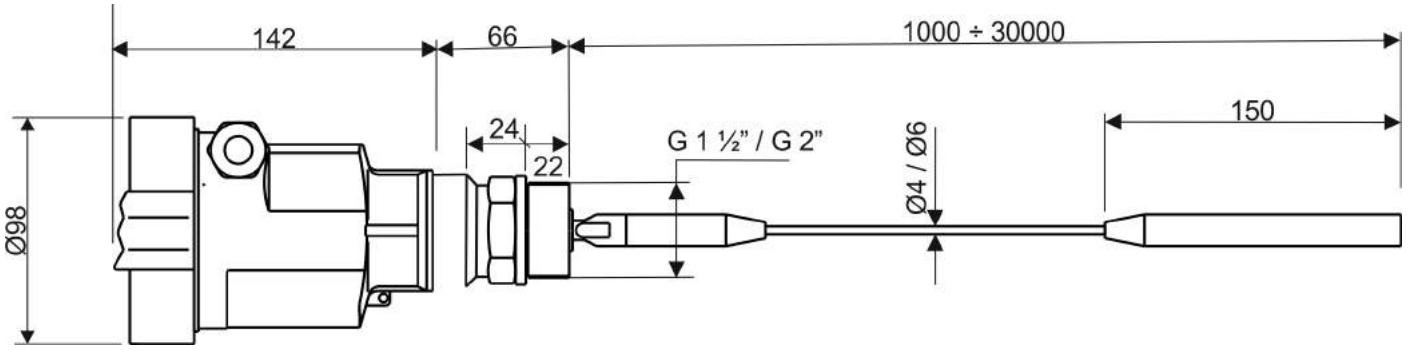
Electronic preamplifier	
B	4÷20mA HART (2-wire); 24Vdc
C	4÷20mA HART (4wire); 24Vdc
D	4÷20mA HART (4wire); 230Vac

Housing / Protection	
D	Aluminum 2 chambers (for 4-wire versions) / IP67
U	Aluminum with transparent cap / IP67
Z	Special

Cable entry	
M	M20x1,5

Keyboard/display programming module VL602	
A	Yes
X	No

L= length, price each 100mm	
A	Rope Ø4/6mm / SS316L (max 30m)
B	Rod Ø10mm / SS316L (max 3m)
C	Rod Ø10mm / SS304 (max 3m)



RWL52 Guided microwave radar level transmitter

Microwaves pulse TDR
For liquids and bulk solids measurement
Max. length: 3m
Accuracy: ±10mm
Process pressure: -1÷16bar

Version	
I	Intrinsically safe CENELEC EExia IIC T6
P	Standard

Antenna shape / Material / Sealing	
A	Rod Ø10mm / SS316L / PTFE

Process connection / Material	
FA	Flange DN50 PN16 / SS316L (GB/T9119-2000)
FB	Flange DN80 PN16 / SS316L (GB/T9119-2000)
FC	Flange DN100 PN16 / SS316L (GB/T9119-2000)
FD	Flange DN150 PN16 / SS316L (GB/T9119-2000)
ZZ	Special

Seal / Process temperature	
A	Viton / -40÷150°C

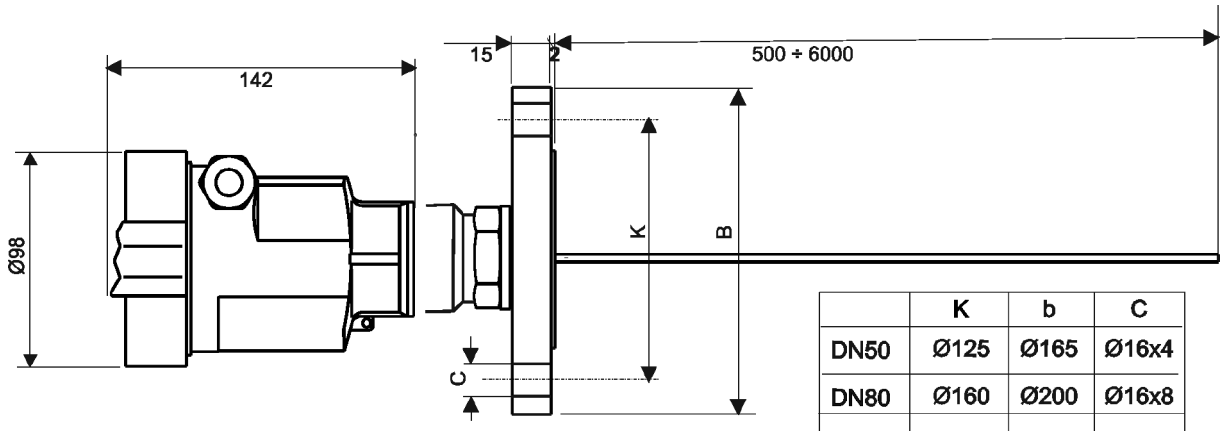
Electronic preamplifier	
B	4÷20mA HART (2-wire); 24Vdc
C	4÷20mA HART (4wire); 24Vdc
D	4÷20mA HART (4-wire); 230Vac

Housing / Protection	
D	Aluminum with 2 chambers (for 4-wire versions) / IP67
U	Aluminum with transparent cap / IP67
Z	Special

Cable entry	
M	M20x1,5

Keyboard/display programming module VL602	
A	Yes
X	No

L= length, price each 100mm	
A	Rod Ø10mm / SS316L (max 3m)



	K	b	C
DN50	Ø125	Ø165	Ø16x4
DN80	Ø160	Ø200	Ø16x8
DN100	Ø180	Ø220	Ø16x8
DN150	Ø240	Ø285	Ø20x8

RWL53 Guided microwave radar level transmitter

Microwaves pulse TDR
For small dielectric constant liquids (oils, distilled water, others)
Max. length: 3m
Accuracy: ±10mm
Process pressure: -1÷40bar

Version	
I	Intrinsically safe CENELEC EExia IIC T6
P	Standard

Antenna shape / Material / Sealing	
A	Coaxial Ø28mm / SS316L / PTFE

Process connection / Material	
GP	Thread G1" ½ A / SS316L
KP	Thread G2" A / SS316L
ZZ	Special

Seal / Process temperature	
A	Viton / -30÷130°C
B	Kalrez / -40÷150°C

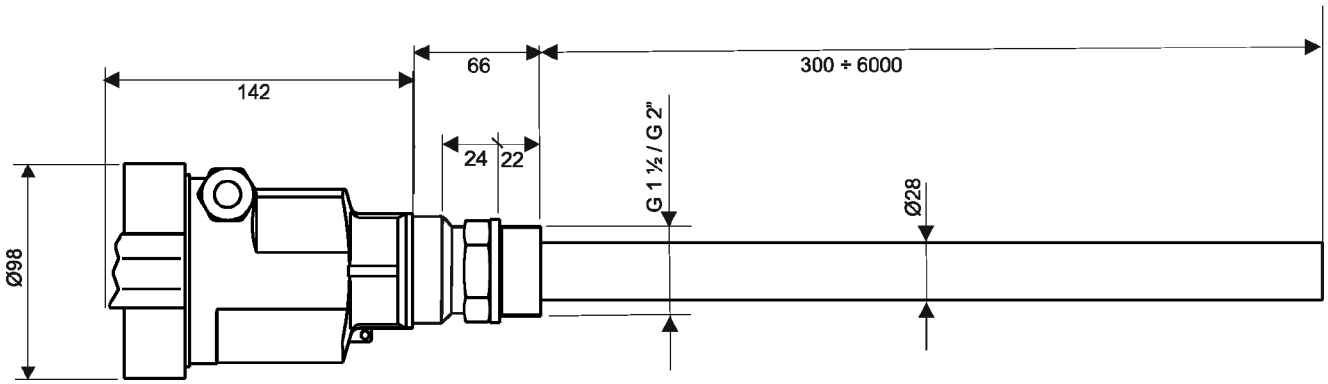
Electronic preamplifier	
B	4÷20mA HART (2-wire); 24Vdc
C	4÷20mA HART (4wire); 24Vdc
D	4÷20mA HART (4-wire); 230Vac

Housing / Protection	
D	Aluminum with 2 chambers (for 4-wire versions) / IP67
U	Aluminum with transparent cap / IP67
Z	Special

Cable entry	
M	M20x1,5

Keyboard/display programming module VL602	
A	Yes
X	No

L= length, price each 100mm	
A	Coaxial Ø28mm / SS316L (max 3m)



RWL54 Guided microwave radar level transmitter

Microwaves pulse TDR
For liquids with high process temperature/pressure
Max. length: 3m rod - 30m rope
Accuracy: ±10mm
Process pressure: -1÷40bar
Process temperature: -40° ÷ +200°C

Version	
I	Intrinsically safe CENELEC EExia IIC T6
P	Standard

Antenna shape / Material / Sealing	
A	Rope Ø4mm (up to 5m) or Rope Ø 6mm (over 5m) / SS316L / PTFE
B	Rod Ø10mm / SS316L / PTFE

Process connection / Material	
GP	Thread G1" ½ A / SS316L
KP	Thread G2" A/ SS316L
ZZ	Special

Seal	
A	Viton
B	Kalrez

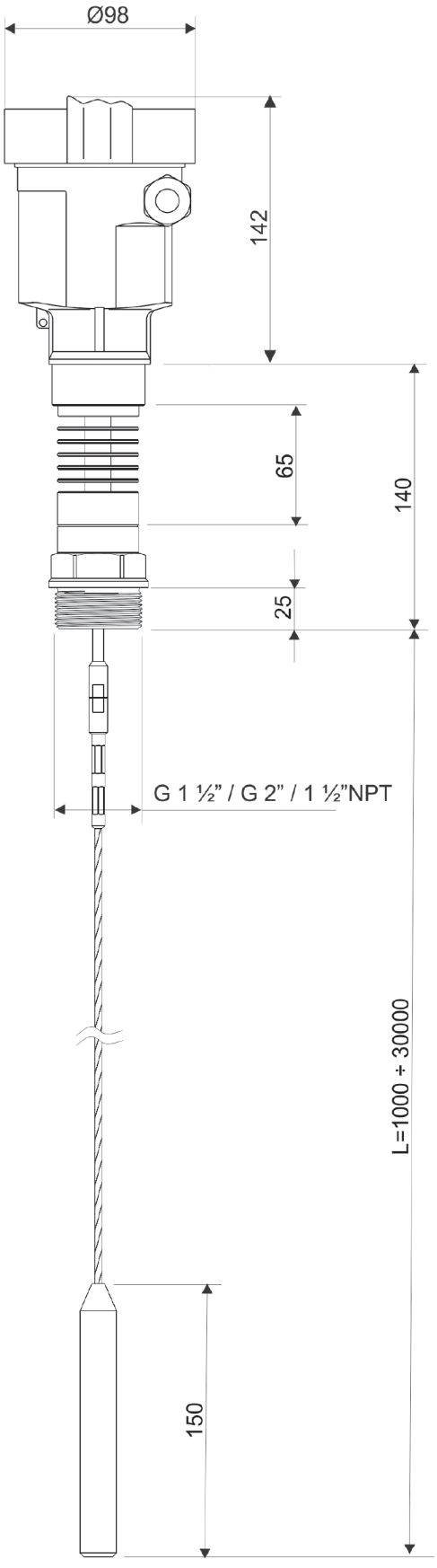
Electronic preamplifier	
B	4÷20mA HART (2-wire); 24Vdc
C	4÷20mA HART (4wire); 24Vdc
D	4÷20mA HART (4-wire); 230Vac

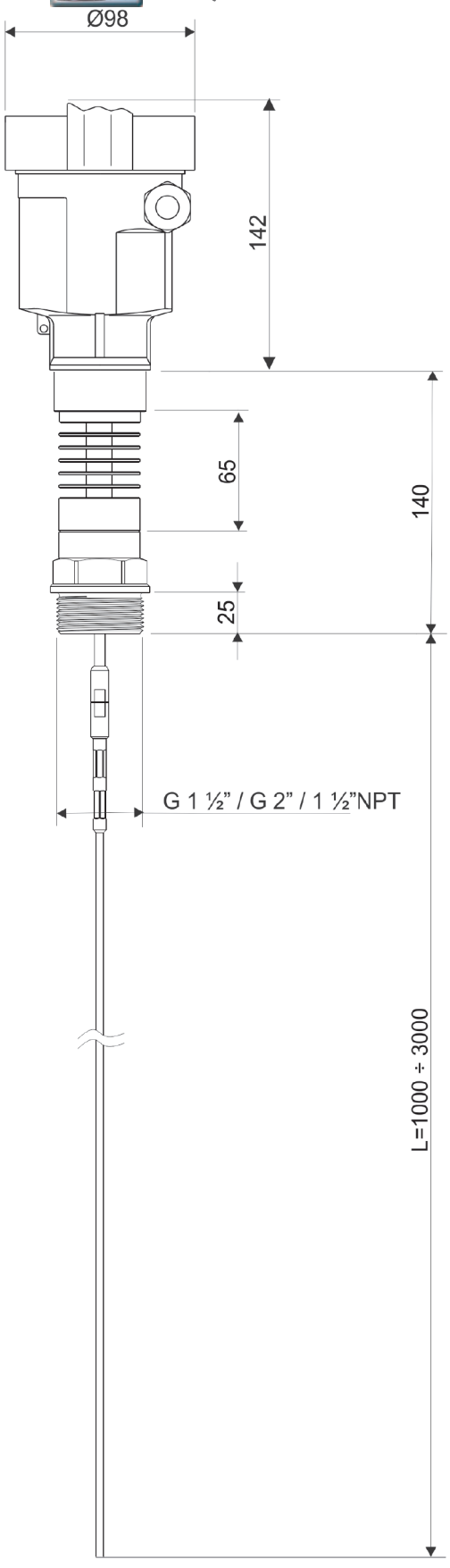
Housing / Protection	
D	Aluminum with 2 chambers (for 4-wire versions) / IP67
U	Aluminum with transparent cap / IP67
Z	Special

Cable entry	
M	M20x1,5

Keyboard/display programming module VL602	
A	Yes
X	No

L= Electrode length, price each 100mm	
A	Rope Ø4/6mm / SS316L (max 30m)
B	Rod Ø10mm / SS316L (max 3m)
C	Rod Ø10mm / SS304 (max 3m)


Ø98
142
65
140
25
G 1 ½" / G 2" / 1 ½"NPT
L=1000 ÷ 30000
150


Ø98
142
65
140
25
G 1 ½" / G 2" / 1 ½"NPT
L=1000 ÷ 3000

Capacitive

CLT4

Capacitive rod probe for liquids and dust

Suitable for level measurement
Installation in the top of metallic tanks; 3m max.

Version	
A	Without insert-preamplifier (only capacitive electrode + head connection)
B	Compact
C	Compact Intrinsic Safe, ATEX II 1 GD EExia II C T4..T6 IP65 T85°C certified (select TC30 insert only)
D	Spacer-cooling-fins compact in carbon-steel
F	Spacer-cooling-fins compact in stainless-steel
H	Separate, IP66 preampl.head + 1,5m coaxcable
L	Spacer-cooling-fins compact in carbon-s., ATEX II 1 GD EExia II C T4..T6 IP65 T85°C cert. (select TC30 insert only)
M	Spacer-cooling-fins compact in S.S., ATEX II 1 GD EExia II C T4..T6 IP65 T85°C cert. (select TC30 insert only)
R	Separate, IP66 preampl.head with Al fixing base + 2m coaxcable
Z	Special

Electronic preamplifier	
00	None
22	TC22, 4÷20mA, 2 push buttons for calibration, 24Vdc
23	TC23, 4÷20mA, 2 push buttons for calibration, 24Vac
24	TC24, 4÷20mA, 2 push buttons for calibration, 115Vac
25	TC25, 4÷20mA, 2 push-buttons calibration, 230Vac
26	TC26, 4÷20mA, 2 push-buttons calibration, 1relay, RS485, 24Vdc
27	TC27, 4÷20mA, 2 push-buttons calibration, 1relay, RS485, 24Vac
28	TC28, 4÷20mA, 2 push-buttons calibration, 1relay, RS485, 115Vac
29	TC29, 4÷20mA, 2 push-buttons calibration, 1relay, RS485, 230Vac
30	TC30, 4÷20mA 2-wire, 2 push-buttons calibration, 24Vdc
99	Special

Housing	
B	IP66 loaded PC , white polycarbonate cap (necessary for ATEX version)
C	IP65 aluminum varnished (necessary for ATEX version)
E	DIN B aluminum painted , IP66; for separate versions (H or R code) only
F	PC with transparent cap, IP67
G	IP66 aluminum varnished with 2 cable-glands
L	PC with blind cap, IP67
N	SS316; IP66; For separate vers.(H/R cod.) with G½" (12 cod.) process con.and PTFE insulated Ø8 electrode (T56 cod.)
P	DIN A aluminum painted, IP66; for separate versions (H or R code) only
Z	Special

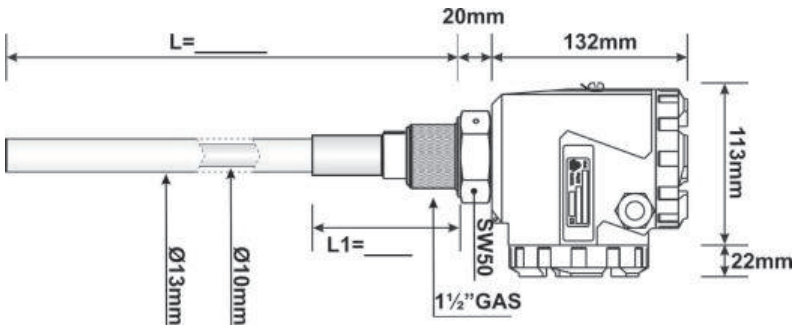
Process connection	
01	G1" (G 1 A) / Carbon-steel
02	G1" (G 1 A) / Stainless-steel SS316
03	1" NPT / Carbon-steel
04	1" NPT / Stainless-steel SS316
11	G1"½ (G 1 ½ A) / Carbon-steel
12	G1"½ (G 1 ½ A) / Stainless-steel SS316
18	G1"½ (G 1 ½ A) / PVC
19	G1"½ (G 1 ½ A) / PTFE
20	Sanitary DN 25 DIN 11851, SS304L
21	Sanitary DN 40 DIN 11851, SS304L
22	Sanitary DN 50 DIN 11851, SS304L
40	Flange DN 40 PN 6 UNI 1092-1 material PVC
41	Flange DN 40 PN 6 UNI6991/71material PTFE
42	Flange DN 40 PN16 material Carbon-steel
45	Flange DN 50 PN6 UNI 1092-1 material PVC
46	Flange DN 80 PN6 UNI 1092-1 material PVC
47	Flange DN 100 PN6 UNI 1092-1 material PVC
50	Flange DN 40 PN16 material SS304

51	Flange DN 40 PN16 material SS316
52	Flange DN 50 PN16 DIN 2527 form B (without gasket) SS316
53	Flange DN 80 PN16 DIN 2527 form B (without gasket) SS316
54	Flange DN 100 PN16 DIN 2527 form B (without gasket) SS316
60	Flange ANSI RF 2" 150 psi SS316
61	Flange ANSI RF 3" 150 psi SS316
62	Flange ANSI RF 4" 150 psi SS316
71	CLAMP 1" SS316
73	CLAMP 1 1/2" SS316
75	CLAMP 2" SS316
83	G½" (G ½ A) / Carbon-steel
84	G½" (G ½ A) / Stainless-steel SS316
99	Special

Electrode type and insulation	
B	PTFE partially insulated SS316 rod
D	PVC totally insulated SS316 rod
H	PTFE totally insulated SS316 rod
M	PTFE partially insulated SS316 rod + Carbon steel concentric reference electrode
N	PVC insulated rod + Carbon steel concentric reference electrode
P	PTFE insulated rod + Carbon steel concentric reference electrode
Q	PTFE partially insulated SS316 rod + AISI316 concentric reference electrode
R	PVC insulated rod + SS316 concentric reference electrode
S	PTFE insulated rod + SS316 concentric reference electrode
T	Ø8mm SS316 rod PTFE totally insulated; with SS316 housing (N code) only
Z	Special

L= Electrode length, price each 100mm	
40	PTFE partially insulated SS316 rod
42	PVC totally insulated SS316 rod
46	PTFE totally insulated SS316 rod
50	PTFE partially insulated SS316 rod + Carbon steel concentric reference electrode
51	PVC insulated rod + Carbon steel concentric reference electrode
52	PTFE insulated rod + Carbon steel concentric reference electrode
53	PTFE partially insulated SS316 rod + SS316 concentric reference electrode
54	PVC insulated rod + SS316 concentric reference electrode
55	PTFE insulated rod + SS316 concentric reference electrode
56	Ø8mm SS316 rod PTFE totally insulated; with SS316 housing (N code) only
99	Special

L1 = non sensitive part (rod), material and price each 10cm	
A	Standard
B	Carbon-steel
C	SS316
Z	Special



Capacitive

CLT5

Capacitive double-rods probe for liquids

Continuous capacitive level measurement
Installation in the top of non-metallic tanks; 3m max.

Version	
A	Without insert-preamplifier (only capacitive electrode + head connection)
B	Compact
H	Separate, IP66 preampl.head + Electrode and DIN A Al head + 1,5m coaxcable
Z	Special

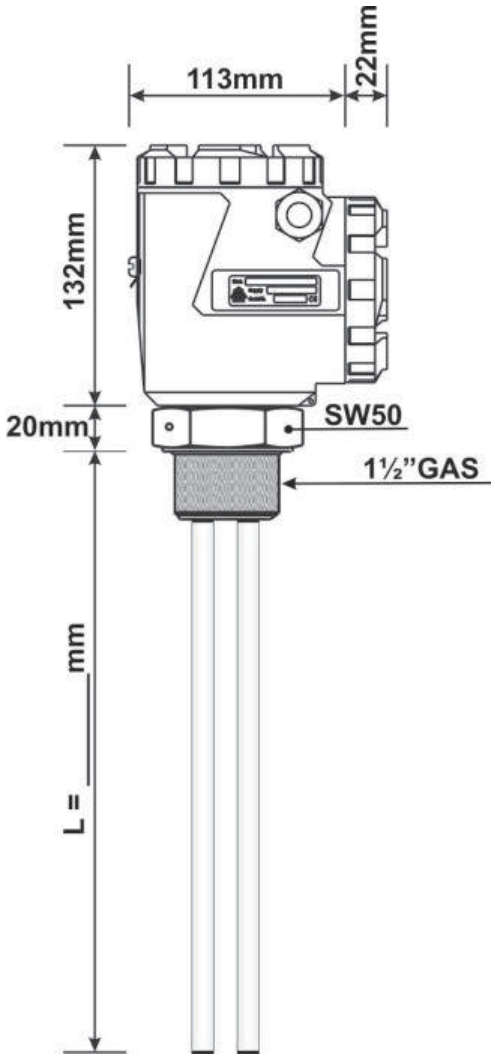
Electronic preamplifier	
00	None
22	TC22, 4÷20mA, 2 push buttons for calibration, 24Vdc
23	TC23, 4÷20mA, 2 push buttons for calibration, 24Vac
24	TC24, 4÷20mA, 2 push buttons for calibration, 115Vac
25	TC25, 4÷20mA, 2 push buttons for calibration, 230Vac
26	TC26, 4÷20mA, 2 push-buttons calibration, 1relay, RS485, 24Vdc
27	TC27, 4÷20mA, 2 push-buttons calibration, 1relay, RS485, 24Vac
28	TC28, 4÷20mA, 2 push-buttons calibration, 1relay, RS485, 115Vac
29	TC29, 4÷20mA, 2 push-buttons calibration, 1relay, RS485, 230Vac
30	TC30, 2wires, 2 push buttons for calibration, 24Vdc
99	Special

Housing	
B	IP66 loaded PC , white polycarbonate cap (necessary for ATEX version)
F	PC with transparent cap, IP67
L	PC with blind cap, IP67
Z	Special

Process connection	
18	G1"½ (G 1 ½ A) / PVC
19	G1"½ (G 1 ½ A) / PTFE
40	Flange DN40 PN6 UNI 1092-1, material PVC
41	Flange DN40 PN6 UNI 1092-1, material PTFE
45	Flange DN50 PN6 UNI 1092-1, material PVC
46	Flange DN80 PN6 UNI 1092-1, material PVC
47	Flange DN100 PN6 UNI 1092-1, material PVC
99	Special

Electrode type and insulation	
B	PTFE partially insulated SS316
D	PVC totally insulated
H	PTFE totally insulated
Z	Special

L= insertion length (electrodes couple), price each 100mm	
40	PTFE partially insulated SS316 rod
42	PVC totally insulated (with spreader each meter)
46	PTFE totally insulated (with spreader each meter)
99	Special


113mm
22mm
132mm
20mm
SW50
1½"GAS
L = mm

Capacitive

CLT7

Capacitive rope probe for granulates and powders

Continuous capacitive level measurement
Installation on the top of metallic tanks

Version	
A	Without insert-preamplifier (only capacitive electrode + head connection)
B	Compact version
C	Compact Intrinsic Safe, ATEX II 1 GD EExia II C T4..T6 IP65 T85°C certified (select TC30 insert only)
H	Separate, IP66 preampl.head + Electrode and DIN A Al head + 1,5m coaxcable
N	Separate, IP66 preampl.head with Al fixing base + 1,7m coaxcable
Z	Special

Electronic preamplifier	
00	None
22	TC22, 4÷20mA, 2 push buttons for calibration, 24Vdc
23	TC23, 4÷20mA, 2 push buttons for calibration, 24Vac
24	TC24, 4÷20mA, 2 push buttons for calibration, 115Vac
25	TC25, 4÷20mA, 2 push buttons for calibration, 230Vac
26	TC26, 4÷20mA, 2 push-buttons calibration, 1relay, RS485, 24Vdc
27	TC27, 4÷20mA, 2 push-buttons calibration, 1relay, RS485, 24Vac
28	TC28, 4÷20mA, 2 push-buttons calibration, 1relay, RS485, 115Vac
29	TC29, 4÷20mA, 2 push-buttons calibration, 1relay, RS485, 230Vac
30	TC30, 2wires, 2 push buttons for calibration, 24Vdc
99	Special

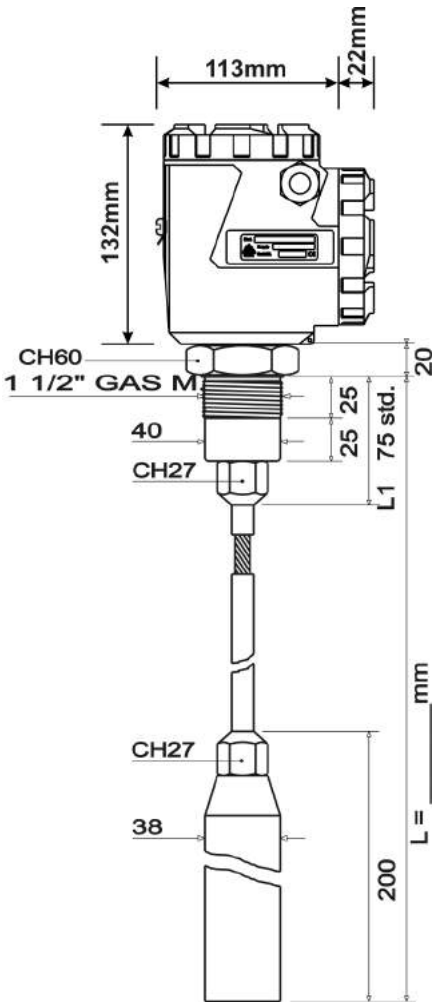
Housing	
B	IP66 loaded PC , white polycarbonate cap (necessary for ATEX version)
C	IP65 aluminum varnished (necessary for ATEX version)
F	PC with transparent cap, IP67
G	IP66 aluminum varnished with 2 cable-glands
H	IP66 PC with aluminum adapter, 4 holes flange
L	PC with blind cap, IP67
Z	Special

