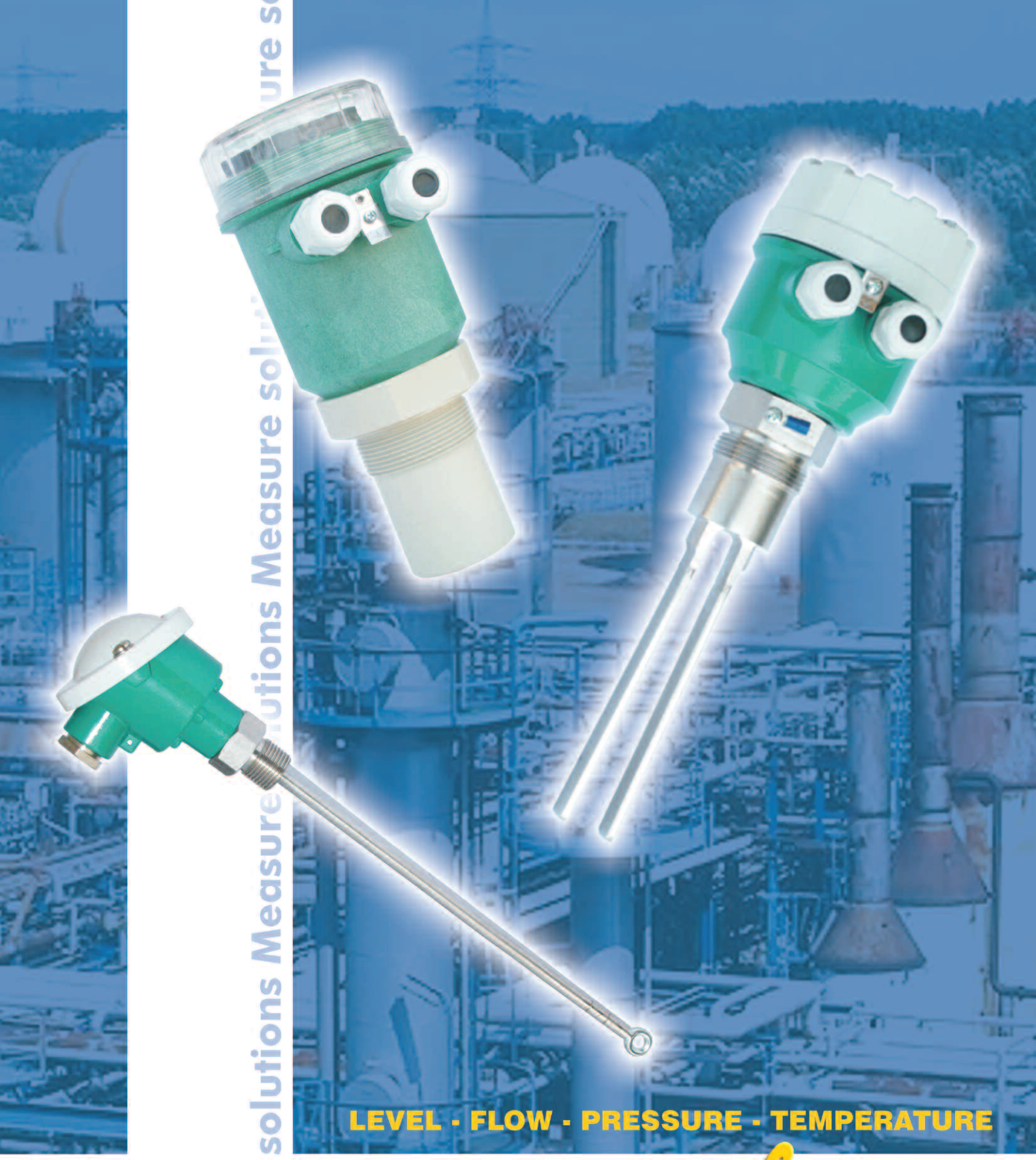


LEVEL - FLOW - PRESSURE - TEMPERATURE

SGM LEKTRA

measure SOLUTIONS

2010 General Catalogue - Rev.1

Measure solutions Measure solutions Measure solutions Measure solutions

Industrial processes







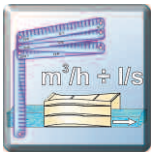



Drinkable water
Waste treatment
Food and beverage
Cement works
Paper mills
Chemicals
Energy
Cereals and mills
Plastics

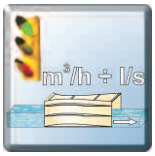
Symbols

Level continuous measure

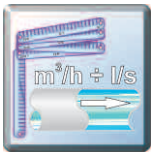
ON-OFF level control



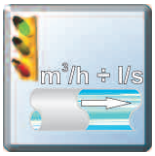
Open channel flow measure



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

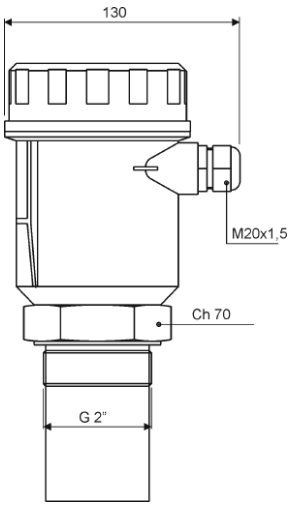
Ultrasonic - 4÷20mA output
G 2"A / PP threaded connection (for ATEX version in PVDF)
Setting by keyboard/graphic LCD display detachable module (optional)
Temperature range : -30° ÷ +70°C (80° non continuous)

Version	
-	2-wire, range 5m, HART, ATEX II 1/2G Ex ia II C T6 Tamb -20÷+60°C
0	2-wire, range 8m, HART, ATEX II 1/2G Ex ia II C T6 Tamb -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 Tamb -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
U	Aluminum with transparent cap, IP67 (necessary for ATEX versions)
Z	Speciale

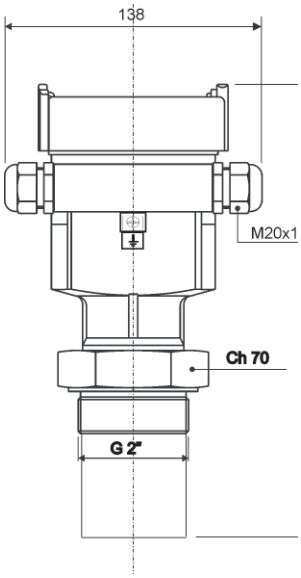
Power supply	
4	24Vdc (20÷30Vdc)
5	12Vdc (20Vdc) range 5m (only for version 1)
9	Special

Optional (opt.)	
A	None
C	DN80 PN6 UNI 6091-71/PP flange
D	VL601 keyboard/display programming module (395A002D)
H	2" BSP/ PP fixing bolt
S	MODBUS communication software (010F105A)
T	HART communication software (010E105A)
Z	Special



F Housing cod.

U Housing cod.



Ultrasonic


SMART

Level control and measure unit

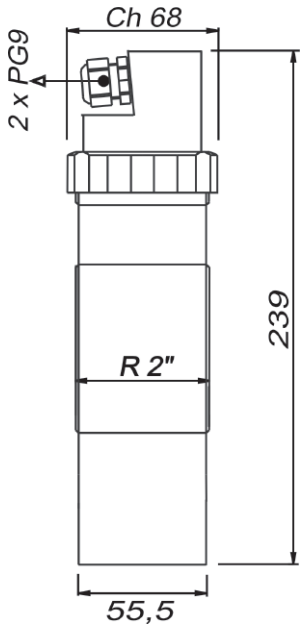
Ultrasonic - G 2"A/PP threaded connection
4÷20mA output with 2 relays for alarms or pumps control
Calibration by 2 push-buttons or via RS485 by PC
Working temperature: -30 ÷ +70°C

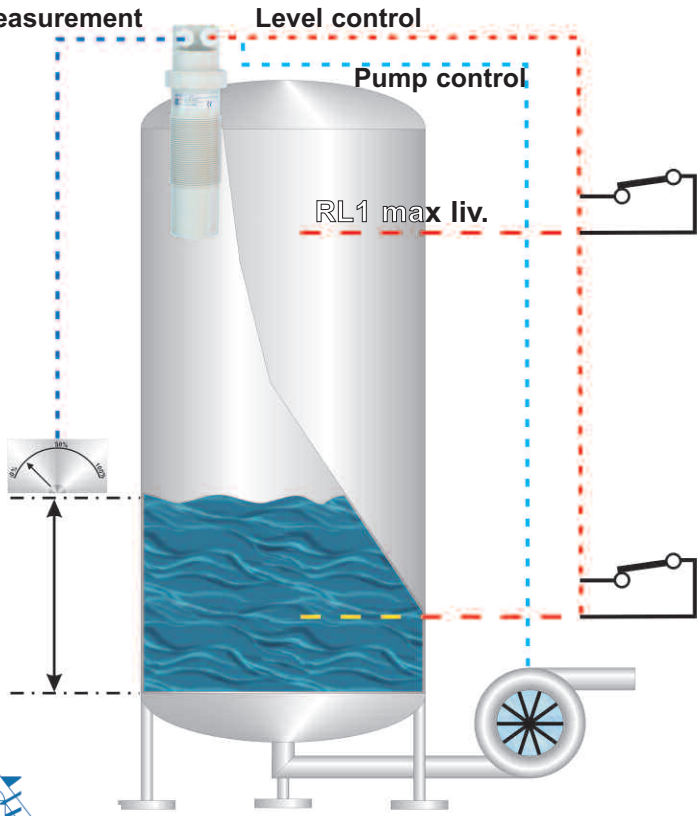
Version	
1	IP66, range 0,25÷5m, with electrical connection by 2 internal plug-in connectors
2	IP68, range 0,25÷5m, with n.2 electrical cable (3m length) connection
3	IP66, range 0,4÷7m, with electrical connection by 2 internal plug-in connectors
4	IP68, range 0,4÷7m, with n.2 electrical cable (3m length) 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 UNI6091-71 / 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)
H	Couple of fixing bolts 2" BSP in PP (620A004T)
Z	Special





521SMART Level control and measure unit

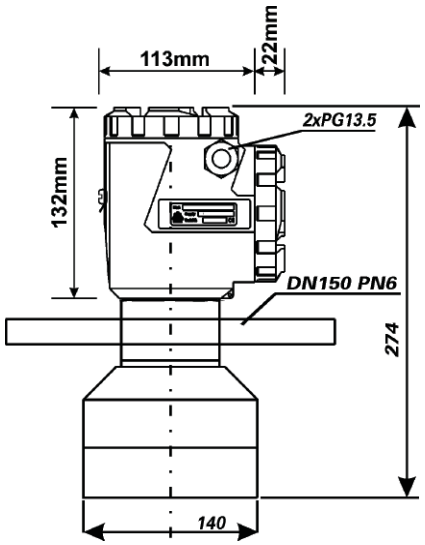
Ultrasonic - designed for liquids and bulk-solids (max 5m)
Range: 0,6÷10m; Mechanical protection IP65
4÷20mA output with 2 relays for alarms or pumps control
Calibration by 2 push-buttons or via RS485 by PC
Working temperature: -30 ÷ +70°C

Version	
1	G2"½ (G 2 ½ A) braket mechanical connection
2	Flanged DN150 PN6 UNI6091-71 / 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


522SMART Level control and measure unit

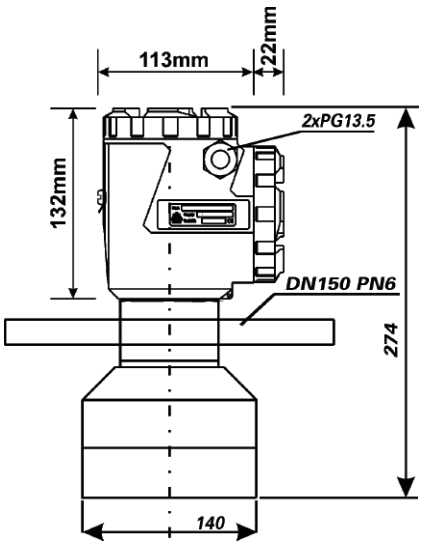
Ultrasonic - designed for liquids and bulk-solids (max. 8m)
Range: 0,7÷15m; Mechanical protection IP65
4÷20mA output with 2 relays for alarms or pumps control
Calibration by 2 push-buttons or via RS485 by PC
Working temperature: -30 ÷ +70°C

Version	
1	G2"½ (G 2 ½ A) braket mechanical connection
2	Flanged DN150 PN6 UNI6091-71 / 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



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

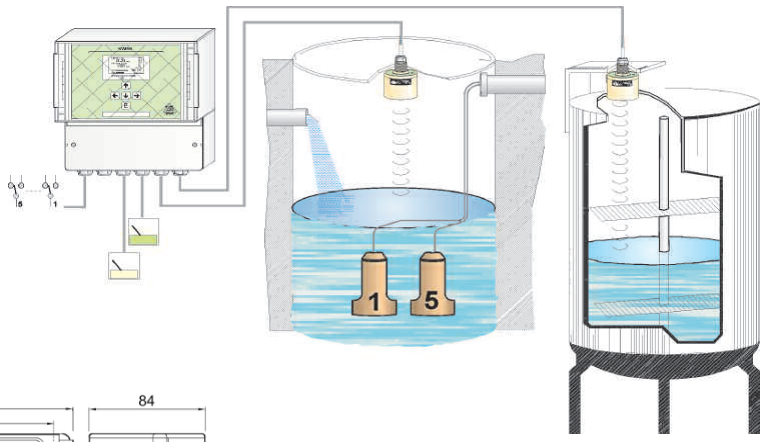
Relay	
A	None
C	5 Relays with change over contact (SPDT)

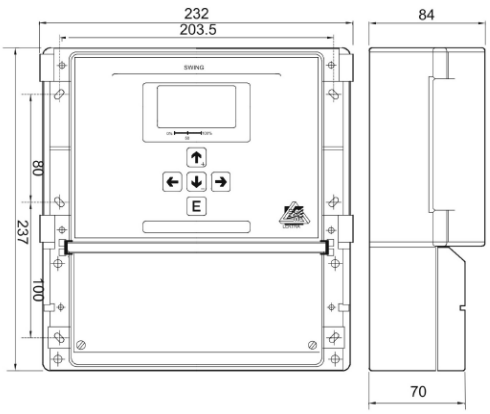
Power supply	
0	115Vac 50÷60Hz
1	230Vac 50÷60Hz
2	24Vac 50÷60Hz
4	24Vdc

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)





Ultrasonic

PTU05

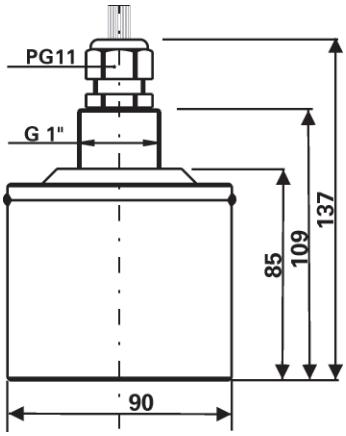
Level transmitter

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
1	DN100 PN6 UNI6091-71/PP flange
9	Special

Optional (opt.)	
A	None
E	IP66 Junction-box for remote calibration (programming push bottoms built-in)
F	PC communication S/W (010D034A)
O	IP67 female connector with linking cable 5m; 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



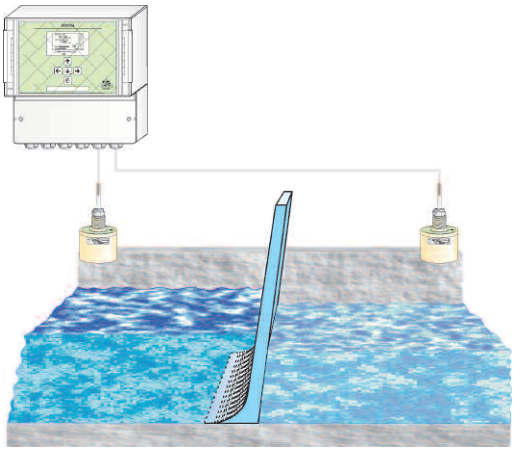
PTU10 Level transmitter

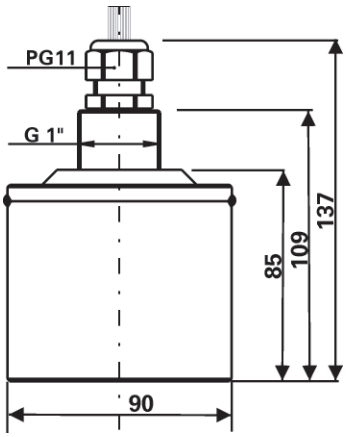
Ultrasonic - for measurement in liquids, muds and acids; range 0,4 ÷ 8m
Calibration by 2 remote push-buttons or via RS485 by PC
PP enclosure; IP68 proof; power supply 24Vdc
Temperature range -25 ÷ +75°C

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
1	DN100 PN6 UNI6091-71/PP flange
9	Special

Optional (opt.)	
A	None
E	IP66 Junction-box for remote calibration (programmation push bottoms 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





Ultrasonic

PTU15

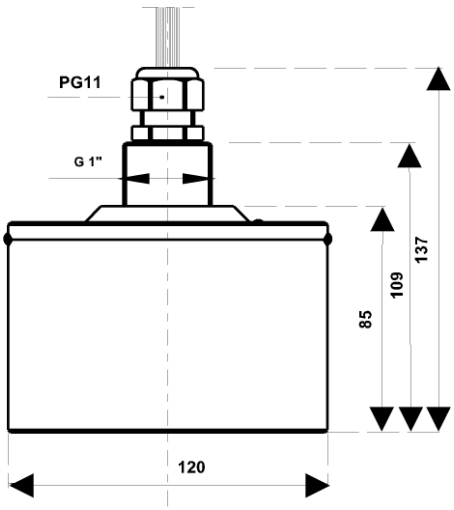
Level transmitter

Ultrasonic - for measure in liquids, muds and acids; range 0,7 ÷ 12m
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

