

## OIML Certificate of Conformity

OIML Member State The Netherlands		Number R137/2012-NL1-15.09 Project number 15200438 Page 1 of 3
Issuing authority	NMi Certin B.V.	
Person responsible:	C. Oosterman	
Applicant and Manufacturer	Emerson Process Management 11100 Brittmoore Park Drive	
	77041 Houston, Texas	
	United States of America	
Manufacturers	Daniel Measurement and Control, Inc.	
mark or name		
Identification of the certified type	An <b>ultrasonic Gas Meter</b> 3414 / 3415 / 3416 / 3417 Senior Sonic	
	34147 34157 34167 3417 Senior Sonic	
Characteristics	See page 2 and further	
This Cartificate attests	the conformity of the above identified type (re	presented by the sample(s)
identified in the OIML	Type Evaluation Report) with the requirements ne International Organization of Legal Metrolog	of the following + + + + + + +
	<b>R 137-1 (2012)</b> "Gas meters"	
Accuracy class	1,0 + + + + + + + + + + + + + + + + + + +	
instrument covered by	only to the metrological and technical characte the relevant OIML International Recommendation ot bestow any form of legal international appro	ion identified above.
OIML Member State in	from the mention of the Certificate's reference which the Certificate was issued, partial quotat pe Evaluation Report(s) is not permitted, althou	tion of the Certificate and of
Issuing Authority	NMi Certin B.V., OIML Issuing Authority N 6 November 2015	iL1++++++++++++++++++++++++++++++++++++
	H	
* * * * * * *	C. Oosterman	
NMi Certin B.V.	Head Certification Board	* * * * * * * * * * * * *
Hugo de Grootplein 1 3314 EG Dordrecht the Netherlands T +31 78 6332332	ocument is issued under the on that no liability is accepted at the applicant shall indemnify party liability. btification of NMi Certin B.V. as otification of NMi Certin B.V. as	OIML REPECTION
www.nmi.nl Issuing	) Authority can be verified at <u>www.nmi.nl</u> ). <u>piml.org</u>	RvA   122



## OIML Certificate of Conformity

<ul> <li>he conformity was established by the results of tests and examinations provided in the associated aport(s):</li> <li>No. NMi-15200438-01 dated 3 November 2015 that includes 48 pages.</li> </ul> <b>haracteristics of the measuring instrument</b> <ul> <li>Table 1 the general characteristics of the measuring instrument are presented.</li> <li>able 2 gives an overview of the general characteristics of the family of instruments.</li> <li>he construction of the measuring instrument is recorded in the Documentation folder no. T10078-5.</li> <li>as meter configuration</li> <li><u>lodel 3414</u></li> <li>he model 3415 contains of a model 3414 path layout and electronics. The model 3415 is additionally quipped with one check path which is connected to a separate set of electronics. <ul> <li><u>lodel 3416</u></li> <li>he model 3416 contains of a model 3414 path layout and electronics. The model 3415 is additionally quipped with one check path and one diagnostic path which are connected to a separate set of lectronics.</li> <li><u>lodel 3417</u></li> <li>he model 3417 is composed of two model 3414 electronics and transducers built into a model 3417 pool piece. The meter can be used in the following configurations:</li> <li>1. Two separate gas meters</li> <li>2. Pay / check configuration</li> </ul></li></ul>	he Netherlands	Project number 15200438 Page 2 of 3
Characteristics of the measuring instrument         In Table 1 the general characteristics of the measuring instrument are presented.         Sable 2 gives an overview of the general characteristics of the family of instruments.         he construction of the measuring instrument is recorded in the Documentation folder no. T10078-5.         Sas meter configuration         Addel 3414         he model 3415 contains of a model 3414 path layout and electronics. The model 3415 is additionally requipped with one check path which is connected to a separate set of electronics.         Addel 3416         he model 3416 contains of a model 3414 path layout and electronics. The model 3416 is additionally requipped with one check path and one diagnostic path which are connected to a separate set of electronics.         Addel 3417         he model 3417 is composed of two model 3414 electronics and transducers built into a model 3417 pool piece. The meter can be used in the following configurations:         1.       Two separate gas meters         2.       Pay / check configuration         Able 1 General characteristics       M2 / E2         Accuracy class       Class 1,0         Maximum pressure       425 bar         Ambient temperature range       -25°C / +55°C         Gas temperature range       -25°C / +55°C         Designed for       Condensing humidity         Orientation       All orientations         <		+ + + + + + + + + + + + + + + + + + +
eport(s):		
Characteristics of the measuring instrument         In Table 1 the general characteristics of the measuring instrument are presented.         Fable 2 gives an overview of the general characteristics of the family of instruments.         The construction of the measuring instrument is recorded in the Documentation folder no. T10078-5.         Gas meter configuration         Model 3414         The model 3415 contains of a model 3414 path layout and electronics. The model 3415 is additionally equipped with one check path which is connected to a separate set of electronics.         Model 3416         The model 3416 contains of a model 3414 path layout and electronics. The model 3416 is additionally equipped with one check path and one diagnostic path which are connected to a separate set of electronics.         Model 3417         The model 3417 is composed of two model 3414 electronics and transducers built into a model 3417 pool piece. The meter can be used in the following configurations:         1.       Two separate gas meters         2.       Pay / check configuration <b>Fable 1 General characteristics</b> Destined for the measurement of       Gas volume         Environmental classes       M2 / E2         Accuracy class       Class 1,0         Maximum pressure       425 bar         Ambient temperature range       -25°C / +55°C         Gas temperature range       -25°C / +55°C         Desi		esults of tests and examinations provided in the associated
