ISOMAG

The friendly magmeter

DATA SHEET

MV110W

CE

ISOIL INDUSTRIA

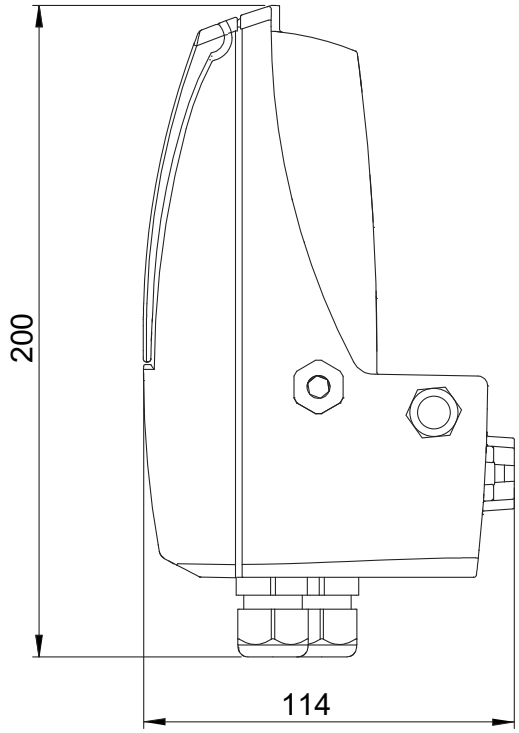
INDEX

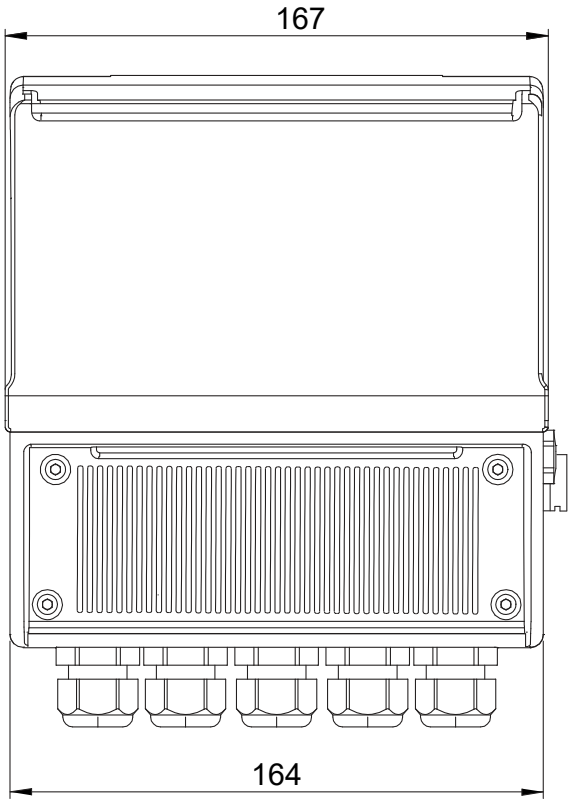
TECHNICAL DATA

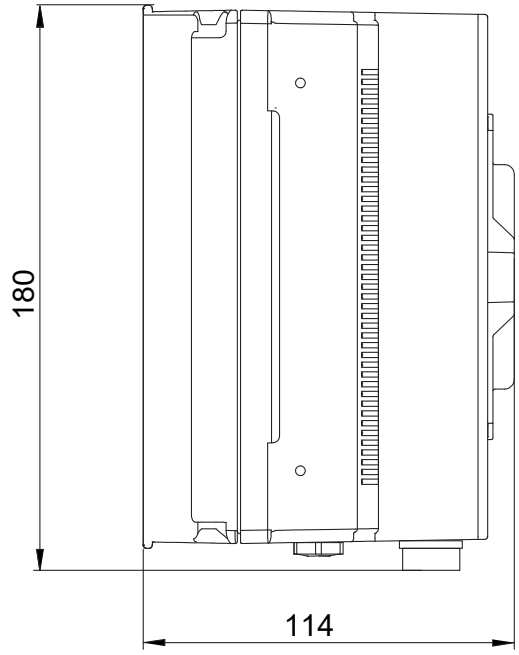
OVERALL FEATURES	
Suitable For	❑ All the ISOMAG® sensors, up to DN 1000
Minimum conductivity	❑ 5 µS/cm
Altitude	❑ -200 m up to 4000 m
Ambient Temperature	❑ -20... +60°C / -4... +140 °F - Aluminium housing ❑ -10... +50°C /+14...+122 °F - Reinforced Nylon
Humidity Range	❑ 0÷100%
STANDARD FEATURES	
Housing 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/output	❑ N°1 , programmable output (i.e. Totalizer reset) / N°1 digital imput
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 programmation)
Bi-Directional	❑ Yes
Diagnostic Funct.	❑ Yes
Empty Pipe Detect.	❑ 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 C014 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
MID Certifications	❑ MI-001 ❑ MI-004
ACCURACY	
Measurements tolerance	❑ Flow rate (volume) = ±0,05% v.l. ❑ Frequency Out = ± 0,08% v.l.
Accuracy (whole system converter+sensor)	❑ See table below