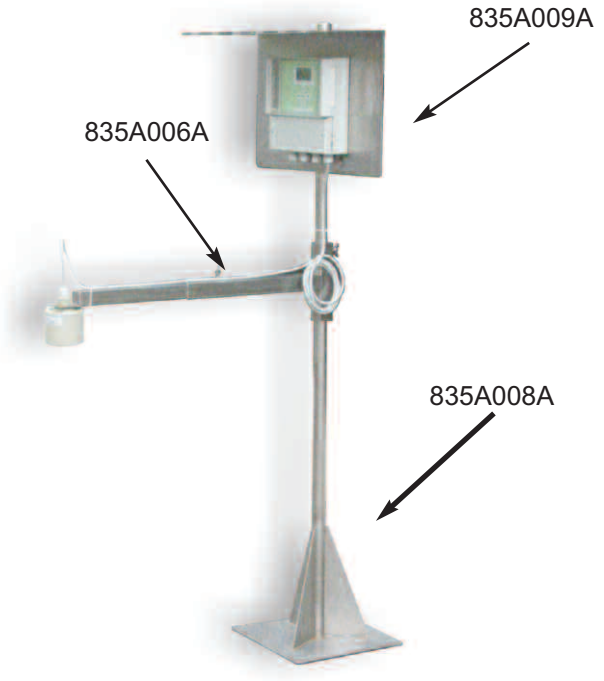
Process connection	
0	G 1" A / PP
1	DN150 PN6 UNI6091-71/PP flange
9	Special

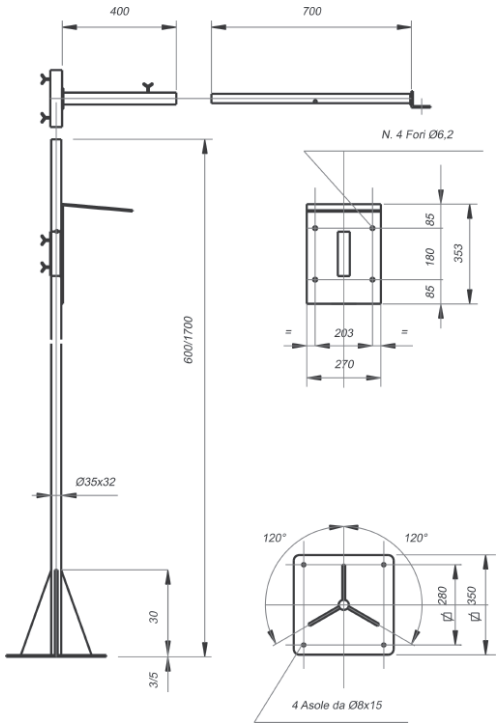
Optional (opt.)	
A	None
E	IP66 Junction-box for remote calibration (programmation push bottoms built in)
F	PC communication S/W (010D034A)
O	IP67 female connector with 5m linking cable; for C and D version connection
P	IP67 female connector with 10m linking cable; for C and D version connection
R	IP67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



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
010F119A	MODBUS RTU communication S/W for FLOWMETER
395A002D	Keyboard/display module VL601 for radar and ultrasonic
420A002D	"SoniSoft" PC S/W for the communication to the SMARTCOST
420A008B	IP66 Junction-box for remote calibration (programmation push bottoms built in)
420D067B	Swing electronic board
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	PTU transmitters IP67 female connector + 5m 8 wires cable
540Z005B	PTU transmitters IP67 female connector + 10m 8 wires cable
540Z008B	PTU transmitters IP67 female connector + 15m 8 wires cable
540Z010B	PTU transmitters IP67 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)
620A004T	2" PP SMART/METER unit ring nuts couple
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	PTU Lateral 316SS fixing-bracket with 0,7-1,1m adj. arm 2"BSP (see drg.)
835A007A	h=0,6m vertical SS316 pedestal
835A008A	h=1,7m vertical SS316 pedestal (see drg.)
835A009A	316SS swing sun protector plate (see drg.)
835A010A	PTU transmitters Wall mounting Vessel/channel lateral 316SS fixing-bracket
835A011A	METER lateral 316SS fixing-bracket with 0,7-1,1m adj. arm 2"BSP
835A012A	METER transmitters Wall mounting Vessel/channel lateral 316SS fixing-bracket





Radar

RPL51

Radar level transmitter with threaded connection

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

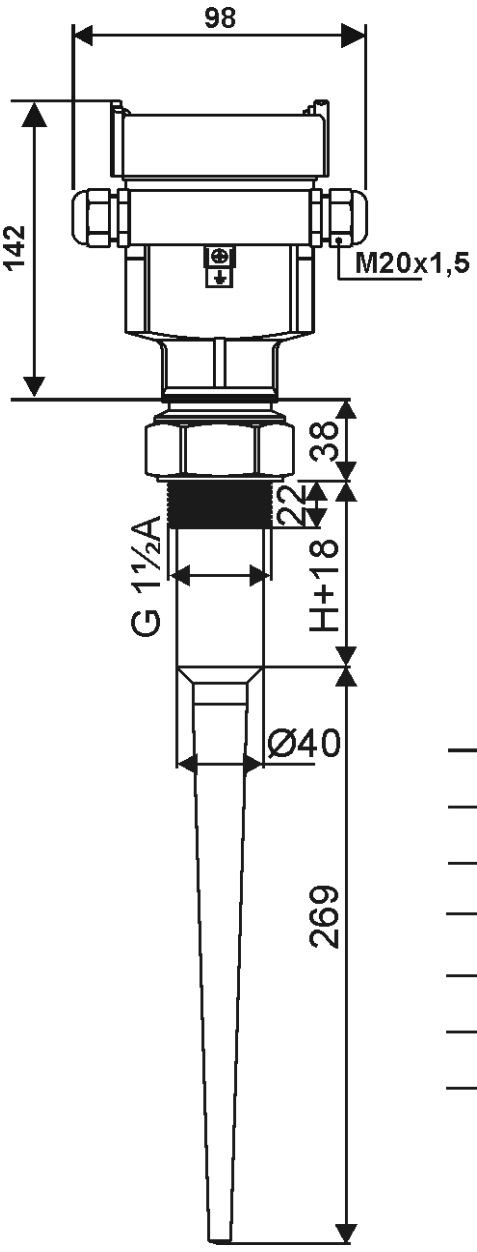
Process connection / Material	
GP	Thread G1" ½ A / PVDF (PN3)
ZZ	Special

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 VL601	
A	Yes
X	No



H
50
100
150
200
250
300

HART®
FIELD-COMMUNICATION-PROTOCOL

Radar

RPL52

Level transmitter with flanged connection

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

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

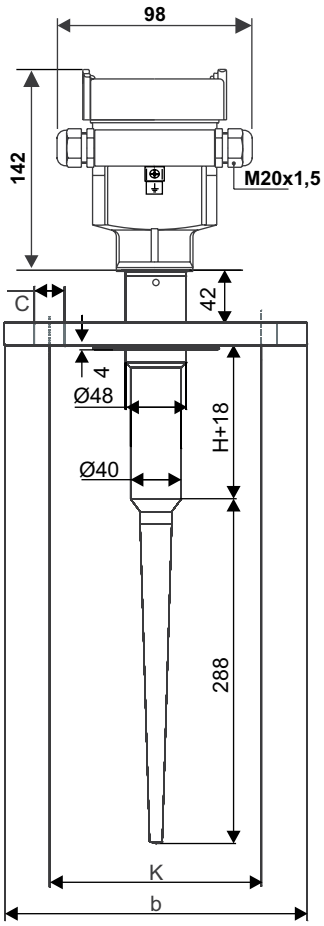
Electronic preamplifier	
B	4÷20mA HART (2-wire); 24Vdc
C	4÷20mA HART (4-wire); 24Vdc
D	4÷20mA HART (4-wire); 230Vac

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 VL601	
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

RPL53

Radar level transmitter with flanged connection and emission horn

Micro-waves pulse group C
For liquids and bulk-solids storage and process applications
Max. distance: 30m
Accuracy: ±10mm
Process pressure: -1,0÷40bar

Version	
I	Intrinsically safe CENELEC EExia IIC T6
P	Standard

Antenna shape / Material	
C	Horn Ø50mm / SS316L (only for standpipe applications)
D	Horn Ø80mm / SS316L (only for standpipe applications)
E	Horn Ø100mm / SS316L
F	Horn Ø150mm / SS316L

Antenna extension	
A	None
B	200mm
C	500mm

Process connection / Material	
FA	DN50 PN16 flange / SS316L
FB	DN80 PN16 flange / SS316L
FC	DN100 PN16 flange / SS316L
FD	DN150 PN16 flange / SS316L
FE	DN200 PN16 flange / SS316L
FH	DN250 PN16 flange / SS316L
ZZ	Special

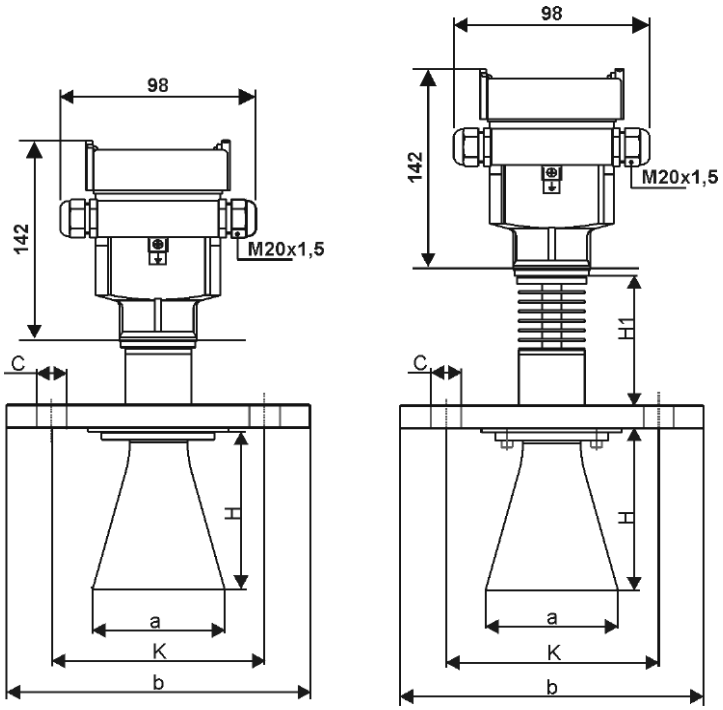
Seal / Process temperature	
2	Viton / -40÷130°C
3	Kalrez / -20÷130°C
4	Viton / -40÷180°C with radiator fins
5	Kalrez / -20÷180°C with radiator fins

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 transparente cap / IP67 / IP67
Z	Special

Cable entry	
M	M20x1,5

Keyboard/display programming module VL601	
A	Yes
X	No



	a	K	b	C	H	H1
DN50		Ø125	Ø165	Ø16x4		123
DN80	Ø75	Ø160	Ø200	Ø16x8	60	123
DN100	Ø96	Ø180	Ø220	Ø16x8	120	123
DN150	Ø146	Ø240	Ø285	Ø20x8	205	123
DN200	Ø197	Ø295	Ø340	Ø20x12	296	123
DN250	Ø244	Ø355	Ø405	Ø24x12	380	123

HART® FIELD COMMUNICATION PROTOCOL

Radar

RPL54

Radar level transmitter with flanged connection and emission horn

Micro-waves pulse group C
For liquids and bulk-solids storage and process applications
Max. distance: 70m
Accuracy: ±20mm
Process pressure: -1÷40bar

Version	
I	Intrinsically safe CENELEC EExia IIC T6
P	Standard

Antenna shape / Material	
F	Horn Ø150mm / SS316L
G	Horn Ø200mm / SS316L
H	Horn Ø250mm / SS316L

Antenna extension	
A	None
B	200mm
C	300mm
D	400mm

Process connection / Material	
FB	DN150 PN16 flange / SS316L
FC	DN200 PN16 flange / SS316L
FD	DN250 PN16 flange / SS316L
ZZ	Special

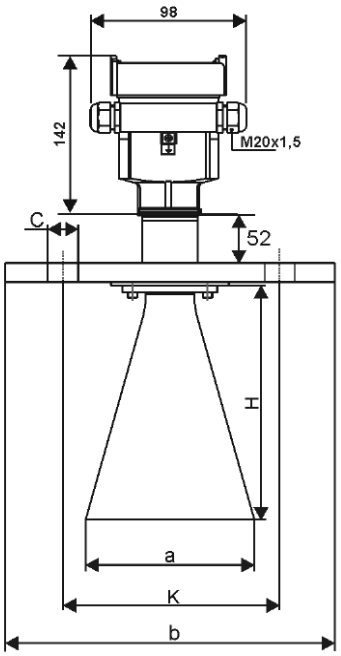
Seal / Process temperature	
2	Viton / -40÷130°C
3	Kalrez / -20÷130°C
4	Viton / -40÷200°C with radiator fins
5	Kalrez / -20÷200°C with radiator fins

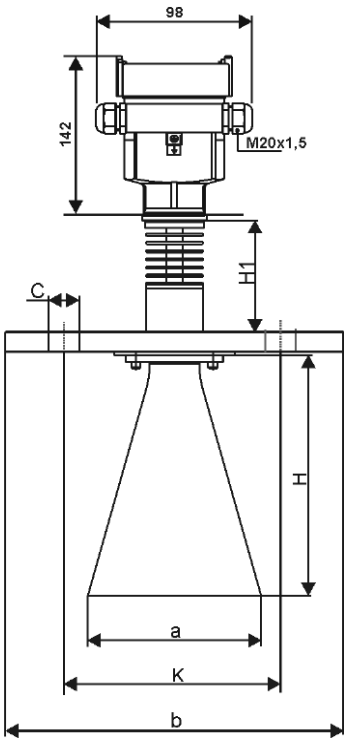
Electronic preamplifier	
B	4÷20mA HART (2-wire); 24Vdc
C	4÷20mA HART (4wire); 24Vdc
D	4÷20mA HART (4-wire); 230Vac

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 VL601	
A	Yes
X	No





	a	K	b	C	H	H1
DN150	Ø146	Ø240	Ø285	Ø20x8	205	123
DN200	Ø197	Ø295	Ø340	Ø20x12	296	123
DN250	Ø244	Ø355	Ø405	Ø24x12	380	123

HART® FIELD COMMUNICATION PROTOCOL

Radar

RPL55

Radar level transmitter with threaded connection

Micro-waves pulse 26GHz group K
For storage or process applications
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° ÷ +120°C

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

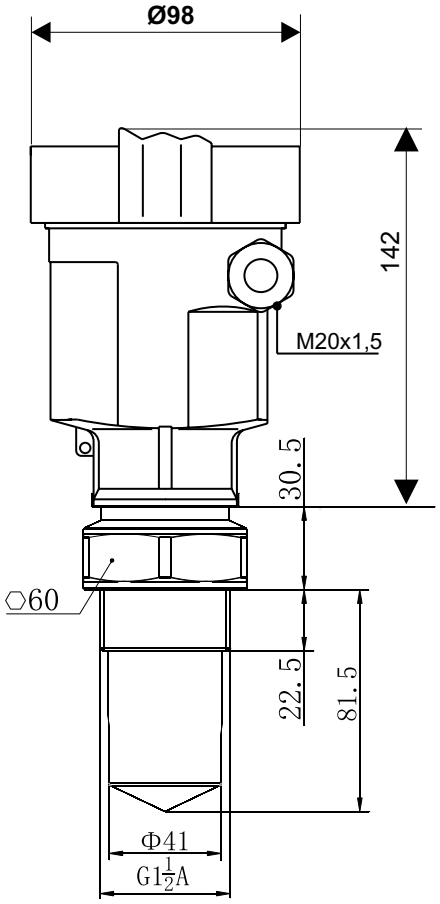
Non sensitive part (for nozzle mounting)	
A	100 mm
B	200 mm

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 VL601	
A	Yes
X	No


Ø98
142
M20x1,5
30.5
⬡60
22.5
81.5
Φ41
G1½A

Radar

RPL56

Radar level transmitter with threaded connection and emission horn

Micro-waves pulse 26GHz group K
For 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 with aiming device / PP with PTFE cap

Process connection / Material	
GC	Thread G 1" ½ with dissipator / SS316L (-60 ~ 250°C)
GD	Thread G 1" ½ with dissipator and flange / SS316L (-60 ~ 400°C); pressure 40MPa
GP	Thread G 1" ½ / SS316L
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

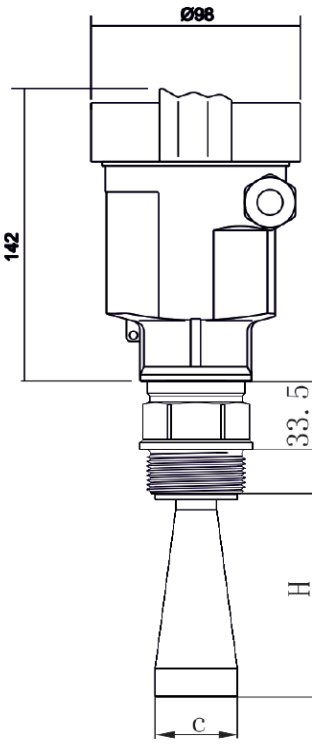
Seal / Process temperature	
2	Viton / -40÷130°C
3	Kalrez / -60÷250°C

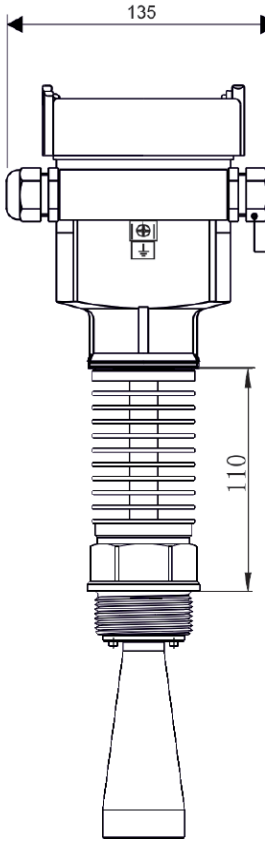
Electronic preamplifier	
B	4÷20mA HART (2-wire); 24Vdc
C	4÷20mA HART (4-wire); 24Vdc
D	4÷20mA HART (4-wire); 230Vac

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 VL601	
A	Yes
X	No





	c	H
2″	Φ48	120
3″	Φ75	200
4″	Φ95	300

Radar

RPL58

Radar level transmitter with threaded connection and emission horn

Micro-waves pulse 26GHz group K
For 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
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 dissipator / SS316L
GP	Thread G 1" ½ / SS316L
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