Characteristics of the measuring instrument         In Table 1 the general characteristics of the measuring instrument are presented.         Table 2 gives an overview of the general characteristics of the family of instruments.         the construction of the measuring instrument is recorded in the Documentation folder no. T10078-5.         Gas meter configuration         Addel 3414         the model 3415 contains of a model 3414 path layout and electronics. The model 3415 is additionally requipped with one check path which is connected to a separate set of electronics.         Addel 3416         the model 3416 contains of a model 3414 path layout and electronics. The model 3416 is additionally requipped with one check path and one diagnostic path which are connected to a separate set of electronics.         Addel 3417         he model 3417 is composed of two model 3414 electronics and transducers built into a model 3417 pool piece. The meter can be used in the following configurations:         1.       Two separate gas meters         2.       Pay / check configuration <b>Fable 1 General characteristics</b> Destined for the measurement of       Gas volume         Environmental classes       M2 / E2         Accuracy class       Class 1,0         Maximum pressure       425 bar         Ambient temperature range       -25°C / +55°C         Gas temperature range       -25°C / +55°C         Gas	- No. NMi-15200438-01 dated 3 No.	wember 2015 that includes 48 pages
n Table 1 the general characteristics of the measuring instrument are presented. Table 2 gives an overview of the general characteristics of the family of instruments. The construction of the measuring instrument is recorded in the Documentation folder no. T10078-5. Table 2 gives an overview of the general characteristics of the family of instruments. The construction of the measuring instrument is recorded in the Documentation folder no. T10078-5. Table 2 gives an overview of the general characteristics of the family of instruments. The model 3414 is equipped with 4 measuring paths in a horizontal configuration. Model 3415 The model 3415 contains of a model 3414 path layout and electronics. The model 3415 is additionally requipped with one check path which is connected to a separate set of electronics. Model 3416 The model 3416 contains of a model 3414 path layout and electronics. The model 3416 is additionally requipped with one check path and one diagnostic path which are connected to a separate set of electronics. Model 3417 The model 3417 is composed of two model 3414 electronics and transducers built into a model 3417 pool piece. The meter can be used in the following configurations: 1. Two separate gas meters 2. Pay / check configuration Table 1 General characteristics Destined for the measurement of Gas volume Environmental classes M2 / E2 Accuracy class Class 1,0 Maximum pressure 425 bar Ambient temperature range -25°C / +55°C Gas temperature range -25°C / +55°C Designed for Condensing humidity Orientation All orientations Power supply voltage 10,4 - 36 V DC Software identification Version number: 1.22		
able 2 gives an overview of the general characteristics of the family of instruments.         the construction of the measuring instrument is recorded in the Documentation folder no. T10078-5.         Sas meter configuration         Addel 3414         the model 3414 is equipped with 4 measuring paths in a horizontal configuration.         Addel 3415         he model 3415 contains of a model 3414 path layout and electronics. The model 3415 is additionally equipped with one check path which is connected to a separate set of electronics.         Addel 3416         he model 3417 is contains of a model 3414 path layout and electronics. The model 3416 is additionally equipped with one check path and one diagnostic path which are connected to a separate set of electronics.         Addel 3417         he model 3417 is composed of two model 3414 electronics and transducers built into a model 3417 pool piece. The meter can be used in the following configurations:         1.       Two separate gas meters         2.       Pay / check configuration <b>able 1 General characteristics</b> Destined for the measurement of       Gas volume         Environmental classes       M2 / E2         Accuracy class       Class 1,0         Maximum pressure       425 bar         Ambient temperature range       -25°C / +55°C         Gas temperature range       -25°C / +55°C         Designed for       Condensing h		
