



ISOMAG

The friendly magmeter

DATA SHEET

MV210



CE

ISOIL 
I N D U S T R I A

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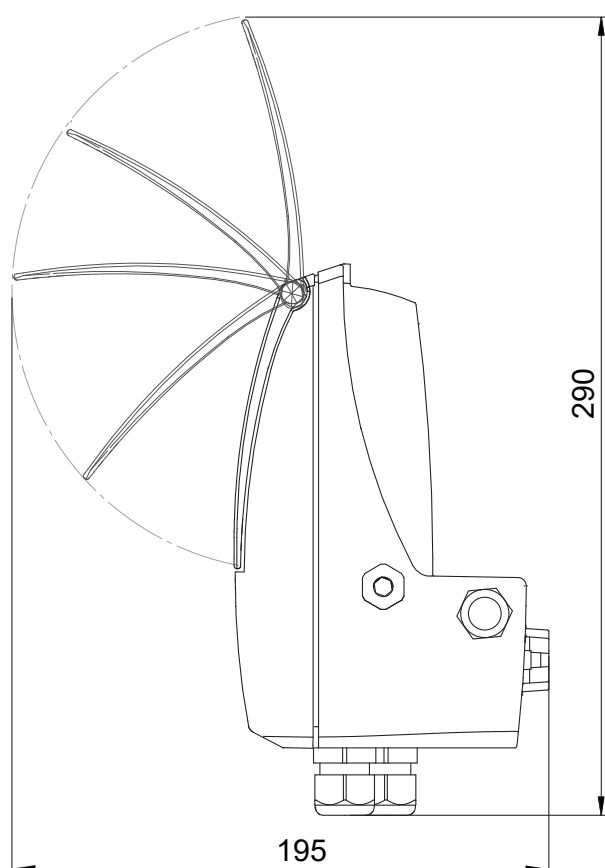
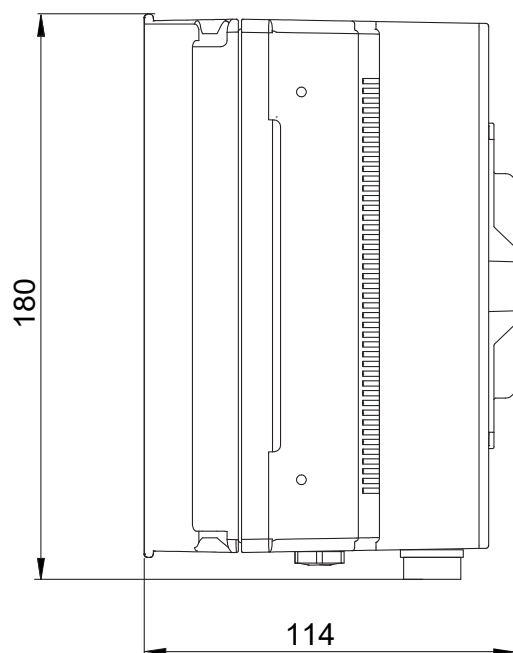
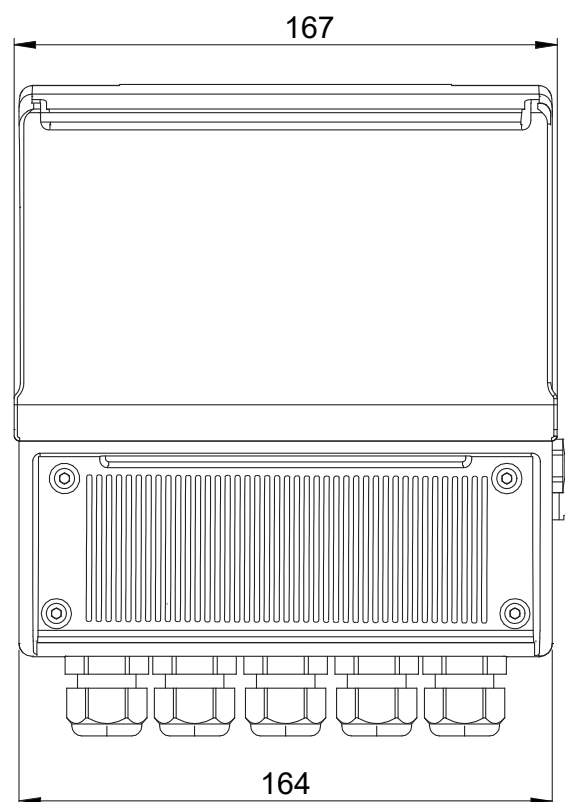
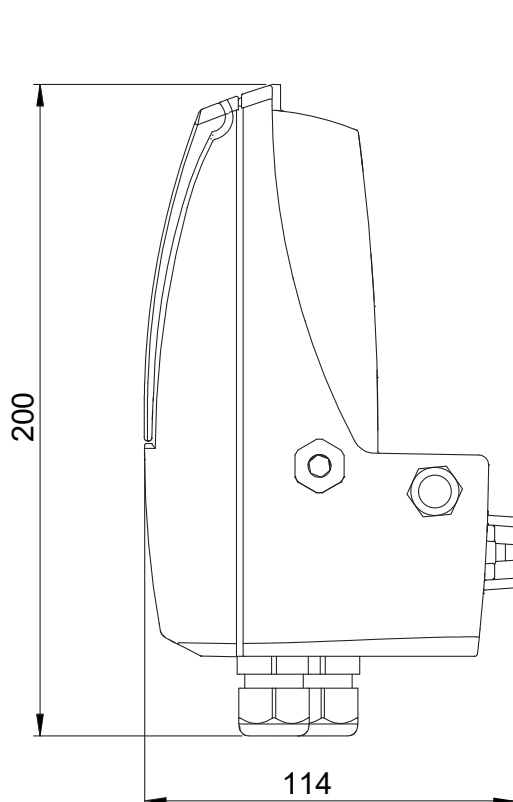
TECHNICAL DATA

OVERALL FEATURES	
Suitable For	☐ All the ISOMAG® sensors
Minimum conductivity	☐ 5 µS/cm
Altitude	☐ -200 m up to 4000 m
Ambient Temperature	☐ -20... +60°C / -4... +140 °F - Aluminium housing ☐ -10... +50°C / 14... +122 °F - Reinforced Nylon
Humidity Range	☐ 0÷100%
STANDARD FEATURES	
Housing materials	☐ Painted Aluminium die casting ☐ Nylon reinforced with 15% of fiber glass ☐ AISI304 Stainless Steel
Protection Rate	☐ IP 67
Power Supply/Consumption	☐ 100-240 V~ (20VA) – 44-66 Hz
Cable Gland	☐ N° 5 cable gland PG 11
Full scale value	☐ 0,4...10m/s
Dig. Input	☐ N°1 , programmable function (i.e. Totalizer reset)
Data Storage	☐ Values storing system in case of power failure
Galvanic Isolation	☐ All the inputs/outputs are galvanically isolated from power supply up to 250 V
Programming Plug In	☐ USB port for the connection to PC (USB cable type A/USB MINI B is required for the programming)
Bi-Directional	☐ Yes
Diagnostic Funct.	☐ Yes
Empty Pipe Detect.	☐ Yes
Batching Funct.	☐ Yes
CE Certification	☐ Yes
OPTIONAL FEATURES (CHECK HOW TO ORDER, AT LAST PAGE, FOR MORE DETAILS)	
Version	☐ Compact ☐ Separate
Protection Rate	☐ IP 68
Conn. Sensor Cable	☐ CABLE C015/C016 for separate version
LCD Display	☐ Graphic display 128x64 pixels back light, 3 programming keys
Power Supply/Consumption	☐ Power supply : 100 ... 240 VAC 44/66 Hz ☐ Power supply : 24 ... 36 VAC/VDC 0...45/66 Hz ☐ Power supply : 12...48 VDC ☐ Power supply : 100 ... 240 VAC 44/66 Hz + 1 Rechargeable Battery ☐ Power supply : 24 ... 36 VAC/VDC 0...44/66 Hz + 1 Rechargeable Battery ☐ Power supply : 12...48 VDC + 1 Rechargeable Battery
Outputs: Pulses/Frequence/Alarms/Batch	☐ N°1 digital Output , 1250 Hz, 100mA, 30 Vdc ☐ N°2 digital Outputs , 1250 Hz, 100mA, 30 Vdc
Analog Output	☐ n° 1 Analogue output 0/4...20/22 mA (Hart optional) ☐ n° 2 Analogue outputs 0/4...20/22 mA (Hart optional over Out.1)
Communication Gateway	☐ RS 485 ☐ Wi-Fi (for programming)
Data Logger	☐ MicroSD Memory Card 4...32 GBytes
Protocols	☐ Modbus over RS 485 ☐ HART (Available on analog output n° 1) ☐ MeterBus
ACCURACY	
Measurements tolerance	☐ Flow rate (volume) = ±0,05% v.l. ☐ Out 4/20 mA = ± 0,08 % v.l. ☐ Frequency Out = ± 0,08% v.l.
Accuracy (whole system converter+- sensor)	☐ See table below