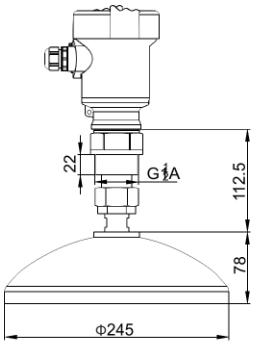
Seal / Process temperature	
2	Viton / -40÷130°C
3	Kalrez / -60÷250°C

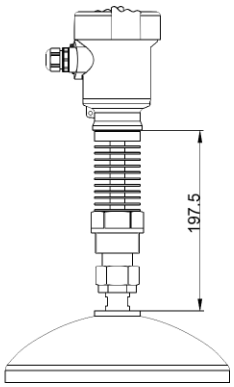
Electronic preamplifier	
B	4÷20mA HART (2-wire); 24Vdc
C	4÷20mA HART (4wire); 24Vdc
D	4÷20mA HART (4-wire); 230Vac

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

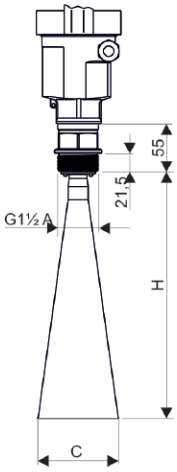
Cable entry	
M	M20x1,5

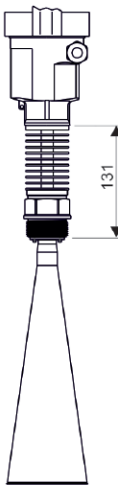
Keyboard/display programming module VL601	
A	Yes
X	No

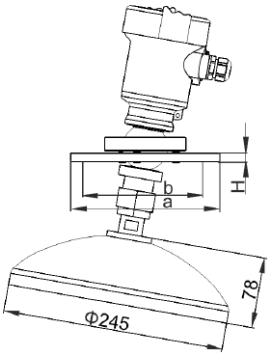


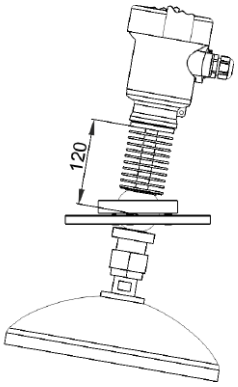


C	H
Ø 48	120
Ø 78	200
Ø 98	300

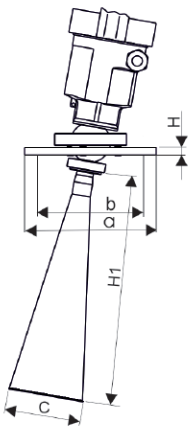


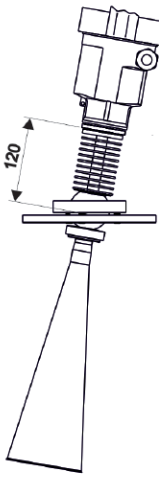






C	H1
Ø 48	120
Ø 78	200
Ø 98	300





	a	b	H	d
DN50	165	122,8	11,5	4 x Ø19
DN80	205	156,2	11,5	8 x Ø16
DN100	220	182,5	11,5	8 x Ø16
DN150	285	240	11,5	8 x Ø20
DN200	340	295	11,5	12 x Ø20
DN250	355	182,5	11,5	12 x Ø24

Radar

RWL51

Rope/rod guided wave radar level transmitter with threaded connection

Micro-waves pulse TDR
For liquids and bulk solids measurement
Max. length: rod 3m , rope 25m (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

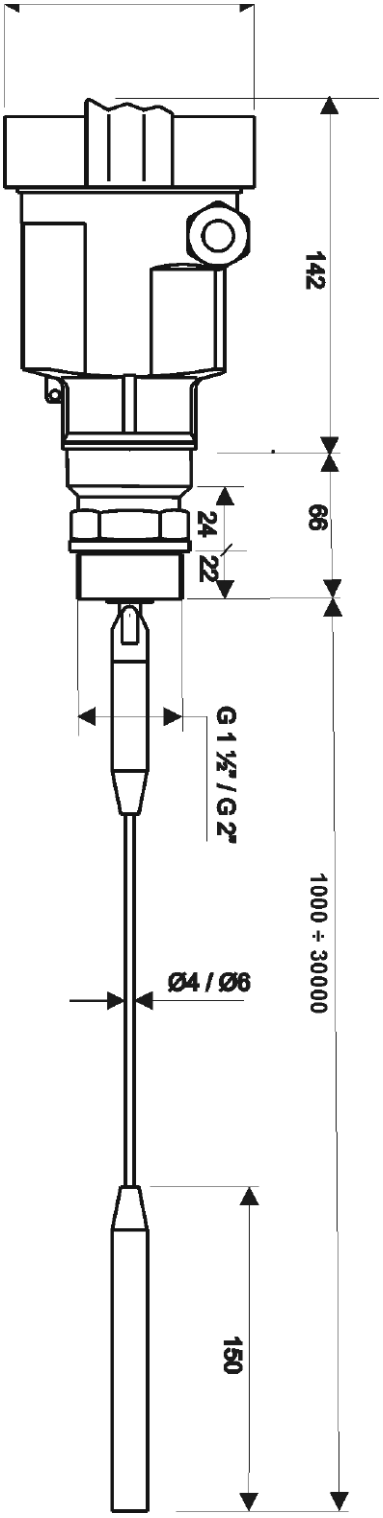
Electronic preamplifier	
B	4÷20mA HART (2-wire); 24Vdc
C	4÷20mA HART (4wire); 24Vdc
D	4÷20mA HART (4wire); 230Vac

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 VL601	
A	Yes
X	No

L= length, price each 100mm	
A	Rope Ø4/6mm / SS316L (max 25m)
B	Rod Ø10mm / SS316L (max 3m)
C	Rod Ø10mm / SS304 (max 3m)


142
66
24
22
G 1½" / G 2"
1000 ÷ 30000
Ø4 / Ø6
150

Radar

RWL52

Rod guided wave radar level transmitter with flanged connection

Micro-waves pulse TDR
For liquids and bulk solids measurement
Max. length: 3m
Accuracy: ±10mm
Process pressure: -1÷40bar

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
FB	Flange DN80 PN16 / SS316L
FC	Flange DN100 PN16 / SS316L
FD	Flange DN150 PN16 / SS316L
ZZ	Special

Seal / Process temperature	
A	Viton / -30÷130°C

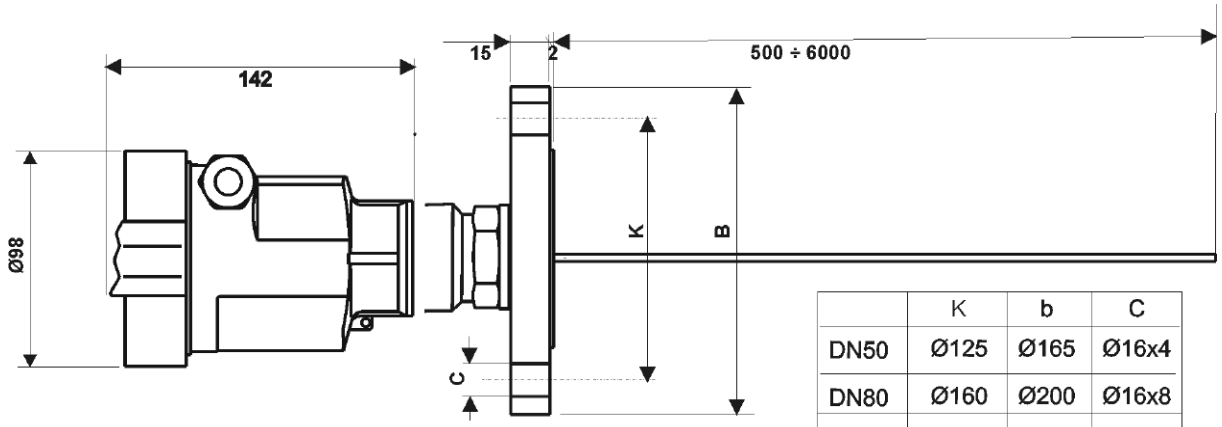
Electronic preamplifier	
B	4÷20mA HART (2-wire); 24Vdc
C	4÷20mA HART (4wire); 24Vdc
D	4÷20mA HART (4-wire); 230Vac

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 VL601	
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 Coaxial guided wave radar level transmitter with threaded connection

Micro-waves 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

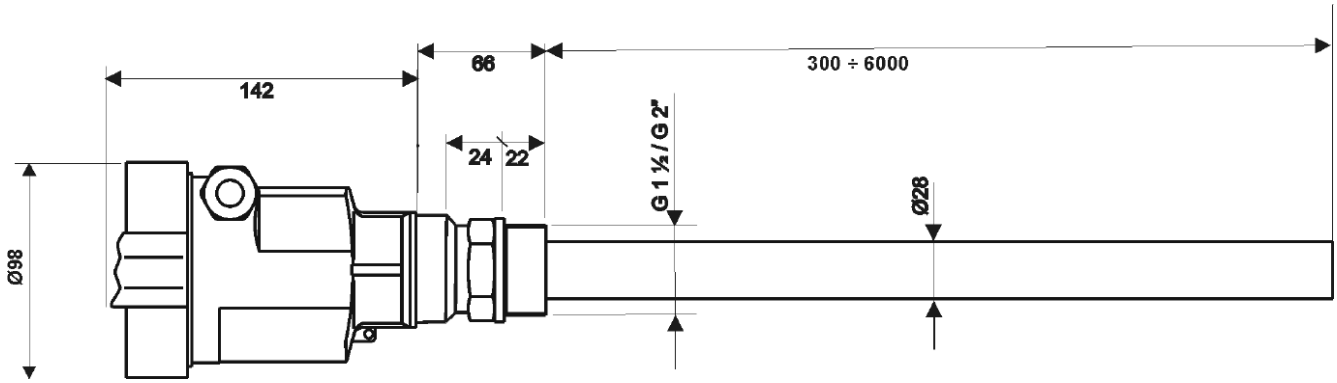
Electronic preamplifier	
B	4÷20mA HART (2-wire); 24Vdc
C	4÷20mA HART (4wire); 24Vdc
D	4÷20mA HART (4-wire); 230Vac

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 VL601	
A	Yes
X	No

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



RWL54

Rod/rope guided wave radar level transmitter with threaded connection for high temperatures

Micro-waves pulse TDR
For liquids with high process temperature/pressure
Max. length: 3m rod - 30m rope
Accuracy: ±10mm
Process pressure: -1÷40bar
Process temperature: max 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

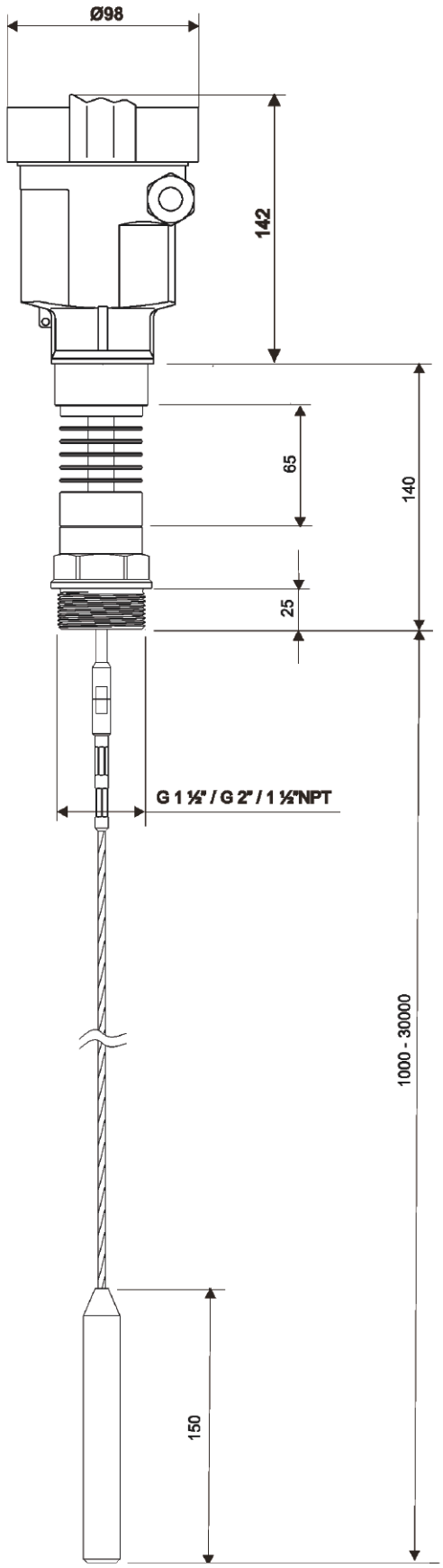
Electronic preamplifier	
B	4÷20mA HART (2-wire); 24Vdc
C	4÷20mA HART (4wire); 24Vdc
D	4÷20mA HART (4-wire); 230Vac

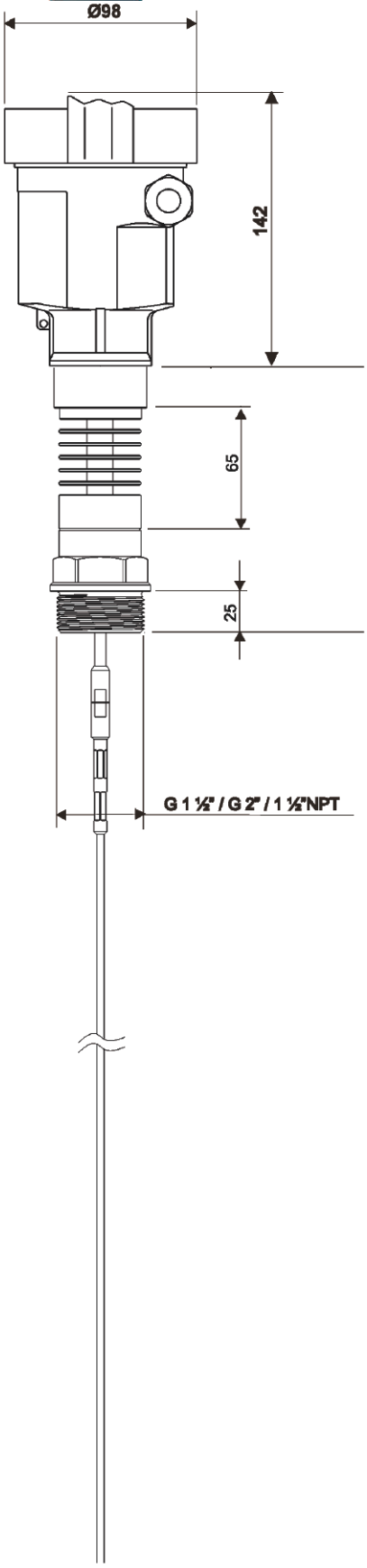
Housing / Protection	
D	Aluminum with 2 chambers (for 4-wire versions) / IP67
U	Aluminum with transparent cap / IP67
Z	Special

Cable entry	
M	M20x1,5

Keyboard/display programming module VL601	
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
1000 - 30000
150


Ø98
142
65
25
G 1 ½" / G 2" / 1 ½"NPT

Capacitive

CLT4

Capacitive rod probe for liquids

Suitable for level measurement in conductive and non-conductive liquids
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 certificated (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 + 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
C	IP65 aluminium varnished
D	IP65 double cover PBT
G	IP66 aluminum varnished with 2 cable-glands
H	IP66 PC with aluminum adapter, 4 holes flange
Z	Special

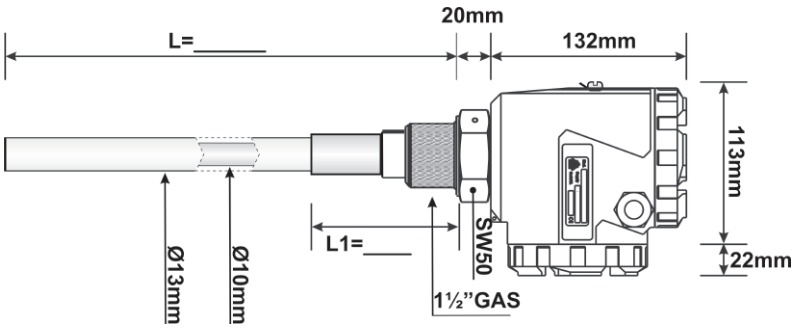
Process connection	
01	G1" (G 1 A) / Carbon-steel
02	G1" (G 1 A) / Stainless-steel SS316
03	1" NPT / Carbon-steel
04	1" NPT / Stainless-steel SS316
11	G1"½ (G 1 ½ A) / Carbon-steel
12	G1"½ (G 1 ½ A) / Stainless-steel SS316
18	G1"½ (G 1 ½ A) / PVC
19	G1"½ (G 1 ½ A) / PTFE
20	Sanitary DN 25 DIN 11851, SS304L
21	Sanitary DN 40 DIN 11851, SS304L
22	Sanitary DN 50 DIN 11851, SS304L
40	Flange DN 40 PN 6 UNI6091/71 material PVC
41	Flange DN 40 PN 6 UNI6991/71material PTFE
42	Flange DN 40 PN16 material Carbon-steel
45	Flange DN 50 PN6 UNI6091/71 material PVC
46	Flange DN 80 PN6 UNI6091/71 material PVC
47	Flange DN 100 PN6 UNI6091/71 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
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
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

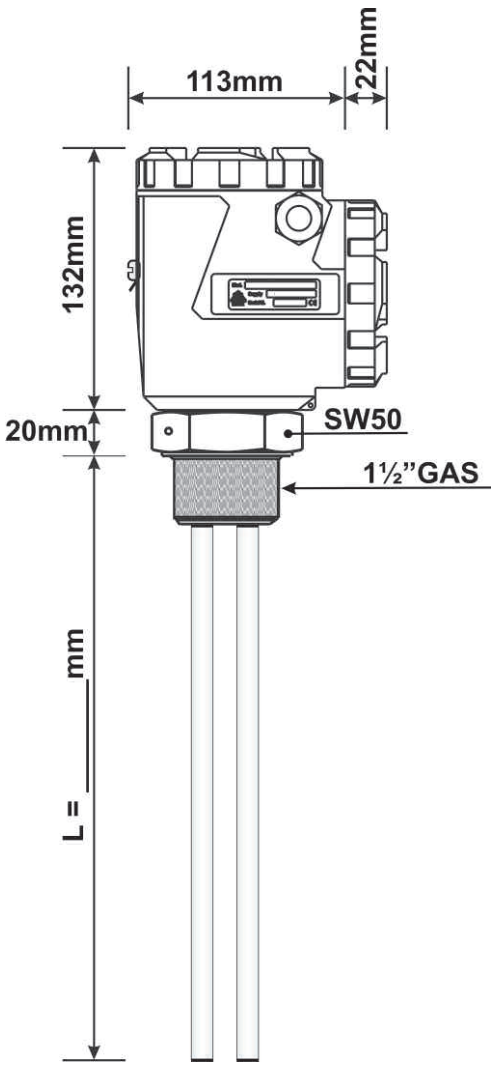
Electronic preamplifier	
00	None
22	TC22, 4÷20mA, 2 push buttons for calibration, 24Vdc
23	TC23, 4÷20mA, 2 push buttons for calibration, 24Vac
24	TC24, 4÷20mA, 2 push buttons for calibration, 115Vac
25	TC25, 4÷20mA, 2 push buttons for calibration, 230Vac
26	TC26, 4÷20mA, 2 push-buttons calibration, 1relay, 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
D	IP65 Double cover PBT
Z	Special