Process connection	
11	G1"½ (G 1 ½ A) / Carbon-steel
12	G1"½ (G 1 ½ A) / SS316
42	Flange DN40 PN16 material Carbon-steel
50	Flange DN 40 PN16 material SS304
51	Flange DN 40 PN16 material SS316
52	Flange DN 50 PN16 DIN 2527 form B (without gasket) SS316
53	Flange DN 80 PN16 DIN 2527 form B (without gasket) SS316
54	Flange DN 100 PN16 DIN 2527 form B (without gasket) SS316
60	Flange ANSI RF 2" 150 psi SS316
61	Flange ANSI RF 3" 150 psi SS316
62	Flange ANSI RF 4" 150 psi SS316
99	Special

Electrode type and insulation	
L	Ø8mm carbon steel, counterweight in carbon steel
M	Ø8mm carbon steel, counterweight in SS316
N	Ø8mm carbon steel PE coated, counterweight in carbon steel
P	Ø8mm carbon steel PE coated, counterweight in SS316
Z	Special

L= Electrode length, price each meter	
73	Ø8mm carbon steel
74	Ø8mm carbon steel PE coated
99	Special

L1 = non sensitive part (rod), material and price each 10cm	
A	Standard
B	Carbon-steel
C	SS316
Z	Special



Capacitive

CLT8

Capacitive rope probe for liquids

Continuous capacitive level measurement
Suitable for conductive and not conductive liquids, paste
Installation on the top of metallic tanks
IP66 mechanical protection

Version	
A	Without insert-preamplifier (only capacitive electrode + head connection)
B	Compact
C	Compact Intrinsic Safe, ATEX II 1 GD EExia II C T4..T6 IP65 T85°C certified (select TC30 insert only)
D	Spacer-cooling-fins compact in carbon-steel
F	Spacer-cooling-fins compact in stainless-steel
H	Separate, IP66 preampl.head + Electrode and DIN-A Al head + 1,5m coaxcable
L	Spacer-cooling-fins compact in carbon-s., ATEX II 1 GD EExia II C T4..T6 IP65 T85°C cert. (select TC30 insert only)
M	Spacer-cooling-fins compact in S.S., ATEX II 1 GD EExia II C T4..T6 IP65 T85°C cert. (select TC30 insert only)
N	Separate, IP66 preampl.head with Al fixing base + 1,7m coaxcable
Z	Special

Electronic preamplifier	
00	None
22	TC22, 4÷20mA, 2 push buttons for calibration, 24Vdc
23	TC23, 4÷20mA, 2 push buttons for calibration, 24Vac.
24	TC24, 4÷20mA, 2 push buttons for calibration, 115Vac.
25	TC25, 4÷20mA, 2 push buttons for calibration, 230Vac.
26	TC26, 4÷20mA, 2 push-buttons calibration, 1relay, RS485, 24Vdc
27	TC27, 4÷20mA, 2 push-buttons calibration, 1relay, RS485, 24Vac
28	TC28, 4÷20mA, 2 push-buttons calibration, 1relay, RS485, 115Vac
29	TC29, 4÷20mA, 2 push-buttons calibration, 1relay, RS485, 230Vac
30	TC30, 2wires, 2 push buttons for calibration, 24Vdc
99	Special

Housing	
B	IP66 loaded PC , white polycarbonate cap (necessary for ATEX version)
C	IP65 aluminum varnished (necessary for ATEX version)
F	PC with transparent cap, IP67
G	IP66 aluminum varnished with 2 cable-glands
H	IP66 PC with aluminum adapter, 4 holes flange
L	PC with blind cap, IP67
Z	Special

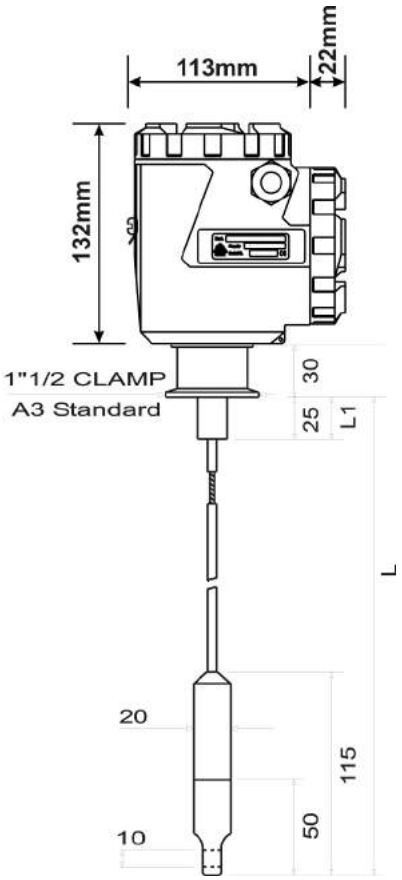
Process connection	
02	G1" (G 1 A) / Stainless-steel SS316
04	1" NPT / Stainless-steel SS 316
11	G1"½ (G 1 ½ A) / Carbon-steel
12	G1"½ (G 1 ½ A) / Stainless-steel SS316
18	G1"½ (G 1 ½ A) / PVC
19	G1"½ (G 1 ½ A) / PTFE
20	Sanitary DN 25 DIN 11851, SS 304L
21	Sanitary DN 40 DIN 11851, SS 304L
22	Sanitary DN 50 DIN 11851, SS 304L
42	Flange DN 40 PN16 material Carbon-steel
50	Flange DN 40 PN16 material SS 304
51	Flange DN 40 - PN16 material SS 316
52	Flange DN 50 - PN16 DIN 2527 form B (without gasket) SS 316
53	Flange DN 80 PN16 DIN 2527 form B (without gasket) SS 316

54	Flange DN 100 PN16 DIN 2527 form B (without gasket) SS 316
60	Flange ANSI RF 2" 150 psi SS 316
61	Flange ANSI RF 3" 150 psi SS 316
62	Flange ANSI RF 4" 150 psi SS 316
71	CLAMP 1" SS 316
73	CLAMP 1 1/2" SS 316
75	CLAMP 2" SS 316
99	Special

Electrode type and insulation	
B	Ø2,5mm PVC insulated, counterweight in SS316
C	Ø2,5mm PTFE insulated, counterweight in SS316
L	Ø2,5mm PVC insulated, counterweight in PVC
M	Ø2,5mm PTFE insulated, counterweight in PTFE
Z	Special

L= Electrode length, price each meter	
81	Ø2,5mm PVC insulated
82	Ø2,5mm PTFE insulated
99	Special

L1 = non sensitive part (rod), material and price each 10cm	
A	Standard
C	SS316
Z	Special



Purge

PVI

Air purge lev. transm. unit with 4 threshold relay

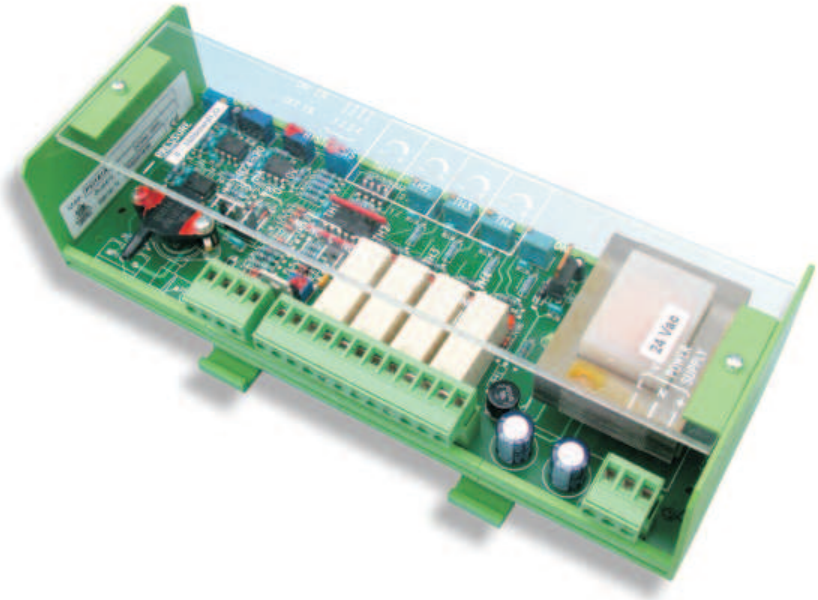
Air purge; connection to a 20PSI air instrumentation, (137,895 kPa)
Analog output: 0÷10Vdc min 3kohm, and 4÷20mA max 500ohm
Mechanical protection: IP10
Working temperature -10, +50°C,

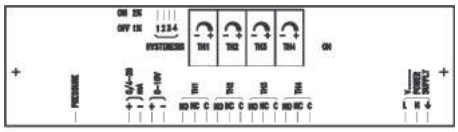
Version	
0	Level transmitter, IP10 DIN-rail mounting
1	Level transmitter + 4 relays SPDT, IP10 DIN-rail mounting
9	Special

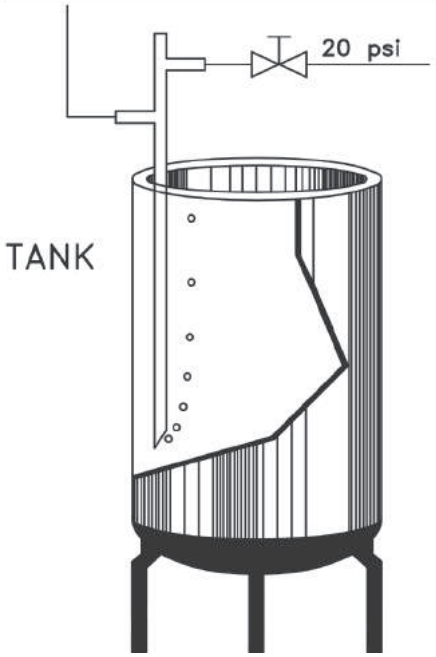
Power supply	
A	24Vac 50÷60Hz
B	115Vac 50÷60Hz
C	230Vac 50÷60Hz

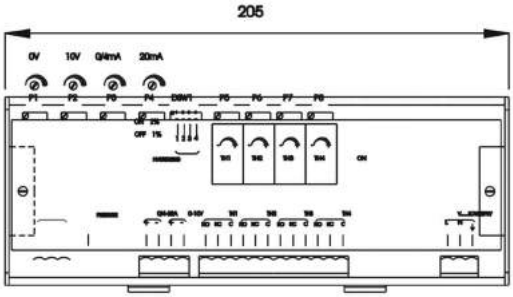
Measure range	
1	0÷1000mm H2O, (0÷9,80665kPa)
2	0÷5000mm H2O, (0÷4,903325kPa)
5	For differential pressure 0÷100mm H2O, (0÷0,980665kPa)
9	Special

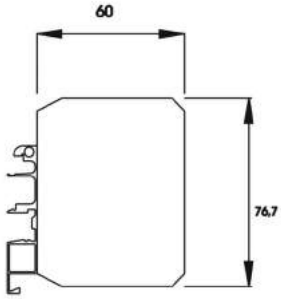
Accessories	
A	None
Z	Special











PTS — Air purge lev. transm.-1/2 threshold relays

Air purge; connection to a 20PSI air instrumentation, (137,895 kPa)
Undecal socket mounting into DIN-rail
Zero and Span frontal trimmers adjustement
Working temperature -10 ÷ +50°C

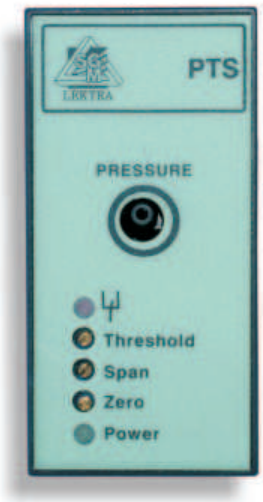
Version	
A	IP20, n.1 threshold relay
B	IP20, n.2 threshold relays
Z	Special

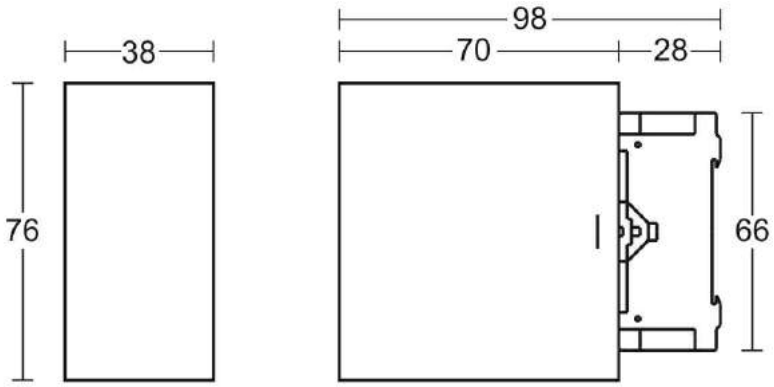
Power supply	
0	24Vac 50/60 Hz
1	115Vac 50/60 Hz
2	230Vac 50/60 Hz
4	24Vdc
9	Special

Output	
A	4÷20mA
B	0÷10V
Z	Special

Measure range	
2	0÷1000mm H2O, (0÷9,80665kPa)
4	0÷5000mm H2O, (0÷4,903325kPa)
9	Special max 20.000mm H2O, (0÷196,133kPa)

Accessories	
A	None
B	Socket and fixing spring
Z	Special





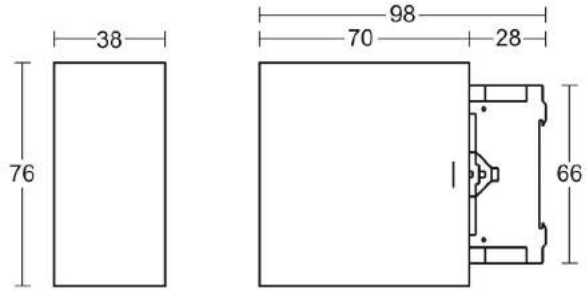
Visualization and control

LC2

2 rel. switch and power control unit for transm.

Trim-adjustable 4÷20mA input / 2 relays output
Suitable to be connected to "general purpose" transmitters (TC, PTU, SMART)
Transmitter supply output 24Vdc - max 200mA
Frontal trimmers adjustment for switch points calibration and time delay 0÷12s
Power supply: 85÷255 Vac - Working temperature: -10 ÷ +50°C
Undecal socket mounting, IP20

Version	
A	Standard
Z	Special

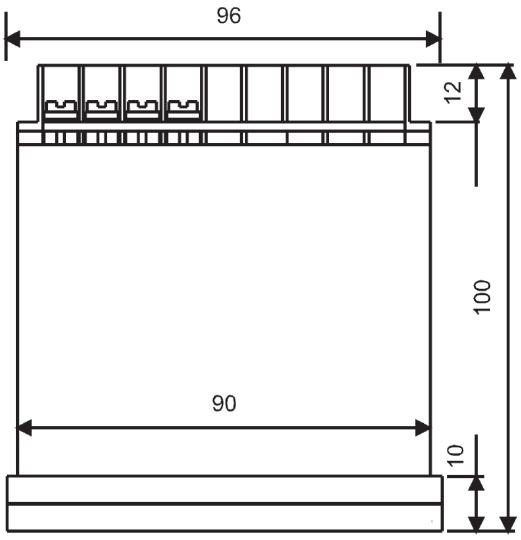


VL501

4÷20mA loop powered digital display

3 1/2digit LCD
Fine calibration with dip-switches
Zero and Span setting with internal simulator
Panel mounting std 48x96mm, IP40 frontal

Accessories	
A	None
M	Frontal window IP54
Z	Special



SLA2X Display and control unit

5 ½ digit led display, suitable to be connected to analogic transmitters
Power supply output: 24Vdc; max.40mA
4 frontal push-buttons for calibration; level auto-calibration is available
Working temperature -10, +50°C, Front panel mounting 48 x 96
IP40 frontal mechanical protection

Power supply	
0	115Vac 50÷60Hz
1	230Vac 50÷60Hz
2	24Vac 50÷60Hz
3	24Vdc

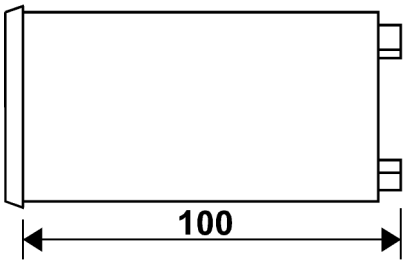
Relay	
0	None
2	2 Relays
4	4 Relays

Output	
A	None
D	RS485 MODBUS
R	RS232
T	4÷20mA / 0÷10V

Linearization	
A	None
L	With up to 20 segments programmable

Input galvanic insulation	
A	Std. (only with Vac power supplies)
D	Input galvanic insulation; opt. only with 24Vdc power supply (cod.3)

Accessories	
A	None
M	Frontal windows IP54
N	Enclosure for external mounting IP66
Z	Special



Visualization and control

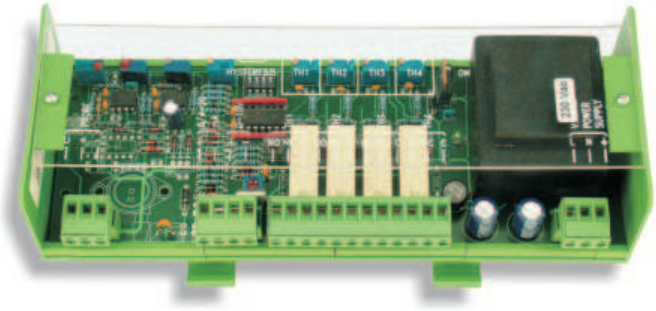
CVI

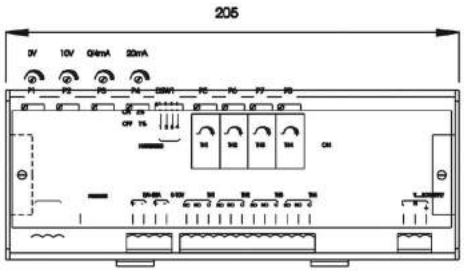
4 rel. switch and power control unit for transm.

Suitable to be connected to general purpose transmitters (TC, PTU, SMART)
Maximum current consumption 150mA
Analogic output 4÷20mA and 0÷10V
Frontal trimmers (4) adjustment for switch points calibration
Panel mounting (DIN rail) IP10
Working temperature -20 ÷ +60°C,

Input	
A	0/4÷20mA
Z	Special

Power supply	
1	24Vac 50÷60Hz
2	115Vac 50÷60Hz
3	230Vac 50÷60Hz





A2S

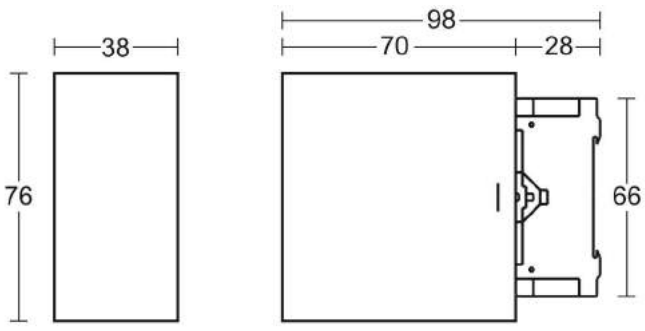
Control unit for 4÷20mA 2 relays transmitters

Suitable to be connected to 4÷20mA analogic transmitters
2 SPDT 3A 250Vac relays, trimmer adjustable set points
IP20 mechanical protection; Undecal plug-in male-socket

Input	
A	4÷20mA
B	0÷10V
Z	Special

Power supply	
0	24Vac 50-60 Hz
1	115Vac 50-60 Hz
2	230Vac 50-60 Hz
4	24Vdc

Accessories	
A	None
B	Socket and fixing spring
Z	Special



CLS2 Standard rod level switch

ON/OFF capacitive level control
Top and lateral side metallic tank-installation
Standard length: 250mm

Version	
A	Without preamplifier insert (only capacitive electrode)
B	Compact
E	Compact, dust ATEX Zone 20/21 certificated (TL41 insert); to be used with " G" housing
F	Compact with SS316 dissipator (use same of process conn.)
Z	Special

Electronic preamplifier	
00	None
33	TL31R ON-OFF, supply 24Vdc, Relay output SPDT
34	TL31R ON-OFF, supply 24Vac, Relay output SPDT
35	TL31R ON-OFF, supply 115Vac, Relay output SPDT
36	TL31R ON-OFF, supply 230Vac, Relay output SPDT
41	TL41 ON-OFF, supply 20÷30Vdc/24Vac 50Hz, Relay output SPDT
43	TL41 ON-OFF, supply 85÷250Vac 50Hz, Relay output SPDT
99	Special

Housing	
B	IP66 loaded PC , white polycarbonate cap (necessary for ATEX version)
F	PC with transparent cap, IP67 ; only with TL41 insert
G	IP66 aluminum varnished (necessary for ATEX version)
H	IP66 PC with v adapter, 4 holes flange
L	PC with blind cap, IP67 ; only with TL41 insert
Z	Special

Process connection	
01	G1" (G 1 A) / Carbon-steel
02	G1" (G 1 A) / SS316
11	G1"½ (G 1 ½ A) / Carbon steel
12	G1"½ (G 1 ½ A) / SS316
92	G ¾" (G ¾ A) / SS316
99	Special

Electrode type and insulation	
B	Partially PVC insulated Ø15mm Carbon-steel rod
C	Ø15mm Carbon-steel rod with extended PVC insulation
D	Partially PTFE insulated Ø15mm Carbon-steel rod
H	Partially PVC insulated Ø15mm SS316 rod
I	Ø15mm SS316 rod with extended PVC insulation
L	Partially PTFE insulated Ø15mm SS316 rod
Z	Special

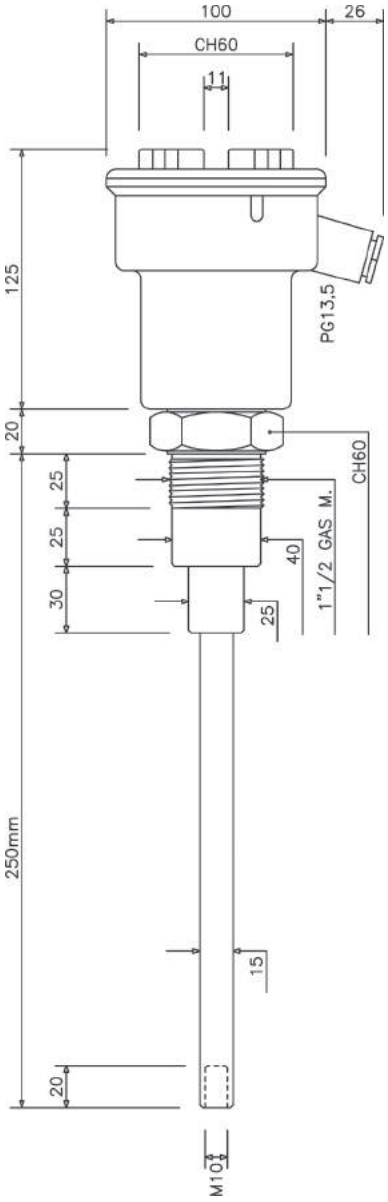
M10x1,5 female thread for extension	
0	None
1	M10x1,5 female thread on top

Capacitive

Non sensitive part	
A	50mm standard (carbon-steel or SS316 function of the process connection)
B	100mm Carbon-steel, (same of material select in process-connection)

Extension type	
000	None
400	Ø10mm SS316 rod
700	Ø6mm Carbon-steel rope + carbon-steel counterweight (type 50) Warning! For length over 3m, extra price of 30,00 EUR

Extension length	
A	None
B	Rigid rod, price each 10cm
C	Carbon-steel rope Ø6mm, price each m.



CLS4 Rod level switch

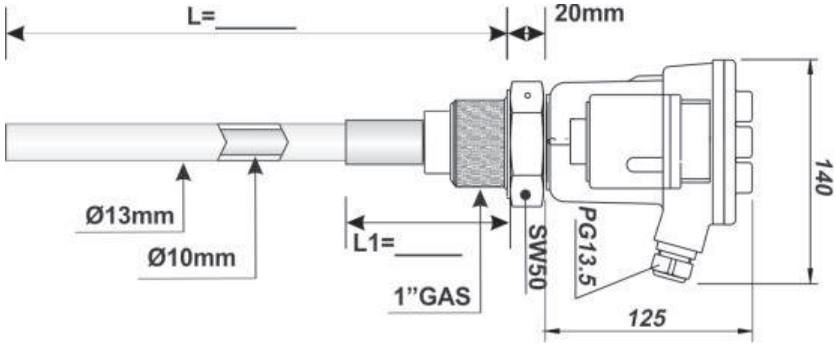
ON/OFF capacitive level control
Suitable for conductive and non-conductive liquids
Top and lateral side metallic tank-installation

Version	
A	Without preamplifier (only capacitive electrode)
B	Compact
D	Compact with carbon-steel dissipator between head and connection
E	Compact, Zone 20/21 ATEX certificated (TL41 insert only); to be used with "G" housing
F	Compact, with SS316 dissipator between head and connection
H	Separate, IP66 preampl.head + 1,5m coaxcable
N	Compact, with carbon-steel dissipator, Zone 20/21 ATEX cert. (TL41 insert only); to be used with "G" housing
P	Compact, with SS316 dissipator, Zone 20/21 ATEX cert. (TL41 insert only); to be used with "G" housing
R	Separate, IP66 preampl.head with Al fixing base + 2m coaxcable
Z	Special

Electronic preamplifier	
00	None
33	TL31R ON-OFF local sensibility calibration supply 24Vdc, Relay output SPDT
34	TL31R ON-OFF local sensibility calibration supply 24Vac, Relay output SPDT
35	TL31R ON-OFF local sensibility calibration supply 115Vac, Relay output SPDT
36	TL31R ON-OFF local sensibility calibration supply 230Vac, Relay output SPDT
41	TL41 ON-OFF, supply 20÷30Vdc/24Vac 50Hz, Relay output SPDT
43	TL41 ON-OFF, supply 85÷250Vac 50Hz, Relay output SPDT
73	TC7.3R local calibration, 24Vdc, 3 relays out for 3 adjustable set-points
99	Special

Housing	
B	IP66 loaded PC , white polycarbonate cap (necessary for ATEX version)
C	IP65 aluminum varnished (necessary for ATEX version)
E	DIN B aluminum painted; IP66; for separate versions (H or R code) only
F	PC with transparent cap, IP67 ; only with TL41 insert
G	IP66 aluminum varnished (necessary for ATEX versions)
L	PC with blind cap, IP67 ; only with TL41 insert
N	SS316; IP66; For separate vers.(H/R cod.) with G½" (12 cod.) process con.and PTFE insulated Ø8 electrode (T56 cod.)
P	DIN A aluminum painted; IP66; for separate versions (H or R code) only
Z	Special

Process connection	
01	G1" (G 1 A) / Carbon-steel
02	G1" (G 1 A) / SS316
03	1" NPT-M / Carbon-steel
04	1" NPT-M / SS316
11	G1"½ (G 1 ½ A) / Carbon-steel
12	G1"½ (G 1 ½ A) /SS316
18	G1"½ (G 1 ½ A) / PVC
19	G1"½ (G 1 ½ A) / PTFE
20	Sanitary DN25 DIN 11851, SS304L



21	Sanitary DN40 DIN 11851, SS304L
22	Sanitary DN50 DIN 11851, SS304L
40	Flange DN40 PN6 UNI 1092-1, PVC
41	Flange DN40 PN 6 UNI6991/71, PTFE
42	Flange DN40 PN16, Carbon-steel
45	Flange DN50 PN6 UNI 1092-1, PVC
46	Flange DN80 PN6 UNI 1092-1, PVC
47	Flange DN100 PN6 UNI 1092-1, PVC
50	Flange DN40 PN16, SS304
51	Flange DN40 PN16, SS316
52	Flange DN50 PN16 DIN 2527 form B (without gasket), SS316
53	Flange DN80 PN16 DIN 2527 form B (without gasket), SS316
54	Flange DN100 PN16 DIN 2527 form B (without gasket), SS316
60	Flange ANSI RF 2" 150 psi, SS316
61	Flange ANSI RF 3" 150 psi, SS316
62	Flange ANSI RF 4" 150 psi, SS316
71	CLAMP 1" SS316
73	CLAMP 1 1/2" SS316
75	CLAMP 2" SS316
83	G½" (G ½ A) / Carbon-steel
84	G½" (G ½ A) / Stainless-steel SS316
99	Special