The construction of the measuring instrument is recorded in the Documentation folder no. T10078-5. Tass meter configuration Model 3414 The model 3411s equipped with 4 measuring paths in a horizontal configuration. Model 3415 The model 3415 contains of a model 3414 path layout and electronics. The model 3415 is additionally requipped with one check path which is connected to a separate set of electronics. Model 3416 The model 3416 contains of a model 3414 path layout and electronics. The model 3416 is additionally requipped with one check path and one diagnostic path which are connected to a separate set of electronics. Model 3417 The model 3417 is composed of two model 3414 electronics and transducers built into a model 3417 The model 3417 is composed of two model 3414 electronics and transducers built into a model 3417 The model 3417 is composed of two model 3414 electronics and transducers built into a model 3417 The model 3417 is composed of two model 3414 electronics and transducers built into a model 3417 The model 3417 is composed of two model 3414 electronics and transducers built into a model 3417 The model 3418 contains of a model 3412 electronics and transducers built into a model 3417 The model 3418 contains of a model 3414 electronics and transducers built into a model 3417 The model 3418 contains of a model 3414 electronics and transducers built into a model 3417 The model 3418 contains of a model 3414 electronics and transducers built into a model 3417 The model 3418 contains of a model 3418 electronics and transducers built into a model 3417 The model 3418 contains of a model 3418 electronics and transducers built into a model 3417 The model 3418 contains of a model 3418 electronics and transducers built into a model 3417 The model 3418 contains of a model 3418 electronics and transducers built into a model 3417 Destined for the measurement of Gas volume Environmental classes M2 / E2 Accuracy class Class 1,0 Maximum pressure 425 bar Ambient temperature range -25°C / +		
Aodel 3414         he model 3414 is equipped with 4 measuring paths in a horizontal configuration.         Aodel 3415         he model 3415 contains of a model 3414 path layout and electronics. The model 3415 is additionally requipped with one check path which is connected to a separate set of electronics.         Aodel 3416         he model 3416 contains of a model 3414 path layout and electronics. The model 3416 is additionally requipped with one check path and one diagnostic path which are connected to a separate set of electronics.         Aodel 3417         he model 3417 is composed of two model 3414 electronics and transducers built into a model 3417 pool piece. The meter can be used in the following configurations:         1.       Two separate gas meters         2.       Pay / check configuration         Fable 1 General characteristics         Destined for the measurement of       Gas volume         Environmental classes       M2 / E2         Accuracy class       Class 1,0         Maximum pressure       425 bar         Ambient temperature range       -25°C / +55°C         Gas temperature range       -25°C / +55°C         Designed for       Condensing humidity         Orientation       All orientations         Power supply voltage       10,4 – 36 V DC         Software identification       Version number: 1.22 <td></td> <td></td>		
he model 3414 is equipped with 4 measuring paths in a horizontal configuration. <u>Aodel 3415</u> he model 3415 contains of a model 3414 path layout and electronics. The model 3415 is additionally equipped with one check path which is connected to a separate set of electronics. <u>Aodel 3416</u> he model 3416 contains of a model 3414 path layout and electronics. The model 3416 is additionally equipped with one check path and one diagnostic path which are connected to a separate set of electronics. <u>Aodel 3417</u> he model 3417 is composed of two model 3414 electronics and transducers built into a model 3417 pool piece. The meter can be used in the following configurations: 1. Two separate gas meters 2. Pay / check configuration <b>Fable 1 General characteristics</b> Destined for the measurement of Gas volume Environmental classes M2 / E2 Accuracy class Class 1,0 Maximum pressure 425 bar Ambient temperature range -25°C / +55°C Gas temperature range -25°C / +55°C Designed for Condensing humidity Orientation All orientations Power supply voltage 10,4 – 36 V DC Software identification Version and the conduction of the set of the conduction of the set of the conduction of the condu		
he model 3415 contains of a model 3414 path layout and electronics. The model 3415 is additionally quipped with one check path which is connected to a separate set of electronics. Model 3416         he model 3416 contains of a model 3414 path layout and electronics. The model 3416 is additionally quipped with one check path and one diagnostic path which are connected to a separate set of electronics. Model 3417         he model 3417 is composed of two model 3414 electronics and transducers built into a model 3417 pool piece. The meter can be used in the following configurations:         1.       Two separate gas meters         2.       Pay / check configuration         Table 1 General characteristics         Destined for the measurement of         Gas volume         Environmental classes       M2 / E2         Accuracy class       Class 1,0         Maximum pressure       -25°C / +55°C         Gas temperature range       -25°C / +55°C         Designed for       Condensing humidity         Orientation       All orientations         Power supply voltage       10,4 – 36 V DC         Software identification       Version number: 1.22	he model 3414 is equipped with 4 meas	suring paths in a horizontal configuration.
