APATOR

Gas meters

Products catalogue

gas
metering

Aluminium case 110

000

100 / 110 / 130 mm

152.4 mm (6")

160 mm

220 mm

250 mm

000

130 mm

152.4 mm (6")

220 mm

250 mm

000

130 mm

220 mm

250 mm

280 / 335 / 400 mm

152.4 / 250 / 280 / 300 mm

Residential and commercial gas meters

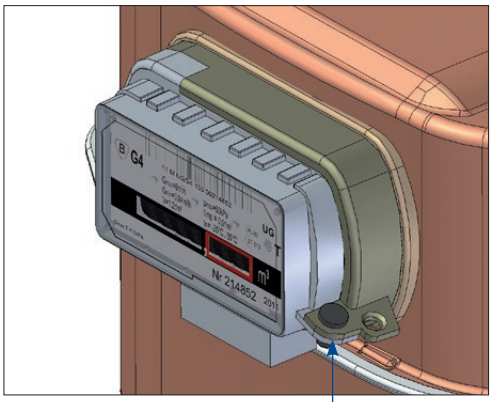
with mechanical index

Type		UG G1.6	UG G2.5	UG G4	UG G4	2UG G6	UG G10	UG G16	UG G25
Maximum flow rate	m^3/h	2.5	4	6	6	10	16	25	40
Minimum flow rate	m^3/h	0.016	0.016 / 0.025	0.016 / 0.025 / 0.04	0.04	0.06	0.1	0.16	0.25
Nominal flow rate	m^3/h	1.6	2.5	4	4	6	10	16	25
Cyclic volume	dm^3	1.2	1.2	1.2	2.2	2.2	5.6	5.6	11.2
Max working pressure	bar	0.5 / 2*	0.5 / 2*	0.5 / 2*	0.5	0.5	0.5	0.5	0.5
Index max indication	m^3/h	99999.999	99999.999	99999.999	99999.999	99999.999	999999.99	999999.99	999999.99
Starting flow rate	dm^3/h	3	5	5	5	8	13	13	20
Fireproof up to 650 ºC according to EN 1359	bar	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Thread		Threaded connections may be manufactured acc. to any international norm (ISO; ANSI; British Standard etc.....)							

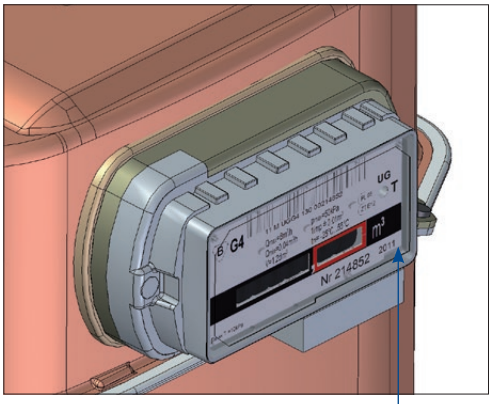
*) Aluminium case

Innovative index

with innovative protection against fraud



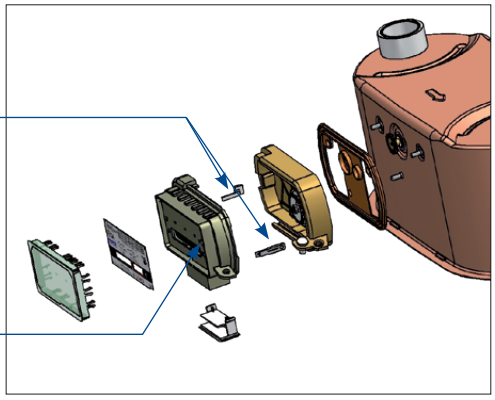
PLACE FOR APPLYING
LEAD SEAL (OPTIONAL)



NEW GENERATION SOLUTION FOR SEAL
Stamp from inside

INDEX BLOCKADE
Applying (or not applying) decides,
if the index is disassemblable
or non-disassemblable