Electrode type and insulation	
B	PTFE partially insulated SS316 rod
C	SSI316 rod with extended PVC insulation
D	PVC totally insulated SS316 rod
G	SS316 rod with extended PTFE insulation
H	SS316 rod PTFE totally insulated
M	PTFE partially insulatedSS316 rod + Carbon steel concentric reference electrode
N	PVC totally insulated SS316 rod + Carbon steel concentric reference electrode
P	PTFE totally insulated SS316 rod + Carbon steel concentric reference electrode
Q	PTFE partially insulated SS316 rod + SS316 concentric reference electrode
R	PVC totally insulated SS316 rod + SS316 concentric reference electrode
S	PTFE totally insulated SS316 rod + SS316 concentric reference electrode
T	Ø8mm SS316 rod PTFE totally insulated; with SS316 housing (N code) only
Z	Special

L= Electrode length, price each 100mm	
40	PTFE partially insulated SS316 rod
41	SS316 rod with extended PVC insulation
42	PVC totally insulated SS316 rod
45	SS316 rod with extended PTFE insulation
46	PTFE totally insulated SS316 rod
50	PTFE partially insulated SS316 rod + Carbon steel concentric reference electrode
51	PVC totally insulated SS316 rod + Carbon steel concentric reference electrode
52	PTFE totally insulated SS316 rod+ Carbon steel concentric reference electrode
53	PTFE partially insulated SS316 rod + SS316 concentric reference electrode
54	PVC totally insulated SS316 rod + SS316 concentric reference electrode
55	PTFE totally insulated SS316 rod + SS316 concentric reference electrode
56	Ø8mm SS316 rod PTFE totally insulated; with SS316 housing (N code) only
99	Special

L1 = non sensitive part (rod), material and price each 10cm	
A	Standard
B	Carbon-steel
C	SS316
Z	Special

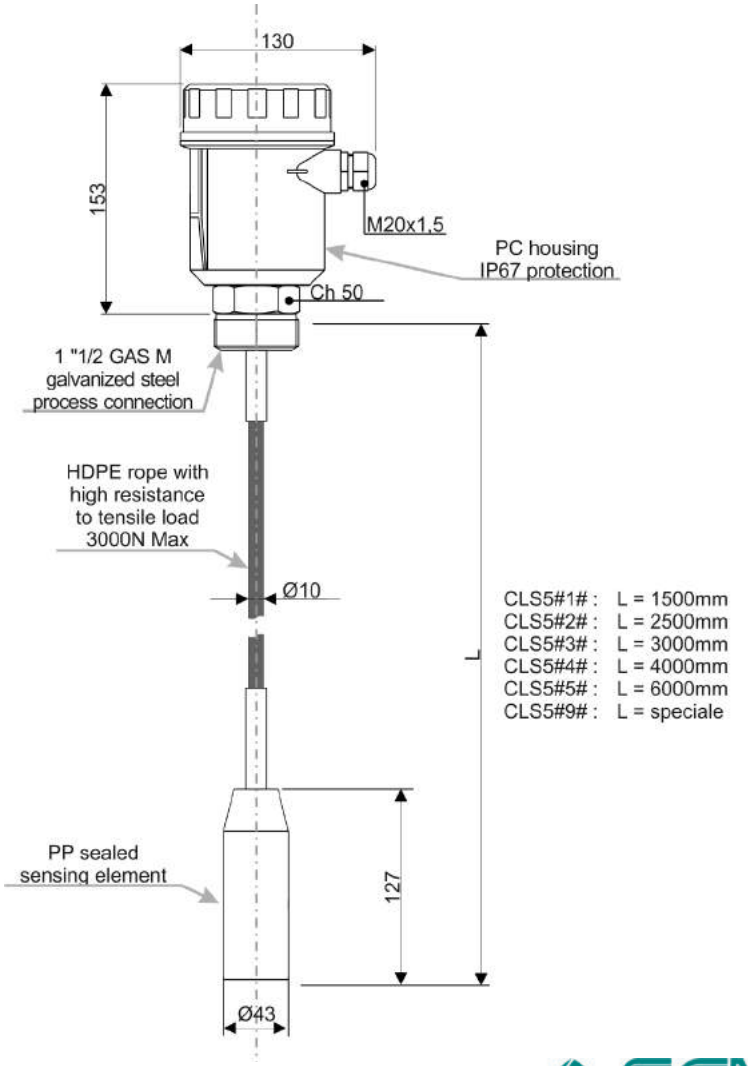
CLS5 PEHD insulated rope level switch for granulates

Process connection, G 1 1/2" A/ SS316
Product temperature range : -30° ÷ +70°C (80° non continuous)
IP67 mechanical protection
Extension with PEHD isolated steel cable
Power supply: 20÷36Vdc / 20÷255Vac 50Hz
0,8W or 15VA max power consumption
Relay output rating 250Vac, 2A

Version	
A	Compact with transparent cap, IP67
B	Compact with blind cap, IP67
Z	Special

Extension length	
1	L = 1500mm
2	L = 2500mm
3	L = 3000mm
4	L = 4000mm
5	L = 6000mm
9	Special

Optional (opt.)	
A	None
D	VL601 keyboard/display programming module (VL601SGM)
Z	Special



Capacitive

CLS7

Rope level switch for granulates

ON/OFF capacitive level control
Suitable for bulk solid and granulates
Top side metallic tank-installation

Version	
A	Without electronic preamplifier
B	Compact
E	Compact, Zone 20/21 ATEX certificated (TL41 insert only); to be used with "G" housing
H	Separate insert, DIN A aluminum electrode head, 1,5m coax cable (PTFE/SIL.)
Z	Special

Electronic preamplifier	
00	None
33	TL31R ON-OFF local sensibility calibration supply 24Vdc, Relay output SPDT
34	TL31R ON-OFF local sensibility calibration supply 24Vac, Relay output SPDT
35	TL31R ON-OFF local sensibility calibration supply 115Vac, Relay output SPDT
36	TL31R ON-OFF local sensibility calibration supply 230Vac, Relay output SPDT
41	TL41 ON-OFF, supply 20÷30Vdc/24Vac 50Hz, Relay output SPDT
43	TL41 ON-OFF, supply 85÷250Vac 50Hz, Relay output SPDT
73	ON-OFF TC7.3R local calibration, 24Vdc, 3 relays out for 3 adjustable set-points
99	Special

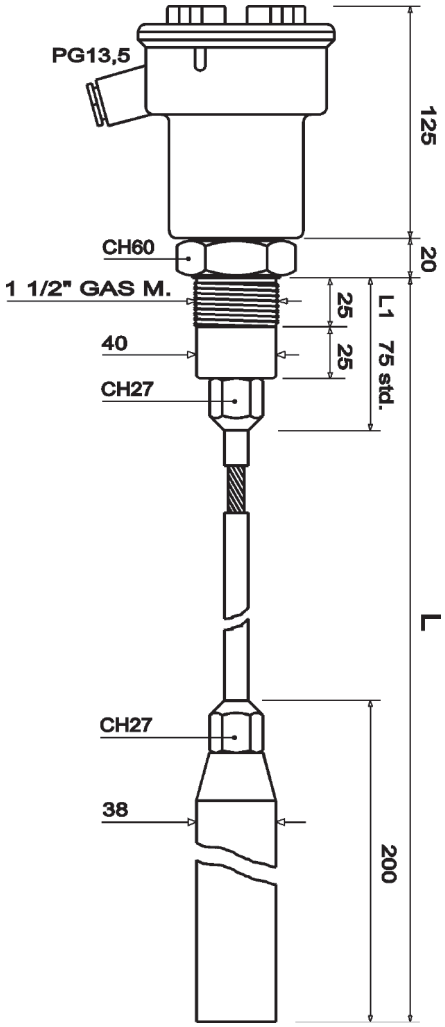
Housing	
B	IP66 loaded PC , white polycarbonate cap (necessary for ATEX version)
C	IP65 aluminum varnished (necessary for ATEX version)
F	PC with transparent cap, IP67 ; only with TL41 insert
G	IP66 aluminum varnished (necessary for ATEX version)
H	IP66 PC with aluminum adapter, 4 holes flange
L	PC with blind cap, IP67 ; only with TL41 insert
Z	Special

Process connection	
11	G1"½ (G 1 ½ A) / Carbon-steel
42	Flange DN40 PN16, Carbon-steel
50	Flange DN40 PN16, SS304
51	Flange DN40 PN16, SS316
52	Flange DN50 PN16 DIN2527 form B (without gasket), SS316
53	Flange DN80 PN16 DIN2527 form B (without gasket), SS316
54	Flange DN100 PN16 DIN2527 form B (without gasket), SS316
60	Flange ANSI RF 2" 150psi, SS316
61	Flange ANSI RF 3" 150psi, SS316
62	Flange ANSI RF 4" 150 psi, SS316
99	Special

Electrode type and insulation	
L	Ø8mm carbon steel, counterweight in carbon steel
M	Ø8mm carbon steel, counterweight in SS316
N	Ø8mm carbon steel PE coated, counterweight in carbon steel
P	Ø8mm carbon steel PE coated, counterweight in SS316
Z	Special

L= Electrode length, price each meter	
73	Ø8mm carbon steel
74	Ø8mm carbon steel PE coated
99	Special

L1 = non sensitive part (rod), material and price each 10cm	
A	Standard
B	Carbon-steel
C	SS316
Z	Special



Capacitive

CLS8

Rope level switch for liquids

ON/OFF capacitive level control
Suitable for conductive and not conductive liquids
Top side metallic tank-installation

Version	
A	Without electronic preamplifier
B	Compact
D	Compact, with carbon steel dissipator between head and connection
E	Compact, Zone 20/21 ATEX certificated (TL41 insert only); to be used with "G" housing
F	Compact, with SS316 dissipator between head and connection
H	Separate insert, DIN A aluminum electrode head, 1,5m coax cable (PTFE/SIL.)
N	Compact, with carbon-steel dissipator, Zone 20/21 ATEX cert. (TL41 insert only); to be used with "G" housing
P	Compact, with SS316 dissipator, Zone 20/21 ATEX cert. (TL41 insert only); to be used with "G" housing
Z	Special

Electronic preamplifier	
00	None
33	TL31R ON-OFF local sensibility calibration supply 24Vdc, Relay output SPDT
34	TL31R ON-OFF local sensibility calibration supply 24Vac, Relay output SPDT
35	TL31R ON-OFF local sensibility calibration supply 115Vac, Relay output SPDT
36	TL31R ON-OFF local sensibility calibration supply 230Vac, Relay output SPDT
41	TL41 ON-OFF, supply 20÷30Vdc/24Vac 50Hz, Relay output SPDT
43	TL41 ON-OFF, supply 85÷250Vac 50Hz, Relay output SPDT
73	ON-OFF TC7.3R local calibration, 24Vdc, 3 relays out for 3 adjustable set-points
99	Special

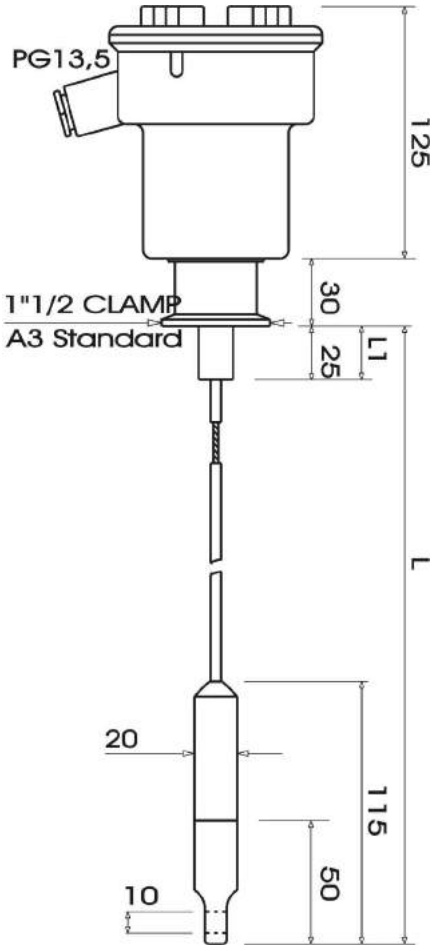
Housing	
B	IP66 loaded PC , white polycarbonate cap (necessary for ATEX version)
C	IP65 aluminum varnished (necessary for ATEX version)
F	PC with transparent cap, IP67 ; only with TL41 insert
G	IP66 aluminum varnished (necessary for ATEX versions)
H	IP66 PC with aluminum adapter, 4 holes flange
L	PC with blind cap, IP67 ; only with TL41 insert
Z	Special

Process connection	
02	G1" (G 1 A) / SS316
04	1" NPT / SS316
11	G1"½ (G 1 ½ A) / Carbon-steel
12	G1"½ (G 1 ½ A) / SS316
18	G1"½ (G 1 ½ A) / PVC
19	G1"½ (G 1 ½ A) / PTFE
20	Sanitary DN25 DIN11851, SS304L
21	Sanitary DN40 DIN11851, SS304L
22	Sanitary DN50 DIN11851, SS304L
42	Flange DN40 PN16, Carbon-steel
50	Flange DN40 PN16, SS304
51	Flange DN40 PN16, SS316
52	Flange DN50 PN16 DIN2527 form B (without gasket), SS316
53	Flange DN80 PN16 DIN2527 form B (without gasket), SS316
54	Flange DN100 PN16 DIN2527 form B (without gasket), SS316
60	Flange ANSI RF 2" 150psi, SS316
61	Flange ANSI RF 3" 150psi, SSI316
62	Flange ANSI RF 4" 150psi, SS316
71	CLAMP 1" SS316
73	CLAMP 1 1/2" SS316
75	CLAMP 2" SS316
99	Special

Electrode type and insulation	
B	Ø2,5mm PVC insulated, counterweight in SS316
C	Ø2,5mm PTFE insulated, counterweight in SS316
L	Ø2,5mm PVC insulated, counterweight in PVC
M	Ø2,5mm PTFE insulated, counterweight in PTFE
Z	Special

L= Electrode length, price each meter	
81	Ø2,5mm PVC insulated
82	Ø2,5mm PTFE insulated
99	Special

L1 = non sensitive part (rod), material and price each 10cm	
A	Standard
C	SS316
Z	Special



Capacitive

CLS9

Rod level switch for plastic tanks

ON/OFF capacitive level control; L = 150mm
Suitable for chemical products, acids and others
Top and lateral side plastic tanks-installation

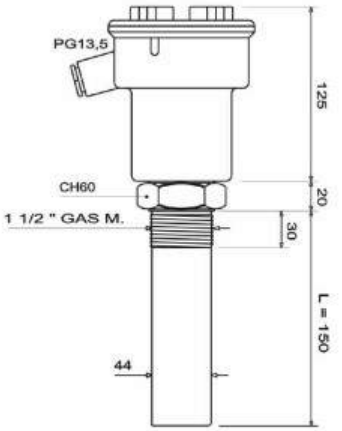
Version	
A	Without electronic preamplifier
B	Compact
E	Compact, Zone 20/21 ATEX certificated (TL41 insert only); to be used with "G" housing
Z	Special

Electronic preamplifier	
00	None
33	TL31R ON-OFF local sensibility calibration supply 24Vdc, Relay output SPDT
34	TL31R ON-OFF local sensibility calibration supply 24Vac, Relay output SPDT
35	TL31R ON-OFF local sensibility calibration supply 115Vac, Relay output SPDT
36	TL31R ON-OFF local sensibility calibration supply 230Vac, Relay output SPDT
41	TL41 ON-OFF, supply 20÷30Vdc/24Vac 50Hz, Relay output SPDT
43	TL41 ON-OFF, supply 85÷250Vac 50Hz, Relay output SPDT
99	Special

Housing	
B	PC polycarbonate loaded; IP66
C	Diecast aluminum varnished; IP66
F	PC with transparent cap, IP67 ; only with TL41 insert
G	IP66 aluminum varnished (necessary for ATEX versions)
H	IP66 PC with aluminum adapter, 4 holes flange
L	PC with blind cap, IP67 ; only with TL41 insert
Z	Special

Process connection	
05	G1" (G 1 A) PVC
06	G1" (G 1 A) PP
18	G1"½ (G 1 ½ A) / PVC
23	G1"½ (G 1 ½ A) / PP
40	Flange DN40 PN6 PVC (Threaded+welded)
43	DN40 PN6 PP (Threaded+welded)
99	Special

Electrode type and insulation	
B	PVC totally insulated - Ø44mm (G1"½) Ø30mm (G1")
C	PP totally insulated - Ø44mm (G1"½) Ø30mm (G1")
Z	Special



CLN Electrode for well and borehole

Base	
CLN	ON/OFF conductive level control electrode, to be fixed to the connection cable (not included) SS316 coaxial insulating pipe to avoid short circuits with other electrode Electrode material SS316 Ø 6mm

PS33 3 rods electrode

Base	
PS33	Conductive level control G ½" A / PVC process connection IP20 mechanical protection Electrodes SS316, Ø4mm, L=300mm electrodes Working temperature up to 60°C

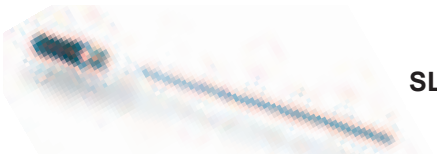
PS310 3 rods electrode

Base	
PS310	Conductive level control G ½ A / PVC process connection IP20 mechanical protection Electrodes in SS316, Ø4mm, L=1000mm electrodes Working temperature up to 60°C

SL PTFE insulated electrode

Conductive level control; Suitable for boiler and autoclave
G 3/8" A / AISI316 process connection
SS316 Ø6mm electrode
IP00 mechanical protection; Max press.10bar
Working temperature up to 180°C

L= Electrode length	
030	L = 300mm
050	L = 500mm
070	L = 700mm
100	L = 1000mm



SL/SU

Conductive

SU PTFE insulated electrode

Conductive level control; suitable for boiler and autoclave
G 3/8" A / AISI316 process connection
PTFE insulated SS316 Ø6mm electrode
IP00 mechanical protection; Max press.25bar
Working temperature up to 180°C

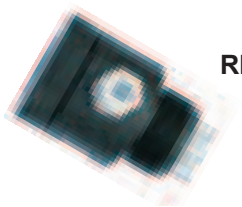
L= Electrode length	
056	L = 56mm

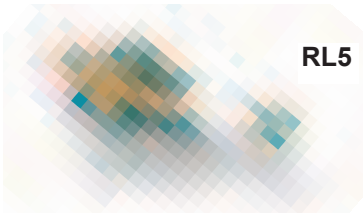
5M thread	
A	None
B	5M thread on top

RL2 PTFE insulated electrode

Base			
RL2	Conductive level control G 3/8" A / SS316 process connection Terminal part in SS316, Ø5mm L=105mm Working temperature up to 50°C	EUR	64,00


RL2


RL3


RL5

RL3 Multi rods electrode

Conductive level control;
max 5 rods
Max electrode length: 3m

Housing	
B	PVC black; IP66

Process connection	
18	G 1" ½ A / Black PVC

Electrode n.	
D	n.3; Ø6mm
F	n.5; Ø6mm

Optional (opt.)	
0	None
1	L = 1m Ø6mm rod - unit price
2	L = 2m Ø6mm rod - unit price
3	L = 3m Ø6mm rod - unit price
4	PVC spacer (585B045P)

RL5 Ceramic insulated electrode with fibre glass

Conductive level control
Terminal part in SS316, Ø15mm L=65mm
Working temperature up to 280°C, max press. 25bar

Process connection	
A	G ½" A / 316SS
B	G ½" A / brass

RL6 Multi rods electrode

Conductive level control; max 5 rods
Max electrode length: 3m

Housing	
B	Polycarbonate loaded; IP66
E	DIN B aluminum painted (n.1 electrode selection available); IP66
G	DIN A aluminum painted; IP66
Z	Special

Process connection	
02	G 1 A / SS316, max 3 rods Ø5mm
04	1" NPT-M / SS316, max 3 rods Ø5mm
05	G 1 A / PVC, max 3 rods Ø5mm
12	G 1 ½ A / SS316, not available for head connection DIN B
18	G 1 ½ A / PVC, not available for head connection DIN B
20	DN25 DIN11851 SS304L (sanitary) 1 rod only "B"
21	DN40 DIN11851 SS304L (sanitary)
22	DN50 DIN11851 SS304L (sanitary)
71	Clamp 1" material SS316
73	Clamp 1 1/2" material SS316, not available for head connection DIN B
75	Clamp 2" material SS316, not available for head connection DIN B
84	G ½ A / SS316, only with head connection DIN B - only one rod
85	1/2" NPT-M / SS316, only with head connection DIN B - only one rod
92	G 3/4 A / SS316, max 1 rod Ø10mm - head connection DIN B
93	3/4" NPT-M / SS316, max 1 rod Ø10mm - head connection DIN B
94	G 3/4 A / PVC, max 2 rods Ø5mm
99	Special

Electrode n.	
B	n.1
C	n.2 Ø5mm only for process fitting cod. 02, 04, 05, 12, 18, 20, 21, 22, 71, 73, 75
D	n.3; Ø5mm only for process fitting cod. 02, 04, 05, 12, 18, 21, 22, 73, 75
E	n.4; Ø5mm only, only for process fitting cod. 12, 18, 21, 22, 71, 73, 75
F	n.5; Ø5mm only, only for process fitting cod. 12, 18, 21, 22, 71, 73, 75
Z	Special

Electrode types and insulation, price per 100mm of each electrode (max 3m)	
36	Ø5mm SS316 rod
37	PVC coated Ø5mm SS316 rod
38	PTFE coated Ø5mm SS316 rod
39	FEP lined Ø5mm SS316 rod
40	Ø10mm SS316 rod, only one electrode per sensor possible
41	PVC coated Ø10mm SS316 rod, only one electrode per sensor possible
44	PTFE coated Ø10mm SS316 rod, only one electrode per sensor possible
99	Special

Conductive

RL8 Multi ropes electrode

Conductive level control; max. 5 ropes
Max electrodes length 300m

Housing	
B	Polycarbonate loaded; IP66
G	DIN A aluminum painted; IP66
Z	Special

Process connection	
02	G 1 A / SS316
04	1" NPT-M / SS316
05	G 1 A / PVC
12	G 1 ½ A /SS316
18	G 1 ½ A / PVC
19	G 1 ½ A / PTFE
71	Clamp 1" / SS316
73	Clamp 1 1/2" / SS316
75	Camp 2" / SS316
99	Special

Electrode n.	
B	n.1
C	n.2
D	n.3
E	n.4; only for connection cod. 12, 18, 73, 75
H	n.5; only for connection cod. 12, 18, 73, 75
Z	Special

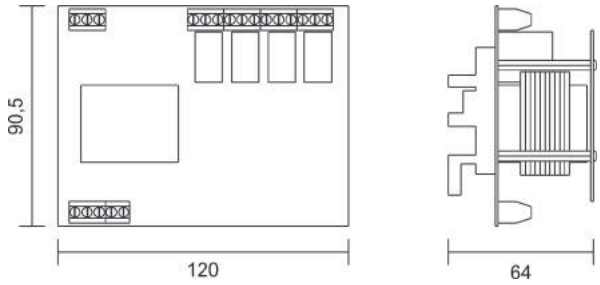
Rope type, price per meter of each electrode	
81	PVC insulated Ø2,5mm SS316
99	Special

RAL04 Unit for level conductive electrodes

Conductive level control up to 4 single setpoint
AC control electrode voltage
N.4 SPDT 3A/250Vac contact (1 for setpoint)
Working temperature -20 + 60°C

Version	
B	DIN rail enclosure IP10
Z	Special

Power supply	
0	24Vac 50÷60Hz
1	115Vac 50÷60Hz
2	230Vac 50÷60Hz



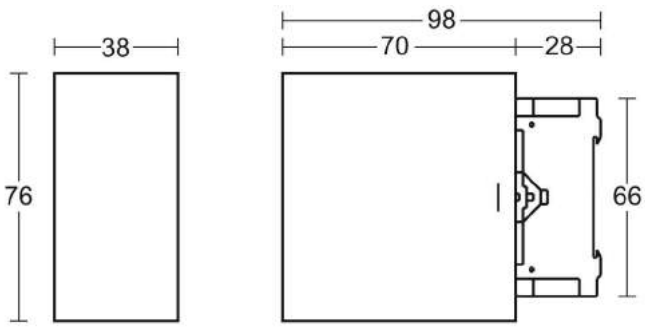
RAL11 Unit for level conductive electrodes

Min/max conductive level control or pump control
Alternate control voltage to the electrodes
2 relays SPDT contacts 3A/250Vac - Adj.sensibility
Undecal plug-in male-socket; IP40 frontal
Working temperature -20 +50°C

Version	
A	Standard
B	IP66
Z	Special

Power supply	
0	24Vac 50÷60Hz
1	115Vac 50÷60Hz
2	230Vac 50÷60Hz

Accessories	
A	None
B	Undecal socket + fixing spring
Z	Special



Conductive

RAL12 Unit for level conductive electrodes

Min/max conductive level control; adj.sensibility
Alternate control voltage to the electrodes
Control of the electrodes electrical connection "security relay"
N1 level control relay; SPDT contacts 3A/250Vac
N1 safety relay; SPDT contacts 3A/250Vac
Undecal plug-in male-socket; IP40 frontal
Working temperature -20 +50°C

Version	
A	Standard
B	IP66
Z	Special

Power supply	
0	24Vac 50÷60Hz
1	115Vac 50÷60Hz
2	230Vac 50÷60Hz

Accessories	
A	None
B	Undecal socket + fixing spring
Z	Special

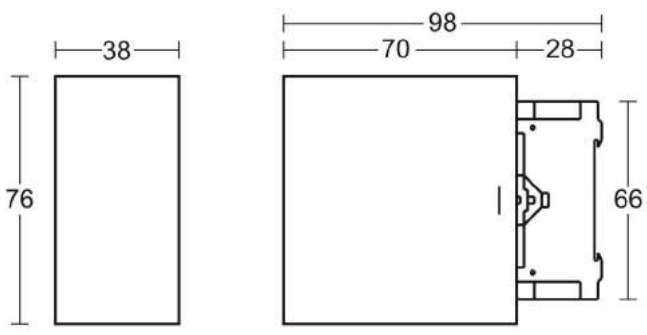
RAL13 Unit for level conductive electrodes

Min/max conductive level control or pump control
Alternate control voltage to the electrodes
2 relays SPDT contacts 3A/250Vac
Adj. sensibility and delay time
Undecal plug-in male-socket; IP40 frontal
Working temperature -20 +50°C

Version	
A	Standard
B	IP66
Z	Special

Power supply	
0	24Vac 50÷60Hz
1	115Vac 50÷60Hz
2	230Vac 50÷60Hz
4	24Vdc

Accessories	
A	None
B	Undecal socket + fixing spring
Z	Special



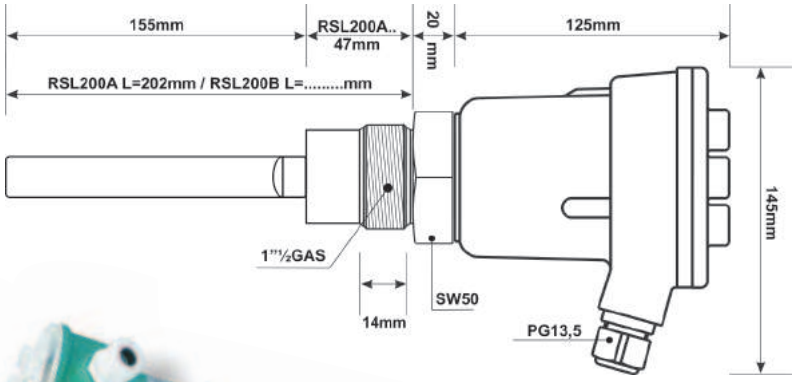
RSL200 Diapason level switch, granulates and powders