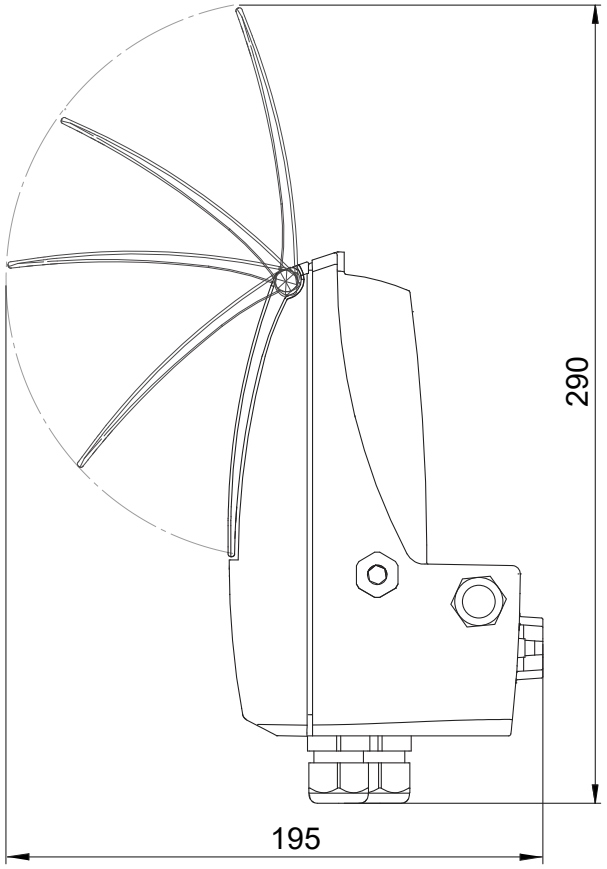
OVERALL DIMENSIONS

Compact version

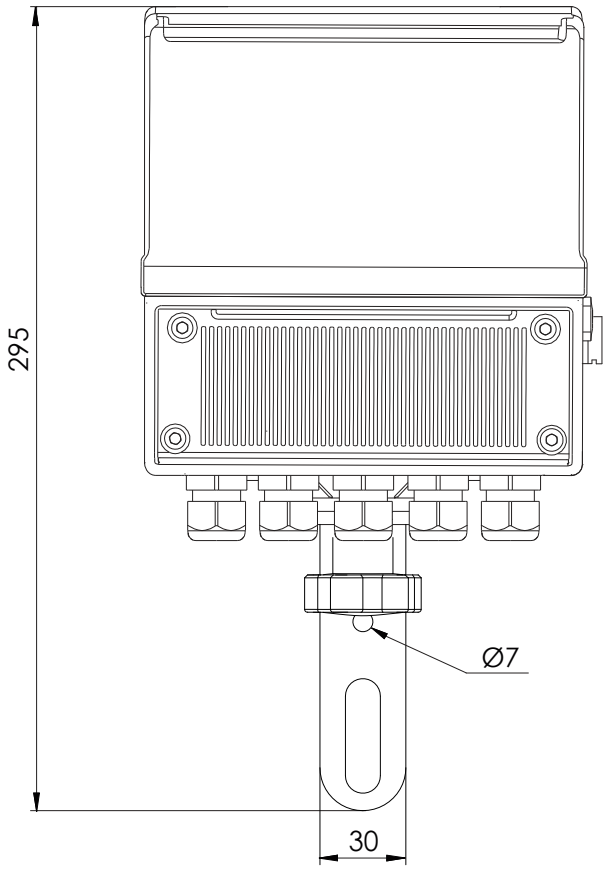


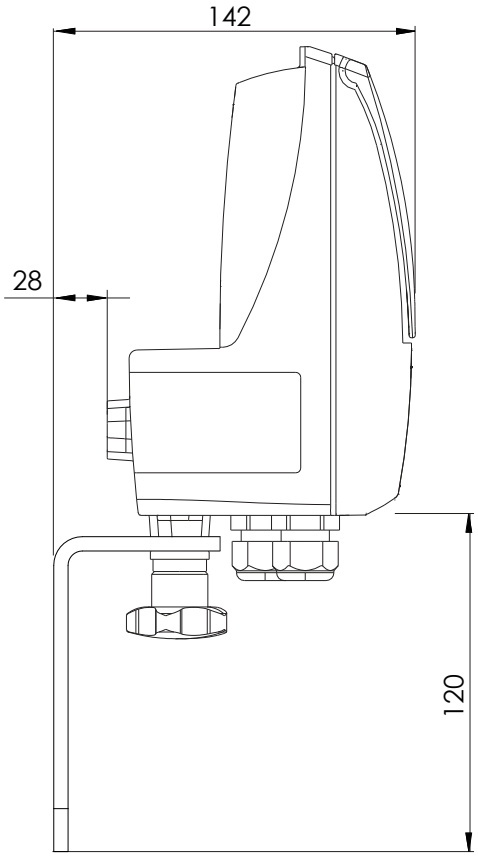




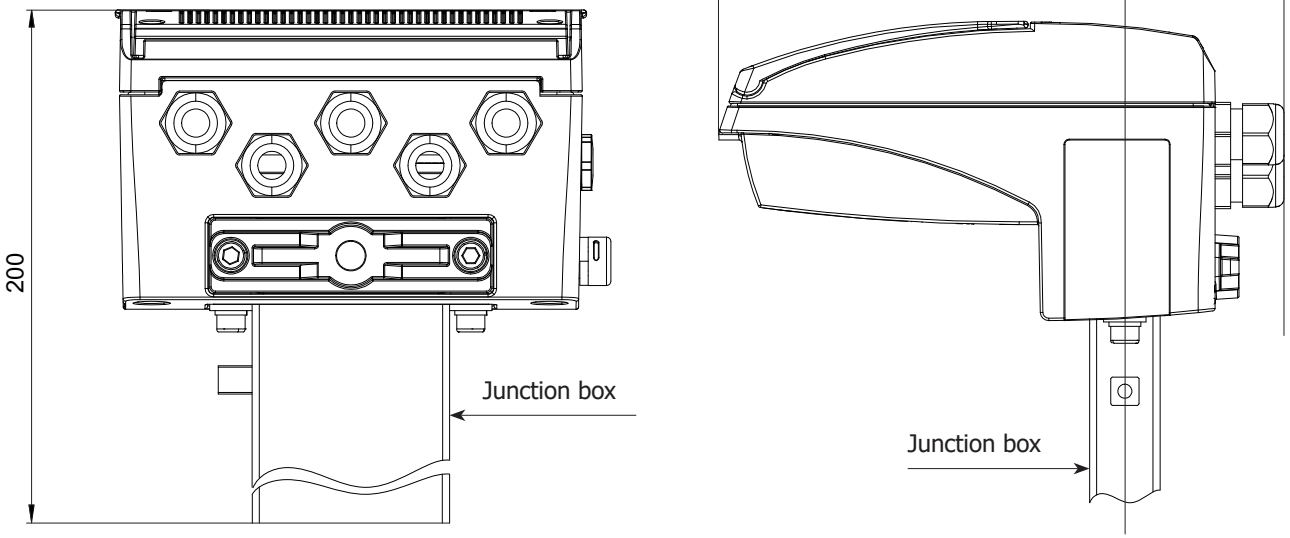


Separate (wall) version

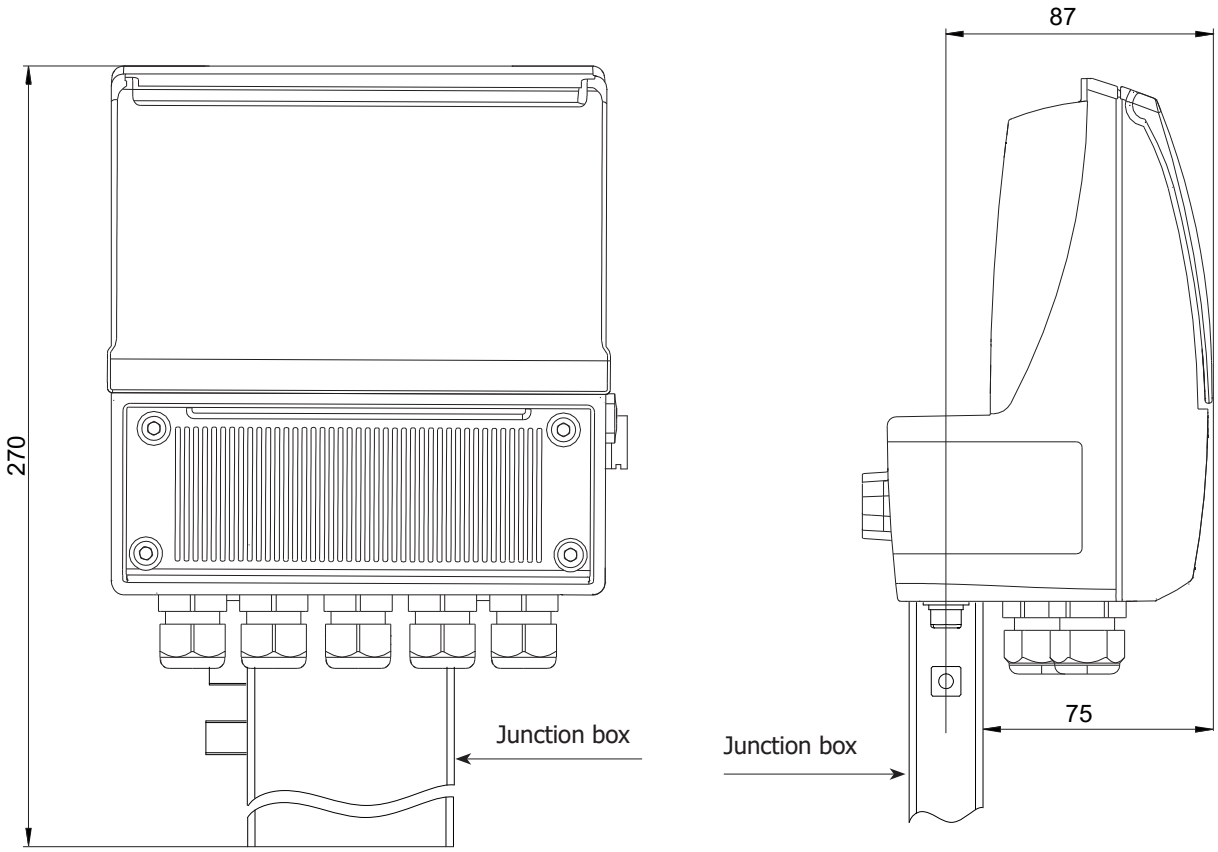




Horizontal version

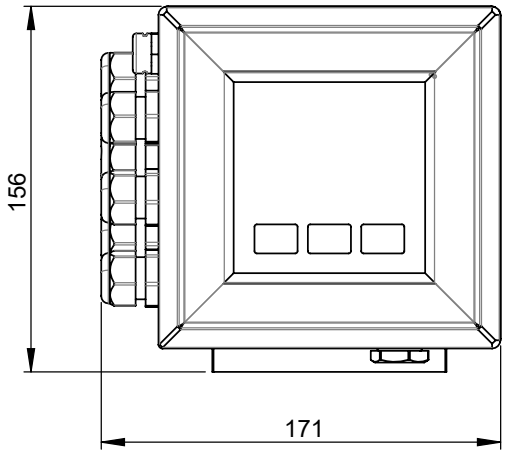


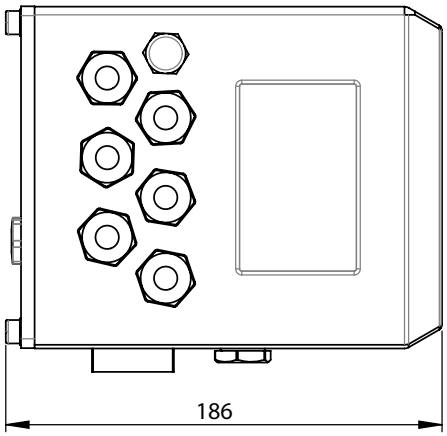
Vertical version

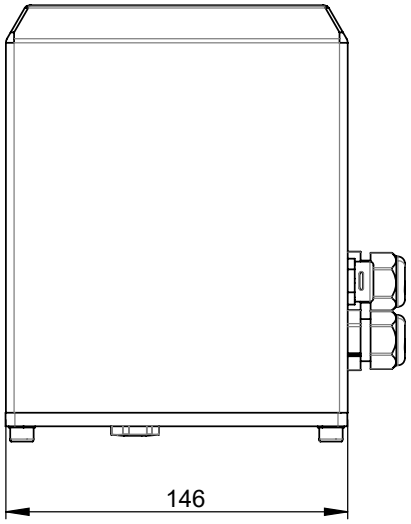


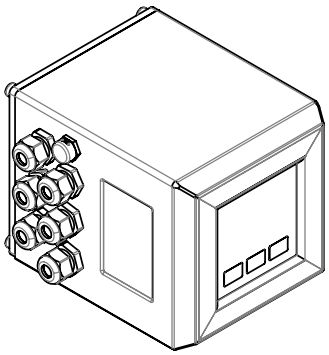
OVERALL DIMENSIONS (STAINLESS STEEL VERSION)