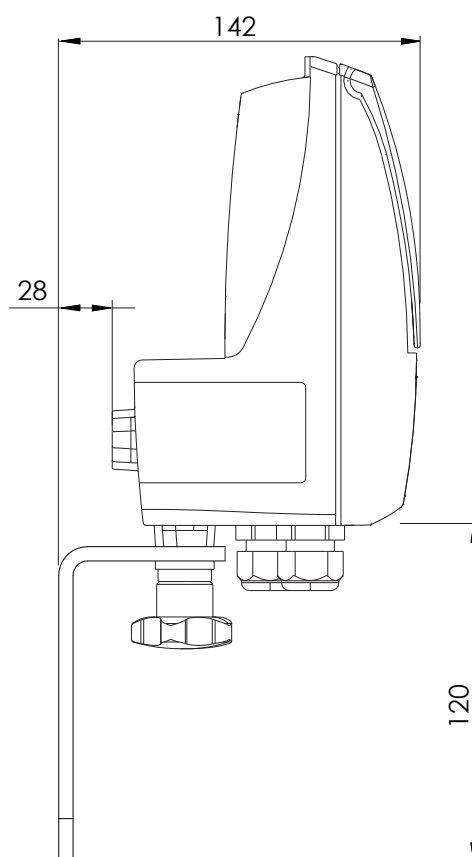
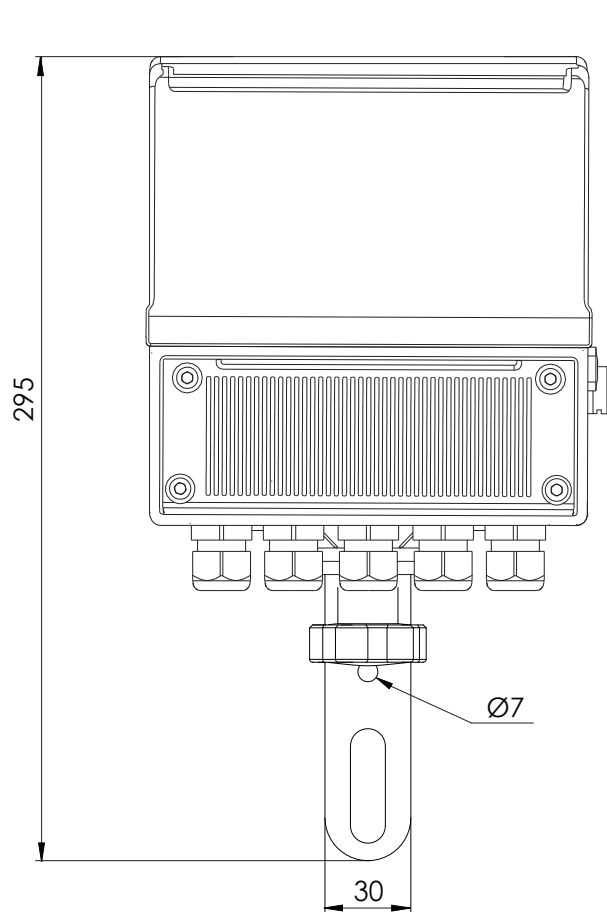