Model 3416         The model 3416 contains of a model 3414 path layout and electronics. The model 3416 is additionally equipped with one check path and one diagnostic path which are connected to a separate set of electronics.         Model 3417         The model 3417 is composed of two model 3414 electronics and transducers built into a model 3417 pool piece. The meter can be used in the following configurations:         1.       Two separate gas meters         2.       Pay / check configuration         Table 1 General characteristics         Destined for the measurement of       Gas volume         Environmental classes       M2 / E2         Accuracy class       Class 1,0         Maximum pressure       425 bar         Ambient temperature range       -25°C / +55°C         Gas temperature range       -25°C / +55°C         Designed for       Condensing humidity         Orientation       All orientations         Power supply voltage       10,4 – 36 V DC         Software identification       Version number: 1.22	he model 3415 contains of a model 341	
equipped with one check path and one diagnostic path which are connected to a separate set of electronics. <u>Model 3417</u> The model 3417 is composed of two model 3414 electronics and transducers built into a model 3417 pool piece. The meter can be used in the following configurations: 1. Two separate gas meters 2. Pay / check configuration <b>Table 1 General characteristics</b> Destined for the measurement of Gas volume Environmental classes M2 / E2 Accuracy class Class 1,0 Maximum pressure 425 bar Ambient temperature range -25°C / +55°C Gas temperature range -25°C / +55°C Designed for Condensing humidity Orientation All orientations Power supply voltage 10,4 – 36 V DC Software identification Version number: 1.22	10del 3416	
Alectronics. <u>Model 3417</u> The model 3417 is composed of two model 3414 electronics and transducers built into a model 3417 pool piece. The meter can be used in the following configurations: 1. Two separate gas meters 2. Pay / check configuration <b>Table 1 General characteristics</b> Destined for the measurement of Gas volume Environmental classes M2 / E2 Accuracy class Class 1,0 Maximum pressure 425 bar Ambient temperature range -25°C / +55°C Gas temperature range -25°C / +55°C Designed for Condensing humidity Orientation All orientations Power supply voltage 10,4 – 36 V DC Software identification Version number: 1.22		
Model 3417         The model 3417 is composed of two model 3414 electronics and transducers built into a model 3417         pool piece. The meter can be used in the following configurations:         1.       Two separate gas meters         2.       Pay / check configuration         Table 1 General characteristics         Destined for the measurement of       Gas volume         Environmental classes       M2 / E2         Accuracy class       Class 1,0         Maximum pressure       425 bar         Ambient temperature range       -25°C / +55°C         Designed for       Condensing humidity         Orientation       All orientations         Power supply voltage       10,4 – 36 V DC         Software identification       Version number: 1.22		alagnostic path which are connected to a separate set of
pool piece. The meter can be used in the following configurations:1.Two separate gas meters 2.2.Pay / check configurationTable 1 General characteristicsDestined for the measurement of Environmental classesM2 / E2Accuracy classClass 1,0Maximum pressure425 barAmbient temperature range-25°C / +55°CGas temperature range-25°C / +55°CDesigned forCondensing humidityOrientationAll orientationsPower supply voltage10,4 - 36 V DCSoftware identificationVersion number: 1.22		
1.       Two separate gas meters         2.       Pay / check configuration             Fable 1 General characteristics             Destined for the measurement of       Gas volume         Environmental classes       M2 / E2         Accuracy class       Class 1,0         Maximum pressure       425 bar         Ambient temperature range       -25°C / +55°C         Gas temperature range       -25°C / +55°C         Designed for       Condensing humidity         Orientation       All orientations         Power supply voltage       10,4 - 36 V DC         Software identification       Version number: 1.22	<u>1odel 3417</u> + + + + + + + + +	
Environmental classesM2 / E2Accuracy classClass 1,0Maximum pressure425 barAmbient temperature range-25°C / +55°CGas temperature range-25°C / +55°CDesigned forCondensing humidityOrientationAll orientationsPower supply voltage10,4 – 36 V DCSoftware identificationVersion number: 1.22	<u>Iodel 3417</u> he model 3417 is composed of two moc pool piece. The meter can be used in the 1. Two separate gas	e following configurations: meters
Accuracy classClass 1,0Maximum pressure425 barAmbient temperature range-25°C / +55°CGas temperature range-25°C / +55°CDesigned forCondensing humidityOrientationAll orientationsPower supply voltage10,4 – 36 V DCSoftware identificationVersion number: 1.22	<u>Nodel 3417</u> he model 3417 is composed of two moc bool piece. The meter can be used in the 1. Two separate gas 2. Pay / check config	e following configurations: meters