Compact Version

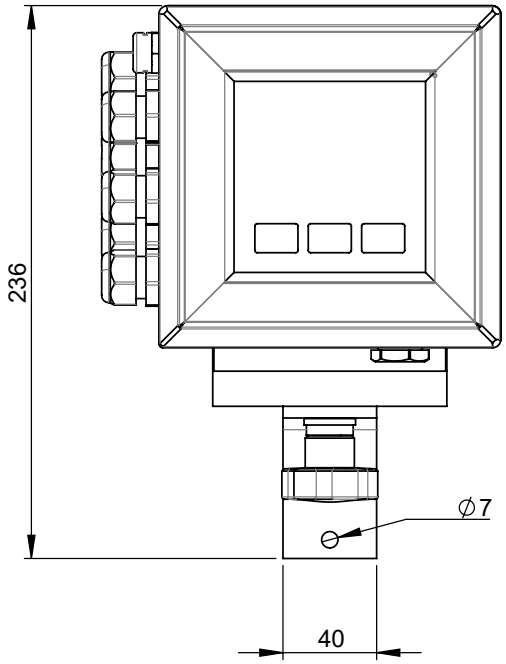


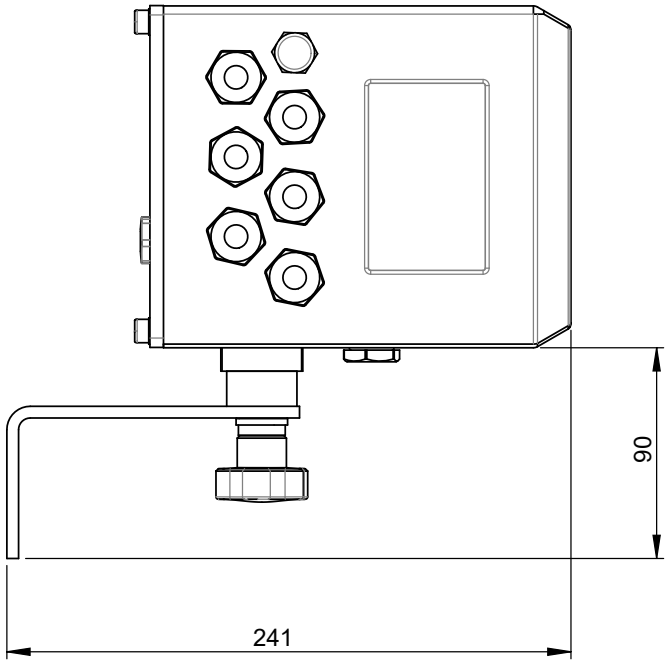


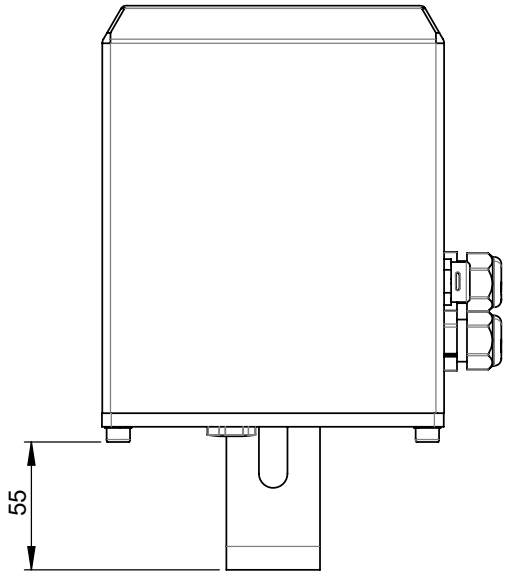


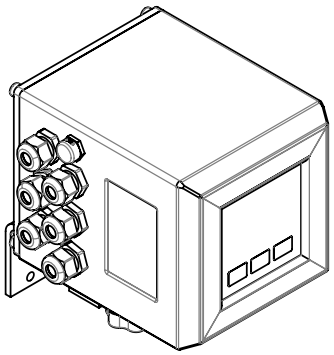


Separate Version



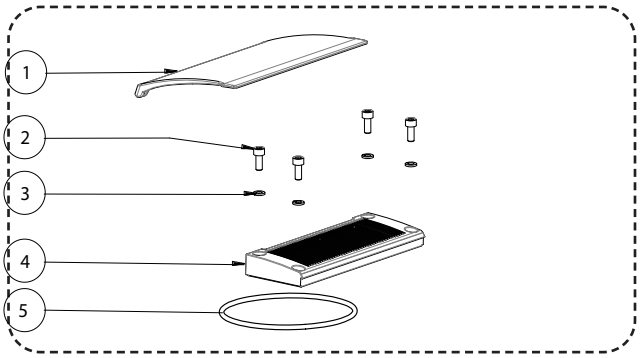




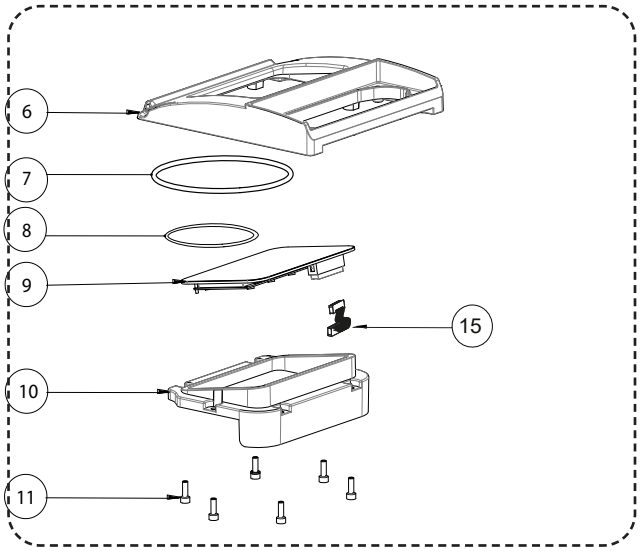


MV110W EXPLODED LAYOUT

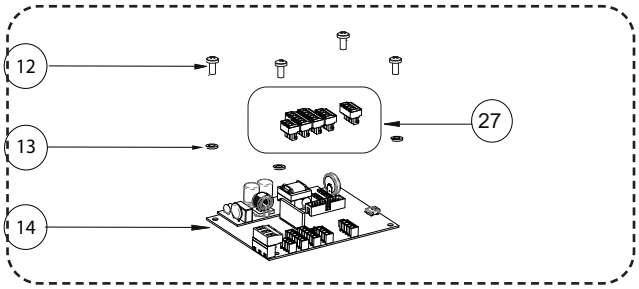
Terminal block cover



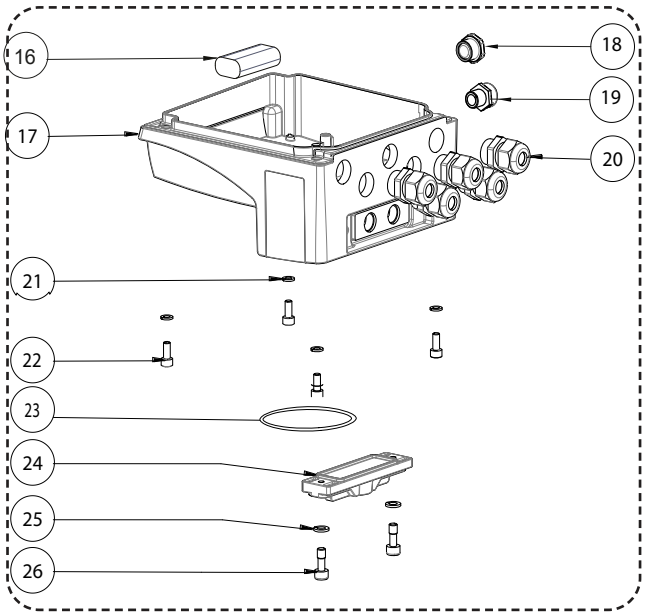
Main housing cover



PCB MV210

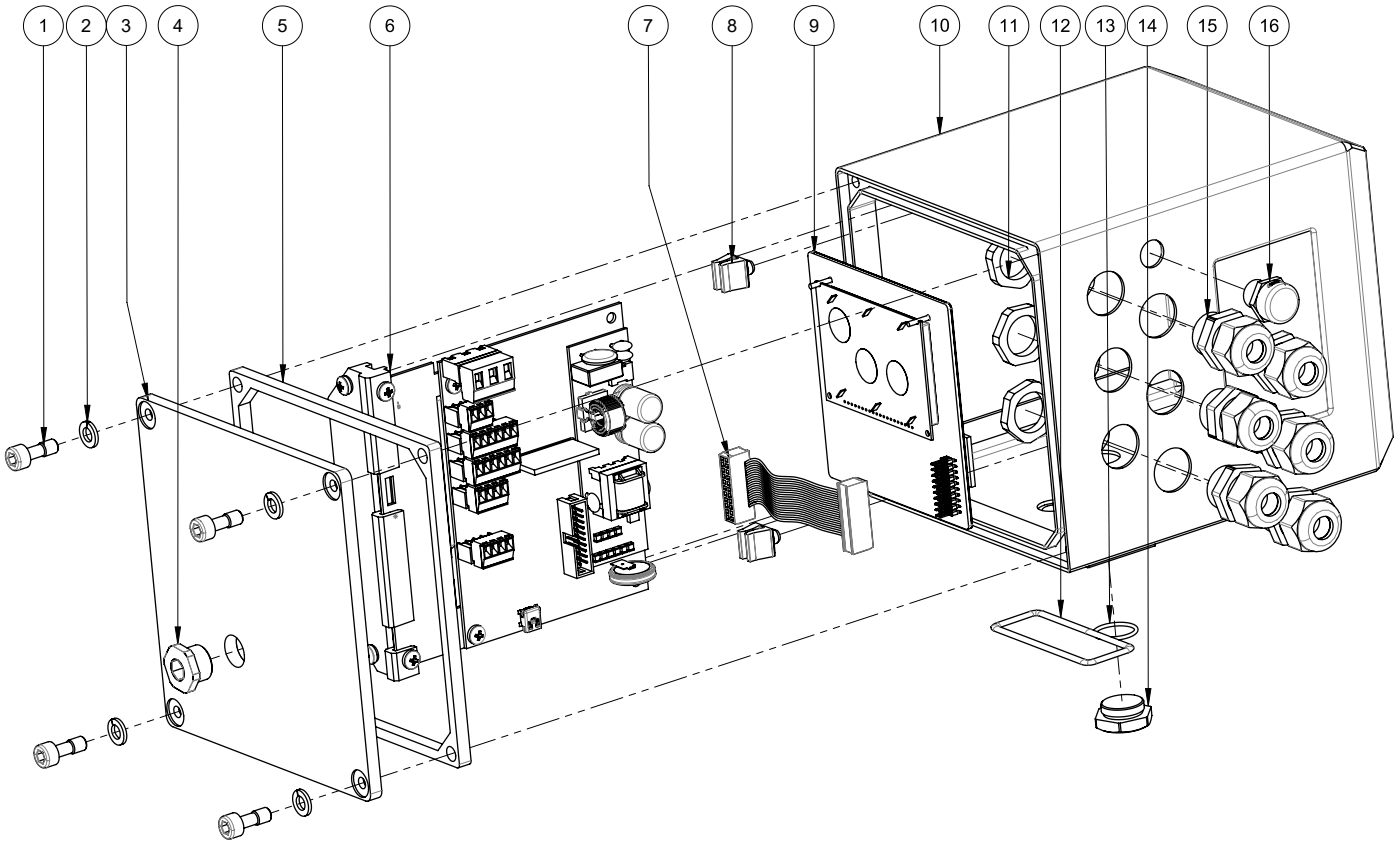


Main housing