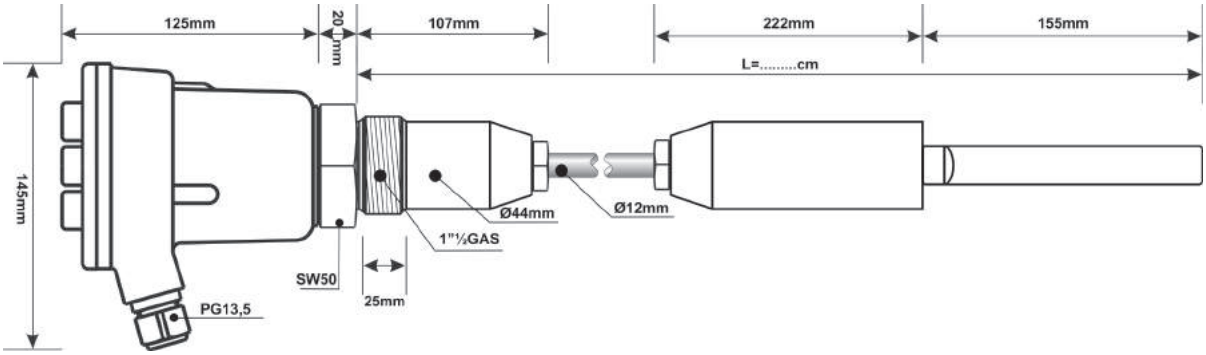
Process connection, G 1 1/2" A/ SS316
Product temperature range from -20 to 140°C
IP66 mechanical protection
Insertion length 202mm (fork 155mm)
Power supply: 20÷36Vdc / 20÷255Vac 50Hz
0,8W or 15VA max power consumption
Relay output rating 250Vac, 2A

Version	
A	Compact
B	Rigid extension, price each 100mm (min. length 200mm - max. 3000mm)
C	Rope extension, price each meter (min. length 1m - max. 30m)
E	Compact + transparent cap
Z	Special

Certification	
0	None - with IP66 PC (loaded-polycarbonate)
1	22 Zone - with IP66 PC (loaded-polycarbonate)
2	Atex II 1/2D Ex tD A20/21 IP66 T 150 (zone 20/21) - with aluminum housing

Output	
A	N. 1 SPDT relay





Vibration

RSL201

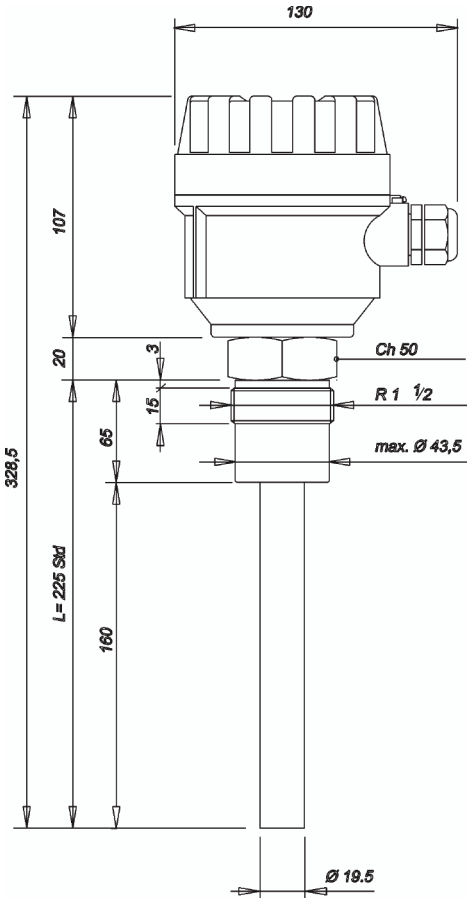
Vibrating rod lev.switch, granulates and powders

Process connection: G 1½" A / SS316
Product temperature range: -20 ÷ +140°C
IP66 mechanical protection
Rod length: 160mm
Power supply: 20÷36Vdc / 20÷255Vac 50Hz
0,8 or 15VA max power consumption
Relay output rating 250Vac, 2A

Version	
A	Compact
C	Rope extension, price each meter (min. length 1m - max 30m)
E	Compact + transparent cap
Z	Special

Certification	
0	None - with IP66 PC (loaded-polycarbonate)
1	22 Zone - with IP66 PC (loaded-polycarbonate)
2	Atex II 1/2D Ex tD A20/21 IP66 T 150 (zone 20/21) - with aluminum housing

Output	
A	N. 1 SPDT relay



FLOWMETER Ultrasonic open channel flow control unit

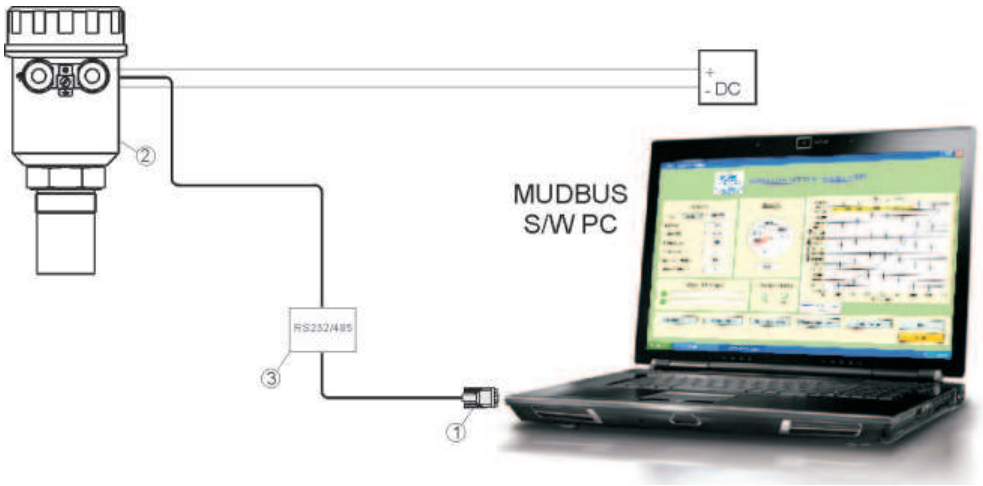
Compact - Suitable for upstream installation in weir
and Venturi (standard and non-standard)
4÷20mA output with instantaneous flow transmission
Relay nr. 1 for impulses/volume transmission
Relay nr. 2 for threshold alarm or diagnostic
MODBUS RTU output
Temperature range : -30° ÷ +70°C (80° non continuous)

Version	
0	4-wire, MODBUS, range 5m
9	Special

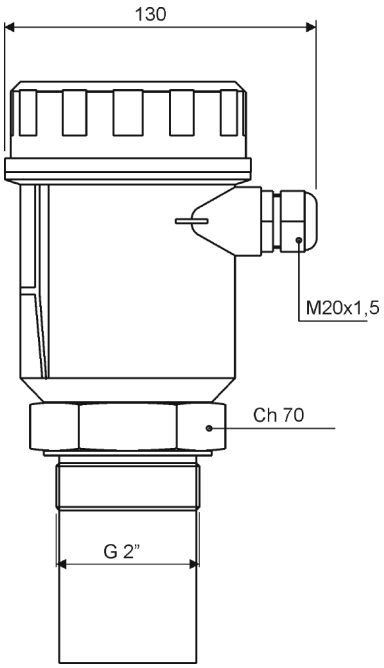
Housing / Sensor materials	
F	PC with transparent cap, IP67 / PP
M	PC with transparent cap and anticondensation, IP66
U	Aluminum with transparent cap, IP67 / PP
Z	Special

Power supply	
4	24Vdc (20÷30Vdc)
5	12Vdc (max 20Vdc)
9	Special

Optional (opt.)	
A	None
C	DN80 PN6 UNI 6091-71/PP flange
D	VL601 keyboard/display programming module (VL601SGM)
H	2" BSP/PP fixing bolt
L	MC601, module for connection to VLW601 (MC601SGM)
S	MODBUS RTU communication software (010F119A)
Z	Special



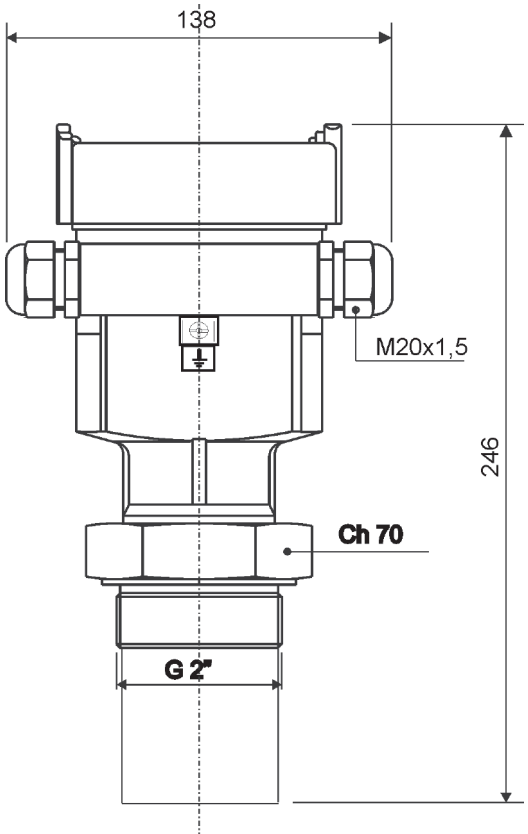
Open channel

VL601 module

MC601 module

VLW601



BS150 Pre-fabricated Venturi flumes

Qmin=1m3/h - 0,28l/sec; Qmax=50m3/h - 13,8l/s
Length 0,480m; width 0,15m; high 0,27m

Construction materials	
P	PP Polypropilen
Z	Special

Accessories	
A	None
Z	Special

BS200 Pre-fabricated Venturi flumes

Qmin=2m3/h - 0,55l/sec; Qmax=55m3/h - 15,27l/s
Length 0,639m; width 0,2m; high 0,24m

Construction materials	
P	PP Polypropilen
Z	Special

Accessories	
A	None
Z	Special

BS300 Pre-fabricated Venturi flumes

Qmin=3m3/h - 0,83l/sec; Qmax=150m3/h - 41,6l/s
Length 0,958m; width 0,3m; high 0,36m

Construction materials	
P	PP Polypropilen
Z	Special

Accessories	
A	None
I	650D012A, wooden crate
Z	Special

BS400 Pre-fabricated Venturi flumes

Qmin=10m3/h -2,7l/sec; Qmax=310m3/h - 86,1l/s
Length 1,278m; width 0,4m; high 0,48m

Construction materials	
P	PP Polypropilen
Z	Special

Accessories	
A	None
I	650D012A, wooden crate
Z	Special

BS500 Pre-fabricated Venturi flumes

Qmin=20m3/h - 5,5l/sec; Qmax=500m3/h - 138,8l/s
Length 1,598m; width 0,5m; high 0,60m

Construction materials	
P	PP Polypropilen
Z	Special

Accessories	
A	None
I	650D012A, wood case
Z	Special

Open channel

BS600 Pre-fabricated Venturi flumes

Qmin=25m3/h - 7,15l/sec; Qmax=850m3/h - 236l/s
Length 1,5m; width 0,6m; high 0,72m

Construction materials	
P	PP Polypropilen
Z	Special

Accessories	
A	None
I	650D012A, wooden crate
Z	Special

BS800 Pre-fabricated Venturi flumes

Qmin=50m3/h - 13,9l/sec; Qmax=1400m3/h - 389l/s
Length 2m; width 0,8m; high 0,90m

Construction materials	
P	PP Polypropilen
Z	Special

Accessories	
A	None
I	650D012A, wooden crate
Z	Special

BS1000 Pre-fabricated Venturi flumes

Qmin=60m3/h - 16,6l/sec; Qmax=2250m3/h - 625l/s
Length 2,5m; width 1m; high 1m

Construction materials	
P	PP Polypropilen
Z	Special

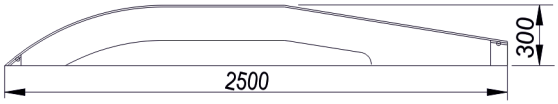
Accessories	
A	None
I	650D012A, wooden crate
Z	Special

BS1200 Lateral restriction flumes

Length 2,5m; width 0,3m; high 1,3m

Construction materials	
P	PP Polypropilen
Z	Special

Accessories	
A	None
I	650D012A, wooden crate
Z	Special



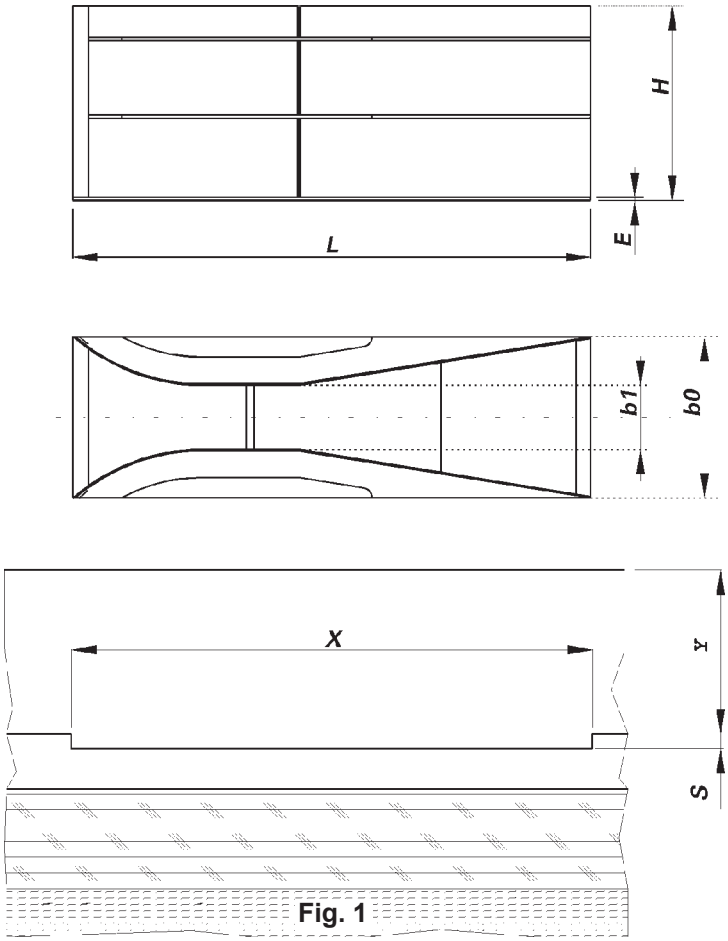


Fig. 1

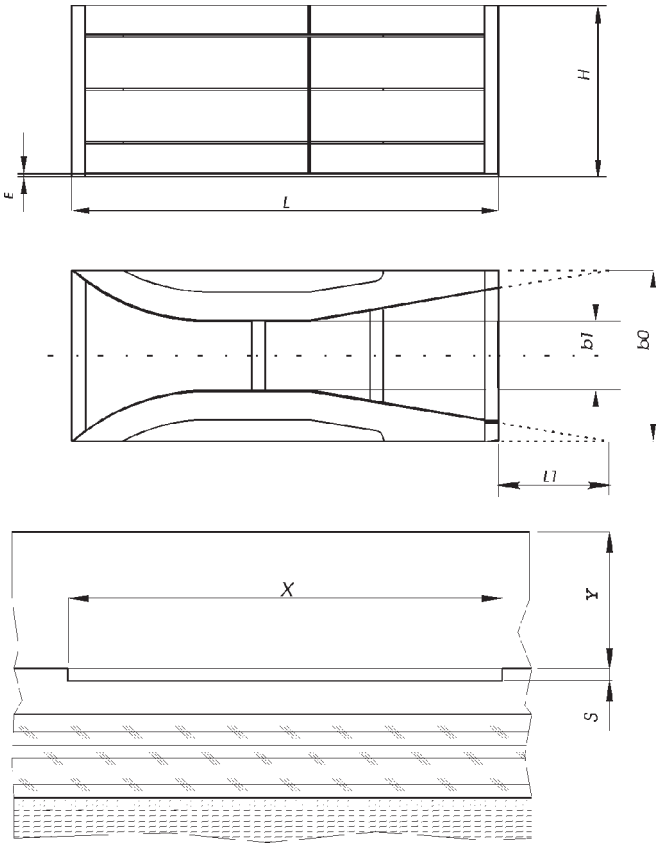


Fig. 2

Venturi flumes overall and installation dimensions

L1 is the extension joint flume dimension only for BS600÷1000 models (see fig1 for BS150÷500 and fig.2 for BS600÷1000)

Dim. / Model	L	L1	H	E	b0	b1	X	Y	S
BS150	479		270	5	150	60	483	280	7
BS200	639		240	5	200	80	645	250	7
BS300	958		360	6	300	120	968	370	8
BS400	1277		480	8	400	160	1281	490	10
BS500	1597		600	8	500	200	1617	610	10
BS600	1500	416	720	10	600	240	1520	740	14
BS800	2000	555	900	10	800	320	2030	920	14
BS1000	2500	694	1000	15	1000	400	2550	1020	19

Open channel

PB

Pre-fabricated Palmer-Bowlus flumes

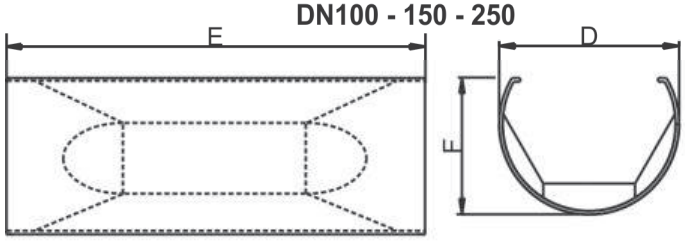
Insertion installation in already in place pipes
Linking with FLOWMETER ultrasonic flow transmitter or SWING/VLW90M units

DN pipe (mm)	
100	DN100 (4"); range 0,45÷12,50m3/h (max. 18,17m3/h)
150	DN150 (6"); range 0,68÷29,53m3/h (max. 52,23m3/h)
200	DN200 (8") - with fixing brackets; range 0,90÷70,41m3/h (max. 106,75m3/h)
250	DN250 (10"); range 1,14÷113,56m3/h (max. 187,38m3/h)
300	DN300 (12")- with fixing brackets; range 2,27÷170,34m3/h (max. 295,26m3/h)

Construction materials	
A	Fiberglass
Z	Special

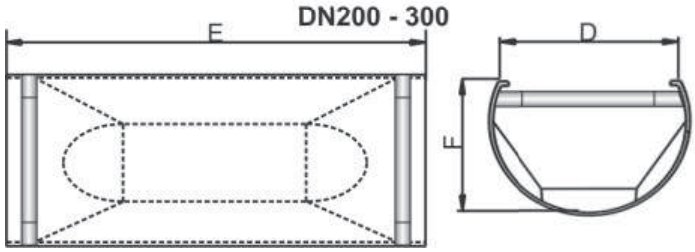
Accessories	
0	None
1	PTU holder
9	Special

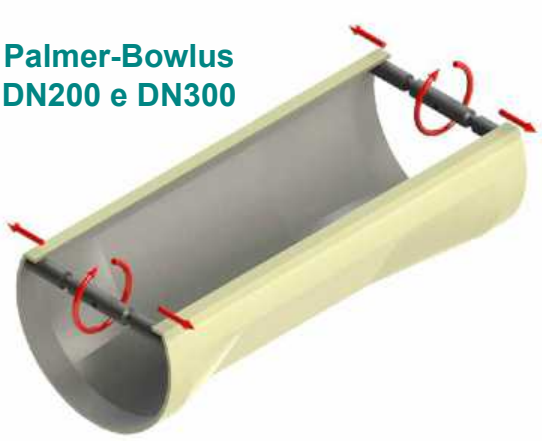
DN100 - 150 - 250

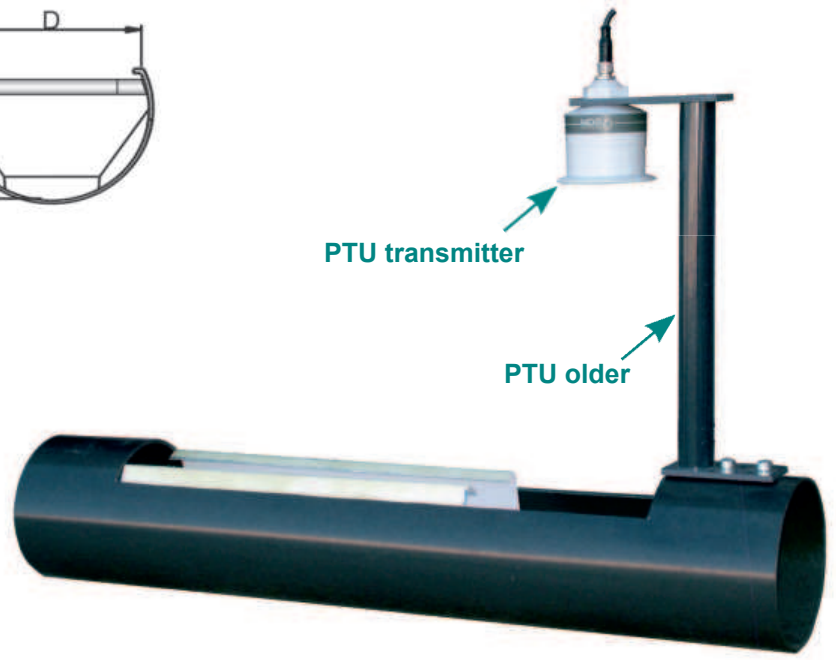


	D	F	E
DN100 (4")	100mm	75mm	250mm
DN150 (6") DN200 (8")	175mm	130mm	400mm
DN250 (10") DN300 (12")	205mm	205mm	600mm

DN200 - 300







CAL

Non standard weirs and flume, flow calculation

Base	
CAL	Calculation sheet with table and graphic


Electromagnetic

RPmag62 Electromagnetic Flowmeter

For conductive fluids. With sensor body in SS321
Medium ambient temperature range: -20° ÷ 70°C
Housing protection degree for electronic: IP67

Version	
F	Remote - 5m standard cable length (over 5m euro 13,00 each additional meter)
Y	Compact - Max temperature of the fluid 100°C

DN flange / Max. pressure / Lining (temperature range of the fluid)	
001013	DN10 / 4,0MPa / FEP (-40° ÷ +150°C); range 0,14 ÷ 2,9m3/h; UNI 1092-1 standard
001513	DN15 / 4,0MPa / PTFE (-40° ÷ +150°C); range 0,3 ÷ 6m3/h; UNI 1092-1 standard
002513	DN25 / 4,0MPa / PTFE (-40° ÷ +150°C); range 0,6 ÷ 18m3/h; UNI 1092-1 standard
003213	DN32 / 4,0MPa / PTFE (-40° ÷ +150°C); range 1 ÷ 30m3/h; UNI 1092-1 standard
004013	DN40 / 4,0MPa / PTFE (-40° ÷ +150°C); range 1,8 ÷ 42m3/h; UNI 1092-1 standard
005011	DN50 / 4,0MPa / rubber (-10° ÷ +80°C); range 3 ÷ 66m3/h; UNI 1092-1 standard
005013	DN50 / 4,0MPa / PTFE (-40° ÷ +150°C); range 3 ÷ 66m3/h; UNI 1092-1 standard
006511	DN65 / 4,0MPa / rubber (-10° ÷ +80°C); range 5,8 ÷ 120m3/h; UNI 1092-1 standard
006513	DN65 / 4,0MPa / PTFE (-40° ÷ +150°C); range 5,8 ÷ 120m3/h; UNI 1092-1 standard
008011	DN80 / 4,0MPa / rubber (-10° ÷ +80°C); range 8,9 ÷ 180m3/h; UNI 1092-1 standard
008013	DN80 / 4,0MPa / PTFE (-40° ÷ +150°C); range 8,9 ÷ 180m3/h; UNI 1092-1 standard
010011	DN100 / 4,0MPa / rubber (-10° ÷ +80°C); range 11 ÷ 282m3/h; UNI 1092-1 standard
010013	DN100 / 4,0MPa / PTFE (-40° ÷ +150°C); range 11 ÷ 282m3/h; UNI 1092-1 standard
010041	DN100 / 1,6MPa / Rubber (-10° ÷ +80°C); range 11 ÷ 282m3/h; UNI 1092-1 standard
010043	DN100 / 1,6MPa / PTFE (-40° ÷ +150°C); range 11 ÷ 282m3/h; UNI 1092-1 standard
012511	DN125 / 4,0MPa / rubber (-10° ÷ +80°C); range 20 ÷ 450m3/h; UNI 1092-1 standard
012513	DN125 / 4,0MPa / PTFE (-40° ÷ +150°C); range 20 ÷ 450m3/h; UNI 1092-1 standard
012541	DN125 / 1,6MPa / Rubber (-10° ÷ +80°C); range 20 ÷ 450m3/h; UNI 1092-1 standard
012543	DN125 / 1,6MPa / PTFE (-40° ÷ +150°C); range 20 ÷ 450m3/h; UNI 1092-1 standard
015011	DN150 / 4,0MPa / rubber (-10° ÷ +80°C); range 30 ÷ 600m3/h; UNI 1092-1 standard
015013	DN150 / 4,0MPa / PTFE (-40° ÷ +150°C); range 30 ÷ 600m3/h; UNI 1092-1 standard
015041	DN150 / 1,6MPa / Rubber (-10° ÷ +80°C); range 30 ÷ 600m3/h; UNI 1092-1 standard
015043	DN150 / 1,6MPa / PTFE (-40° ÷ +150°C); range 30 ÷ 600m3/h; UNI 1092-1 standard
020021	DN200 / 1,0MPa / rubber (-10° ÷ +80°C); range 50 ÷ 1100m3/h; UNI 1092-1 standard
020023	DN200 / 1,0MPa / PTFE (-40° ÷ +150°C); range 50 ÷ 1100m3/h; UNI 1092-1 standard
020041	DN200 / 1,6MPa / rubber (-10° ÷ +80°C); range 50 ÷ 1100m3/h; UNI 1092-1 standard
020043	DN200 / 1,6MPa / PTFE (-40° ÷ +150°C); range 50 ÷ 1100m3/h; UNI 1092-1 standard
025021	DN250 / 1,0MPa / rubber (-10° ÷ +80°C); range 85 ÷ 1700m3/h; UNI 1092-1 standard
025023	DN250 / 1,0MPa / PTFE (-40° ÷ +150°C); range 85 ÷ 1700m3/h; UNI 1092-1 standard
025041	DN250 / 1,6MPa / rubber (-10° ÷ +80°C); range 85 ÷ 1700m3/h; UNI 1092-1 standard
025043	DN250 / 1,6MPa / PTFE (-40° ÷ +150°C); range 85 ÷ 1700m3/h; UNI 1092-1 standard
030021	DN300 / 1,0MPa / rubber (-10° ÷ +80°C); range 110 ÷ 2400m3/h; UNI 1092-1 standard
030023	DN300 / 1,0MPa / PTFE (-40° ÷ +150°C); range 110 ÷ 2400m3/h; UNI 1092-1 standard
030041	DN300 / 1,6MPa / rubber (-10° ÷ +80°C); range 110 ÷ 2400m3/h; UNI 1092-1 standard
030043	DN300 / 1,6MPa / PTFE (-40° ÷ +150°C); range 110 ÷ 2400m3/h; UNI 1092-1 standard
035021	DN350 / 1,0MPa / rubber (-10° ÷ +80°C); range 180 ÷ 3300m3/h; UNI 1092-1 standard
035023	DN350 / 1,0MPa / PTFE (-40° ÷ +150°C); range 180 ÷ 3300m3/h; UNI 1092-1 standard
035041	DN350 / 1,6MPa / rubber (-10° ÷ +80°C); range 180 ÷ 3300m3/h; UNI 1092-1 standard
035043	DN350 / 1,6MPa / PTFE (-40° ÷ +150°C); range 180 ÷ 3300m3/h; UNI 1092-1 standard
040021	DN400 / 1,0MPa / rubber (-10° ÷ +80°C); range 220 ÷ 4200m3/h; UNI 1092-1 standard
040023	DN400 / 1,0MPa / PTFE (-40° ÷ +150°C); range 220 ÷ 4200m3/h; UNI 1092-1 standard
040041	DN400 / 1,6MPa / rubber (-10° ÷ +80°C); range 220 ÷ 4200m3/h; UNI 1092-1 standard
040043	DN400 / 1,6MPa / PTFE (-40° ÷ +150°C); range 220 ÷ 4200m3/h; UNI 1092-1 standard
045021	DN450 / 1,0MPa / rubber (-10° ÷ +80°C); range 270÷ 5400m3/h; UNI 1092-1 standard
045023	DN450 / 1,0MPa / PTFE (-40° ÷ +150°C); range 270÷ 5400m3/h; UNI 1092-1 standard
045041	DN450 / 1,6MPa / rubber (-10° ÷ +80°C); range 270÷ 5400m3/h; UNI 1092-1 standard