Maximum pressure425 barAmbient temperature range-25°C / +55°CGas temperature range-25°C / +55°CDesigned forCondensing humidityOrientationAll orientationsPower supply voltage10,4 - 36 V DCSoftware identificationVersion number: 1.22	<u>Aodel 3417</u> he model 3417 is composed of two mod pool piece. The meter can be used in the 1. Two separate gas 2. Pay / check config able 1 General characteristics	e following configurations: meters uration
Ambient temperature range-25°C / +55°CGas temperature range-25°C / +55°CDesigned forCondensing humidityOrientationAll orientationsPower supply voltage10,4 - 36 V DCSoftware identificationVersion number: 1.22	<u>Model 3417</u> he model 3417 is composed of two mod pool piece. The meter can be used in the 1. Two separate gas 2. Pay / check config able 1 General characteristics Destined for the measurement of	e following configurations: meters uration Gas volume
Gas temperature range-25°C / +55°CDesigned forCondensing humidityOrientationAll orientationsPower supply voltage10,4 – 36 V DCSoftware identificationVersion number: 1.22	<u>Nodel 3417</u> he model 3417 is composed of two mode bool piece. The meter can be used in the 1. Two separate gas 2. Pay / check config able 1 General characteristics Destined for the measurement of Environmental classes	e following configurations: meters uration Gas volume M2 / E2
Designed for     Condensing humidity       Orientation     All orientations       Power supply voltage     10,4 – 36 V DC       Software identification     Version number: 1.22	Model 3417         he model 3417 is composed of two mode         pool piece. The meter can be used in the         1.       Two separate gas         2.       Pay / check config         able 1 General characteristics         Destined for the measurement of         Environmental classes         Accuracy class	e following configurations: meters uration Gas volume M2 / E2 Class 1,0
Orientation     All orientations       Power supply voltage     10,4 – 36 V DC       Software identification     Version number: 1.22	Model 3417         he model 3417 is composed of two mode         pool piece. The meter can be used in the         1.       Two separate gas         2.       Pay / check config         able 1 General characteristics         Destined for the measurement of         Environmental classes         Accuracy class         Maximum pressure	e following configurations: meters uration Gas volume M2 / E2 Class 1,0 425 bar
Power supply voltage10,4 – 36 V DCSoftware identificationVersion number: 1.22	Model 3417         he model 3417 is composed of two mode         pool piece. The meter can be used in the         1.       Two separate gas         2.       Pay / check config         able 1 General characteristics         Destined for the measurement of         Environmental classes         Accuracy class         Maximum pressure         Ambient temperature range	e following configurations: meters uration Gas volume M2 / E2 Class 1,0 425 bar -25°C / +55°C
Software identification Version number: 1.22	Model 3417         he model 3417 is composed of two mode         pool piece. The meter can be used in the         1.       Two separate gas         2.       Pay / check config         able 1 General characteristics         Destined for the measurement of         Environmental classes         Accuracy class         Maximum pressure         Ambient temperature range         Gas temperature range	e following configurations: meters uration Gas volume M2 / E2 Class 1,0 425 bar -25°C / +55°C -25°C / +55°C
	Model 3417         he model 3417 is composed of two mode         pool piece. The meter can be used in the         1.       Two separate gas         2.       Pay / check config <b>able 1 General characteristics</b> Destined for the measurement of         Environmental classes         Accuracy class         Maximum pressure         Ambient temperature range         Gas temperature range         Designed for	e following configurations: meters uration Gas volume M2 / E2 Class 1,0 425 bar -25°C / +55°C -25°C / +55°C Condensing humidity
	Model 3417         he model 3417 is composed of two mode         pool piece. The meter can be used in the         1.       Two separate gas         2.       Pay / check config <b>able 1 General characteristics</b> Destined for the measurement of         Environmental classes         Accuracy class         Maximum pressure         Ambient temperature range         Gas temperature range         Designed for         Orientation	e following configurations: meters uration Gas volume M2 / E2 Class 1,0 425 bar -25°C / +55°C -25°C / +55°C Condensing humidity All orientations 10,4 – 36 V DC
	Model 3417         he model 3417 is composed of two mode         pool piece. The meter can be used in the         1.       Two separate gas         2.       Pay / check config <b>able 1 General characteristics</b> Destined for the measurement of         Environmental classes         Accuracy class         Maximum pressure         Ambient temperature range         Designed for         Orientation         Power supply voltage	e following configurations: meters uration Gas volume M2 / E2 Class 1,0 425 bar -25°C / +55°C -25°C / +55°C Condensing humidity All orientations 10,4 – 36 V DC Version number: 1.22