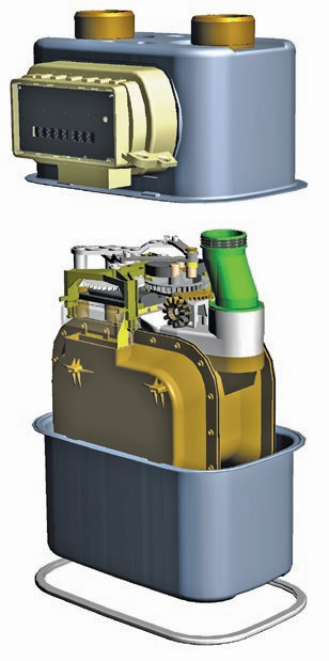
BLOCKADE OF COUNTING
REVERSE FLOW

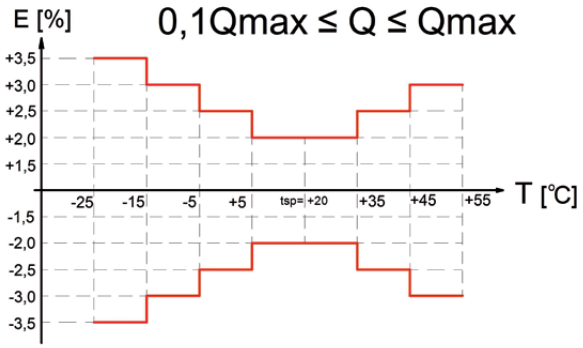


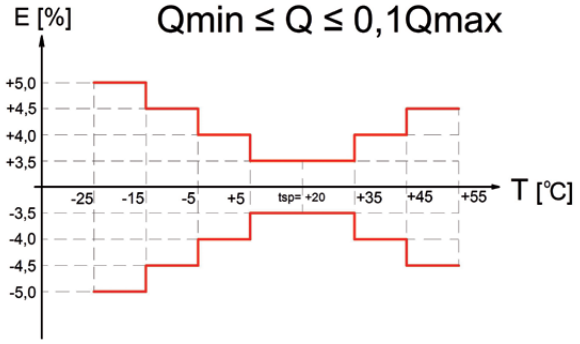
gas metering

MECHANICAL TEMPERATURE COMPENSATION

Gas meters UG G1.6 up to UG G4 can be equipped with mechanical temperature compensation (bimetal).







Gas is a substance subject to thermal expansion, which means that depending on temperature, it increases or decreases its volume. Consequently, what changes is the measuring accuracy of a gas meter with relation to its energy content. In other words when gas with some energy content, volume and temperature is already in pipes and is heated, then the index unit is to show a bigger consumption after flow, whereas when gas is cooled, the gas meter will indicate a lower consumption. It is a very important issue as a temperature change of 3°C corresponds to a volume change of approximately 1%. Such considerable temperature changes are likely to occur especially to meters placed on the outside of a building. Consequently the meter works at various temperatures depending on the season. A gas meter with temperature compensation provides a solution to this problem as it uses and undergoes thermal expansion as well. A temperature compensation mechanism installed in the measuring unit is adjusted in such a way so that it changes the cyclic volume of the measuring mechanism exactly like gas undergoing expansion due to temperature changes. Elements responsible for compensation installed in the meter allow a radial shift of the diaphragm, which results in moving the curve of typical error up or down in relation to the zero line.

Thus the gas meter converts the measured value of gas volume into its value at fiducial temperature – irrespective of measuring temperature.

UG SERIES V=1.2 dm³

UG 1.2 dm³ series gas meters are designed for measurement of gas supplied to apartments where consumption of gas does not exceed 6 m³/h of air density of 1.2 kg/m³.

THE GAS METERS CAN BE USED FOR MEASUREMENT OF:

- Natural gas
- City gas
- Propane-butane gas

Gas meter is equipped with pulse magnet as standard. Pulse transmitter can be added at any time (1 imp = 0.01 m³).