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 mm² STRANDED WIRE: 26-16 AWG / 0.129-1.31 mm² TORQUE: 3.0 Lb.In / 0.34 Nm	

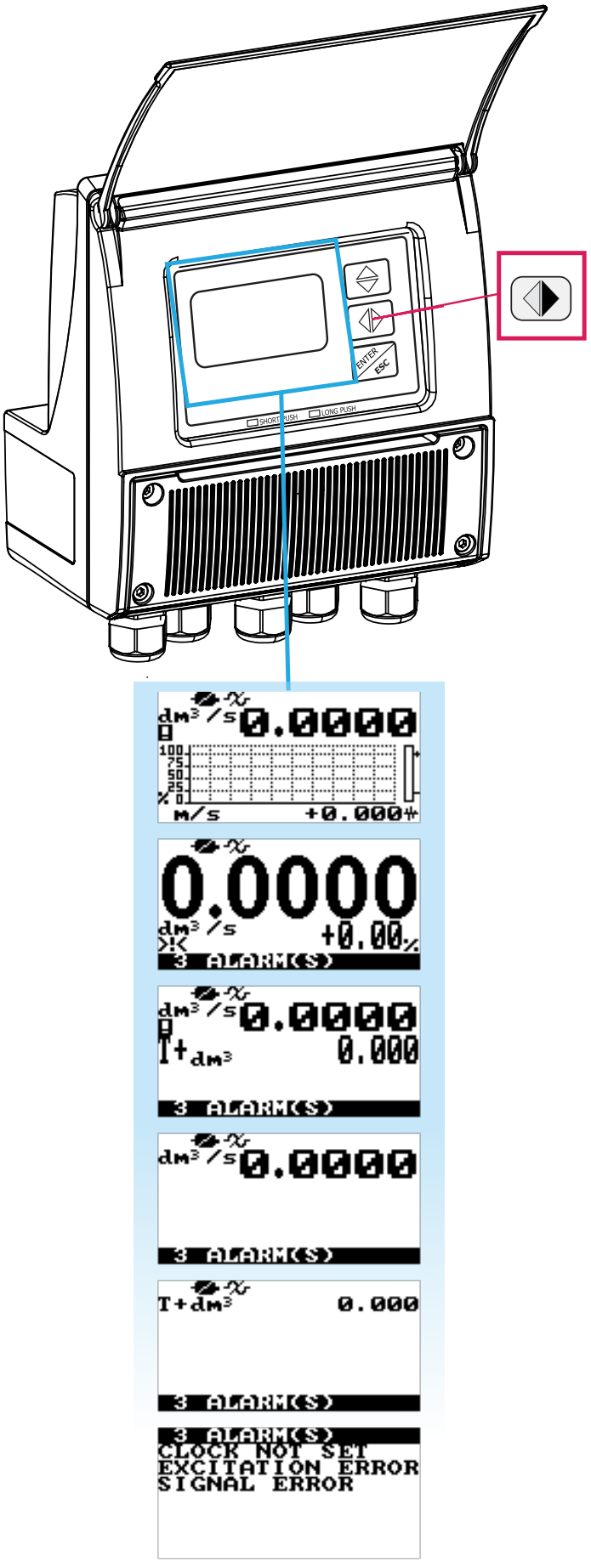
MV110W CONSTRUCTION (STAINLESS STEEL VERSION)



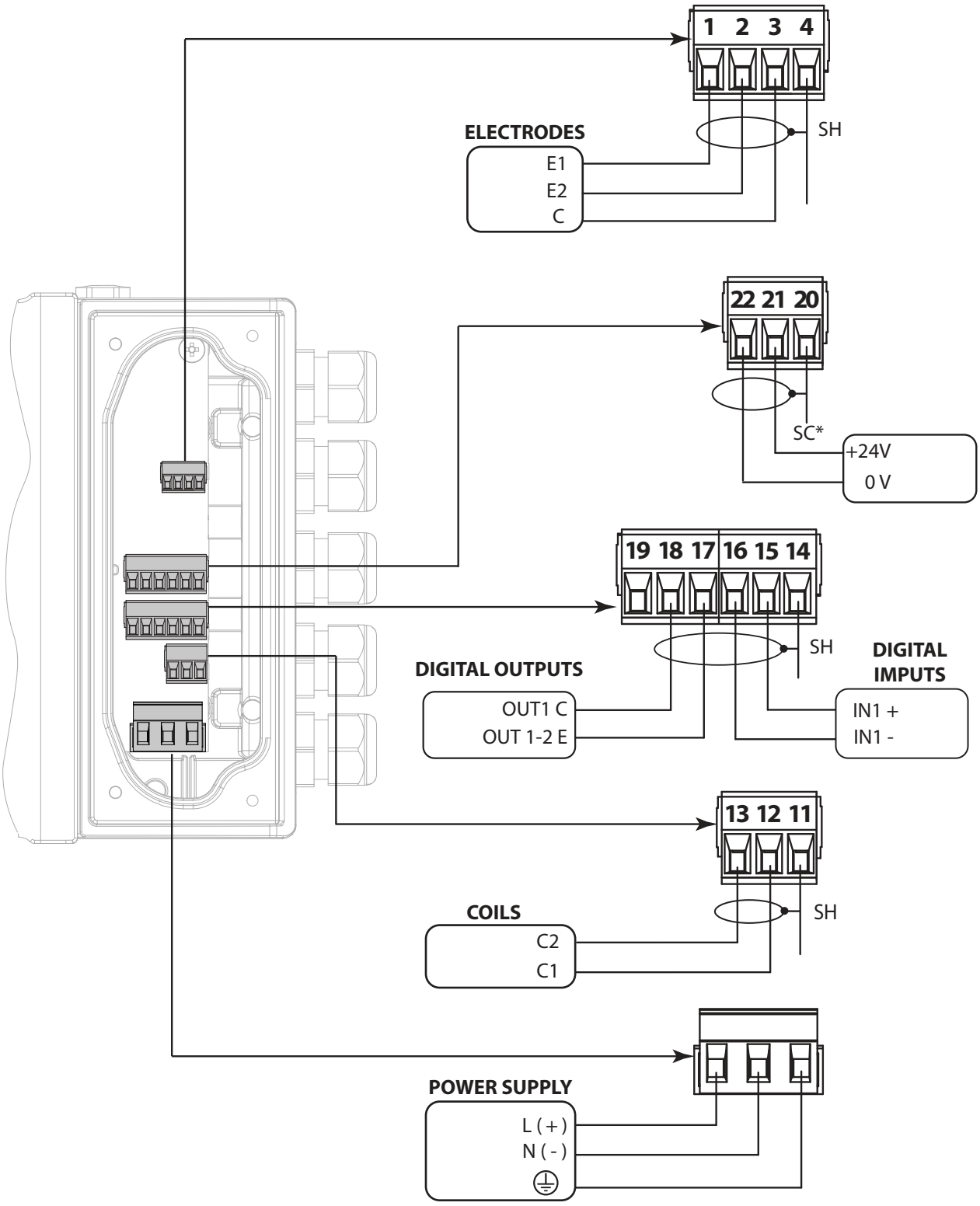
POS.	DESCRIPTION
1	SCREW M6X16
2	GROWER Ø 6
3	POLISHED COVER
4	PG9 CAP IP68
5	GASKET FOR Stainless steel HOUSING
6	BOARD FRAME M3C
7	FLAT CABLE
8	BOARD FIXING CLIPS
9	DISPLAY/BLIND
10	POLISHED Stainless steel HOUSING
11	PG11 NUT
12	FLAT GASKET O-RING 155
13	O-RING ORM 0160-15 Ø16X1.5
14	Stainless steel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