045043	DN450 / 1,6MPa / PTFE (-40° ÷ +150°C); range 270÷ 5400m3/h; UNI 1092-1 standard
050021	DN500 / 1,0MPa / rubber (-10° ÷ +80°C); range 320 ÷ 6600m3/h; UNI 1092-1 standard
050023	DN500 / 1,0MPa / PTFE (-40° ÷ +150°C); range 320 ÷ 6600m3/h; UNI 1092-1 standard
060021	DN600 / 1,0MPa / rubber (-10° ÷ +80°C); range 490 ÷ 9600m3/h; UNI 1092-1 standard
060023	DN600 / 1,0MPa / PTFE (-40° ÷ +150°C); range 490 ÷ 9600m3/h; UNI 1092-1 standard
070021	DN700 / 1,0MPa / rubber (-10° ÷ +80°C); range 680 ÷ 13500m3/h; UNI 1092-1 standard
070023	DN700 / 1,0MPa / PTFE (-40° ÷ +150°C); range 680 ÷ 13500m3/h; UNI 1092-1 standard
080021	DN800 / 1,0MPa / rubber (-10° ÷ +80°C); range 900 ÷ 18000m3/h; UNI 1092-1 standard
080023	DN800 / 1,0MPa / PTFE (-40° ÷ +150°C); range 900 ÷ 18000m3/h; UNI 1092-1 standard
090021	DN900 / 1,0MPa / rubber (-10° ÷ +80°C); range 1200 ÷ 22500m3/h; UNI 1092-1 standard
090023	DN900 / 1,0MPa / PTFE (-40° ÷ +150°C); range 1200 ÷ 22500m3/h; UNI 1092-1 standard
100021	DN1000 / 1,0MPa / rubber (-10° ÷ +80°C); range 1450 ÷ 28000m3/h; UNI 2223 standard
100023	DN1000 / 1,0MPa / PTFE (-40° ÷ +150°C); range 1450 ÷ 28000m3/h; UNI 1092-1 standard
120031	DN1200 / 0,6MPa / rubber (-10° ÷ +80°C); range 2000 ÷ 40000m3/h; UNI 1092-1 standard
140031	DN1400 / 0,6MPa / rubber (-10° ÷ +80°C); range 2900 ÷ 55000m3/h; UNI 1092-1 standard
160031	DN1600 / 0,6MPa / rubber (-10° ÷ +80°C); range 3800 ÷ 70000m3/h; UNI 1092-1 standard
999999	Special / Special / Special

Electrodes material	
1	316SST stainless steel
2	Hastelloy B
3	Hastelloy C
4	Titanium
5	Tantalum

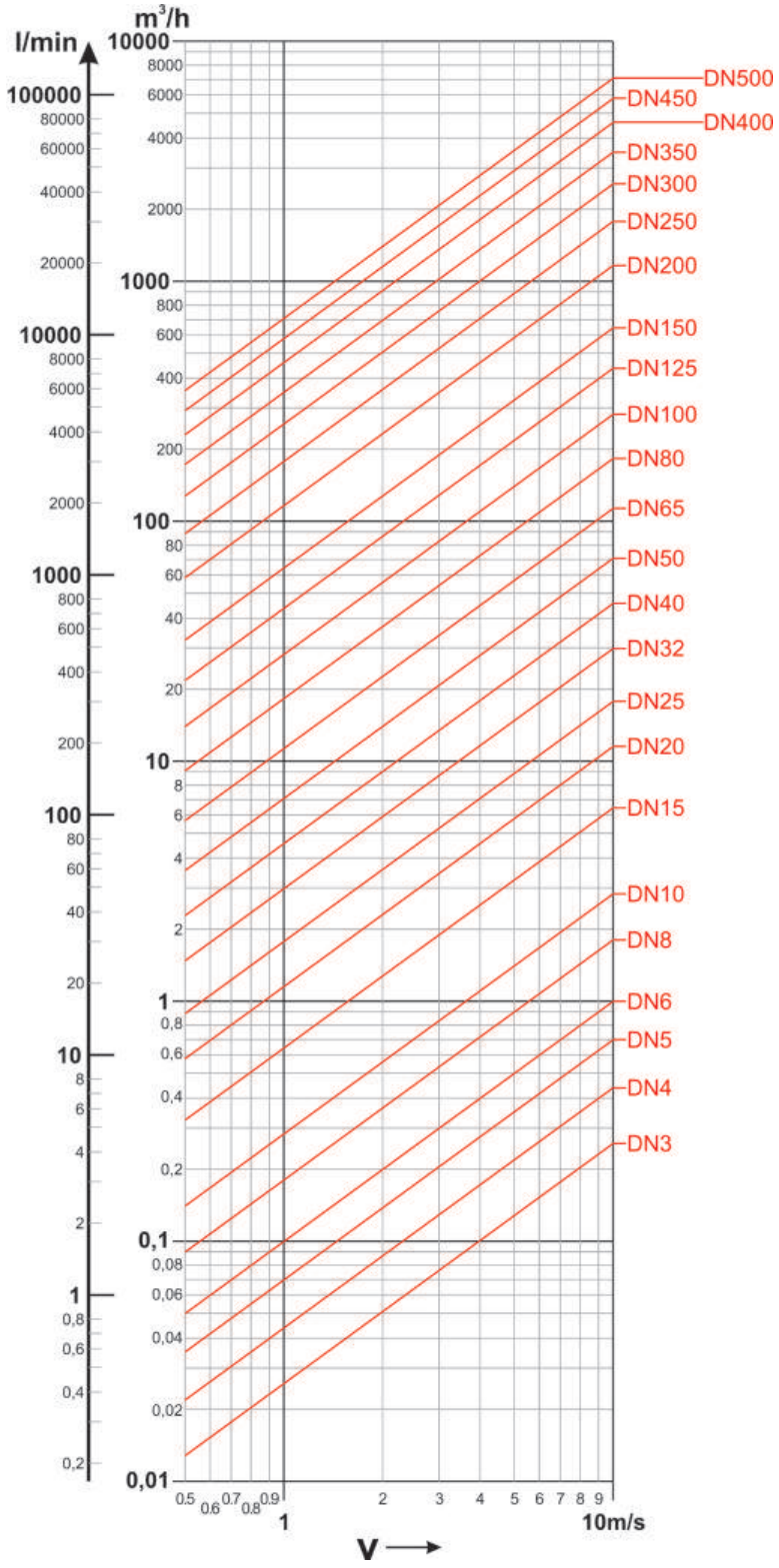
Power supply	
1	85÷265Vac 50÷60Hz
2	24Vdc
3	24Vac
9	Special

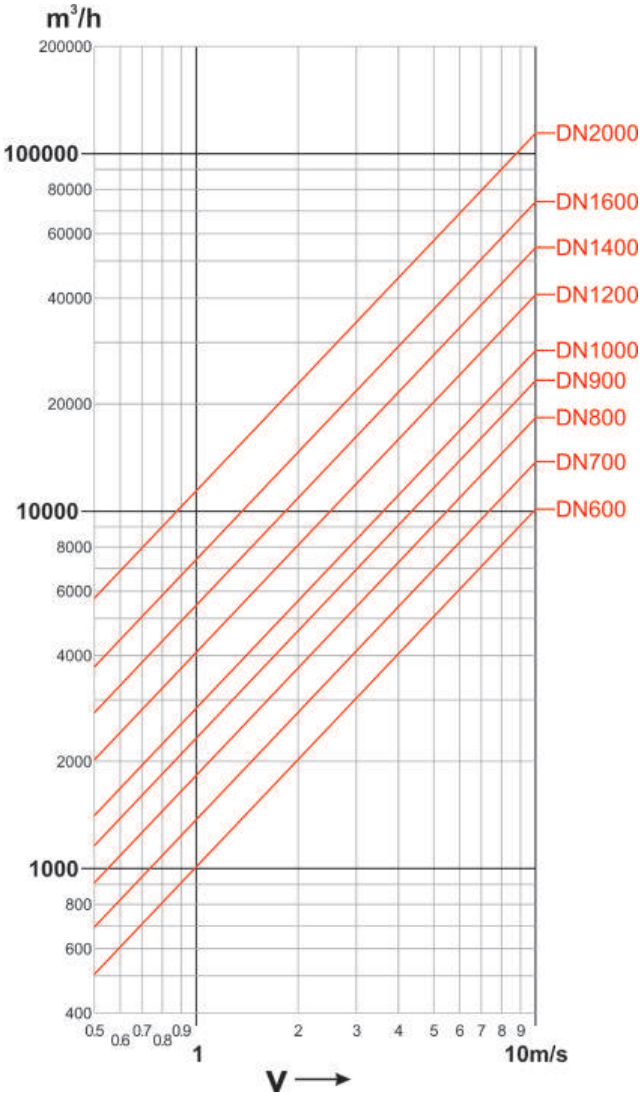
Accessories	
0	None
1	321SS or Hastelloy C grounding rings for plastic pipe installation (price on request)
2	Protective rings (price on request)
3	3 electrodes (from DN50 to DN300 for PTFE - fm DN100 on for rubber) - price on request
8	Standard ANSI flanges (price on request);no surcharge up to 6" (DN150)

Output	
1	Standard (4÷20mA) + pulse output
2	4÷20Ma + pulse + RS485
3	4÷20mA + pulse + HART
4	4÷20Ma + pulse + PROFIBUS DP
5	4÷20Ma + pulse + MODBUS RTU

Pipe protection degree	
1	IP67
2	IP68 (for remote version only)

Electromagnetic





Electromagnetic

Smag62 Electromagnetic Flowmeter

With sensor body in SS304
For conductive fluids even with a content of suspended matters.
For chemical/pharmaceutical and food applications

Version	
F	Remote - 5m standard cable length (over 5m euro 12,50 each additional meter)
Y	Compact

DN flange / Max. pressure / Lining (temperature range of the fluid)	
0010E2	DN10 / 1.6MPa / PFA ; range 0,14 ÷ 2,9m3/h - only with CLAMP process connection (E cod.)
0010E3	DN10 / 1.6MPA / PTFE; range 0,14 ÷ 2,9m3/h - only with CLAMP process connection (E cod.)
0015E2	DN15 / 1.6MPa / PFA; range 0,3 ÷ 6m3/h
0015E3	DN15 / 1.6MPa / PTFE; range 0,3 ÷ 6m3/h
0020E2	DN20 / 1.6MPa / PFA; range 0,5 ÷ 12m3/h
0020E3	DN20 / 1.6MPa / PTFE; range 0,5 ÷ 12m3/h
0025E2	DN25 / 1.6MPa / PFA; range 0,6 ÷ 18m3/h
0025E3	DN25 / 1.6MPa / PTFE; range 0,6 ÷ 18m3/h
0032E2	DN32 / 1.6MPa / PFA; range 1 ÷ 30m3/h
0032E3	DN32 / 1.6MPa / PTFE; range 1 ÷ 30m3/h
0040E2	DN40 / 1.6MPa / PFA; range 1,8 ÷ 42m3/h
0040E3	DN40 / 1.6MPa / PTFE; range 1,8 ÷ 42m3/h
0050E2	DN50 / 1.6MPa / PFA; range 3 ÷ 66m3/h
0050E3	DN50 / 1.6MPa / PTFE; range 3 ÷ 66m3/h
0065E2	DN65 / 1.6MPa / PFA; range 5,8 ÷ 120m3/h
0065E3	DN65 / 1.6MPa / PTFE; range 5,8 ÷ 120m3/h
0080E2	DN80 / 1.6MPa / PFA; range 8,9 ÷ 180m3/h
0080E3	DN80 / 1.6MPa / PTFE; range 8,9 ÷ 180m3/h
0100E2	DN100 / 1.6MPa / PFA; range 11 ÷ 282m3/h
0100E3	DN100 / 1.6MPa / PTFE; range 11 ÷ 282m3/h
0125E2	DN125 / 1.6MPa / PFA; range 20 ÷ 450m3/h
0125E3	DN125 / 1.6MPa / PTFE; range 20 ÷ 450m3/h
0150E2	DN150 / 1.6MPa / PFA; range 30 ÷ 600m3/h
0150E3	DN150 / 1.6MPa / PTFE; range 30 ÷ 600m3/h

Process connection	
D	DIN 11851
E	DIN SS304 CLAMP ISO2852

Electrodes material	
1	316SST stainless steel
3	Hastelloy C
4	Titanium
5	Tantalum
9	Special

Power supply	
A	85÷265Vac 50÷60Hz
B	24Vdc
Z	Special

Accessories	
0	None

Output	
A	Standard (4÷20mA) + pulse output

Pipe protection degree	
1	IP67
2	IP68 (only for remote version)

Fluid temperature	
A	<= 150°C (only for remote version)
B	<= 180°C (only for remote version - prices on request)
C	<= 120°C

Electromagnetic

PMAG

Electromagnetic flowmeter

For conductive fluids. With sensor body in SS321
Medium ambient temperature range: -20° ÷ 75°C
Housing protection degree for electronic: IP66

Version	
E	Remote - accuracy 0,2% - standard cable length 5m (over 5m eur 7,00 each additional meter)
F	Remote - standard cable length 5m (over 5m eur 7,00 each additional meter)
W	Compact - accuracy 0,2% - max temperature of the fluid 100°C
Y	Compact - max temperature of the fluid 100°C

DN flange / Max. pressure / Lining (temperature range of the fluid)	
0010B2	DN10 / 4.0MPa / PTFE (-40° ÷ +150°C); range 0,14 ÷ 2,9m3/h; UNI 1092-1 standard
0010E2	DN10 / 1.6MPa / PTFE (-40° ÷ +150°C); range 0,14 ÷ 2,9m3/h; UNI 1092-1 standard
0015B2	DN15 / 4.0MPa / PTFE (-40° ÷ +150°C); range 0,3 ÷ 6m3/h; UNI 1092-1 standard
0015E2	DN15 / 1.6MPa / PTFE (-40° ÷ +150°C); range 0,3 ÷ 6m3/h; UNI 1092-1 standard
0020B2	DN20 / 4.0MPa / PTFE (-40° ÷ +150°C); range 0,5 ÷ 12m3/h; UNI 1092-1 standard
0020E2	DN20 / 1.6MPa / PTFE (-40° ÷ +150°C); range 0,5 ÷ 12m3/h; UNI 1092-1 standard
0025B2	DN25 / 4.0MPa / PTFE (-40° ÷ +150°C); range 0,6 ÷ 18m3/h; UNI 1092-1 standard
0025E2	DN25 / 1.6MPa / PTFE (-40° ÷ +150°C); range 0,6 ÷ 18m3/h; UNI 1092-1 standard
0032B2	DN32 / 4.0MPa / PTFE (-40° ÷ +150°C); range 1 ÷ 30m3/h; UNI 1092-1 standard
0032E2	DN32 / 1.6MPa / PTFE (-40° ÷ +150°C); range 1 ÷ 30m3/h; UNI 1092-1 standard
0040B1	DN40 / 4.0MPa / Rubber (-10° ÷ +80°C); range 1,8 ÷ 42m3/h; UNI 1092-1 standard
0040B2	DN40 / 4.0MPa / PTFE (-40° ÷ +150°C); range 1,8 ÷ 42m3/h; UNI 1092-1 standard
0040E1	DN40 / 1.6MPa / Rubber (-10° ÷ +80°C); range 1,8 ÷ 42m3/h; UNI 1092-1 standard
0040E2	DN40 / 1.6MPa / PTFE (-40° ÷ +150°C); range 1,8 ÷ 42m3/h; UNI 1092-1 standard
0050B1	DN50 / 4.0MPa / Rubber (-10° ÷ +80°C); range 3 ÷ 66m3/h; UNI 1092-1 standard
0050B2	DN50 / 4.0MPa / PTFE (-40° ÷ +150°C); range 3 ÷ 66m3/h; UNI 1092-1 standard
0050E1	DN50 / 1.6MPa / Rubber (-10° ÷ +80°C); range 3 ÷ 66m3/h; UNI 1092-1 standard
0050E2	DN50 / 1.6MPa / PTFE (-40° ÷ +150°C); range 3 ÷ 66m3/h; UNI 1092-1 standard
0065B1	DN65 / 4.0MPa / Rubber (-10° ÷ +80°C); range 5,8 ÷ 120m3/h; UNI 1092-1 standard
0065B2	DN65 / 4.0MPa / PTFE (-40° ÷ +150°C); range 5,8 ÷ 120m3/h; UNI 1092-1 standard
0065E1	DN65 / 1.6MPa / Rubber (-10° ÷ +80°C); range 5,8 ÷ 120m3/h; UNI 1092-1 standard
0065E2	DN65 / 1.6MPa / PTFE (-40° ÷ +150°C); range 5,8 ÷ 120m3/h; UNI 1092-1 standard
0080B1	DN80 / 4.0MPa / Rubber (-10° ÷ +80°C); range 8,9 ÷ 180m3/h; UNI 1092-1 standard
0080B2	DN80 / 4.0MPa / PTFE (-40° ÷ +150°C); range 8,9 ÷ 180m3/h; UNI 1092-1 standard
0080E1	DN80 / 1.6MPa / Rubber (-10° ÷ +80°C); range 8,9 ÷ 180m3/h; UNI 1092-1 standard
0080E2	DN80 / 1.6MPa / PTFE (-40° ÷ +150°C); range 8,9 ÷ 180m3/h; UNI 1092-1 standard
0100B1	DN100 / 4.0MPa / Rubber (-10° ÷ +80°C); range 11 ÷ 282m3/h; UNI 1092-1 standard
0100B2	DN100 / 4.0MPa / PTFE (-40° ÷ +150°C); range 11 ÷ 282m3/h; UNI 1092-1 standard
0100E1	DN100 / 1.6MPa / Rubber (-10° ÷ +80°C); range 11 ÷ 282m3/h; UNI 1092-1 standard
0100E2	DN100 / 1.6MPa / PTFE (-40° ÷ +150°C); range 11 ÷ 282m3/h; UNI 1092-1 standard
0125B1	DN125 / 4.0MPa / Rubber (-10° ÷ +80°C); range 20 ÷ 450m3/h; UNI 1092-1 standard
0125B2	DN125 / 4.0MPa / PTFE (-40° ÷ +150°C); range 20 ÷ 450m3/h; UNI 1092-1 standard
0125E1	DN125 / 1.6MPa / Rubber (-10° ÷ +80°C); range 20 ÷ 450m3/h; UNI 1092-1 standard
0125E2	DN125 / 1.6MPa / PTFE (-40° ÷ +150°C); range 20 ÷ 450m3/h; UNI 1092-1 standard
0150B1	DN150 / 4.0MPa / Rubber (-10° ÷ +80°C); range 30 ÷ 600m3/h; UNI 1092-1 standard
0150B2	DN150 / 4.0MPa / PTFE (-40° ÷ +150°C); range 30 ÷ 600m3/h; UNI 1092-1 standard
0150E1	DN150 / 1.6MPa / Rubber (-10° ÷ +80°C); range 30 ÷ 600m3/h; UNI 1092-1 standard
0150E2	DN150 / 1.6MPa / PTFE (-40° ÷ +150°C); range 30 ÷ 600m3/h; UNI 1092-1 standard

0200C1	DN200 / 1.0MPa / Rubber (-10° ÷ +80°C); range 50 ÷ 1100m3/h; UNI 1092-1 standard
0200C2	DN200 / 1.0MPa / PTFE (-40° ÷ +150°C); range 50 ÷ 1100m3/h; UNI 1092-1 standard
0200E1	DN200 / 1.6MPa / Rubber (-10° ÷ +80°C); range 50 ÷ 1100m3/h; UNI 1092-1 standard
0200E2	DN200 / 1.6MPa / PTFE (-40° ÷ +150°C); range 50 ÷ 1100m3/h; UNI 1092-1 standard
0250C1	DN250 / 1.0MPa / Rubber (-10° ÷ +80°C); range 85 ÷ 1700m3/h; UNI 1092-1 standard
0250C2	DN250 / 1.0MPa / PTFE (-40° ÷ +150°C); range 85 ÷ 1700m3/h; UNI 1092-1 standard
0250E1	DN250 / 1.6MPa / Rubber (-10° ÷ +80°C); range 85 ÷ 1700m3/h; UNI 1092-1 standard
0250E2	DN250 / 1.6MPa / PTFE (-40° ÷ +150°C); range 85 ÷ 1700m3/h; UNI 1092-1 standard
0300C1	DN300 / 1.0MPa / Rubber (-10° ÷ +80°C); range 110 ÷ 2400m3/h; UNI 1092-1 standard
0300C2	DN300 / 1.0MPa / PTFE (-40° ÷ +150°C); range 110 ÷ 2400m3/h; UNI 1092-1 standard
0300E1	DN300 / 1.6MPa / Rubber (-10° ÷ +80°C); range 110 ÷ 2400m3/h; UNI 1092-1 standard
0300E2	DN300 / 1.6MPa / PTFE (-40° ÷ +150°C); range 110 ÷ 2400m3/h; UNI 1092-1 standard
0350C1	DN350 / 1.0MPa / Rubber (-10° ÷ +80°C); range 180 ÷ 3300m3/h; UNI 1092-1 standard
0350C2	DN350 / 1.0MPa / PTFE (-40° ÷ +150°C); range 180 ÷ 3300m3/h; UNI 1092-1 standard
0350E1	DN350 / 1.6MPa / Rubber (-10° ÷ +80°C); range 180 ÷ 3300m3/h; UNI 1092-1 standard
0350E2	DN350 / 1.6MPa / PTFE (-40° ÷ +150°C); range 180 ÷ 3300m3/h; UNI 1092-1 standard
0400C1	DN400 / 1.0MPa / Rubber (-10° ÷ +80°C); range 220 ÷ 4200m3/h; UNI 1092-1 standard
0400C2	DN400 / 1.0MPa / PTFE (-40° ÷ +150°C); range 220 ÷ 4200m3/h; UNI 1092-1 standard
0400E1	DN400 / 1.6MPa / Rubber (-10° ÷ +80°C); range 220 ÷ 4200m3/h; UNI 1092-1 standard
0400E2	DN400 / 1.6MPa / PTFE (-40° ÷ +150°C); range 220 ÷ 4200m3/h; UNI 1092-1 standard
0450C1	DN450 / 1.0MPa / Rubber (-10° ÷ +80°C); range 270÷ 5400m3/h; UNI 1092-1 standard
0450C2	DN450 / 1.0MPa / PTFE (-40° ÷ +150°C); range 270÷ 5400m3/h; UNI 1092-1 standard
0450E1	DN450 / 1.6MPa / Rubber (-10° ÷ +80°C); range 270÷ 5400m3/h; UNI 1092-1 standard
0450E2	DN450 / 1.6MPa / PTFE (-40° ÷ +150°C); range 270÷ 5400m3/h; UNI 1092-1 standard
0500C1	DN500 / 1.0MPa / Rubber (-10° ÷ +80°C); range 320 ÷ 6600m3/h; UNI 1092-1 standard
0500C2	DN500 / 1.0MPa / PTFE (-40° ÷ +150°C); range 320 ÷ 6600m3/h; UNI 1092-1 standard
0500E1	DN500 / 1.6MPa / Rubber (-10° ÷ +80°C); range 320 ÷ 6600m3/h; UNI 1092-1 standard
0500E2	DN500 / 1.6MPa / PTFE (-40° ÷ +150°C); range 320 ÷ 6600m3/h; UNI 1092-1 standard
0600C1	DN600 / 1.0MPa / Rubber (-10° ÷ +80°C); range 490 ÷ 9600m3/h; UNI 1092-1 standard
0700C1	DN700 / 1.0MPa /Rubber (-10° ÷ +80°C); range 680 ÷ 13500m3/h; UNI 1092-1 standard
0800C1	DN800 / 1.0MPa / Rubber (-10° ÷ +80°C); range 900 ÷ 18000m3/h; UNI 1092-1 standard
0900C1	DN900 / 1.0MPa / Rubber (-10° ÷ +80°C); range 1200 ÷ 22500m3/h; UNI 1092-1 standard
1000C1	DN1000 / 1.0MPa / Rubber (-10° ÷ +80°C); (-10° ÷ +80°C); range 1450 ÷ 28000m3/h; UNI 1092-1 standard

Process connection	
B	DIN (UNI 1092-1) flange
D	ANSI flange (price on request)
Z	Special

Electrodes material	
1	316SST Stainless steel
3	Hastelloy C
4	Titanium
5	Tantalum

Electromagnetic

Power supply	
A	85÷265Vac
B	24Vdc
Z	Special

Accessories	
0	None
1	321SS or Hastelloy C grounding rings for plastic pipe installation (price on request)
3	3rd electrode - price on request

Output	
A	4÷20mA + pulse output
C	4÷20mA + pulse output + HART
E	4÷20mA + pulse + MODBUS RTU

Pipe protection degree	
1	IP67
2	IP68

SGM-100F Fixed ver. transit time ultrasonic flow meter

Speed range: max ± 32m/s - Simultaneous display of flowrate and cumulative volume data
Output: 4÷20mA + 1 open collector + 1 relay
Accuracy not better ± 1%
Transducers connection cable 5 mt
Protection degree: transmitter IP65 - transducers IP68
Supplied with grease and nr.2 chains for the transducers fixing (up to DN1000) + nr. 2 tie rods

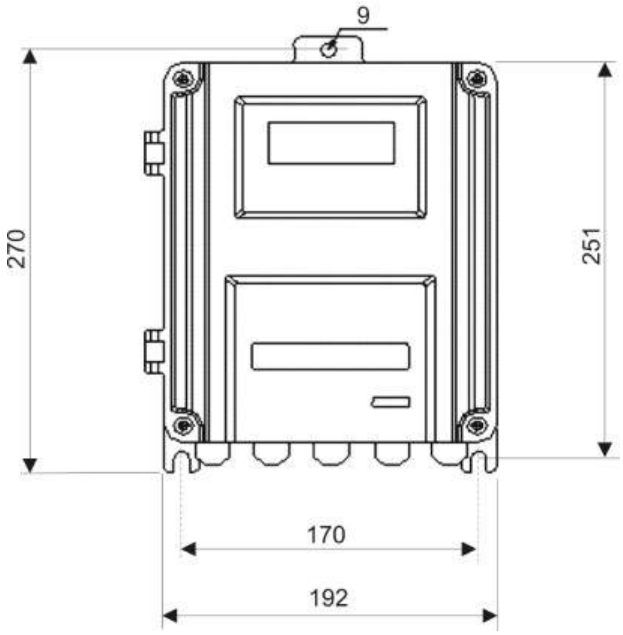
Version	
W	Wall mounting
Z	Special

Power supply	
A	230Vac
D	24Vdc
Z	Special

Transducers	
A0	None
S1	Clamp-on type for pipes DN 20÷100 - 0÷70°C (additional cable eur 8,00 each mt)
SH	Clamp-on type for pipes DN 20÷100 - for high temperature 0÷160°C (additional cable eur 8,00 each mt)
M1	Clamp-on type for pipes DN 50÷700 - 0÷70°C (additional cable eur 8,00 each mt)
MH	Clamp-on type for pipes DN 50÷700 - for high temperature 0÷160°C (additional cable eur 8,00 each mt)
L1	Clamp-on type for pipes DN300÷4000 - 0÷70°C (additional cable eur 8,00 each mt)
I1	Insertion type for steel pipes - 0÷150°C (additional cable eur 8,00 each mt)
I2	Insertion type for cement pipes - 0÷150°C (additional cable eur 8,00 each mt)
Z9	Special