Process connection	
18	G1"½ (G 1 ½ A) / PVC
19	G1"½ (G 1 ½ A) / PTFE
40	Flange DN40 PN6 UNI6091/71, material PVC
41	Flange DN40 PN6 UNI6091/71, material PTFE
45	Flange DN50 PN6 UNI6091/71, material PVC
46	Flange DN80 PN6 UNI6091/71, material PVC
47	Flange DN100 PN6 UNI6091/71, 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 certificated (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

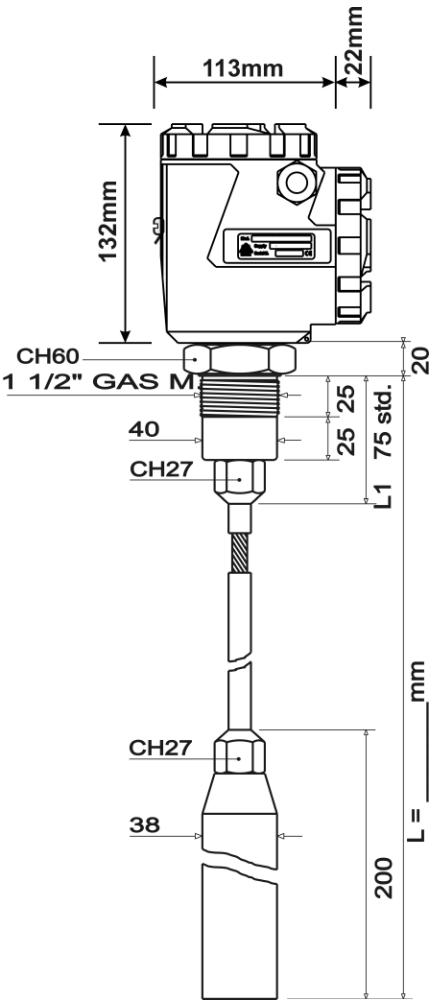
Housing	
B	IP66 loaded PC; white polycarbonate cap
C	IP65 aluminium varnished
D	IP65 Double cover PBT
G	IP66 aluminium varnished with 2 cable-glands
H	IP66 PC with aluminum adapter, 4 holes flange
Z	Special

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 certificated (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
C	IP65 aluminium varnished
D	Double cover PBT IP65
G	IP66 aluminium varnished with 2 cable-glands
H	IP66 PC with aluminum adapter, 4 holes flange
Z	Special

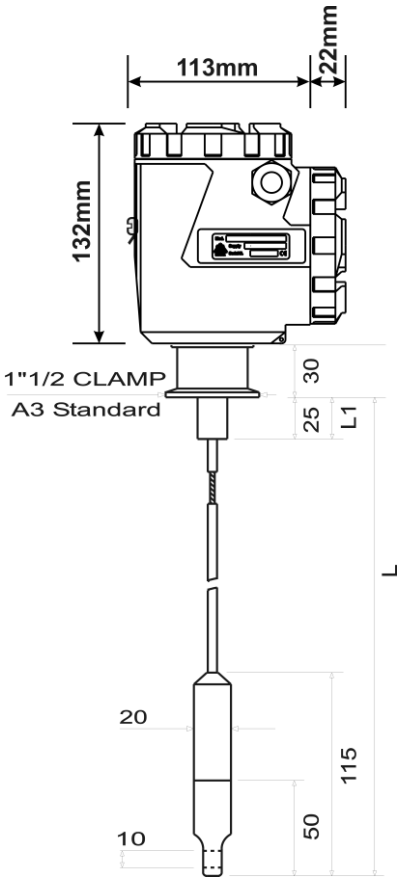
Process connection	
02	G1" (G 1 A) / Stainless-steel SS316
04	1" NPT / Stainless-steel SS 316
11	G1"½ (G 1 ½ A) / Carbon-steel
12	G1"½ (G 1 ½ A) / Stainless-steel SS316
18	G1"½ (G 1 ½ A) / PVC
19	G1"½ (G 1 ½ A) / PTFE
20	Sanitary DN 25 DIN 11851, SS 304L
21	Sanitary DN 40 DIN 11851, SS 304L
22	Sanitary 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 level transmitter unit with 4 threshold relays

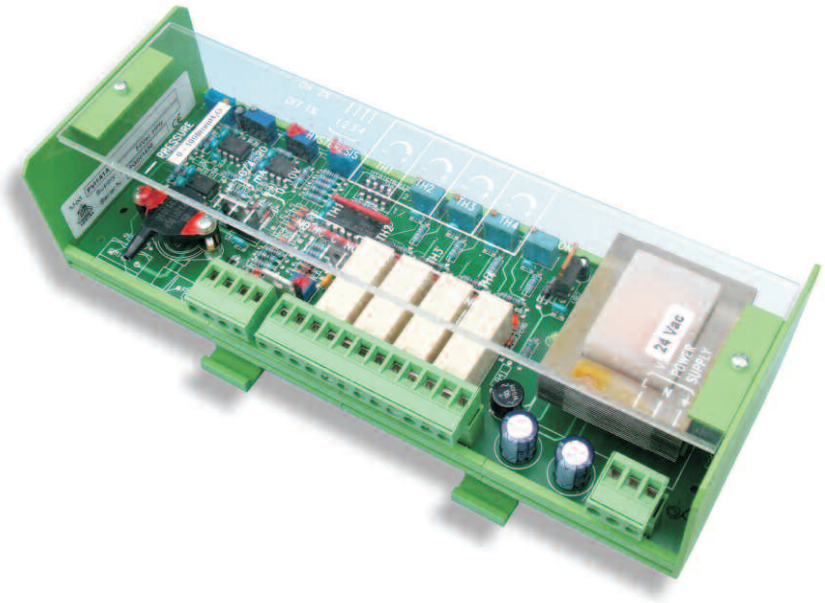
Air purge; connection to a 20PSI air instrumentation, (137,895 kPa)
Analog output: 0÷10Vdc min 3kohm, and 4÷20mA max 500ohm
Mechanical protection: IP10
Working temperature -10, +50°C,

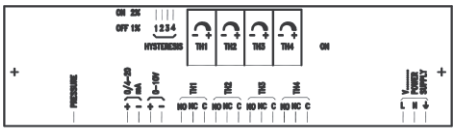
Version	
0	Level transmitter, IP10 DIN-rail mounting
1	Level transmitter + 4 relays SPDT, IP10 DIN-rail mounting
9	Special

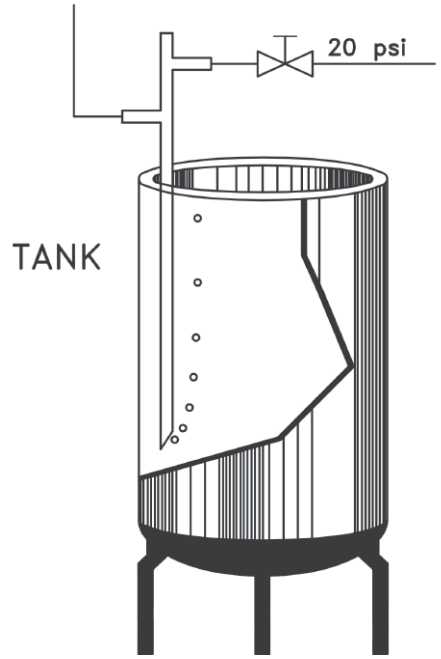
Power supply	
A	24Vac 50÷60Hz
B	115Vac 50÷60Hz
C	230Vac 50÷60Hz

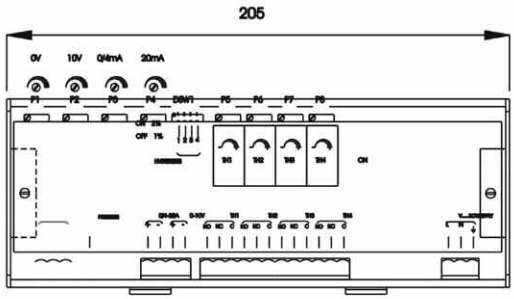
Measure range	
1	0÷1000mm H2O, (0÷9,80665kPa)
2	0÷5000mm H2O, (0÷4,903325kPa)
5	For differential pressure 0÷100mm H2O, (0÷0,980665kPa)
9	Special

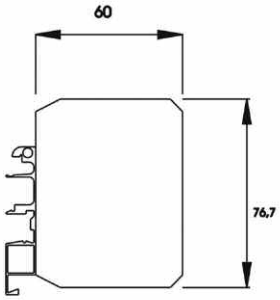
Accessories	
A	None
Z	Special











PTS

Air purge level transmitter unit with 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 n
Working temperature -10, +50°C

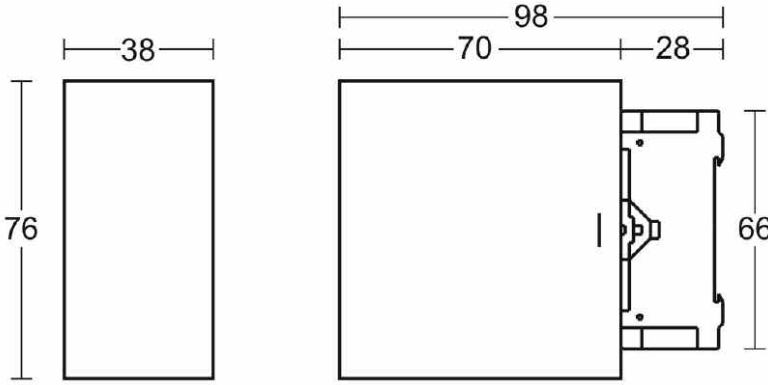
Version	
A	IP20, n.1 threshold relay
B	IP20, n.2 threshold relays
Z	Special

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

CA10

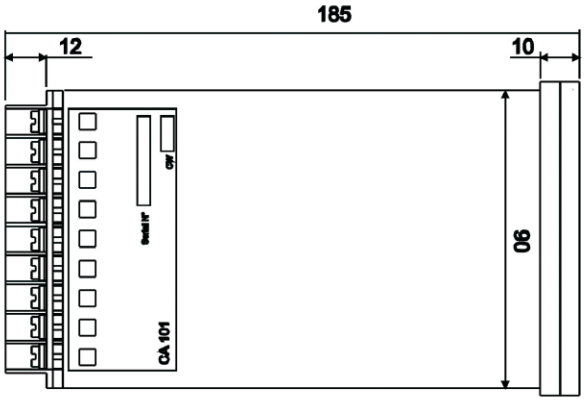
Display/Power supply with 2 threshold relays

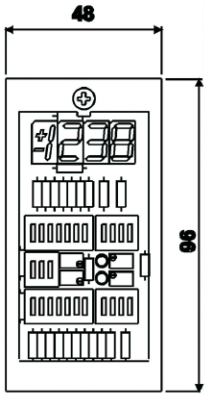
3½ digit dislay, switable to be connected to analogic transmitters
Power supply output: 24Vdc; max.180mA
Display scale and set-points programmable
48x96 panel mounted, IP40 front mechanical protection

Input	
1	0÷4/20mA
2	for potentiometer (min 1K)

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

Accessories	
A	None
M	Frontal windows IP54
Z	Special



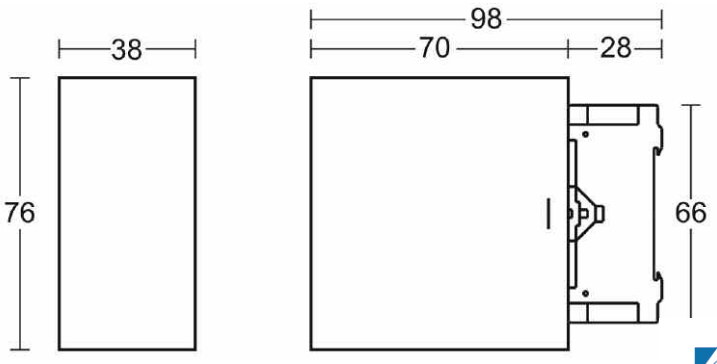


LC2

2 relays switch and power control unit for transmitters

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

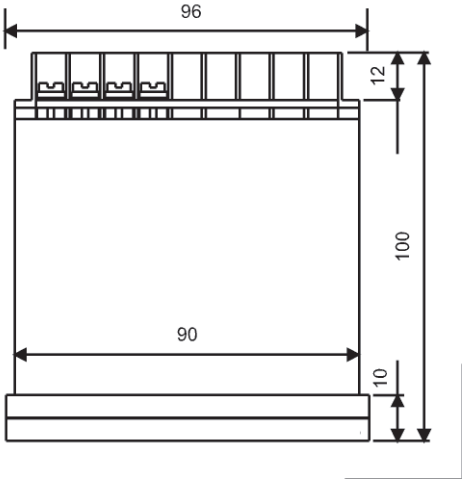


VL501

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

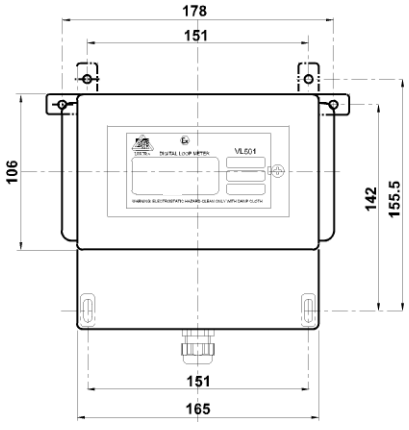
Accessories	
A	None
M	Frontal window IP54
Z	Special



VLW501

4÷20mA IP66 loop powered digital display

Base	
VLW501	3 1/2digit LCD Fine calibration with dip-switches Zero and Span setting with internal simulator Wall mounting, IP66



Visualization and control

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

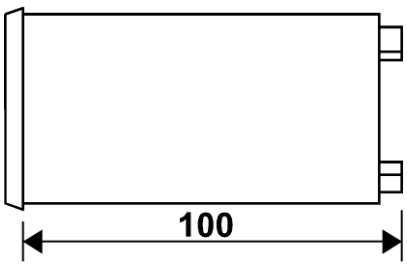
Relay	
0	None
2	2 Relays
4	4 Relays

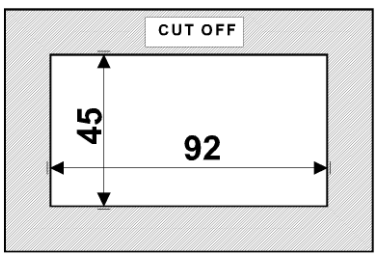
Output	
A	None
D	RS485 MODBUS
R	RS232
T	4÷20mA / 0÷10V

Linearization	
A	None
L	With up to 20 segments programmable

Input galvanic insulation	
A	None
D	Input galvanic insulation (recommended if the equipment is supplied at 24Vdc)

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





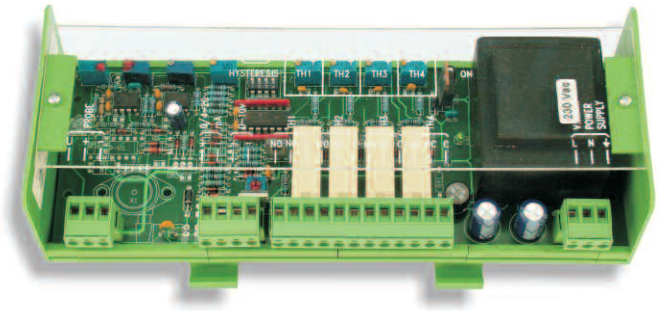
CVI

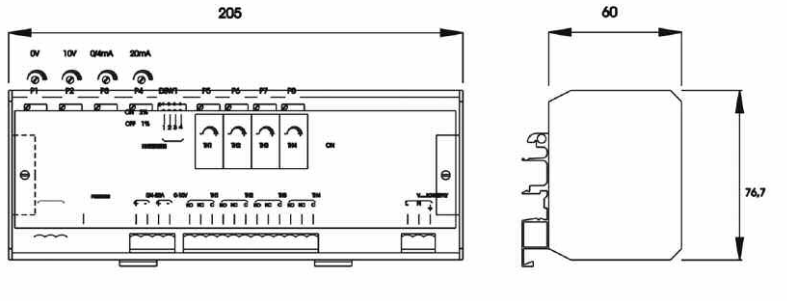
4 relays switch and power control unit for transmitters

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

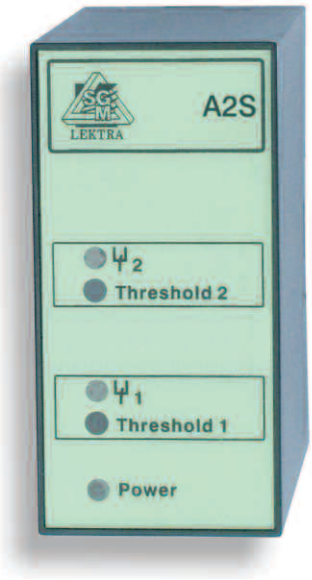
Control unit for 4÷20mA 2 relays transmitters