MAIN PAGES VISUALISATION

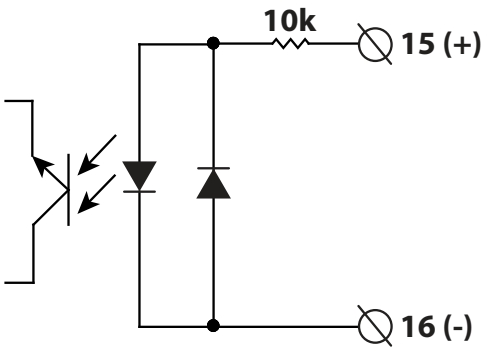
Different visualization possibilities by simply pressing of a key.



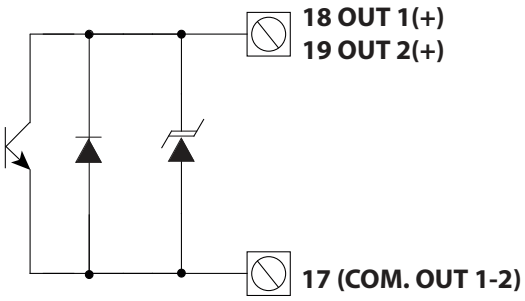
ELECTRICAL CONNECTIONS



DIGITAL INPUT



DIGITAL OUTPUTS



FUNCTIONS MENU

SENSOR

```
MAIN MENU
1-Sensor
2-Units
3-
4- SENSOR
5- S. model =                    0
6- Lining =                UNSPEC.
7- S. type =               FULLBORE
8- u. type =                METRIC
9- Diam                mm    00025.0
10- KA =                   +00.9637
11- KA- =                  -04.4904
12- KZ=                   +0000000
13- KD=                   +0000000
    Ins. position=               0
    KP Dinamic=                OFF
    Ki=                    01.8727
    Kp=                    01.0000
    KC=                    1.00000
    C.curr = mA              025.0
    C.Reg.PB=                  004
    C.Reg.DK=                  008
    S. Freq.= Hz                50
    Preamplif.                 OFF
    E.P Detect=                 ON
    R max= kohm               0500
    El. Cleaning=              OFF
    S. cable=              m    000
    S. err. delay=             010
    Sens. verify=              OFF
    Zero point cal.
    KL                00.00000000
```

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	Sensor excitation current
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-
4- UNITS
5- Diam.                        mm
6- S.cable                       m
7- FR.unit                  METRIC
8- PI1 unit                 METRIC
9- T+ unit                  METRIC
10- T+ unit                      g
11- T+ D.P                       3
12- P+ unit                 METRIC
13- P+ unit                      g
    P+ D.P                       3
    T- unit                 METRIC
    T- unit                      g
    T- D.P                       3
    P- unit                 METRIC
    P- unit                      g
    P- D.P                       3
    Temp.unit                   °C
    Mass units                  ON
    Sg=kg/dm3              1.0000
```

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	Total direct totalizer measure unit type: metric or not metric
2.6	Total direct totalizer measure unit
2.7	Total direct totalizer decimal point position
2.8	Partial direct totalizer measure unit type: metric or not metric
2.9	Partial direct totalizer measure unit
2.10	Partial direct totalizer decimal point position
2.11	Total reverse totalizer measure unit type: metric or not metric
2.12	Total reverse totalizer measure unit
2.13	Total reverse totalizer decimal point position
2.14	Partial reverse totalizer measure unit type: metric or not metric
2.15	Partial reverse totalizer measure unit
2.16	Partial reverse totalizer decimal point position
2.17	Temperature measure unit
2.18	Enable/disable the selection of mass units on full scale set
2.19	Specific gravity coefficient

SCALES

```
MAIN MENU
 1-Sensor
 2-Units
 3-Scales
 4-Measure
 5-
 6-  SCALES
 7-  FS1 g/s          4908.7
 8-  FS2 g/s          4908.7
 9-  Pls1=g           1000.00
10-  Tpls1=ms         0050.0
11-  Pls2=g           1000.00
12-  Tpls2=g          0050.0
13-  Frq1=Hz          1000.00
     Frq2=Hz          1000.00
```

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

MEASURES

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

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-
 8-  ALARMS
 9-  Max+ = dm3/s     OFF
10-  Max- = dm3/s     OFF
11-  Min+= dm3/s      OFF
12-  Min-= dm3/s      OFF
13-  Hysterisis=%     03
     mA v.alarm=%     000
     Hz v.alarm=%     000
```

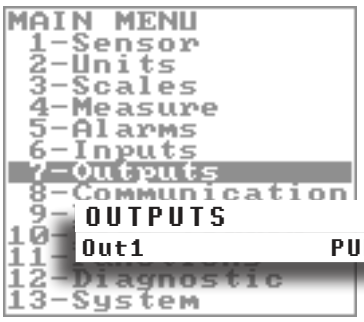
5.1	Maximum value alarm set for direct flow rate
5.2	Maximum value alarm set for reverse flow rate
5.3	Minimum value alarm set for direct flow rate
5.4	Minimum value alarm set for reverse flow rate
5.5	Hysteresis threshold set for the minimum and maximum flow rate alarms
5.6	Current output value in case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

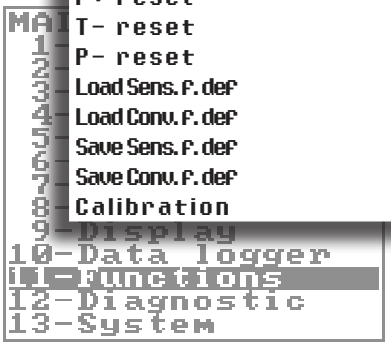


OUTPUTS			
Out1	PULSES+	7.1	Output 1 functions

DISPLAY

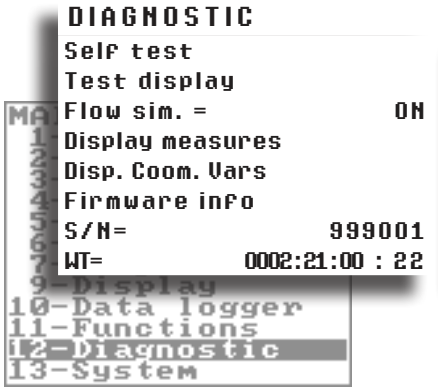
DISPLAY			
Language	EN	9.1	Choice of the language
Contrast	5	9.2	Display contrast
Disp.time=s	020	9.3	Display/keyboard inactivity time
D.rate=Hz	5	9.4	Display updating frequency: 1-2-5-10 Hz
Disp. Fn.	1	9.5	Display function number
Disp.lock	ON	9.6	Display function selection lock
Part. Tot	ON	9.7	Partial totalizer enable
Neg. Tot.	ON	9.8	Negative totalizer enable
Net tot.	ON	9.9	Net totalizer enable
Disp.date	ON	9.10	Time and date display enable
Quick start	ON	9.11	Quick start menu visualization

FUNCTIONS



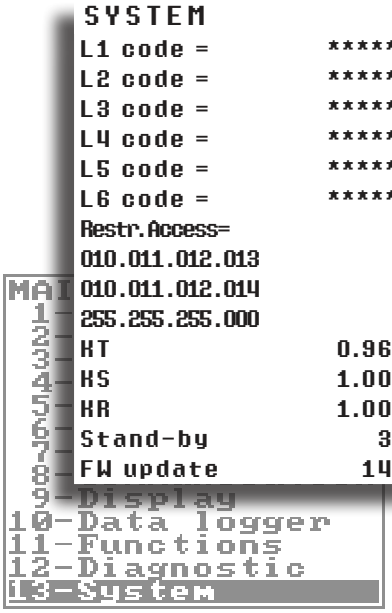
FUNCTIONS		
T+ reset	11.1	Execute immediate reset of total direct totalizer
P+ reset	11.2	Execute immediate reset of partial direct totalizer
T- reset	11.3	Execute immediate reset of total reverse totalizer
P- reset	11.4	Execute immediate reset of partial reverse totalizer
Load Sens.F.def	11.5	Load sensor 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