Additional output	
4	RS485 - MODBUS
N	None
Z	Special

Optional (opt.)	
A	None
B	MODBUS communication software (010F109A)
Z	Special



Transit time

SGM-200H Portable transit time ultrasonic flow meter

With clamp-on transducers. Datalogger storage on SD card (SDHC) 512MB ÷ 32GB (opt.)
Speed range: max ± 20m/s - Simultaneous display of flowrate and cumulative volume data
Accuracy: not better ± 1%
Ambient temperature: -20° ÷ 60°C - Humidity <85% (RH)
Transducers temperature range: 0°÷ 70°C or 0÷160°C for high temperature
Battery life: 24 hours
Transducers connection cables: 5 mt; acoustic coupling gel
Nr.2 chains for the transducers fixing (up to DN1000) + nr. 2 tie rods

Transducers	
S1-	Couple of transducers for pipes from DN20 to DN100
M1-	Couple of transducers for pipes from DN50 to DN700
M1S	Couple of SS316 transducers for pipes from DN50 to DN700
L1-	Couple of transducers for pipes from DN300 to DN4000
S1F	Couple of transducers on metric frame for pipes from DN20 to DN100
M1F	Couple of transducers on metric frame for pipes from DN50 to DN700
S1H	Couple of high temperature transducers (0÷160°C) for pipes from DN20 to DN100
I1-	Couple of standard insertion transducers for steel pipes (-40°÷160°C)
M1H	Couple of high temperature transducers (0÷160°C) for pipes from DN50 to DN700
I2-	Couple of insertion transducers for cement pipes (-40°÷160°C)

Optional (opt.)	
A	None
D	Grease for high temperature
E	4GB SDHC Card (cod.816A001A)

SGM-100H Portable transit time ultrasonic flow meter

With clamp-on transducers. Data logger built-in up to 2000 reading
Speed range: max ± 32m/s - Simultaneous display of flowrate and cumulative volume data
Accuracy not better ± 1%
Ambient temperature: -10° ÷ 50°C - Humidity <85% (RH)
Transducers temperature range: 0°÷ 70°C or 0÷160°C for high temperature
Battery life : 10 hours
Transducers connection cables: 5 mt; acoustic coupling gel
Nr.2 chains for the transducers fixing (up to DN1000) + nr. 2 tie rods

Transducers	
S1-	Couple of transducers for pipes from DN20 to DN100
M1-	Couple of transducers for pipes from DN50 to DN700
M1S	Couple of SS316 transducers for pipes from DN50 to DN700
L1-	Couple of transducers for pipes from DN300 to DN4000
S1F	Couple of transducers on metric frame for pipes from DN20 to DN100
M1F	Couple of transducers on metric frame for pipes from DN50 to DN700
S1H	Couple of high temperature transducers (0÷160°C) for pipes from DN20 to DN100
I1-	Couple of standard insertion transducers for steel pipes (-40°÷160°C)
M1H	Couple of high temperature transducers (0÷160°C) for pipes from DN50 to DN700
I2-	Couple of insertion transducers for cement pipes (-40°÷160°C)

Optional (opt.)	
A	None
B	RS232 communication software (010H108A)
D	Grease for high temperature

Transit time

SGM-100T Ultrasonic thickness meter

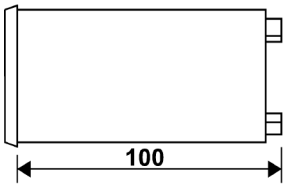
Base	
SGM-100T	Measuring range: 1,2÷225mm, 0,05-9" Materials measured: any hard materials, including steel, cast iron, aluminum, red copper, PVC and other materials Lower limit steel pipes: Ø15x2.0mm, Ø20x3.0mm determined by the transducer Resolution: 0.1mm Accuracy: ±(0.5%n+0.1) RS232C interface: with RS232C Power supply: 4x1.5V AAA (UM-4) battery (not included) Operating conditions: 0÷+45°C (32°F÷104°F), <90%RH

SLM2X Total flow indicator with analog input

Suitable to be connected to analogic transmitters
4÷20mA or 0÷10Vdc
4 frontal push-buttons for calibration
Data stored in EEPROM
Working temperature: -10° ÷ +50°C
Front panel mounting (dimA 92x45) IP54

Power supply	
00	115Vac
10	230Vac
20	24Vac
30	24Vdc

Version	
S206	6 digit totalizer display



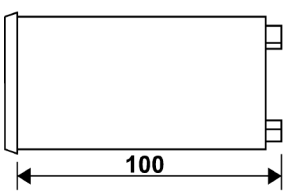
SLM2XH3 Total/instant. flow rate indicator with analog in.

Suitable to be connected to analogic transmitters
4÷20mA or 0÷10Vdc
Removable 4 frontal push-buttons for calibration (optional)
Data stored in EEPROM
Working temperature: -10° ÷ +50°C
Front panel mounting (dimA 92x45) IP54
Accuracy: 0,005% ±1 digit
Linearization: 0,005% ±1 digit

Power supply	
00	115Vac
10	230Vac
20	24Vac
30	24Vdc

Version	
S206	N.2 Display:, 8 digit totalizer, 4 digits instantaneous flow rate

Optional (opt.)	
A	None
P	Removable 4 frontal push-buttons for calibration



Pressure


P-8 Pressure transmitter

Mechanical protection: IP65
Operation temperature: -10° ÷ +80°C (default)
Power supply: 24Vdc
Wire-loop connection (2-wire)
Output signal: 4÷20mA (min.0,5mA, max. 30mA)
Max. range adjustment: "zero" ±5% F.S. and "full-scale" ±20% F.S.

Sensor type	
A1	Si-diffused sensor std. - fm 0,1bar (10KPa) to 350bar (35MPa)
A2	Ultra-stable - fm 0,06bar (6KPa) to 600bar (60MPa)
A3	With flat membrane - fm 0,5bar (50KPa) to 10bar (1MPa)
A4	With anti-corrosive membrane (Ta mat.)
B1	For high or low temperature: -65°÷ +150°C (only with M process connection)

Certification	
S	None

Process connection material	
1	Stainless Steel 316L
4	Hastelloy C
9	Special

Process connection	
A	Screw Thread 1/2NPT (small hole)
M	Screw Thread G½" (small hole)
R	Screw Thread G½" (Ø8mm big hole)
Y	Special (triclamp 1"½; min. -0,1MPa, max 2MPa; eur 70,00)

Sealed material	
1F	Fluorin Rubber: FPM (Viton)
2F	Butyl Rubber: IIR
4F	Fully Sealed Welding

Output	
2	4÷20mA 2-wires
9	Special

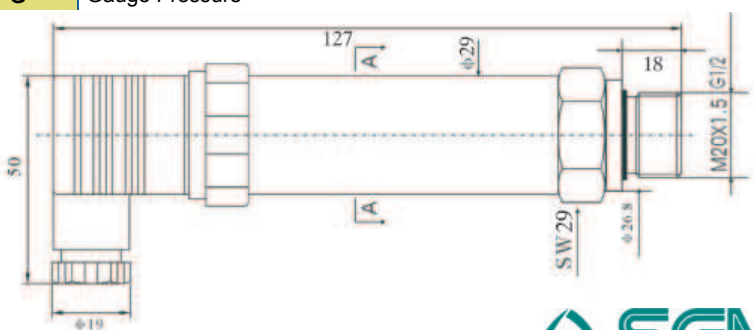
Display	
A	None
C	Digital LCD
Y	Digital LCD with 2 switch limited points
Z	Special

Accuracy	
2	±0,2%
5	±0,5%
9	Special

Measure range	
A01	0 ÷ 20KPa (0 ÷ 0,2bar) absolute p.
A02	0 ÷ 25KPa (0 ÷ 0,25bar) absolute p.
A03	0 ÷ 30KPa (0 ÷ 0,3bar) absolute p.
A04	0 ÷ 35KPa (0 ÷ 0,35bar) absolute p.
A05	0 ÷ 40KPa (0 ÷ 0,4bar) absolute p.
A06	0 ÷ 60KPa (0 ÷ 0,6bar) absolute p.
A07	0 ÷ 100KPa (0 ÷ 1bar) absolute p.
A08	0 ÷ 160KPa (0 ÷ 1,6bar) absolute p.
A09	0 ÷ 200Kpa (0 ÷ 2bar) absolute p.
A10	0 ÷ 250Kpa (0 ÷ 2,5bar) absolute p.
A11	0 ÷ 400KPa (0 ÷ 4bar) absolute p.
A12	0 ÷ 600KPa (0 ÷ 6bar) absolute p.
A13	0 ÷ 1,0MPa (0 ÷ 10bar) absolute p.

A14	0 ÷ 1,6MPa (0 ÷ 16bar) absolute p.
A15	0 ÷ 2,0MPa (0 ÷ 20bar) absolute p.
A16	0 ÷ 2,5MPa (0 ÷ 25bar) absolute p.
A17	0 ÷ 4,0MPa (0 ÷ 40bar) absolute p.
A18	0 ÷ 6,0MPa (0 ÷ 60bar) absolute p.
A19	0 ÷ 10MPa (0 ÷ 100bar) absolute p.
G01	0 ÷ 4KPa (0 ÷ 0,04bar) gauge p. - without SS membrane - only with B1 sensor
G02	0 ÷ 6KPa (0 ÷ 0,06bar) gauge p. - without SS membrane - only with A2 and B1 sensor
G03	0 ÷ 10KPa (0 ÷ 0,1bar) gauge p.
G04	0 ÷ 16KPa (0 ÷ 0,16bar) gauge p.
G05	0 ÷ 20KPa (0 ÷ 0,2bar) gauge p.
G06	0 ÷ 25KPa (0 ÷ 0,25bar) gauge p.
G07	0 ÷ 30KPa (0 ÷ 0,3bar) gauge p.
G08	0 ÷ 35KPa (0 ÷ 0,35bar) gauge p.
G09	0 ÷ 40KPa (0 ÷ 0,4bar) gauge p.
G10	0 ÷ 60KPa (0 ÷ 0,6bar) gauge p.
G11	0 ÷ 100KPa (0 ÷ 1bar) gauge p.
G12	0 ÷ 160KPa (0 ÷ 1,6bar) gauge p.
G13	0 ÷ 200KPa (0 ÷ 2bar) gauge p.
G14	0 ÷ 250KPa (0 ÷ 2,5bar) gauge p.
G15	0 ÷ 400KPa (0 ÷ 4bar) gauge p.
G16	0 ÷ 600KPa (0 ÷ 6bar) gauge p.
G17	0 ÷ 1,0MPa (0 ÷ 10bar) gauge p.
G18	0 ÷ 1,6MPa (0 ÷ 16bar) gauge p.
G19	0 ÷ 2,0MPa (0 ÷ 20bar) gauge p.
G20	0 ÷ 2,5MPa (0 ÷ 25bar) gauge p.
G21	0 ÷ 4,0MPa (0 ÷ 40bar) gauge p.
G22	0 ÷ 6,0MPa (0 ÷ 60bar) gauge p.
G23	0 ÷ 10MPa (0 ÷ 100bar) gauge p.
G24	0 ÷ 20MPa (0 ÷ 200bar) gauge p.
G25	0 ÷ 30MPa (0 ÷ 300bar) gauge p.
G26	0 ÷ 40MPa (0 ÷ 400bar) gauge p.
G27	0 ÷ 60MPa (0 ÷ 600bar) gauge p.
G30	-10KPa ÷ +10KPa (-0,1 ÷ +0,1bar) gauge p.
G31	-20KPa ÷ +20KPa (-0,2 ÷ +0,2bar) gauge p.
G32	-50KPa ÷ +50KPa (-0,5 ÷ +0,5bar) gauge p.
G33	-100KPa ÷ +60KPa (-1 ÷ +0,6bar) gauge p.
G34	-100KPa ÷ +100KPa (-1 ÷ +1bar) gauge p.
G35	-100KPa ÷ +150KPa (-1 ÷ +1,5bar) gauge p.
G36	-100KPa ÷ +300KPa (-1 ÷ +3bar) gauge p.
G37	-100KPa ÷ +500KPa (-1 ÷ +5bar) gauge p.
G38	-100KPa ÷ +900KPa (-1 ÷ +9bar) gauge p.
G39	-100KPa ÷ +1,5MPa (-1 ÷ +15bar) gauge p.
G40	-100KPa ÷ +2,0MPa (-1 ÷ +20bar) gauge p.
Z99	Special

Measured pressure	
A	Absolute Pressure
B	Air-proof Reference Pressure (please provide reference pressure)
G	Gauge Pressure



Pressure


P-K1 Pressure transmitter

Mechanical protection: IP67
Operation temperature: -10° ÷ +80°C (default)
Power supply: 24Vdc
Wire-loop connection (2-wires)
Output signal: 4÷20mA (min.0,5mA, max. 30mA)

Sensor type	
A1	Si-diffused sensor std. - fm 0,1bar (10KPa) to 350bar (35MPa)
A2	Ultra-stable - fm 0,06bar (6KPa) to 600bar (60MPa)
A3	With flat membrane - fm 0,6bar (60KPa) to 10bar (1MPa)
A4	With anti-corrosive membrane (Ta)
B1	For high or low temperature (-65°÷ +150°C) (only with M process connection)

Certification	
S	None

Process connection material	
1	Stainless Steel 316L
4	Hutchinson Alloy C
9	Special

Process connection	
A	Male screw thread ½"NPT (small hole)
R	Male screw thread G½" (big hole)
Y	Special (triclamp 1"½; min. -0,1MPa, max 2MPa; eur 70,00)

Sealed material	
1F	Fluorin Rubber: FPM (Viton)
2F	Butyl Rubber: IIR
3F	Polyvinyl-4F: PTFE (Teflon) - Not for "A" type sensors -
4F	Fully sealed welding

Output	
2	4÷20mA 2-wire
9	Special

Display	
A	None
C	0÷100% Digital LCD
Y	Special

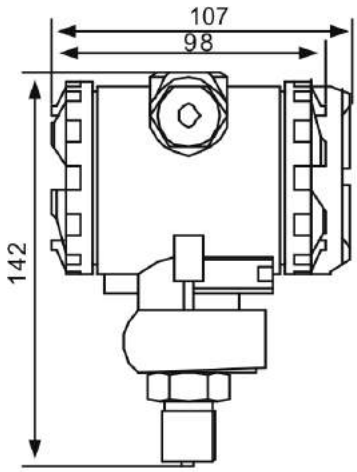
Accuracy	
2	±0,2%
5	±0,5%

Measure range	
A01	0 ÷ 20KPa (0 ÷ 0,2bar) (0 ÷ 2000mm) absolute p.
A02	0 ÷ 25KPa (0 ÷ 0,25bar) (0 ÷ 2500mm) absolute p.
A03	0 ÷ 30KPa (0 ÷ 0,3bar) (0 ÷ 3000mm) absolute p.
A04	0 ÷ 35KPa (0 ÷ 0,35bar) (0 ÷ 3500mm) absolute p.
A05	0 ÷ 40KPa (0 ÷ 0,4bar) (0 ÷ 4000mm) absolute p.
A06	0 ÷ 60KPa (0 ÷ 0,6bar) (0 ÷ 6000mm) absolute p.
A07	0 ÷ 100KPa (0 ÷ 1bar) (0 ÷ 10m) absolute p.
A08	0 ÷ 160KPa (0 ÷ 1,6bar) (0 ÷ 16m) absolute p.
A09	0 ÷ 200KPa (0 ÷ 2bar) (0 ÷ 20m) absolute p.
A10	0 ÷ 250KPa (0 ÷ 2,5bar) (0 ÷ 25m) absolute p.
A11	0 ÷ 400KPa (0 ÷ 4bar) (0 ÷ 40m) absolute p.
A12	0 ÷ 600KPa (0 ÷ 6bar) absolute p.
A13	0 ÷ 1,0MPa (0 ÷ 10bar) (0 ÷ 100m) absolute p.
A14	0 ÷ 1,6MPa (0 ÷ 16bar) (0 ÷ 160m) absolute p.
A15	0 ÷ 2,0MPa (0 ÷ 20bar) (0 ÷ 200m) absolute p.
A16	0 ÷ 2,5MPa (0 ÷ 25bar) (0 ÷ 250m) absolute p.
A17	0 ÷ 4,0MPa (0 ÷ 40bar) (0 ÷ 400m) absolute p.
A18	0 ÷ 6,0MPa (0 ÷ 60bar) (0 ÷ 600m) absolute p.
A19	0 ÷ 10MPa (0 ÷ 100bar) (0 ÷ 1000m) absolute p.
G01	0 ÷ 4KPa (0 ÷ 0,04bar) (0 ÷ 400mm) gauge p. - without SS membrane - only with B1 sensor
G02	0 ÷ 6KPa (0 ÷ 0,06bar) (0 ÷ 600mm) gauge p. - without SS membrane - only with A2 and B1 sensors
G03	0 ÷ 10KPa (0 ÷ 0,1bar) (0 ÷ 1000mm) gauge p.
G04	0 ÷ 16KPa (0 ÷ 0,16bar) (0 ÷ 1600mm) gauge p.
G05	0 ÷ 20KPa (0 ÷ 0,2bar) (0 ÷ 2000mm) gauge p.
G06	0 ÷ 25KPa (0 ÷ 0,25bar) (0 ÷ 2500mm) gauge p.
G07	0 ÷ 30KPa (0 ÷ 0,3bar) (0 ÷ 3000mm) gauge p.
G08	0 ÷ 35KPa (0 ÷ 0,35bar) (0 ÷ 3500mm) gauge p.
G09	0 ÷ 40KPa (0 ÷ 0,4bar) (0 ÷ 4000mm) gauge p.
G10	0 ÷ 60KPa (0 ÷ 0,6bar) (0 ÷ 6000mm) gauge p.
G11	0 ÷ 100KPa (0 ÷ 1bar) (0 ÷ 10m) gauge p.
G12	0 ÷ 160KPa (0 ÷ 1,6bar) (0 ÷ 16m) gauge p.
G13	0 ÷ 200KPa (0 ÷ 2bar) (0 ÷ 20m) gauge p.
G14	0 ÷ 250KPa (0 ÷ 2,5bar) (0 ÷ 25m) gauge p.
G15	0 ÷ 400KPa (0 ÷ 4bar) (0 ÷ 40m) gauge p.
G16	0 ÷ 600KPa (0 ÷ 6bar) (0 ÷ 60m) gauge p.
G17	0 ÷ 1,0MPa (0 ÷ 10bar) (0 ÷ 100m) gauge p.
G18	0 ÷ 1,6MPa (0 ÷ 16bar) (0 ÷ 160m) gauge p.
G19	0 ÷ 2,0MPa (0 ÷ 20bar) (0 ÷ 200m) gauge p.
G20	0 ÷ 2,5MPa (0 ÷ 25bar) (0 ÷ 250m) gauge p.
G21	0 ÷ 4,0MPa (0 ÷ 40bar) (0 ÷ 400m) gauge p.
G22	0 ÷ 6,0MPa (0 ÷ 60bar) (0 ÷ 600m) gauge p.
G23	0 ÷ 10MPa (0 ÷ 100bar) (0 ÷ 1000m) gauge p.
G24	0 ÷ 20MPa (0 ÷ 200bar) (0 ÷ 2000m) gauge p.
G25	0 ÷ 30MPa (0 ÷ 300bar) (0 ÷ 3000m) gauge p.
G26	0 ÷ 40MPa (0 ÷ 400bar) (0 ÷ 4000m) gauge p.
G27	0 ÷ 60MPa (0 ÷ 600bar) (0 ÷ 6000m) gauge p.
G30	-10KPa ÷ +10KPa (-0,1 ÷ +0,1bar) (-1000 ÷ +1000mm) gauge p.
G31	-20KPa ÷ +20KPa (-0,2 ÷ +0,2bar) (-2000 ÷ +2000mm) gauge p.
G32	-50KPa ÷ +50KPa (-0,5 ÷ +0,5bar) (-5000 ÷ +5000mm) gauge p.
G33	-100KPa ÷ +60KPa (-1 ÷ +0,6bar) (-10 ÷ +6m) gauge p.

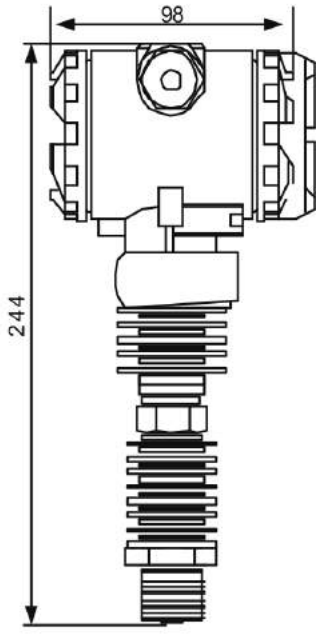
Pressure

G34	-100KPa ÷ +100KPa (-1 ÷ +1bar) (-10 ÷ +10m) gauge p.
G35	-100KPa ÷ +150KPa (-1 ÷ +1,5bar) (-10 ÷ +15m) gauge p.
G36	-100KPa ÷ +300KPa (-1 ÷ +3bar) (-10 ÷ +30m) gauge p.
G37	-100KPa ÷ +500KPa (-1 ÷ +5bar) (-10 ÷ +50m) gauge p.
G38	-100KPa ÷ +900KPa (-1 ÷ +9bar) (-10 ÷ +90m) gauge p.
G39	-100KPa ÷ +1,5MPa (-1 ÷ +15bar) (-10 ÷ +150m) gauge p.
G40	-100KPa ÷ +2,0MPa (-1 ÷ +20bar) (-10 ÷ +200m) gauge p.
Z99	Speciale

Measured pressure	
A	Absolute pressure
B	Air-proof Reference Pressure(please provide reference pressure)
G	Gauge pressure



A1 / A2 / A3 / A4



B1

P-L Hydrostatic head level transmitter

Measuring range: 0÷100m
Cable material: PE
Operation temperature: -20° ÷ +70°C (default)
Power supply: 10÷36Vdc
Wire-loop connection (2-wire)
Output signal: 4÷20mA (min.0,5mA, max. 30mA)

Version	
C-	Cable type 5m std., 4,10€ each additional m (max 25m); with IP65 connection head
C1	Suspension type (5m standard cable); without connection head- IP68 - Price each additional m.
G1	SS304 armored pipe type (5m standard - max 25m); with IP65 connection head - Price each additional m 42,00€
G2	SS316 armored pipe type (5m standard - max 25m); with IP65 connection head - Price each additional m 42,00€
R-	Rod type (1m standard rod - max 4m) ; with IP65 connection head - Price each additional m € 57,00

Certification	
S	None

Process connection material	
1	Stainless Steel 316L (to be selected also for C1 version)
9	Special

Process connection	
T	Male Thread G 1" ½
Y	Special

Sensor type	
A-	Si-diffused sensor
A2	Ultra-stable - fm 0,06bar (6KPa) to 600bar (60MPa)

Sealed material	
1F	Fluorin Rubber: FPM (Viton)
2F	Butyl Rubber: IIR
4F	Fully sealed welding (with si-diffused sensor only; A- code)

Output	
2	4÷20mA 2-wire
9	Special

Display	
A	None
C	Digital LCD
Y	Special

Accuracy	
1	±0,1% - only with ultra-stable sensor A2
2	±0,2%
5	±0,5%
9	Special

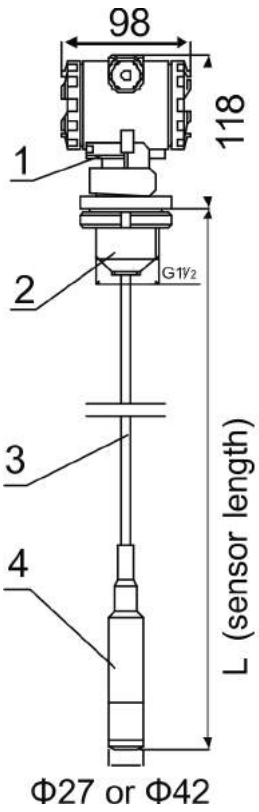
Counterweigth	
H	None

Pressure

Measure range	
G03	0 ÷ 10KPa (0 ÷ 0,1bar / 0 ÷ 1m H²O) gauge p.
G04	0 ÷ 16KPa (0 ÷ 0,16bar / 0 ÷ 1,6m H²O) gauge p.
G05	0 ÷ 20KPa (0 ÷ 0,2bar / 0 ÷ 2m H²O) gauge p.
G06	0 ÷ 25KPa (0 ÷ 0,25bar / 0 ÷ 2,5m H²O) gauge p.
G07	0 ÷ 30KPa (0 ÷ 0,3bar / 0 ÷ 3m H²O) gauge p.
G08	0 ÷ 35KPa (0 ÷ 0,35bar / 0 ÷ 3,5m H²O)
G09	0 ÷ 40KPa (0 ÷ 0,4bar / 0 ÷ 4m H²O) gauge p.
G10	0 ÷ 60KPa (0 ÷ 0,6bar / 0 ÷ 6m H²O) gauge p.
G11	0 ÷ 100KPa (0 ÷ 1bar / 0 ÷ 10m H²O) gauge p.
G12	0 ÷ 160KPa (0 ÷ 1,6bar / 0 ÷ 16m H²O) gauge p.
G13	0 ÷ 200KPa (0 ÷ 2bar / 0 ÷ 20m H²O) gauge p.
G14	0 ÷ 250KPa (0 ÷ 2,5bar / 0 ÷ 25m H²O) gauge p.
G15	0 ÷ 400KPa (0 ÷ 4bar / 0 ÷ 40m H²O) gauge p.
G16	0 ÷ 600KPa (0 ÷ 6bar / 0 ÷ 60m H²O) gauge p.
G17	0 ÷ 1,0MPa (0 ÷ 10bar / 0 ÷ 100m H²O) gauge p.
G18	0 ÷ 2,0MPa (0 ÷ 20bar / 0 ÷ 200m H²O) gauge p.
Z99	Special

P-L**C1**.....

P-L**R**.....