OVERALL DIMENSIONS

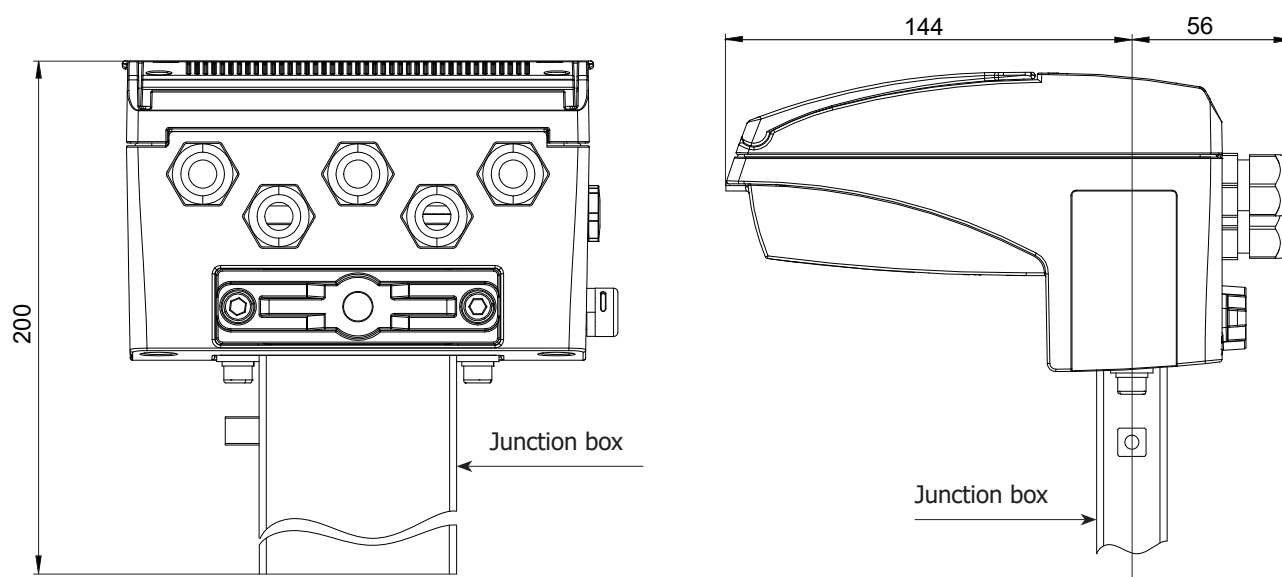
Compact version



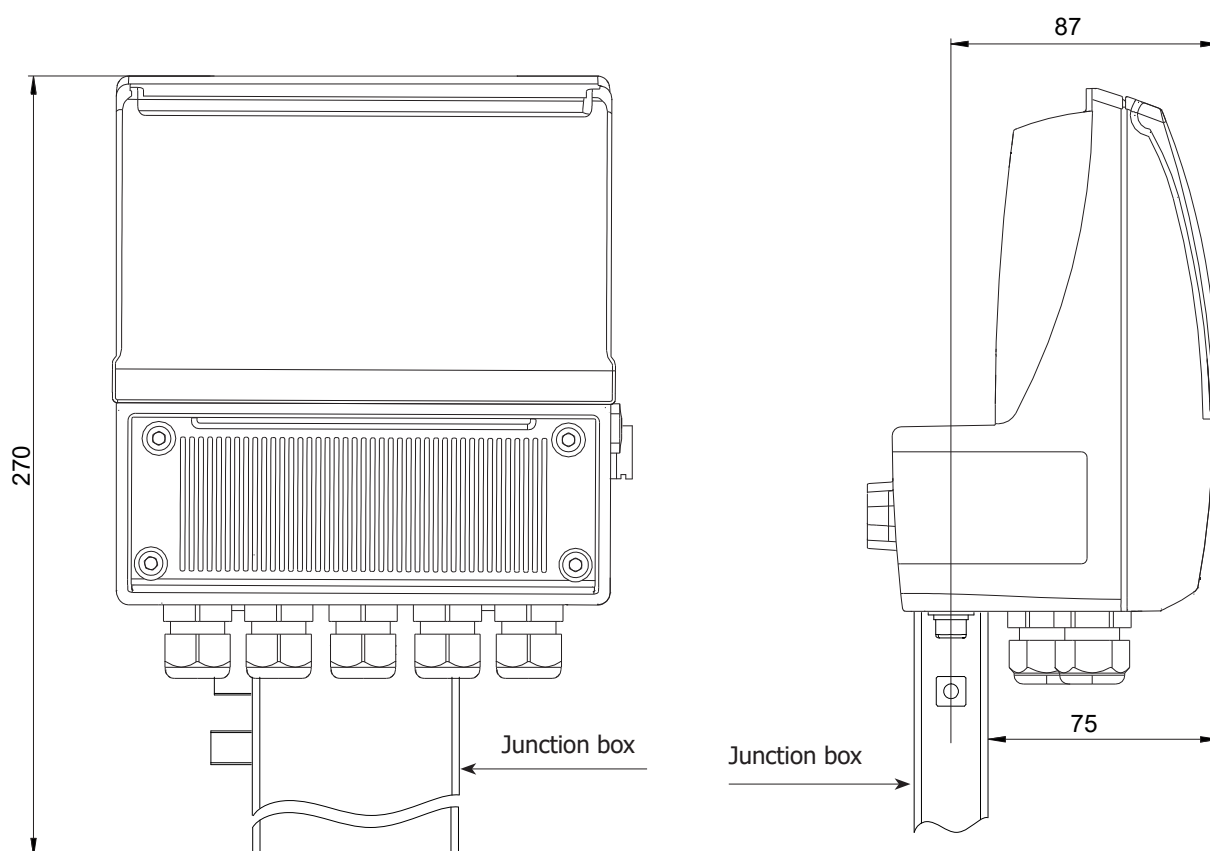
Separate (wall) version



Horizontal version

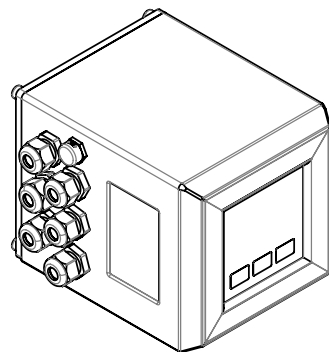
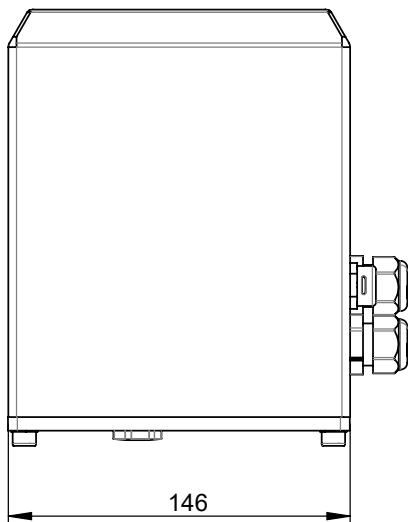
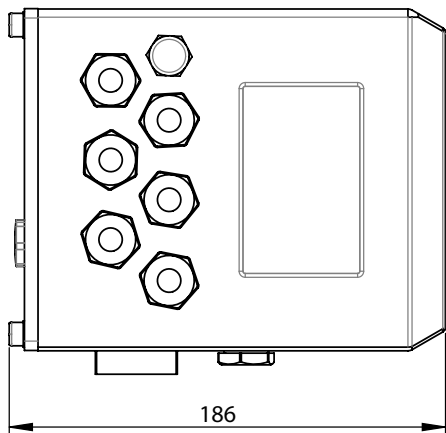
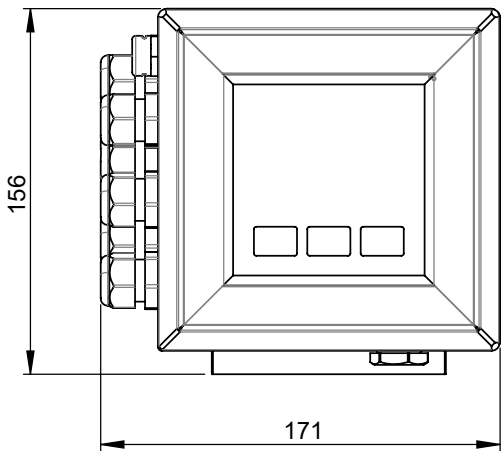


Vertical version



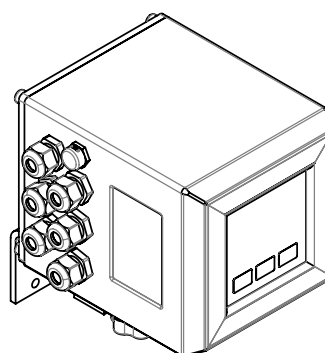
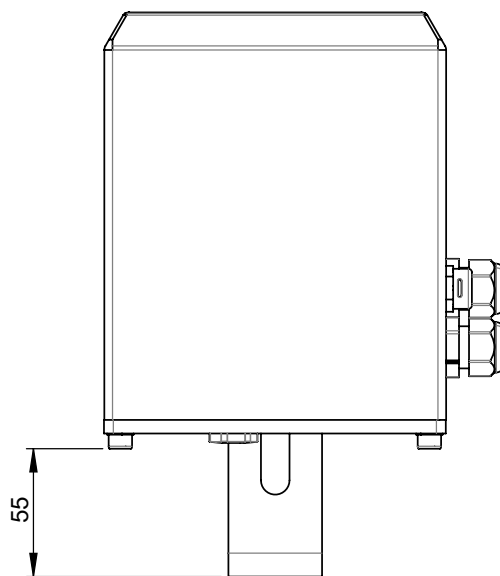
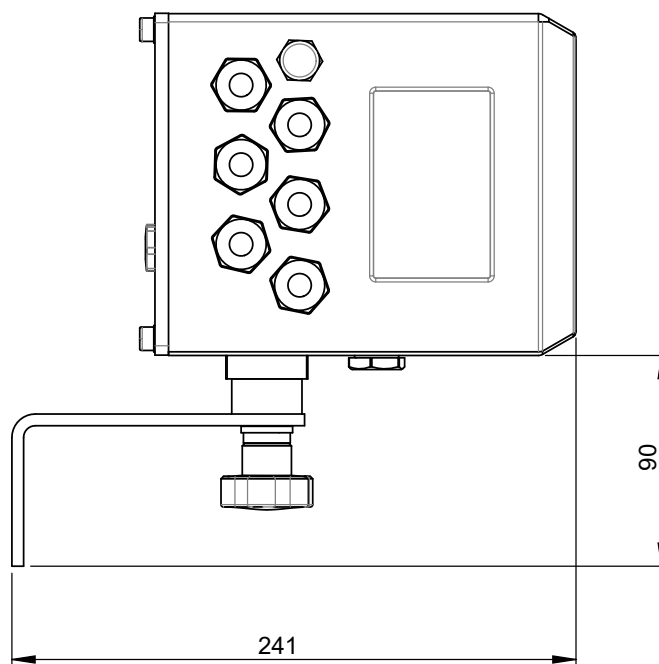
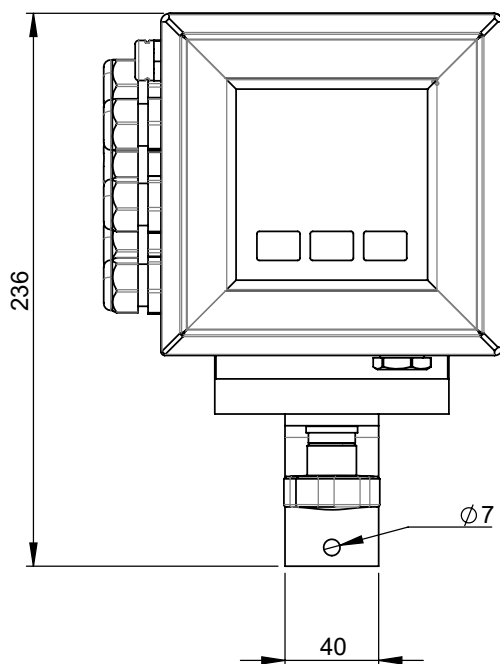
OVERALL DIMENSIONS (STAINLESS STEEL VERSION)