DIAGNOSTIC



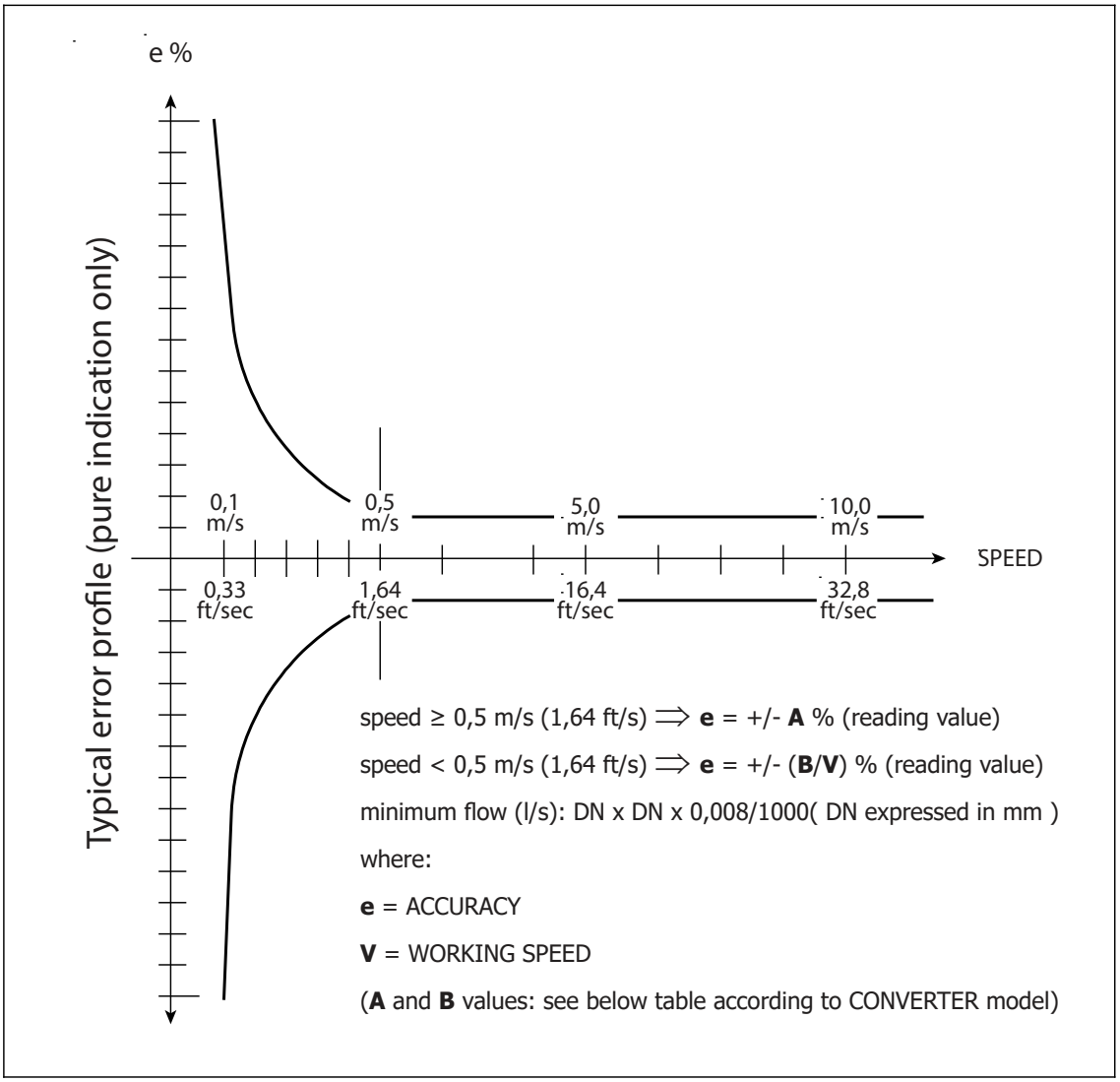
12.1	Self test diagnostic function
12.2	Function tests physical display
12.3	Flow rate simulation enabling
12.4	Display internal measured value
12.5	Display comm. diagnostic values
12.6	Firmware version/revision
12.7	Board serial number
12.8	Total working time

SYSTEM



13.1	Access level 1 code
13.2	Access level 2 code
13.3	Access level 3 code
13.4	Access level 4 code
13.5	Access level 5 code
13.6	Access level 6 code
13.7	Restricted access level
13.8	Device IP network address
13.9	Client IP network address
13.10	Network mask
13.11	Calibration coefficient KT
13.12	Calibration coefficient KF
13.13	Calibration coefficient KR
13.14	Stand-by
13.15	firmware update

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)**
0,8*	0,4**	1,31**	0,8*	0,4**	1,31**	2	1	3,28

* = 0,4 (special)
**= 0,2(m/s) ; 0,66(ft/s) - special

Insertion sensor

See sensor 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 %

MI-001 OIML R49 CLASS1: MV110W

The **MS2500** sensor's diameters listed below, coupled with **MV110W**, are certified according to European Directive 2014/32/EU category MI-001 (OIML R49)

SIZE		Q3	Q2	Q1	R
mm	inch	m3/h			Q3/Q1
25	1	16	0,26	0,16	
32	1 ¼	25	0,40	0,25	
40	1 ½	40	0,64	0,40	
50	2	63	1,01	0,63	
65	2 ½	100	1,6	1,00	
80	3	160	2,6	1,60	
100	4	250	4,0	2,50	
125	5	400	6,4	4,00	
150	6	630	10,1	6,30	
200	8	1000	16	10,00	
250	10	1600***	26	16,0	**100**
300	12	2500**	40	25	
350	14	2500**	40	25	
400	16	4000**	64	40	
450	18	4000**	64	40	
500	20	6300	101	63	
600	24	10000	160	100	
700	28	10000	160	100	
800	32	16000*	256	160	
900	36	16000*	256	160	
1000	42	25000*	400	250	

SIZE		Q3	Q2	Q1	R
mm	inch	m3/h			Q3/Q1
25	1	16	0,10	0,064	
32	1 ¼	25	0,16	0,10	
40	1 ½	40	0,26	0,16	
50	2	63	0,40	0,25	
65	2 ½	100	0,64	0,40	
80	3	160	1,0	0,64	
100	4	250	1,6	1,0	
125	5	400	2,6	1,6	
150	6	630	4,0	2,5	
200	8	1000	6,4	4,0	
250	10	1600***	10	6,4	**250**
300	12	2500**	16	10	
350	14	2500**	16	10	
400	16	4000**	26	16	
450	18	4000**	26	16	
500	20	6300	40	25	
600	24	10000	64	40	
700	28	10000	54	40	
800	32	16000*	102	64	
900	36	16000*	102	64	
1000	42	25000*	160	100	

(*) : Calibration flowrate 14000 m3/h - as for max rig flowrate L8
(**) : Calibration flowrate 1400 m3/h - as for max test rig flowrate L7
(***) Calibration flowrate 1100 m3/h - as for max test rig flowrate L6

MI-001 OIML R49 CLASS 2: MV110W

The **MS2500** sensor's diameters listed below, coupled with **MV110W** comply with the European directive:
DIRECTIVE 2014/32/EU (MID) ANNEX III (MI-001) AND 2015/13/EU- OIML R49

SIZE		Q3	Q2	Q1	R
mm	inch	m3/h			Q3/Q1
25	1	16	0,16	0,10	
32	1 ¼	25	0,25	0,16	
40	1 ½	40	0,40	0,25	
50	2	63	0,63	0,39	
65	2 ½	100	1,0	0,63	
80	3	160	1,6	1,0	
100	4	250	2,5	1,6	
125	5	400	4,0	2,5	
150	6	630	6,3	3,9	
200	8	1000	10	6,3	
250	10	1600***	16	10	160
300	12	2500**	25	15,625	
350	14	2500**	25	15,625	
400	16	4000**	40	25	
450	18	4000**	40	25	
500	20	6300	63	39,375	
600	24	10000	100	62,5	
700	28	10000	100	62,5	
800	32	16000*	160	100	
900	36	16000*	160	100	
1000	42	25000*	250	156,25	

SIZE		Q3	Q2	Q1	R
mm	inch	m3/h			Q3/Q1
25	1	16	0,10	0,06	
32	1 ¼	25	0,16	0,10	
40	1 ½	40	0,26	0,16	
50	2	63	0,40	0,25	
65	2 ½	100	0,64	0,40	
80	3	160	1,0	0,64	
100	4	250	1,6	1,0	
125	5	400	2,6	1,6	
150	6	630	4,0	2,5	
200	8	1000	6,4	4,0	
250	10	1600***	10	6,4	250
300	12	2500**	16	10	
350	14	2500**	16	10	
400	16	4000**	26	16	
450	18	4000**	26	16	
500	20	6300	40	25	
600	24	10000	64	40	
700	28	10000	54	40	
800	32	16000*	102	64	
900	36	16000*	102	64	
1000	42	25000*	160	100	