	Model 3417         he model 3417 is composed of two mode         pool piece. The meter can be used in the         1.       Two separate gas         2.       Pay / check config <b>able 1 General characteristics</b> Destined for the measurement of         Environmental classes         Accuracy class         Maximum pressure         Ambient temperature range         Designed for         Orientation         Power supply voltage	e following configurations: meters uration Gas volume M2 / E2 Class 1,0 425 bar -25°C / +55°C -25°C / +55°C Condensing humidity All orientations 10,4 – 36 V DC Version number: 1.22
	Model 3417         he model 3417 is composed of two mode         pool piece. The meter can be used in the         1.       Two separate gas         2.       Pay / check config <b>able 1 General characteristics</b> Destined for the measurement of         Environmental classes         Accuracy class         Maximum pressure         Ambient temperature range         Designed for         Orientation         Power supply voltage	e following configurations: meters uration Gas volume M2 / E2 Class 1,0 425 bar -25°C / +55°C -25°C / +55°C Condensing humidity All orientations 10,4 – 36 V DC Version number: 1.22
	Model 3417         he model 3417 is composed of two mode         pool piece. The meter can be used in the         1.       Two separate gas         2.       Pay / check config <b>able 1 General characteristics</b> Destined for the measurement of         Environmental classes         Accuracy class         Maximum pressure         Ambient temperature range         Designed for         Orientation         Power supply voltage	e following configurations: meters uration Gas volume M2 / E2 Class 1,0 425 bar -25°C / +55°C -25°C / +55°C Condensing humidity All orientations 10,4 – 36 V DC Version number: 1.22



## OIML Certificate of Conformity

**OIML Member State** The Netherlands Number R137/2012-NL1-15.09 Project number 15200438 Page 3 of 3

piping and flow straightener	* * * Diameter * * * * *		$+ + + V_{min}^{+} + + +$	$+ + + V_t^{+} + + \cdot$	+ + V <sub>max</sub> + + +
100         80 ~ 108           150         124 ~ 161           200         173 ~ 212           250         216 ~ 265           300         257 ~ 315           350         284 ~ 343           400         325 ~ 394           450         367 ~ 445           500         408 ~ 495           600         491 ~ 597           750         730 ~ 749           900         876 ~ 899           1050         1029 ~ 1048           Illation conditions:           biping and flow straightener           neter is used in one of the following configuration:           a Vortab straightener followed by 20D piping at the inlet of the meter, see document 10078/0-08;           5D piping followed by a Daniel straightener followed by 10D piping at the inlet of the meter, see document 10078/0-09;           5D piping followed by a Daniel straightener followed by 10D piping at the inlet of the meter, see document 10078/0-09;           5D piping followed by a Daniel straightener followed by 10D piping at the inlet of the meter, see document 10078/0-09;           5D piping followed by a CPA 50E straightener followed by 10D piping at the inlet of the meter, see document 10078/0-10;           2DD at the inlet of the meter, without any flow straightener;	DN	Typical ranges	* * * * * * * *	* * * * * * *	
150         124 ~ 161         0,7         28           200         173 ~ 212         0,7         28           250         216 ~ 265         1/10 V <sub>max</sub> 28           300         257 ~ 315         350         284 ~ 343         400         325 ~ 394         1/10 V <sub>max</sub> 30,5           450         367 ~ 445         0,76         1/10 V <sub>max</sub> 30,5         26           500         408 ~ 495         0,76         26         23         23           1050         1029 ~ 1048         21         21         21	[mm]	+ + [mm] + +	+ + + [m/s]+ + +	+ + [m/s] + +	+ + [m/s] + +
200       173 ~ 212       0,7       28         250       216 ~ 265       1/10 Vmax       30,5         300       257 ~ 315       1/10 Vmax       30,5         350       284 ~ 343       1/10 Vmax       30,5         450       367 ~ 445       0,76       1/10 Vmax       30,5         500       408 ~ 495       0,76       26       23         750       730 ~ 749       26       23       21         900       876 ~ 899       23       21       21         Illation conditions:         piping and flow straightener reter is used in one of the following configuration:       21       21         Illation conditions:         a Vortab straightener followed by 20D piping at the inlet of the meter, see document 10078/0-08;         SD piping followed by a Daniel straightener followed by 10D piping at the inlet of the meter see document 10078/0-09;         SD piping followed by a CPA 50E straightener followed by 10D piping at the inlet of the meter, see document 10078/0-10;         20D at the inlet of the meter, without any flow straightener;	100	80 ~ 108	* * * * * * *	* * * * * * *	* * * * * *
250       216 ~ 265         300       257 ~ 315         350       284 ~ 343         400       325 ~ 394         450       367 ~ 445         500       408 ~ 495         600       491 ~ 597         750       730 ~ 749         900       876 ~ 899         1050       1029 ~ 1048	150	124 ~ 161	• • • • • • • •	* * * * * * * *	· + + + · + + + + + + + + + + + + + + +
