



GTS Information Services for Connected Party

Operational Portfolio Networkpoints
Analysis Portfolio Networkpoints
Operational Prognosis Run Measurements
Operational Run Measurements
Operational Run Quality
Operational PTV Run Measurements
Operational Networkpoint Measurements
Analysis Accountable Run Measurements And Quality
Analysis Accountable Run RestEnergy
Analysis Export Gasmeter Data
Operational Gas Quality
Gas Components Forecast

Department

GTS

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Version control

Version	Date	Changes
1.0	26-05-2011	Setup document. This document is an extract of all services intended for Connected Party from the documents: GTS InformationServices R1 v1.6, GTS InformationServices R2 v1.2, GTS InformationServices OperationalBidPriceLadder v1.0, GTS InformationServices OperationalExternalAllocations v1.0
1.1	20-06-2011	Added service Operational Gas Quality
1.2	21-07-2011	Added service Gas Components Forecast
1.3	27-09-2011	Number of digits for Counters changed in paragraph 1.3 Measurement type Added error 51122 to Appendix A Error Codes
1.4	29-02-2012	Precision for Counters in paragraph 1.3 Measurement Types updated.
1.5	10-07-2012	Extra Measurement Unit M3(b) service 'Analysis Export Gasmeter Data' (Chapter 10)
1.6	16-05-2013	Some minor textual adjustments made in paragraph '1.1 About this document'.
1.7	06-02-2015	The following paragraphs are updated: • 1.1 About this document: minor textual update • 1.2 Basic assumptions: the assumptions described in more detail • 1.3 Measurement types updated: minor textual update • Appendix A Error codes: unused error codes depreciated and a few described in more detail.
1.8	15-04-2015	Added service Operational Networkpoint Measurements
1.9	14-03-2018	Minor textual adjustment first alinea chapter 8.

Abbreviations

Abbreviation	Explanation
CET	Central European Time (= UTC+1)
EDSN	Energie Data Services Nederland
GOS	Gasontvangststation (gas receive station)
GTS	Gasunie Transport Services
GU	N.V. Nederlandse Gasunie
IN	Information Contract
LDC (RNB)	Local Distribution Company (Regionaal Netbeheerder)
NRT	Near Real Time
POS	Portfolio Onbalans Signaal (portfolio imbalance signal)
PRP	Program Responsible Party
PTV	Pressure Temperature Volume
SBS	Systeem Balans Signaal (system balance signal)
SO	System Operator, for the Netherlands this is GTS
SU	Supplier Contract

TR	Transport Contract
TZD	Time Zone Designator (Z or +hh:mm or -hh:mm)
UTC	Universal Time Coordinated
UUID	Universally Unique Identifier
XSD	XML Schema Definition

Contents

1 Introduction	6
1.1 About this document.....	6
1.2 Basic assumptions.....	6
1.3 Measurement types	7
2 Operational Portfolio Networkpoints	9
2.1 Class diagram.....	9
2.2 Query XML Schema	10
2.3 Response XML Schema.....	10
3 Analysis Portfolio Networkpoints	11
3.1 Class diagram.....	11
3.2 Query XML Schema	12
3.3 Response XML Schema.....	13
4 Operational Prognosis Run Measurements	14
4.1 Class diagram.....	14
4.2 Query XML Schema	15
4.3 Response XML Schema.....	16
5 Operational Run Measurements	17
5.1 Class diagram.....	17
5.2 Query XML Schema	19
5.3 Response XML Schema.....	19
6 Operational Run Quality	20
6.1 Class diagram.....	20
6.2 Query XML Schema	21
6.3 Response XML Schema.....	22
7 Operational PTV Run Measurements	23
7.1 Class diagram.....	23
7.2 Query XML Schema	25
7.3 Response XML Schema.....	25
8 Operational Networkpoint Measurements	26
8.1 Class diagram.....	26
8.2 Query XML Schema	28
8.3 Response XML Schema.....	28
9 Analysis Accountable Run Measurements And Quality	29
9.1 Class diagram.....	29
9.2 Query XML Schema	31
9.3 Response XML Schema.....	32
10 Analysis Accountable Run Rest Energy	33
10.1 Class diagram	33
10.2 Query XML Schema.....	35

10.3 Response XML Schema.....	35
11 Analysis Export Gasmeter Data.....	36
11.1 Class diagram	36
11.2 Query XML Schema.....	38
11.3 Response XML Schema.....	38
12 Operational Gas Quality.....	39
12.1 Class diagram	39
12.2 Query XML Schema.....	41
12.3 Response XML Schema.....	41
13 Gas Components Forecast.....	42
13.1 Class diagram	42
13.2 Query XML Schema.....	44
13.3 Response XML Schema.....	44
Appendix A Error codes.....	45

1 Introduction

1.1 About this document

Gasunie Transport Service (GTS), as part of N.V. Nederlandse Gasunie (GU), provides information to the market parties.

This information is made available as GTS Information Services. The GTS Information Services are deployed as web services. This document is intended for the business specialists.

In case of any questions please refer first to "B2B - Frequently Asked Questions" document which can be found on the GTS website.