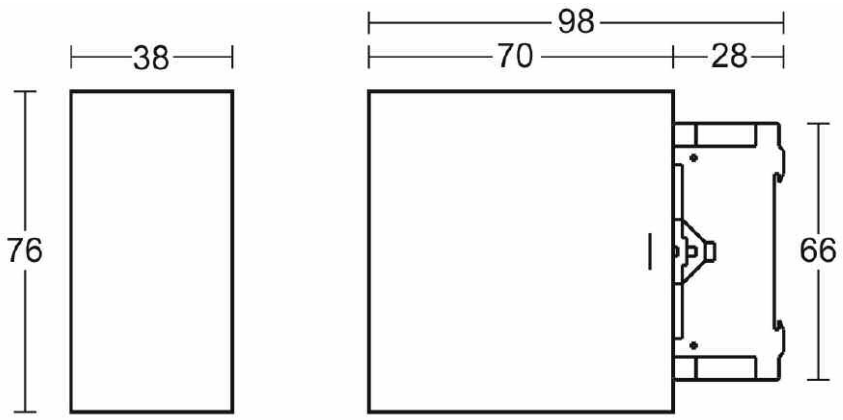
Suitable to be connected to 4÷20mA analogic transmitters
2 SPDT 3A 250Vac relays, trimmer adjustable set points
IP20 mechanical protection; Undecal plug-in male-socket

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/Vac 50Hz, Relay output SPDT
43	TL41 ON-OFF, supply 85÷250Vac 50Hz, Relay output SPDT
99	Special

Housing	
B	IP66 PC (loaded-polycarbonate)
D	IP65 Double cover PBT
G	IP66 aluminum varnished (necessary for ATEX version)
H	IP66 PC with aluminum adapter, 4 holes flange
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

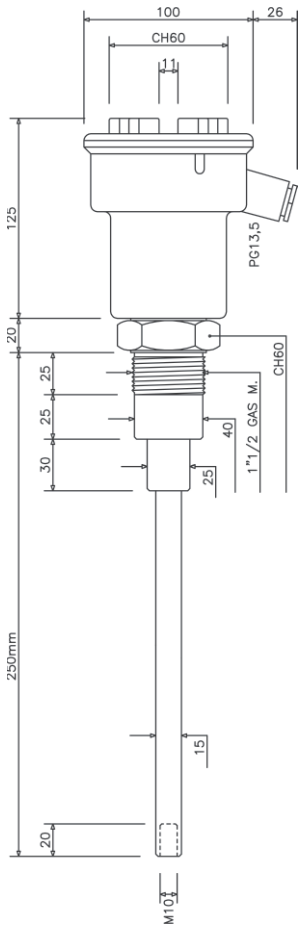
M10x1,5 female thread for extension	
0	None
1	M10x1,5 female thread on top

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 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/Vac 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 PC polycarbonate loaded
C	IP65 aluminum varnished
D	IP65 double cover PBT
G	IP66 aluminum varnished (necessary for ATEX versions)
H	IP66 PC with aluminum adapter, 4 holes flange
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

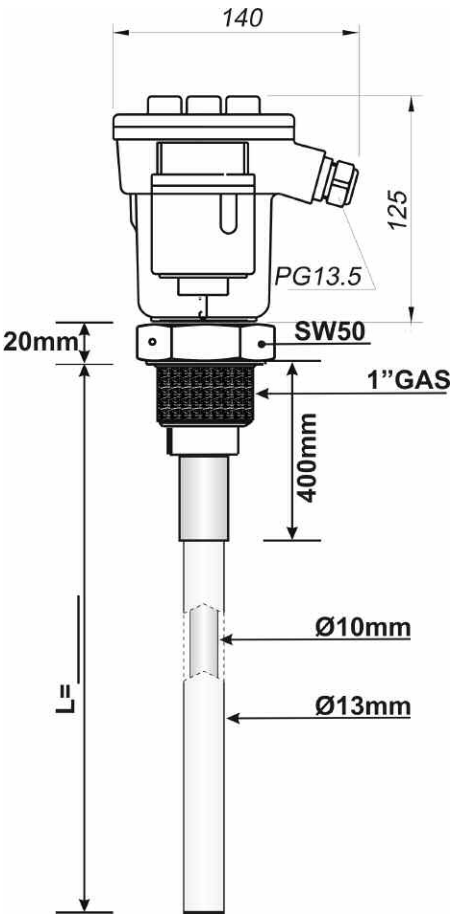
Capacitive

21	Sanitary DN40 DIN 11851, SS304L
22	Sanitary DN50 DIN 11851, SS304L
40	Flange DN40 PN6 UNI6091/71, PVC
41	Flange DN40 PN 6 UNI6991/71, PTFE
42	Flange DN40 PN16, Carbon-steel
45	Flange DN50 PN6 UNI6091/71, PVC
46	Flange DN80 PN6 UNI6091/7, PVC
47	Flange DN100 PN6 UNI6091/71, 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
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
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
99	Special

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


140
125
PG13.5
20mm
SW50
1"GAS
400mm
Ø10mm
Ø13mm
L=

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/Vac 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

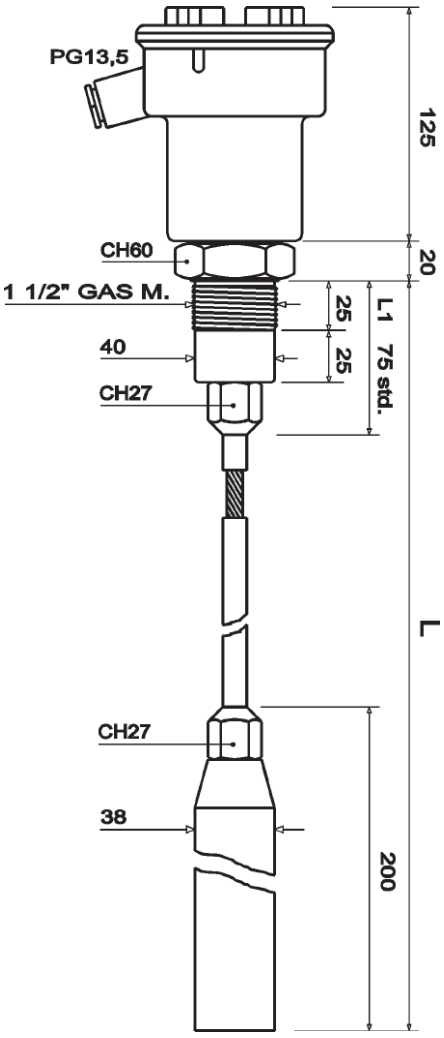
Housing	
B	IP66 PC polycarbonate loaded
C	IP65 aluminum varnished
D	IP65 double cover PBT
G	IP66 aluminum varnished (necessary for ATEX version)
H	IP66 PC with aluminum adapter, 4 holes flange
Z	Special

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/Vac 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 PC polycarbonate loaded
C	IP65 aluminum varnished
D	IP65 double cover PBT
G	IP66 aluminum varnished (necessary for ATEX versions)
H	IP66 PC with aluminum adapter, 4 holes flange
Z	Special

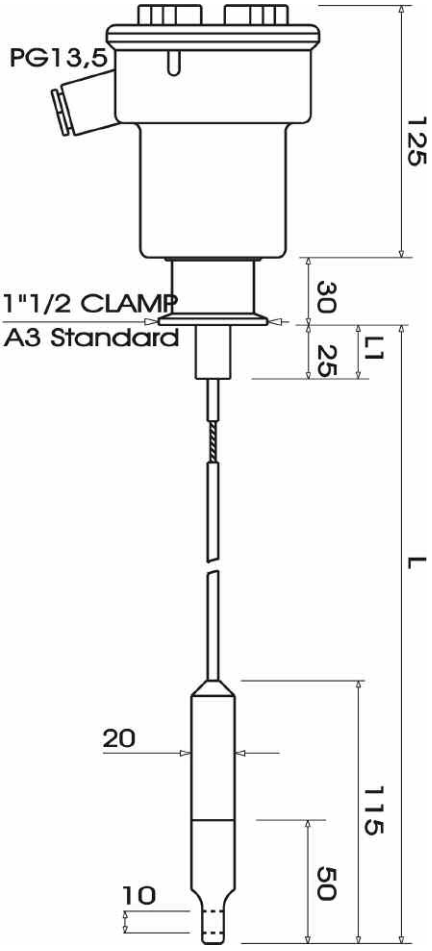
Process connection	
02	G1" (G 1 A) / SS316
04	1" NPT / SS316
11	G1"½ (G 1 ½ A) / Carbon-steel
12	G1"½ (G 1 ½ A) / SS316
18	G1"½ (G 1 ½ A) / PVC
19	G1"½ (G 1 ½ A) / PTFE
20	Sanitary DN25 DIN11851, SS304L
21	Sanitary DN40 DIN11851, SS304L
22	Sanitary DN50 DIN11851, SS304L
42	Flange DN40 PN16, Carbon-steel
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

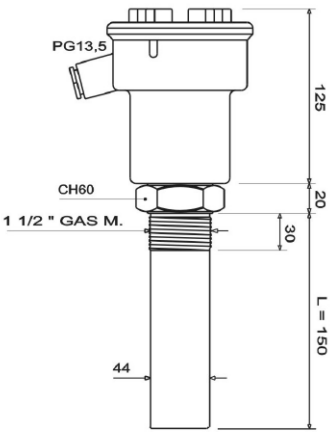
Version	
A	Without electronic preamplifier
B	Compact
E	Compact, Zone 20/21 ATEX certificated (TL41 insert only); to be used with "G" housing
Z	Special

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÷32Vdc / 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
D	Double cover PBT; IP65
G	IP66 aluminum varnished (necessary for ATEX versions)
H	IP66 PC with aluminum adapter, 4 holes flange
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



LEKTRA

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

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

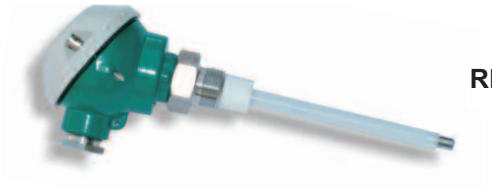
L= Electrode length	
056	L = 56mm

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



RL2

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

RL5

Ceramic insulated electrode with fibre glass

Base	
RL5	Conductive level control G ½" A / SS316 process connection Terminal part in SS316, Ø15mm L=65mm Working temperature up to 280°C, max press. 25bar

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. 18, 73, 75
H	n.5; only for connection cod. 18, 73, 75
Z	Special

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

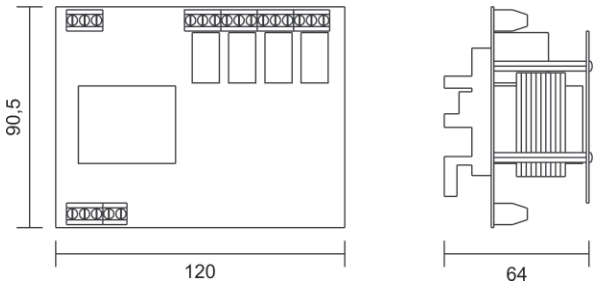
RAL04

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

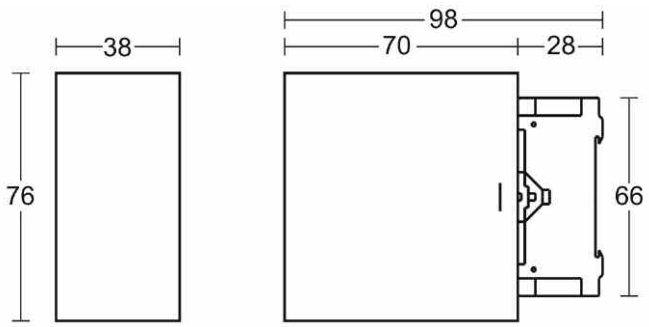
Unit for level conductive electrodes

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

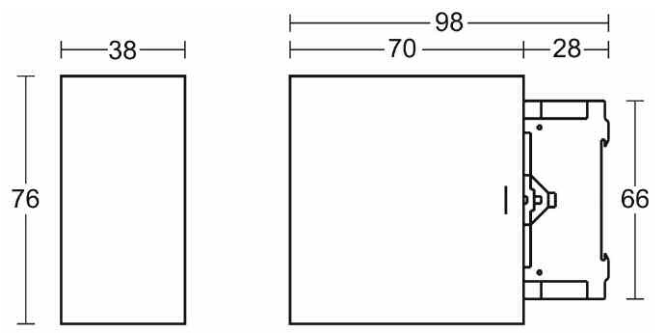
Unit for level conductive electrodes

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

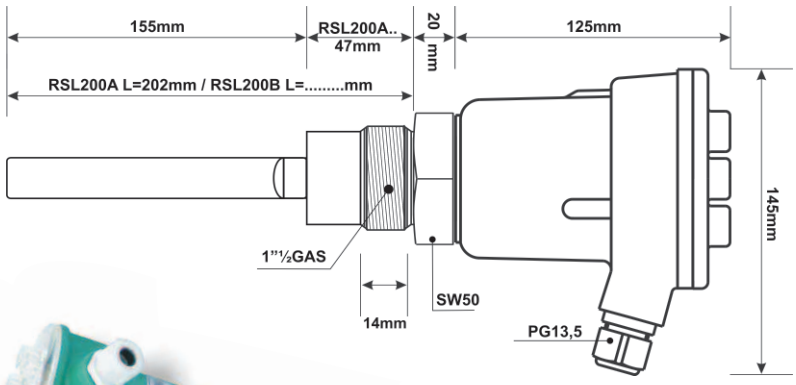
Diapason level switch for granulates and powders

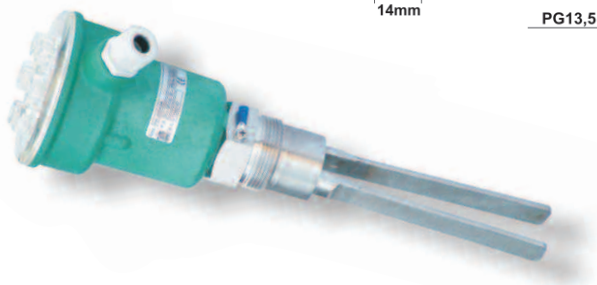
Process connection, G 1 1/2" A/ SS316
Product temperature range from -20 to 140°C
IP66 mechanical protection
Insertion length 202mm (fork 155mm)
Power supply: 20÷36Vdc / 20÷255Vac 50Hz
0,8W or 15VA max power consumption
Relay output rating 250Vac, 2A

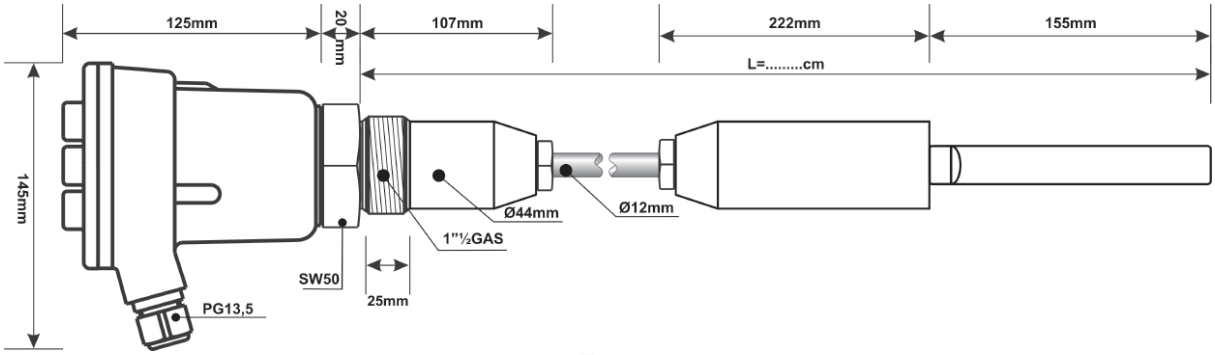
Version	
A	Compact
B	Rigid extension, price each 100mm (min. length 200mm - max. 3000mm)
C	Rope extension, price each meter (min. length 1m - max. 30m)
E	Compact + transparent cap
Z	Special

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

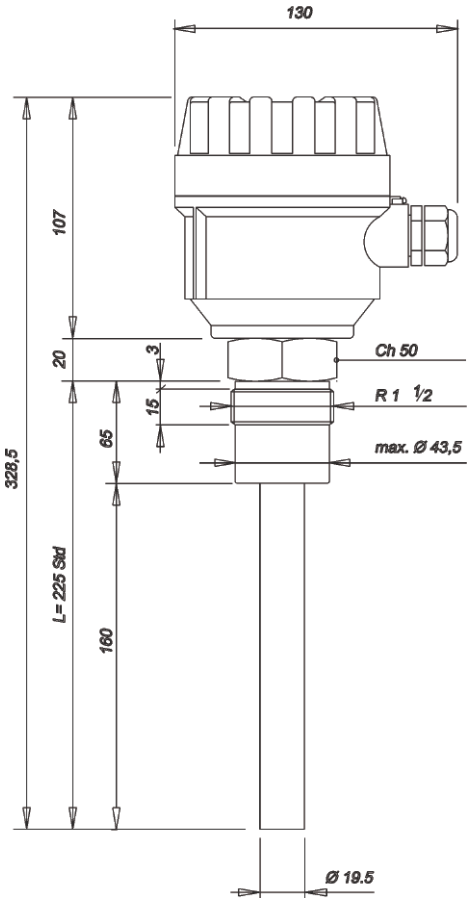
Vibrating rod level switch for granulates and powders

Vibrating rod level control
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



CRA Capacitive, conductive and radar system accessories

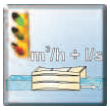
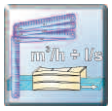
Optional (opt.)	
010D029A	RS485 communication software for TC22/30
306A008A	Coaxial cable with double shield with cable butting; L=2m
306A010A	Double shield coax. cable butting
306A011A	RG62 coax. cable butting
395A002D	Keyboard/display programming module VL601 for radar and ultrasonic
400A001C	SS316 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
585B007R	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"
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

Accessories and spare parts

CRSP

Radar, 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
400B060B	TL41, 2 push-buttons sensibility calibration, 85÷250Vac 50Hz, NPN/PNP static output
400B061B	LV1 preamplifier insert for vibration probe, static output
400C060B	TL41, 2 push-buttons sensibility calibration, 20÷30Vdc/24Vac 50Hz, relay output SPDT
400D060B	TL41, 2 push-buttons sensibility calibration, 20÷30Vdc/24Vac 50Hz, NPN/PNP static output
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

Open channel

FLOWMETER Ultrasonic open channel flow control unit

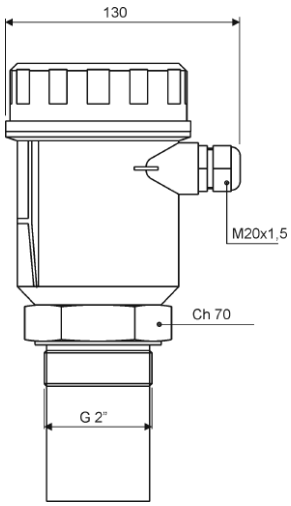
Compact - Suitable for upstream installation in weir and Venturi (standard and non-standard)
4÷20mA output with instantaneous flow transmission
Relay nr. 1 for impulses/volume transmission
Relay nr. 2 for threshold alarm or diagnostic
MODBUS RTU output
Temperature range : -30° ÷ +70°C (80° non continuous)

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

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

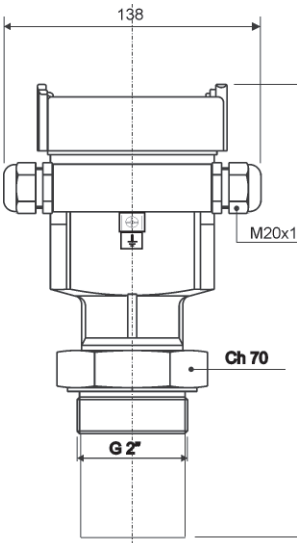
Power supply	
4	24Vdc (20÷30Vdc)
5	12Vdc (max 20Vdc)
9	Special

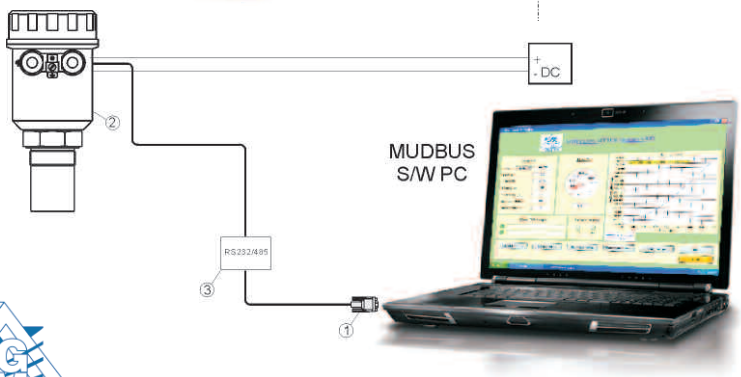
Optional (opt.)	
A	None
C	DN80 PN6 UNI 6091-71/PP flange
D	VL601 keyboard/display programming module
H	2" BSP/PP fixing bolt
S	MODBUS RTU communication software (010F119A)
Z	Special



F Housing cod.