1.Connection head
2.Process connection G 1" 1/2
3.Cable or rode
4.Pressure sensor

PAK HART pressure transmitter

Mechanical protection: IP67
Operation temperature: -20° ÷ +70°C
Power supply: 24Vdc
Wire-loop connection (2-wire)
Output signal: 4÷20mA (min.0,5mA, max. 30mA)

Sensor type	
A1	Si-diffused sensor std. - fm 0,1bar (10KPa) to 350bar (35MPa)
A2	Ultra-stable - fm 0,06bar (6KPa) to 600bar (60MPa)
A3	With flat membrane - fm 0,5bar (50KPa) to 10bar (1MPa)
A4	With anti-corrosive membrane (TA)
B1	For high-low temperature (-65° ÷ +150°C) (only with M process connection)
B2	For high-low temperature (-10° ÷ +200°C) (only with M process connection)
C1	Metal-ceramic capacitor - fm 0,016bar (1,6KPa) to 40bar (4MPa)

Certification	
D	ATEX II 2 G Exd II C T6
I	Intrinsic safety EEx ia IIC T6 or EEx ib IIC T6 (extra EU only)
S	None

Process connection material	
1	Stainless Steel 316L
2	Stainless Steel 304
4	Hutchinson Alloy C
9	Special

Process connection	
A	Male screw thread ½" NPT (small hole)
M	Male screw thread G½" (small hole)
R	Male screw thread G½" (big hole)
Y	Special - (triclamp 1"½; min. -0,1MPa, max 2MPa eur 70,00)

Sealed material	
1F	Fluorin rubber: FPM (Viton)
2F	Butyl Rubber: IIR
3F	Polyvinyl-4F: PTFE (Teflon) - Not for "A" type sensors -
4F	Fully sealed welding

Output	
I	4÷20mA 2-wire HART
Y	Special

Display	
C	LCD digital
Y	Special

Accuracy	
1	±0.1% (only with A2 ultra-stable sensor or C1 metal-ceramic capacitor)
2	±0.2%
5	±0.5%
7	±0.075% (only with C1 metal-ceramic capacitor)

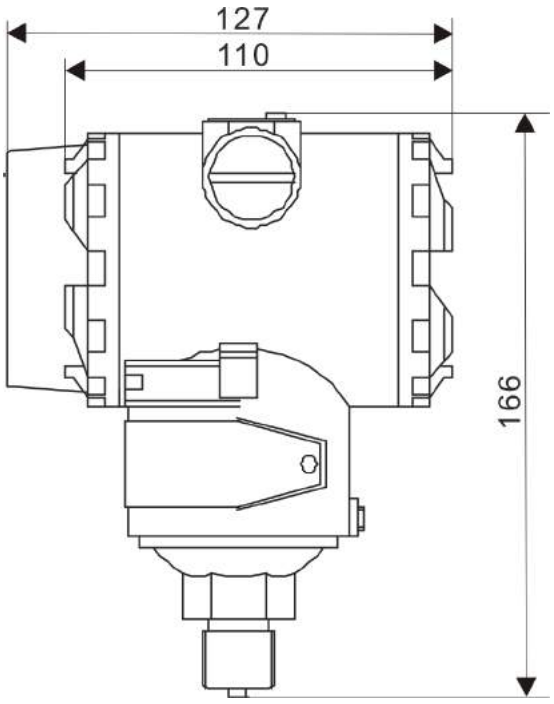
Measure range	
A01	0 ÷ 20KPa (0 ÷ 0,2bar) absolute p.
A02	0 ÷ 25KPa (0 ÷ 0,25bar) absolute p.
A03	0 ÷ 30KPa (0 ÷ 0,3bar) absolute p.
A04	0 ÷ 35KPa (0 ÷ 0,35bar) absolute p.
A05	0 ÷ 40KPa (0 ÷ 0,4bar) absolute p.
A06	0 ÷ 60KPa (0 ÷ 0,6bar) absolute p.
A07	0 ÷ 100KPa (0 ÷ 1bar) absolute p.
A08	0 ÷ 160KPa (0 ÷ 1,6bar) absolute p.

Pressure

A09	0 ÷ 200Kpa (0 ÷ 2bar) absolute p.
A10	0 ÷ 250Kpa (0 ÷ 2,5bar) absolute p.
A11	0 ÷ 400KPa (0 ÷ 4bar) absolute p.
A12	0 ÷ 600KPa (0 ÷ 6bar) absolute p.
A13	0 ÷ 1,0MPa (0 ÷ 10bar) absolute p.
A14	0 ÷ 1,6MPa (0 ÷ 16bar) absolute p.
A15	0 ÷ 2,0MPa (0 ÷ 20bar) absolute p.
A16	0 ÷ 2,5MPa (0 ÷ 25bar) absolute p.
A17	0 ÷ 4,0MPa (0 ÷ 40bar) absolute p.
A18	0 ÷ 6,0MPa (0 ÷ 60bar) absolute p.
A19	0 ÷ 10MPa (0 ÷ 100bar) absolute p.
G01	0 ÷ 4KPa (0 ÷ 0,04bar) gauge p. - without stainless steel membrane - only with sensor C1
G02	0 ÷ 6KPa (0 ÷ 0,06bar) gauge p. - without stainless steel membrane - Only with sensor A2
G03	0 ÷ 10KPa (0 ÷ 0,1bar) gauge p. -
G04	0 ÷ 16KPa (0 ÷ 0,16bar) gauge p.
G05	0 ÷ 20KPa (0 ÷ 0,2bar) gauge p.
G06	0 ÷ 25KPa (0 ÷ 0,25bar) gauge p.
G07	0 ÷ 30KPa (0 ÷ 0,3bar) gauge p.
G08	0 ÷ 35KPa (0 ÷ 0,35bar) gauge p.
G09	0 ÷ 40KPa (0 ÷ 0,4bar) gauge p.
G10	0 ÷ 60KPa (0 ÷ 0,6bar) gauge p.
G11	0 ÷ 100KPa (0 ÷ 1bar) gauge p.
G12	0 ÷ 160KPa (0 ÷ 1,6bar) gauge p.
G13	0 ÷ 200KPa (0 ÷ 2bar) gauge p.
G14	0 ÷ 250KPa (0 ÷ 2,5bar) gauge p.
G15	0 ÷ 400KPa (0 ÷ 4bar) gauge p.
G16	0 ÷ 600KPa (0 ÷ 6bar) gauge p.
G17	0 ÷ 1,0MPa (0 ÷ 10bar) gauge p.
G18	0 ÷ 1,6MPa (0 ÷ 16bar) gauge p.
G19	0 ÷ 2,0MPa (0 ÷ 20bar) gauge p.
G20	0 ÷ 2,5MPa (0 ÷ 25bar) gauge p.
G21	0 ÷ 4,0MPa (0 ÷ 40bar) gauge p.
G22	0 ÷ 6,0MPa (0 ÷ 60bar) gauge p.
G23	0 ÷ 10MPa (0 ÷ 100bar) gauge p.
G24	0 ÷ 20MPa (0 ÷ 200bar) gauge p.
G25	0 ÷ 30MPa (0 ÷ 300bar) gauge p.
G26	0 ÷ 40MPa (0 ÷ 400bar) gauge p.
G27	0 ÷ 60MPa (0 ÷ 600bar) gauge p.
G30	-10KPa ÷ +10KPa (-0,1 ÷ +0,1bar) gauge p. - Not for "A" type sensors
G31	-20KPa ÷ +20KPa (-0,2 ÷ +0,2bar) gauge p.
G32	-50KPa ÷ +50KPa (-0,5 ÷ +0,5bar) gauge p.
G33	-100KPa ÷ +60KPa (-1 ÷ +0,6bar) gauge p.
G34	-100KPa ÷ +100KPa (-1 ÷ +1bar) gauge p.
G35	-100KPa ÷ +150KPa (-1 ÷ +1,5bar) gauge p.
G36	-100KPa ÷ +300KPa (-1 ÷ +3bar) gauge p.
G37	-100KPa ÷ +500KPa (-1 ÷ +5bar) gauge p.
G38	-100KPa ÷ +900KPa (-1 ÷ +9bar) gauge p.
G39	-100KPa ÷ +1,5MPa (-1 ÷ +15bar) gauge p.
G40	-100KPa ÷ +2,0MPa (-1 ÷ +20bar) gauge p.
Z99	Special

Measured pressure	
A	Absolute pressure
B	Air-proof reference pressure (please provide value)
G	Gauge pressure

Optional (opt.)	
A0	None
B2	Bending bracket for panel installation
B3	Flat bracket for 2" pipe installation
Z9	Special



Pressure

P-BADP

"General purpose" dif. pr. Transmitter

HART Communication: IP67
Operation temperature: -40° ÷ +85°C
Power supply: 24Vdc
Mechanical protection: IP67
Standard connection: NPT 1/4"

Measure range	
3	0÷1...6kPa (0÷0,01....0,06 bar) (0÷100....600 mm H²O) - Max pressure 4MPa
4	0÷6...40kPa (0÷0,06....0,4 bar) (0÷600....4000 mm H²O) - Max pressure 10MPa
5	0÷40...200kPa (0÷0,4....2 bar) (0÷4....20 m H²O) - Max pressure 10MPa
6	0÷160...1MPa (0÷1,6....10 bar) (0÷16...100 m H²O) - Max pressure 10MPa
7	0÷0.4...2MPa (0÷4....20 bar) (0÷40...200 m H²O) - Max pressure 10MPa
8	0÷1.6...10MPa (0÷16....100 bar) (0÷160...1000 m H²O) - Max pressure 10MPa

Output	
I	4÷20mA/HART (linear)
J	4÷20mA/HART (square root)

Construction materials				
22	Flange /Adapter 316 SST	Drain/Vents 316 SST	Diaphram 316 SST	Filling liquid Silicon
23	Flange/Adapter 316 SST	Drain/Vents 316 SST	Diaphram Hastelloy C	Filling liquid Silicon

Certification	
D	ATEX II 2 G Exd II C T6
I	Intrinsic safety EEx ia IIC T6 or EEx ib IIC T6 (extra EU only)
S	None

Accuracy	
7	±0.075%

Optional (opt.)	
B1-	Bending bracket 90° for max 2"pipe installation, carbon steel
B2-	Bending bracket 90° for panel installation, carbon steel
B3-	Flat bracket for max 2"pipe installation, carbon steel
C12	1/2" NPT welding connection
D0-	Fore-end drain/vent - >STANDARD<
D1-	Side drain/vent, top
D2-	Side drain/vent, bottom
J--	Flange for m20x1.5 male connection + welding connection
M3-	Keyboard/LCD display programming module (always included)
N--	1/2" NPT flange
O--	Nr. 2 PTFE O-ring
Z99	Special

P-BADR Low ranges dif. pr transmitter

HART Communication - IP67
Operation temperature: -40° ÷ +85°C
Power supply: 24Vdc
Mechanical protection: IP67
Standard connection NPT 1/4"

Measure range	
2A	0÷0.16...1kPa (0÷0,0016.. .0,01 bar) (0÷16...100 mm H²O) - Max static pressure 1MPa
2B	0÷0.16...1kPa (0÷0,0016.. .0,01 bar) (0÷16...100 mm H²O) - Max static pressure 2.5MPa
2C	0÷0.16...1kPa (0÷0,0016.. .0,01 bar) (0÷16...100 mm H²O) - Max static pressure 4MPa

Output	
I	4÷20mA/HART (linear)
J	4÷20mA/HART (square root)

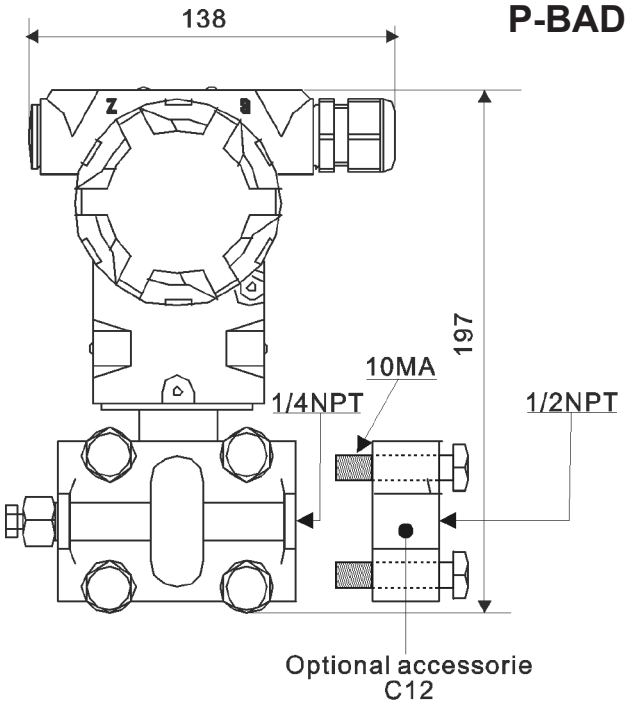
Construction materials				
22	Flange /Adapter 316 SST	Drain/Vents 316 SST	Diaphram 316 SST	Filling liquid Silicon
23	Flange/Adapter 316 SST	Drain/Vents 316 SST	Diaphram Hastelloy C	Filling liquid Silicon

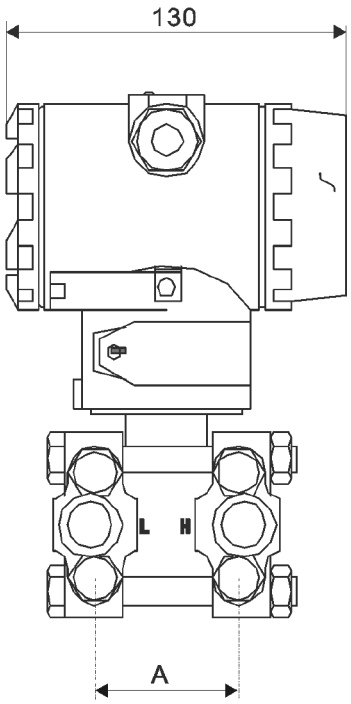
Certification	
D	ATEX II 2 G Exd II C T6
I	Intrinsic safety Ex ia IIC T6 or Ex ib IIC T6 (extra EU only)
S	None

Accuracy	
7	±0.075%

Optional (opt.)	
B1-	Bending bracket 90° for max 2"pipe installation, carbon steel
B2-	Bending bracket 90° for panel installation, carbon steel
B3-	Flat bracket for max 2"pipe installation, carbon steel
C12	1/2" NPT welding connection
D0-	Fore-end drain/vent - >STANDARD<
D1-	Side drain/vent, top
D2-	Side drain/vent, bottom
J--	Flange for m20x1.5 male connection + welding connection
M3-	Keyboard/LCD display programming module (always included)
N--	1/2" NPT flange
Z99	Special

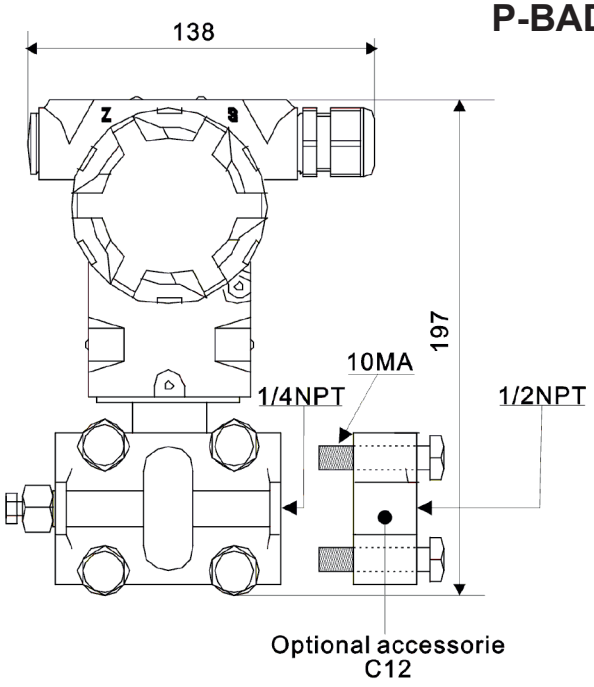
P-BADP

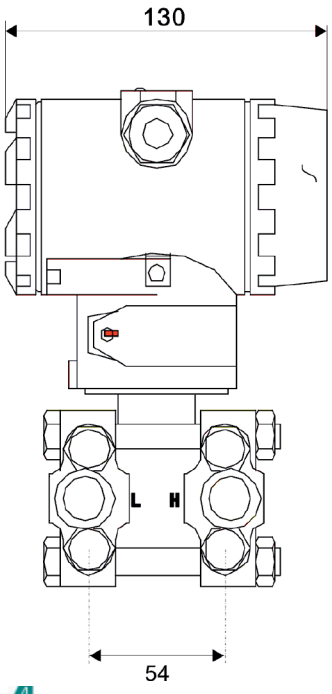




Range code	2x - 3 - 4 - 5	6	7	8
A (mm)	54	55.2	55.6	57.2

P-BADR





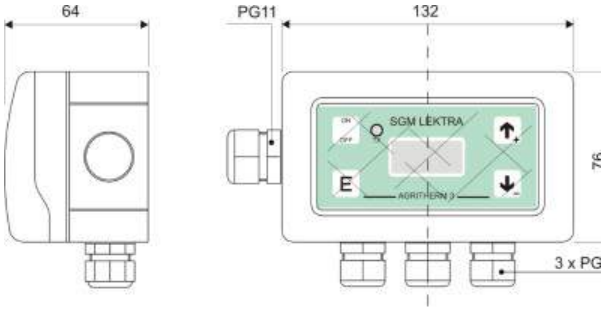
AGRITHERM3 Manual display unit for small plants

Wall-mounting - IP55
Manual system for mounting of max. 3 multipoints TT probes.
All probe points displayed for each mounted probe, through the relevant pushing buttons

Version	
A	Standard

Power supply	
1	Battery - 4x1,5V AAA
2	230Vac 50÷60Hz

Accessories	
A	None
B	AGW-FTP connecting cable (Probe/MUX/Agritherm) + sheat (price each meter)



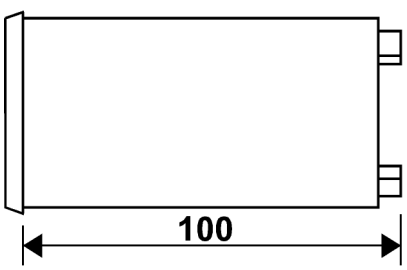
AGRITHERM10 Display and control unit

For all MUX type connection
Manual/automatic selection
4 pushbuttons keybord for programmation, 5+1 LED digits display, panel mounting std.48x96 IP40
Factory programmable configuration of: MUX.., transducers, measur.point, etc.
n.2 alarm relays

Version	
A	Base

Power supply	
1	115Vac 50÷60Hz
2	230Vac 50÷60Hz

Accessories	
A	None
M	Frontal protection windows IP54
Z	Special



Temperature

AGRITHERM20 Display and control unit

IP66 unit for all MUX type connection
Manual or automatic management
128x64 back-lighted LCD display, 4 keys for programmation
Programmable configuration of: MUX.., transducers, measur.point, alarms, etc.
Up to 5 relays fully programmable
RS485 Output

Relay	
C	N.5 SPDT relays

Power supply	
0	115Vac 50÷60Hz
1	230Vac 50÷60Hz
2	24Vac 50÷60Hz

Output	
A	None
Z	Special

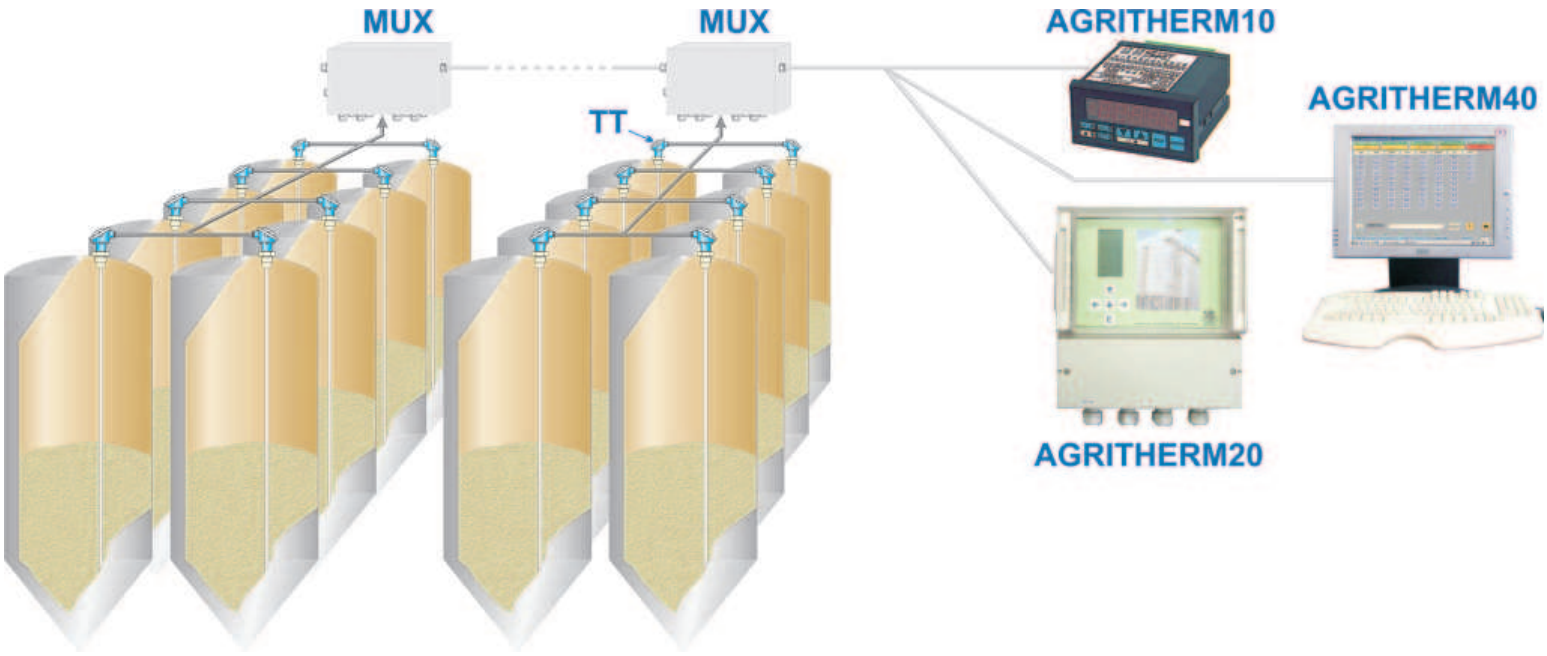
Field Bus	
0	RS485
9	Special

AGRITHERM40 PC based for temperature display and control

Suitable for MUX.. connection
Manual or automatic management
Video pages temperature display, alarms management
PC keyboard and long distance communication converter RS232/RS485
Programmable configuration of: MUX.., transducers, measur.point, alarms, etc.
Power supply, 230Vac

Version	
A	Standard: HD 80GB; RAM DDR400 256MB; 19" LCD monitor
B	With relays board mod. 199DASP52016 (only with SGM PC)
Z	Special

Accessories	
0	None
1	USB ink jet printer
9	Special


MUX
MUX
TT
AGRITHERM10
AGRITHERM40
AGRITHERM20

Temperature

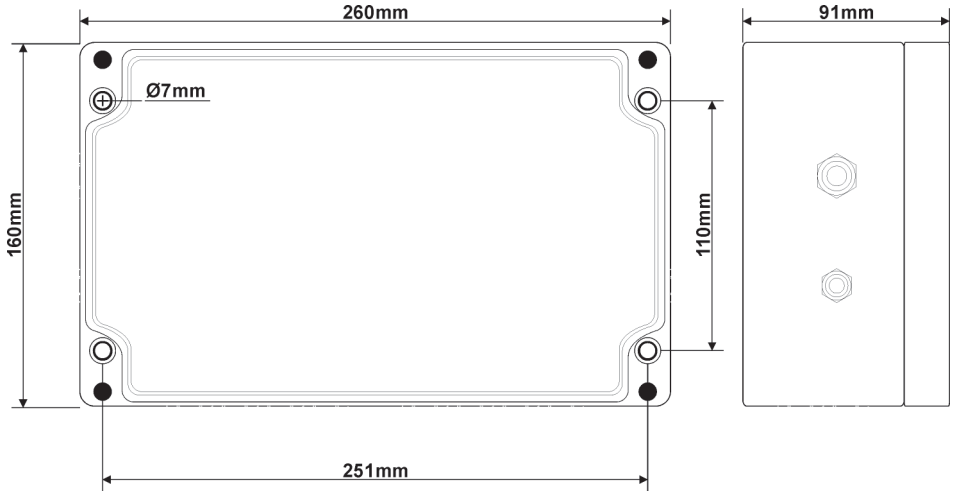
MUX

Concentrator for up to 8 TT rope probe

Output RS485 for sistem modules communication
Power supply : 230V 50Hz
Visualization ON-BOARD of Max. 12 points
Suitable for the connection to AGRITHERM units for display of 12 points

Version	
01	IP66 policarbonate enclosure with cable glands (not certificable)
02	IP66 aluminum enclosure with cable glands (ATEX certificable)
99	Special (not certificable)

Certification	
AA	None
Ex	ATEX II 2(1) D IP66 T125°C



TT Digital multipoints temp. rope probe

Flexible well
Up to 12 measurement points distribuited into the probe length, displayed on the MUX unit
Temperature range -30 +125°C
Accuracy +/- 0,5°C from -10 to + 85°C

Version	
1	IP66 diecast aluminum varnished (DIN-B)
9	Special

Process connection	
A	1/2" SS304 threaded
B	Under roof fixing + 1m chain and acessories + DN40 PN6 carbon steel flange
C	1/2" SS304 thread + DN40 PN6 carbon steel flange
Z	Special

Well, price each meter	
0L	Ø7÷8mm Flexible SS304 pipe, length = _____m (50m Max.)
99	Special

Temperature sensor n.	
00	None
01	N. 1 measurament point
02	N. 2 measurament points
03	N. 3 measurament points
04	N. 4 measurament points
05	N. 5 measurament points
06	N. 6 measurament points
07	N. 7 measurament points
08	N. 8 measurament points
09	N. 9 measurament points
10	N. 10 measurament points
11	N. 11 measurament points
12	N. 12 measurament points
99	Special
xx	Euro 17,00 for each measurement point over 12th

Certification	
A	None
B	ATEX II 1 D IP66 T125°C
C	ATEX 22 Zone

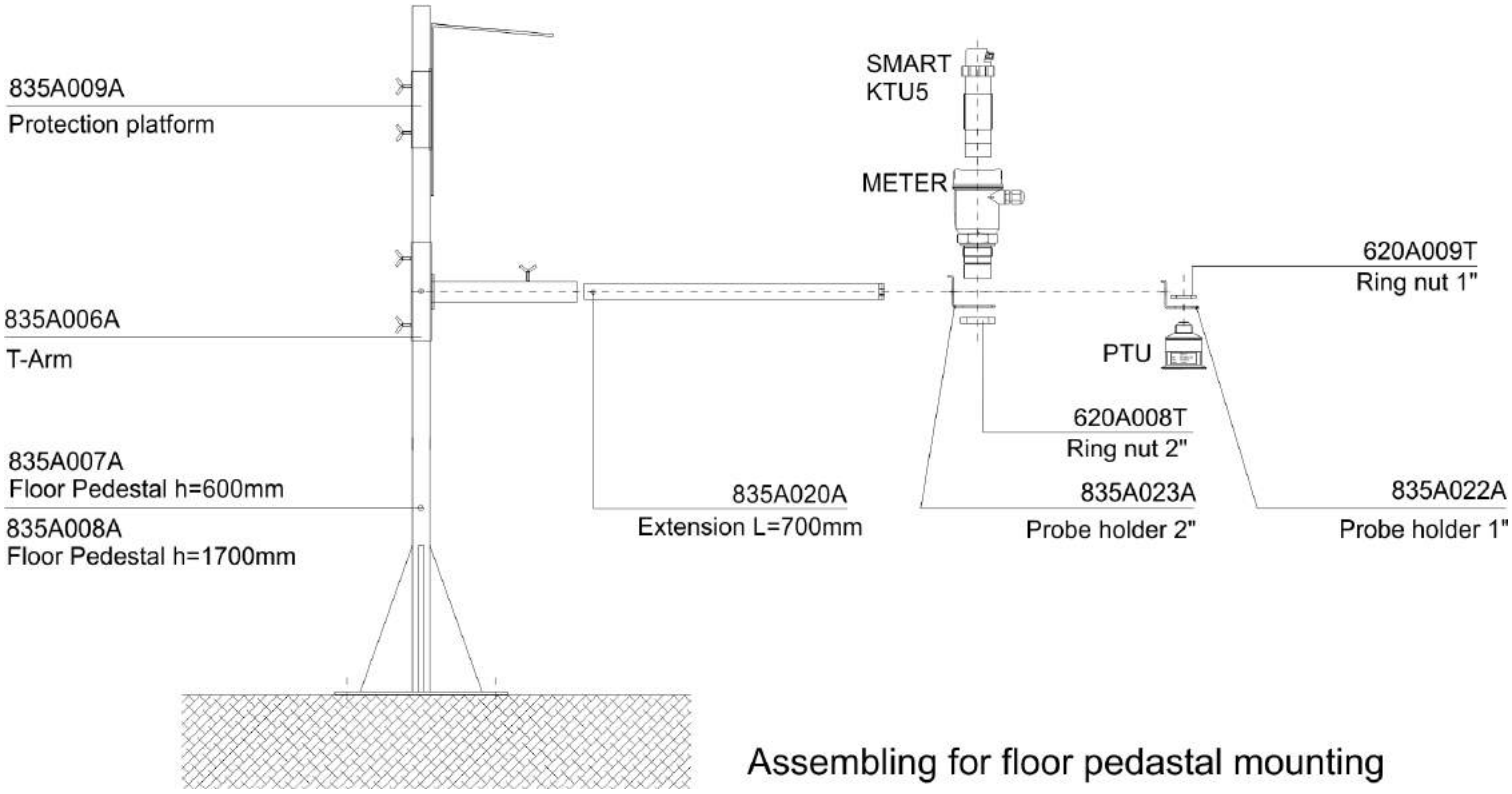
Accessories	
0	None
2	Sensor, mounted into the connection head
9	Special