(*) : Calibration flowrate 14000 m3/h - as for max rig flowrate L8

(**) : Calibration flowrate 1400 m3/h - as for max test rig flowrate L7

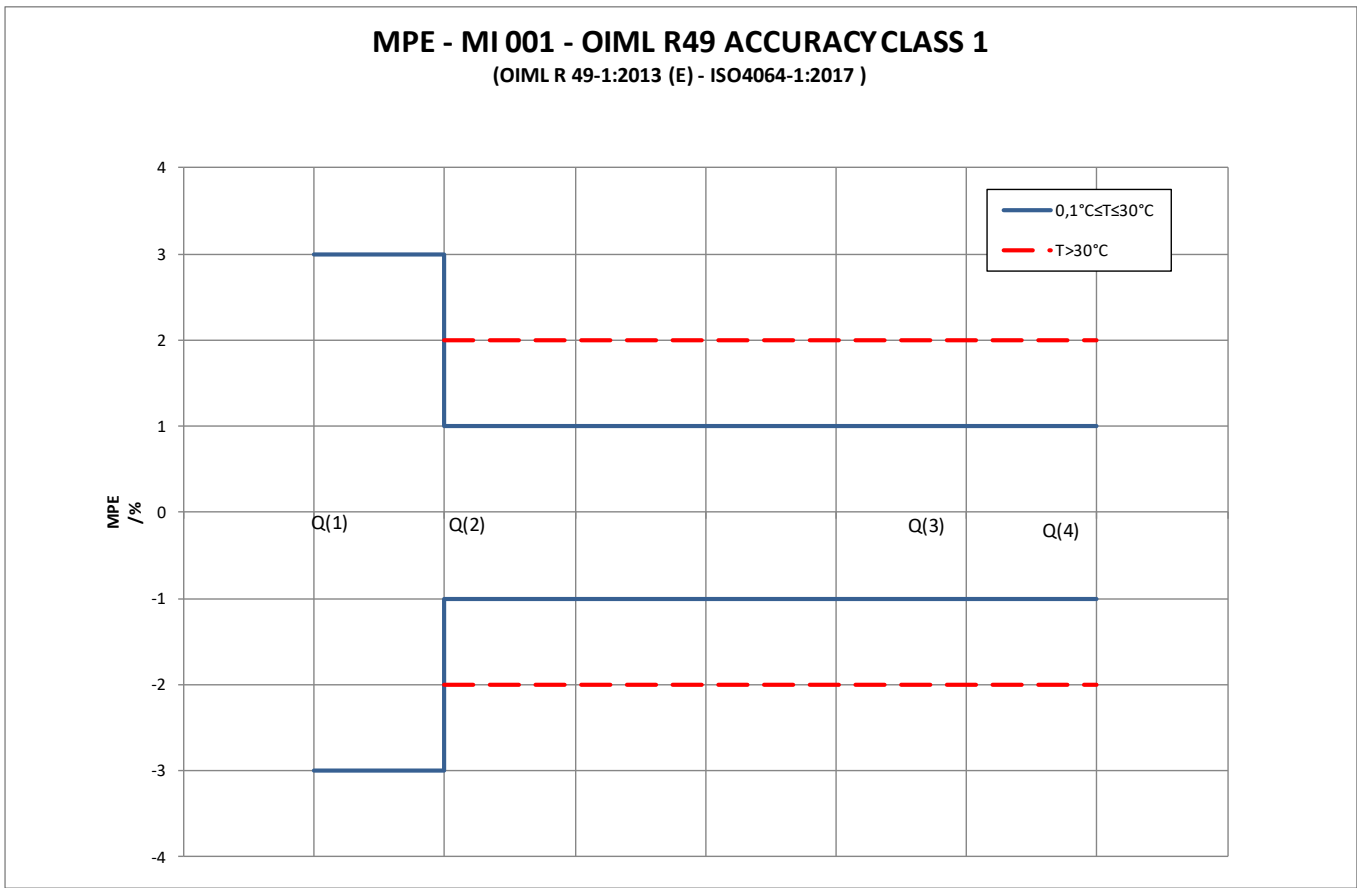
(***) Calibration flowrate 1100 m3/h - as for max test rig flowrate L6

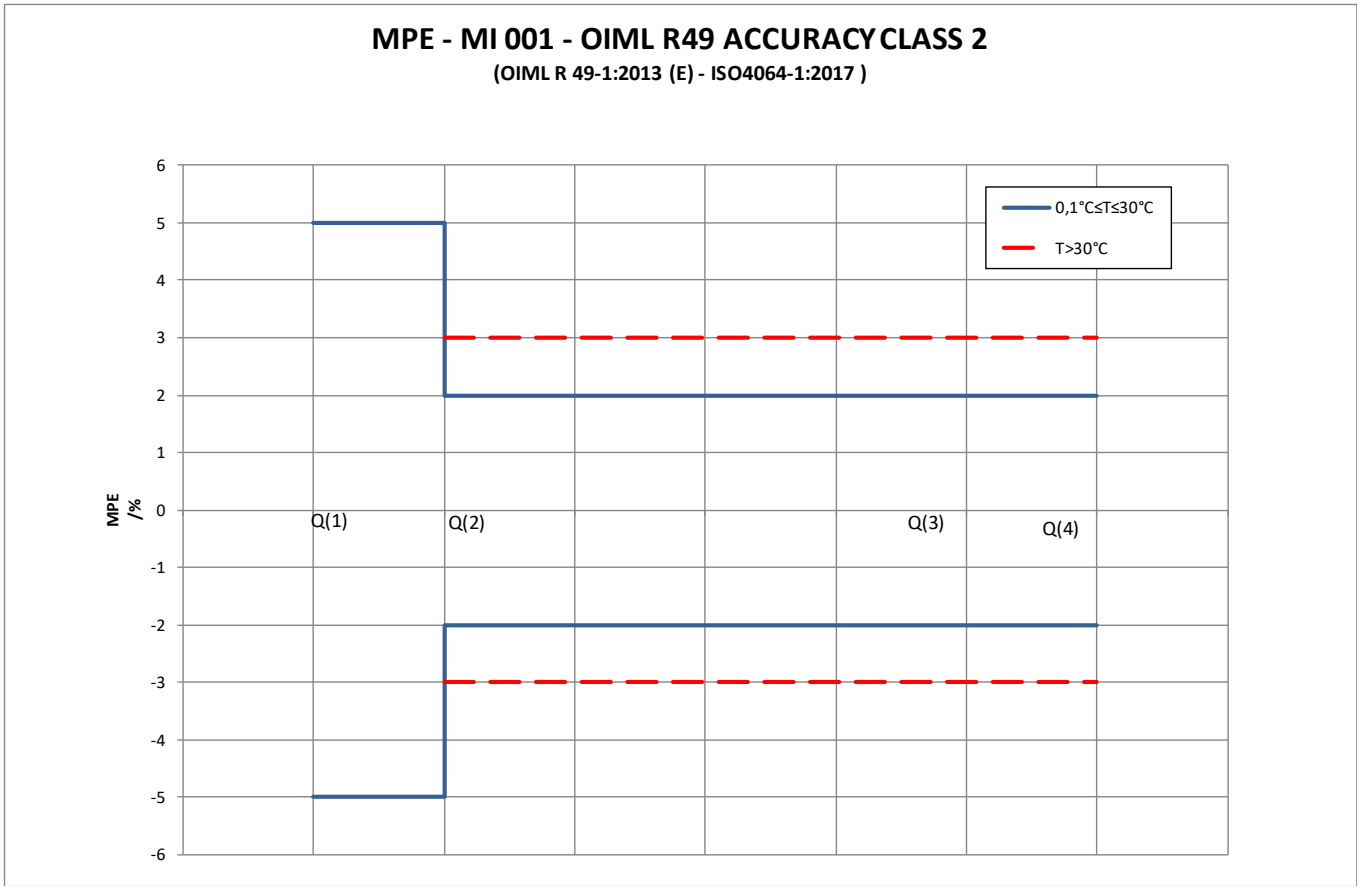
SIZE		Q3	Q2	Q1	R
mm	inch	m3/h			Q3/Q1
25	1	16	0,06	0,04	
32	1 ¼	25	0,10	0,06	
40	1 ½	40	0,16	0,10	
50	2	63	0,25	0,16	
65	2 ½	100	0,40	0,25	
80	3	160	0,64	0,40	
100	4	250	1,0	0,63	
125	5	400	1,6	1,0	
150	6	630	2,5	1,6	
200	8	1000	4,0	2,5	
250	10	1600***	6,4	4,0	**400**
300	12	2500**	10	6,3	
350	14	2500**	10	6,3	
400	16	4000**	16	10	
450	18	4000**	16	10	
500	20	6300	25	16	
600	24	10000	40	25	
700	28	10000	40	25	
800	32	16000*	64	40	
900	36	16000*	64	40	
1000	42	25000*	100	63	

(*) : Calibration flowrate 14000 m3/h - as for max rig flowrate L8

(**) : Calibration flowrate 1400 m3/h - as for max test rig flowrate L7

(***) Calibration flowrate 1100 m3/h - as for max test rig flowrate L6





MI-004 OIML R75 CLASS1: MV110W

The **MS2500** sensor's diameters listed below, coupled with **MV110W** comply with the European directive:
DIRECTIVE 2014/32/EU (MID) ANNEX VI (MI-004) - OIML R75