U Housing cod.





LEKTRA

Open channel

OC1000

Control unit for open channels flow measurement

Measurement ranges: Flow 0 ÷ 9999 mc/h
Level 0.3 ÷ 5mt - Resolution: ±0.01 mt - Accuracy: ±0.2% F.S.
Temperature -25 ÷ +75°C - Resolution: 1°C - Accuracy: 1% F.S.
Selectable engineering flow rate units: Flow (mc/h), Level (mt, cm, mm), Temperature (°C)
Direct mathematical computation for rectangular weirs, Cipolletti, Thompson,
Venturi flumes, Parshall, Leopold Lagco.

Version	
A	IP65 for field mounting

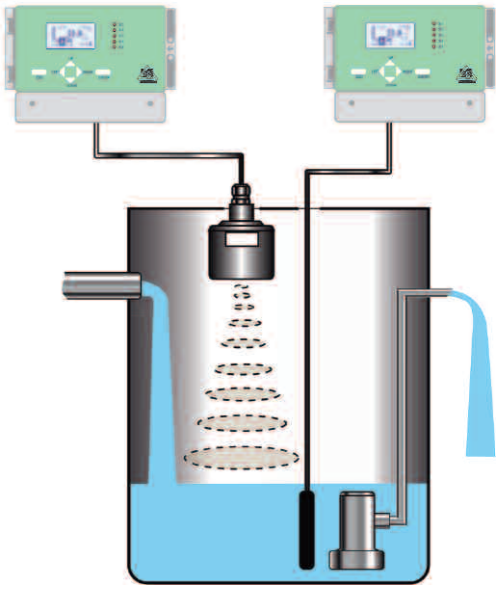
Relay	
5	5 relays SPDT

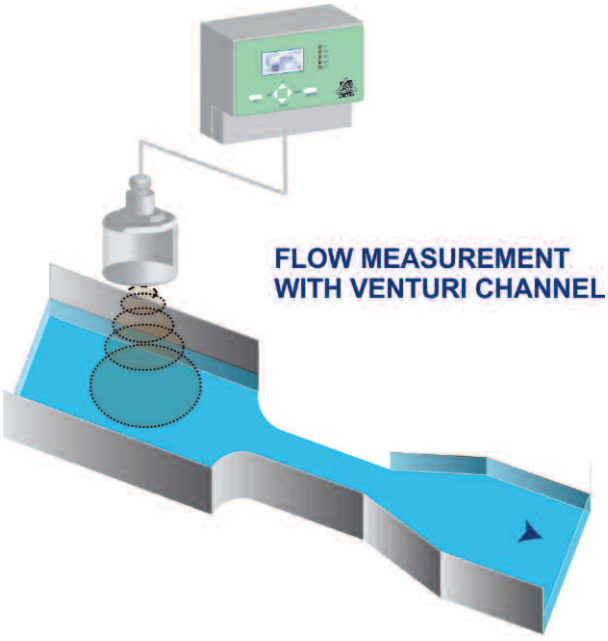
Power supply	
5	90 ÷ 260 Vac

Output	
C	Nr. 2 analogic outputs

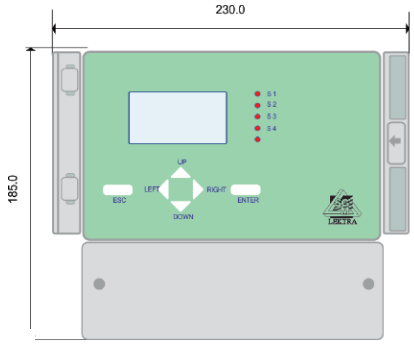
Field Bus	
1	RS485 MODBUS

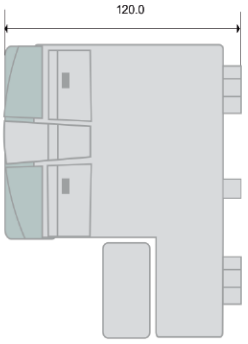
ULTRASONIC AND PIEZOMETER LEVEL MEASUREMENT





FLOW MEASUREMENT WITH VENTURI CHANNEL





LEKTRA

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

Open channel

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

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

CAL Non standard weirs and flume, flow calculation

Base	
CAL	Calculation sheet with table and graphic


Electromagnetic

RPmag62 Electromagnetic Flowmeter

For conductive fluids even with a content of suspended matters
Medium ambient temperature range: -20° ÷ 60°C
Housing protection degree for electronic: IP67

Version	
F	Remote - 5m standard cable length (over 5m euro 13,00 each additional meter)
Y	Compact

DN flange / Max. pressure / Lining	
001013	DN10 / 4,0MPa / FEP (-40° ÷ +150°C); range 0,14 ÷ 2,9m3/h; UNI 2223 standard
001513	DN15 / 4,0MPa / PTFE (-40° ÷ +150°C); range 0,3 ÷ 6m3/h; UNI 2223 standard
002513	DN25 / 4,0MPa / PTFE (-40° ÷ +150°C); range 0,6 ÷ 11m3/h; UNI 2223 standard
003213	DN32 / 4,0MPa / PTFE (-40° ÷ +150°C); range 1 ÷ 25m3/h; UNI 2223 standard
004013	DN40 / 4,0MPa / PTFE (-40° ÷ +150°C); range 1,8 ÷ 36m3/h; UNI 2223 standard
005011	DN50 / 4,0MPa / rubber (-10° ÷ +80°C); range 3 ÷ 60m3/h; UNI 2223 standard
005013	DN50 / 4,0MPa / PTFE (-40° ÷ +150°C); range 3 ÷ 60m3/h; UNI 2223 standard
006511	DN65 / 4,0MPa / rubber (-10° ÷ +80°C); range 5,8 ÷ 126m3/h; UNI 2223 standard
006513	DN65 / 4,0MPa / PTFE (-40° ÷ +150°C); range 5,8 ÷ 126m3/h; UNI 2223 standard
008011	DN80 / 4,0MPa / rubber (-10° ÷ +80°C); range 8,9 ÷ 180m3/h; UNI 2223 standard
008013	DN80 / 4,0MPa / PTFE (-40° ÷ +150°C); range 8,9 ÷ 180m3/h; UNI 2223 standard
010011	DN100 / 4,0MPa / rubber (-10° ÷ +80°C); range 11 ÷ 250m3/h; UNI 2223 standard
010013	DN100 / 4,0MPa / PTFE (-40° ÷ +150°C); range 11 ÷ 250m3/h; UNI 2223 standard
010041	DN100 / 1,6MPa / Rubber (-10° ÷ +80°C); range 11 ÷ 250m3/h; UNI 2223 standard
010043	DN100 / 1,6MPa / PTFE (-40° ÷ +150°C); range 11 ÷ 250m3/h; UNI 2223 standard
012511	DN125 / 4,0MPa / rubber (-10° ÷ +80°C); range 20 ÷ 400m3/h; UNI 2223 standard
012513	DN125 / 4,0MPa / PTFE (-40° ÷ +150°C); range 20 ÷ 400m3/h; UNI 2223 standard
012541	DN125 / 1,6MPa / Rubber (-10° ÷ +80°C); range 20 ÷ 400m3/h; UNI 2223 standard
012543	DN125 / 1,6MPa / PTFE (-40° ÷ +150°C); range 20 ÷ 400m3/h; UNI 2223 standard
015011	DN150 / 4,0MPa / rubber (-10° ÷ +80°C); range 30 ÷ 600m3/h; UNI 2223 standard
015013	DN150 / 4,0MPa / PTFE (-40° ÷ +150°C); range 30 ÷ 600m3/h; UNI 2223 standard
015041	DN150 / 1,6MPa / Rubber (-10° ÷ +80°C); range 30 ÷ 600m3/h; UNI 2223 standard
015043	DN150 / 1,6MPa / PTFE (-40° ÷ +150°C); range 30 ÷ 600m3/h; UNI 2223 standard
020021	DN200 / 1,0MPa / rubber (-10° ÷ +80°C); range 50 ÷ 1000m3/h; UNI 2223 standard
020023	DN200 / 1,0MPa / PTFE (-40° ÷ +150°C); range 50 ÷ 1000m3/h; UNI 2223 standard
020041	DN200 / 1,6MPa / rubber (-10° ÷ +80°C); range 50 ÷ 1000m3/h; UNI 2223 standard
020043	DN200 / 1,6MPa / PTFE (-40° ÷ +150°C); range 50 ÷ 1000m3/h; UNI 2223 standard
025021	DN250 / 1,0MPa / rubber (-10° ÷ +80°C); range 85 ÷ 1800m3/h; UNI 2223 standard
025023	DN250 / 1,0MPa / PTFE (-40° ÷ +150°C); range 85 ÷ 1800m3/h; UNI 2223 standard
025041	DN250 / 1,6MPa / rubber (-10° ÷ +80°C); range 85 ÷ 1800m3/h; UNI 2223 standard
025043	DN250 / 1,6MPa / PTFE (-40° ÷ +150°C); range 85 ÷ 1800m3/h; UNI 2223 standard
030021	DN300 / 1,0MPa / rubber (-10° ÷ +80°C); range 110 ÷ 2500m3/h; UNI 2223 standard
030023	DN300 / 1,0MPa / PTFE (-40° ÷ +150°C); range 110 ÷ 2500m3/h; UNI 2223 standard
030041	DN300 / 1,6MPa / rubber (-10° ÷ +80°C); range 110 ÷ 2500m3/h; UNI 2223 standard
030043	DN300 / 1,6MPa / PTFE (-40° ÷ +150°C); range 110 ÷ 2500m3/h; UNI 2223 standard
035021	DN350 / 1,0MPa / rubber (-10° ÷ +80°C); range 180 ÷ 3200m3/h; UNI 2223 standard
035023	DN350 / 1,0MPa / PTFE (-40° ÷ +150°C); range 180 ÷ 3200m3/h; UNI 2223 standard
035041	DN350 / 1,6MPa / rubber (-10° ÷ +80°C); range 180 ÷ 3200m3/h; UNI 2223 standard
035043	DN350 / 1,6MPa / PTFE (-40° ÷ +150°C); range 180 ÷ 3200m3/h; UNI 2223 standard
040021	DN400 / 1,0MPa / rubber (-10° ÷ +80°C); range 220 ÷ 4500m3/h; UNI 2223 standard
040023	DN400 / 1,0MPa / PTFE (-40° ÷ +150°C); range 220 ÷ 4500m3/h; UNI 2223 standard
040041	DN400 / 1,6MPa / rubber (-10° ÷ +80°C); range 220 ÷ 4500m3/h; UNI 2223 standard
040043	DN400 / 1,6MPa / PTFE (-40° ÷ +150°C); range 220 ÷ 4500m3/h; UNI 2223 standard
045021	DN450 / 1,0MPa / rubber (-10° ÷ +80°C); range 270÷ 6000m3/h; UNI 2223 standard
045023	DN450 / 1,0MPa / PTFE (-40° ÷ +150°C); range 270÷ 6000m3/h; UNI 2223 standard
045041	DN450 / 1,6MPa / rubber (-10° ÷ +80°C); range 270÷ 6000m3/h; UNI 2223 standard
045043	DN450 / 1,6MPa / PTFE (-40° ÷ +150°C); range 270÷ 6000m3/h; UNI 2223 standard

Electromagnetic

050021	DN500 / 1,0MPa / rubber (-10° ÷ +80°C); range 320 ÷ 6500m3/h; UNI 2223 standard
050023	DN500 / 1,0MPa / PTFE (-40° ÷ +150°C); range 320 ÷ 6500m3/h; UNI 2223 standard
060021	DN600 / 1,0MPa / rubber (-10° ÷ +80°C); range 490 ÷ 9500m3/h; UNI 2223 standard
060023	DN600 / 1,0MPa / PTFE (-40° ÷ +150°C); range 490 ÷ 9500m3/h; UNI 2223 standard
070021	DN700 / 1,0MPa / rubber (-10° ÷ +80°C); range 680 ÷ 12600m3/h; UNI 2223 standard
070023	DN700 / 1,0MPa / PTFE (-40° ÷ +150°C); range 680 ÷ 12600m3/h; UNI 2223 standard
080021	DN800 / 1,0MPa / rubber (-10° ÷ +80°C); range 900 ÷ 17600m3/h; UNI 2223 standard
080023	DN800 / 1,0MPa / PTFE (-40° ÷ +150°C); range 900 ÷ 17600m3/h; UNI 2223 standard
090021	DN900 / 1,0MPa / rubber (-10° ÷ +80°C); range 1200 ÷ 25200m3/h; UNI 2223 standard
090023	DN900 / 1,0MPa / PTFE (-40° ÷ +150°C); range 1200 ÷ 25200m3/h; UNI 2223 standard
100021	DN1000 / 1,0MPa / rubber (-10° ÷ +80°C); range 1450 ÷ 27000m3/h; UNI 2223 standard
100023	DN1000 / 1,0MPa / PTFE (-40° ÷ +150°C); range 1450 ÷ 27000m3/h; UNI 2223 standard
120031	DN1200 / 0,6MPa / rubber (-10° ÷ +80°C); range 2000 ÷ 40000m3/h; UNI 2223 standard
140031	DN1400 / 0,6MPa / rubber (-10° ÷ +80°C); range 2900 ÷ 51000m3/h; UNI 2223 standard
160031	DN1600 / 0,6MPa / rubber (-10° ÷ +80°C); range 3800 ÷ 70000m3/h; UNI 2223 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

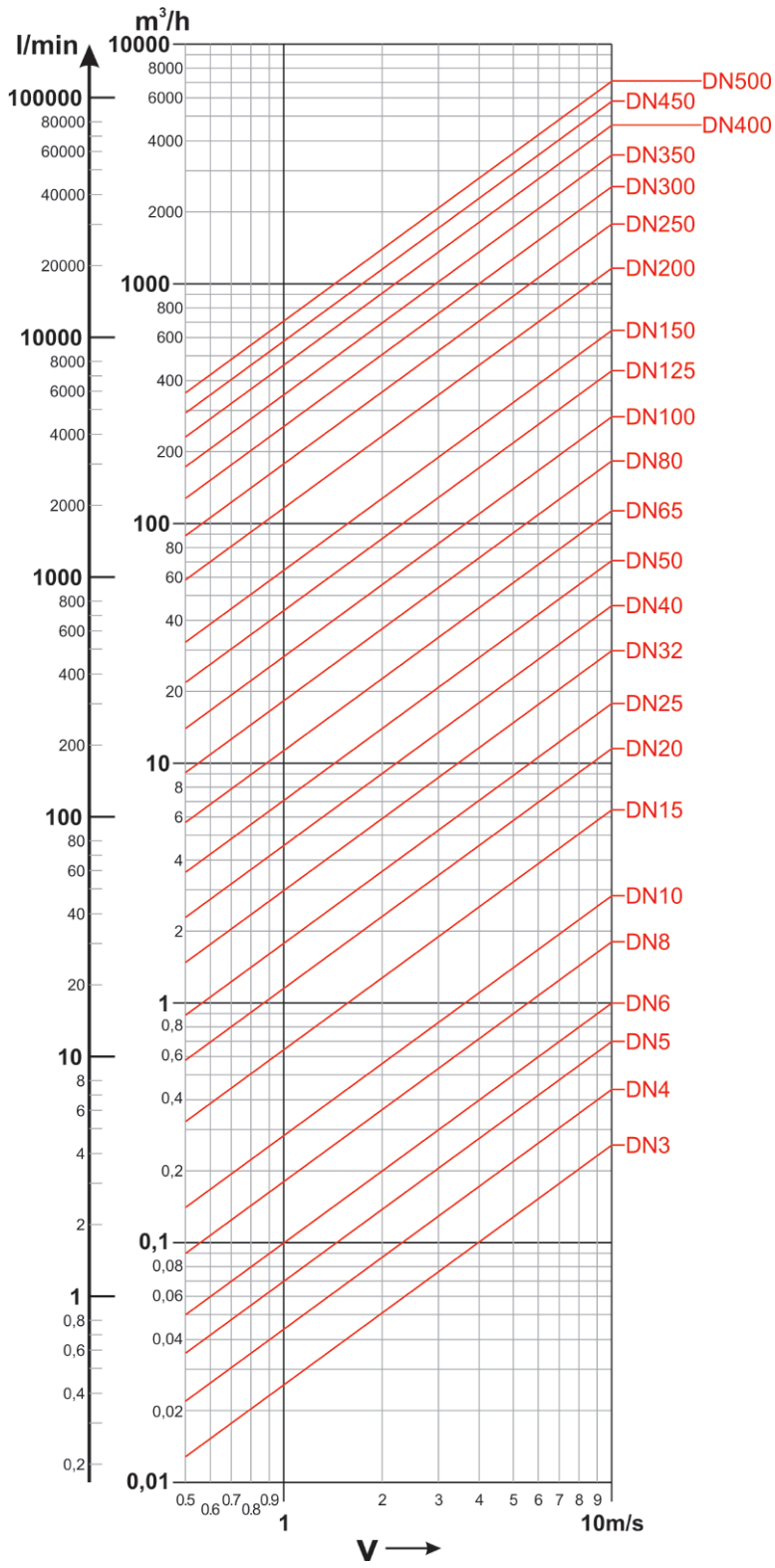
Accessories	
0	None
1	321SS or Hastelloy C grounding rings for plastic pipe installation (price on request)
2	Protective rings (price on request)
3	3 electrodes (from DN50 to DN300 for PTFE - fm DN100 on for rubber) - price on request
8	Standard ANSI flanges (price on request)