Compact Version

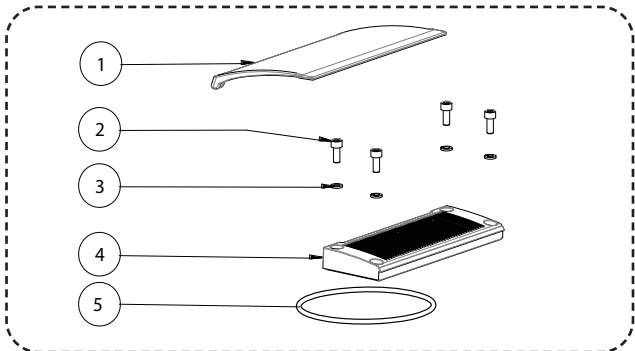


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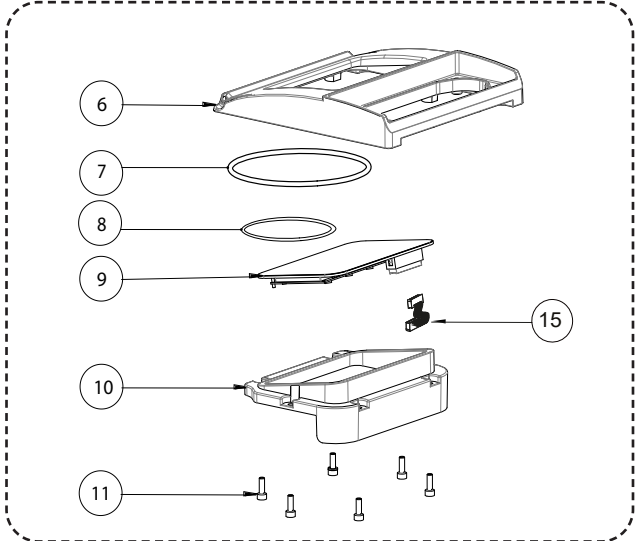
Separate Version



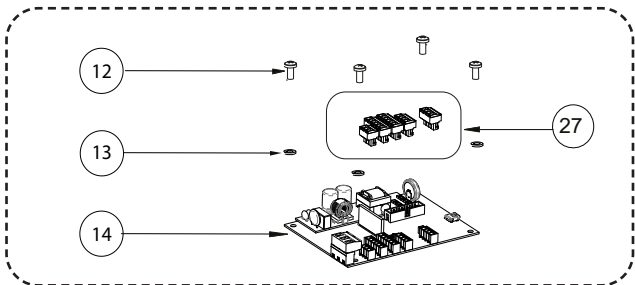
MV210 EXPLODED LAYOUT
TERMINAL BLOCK COVER



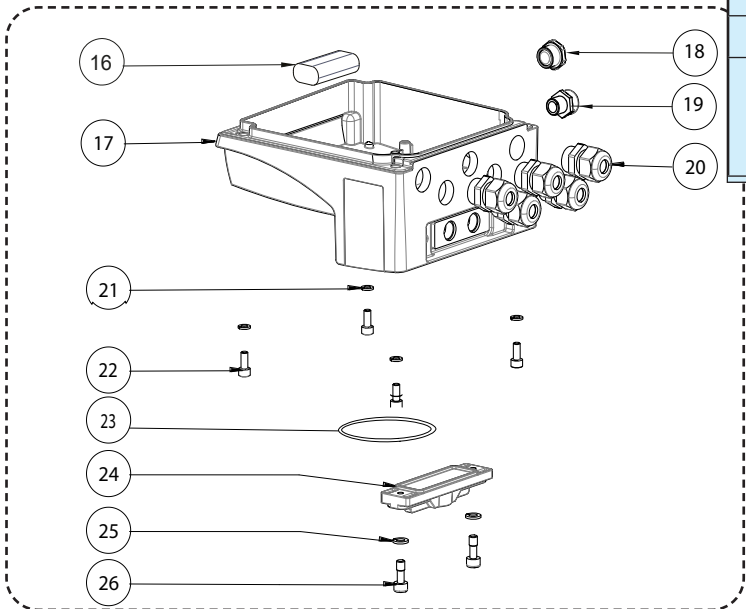
MAIN HOUSING COVER



PCB MV210

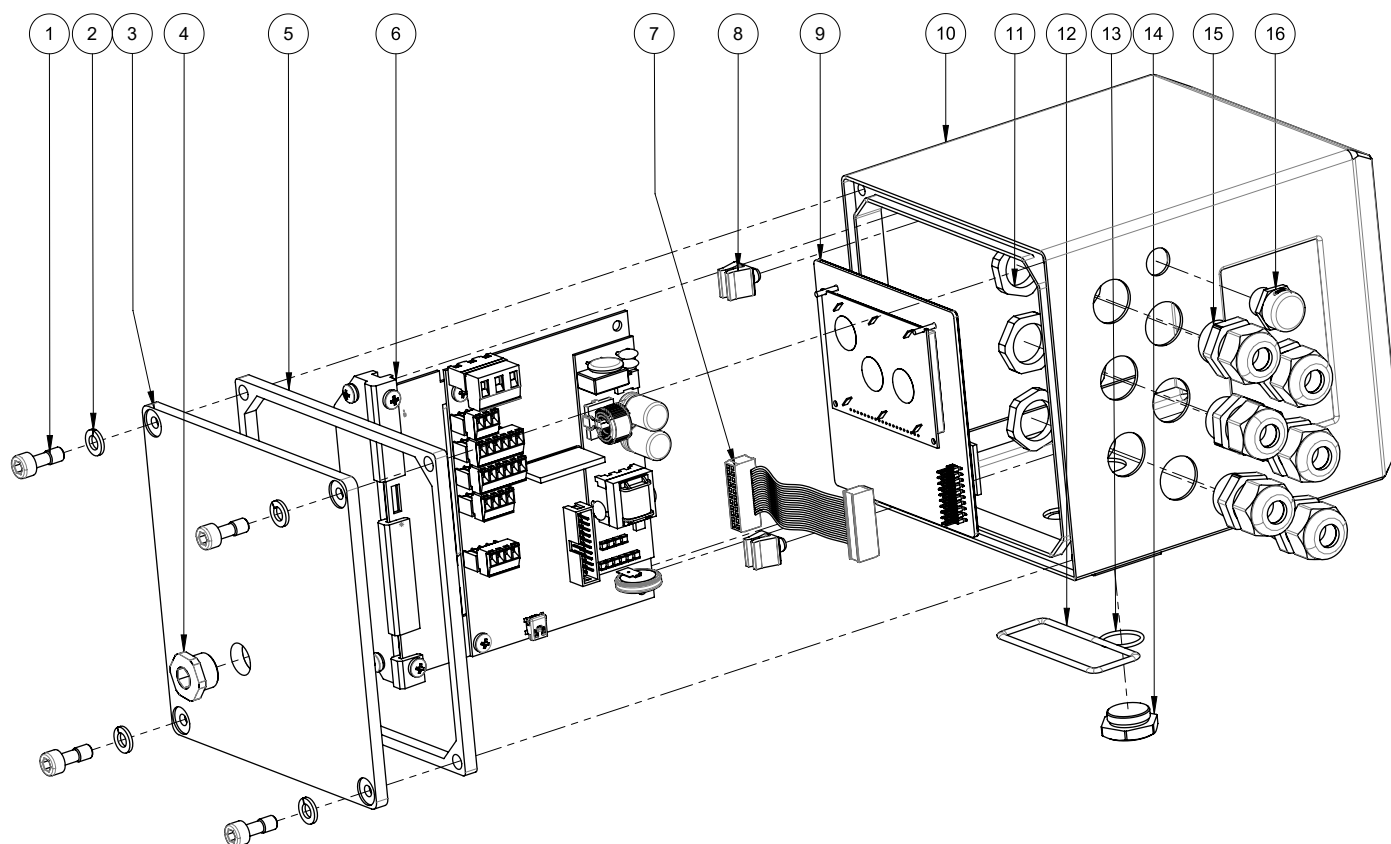


MAIN HOUSING



POS.	DESCRIPTION	
	PA6 VERSION	ALLUMINIUM VERSION
1	PROTECTION COVER	
2	VITE M4x12	VITE M5x12
3	GROWER Ø4	GROWER Ø5
4	TERMINAL COVER	TERMINAL COVER
5	O-RING-4400	
6	HOUSING COVER	HOUSING COVER
7	O-RING-4700 (HOUSING COVER)	
8	O-RING-117x3 (DISPLAY)	
9	DISPLAY	
10	FIXING DISPLAY FRAME (MATERIAL PA06)	
11	SELF-TAPPING SCREW 4x10	TRILOBO SCREW 4x10
12	SELF-TAPPING SCREW 4x10	TRILOBO SCREW 4x10
13	GROWER Ø4	SPRING WASHER Ø4
14	PCB MV210	
15	FLAT CABLE	
16	LITHIUM BATTERY	
17	PA6 MAIN HOUSING	ALUMINIUM MAIN HOUSING
18	PG9 CAP	
19	ANTICONDESE CAP	
20	PG11 CABLE GLAND CABLE DIAMETER: Ø5-Ø10mm	
21	GROWER Ø4	SPRING WASHER Ø5
22	SCREW M4x12	SCREW M5x12
23	O-RING-155	
24	VERSION CAP (MATERIAL PA06)	
25	GROWER Ø6	
26	SCREW M6x16	
27	TERMINAL BLOCK SOLID WIRE: 26-16 AWG / 0.129-1.31 mm ² STRANDED WIRE: 26-16 AWG / 0.129-1.31 mm ² TORQUE: 3.0 Lb.In / 0.34 Nm	