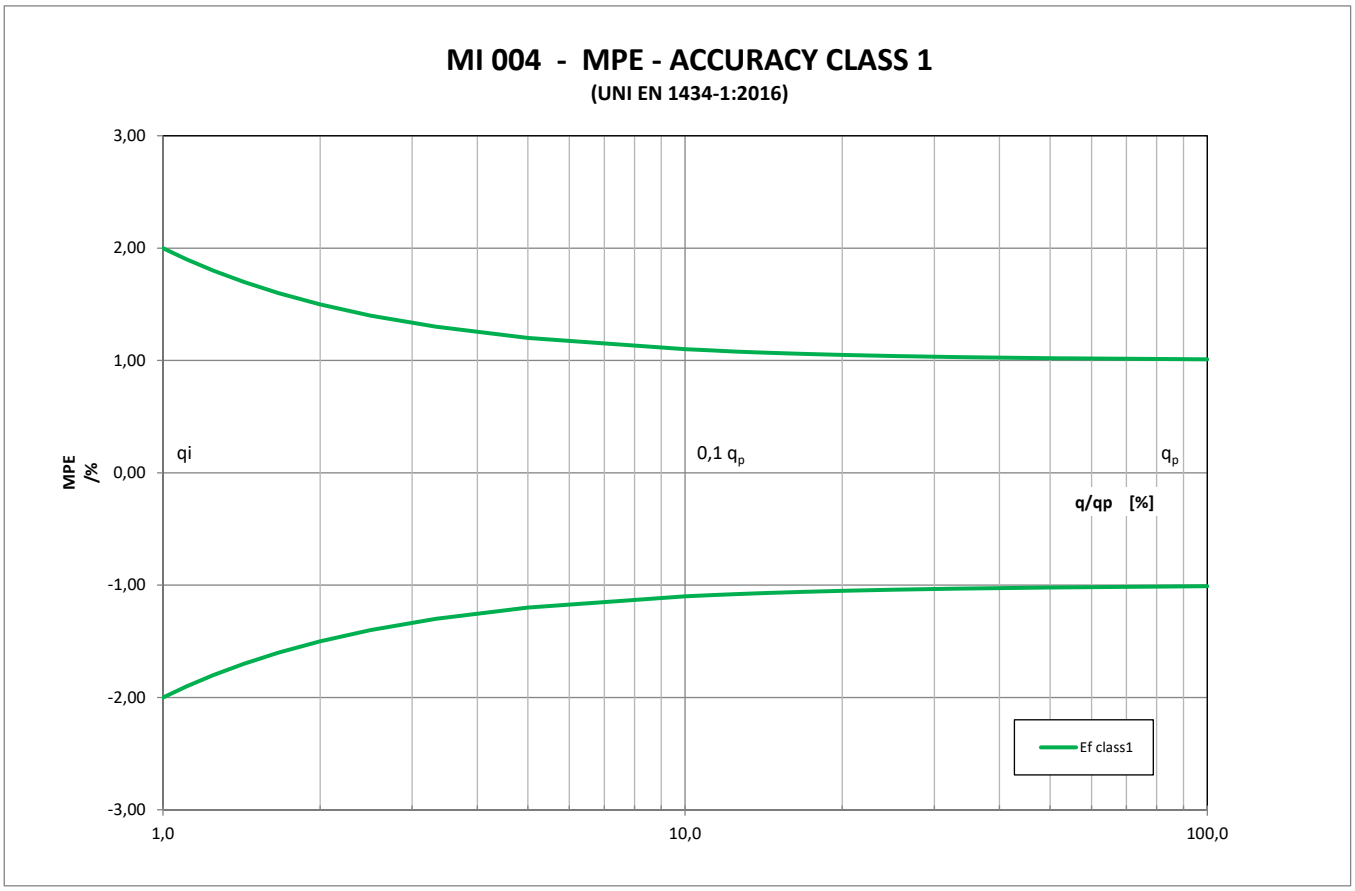
SIZE		q_p	q_s	0,1 q_p	q_i	MC
mm	inch	m3/h				q_p/q_i
25	1	16	16	1,6	0,16	100
32	1 ¼	25	25	2,5	0,25	
40	1 ½	40	40	4	0,40	
50	2	63	63	6,3	0,63	
65	2 ½	100	100	10	1,00	
80	3	160	160	16	1,60	
100	4	250	250	25	2,50	
125	5	400	400	40	4,0	
150	6	630	630	63	6,3	
200	8	1000	1000	100	10	
250	10	1600*	1600	160	20,00	80
300	12	2500*	2500	250	31,25	
350	14	2500*	2500	250	31,25	
400	16	4000*	4000	400	50,00	

SIZE		q_p	q_s	0,1 q_p	q_i	MC
mm	inch	m3/h				q_p/q_i
25	1	10	16	1	0,2	50
32	1 ¼	16	25	1,6	0,32	
40	1 ½	25	40	2,5	0,5	
50	2	40	63	4	0,8	
65	2 ½	63	100	6,3	1,26	
80	3	100	160	10	2	
100	4	160	250	16	3,2	
125	5	250	400	25	5	
150	6	400	630	40	8	
200	8	630	1000	63	12,6	
250	10	1000	1600	100	20	
300	12	1600*	2500	160	32	
350	14	2500*	2500	250	50	
400	16	2500*	4000	250	50	

SIZE		q_p	q_s	0,1 q_p	q_i	MC
mm	inch	m3/h				q_p/q_i
25	1	10	16	1	0,4	25
32	1 ¼	16	25	1,6	0,64	
40	1 ½	25	40	2,5	1	
50	2	40	63	4	1,6	
65	2 ½	63	100	6,3	2,52	
80	3	100	160	10	4	
100	4	160	250	16	6,4	
125	5	250	400	25	10	
150	6	400	630	40	16	
200	8	630	1000	63	25,2	
250	10	1000	1600	100	40	
300	12	1600*	2500	160	64	
350	14	2500*	2500	250	100	
400	16	2500*	4000	250	100	

SIZE		q_p	q_s	0,1 q_p	q_i	MC
mm	inch	m3/h				q_p/q_i
25	1	10	16	1	1	10
32	1 ¼	16	25	1,6	1,6	
40	1 ½	25	40	2,5	2,5	
50	2	40	63	4	4	
65	2 ½	63	100	6,3	6,3	
80	3	100	160	10	10	
100	4	160	250	16	16	
125	5	250	400	25	25	
150	6	400	630	40	40	
200	8	630	1000	63	63	
250	10	1000	1600	100	100	
300	12	1600*	2500	160	160	
350	14	2500*	2500	250	250	
400	16	2500*	4000	250	250	

(*) : Flow rates reduced to the limits of the system



(*) : Reduced flowrates to the test rig limits

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° 1 IP 68 MIL connectors for cable 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° 1 IP 68 MIL connectors for cable 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 C014)
	C	Compact version with display visible from the top
	D	Separate version (CABLE C014) for wall monting, complete with mounting accessories in AISI 304
Power supply		
1	1	Power supply : 100 ... 240 VAC 44/66 Hz (NOT FOR MI001)
	2	Power supply : 24 … 36 VAC/VDC 0...44/66 Hz (NOT FOR MI001)
	3	Power supply : 12…48 VDC (NOT FOR MI001)
	4	Power supply : 100 ... 240 VAC 44/66 Hz + 1 Rechargeable back-up Battery (the use of battery supports only the measure UP TO 30 days; all the outputs are set to OFF) (NOT FOR MI001)
	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 30 days; all the outputs are set to OFF) (NOT FOR MI001)
	6	Power supply : 12…48 VDC + 1 Rechargeable back-up Battery (the use of battery supports only the measure UP TO 30 days; all the outputs are set to OFF) (NOT FOR MI001)
	7	Power supply : 100 ... 240 VAC 44/66 Hz + n° 1 SETTINGS FOR Rechargeable back-up Battery (the Rechargeable Battery is NOT included) (NOT FOR MI001)
	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) (NOT FOR MI001)
	9	Power supply : 12…48 VDC + n° 1 SETTINGS FOR Rechargeable back-up Battery (the Rechargeable Battery is NOT included) (NOT FOR MI001)
	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) Suitable for MI001
	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) Suitable for MI001
	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) Suitable for MI001
Analogue output		
A	A	Without Analogue output
Digital Input/Output		
0	0	With Digital Input only
	1	With n° 1 PROGRAMMABLE Digital Output/n°1 Digital Input (mandatory for MI004)
Communication Gateway		
A	A	Without Gateway
Protocols		
0	0	Without Protocol

Accuracy		
A	A	Standard accuracy 0,8 %
	B	Special accuracy 0,4 %
	C	Special accuracy (to be defined)
Data Logger		
0	0	Without Data Logger
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)
MID Approval		
0	0	NONE
	1	MI-001/OIMLR49-CLASS 1 (Pover Supply Code shall be a or b or c)
	2	MI-001/OIMLR49-CLASS 2 (Pover Supply Code shall be a or b or c)
	3	MI-004-CLASS 1

Complete code example for order → **MV110W-A0A1A0A0A0A0**

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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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