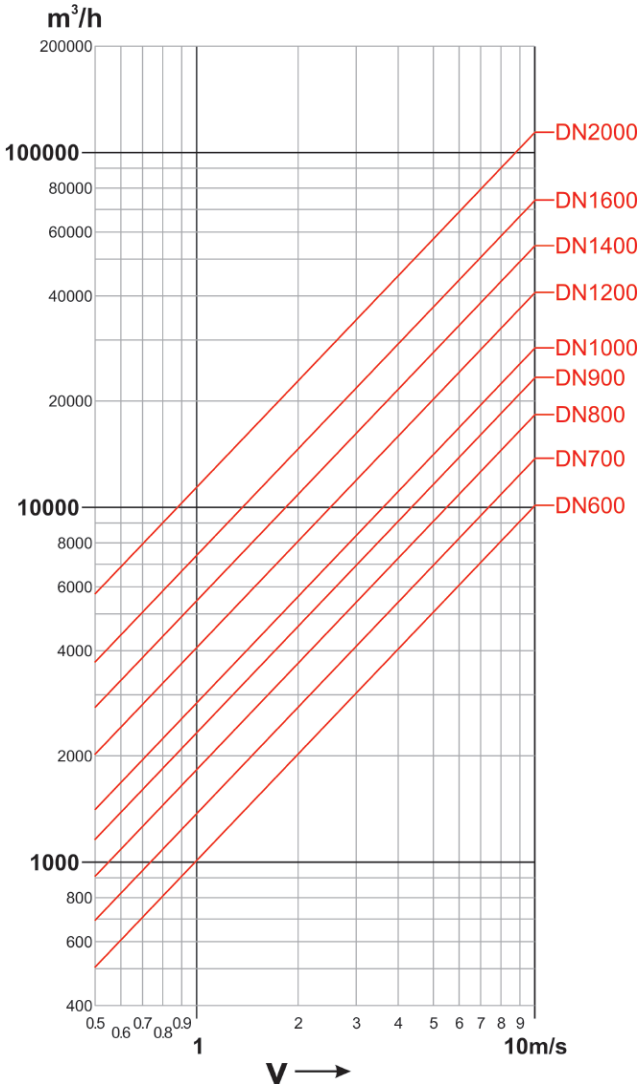
Output	
1	Standard (4÷20mA) + pulse output
2	4÷20Ma + pulse + RS485
3	4÷20mA + pulse + HART
4	4÷20Ma + pulse + PROFIBUS
5	4÷20Ma + pulse + MODBUS RTU

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

LEKTRA

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	
0010E2	DN10 / 1.6MPa / PFA
0010E3	DN10 / 1.6MPA / PTFE
0015E2	DN15 / 1.6MPa / PFA
0015E3	DN15 / 1.6MPa / PTFE
0020E2	DN20 / 1.6MPa / PFA
0020E3	DN20 / 1.6MPa / PTFE
0025E2	DN25 / 1.6MPa / PFA
0025E3	DN25 / 1.6MPa / PTFE
0032E2	DN32 / 1.6MPa / PFA
0032E3	DN32 / 1.6MPa / PTFE
0040E2	DN40 / 1.6MPa / PFA
0040E3	DN40 / 1.6MPa / PTFE
0050E2	DN50 / 1.6MPa / PFA
0050E3	DN50 / 1.6MPa / PTFE
0065E2	DN65 / 1.6MPa / PFA
0065E3	DN65 / 1.6MPa / PTFE
0080E2	DN80 / 1.6MPa / PFA
0080E3	DN80 / 1.6MPa / PTFE
0100E2	DN100 / 1.6MPa / PFA
0100E3	DN100 / 1.6MPa / PTFE
0125E2	DN125 / 1.6MPa / PFA
0125E3	DN125 / 1.6MPa / PTFE
0150E2	DN150 / 1.6MPa / PFA
0150E3	DN150 / 1.6MPa / PTFE

Process connection	
D	DIN 11851 flange
E	DIN SS304 CLAMP flange ISO2852

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

Power supply	
A	85÷265Vac 50÷60Hz
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	<= 120°C (only for remote version)
B	<= 150°C (only for remote version - prices on request)
C	Standard (-20 ÷ +60°C)

Electromagnetic

Pmag

Electromagnetic flowmeter

For conductive fluids even with a content of suspended matters
Medium ambient temperature range: -20° ÷ 60°C
Housing protection degree for electronic: IP67

Version	
F	Remote - standard cable length 5m (over 5m eur 7,00 each additional meter)
Y	Compact

DN flange / Max. pressure / Lining	
0010B2	DN10 / 4.0MPa / PTFE
0010E2	DN10 / 1.6MPa / PTFE
0015B2	DN15 / 4.0MPa / PTFE
0015E2	DN15 / 1.6MPa / PTFE
0020B2	DN20 / 4.0MPa / PTFE
0020E2	DN20 / 1.6MPa / PTFE
0025B2	DN25 / 4.0MPa / PTFE
0025E2	DN25 / 1.6MPa / PTFE
0032B2	DN32 / 4.0MPa / PTFE
0032E2	DN32 / 1.6MPa / PTFE
0040B1	DN40 / 4.0MPa / Rubber
0040E1	DN40 / 1.6MPa / Rubber
0050B1	DN50 / 4.0MPa / Rubber
0050E1	DN50 / 1.6MPa / Rubber
0065B1	DN65 / 4.0MPa / Rubber
0065E1	DN65 / 1.6MPa / Rubber
0080B1	DN80 / 4.0MPa / Rubber
0080E1	DN80 / 1.6MPa / Rubber
0100B1	DN100 / 4.0MPa / Rubber
0100E1	DN100 / 1.6MPa / Rubber
0125B1	DN125 / 4.0MPa / Rubber
0125E1	DN125 / 1.6MPa / Rubber
0150B1	DN150 / 4.0MPa / Rubber
0150E1	DN150 / 1.6MPa / Rubber
0200C1	DN200 / 1.0MPa / Rubber
0200E1	DN200 / 1.6MPa / Rubber
0250C1	DN250 / 1.0MPa / Rubber
0250E1	DN250 / 1.6MPa / Rubber
0300C1	DN300 / 1.0MPa / Rubber
0300E1	DN300 / 1.6MPa / Rubber
0350C1	DN350 / 1.0MPa / Rubber
0350E1	DN350 / 1.6MPa / Rubber
0400C1	DN400 / 1.0MPa / Rubber
0400E1	DN400 / 1.6MPa / Rubber
0450C1	DN450 / 1.0MPa / Rubber
0450E1	DN450 / 1.6MPa / Rubber
0500C1	DN500 / 1.0MPa / Rubber
0500E1	DN500 / 1.6MPa / Rubber
0600C1	DN600 / 1.0MPa / Rubber
0700C1	DN700 / 1.0MPa /Rubber
0800C1	DN800 / 1.0MPa / Rubber
0900C1	DN900 / 1.0MPa / Rubber
1000C1	DN1000 / 1.0MPa / Rubber

Process connection	
B	DIN (UNI 2223) flange
D	ANSI flange (price on request)

Electrodes material	
1	316SST Stainless steel
3	Hastelloy C

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

Accessories	
0	None

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

Electromagnetic

MSP

Electromagnetic system spare parts

Spare parts	
PMAG62S******A*A***	Pmag complete converter remote version, 230Vac, 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-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****	SPmag62 complete converter remote version, 230Vac, 4÷20mA, IP67

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-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

Transit time

SGM-100F Wall mounting transit time ultrasonic flow meter

With clamp-on or insertion transducers.
Speed range: max ± 32m/s - Simultaneous display of flowrate and cumulative volume data
Output: 4÷20mA + frequency + 2 relays
Accuracy not better ± 1%
Transducers connection cable 5 mt
Protection degree: transmitter IP65 - transducers IP68
Supplied with fixing belts for transducers installation

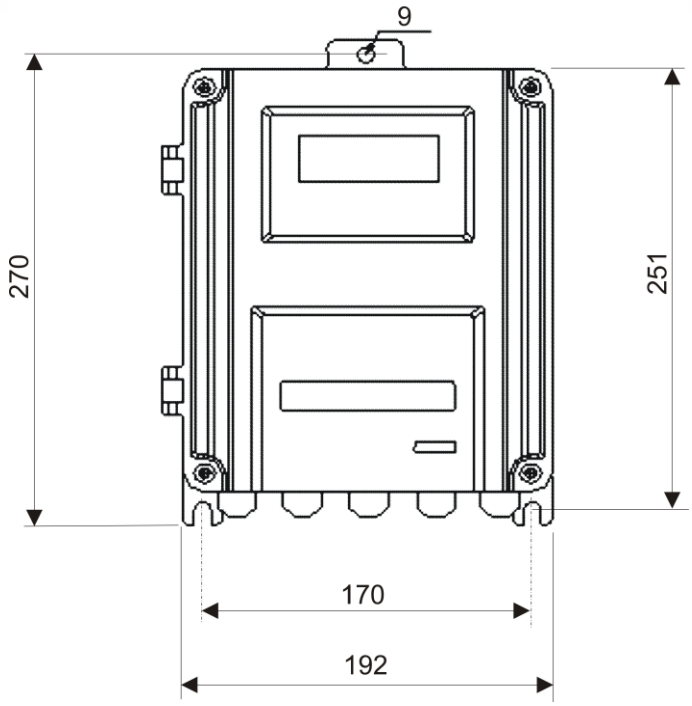
Version	
W	Wall mounting
Z	Special

Power supply	
A	230Vac
D	24Vdc
Z	Special

Transducers	
S1	Clamp-on type for pipes DN 15÷100 - 0÷70°C (additional cable eur 40,00 each 5mt)
SH	Clamp-on type for pipes DN 15÷100 - for high temperature 0÷160°C (additional cable eur 40,00 each 5mt)
M1	Clamp-on type for pipes DN 50÷700 - 0÷70°C (additional cable eur 40,00 each 5mt)
MH	Clamp-on type for pipes DN 50÷700 - for high temperature 0÷160°C (additional cable eur 40,00 each 5mt)
L1	Clamp-on type for pipes DN300÷4000 - 0÷70°C (additional cable eur 40,00 each 5mt)
I1	Insertion type for steel pipes - 0÷150°C (additional cable eur 40,00 each 5mt)
I2	Insertion type for cement pipes - 0÷150°C (additional cable eur 40,00 each 5mt)

Additional output	
2	RS232
4	RS485
N	None
Z	Special

Optional (opt.)	
A	None
B	RS458 communication software (010D109A)
C	Fixing chain for transducers (5mt) + nr. 2 tie rods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170
192

Transit time

SGM-100H Portable transit time ultrasonic flow meter

With clamp-on transducers. Data logger built-in up to 2000 reading
Flow measurement for pipes from DN15 to DN4000
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
Case with fixing belts for transducers installation

Transducers	
S1-	Couple of transducers for pipes from DN15 to DN100 (additional cable eur 40,00 each 5mt)
M1-	Couple of transducers for pipes from DN50 to DN700 (additional cable eur 40,00 each 5mt)
L1-	Couple of transducers for pipes from DN300 to DN4000 (additional cable eur 40,00 each 5mt)
S1F	Couple of transducers on metric frame for pipes from DN15 to DN100 (additional cable eur 40,00 each 5mt)
M1F	Couple of transducers on metric frame for pipes from DN50 to DN700 (additional cable eur 40,00 each 5mt)
S1H	Couple of high temperature transducers (0÷150°C) for pipes from DN15 to DN100 (additional cable eur 40,00 each 5mt)
M1H	Couple of high temperature transducers (0÷150°C) for pipes from DN50 to DN700 (additional cable eur 40,00 each 5mt)

Optional (opt.)	
A	None
B	RS232 communication software (010H108A)
C	Fixing chain for transducers (5mt) + tie rods


HANDHELD
FLOW METER
Ver 8.31x32
ESN=88888077H
ON
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ENT

Transit time

TTA

Accessories and spare parts for transit time flow meters

SGM-100S-520A004A	Fixing chain for transducers - price each mt
SGM-100S-525B007A	Connection cable for SGM-100F transducers
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-100S-S1F	Couple of transducers DN 15-100 on metric frame
SGM-100S-S1H	Couple of high temperature transducers (0÷150°C) for pipes from DN15 to DN100
SGM-100S-M1-	Couple of clamp-on transducers DN 50-700
SGM-100S-M1F	Couple of transducers DN 50-700 on metric frame
SGM-100S-M1H	Couple of high temperature transducers (0÷150°C) for pipes from DN50 to DN700
SGM-100S-L1-	Couple of clamp-on transducers DN 300-4000
SGM-100S-I1-	Couple of standard insertion transducers
SGM-100S-I2-	Couple of insertion transducers for cement pipes

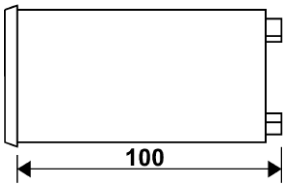
SLM2X

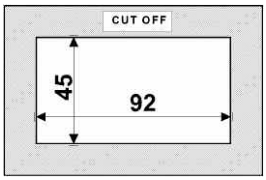
Total flow indicator with analog input

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	Totalizzatore con display a 6 cifre





SLM2XH3

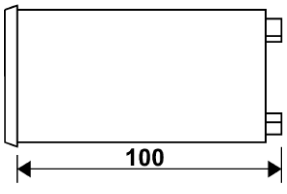
Total and instantaneous flow rate indicator with analog input

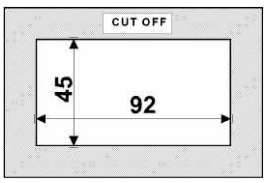
Suitable to be connected to analogic transmitters
4÷20mA or 0÷10Vdc
Removable 4 frontal push-buttons for calibration (optional)
Data stored in EEPROM
Working temperature: -10° ÷ +50°C
Front panel mounting (dimA 92x45) IP54
Accuracy: 0,005% ±1 digit
Linearization: 0,005% ±1 digit

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)
"zero" andl "full-scale" adjustment: ±3%

Sensor type	
A1	Si-diffused sensor std.
A2	Ultra-stable
A3	With flat membrane
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 eur 60,00)

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

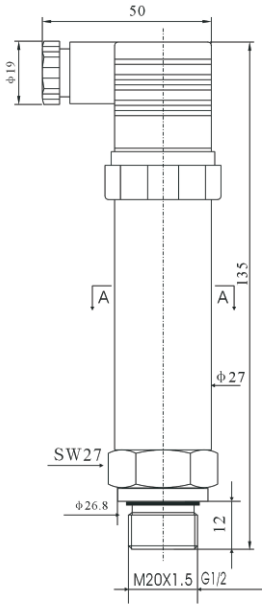
Accuracy	
2	±0,2%
5	±0,5%
9	Special

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 stainless steel membrane
G02	0 ÷ 6KPa (0 ÷ 0,06bar) gauge p. - without stainless steel membrane
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.
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.

Pressure

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



P-8J Pressure transmitter

Mechanical protection: IP65
Operation temperature: -40° ÷ +85°C (default)
Power supply: 24Vdc
Wire-loop connection (2-wires)

Certification	
S	None

Process connection material	
1	Stainless steel SS304

Process connection	
M	Screw thread G½" (Ø 3mm hole)

Sealed material	
1F	Fluorine rubber: FPM (Viton)

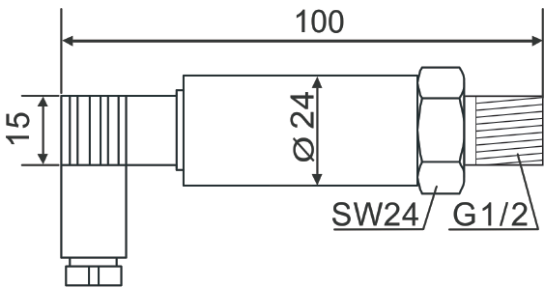
Output	
2	4÷20mA , 2-wire

Display	
A	None

Accuracy	
5	±0,5%

Measure range	
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 ÷ 5,0MPa (0 ÷ 50bar) gauge p.