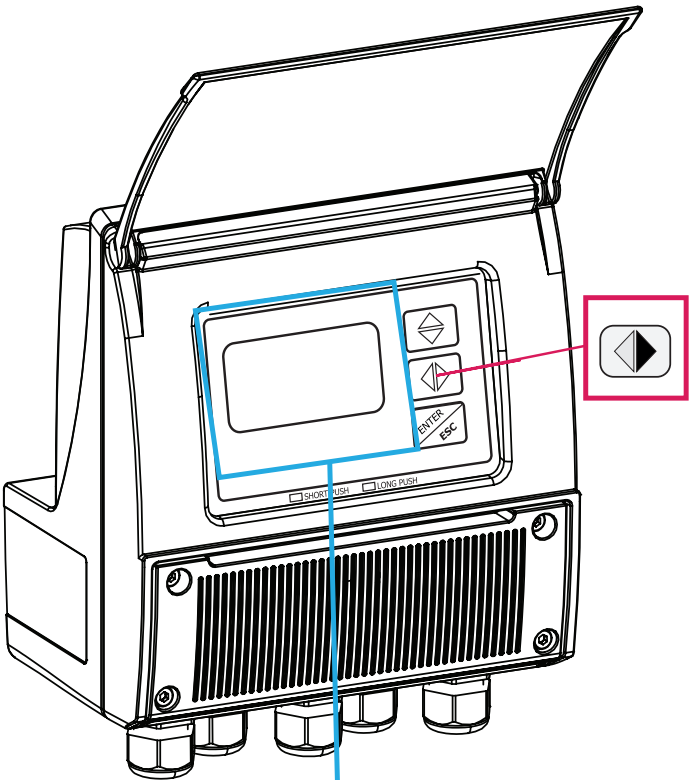
MV210 CONSTRUCTION (STAINLESS STEEL VERSION)



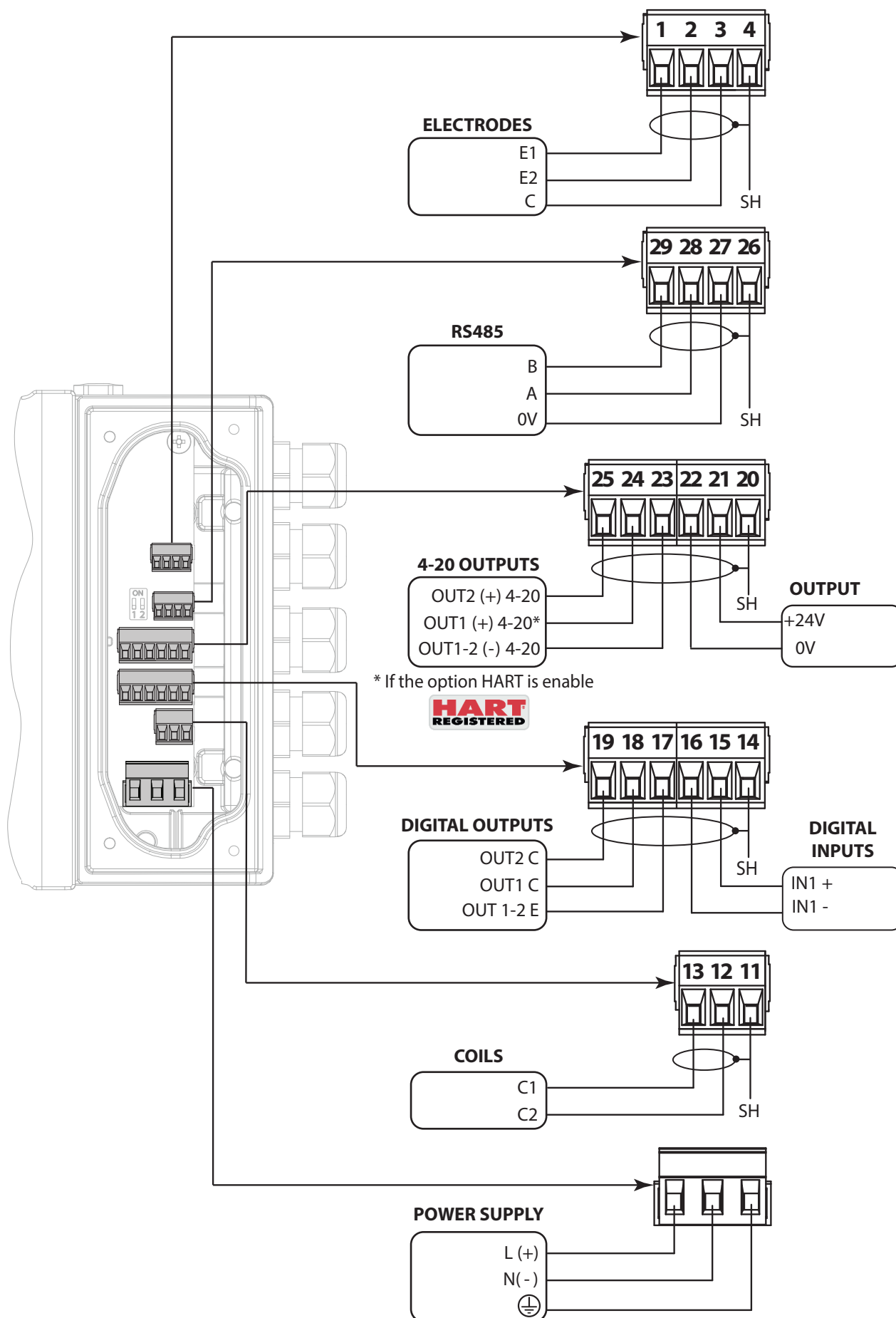
POS.	DESCRIPTION
1	SCREW M6X16
2	GROWER Ø 6
3	POLISHED COVER
4	PG9 CAP IP68
5	GASKET FOR Stainless steel HOUSING
6	BOARD FRAME M3C
7	FLAT CABLE
8	BOARD FIXING CLIPS
9	DISPLAY/BLIND
10	POLISHED Stainless steel HOUSING
11	PG11 NUT
12	FLAT GASKET O-RING 155
13	O-RING ORM 0160-15 Ø16X1.5
14	Stainless steel CAP M18X0.75
15	PG11 CABLE GLANDS
16	ANTICONDENSATION CAP

MAIN PAGES VISUALISATION

Different visualization possibilities by simply pressing of a key.

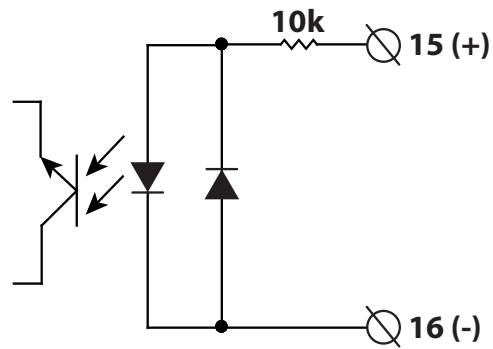


ELECTRICAL CONNECTIONS

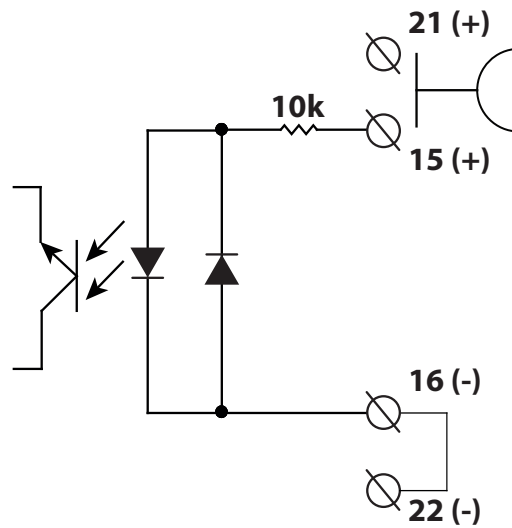


DIGITAL INPUT

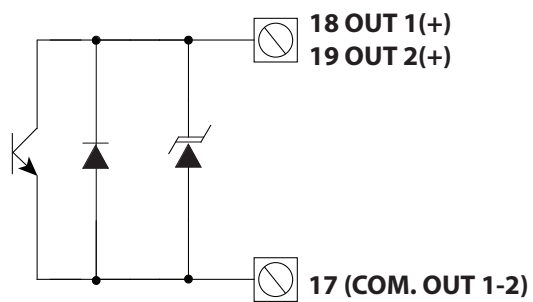
on/off input
(external power supply)