TECHNICAL DATA

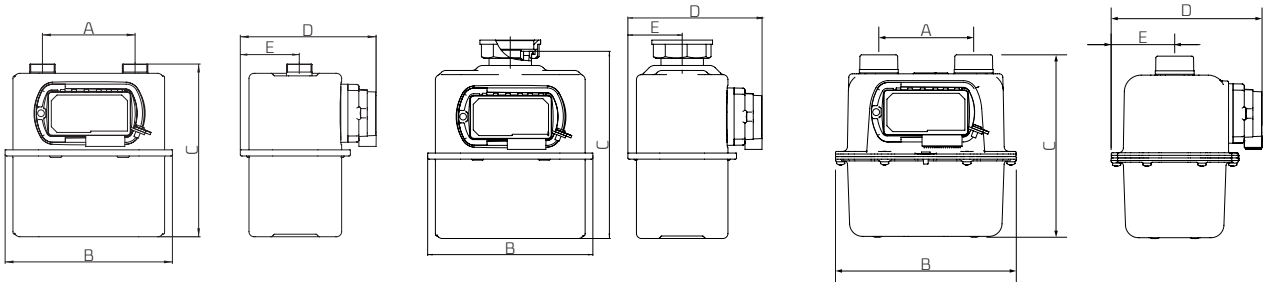
		UG G1.6	UG G2.5	UG G4
Maximum flow rate	m³/h	2.5	4	6
Minimum flow rate	m³/h	0.016	0.016 / 0.025	0.016 / 0.025 / 0.040
Nominal flow rate	m³/h	1.6	2.5	4
Cyclic volume	dm³	1.2	1.2	1.2
Max working pressure	bar	0.5 / 2*	0.5 / 2*	0.5 / 2*
Index max indication	m³/h	99999.999	99999.999	99999.999
Starting flow rate	dm³/h	3	5	5
Fireproof up to 650 ºC according to EN 1359	bar	0.1	0.1	0.1

*) Aluminium case

ADDITIONAL INFORMATION ON GAS METERS WITH MECHANICAL TEMPERATURE COMPENSATION

	UG T
Cyclic volume	1.15 dm³
Allowable indication errors limits during initial verification:	
- Qmin to 0.1 Qmax	± 3.5%
- 0.1max to Qmax	± 2.0%
Temperature range	-25 ÷ 55°C
UG T - TC correction range:	
- standard	-10 ÷ 40°C
- optional	-25 ÷ 40°C

DIMENSIONS

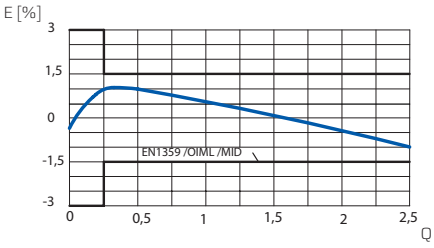


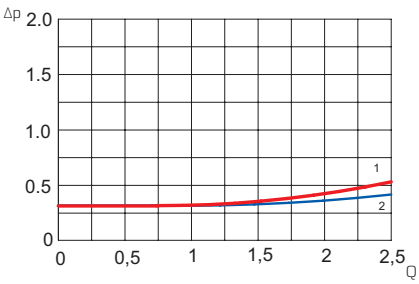
A [mm]	B [mm]		C [mm]		D [mm]		E [mm]		Weight [kg]
	Steel case	Alu case*	Steel case	Alu case*	Steel case	Alu case*	Steel case	Alu case*	
000	200	–	227	–	161	–	65	–	~ 1.7
100	200	210	205 to 211	210	161	175	70	74	~ 1.7
110	200	210	205 to 211	210	161	175	70	74	~ 1.7
130	200	–	205 to 211	–	161	–	70	–	~ 2.0
152.4	235	–	268	–	177	–	73	–	~ 3.0
160	235	–	240	–	177	–	73	–	~ 3.0
220	283	–	222	–	176	–	72	–	~ 2.0
250	325	–	222	–	177	–	72	–	~ 3.2