Measured 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.
A2	Ultra-stable
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)
B2	For high or low temperature (-10° ÷ +200°C)
C0	With ceramic capacitor

Certification	
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

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

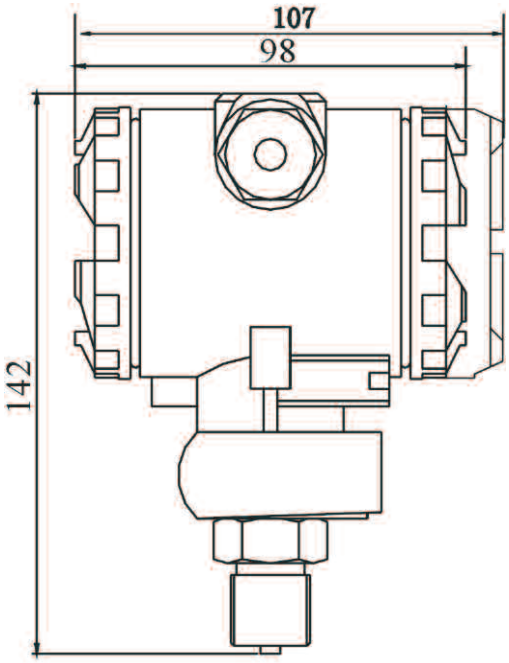
Accuracy	
1	±0,1% - only with ultra-stable sensor A2
2	±0,2%
5	±0,5%

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 ÷ 350KPa (0 ÷ 3,5bar) 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
G02	0 ÷ 6KPa (0 ÷ 0,06bar) gauge p. - without stainless steel membrane
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.
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.

Pressure

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	Speciale

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



P-L Hydrostatic head level transmitter

Measuring range: 0÷100m
Head connection mechanical protection: IP65
Probe mechanical protection: IP68
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 standard - max 25m); with connection head - Price each additional m
C1	Suspension type (5m standard cable); without connection head - Price each additional m
R-	Rod type (1m standard rod); with connection head - Price each additional m

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
C-	Ceramic capacitor (not for C1 version)

Sealed material	
1F	Fluorin Rubber: FPM (Viton)
2F	Butyl Rubber: IIR
3F	Polyvinyl-4F: PTFE (Teflon) - For ceramic capacitance only
4F	Fully sealed welding

Output	
2	4÷20mA 2-wire
9	Special

Display	
A	None
C	Digital LCD
Y	Special

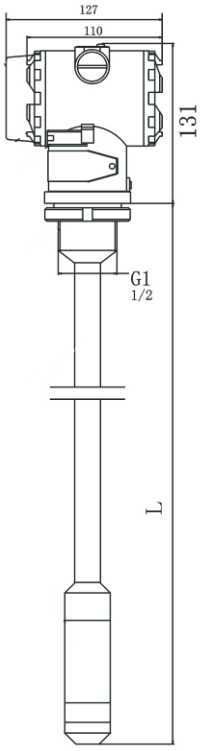
Accuracy	
1	±0,1% - only with ultra-stable sensor A2
2	±0,2%
5	±0,5%
9	Special

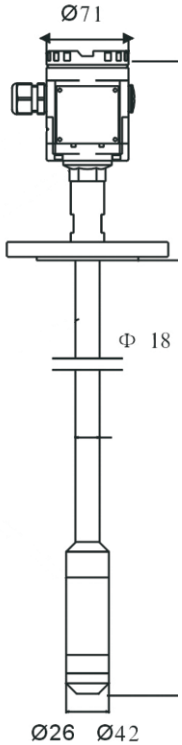
Counterweigth	
H	None

Pressure

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

WP-L**C**.....





WP-L**R**.....

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.
A2	Ultra-stable
A3	With flat membrane - fm 0,6bar (60KPa) to 10bar (1MPa)
A4	With anti-corrosive membrane (TA)
B1	For high-low temperature (-65° ÷ +150°C)
B2	For high-low temperature (-10° ÷ +200°C)
C0	Ceramic capacitor
C1	Metal-ceramic capacitor

Certification	
D	ATEX II 2 G Exd II C T6 (PENDING)
I	Intrinsic safety EEx ia IIC T6 or EEx ib IIC T6
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

Sealed material	
1F	Fluorin rubber: FPM (Viton)
2F	Butyl Rubber: IIR
3F	Polyvinyil-4F: PTFE (Teflon)
4F	Fully sealed welding

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

Display	
A	None
C	LCD digital
Y	Special

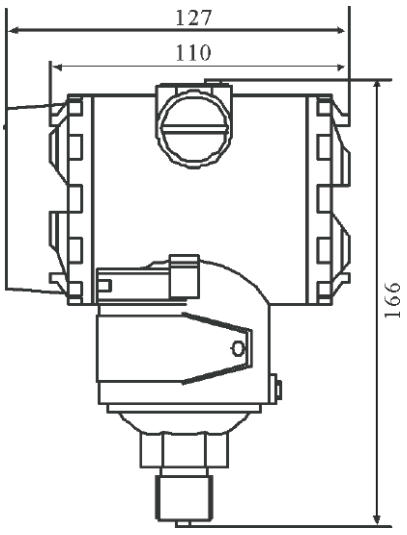
Accuracy	
1	±0.1% (only with A2 ultra-stable sensor or C1 metal-ceramic capacitor)
2	±0.2%
5	±0.5%
7	±0.075% (only with C1 metal-ceramic capacitor)

Pressure


Measure range	
A03	0÷1...6kPa (0÷0,01...0,06 bar) - only for A2 sensor (ultra-stable)
A04	0÷10...40kPa (0÷0,1...0,4 bar) - for sensors type A
A05	0÷40...200kPa (0÷0,4...2 bar) - for sensors type A
A06	0÷160kPa...1.0MPa (0÷1,6...10 bar) - for sensors type A
A07	0÷0,4...2MPa (0÷4...20 bar) - for sensors type A
A08	0÷1,8...4MPa (0÷18...40 bar) - for sensors type A
A09	0÷3,8...20MPa (0÷38...200 bar) - for sensors type A
A10	0÷10...60MPa (0÷100...600 bar) - only for A2 sensor (ultra-stable)
C03	-5 ÷ +5kPa (-0,05 ÷ +0,05 bar) - for sensor type C0
C04	-50 ÷ +50kPa (-0,5 ÷ + 0,5 bar) - for sensor type C0
C05	-100 ÷ +100kPa (-1 ÷ +1 bar) - for sensor type C0
C06	-100 ÷ +300kPa (-1 ÷ +3 bar) - for sensor type C0
C07	-100 ÷ +900kPa (-1 ÷ +9 bar) - for sensor type C0
C08	-100kPa ÷ + 2.0MPa (-1 ÷ +20 bar) - for sensor type C0
C14	0÷6...40kPa (0÷0,06...0,4 bar) - for sensor type C1
C15	0÷40...200kPa (0÷0,4...2 bar) - for sensor type C1
C16	0÷160kPa...1.0MPa (0÷1,6...10 bar) - for sensor type C1
C17	0÷0,4...2,5MPa (0÷4...25 bar) - for sensor type C1
C18	0÷1,6...10MPa (0÷16...100 bar) - for sensor type C1
C19	0÷4...20MPa (0÷40...200 bar) - for sensor type C1
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



P-BADP "General purpose" differential pressure transmitter

HART Communication - IP67
Operation temperature: -40° ÷ +85°C
Accuracy ±0,075%
Standard connection NPT 1/4"

Measure range	
3	0÷1...6kPa (0÷0,01....0,06 bar) - Max pressure 4MPa
4	0÷6...40kPa (0÷0,06....0,4 bar) - Max pressure 10MPa
5	0÷40...200kPa (0÷0,4....2 bar) - Max pressure 10MPa
6	0÷160...700kPa (0÷1,6....7 bar) - Max pressure 10MPa
7	0÷0.4...2MPa (0÷4....20 bar) - Max pressure 10MPa
8	0÷1.6...6.8MPa (0÷16....68 bar) - Max pressure 10MPa

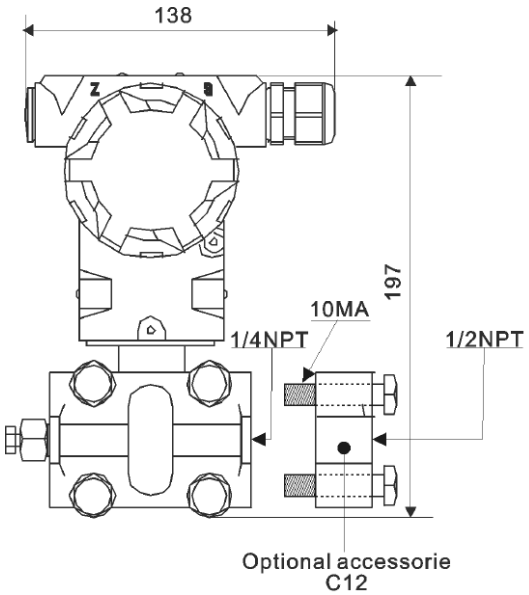
Output	
I	4÷20mA/HART (linear)
J	4÷20mA/HART (square root)

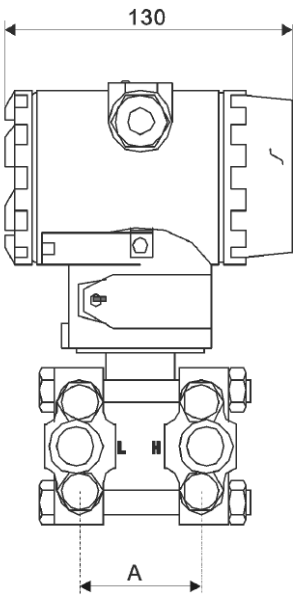
Construction materials				
	Flange /Adapter	Drain/Vents	Diaphram	Filling liquid
22	316 SST	316 SST	316 SST	Silicon
	Flange/Adapter	Drain/Vents	Diaphram	Filling liquid
23	316 SST	316 SST	Hastelloy C	Silicon

Certification	
D	ATEX II 2 G Exd II C T6
I	Intrinsic safety EEx ia IIC T6 or EEx ib IIC T6
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	Flange for 1/2" NPT connection + 1/2" NPT welding connection
D0-	Fore-end drain/vent - >STANDARD<
D1-	Side drain/vent, top
D2-	Side drain/vent, bottom
J--	Male thread m20x1.5
M3-	LCD display
N--	1/2" NPT flange
O--	Nr. 2 PTFE O-ring
Z99	Special





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

P-BADR Low ranges differential pressure transmitter

IP67 differential pressure transmitter
HART Communication
Operation temperature: -40° ÷ +85°C
Accuracy ±0.075%
Standard connection NPT 1/4"

Measure range	
2A	0÷0.16...1.6kPa (0÷0,0016.. .0,016 bar) - Max static pressure 1MPa
2B	0÷0.16...1.6kPa (0÷0,0016.. .0,016 bar) - Max static pressure 2.5MPa
2C	0÷0.16...1.6kPa (0÷0,0016.. .0,016 bar) - 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
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	Flange for 1/2" NPT connection + 1/2" NPT welding connection
D0-	Fore-end drain/vent - >STANDARD<
D1-	Side drain/vent, top
D2-	Side drain/vent, bottom
J--	Male thread m20x1.5
M3-	LCD display
N--	1/2" NPT flange
Z99	Special

Pressure


PA

Pressure and differential pressure system accessories

Optional (opt.)	
010E106A	HART communication software for P-AK/BADP/BADR
199-2150	2 valves bar stock manifold - 1/2" NPT- F
199-3150	3 valves bar stock manifold - 1/2" NPT- F
199-3451	3 valves forged manifold - 1/2" NPT- F
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-M3	LCD digital display for P-BADP / P-BADR models

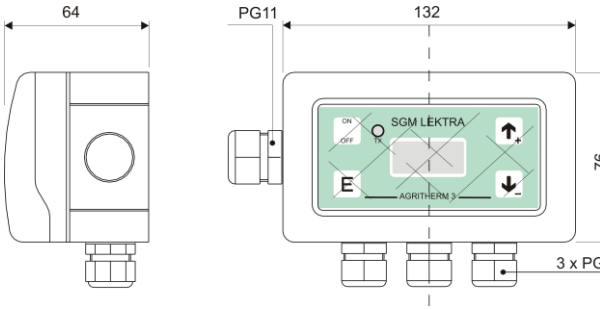
AGRITHERM3 Manual display unit for small plants

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)



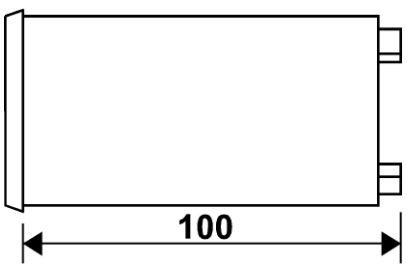
AGRITHERM10 Display and control unit

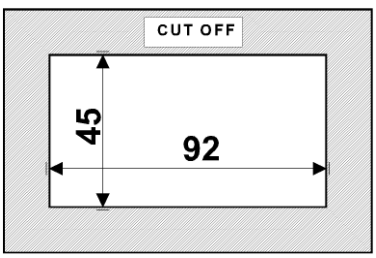
For all MUX type connection
Manual/automatic selection
4 pushbuttons keybord for programmation, 5+1 LED digits display, panel mounting std.48x96 IP40
Factory programmable configuration of: MUX.., transducers, measur.point, etc.
n.2 alarm relays

Version	
A	Base

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

Accessories	
A	None
M	Frontal protection windows IP54
Z	Special





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

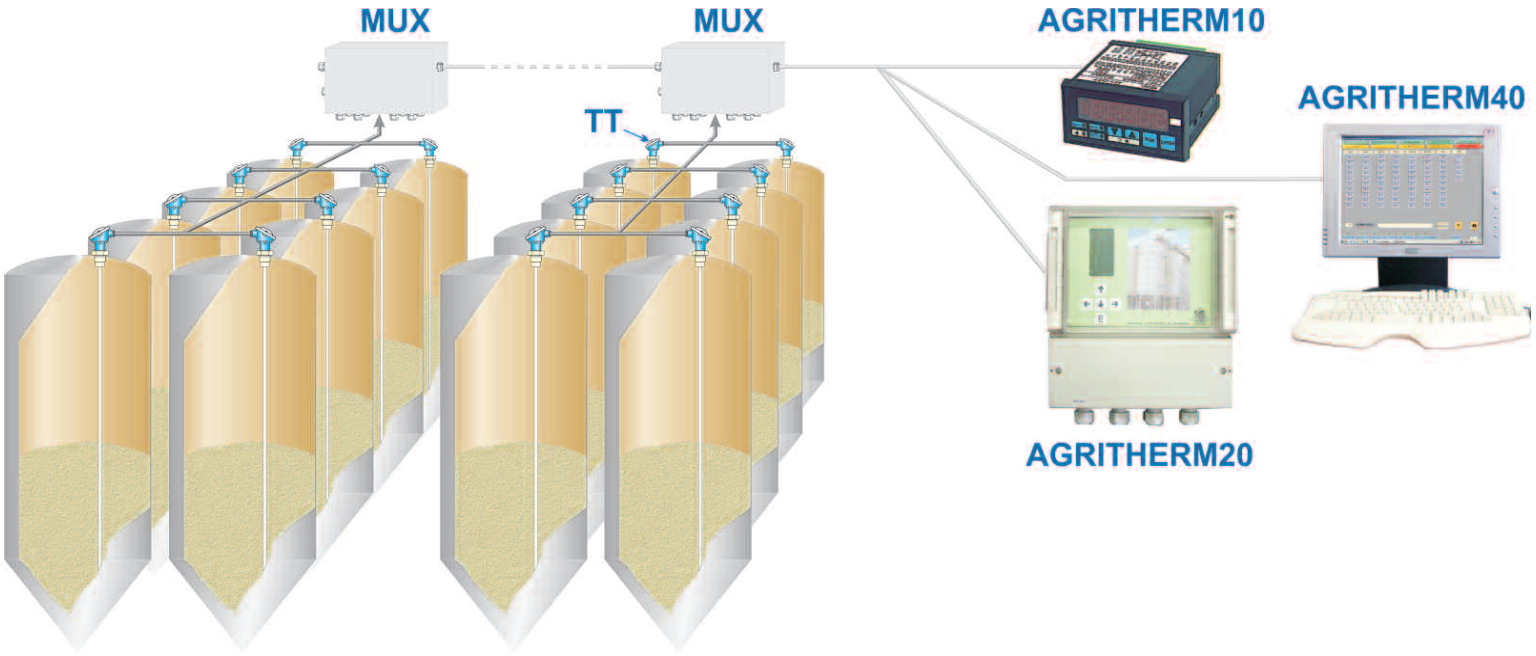
Field Bus	
0	RS485
9	Special

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

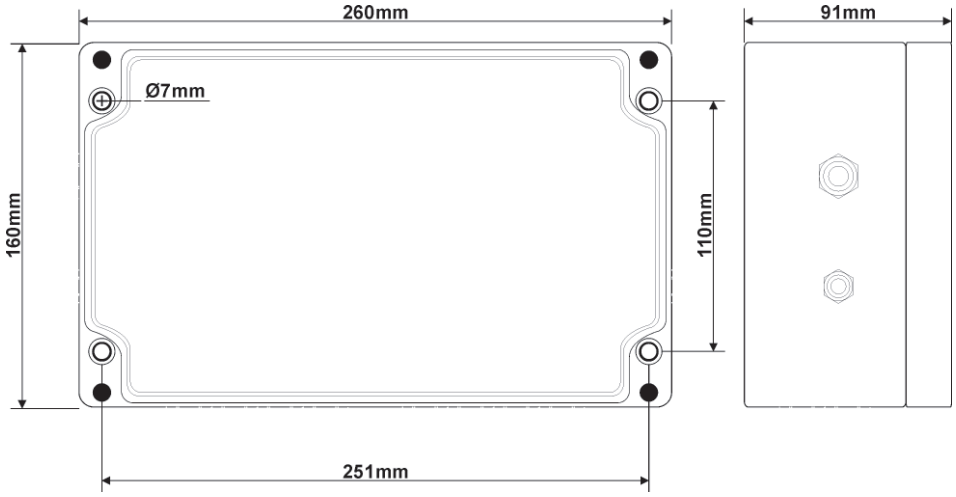
MUX

Concentrator suitable for up to 8 TT rope probe connection

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 temperature rope probe

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

Well, price each meter	
0L	Ø7÷8mm Flexible SS304 pipe, max load 1100Kg, 1m diam. coil delivered
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

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

KEMA CERTIFICATE
ISO 9001:2008
DUTCH COUNCIL FOR ACCREDITATION C 013

SGM LEKTRA
al servizio dell'applicazione

Mod. 734B006G - documentation subject to technical change with no prior warning -

SGM LEKTRA s.r.l.
Via Papa Giovanni XXIII, 49
20090 Rodano (Milano)
tel. ++39 0295328257 r.a.
fax ++39 0295328321
e-mail: info@sgm-lektra.com
www.sgm-lektra.com