Accessories and spare parts

UA Ultrasonic system accessories

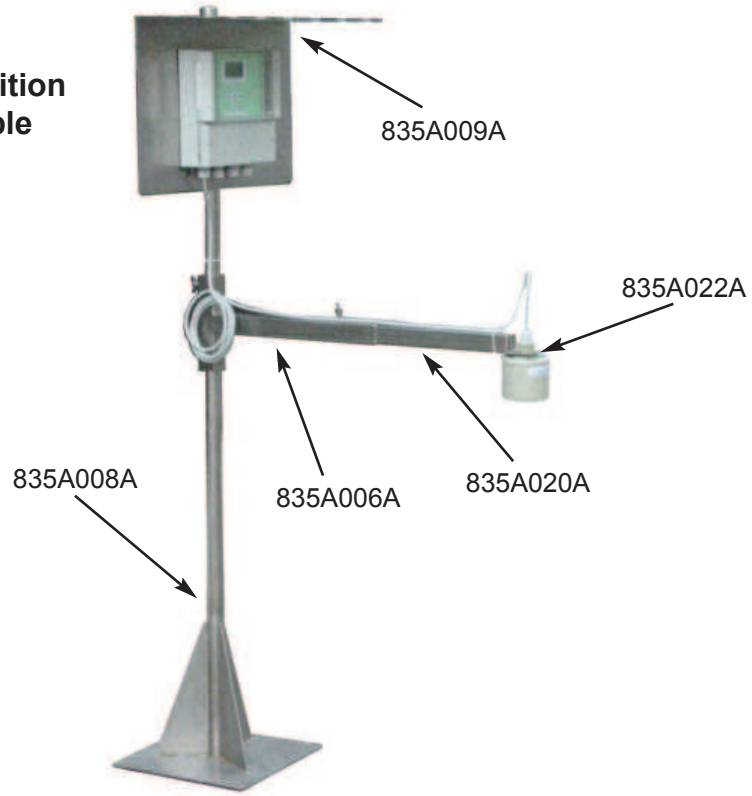
Optional (opt.)	
010D034A	RS485 communication S/W for SMART/PTU
010D038A	RS485 communication S/W for SWING (master)
010E105A	HART communication S/W for METER
010F105A	MODBUS RTU communication S/W for METER
010F111A	MODBUS RTU communication protocol for VLW90M
010F119A	MODBUS RTU communication S/W for FLOWMETER
420A008B	IP66 Junction-box for remote calibration (programmation push bottoms built in). Comp.with: SMART, PTU05/10/15
420A094B	Electronic insert for METER version 1 (2-wire - 5mt)
420C094B	Electronic insert for METER version 2 (2-wire - 5mt - HART)
420D067B	Swing electronic board
420G094B	Electronic insert for METER version 4 (4-wire - 5mt - 2 relays - MODBUS)
525D005B	6 x 0,22mm2 CEI 20-22 SMART unit blue electrical cable, price per meter
525D011B	8x0,35mmq PTU electrical cable, price per meter
525D013B	6 x 0,22mm2 CEI 20-22 SMART unit grey electrical cable, price per meter
540Z003B	PTU transmitters IP67 8-pin female connector to be wired
540Z004B	PTU05-10-15 IP67 female connector + 5m 8 wires cable
540Z005B	PTU05-10-15 IP67 female connector + 10m 8 wires cable
540Z008B	PTU05-10-15 IP67 female connector + 15m 8 wires cable
540Z010B	PTU05-10-15 IP67 female connector + 20m 8 wires cable
540Z013A	PTU51 IP68 female connector + 5m 8 wires cable
540Z014A	PTU51 IP68 female connector + 10m 8 wires cable
540Z015A	PTU51 IP68 female connector + 15m 8 wires cable
540Z016A	PTU51 IP68 female connector + 20m 8 wires cable
545A047N	GWPLAST75-GWT 650°C IP56 connection box 120x80x50 with cable glands and terminal strips
546A070N	Transparent cap for PC housing "F" (METER)
546A076N	Grey cap for PC housing "F" (METER)
600J001T	PP DN80 PN6 UNI 1092-1 flange
600K001T	PP DN100 PN6 UNI 1092-1 flange
620A008T	N.1 2" PP METER or SMART unit ring nut
620A009T	N.1 1" PP PTU unit ring nut
694A002A	RS485/RS232 DB9 converter module to plug to PC COM for the SMARTCOST link
694A003A	RS485/RS232 DB9 converter module to plug to PC COM with external power supply
694A004A	RS485/USB converter module to plug to PC USB for the SMARTCOST link
835A006A	Lateral 316SS fixing-bracket for vertical pedestal (835A007A/835A008A/835A024A)
835A007A	h=600mm vertical SS316 pedestal
835A008A	h=1700mm vertical SS316 pedestal
835A009A	316SS swing sun protector plate, for vertical pedestal mounting (835A007A/835A008A)
835A010A	Wall mounting Vessel/channel lateral 316SS fixing-bracket
835A014A	Ø42 pipe 316SS holder
835A015A	Ø63 pipe 316SS holder
835A020A	Cable extension L=700mm
835A022A	PTU 316SS holder
835A023A	METER/SMART 316SS holder
835A024A	Vertical SS316 pedestal channel/basin edge mounting
MC601SGM	MC601, module for connection to VLW601; compatible with 4 wires METER and FLOWMETER
VL601SGM	Keyboard/display module VL601 for ultrasonic
VL611SGM	Keyboard/display module VL611 for KTU5

Accessories and spare parts



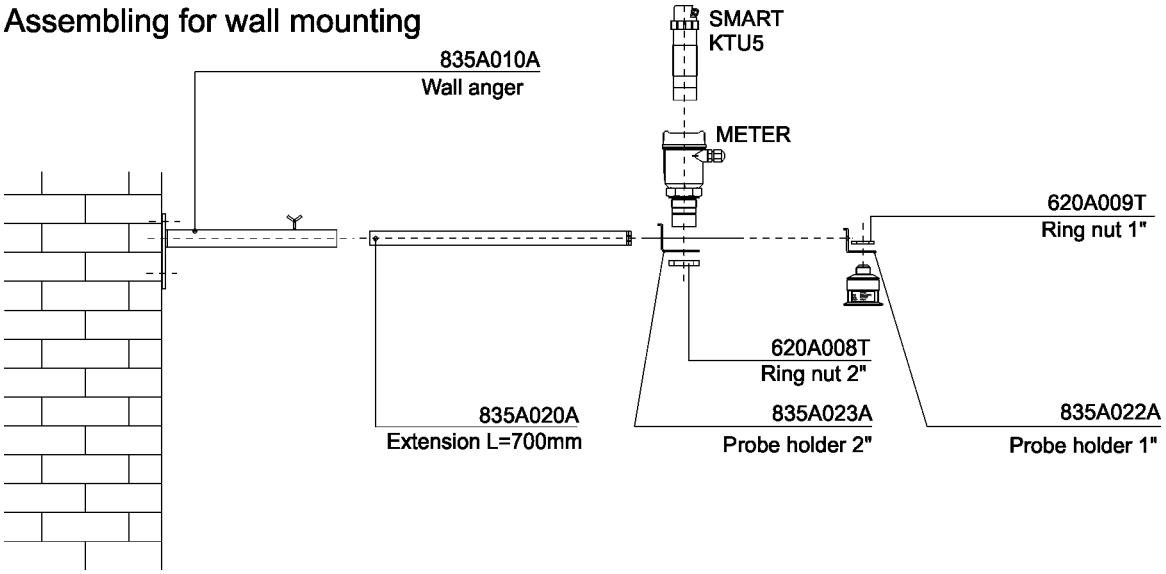
Assembling for floor pedastal mounting

Composition example

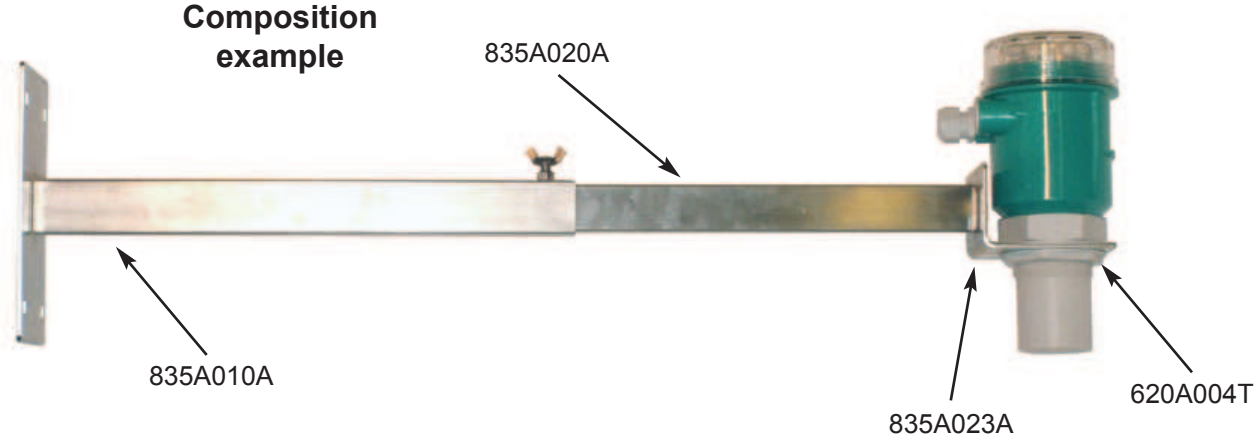


Accessories and spare parts

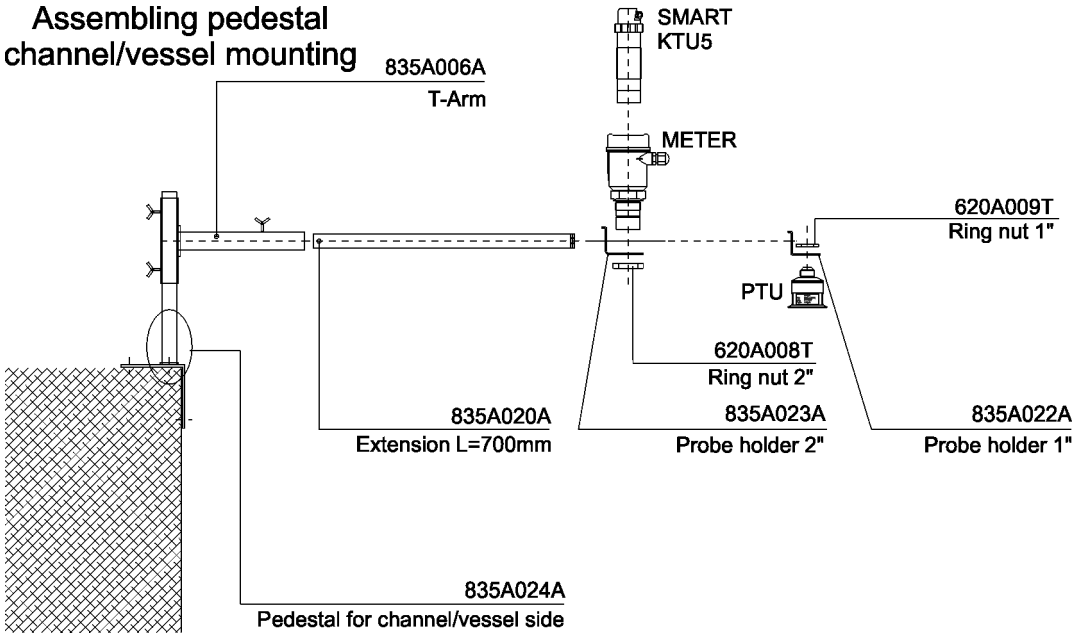
Assembling for wall mounting



Composition example



Assembling pedestal channel/vessel mounting



RA Radar system accessories

Optional (opt.)	
RPLS-010E110A	HART software for Radar
RPLS-451B001B	Electronic preamplifier 2-wire HART 24Vdc for RPL51/52
RPLS-451D002B	Electronic preamplifier 4-wire HART 230Vac for RPL51/52
RPLS-451D003B	Electronic preamplifier 4-wire HART 24Vdc for RPL51/52
RPLS-451D004B	Electronic preamplifier 4-wire HART 230Vac for RPL56
RPLS-451D006B	Electronic preamplifier 2-wire HART 24Vdc for RPL56
RPLS-451D007B	Electronic preamplifier 4-wire HART 24Vdc for RPL56
RPLS-693A001A	HART modem to plug to PC USB for RPl and RWL link
RWLS-451B005B	Electronic preamplifier 2-wire HART 24Vdc for RWL51/54
VL602SGM	Keyboard/display module VL602 for pulse and guided wave radar

CRA Capacitive, conductive and vibration accessories

Optional (opt.)	
010D029A	RS485 communication software for TC22/30
306A007A	Coaxial cable with double shield with cable butting; L=1,5m; 200°C
306A008A	Coaxial cable with double shield with cable butting; L=2m; 200°C
306A010A	Double shield coax. cable butting
306A011A	RG62 coax. cable butting
400A001C	SS316 L=1m rod extension
400A002C	6mm carbon-sleel rope extension with threaded connection and counter-weight - L=3m
400A080C	SS316 rod L = 1m Ø6mm for RL3
400A081C	SS316 rod L = 2m Ø6mm for RL3
400A082C	SS316 rod L = 3m Ø6mm for RL3
400B001C	StainlessSteelwith brass ring welded, holes top/botton L=1000mm
410A001B	Interconnection printed-board for remote version (CLT,CLS and conductive)
525A001F	Coax. cable for separate version TC serie (price per meter)
525A001H	Coax. cable with double shield (max 3m); price per meter
525A003E	Coax. cable with double shield (max 3m); max. temp. 120°C; price per meter
585B005P	PTFE spreader for rods
585B005R	PVC spreader for rods
585B045P	PVC spacer for RL3
618A001A	Wing-nut for CLAMP 1" or 1 1/2" in SS304
618A002A	Wing-nut for CLAMP 2" in SS304
640C001A	Gasket Viton / PTFE for CLAMP 1 1/2"
640C002A	Gasket Viton / PTFE for CLAMP 2"
822A001C	Sensitized for Ø15mm SS316 Electrode
845A007A	Plug for CLAMP 1 1/2" in SS304
845A007C	Plug for CLAMP 1 1/2" in SS316
845A008C	Plug for CLAMP 2" in SS316
850A002B	Customer code identification label 18 characters SS316
886A001A	Fixing pipe for CLAMP 1" or 1 1/2" in SS304
886A001C	Fixing pipe for CLAMP 1 1/2" in SS316
886A002A	Fixing pipe for CLAMP 2" in SS304
886A002C	Fixing pipe for CLAMP 2" in SS316
902B008A	Calibration certificate with 5% water in biodegradable oil (PANOLIN)
902C008A	Calibration certificate with 5% water in mineral oil
VL601SGM	Keyboard/display module VL601 for CLS5

Accessories and spare parts

CRSP Capacitive, conductive and vibration spare parts

Spare parts	
400A002B	TC20, 4÷20mA, "C", Calibration with dip-switches, 24Vdc; Out 4÷20mA, to be connect to CA101 unit
400A022B	TL31R ON-OFF Local sensibility calibration supply 24 Vdc, Relay output SPDT
400A023B	TL31R ON-OFF Local sensibility calibration supply 24 Vac, Relay output SPDT
400A024B	TL31R ON-OFF Local sensibility calibration supply 115 Vac, Relay output SPDT
400A025B	TL31R ON-OFF Local sensibility calibration supply 230 Vac, Relay output SPDT
400A026B	TC7.3R local calibration, 24Vdc, 3 relays out for 3 adjustable set-points
400A050B	TC21, 4÷20mA, Calibration with dip-switches and trim, 24Vdc, "C"
400A054B	TC30, 4÷20mA, 2 push-buttons calibration, 2 wires, 24Vdc EExia II
400A055B	TC30, 4÷20mA, 2 push-buttons calibration, 2 wires, 24Vdc
400A060B	TL41, 2 push-buttons sensibility calibration, 85÷250Vac 50Hz, relay output SPDT
400A061B	LV1 preamplifier insert for vibration probe, relay output
400A072B	TC22, 4÷20mA, Lowcost micro-p based, 2 push buttons for calibration, 24Vdc.
400A073B	TC23, 4÷20mA, Lowcost micro-p based, 2 push buttons for calibration, 24Vac.
400A074B	TC24, 4÷20mA, Lowcost micro-p based, 2 push buttons for calibration, 115Vac.
400A075B	TC25, 4÷20mA, Lowcost micro-p based, 2 push buttons for calibration, 230Vac.
400A076B	TC26, 4÷20mA, 2 push-buttons calibration, 1relay, RS485 for SMART calibration, 24Vdc
400A077B	TC27, 4÷20mA, 2 push-buttons calibration, 1relay, RS485 for SMART calibration, 24Vac
400A078B	TC28, 4÷20mA, 2 push-buttons calibration, 1relay, RS485 for SMART calibration, 115Vac
400A079B	TC29, 4÷20mA, 2 push-buttons calibration, 1relay, RS485 for SMART calibration, 230Vac
400B061B	LV1 preamplifier insert for vibration probe, static output
400C060B	TL41, 2 push-buttons sensibility calibration, 20÷30Vdc/24Vac 50Hz, relay output SPDT
410A001B	Interconnection printed-board for remote version (CLT,CLS and conductive)
452A001A	Ø4mm SS316 rope, with counterweight and process connection eur 110,00 + rope price/mt
452A002A	Ø6mm SS316 rope, with counterweight and process connection eur 130,00 + rope price/mt
490A001C	PC polycarbonate loaded head connection
490A002C	Diecast aluminum varnished head connection
490A004C	DIN A aluminum head connection
490A005C	DIN B aluminum head connection
490A007C	DIN B PA (poliammide) head connection
490A020C	PBT complete head connection
490B020C	Separate head connection for pin insert connection (TL31, TC73R)
490C020C	Separate head connection for bajonet insert connection (TC22÷30)
490C030C	RSL200 compact version mechanic without preamplifier insert
490S024C	TC/TL41 aluminum adapter without flange
490S025C	PC polycarbonate head (mod H) + aluminum adapter with 4 holes square flange
545A007N	CE11 plastic enclosure
546A070N	Transparent cap for PC housing "F"
546B001N	PC (loaded-polycarbonate) head connection tranparent cap
546B003N	PBT loaded head connection tranparent cap
715A013A	IP66 gland PG13,5 for 8-13mm cable
810A011F	Bajonet bolt
830A001X	UNDECAL plug
899F001A	UNDECAL socket + fixing spring

MSP Electromagnetic system spare parts

Spare parts	
PMAGS-396A007D	Pmag 85÷265Vac electronic board + display HART version
PMAGS-396A008D	Pmag 85÷265Vac electronic board + display
PMAGS-396A009D	Pmag 24Vdc electronic board + display
PMAGS-396A010D	Pmag 24Vdc electronic board + display HART version
PMAGSF******A*A***	Pmag complete converter remote version, 230Vac, 4÷20mA, IP67
PMAGSF******B*A***	Pmag complete converter remote version, 24Vdc, 4÷20mA, IP67
PMAGSY******A*A***	Pmag complete converter compact version, 230Vac, 4÷20mA, IP67
PMAGSY******B*A***	Pmag complete converter compact version, 24Vdc, 4÷20mA, IP67
RPMAG62S*****1*1***	RPmag62 complete converter remote version, 230Vac, 4÷20mA, IP67
RPMAG62S-396A001A	RPmag62 main board
RPMAG62S-396A001D	RPmag62 HART communication board
RPMAG62S-396A001J	RPmag62 power board 24Vac
RPMAG62S-396A001L	Rpmag62 power supply filter module 230V
RPMAG62S-396A002D	RPmag62 RS485 communication board
RPMAG62S-396A002J	RPmag62 power board 24Vdc
RPMAG62S-396A002L	Rpmag62 power supply filter module 24Vdc/24Vac
RPMAG62S-396A003D	RPmag62 PROFIBUS communication board
RPMAG62S-396A003J	RPmag62 power board 230V
RPMAG62S-396A004D	RPmag62 MODBUS communication board
RPMAG62S-496A002B	RPmag62 display
RPMAG62S-496A003B	RPmag62 complete electronic + display
RPMAG62S-496A004B	RPmag62 complete electronic + display HART version
RPMAG62S-525B004A	RPmag62 3 x 1,5mm shielded cable for electrodes, price each meter
RPMAG62S-525B005A	RPmag62 2 x 1,5mm shielded cable for magnetic inductance, price each meter
RPMAG62S-546A001J	RPmag62 blind cover (Ø128mm)
RPMAG62S-546A004J	RPmag62 cover with glass (for dislay unit version)
SMAG62******A*A****	Smag62 complete converter remote version, 230Vac, 4÷20mA, IP67

Accessories and spare parts

MA Electromagnetic system accessories

Optional (opt.)	
RPMAG62S-502A001V	DN15 321SS grounding ring
RPMAG62S-502A002V	DN25 321SS grounding ring
RPMAG62S-502A003V	DN32 321SS grounding ring
RPMAG62S-502A004V	DN40 321SS grounding ring
RPMAG62S-502A005V	DN50 321SS grounding ring
RPMAG62S-502A006V	DN65 321SS grounding ring
RPMAG62S-502A007V	DN80 321SS grounding ring
RPMAG62S-502A009V	DN100 321SS grounding ring
RPMAG62S-502A010V	DN125 321SS grounding ring
RPMAG62S-502A013V	DN150 321SS grounding ring
RPMAG62S-502A014V	DN200 321SS grounding ring
RPMAG62S-502A017V	DN250 321SS grounding ring
RPMAG62S-502A019V	DN300 321SS grounding ring
RPMAG62S-502A020V	DN350 321SS grounding ring
RPMAG62S-502A023V	DN400 321SS grounding ring
RPMAG62S-502A025V	DN450 321SS grounding ring
RPMAG62S-502A026V	DN500 321SS grounding ring
RPMAG62S-502A027V	DN600 321SS grounding ring
RPMAG62S-502A028V	DN700 321SS grounding ring
RPMAG62S-502A029V	DN800 321SS grounding ring
RPMAG62S-502A030V	DN900 321SS grounding ring
RPMAG62S-502A031V	DN1000 321SS grounding ring
RPMAG62S-502A032V	DN1200 321SS grounding ring
RPMAG62S-502A033V	DN1400 321SS grounding ring
RPMAG62S-502A034V	DN1600 321SS grounding ring
RPMAG62S-502A035V	DN10 321SS grounding ring
RPMAG62S-502A036V	DN20 321SS grounding ring
RPMAG62S-621A001A	BXF01: RPmag62 flow simulator, usable with TA-1 Testing Adaptor (855B005A)
RPMAG62S-693A002A	HM-1: HART modem for Rpmag62
RPMAG62S-732A001A	HT-2000: Field Hand Held Communication (HART communicator)
RPMAG62S-855B005A	TA-1: RPmag62 testing adaptor, usable with BXF01 RPmag62 flow simulator (621A001A)
RPMAG62S-909B001A	3 points calibration certificate
RPMAG62S-909B002A	5 points calibration certificate

TTA

Accessories and spare parts transit time flow m.

816A001A	4GB SDHC Card
SGM-100S-520A004A	Fixing chain for transducers - price each mt
SGM-100S-525B007A	Connection cable for SGM-100F transducers - price each mt
SGM-100S-540Z023A	Cables couple with connectors for SGM-100/200H transducers connection- length: 5m
SGM-100S-675C032A	Coupling gel for transducers
SGM-100S-870A002A	Tie rod for fixing chain
SGM-100S-909C001A	3 points calibration certificate
SGM-100S-909C002A	5 points calibration certificate
SGM-100S-S1-	Couple of clamp-on transducers DN 15-100 (SGM-100F) with 5 m cables
SGM-100S-S1C	Couple of clamp-on transducers DN 15-100 (SGM-100/200H)
SGM-100S-S1F	Couple of transducers DN 15-100 on metric frame
SGM-100S-S1H	Couple of high temperature transducers (0÷160°C) for pipes from DN15 to DN100 (SGM-100F)
SGM-100S-S1HC	Couple of high temperature transducers (0÷160°C) for pipes from DN15 to DN100 (SGM-100/200H)
SGM-100S-M1-	Couple of clamp-on transducers DN 50-700 (SGM-100F) with 5 m cables
SGM-100S-M1C	Couple of clamp-on transducers DN 50-700 (SGM-100/200H)
SGM-100S-M1F	Couple of transducers DN 50-700 on metric frame
SGM-100S-M1H	Couple of high temperature transducers (0÷160°C) for pipes from DN50 to DN700 (SGM-100F)
SGM-100S-M1HC	Couple of high temperature transducers (0÷160°C) for pipes from DN50 to DN700 (SGM-100/200H)
SGM-100S-L1-	Couple of clamp-on transducers DN 300-4000 (SGM-100F) with 5 m cables
SGM-100S-L1C	Couple of clamp-on transducers DN 300-4000 (SGM-100/200H)
SGM-100S-I1-	Couple of standard insertion transducers
SGM-100S-I2-	Couple of insertion transducers for cement pipes

PA

Pres. and differential pressure system accessories

Optional (opt.)	
010E106A	HART communication software for P-AK/BADP/BADR
199-8M56-G	2 valves bar stock manifold - 1/2" NPT- F in SS316
199--TV3C-S-6L	3 valves bar stock manifold - 1/2" NPT- F in SS316
693A004A	USB-HART modem
835A001A	Cable anchoring clamps
902A013A	3 points calibration certificate
902A014A	5 points calibration certificate
902A015A	Customer calibration
P-8S-C* **	LCD digital display for P-8 model
P-8S-Y* **	LCD digital display with 2 switch limited points for P-8 model
P-BADS-546A004J	Cover with glass for BADB-BADR-PAK
P-BADS-M3	LCD digital display for P-BADP / P-BADR models

TA AGRITHERM system accessories

Optional (opt.)	
010D076A	1.01 AGRITHERM40 software for PC (Ita-Eng-Fra)
010D076B	1.04 AGRITHERM40 software for PC (Ita-Eng-Fra)
010D076C	1.04 AGRITHERM40 software for PC (Russian)
525B003A	FTP 4x2x24 AWG connection cable, price per meter
694A003A	RS485/RS232 converter module with 9 pins comm. Port
694A004A	RS485/RS232 converter module with USB port
902A005A	Agritherm configuration or modification made in factory

TSP AGRITHERM system spare parts

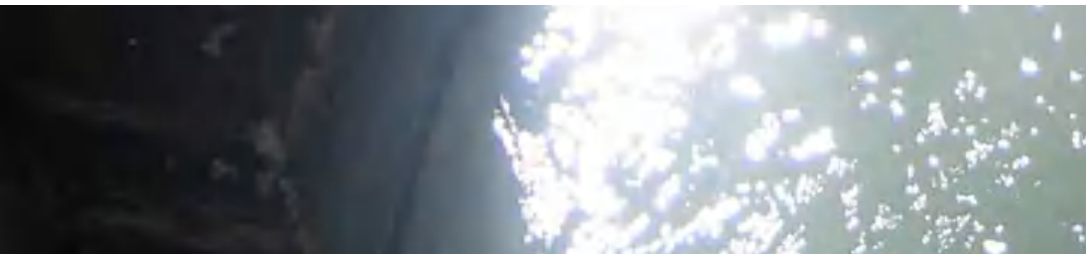
Spare parts	
350A001A	Mother Board MUXA
350A003A	Mother Board MUXC
350A004A	Mother Board MUXD
350A010A	Mother Board MUX

Quality Management
We are certified

SGM LEKTRA

applied solutions for the applications

Mod. 734B006N - documentation subject to technical change with no prior warning -



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