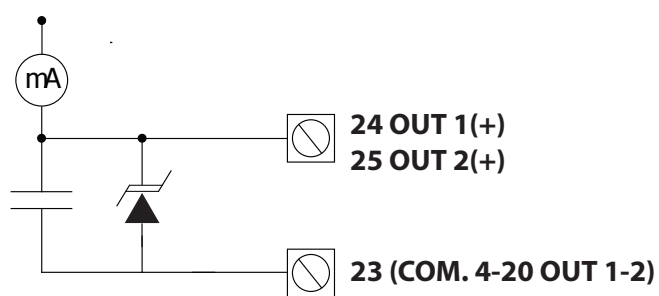
on/off input
(internal power supply)



DIGITAL OUTPUTS



ANALOG OUTPUTS



FUNCTIONS MENU

SENSOR

MAIN MENU	
1- Sensor	
2- Units	
3- Scales	
4- Settings	
5- Diagnostics	
6- Help	
7- Exit	
8- Factory Reset	
9- Firmware Update	
10- About	
11- License	
12- Support	
13- Exit	
14- Exit	
15- Exit	
16- Exit	
17- Exit	
18- Exit	
19- Exit	
20- Exit	
21- Exit	
22- Exit	
23- Exit	
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96- Exit	
97- Exit	
98- Exit	
99- Exit	
100- Exit	

- 1.1 Sensors model: Enter the first two characters of the serial number of the sensor
- 1.2 Flow sensor lining material type
- 1.3 Type of sensor: fullbore or insertion
- 1.4 Type of measure units for sensor parameter: metric or imperial
- 1.5 Insert ND of sensor (0-2500)
- 1.6 Calibration data of sensor visualized on sensor's label
- 1.7 Calibration data of sensor for negative flow
- 1.8 Sensor coefficient KZ (zero point)
- 1.9 Sensor coefficient KD
- 1.10 Insertion position
- 1.11 KP dynamic, coefficient for insertion
- 1.12 Sensor coefficient Ki
- 1.13 Sensor coefficient Kp
- 1.14 Sensor coefficient KC
- 1.15 CWV volume total, decimal point position
- 1.16 Current regulator proportional band
- 1.17 Current regulator derivation constant
- 1.18 Measure sampling frequency
- 1.19 Enables the preamplifier
- 1.20 Enables the empty pipe detection feature
- 1.21 Empty pipe detection threshold
- 1.22 Electrode cleaning
- 1.23 Sensor connecting cable length
- 1.24 Signal error delay (n. sample)
- 1.25 Automatic sensor verify enable
- 1.26 Pipe hydraulic zero calibration
- 1.27 Linearization coefficient

UNITS

MAIN MENU	
1- Sensor	
2- Units	
3- Scales	
4- Settings	
5- Diagnostics	
6- Help	
7- Exit	
8- Factory Reset	
9- Firmware Update	
10- About	
11- License	
12- Support	
13- Exit	
14- Exit	
15- Exit	
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98- Exit	
99- Exit	
100- Exit	

- 2.1 Nominal diameter measure unit
- 2.2 Cable length on separate version
- 2.3 Flowrate type measure unit: metric or not metric
- 2.4 Pulse 1 type measure unit: metric or not metric
- 2.5 Pulse 2 type measure unit: metric or not metric
- 2.6 Total direct totalizer measure unit type: metric or not metric
- 2.7 Total direct totalizer measure unit
- 2.8 Total direct totalizer decimal point position
- 2.9 Partial direct totalizer measure unit type: metric or not metric
- 2.10 Partial direct totalizer measure unit
- 2.11 Partial direct totalizer decimal point position
- 2.12 Total reverse totalizer measure unit type: metric or not metric
- 2.13 Total reverse totalizer measure unit
- 2.14 Total reverse totalizer decimal point position
- 2.15 Partial reverse totalizer measure unit type: metric or not metric
- 2.16 Partial reverse totalizer measure unit
- 2.17 Partial reverse totalizer decimal point position
- 2.18 Temperature measure unit
- 2.19 Enable/disable the selection of mass units on full scale set
- 2.20 Specific gravity coefficient

SCALES

MAIN MENU		
1	Sensor	
2	Units	
3	Scales	
4	Measure	
5	Alarms	
6	Inputs	
7	Outputs	
8	MEASURES	
9	Damping	SMART
10	Cut-off= %	00.1
11	DT Min.	ON
12	T1HC enable	ON
13	T1HC	OFF

3.1	Full scale flow rate 1
3.2	Batching quantity
3.3	Full scale flow rate 2
3.4	Pulse value on channel 1
3.5	Duration of the pulse generated on channel 1
3.6	Pulse value on channel 2
3.7	Duration of the pulse generated on channel 2
3.8	Full scale frequency for channel 1 (0.1Hz-1000.0Hz)
3.9	Full scale frequency for channel 2 (0.1Hz-1000.0Hz)

MEASURES

MAIN MENU		
1	Sensor	
2	Units	
3	Scales	
4	Measure	
5	Alarms	
6	Inputs	
7	Outputs	
8	MEASURES	
9	Damping	SMART
10	Cut-off= %	00.1
11	DT Min.	ON
12	T1HC enable	ON
13	T1HC	OFF

4.1	Measure filter
4.2	Low flow zero threshold: 0-25% of full scale value
4.3	Automatic calibration verify
4.4	Automatic change of measurement range
4.5	High immunity inputs

ALARMS

MAIN MENU		
1	Sensor	
2	Units	
3	Scales	
4	Measure	
5	Alarms	
6	Inputs	
7	Outputs	
8	ALARMS	
9	Max+ = dm3/s	OFF
10	Max- = dm3/s	OFF
11	Min+ = dm3/s	OFF
12	Min- = dm3/s	OFF
13	Hysteresis= %	03
	mA v.alarm= %	000
	Hz v.alarm= %	000

5.1	Maximum value alarm set for direct flow rate
5.2	Maximum value alarm set for reverse flow rate
5.3	Minimum value alarm set for direct flow rate
5.4	Minimum value alarm set for reverse flow rate
5.5	Hysteresis threshold set for the minimum and maximum flow rate alarms
5.6	Current output value in case of failure
5.7	Frequency output value in case of alarms

INPUTS

MAIN MENU		
1	Sensor	
2	Units	
3	Scales	
4	Measure	
5	Alarms	
6	Inputs	
7	Outputs	
8	INPUTS	
9	T+ reset	OFF
10	P+ reset	OFF
11	T- reset	OFF
12	P- reset	OFF
13	Count lock	OFF
	Meas.lock	OFF
	Calibration	OFF
	Range change	OFF

6.1	Total direct (positive) flow totalizer reset enable
6.2	Partial direct (positive) flow totalizer reset enable
6.3	Total reverse (negative) flow totalizer reset enable
6.4	Partial reverse (negative) flow totalizer reset enable
6.5	Totalizer counting lock command
6.6	Measure zero lock command
6.7	Calibration external command
6.8	Range change external command

OUTPUTS

MAIN MENU	
1-Sensor	
2-Units	
3-Scales	
4-Measure	
5-Alarms	
6-Inputs	
7-Outputs	
8-Communication	
9-Display	
10-Data logger	
11-Functions	
12-Settings	
13-Exit	

OUTPUTS	
10- Out1	PULSES+
11- Out2	PULSES-
12- Out mA1	4_22 +/-
13- Out mA2	4_22 +/-
A1S	4.9087
A2S	4.9087

7.1	Output 1 functions
7.2	Output 2 functions
7.3	Choice of the function and the range of current output n.1
7.4	Choice of the function and the range of current output n.2
7.5	Full Scale value for analog out1
7.6	Full Scale value for analog out2

COMM.