*) Aluminium case

CURVES OF TYPICAL ERROR AND PRESSURE LOSS

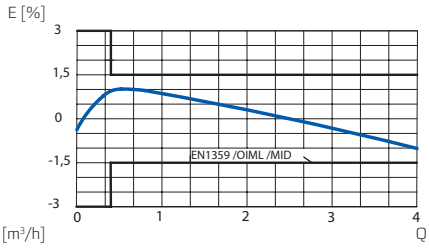
UG G1.6

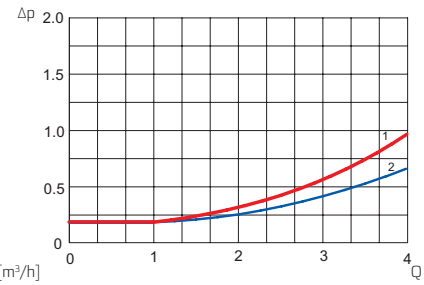




1) Air
2) Natural gas

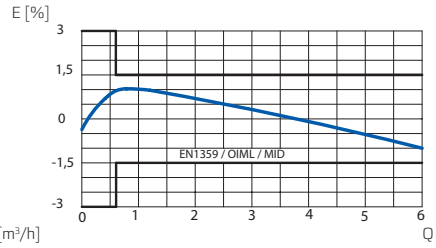
UG G2.5

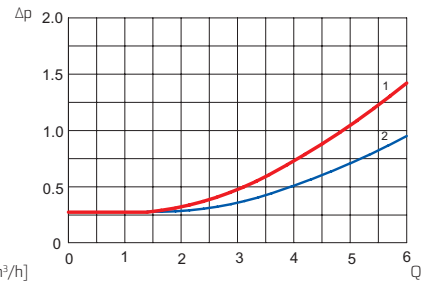




1) Air
2) Natural gas

UG G4





1) Air
2) Natural gas

UG SERIES V=2.2 dm³

UG 2.2 dm³ series gas meters are designed for measurement of gas supplied to apartments where consumption of gas does not exceed 10 m³/h of air density of 1.2 kg/m³.

THE GAS METERS CAN BE USED FOR MEASUREMENT OF:

- Natural gas
- City gas
- Propane-butane gas

Gas meter is equipped with pulse magnet as standard. Pulse transmitter can be added at any time (1 imp = 0.01 m³).

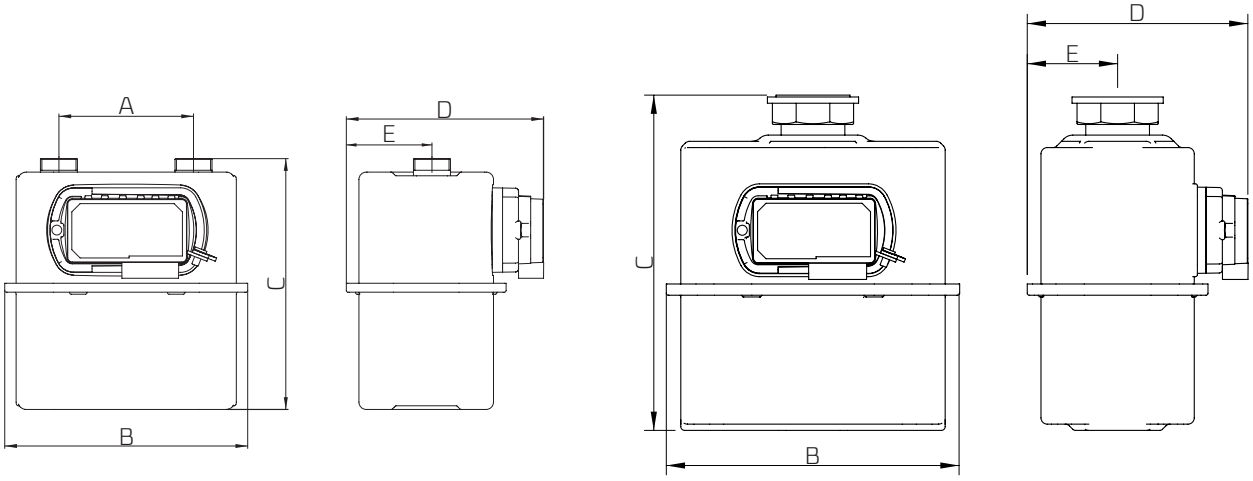
TECHNICAL DATA

		UG G4	2UG G6
Maximum flow rate	m³/h	6	10
Minimum flow rate	m³/h	0.040	0.060
Nominal flow rate	m³/h	4	6
Cyclic volume	dm³	2.2	2.2
Max working pressure	bar	0.5	0.5
Index max indication	m³/h	99999.999	99999.999
Starting flow rate	dm³/h	5	5
Fireproof up to 650 ºC according to EN 1359	bar	0.1	0.1

ADDITIONAL INFORMATION ON GAS METERS WITH MECHANICAL TEMPERATURE COMPENSATION

	UG T
Cyclic volume	1.9 dm³
Allowable indication errors limits during initial verification:	
- Qmin to 0.1 Qmax	± 3.5%
- 0.1max to Qmax	± 2.0%
Temperature range	-25 ÷ 55°C
UG T - TC correction range:	
- standard	-10 ÷ 40°C
- optional	-25 ÷ 40°C