300       257 ~ 315         350       284 ~ 343         400       325 ~ 394         450       367 ~ 445         500       408 ~ 495         0,76       0,76         600       491 ~ 597         750       730 ~ 749         900       876 ~ 899         1050       1029 ~ 1048         1050       1029 ~ 1048         1050       1029 ~ 1048         1050       1029 ~ 1048         1050       1029 ~ 1048         1050       1029 ~ 1048         1078/0-08;       50         50       piping followed by 20D piping at the inlet of the meter, see document 10078/0-08;         5D piping followed by a Daniel straightener followed by 10D piping at the inlet of the meter, see document 10078/0-09;         5D piping followed by a CPA 50E straightener followed by 10D piping at the inlet of the meter, see document 10078/0-10;         2D piping followed by a CPA 50E straightener followed by 10D piping at the inlet of the meter, see document 10078/0-10;         2D at the inlet of the meter, without any flow straightener;	+200 + + -	173 ~ 212	+ + + 0,7 + + +	* * * * * *	28
350       284 ~ 343         400       325 ~ 394         450       367 ~ 445         500       408 ~ 495         600       491 ~ 597         750       730 ~ 749         900       876 ~ 899         1050       1029 ~ 1048         Illation conditions:         a Vortab straightener neter is used in one of the following configuration:         a Vortab straightener followed by 20D piping at the inlet of the meter, see document 10078/0-08;         5D piping followed by a Daniel straightener followed by 10D piping at the inlet of the meter see document 10078/0-09;         5D piping followed by a CPA 50E straightener followed by 10D piping at the inlet of the meter see document 10078/0-10;         20D at the inlet of the meter, without any flow straightener;	250	216 ~ 265	· + + + + + + +	+ + + + + + + + + + + + + + + + + + + +	
400325 ~ 394450367 ~ 445500408 ~ 495600491 ~ 597750730 ~ 749900876 ~ 89910501029 ~ 104810501029 ~ 1048Illation conditions:a Vortab straightener neter is used in one of the following configuration:a Vortab straightener followed by 20D piping at the inlet of the meter, see document 10078/0-08;5D piping followed by a Daniel straightener followed by 10D piping at the inlet of the meter see document 10078/0-09;5D piping followed by a CPA 50E straightener followed by 10D piping at the inlet of the 	+ 300 + +	257 ~ 315	* * * * * * *	* * * * * * *	
450367 ~ 445500408 ~ 495600491 ~ 597750730 ~ 749900876 ~ 89910501029 ~ 1048Illation conditions:biping and flow straightener heter is used in one of the following configuration:a Vortab straightener followed by 20D piping at the inlet of the meter, see document 10078/0-08;5D piping followed by a Daniel straightener followed by 10D piping at the inlet of the meter see document 10078/0-10; 20D at the inlet of the meter, without any flow straightener;	350 + + +	284 ~ 343		+ + + + + + +	
450367 ~ 445500408 ~ 495600491 ~ 597750730 ~ 749900876 ~ 89910501029 ~ 1048Ilation conditions:biping and flow straightener heter is used in one of the following configuration:a Vortab straightener followed by 20D piping at the inlet of the meter, see document 10078/0-08;5D piping followed by a Daniel straightener followed by 10D piping at the inlet of the meter see document 10078/0-09;5D piping followed by a CPA 50E straightener followed by 10D piping at the inlet of the meter, see document 10078/0-10; 20D at the inlet of the meter, without any flow straightener;	400	325 ~ 394	* * * * * * * *	1/10 V <sub>max</sub>	
500       408 ~ 495       0,76         600       491 ~ 597       26         750       730 ~ 749       26         900       876 ~ 899       23         1050       1029 ~ 1048       21         Illation conditions:         poiping and flow straightener         heter is used in one of the following configuration:         a Vortab straightener followed by 20D piping at the inlet of the meter, see document 10078/0-08;         5D piping followed by a Daniel straightener followed by 10D piping at the inlet of the meter see document 10078/0-09;         5D piping followed by a CPA 50E straightener followed by 10D piping at the inlet of the meter, see document 10078/0-10;         20D at the inlet of the meter, without any flow straightener;	450 + +	367 ~ 445	* * * * * * *	+ + + + + + +	30,5
600       491 ~ 597         750       730 ~ 749         900       876 ~ 899         1050       1029 ~ 1048         Illation conditions:         poiping and flow straightener         neter is used in one of the following configuration:         a Vortab straightener followed by 20D piping at the inlet of the meter, see document 10078/0-08;         5D piping followed by a Daniel straightener followed by 10D piping at the inlet of the meter, see document 10078/0-09;         5D piping followed by a CPA 50E straightener followed by 10D piping at the inlet of the meter, see document 10078/0-10;         20D at the inlet of the meter, without any flow straightener;	+ + + + +	+ + + + + + +	0.76	+ + + + + + + + + + + + + + + + + + + +	