MAIN MENU	
1-Sensor	
2-Units	
3-Scales	
4-Measure	
5-Alarms	
6-Inputs	
7-Outputs	
8-Communication	
9-Display	
10-Data logger	
11-Functions	
12-Settings	
13-Exit	

COMMUNICATION	
HART pr.	05
HART O. C.	ON
Dev. Addr	001
Speed=bps	9600
Parity=	NO
Delay=ms	00
C. timeout	2
MBUS ID =	220483
MBUS Dev.T =	7

8.1	HART packet byte preambles
8.2	HART bus output control
8.3	Device communication address number
8.4	MODBUS link speed
8.5	MODBUS link parity
8.6	MODBUS reply delay
8.7	Maximum delay between chars (frames)
8.8	MeterBus Id.Number (Second.Add.)
8.9	MeterBus Device Type (Media)



DISPLAY

MAIN MENU	
1-Sensor	
2-Units	
3-Scales	
4-Measure	
5-Alarms	
6-Inputs	
7-Outputs	
8-Communication	
9-Display	
10-Data logger	
11-Functions	
12-Settings	
13-Exit	

DISPLAY	
Language	EN
Contrast	5
Disp.time=s	020
D.rate=Hz	5
Disp. Fn.	1
Disp.lock	ON
Part. Tot	ON
Neg. Tot.	ON
Net tot.	ON
Disp.date	ON
Quick start	ON

9.1	Choice of the language
9.2	Display contrast
9.3	Display/keyboard inactivity time
9.4	Display updating frequency: 1-2-5-10 Hz
9.5	Display function number
9.6	Display function selection lock
9.7	Partial totalizer enable
9.8	Negative totalizer enable
9.9	Net totalizer enable
9.10	Time and date display enable
9.11	Quick start menu visualization

DATA LOGGER

DATA LOGGER		
D.logger en.	ON	10.1 Data logger enabling
Meas. units	ON	10.2 Measure units recording enable
Field separat.	;	10.3 Field separator character
Decimal separat.	.	10.4 Decimal separator character
Interv.	01:01:00	10.5 Sampling interval
Log T+	ON	10.6 Enable logging of total direct totalizer
Log P+	ON	10.7 Enable logging of partial direct totalizer
Log T-	ON	10.8 Enable logging of total reverse totalizer
Log P-	ON	10.9 Enable logging of partial reverse totalizer
Log TN	ON	10.10 Enable logging of total net totalizer
Log PN	ON	10.11 Enable logging of partial net totalizer
Log Q (UM)	ON	10.12 Enable logging of flow rate in measure unit
Log Q (%)	ON	10.13 Enable logging of flow rate in percentage
Log AL.EV	ON	10.14 Enable logging of alarm events
Log STR	ON	10.15 Enable logging of sensor test results
Log BTS	ON	10.16 Enable logging of board temperature
Log IBV	ON	10.17 Enable logging of internal board voltage
Log EDC	ON	10.18 Enable logging of electrodes DC voltage
Log EAC	ON	10.19 Enable logging of electrodes AC voltage
Log EIZ	ON	10.20 Enable logging of electrodes impedance
Log SCU	ON	10.21 Enable logging of sensor coils value

```

MAIN
1-Outputs
2-Communication
3-Display
4-Data logger
5-Functions
6-Diagnostic
7-System

```

FUNCTIONS

FUNCTIONS		
T+ reset		11.1 Execute immediate reset of total direct totalizer
P+ reset		11.2 Execute immediate reset of partial direct totalizer
T- reset		11.3 Execute immediate reset of total reverse totalizer
P- reset		11.4 Execute immediate reset of partial reverse totalizer
Load Sens. F. def		11.5 Load sensor factory default
Load Conv. F. def		11.6 Load converter factory default
Save Sens. F. def		11.7 Save sensor factory default values
Save Conv. F. def		11.8 Save converter factory default values
Calibration		11.9 Execute immediate internal circuit calibration

```

MAIN
1-Outputs
2-Communication
3-Display
4-Data logger
5-Functions
6-Diagnostic
7-System

```

DIAGNOSTIC

DIAGNOSTIC		
Self test		12.1 Self test diagnostic function
Test display		12.2 Function tests physical display
Sens. verify		12.3 Sensor verify diagnostic function
Flow sim. =	ON	12.4 Flow rate simulation enabling
Display measures		12.5 Display internal measured value
Disp. Comm. Vars		12.6 Display comm. diagnostic values
Display graphs		12.7 Display measure as graphs
Gen. sens. set		12.8 Generic sensor parameters set
SD card info		12.9 Sd card status informations
Firmware info		12.10 Firmware version/revision
S/N=	999001	12.11 Board serial number
WT=	002:21:00 : 22	12.12 Total working time

```

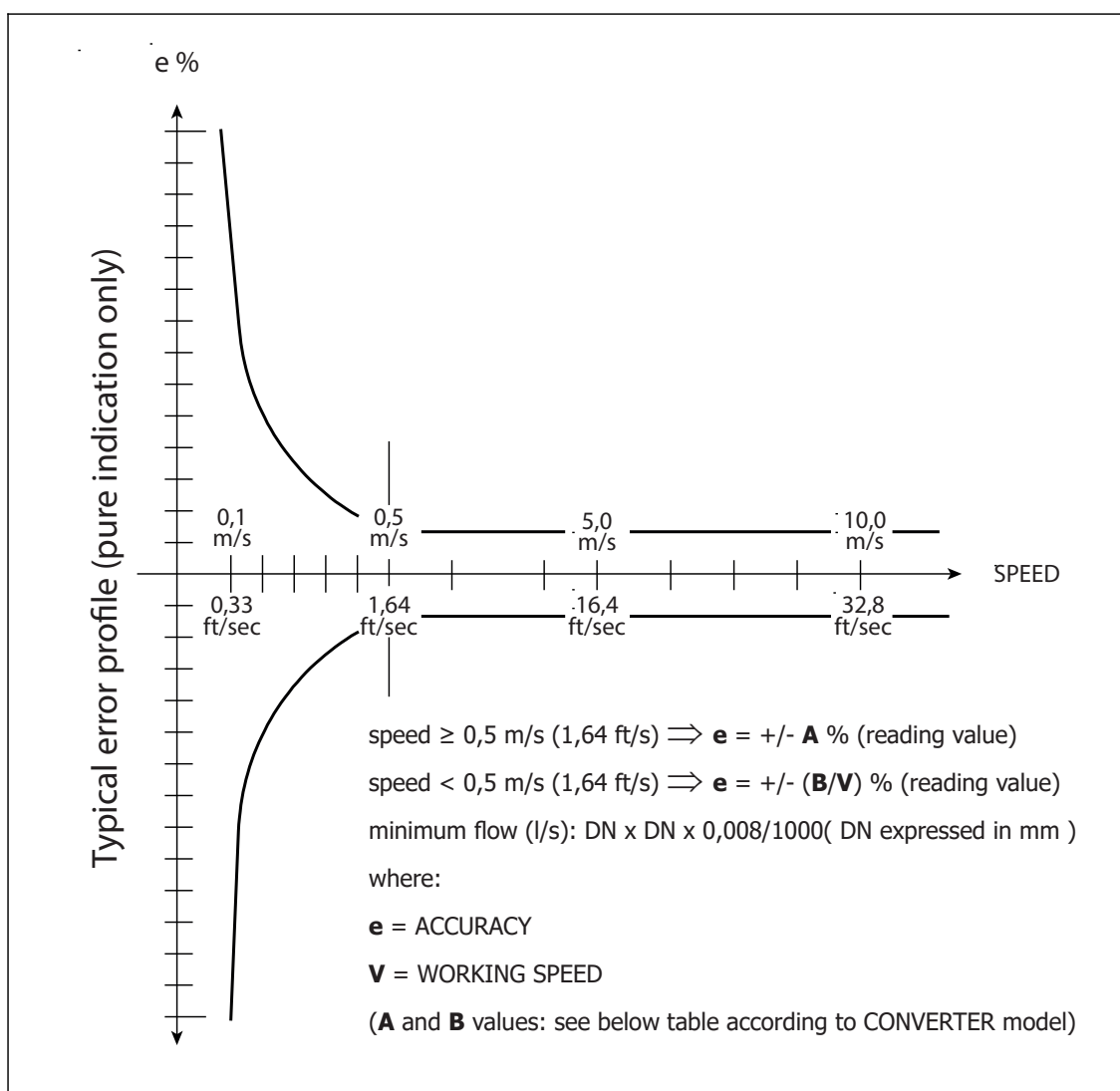
MAIN
1-Outputs
2-Display
3-Data logger
4-Functions
5-Diagnostic
6-System