DIMENSIONS

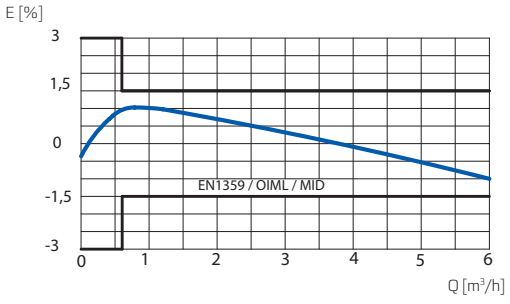


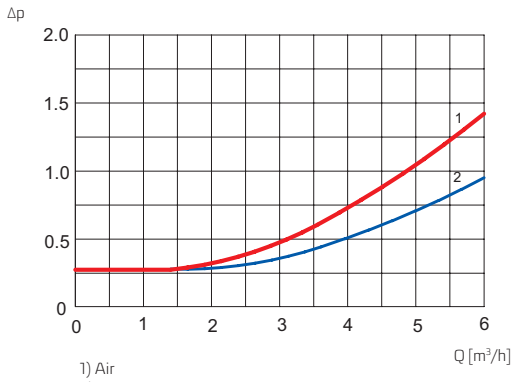
A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	Weight [kg]
	Steel case	Steel case	Steel case	Steel case	
000	235	270	177	73	3.0
130	235	240	177	73	2.9
152.4	235	262	177	73	3.1
160	235	240	177	77	2.9
220	283	222	176	72	3.2
250	325	222	177	73	3.2

*) Aluminium case

CURVES OF TYPICAL ERROR AND PRESSURE LOSS

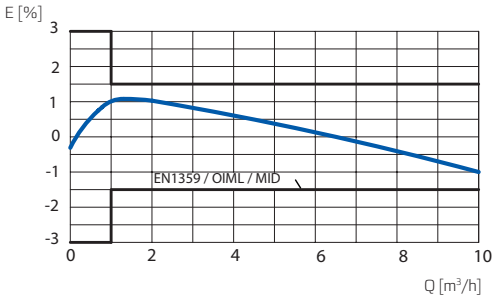
UG G4

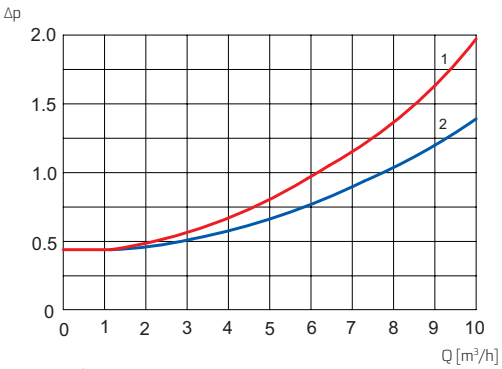




1) Air
2) Natural gas

2UG G6





1) Air
2) Natural gas

UG SERIES V=5.6 dm³

UG 5.6 dm³ series gas meters are designed for measurement of gas supplied to commercial consumers where maximum consumption of gas does not exceed 25 m³/h of air density of 1.2 kg/m³.

THE GAS METERS CAN BE USED FOR MEASUREMENT OF:

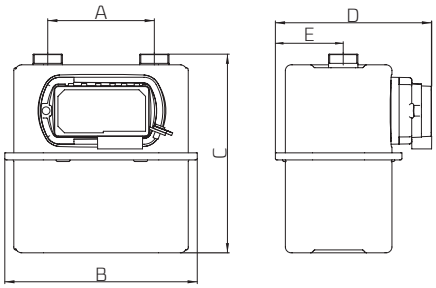
- Natural gas
- City gas
- Propane-butane gas

Gas meter is equipped with pulse magnet as standard. Pulse transmitter can be added at any time (1 imp = 0.1 m³).

TECHNICAL DATA

		UG G10	UG G16
Maximum flow rate	m³/h	16	25
Minimum flow rate	m³/h	0.1	0.16
Nominal flow rate	m³/h	10	16
Cyclic volume	dm³	5.6	5.6
Max working pressure	bar	0.5	0.5
Index max indication	m³/h	999999.99	999999.99
Starting flow rate	dm³/h	13	13
Fireproof up to 650 ºC according to EN 1359	bar	0.1	0.1