750       730 ~ 749       26         900       876 ~ 899       23         1050       1029 ~ 1048       21         Illation conditions:         oiping and flow straightener         neter is used in one of the following configuration:         a Vortab straightener followed by 20D piping at the inlet of the meter, see document         10078/0-08;         5D piping followed by a Daniel straightener followed by 10D piping at the inlet of the met         see document 10078/0-09;         5D piping followed by a CPA 50E straightener followed by 10D piping at the inlet of the meter, see document 10078/0-10;         20D at the inlet of the meter, without any flow straightener;		491 ~ 597		* * * * * * *	
900       876 ~ 899       23         1050       1029 ~ 1048       21         Illation conditions:         oiping and flow straightener       21         neter is used in one of the following configuration:         a Vortab straightener followed by 20D piping at the inlet of the meter, see document 10078/0-08;         5D piping followed by a Daniel straightener followed by 10D piping at the inlet of the meter see document 10078/0-09;         5D piping followed by a CPA 50E straightener followed by 10D piping at the inlet of the meter, see document 10078/0-10;         20D at the inlet of the meter, without any flow straightener;	* * * * *	* * * * * *		+ + + + + + +	26
1050       1029 ~ 1048       21         Illation conditions:       piping and flow straightener       21         objoing and flow straightener       piping and flow straightener       21         a Vortab straightener following configuration:       a Vortab straightener followed by 20D piping at the inlet of the meter, see document 10078/0-08;       5D piping followed by a Daniel straightener followed by 10D piping at the inlet of the meter see document 10078/0-09;       5D piping followed by a CPA 50E straightener followed by 10D piping at the inlet of the meter, see document 10078/0-10;         20D at the inlet of the meter, without any flow straightener;       21			· • • • • • • •	* * * * * * * *	
<ul> <li>Ilation conditions:</li> <li>piping and flow straightener</li> <li>heter is used in one of the following configuration:</li> <li>a Vortab straightener followed by 20D piping at the inlet of the meter, see document 10078/0-08;</li> <li>5D piping followed by a Daniel straightener followed by 10D piping at the inlet of the meter see document 10078/0-09;</li> <li>5D piping followed by a CPA 50E straightener followed by 10D piping at the inlet of the meter, see document 10078/0-10;</li> <li>20D at the inlet of the meter, without any flow straightener;</li> </ul>	* * * * *			+ + + + + + +	
a Vortab straightener followed by 20D piping at the inlet of the meter, see document 10078/0-08; 5D piping followed by a Daniel straightener followed by 10D piping at the inlet of the met see document 10078/0-09; 5D piping followed by a CPA 50E straightener followed by 10D piping at the inlet of the meter, see document 10078/0-10; 20D at the inlet of the meter, without any flow straightener;		+ + + + + + + + + + + + + + + + + + +	g configuration:		
10078/0-08; 5D piping followed by a Daniel straightener followed by 10D piping at the inlet of the met see document 10078/0-09; 5D piping followed by a CPA 50E straightener followed by 10D piping at the inlet of the meter, see document 10078/0-10; 20D at the inlet of the meter, without any flow straightener;					
see document 10078/0-09; 5D piping followed by a CPA 50E straightener followed by 10D piping at the inlet of the meter, see document 10078/0-10; 20D at the inlet of the meter, without any flow straightener;	neter is used ir		v 20D piping at the	inlet of the meter s	ee document
5D piping followed by a CPA 50E straightener followed by 10D piping at the inlet of the meter, see document 10078/0-10; 20D at the inlet of the meter, without any flow straightener;	a Vortab str 10078/0-08;	raightener followed b			
20D at the inlet of the meter, without any flow straightener;	a Vortab str 10078/0-08; 5D piping fo see docume	raightener followed b ollowed by a Daniel s ent 10078/0-09;	traightener followed	d by 10D piping at th	ne inlet of the mete
10D at the inlet of the meter, while no 2 elbows out of plane are mounted in the next 10D.	a Vortab str 10078/0-08; 5D piping fo see docume 5D piping fo	aightener followed b ollowed by a Daniel s ent 10078/0-09; ollowed by a CPA 50E	traightener followed straightener follow	d by 10D piping at th red by 10D piping at	ne inlet of the mete the inlet of the
	a Vortab str 10078/0-08; 5D piping fo see docume 5D piping fo	aightener followed b ollowed by a Daniel s ent 10078/0-09; ollowed by a CPA 50E	traightener followed straightener follow	d by 10D piping at th red by 10D piping at	ne inlet of the mete the inlet of the
	a Vortab str 10078/0-08; 5D piping fo see docume 5D piping fo meter, see c 20D at the i	raightener followed b ollowed by a Daniel s ent 10078/0-09; ollowed by a CPA 50E document 10078/0-10 inlet of the meter, wit	traightener followed straightener follow ; thout any flow straig	d by 10D piping at th red by 10D piping at ghtener;	ne inlet of the mete the inlet of the
	a Vortab str 10078/0-08; 5D piping fo see docume 5D piping fo meter, see o 20D at the i	raightener followed b ollowed by a Daniel s ent 10078/0-09; ollowed by a CPA 50E document 10078/0-10 inlet of the meter, wit	traightener followed straightener follow ; thout any flow straig	d by 10D piping at th red by 10D piping at ghtener;	ne inlet of the mete the inlet of the