```

SYSTEM

SYSTEM			
Dayl. Saving =	ON	13.1	Daylight saving time change
Time zone =	h+01.00	13.2	Localized time zone
2016/04/04-16:07		13.3	System date and time
L1 code =	*****	13.4	Access level 1 code
L2 code =	*****	13.5	Access level 2 code
L3 code =	*****	13.6	Access level 3 code
L4 code =	*****	13.7	Access level 4 code
L5 code =	*****	13.8	Access level 5 code
L6 code =	*****	13.9	Access level 6 code
Restr. Access=	ON	13.10	Restricted access level
010.011.012.013		13.11	Device IP network address
010.011.012.014		13.12	Client IP network address
255.255.255.000		13.13	Network mask
HT	0.96469	13.14	Calibration coefficient KT
HS	1.00000	13.15	Calibration coefficient KF
HR	1.00000	13.16	Calibration coefficient KR
DAC1	(°C)	13.17	DAC1 out 4mA calibration point
DAC1	(°C)	13.18	DAC1 out 20mA calibration point
DAC2	661	13.19	DAC2 out 4mA calibration point
DAC2	3327	13.20	DAC2 out 20mA calibration point
Stand-by	3453	13.21	Stand-by
FW update	14718	13.22	firmware update
99-Display			
10-Data logger			
11-Functions			
12-Diagnostic			
13-System			

ACCURACY



Full bore sensor

MS501/MS1000/MS2410/MS2500			MS 600			MS5000		
A	B(m/s)	B(ft/s)	A	B(m/s)	B(ft/s)	A	B(m/s)	B(ft/s)
0,2	0,1	0,66	0,4	0,2	1,32	2	1	3,28

Insertion sensors

See sensors DATA SHEET

Reference conditions below and as per internal testing procedures:

- Constant flow rate during the test
- Pressure: >30 Kpa
- Flow condition : fully developed flow profile
- Zero stability +/- 0,005 %

HOW TO ORDER

CODE/ EXAMPLE	CODE/DESCRIPTION	
Display		
A	A	Blind version (without display and programming keys, cable USB type A/USB MINI B is REQUIRED TO PROGRAMMING)
	B	Graphic LCD WSTN - B/W - back light display, point matrix 128 x 64, 8 line/16 characters and 3 programming keys (mandatory for MI001)
Housing material / Protection rate		
0	0	Nylon PA6 with fiber glass, protection rate IP 67
	1	Painted aluminum die casting, protection rate IP67
	2	Painted aluminum die casting, protection rate IP68 1,5 meters under water, Compact Version, n° 1 IP 68 MIL connector for power supply (CONNECTORS SUPPLIED: MALE + FEMALE)
	3	Painted aluminum die casting, protection rate IP68 1,5 meters under water, Compact Version, Complete of n° 1 of 10 poles IP68 MIL connector (outputs connections to be specified) and n° 1 IP 68 MIL connector for power supply (CONNECTORS SUPPLIED: MALE + FEMALE)
	4	Painted aluminum die casting, protection rate IP68 1,5 meters under water, Separate Version, Complete of n° 2 IP 68 MIL connectors for cables from the sensor and n° 1 IP 68 MIL connector for power supply (CONNECTORS SUPPLIED: MALE + FEMALE)
	5	Painted aluminum die casting, protection rate IP68 1,5 meters under water, Separate Version, Complete of n° 2 IP 68 MIL connectors for cables from the sensor, n° 1 of 10 poles IP68 MIL connector (outputs connections to be specified) and n° 1 IP 68 MIL connector for power supply (CONNECTORS SUPPLIED: MALE + FEMALE)
	6	AISI304 Stainless Steel housing, protection rate IP67 (DISPLAY NOT ROTABLE) - NO CONNECTORS AVAILABLE
	7	Painted aluminum die casting, ONLY COMPACT, protection rate IP68 (NO CONNECTORS)
Version		
A	A	Compact version with sensor MS.... (liquid maximum temperature 100 °C)
	B	Separate version for wall monting, complete with mounting accessories (CABLE C015/C016)
	C	Compact version with display visible from the top
	D	Separate version (CABLE C014) for wall mounting, complete with mounting accessories in AISI 304
Power supply		
1	1	Power supply : 100 ... 240 VAC 44/66 Hz
	2	Power supply : 24 ... 36 VAC/VDC 0...44/66 Hz
	3	Power supply : 12...48 VDC
	4	Power supply : 100 ... 240 VAC 44/66 Hz + 1 Rechargeable back-up Battery (the use of battery supports only the measure UP TO 15 days; all the outputs are set to OFF)
	5	Power supply : 24 ... 36 VAC/VDC 0...44/66 Hz + 1 Rechargeable back-up Battery (the use of battery supports only the measure UP TO 15 days; all the outputs are set to OFF)
	6	Power supply : 12...48 VDC + 1 Rechargeable back-up Battery (the use of battery supports only the measure UP TO 15 days; all the outputs are set to OFF)
	7	Power supply : 100 ... 240 VAC 44/66 Hz + n° 1 SETTINGS FOR Rechargeable back-up Battery (the Rechargeable Battery is NOT included)
	8	Power supply : 24 ... 36 VAC/VDC 0...44/66 Hz + n° 1 SETTINGS FOR Rechargeable back-up Battery (the Rechargeable Battery is NOT included)
	9	Power supply : 12...48 VDC + n° 1 SETTINGS FOR Rechargeable back-up Battery (the Rechargeable Battery is NOT included)
	a	Power supply : 100 ... 240 VAC 44/66 Hz + 1 Pack of n° 2 SUPERCAP (the use of it supports only the measure UP TO 3 minutes; all the outputs are set to OFF)
	b	Power supply : 24 ... 36 VAC/VDC 0...44/66 Hz + 1 Pack of n° 2 SUPERCAP (the use of battery supports only the measure UP TO 3 minutes; all the outputs are set to OFF)
	c	Power supply : 12...48 VDC + 1 Pack of n° 2 SUPERCAP (the use of battery supports only the measure UP TO 3 minutes; all the outputs are set to OFF)
Analogue output		
A	A	Without Analogue output
	B	n° 1 Analogue output 0/4...20/22 mA (Hart optional)
	C	n° 2 Analogue outputs 0/4...20/22 mA (Hart optional over Out.1)





Digital Input/Output		
0	0	With Digital Input only
	1	With n° 1 PROGRAMMABLE Digital Output/n°1 Digital Input
	2	With n° 2 PROGRAMMABLE Digital output/n°1 Digital Input
Communication Gateway		
A	A	Without Gateway
	B	RS485 port - Protocol MODBUS required
	C	Hart (4/20 mA/ Analog OUT n° 1 is required)
	D	Wi-Fi (for programming)
	E	M-Bus Module
	Z	Others
Protocols		
0	0	Without Protocol
	1	Modbus (over RS485) requires RS485 port
Accuracy		
A	A	Standard accuracy 0,2 %
	C	Special accuracy (to be defined)
Data Logger		
0	0	Without Data Logger
	1	MicroSD Memory 4 GB : Data Logger + RTC (Real Time Clock)
	2	MicroSD Memory 4 GB : Data Logger + RTC (Real Time Clock) + BIV (Built In Verificator)
	3	MicroSD Memory 4 GB : Data Logger + RTC (Real Time Clock) + Meter Data (Real Time Converter & Sensor Data on SD Memory)
	4	MicroSD Memory 4 GB : Data Logger + RTC (Real Time Clock) + BIV + Meter Data
Special Features		
A	A	NONE
	B	WITH ANTICONDENSE CAP
	C	n° 5 CABLE GLAND 1/2" NPT - Nickel plated brass CODE 1.609.1200.70 (CABLE 6 - 12 mm)
	D	n° 5 HOLES FOR CABLE GLAND 1/2" NPT (WITHOUT CABLE GLAND)

Complete code
example for
order

MV210-A0A1A0A0A0A

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If you want to find the complete list of our distributors access at the following link:

<http://www.isoil.it/en>



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