DIMENSIONS

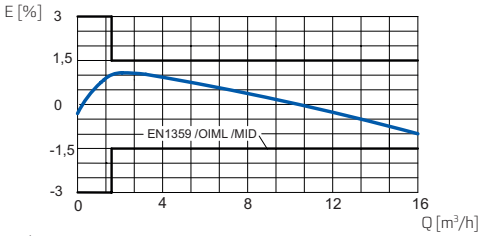


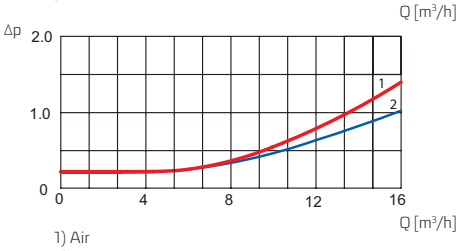
A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	Weight [kg]
152.4	393	359	214	91	6.8
250	393	353 / 365*	214	91	6.6 / 7.4
280	393	345	214	91	6.8
300	393	345	214	91	6.8

*) BS746 connections

CURVES OF TYPICAL ERROR AND PRESSURE LOSS

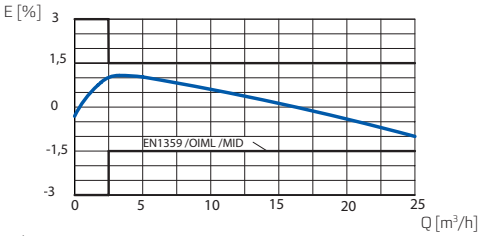
UG G10

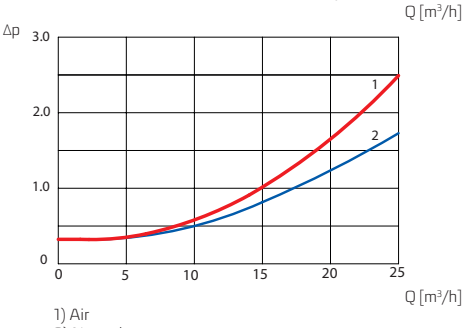




1) Air
2) Natural gas

UG G16





1) Air
2) Natural gas

gas metering

UG G25 V=11.2 dm³

UG 11.2 dm³ gas meter is designed for measurement of gas supplied to commercial consumers where maximum consumption of gas does not exceed 40 m³/h of air density of 1.2 kg/m³.

THE GAS METERS CAN BE USED FOR MEASUREMENT OF:

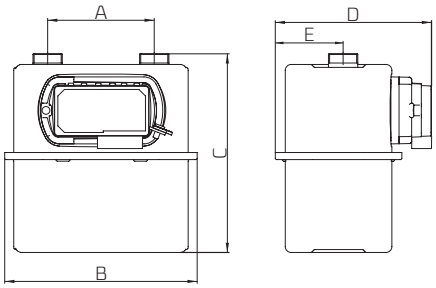
- Natural gas
- City gas
- Propane-butane gas

Gas meter is equipped with pulse magnet as standard. Pulse transmitter can be added at any time (1 imp = 0.1 m³).

TECHNICAL DATA

		UG G25
Maximum flow rate	m³/h	40
Minimum flow rate	m³/h	0.25
Nominal flow rate	m³/h	25
Cyclic volume	dm³	11.2
Max working pressure	bar	0.5
Index max indication	m³/h	999999.99
Starting flow rate	dm³/h	20
Fireproof up to 650 ºC according to EN 1359	bar	0.1

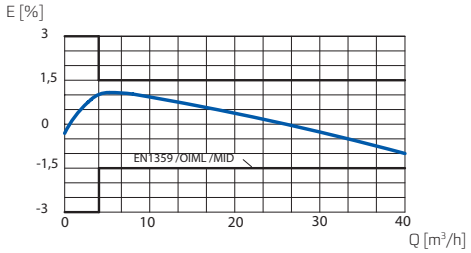
DIMENSIONS

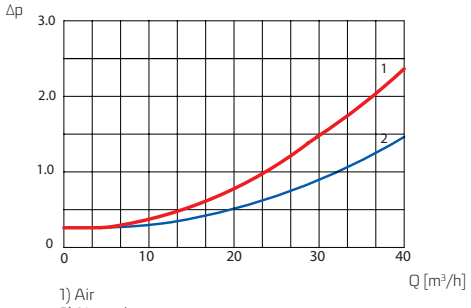


A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	Weight [kg]
280	456	380	313	141	12.0 kg
335	456	361	313	141	11.5 kg
400	476	460	313	141	14.8 kg

CURVES OF TYPICAL ERROR AND PRESSURE LOSS

UG G25





1) Air
2) Natural gas

Apator Metrix S.A.
ul. Grunwaldzka 14
83-110 Tczew, Poland
e-mail: metrix@apator.com
tel. +48.58 53 09 200, fax +48.58 53 09 300