1.2 Basic assumptions

This section lists the basic assumptions that are defined for all GTS Information Services:

1. the identification (MessageID) of XML messages is done by means of Universally Unique Identifier¹ (UUID). The MessageID should follow the XSD of the message. Not every character can be used in the message-id (only 0-9, a-f and A-F are allowed). The characters in the message-id are 5 groups separated by a hyphen (-), e.g. f81d4fae-7dec-11d0-a765-00A0c91e6bf6. Normally with every request a new MessageID has to be generated as they are unique. For generating a UUID for all platforms and languages functions to create them are available on the web; The regular expression used in the XSD is: `[0-9a-fA-F]{8}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{12}`
2. recognizing (portfolios of) market parties is done by means of:
 - a. Edigas code (PortfolioEdigasID) for PRP, e.g. GSxxxxx²
 - b. Portfolio identifier (PortfolioID) for connected parties, e.g. 5000011111
 - c. Portfolio EAN identifier (PortfolioEANID) for connected parties, e.g. 50000000111111For details concerning the use of identifiers, see the detailed message definitions;
3. the identification of network points is done by means of:
 - a. Network point identifier (NetworkpointID), e.g. 300123
 - b. Network point Edigas code (NetworkpointEdigasID), e.g. ZELZA1;
4. the standard (and sole) unit for exchanging Energy data is kWh;
5. an entry amount is depicted with a negative ("-") sign, e.g. -100 means 100 entry;
6. an exit amount is depicted without a sign, e.g. 100 means 100 exit;
7. the sign convention for a balance signal is as follows:
 - a. a negative imbalance amount (e.g. -15) means that a party has realised 15 more entry than exit. In other words: the party should have had 15 more exit or 15 less entry to be in balance (i.e. Long)
 - b. a positive imbalance amount (e.g. 80) means that a party has 80 more exit than entry. In other words: the party should have had 80 more entry or 80 less exit (i.e. Short);

¹ For more information see: <http://www.ietf.org/> AND http://en.wikipedia.org/wiki/Universally_unique_identifier

² Where 'x' is a representation of a number, e.g. GP12345.

8. time is always in CET (=UTC+1) and formatted as specified in the W3C Date and Time Formats (an ISO 8601 Profile): YYYY-MM-DDThh:mm:ssTZD. CET is being used during summer and wintertime. This will always give an offset of +01:00 in the timestamp.
Example: 2011-07-15T09:40:10+01:00;
9. allocated and measured energy amounts are noted in max. 18 digits before the decimal dot and max. 6 digits after the decimal dot, e.g. 1200.123456 kWh. The POS and SBS have no decimals;
10. as a label for a period of a full clock hour, the time of the next hour is used. E.g.:
 - a. 30th June from 08:00 – 09:00 will be expressed by the hour 09:00
 - b. 30th June from 23:00 – 00:00 will be expressed as 1st of July 00:00;
11. the information that is made available by GTS (e.g. POS, SBS, allocations, etc.) is made available on a "collect basis". This means that the parties, who use this data, have to collect it. In a technical way: GTS deploys the web services that can be used by the PRP to retrieve the queried information;
12. the web services will return the queried information in the response. In case the queried information can not be returned because the query was not correct, a result will be returned instead. The result will contain an error code and an error text. See Appendix A for the error codes;
13. operational values have an availability time window of 24 hours in the operational services;
14. analysis values of the above operational values will be available in the analysis services at the latest 36 hours after the current date and time;
15. for some services, the information in the response can be aggregated to hour, day, gasday, month or gasmonth. Hour is the default value for these aggregations;
16. operational values of the actual Within Day Balancing Action (WDBA) do have a time window of 48 hours ahead;
17. the accountable hour values are available between HH:15 and HH:20 for the hour HH:00.
Example: requests after 10:15 hours results in the response of accountable value of 10:00 hour. Requests before 10:15 will result in the response of the accountable value of 09:00 hour;
18. in most cases the CreationTimestamp is used as the time of the created request or response message, however, in some cases the CreationTimestamp is being used as the time of the requested value in the webservice. For details concerning the use of CreationTimestamp, see the detailed message definitions.

1.3 Measurement types

Description of the measurement types that are used in GTS Information Services:

Energy	Number of digits before the decimal dot	Number of digits after the decimal dot	Unit
(Cumulated) Energy	12	6	kWh
Rest Energy	9	6	kWh
Prognosis Energy	9	6	kWh
Running Sum Energy (Q)	9	6	kWh/h
Energy details			
Normalized Volume (Vn)	9	6	m3(n)
Superior Calorific Value (Hs)	2	4	kWh/m3(n)
Temperature (T)	2	6	°C
Pressure (P)	2	6	Bar(A)
Quality			
Inferior Calorific Value (Hi)	2	4	kWh/m3(n)

Relative Density (d)	1	4	-
Wobbe Index (W)	2	4	kWh/m ³ (n)
Hydrogen (H ₂)	2	4	mol%
Carbon Monoxide (CO)	2	4	mol%
Carbon Dioxide (CO ₂)	2	4	mol%
Nitrogen (N ₂)	2	4	mol%
Helium (He)	2	4	mol%
Methane (CH ₄)	2	4	mol%
Ethene (C ₂ H ₄)	2	4	mol%
Ethane (C ₂ H ₆)	2	4	mol%
Propene (C ₃ H ₆)	2	4	mol%
Propane (C ₃ H ₈)	2	4	mol%
I-butane (I-C ₄ H ₁₀)	2	4	mol%
N-butane (N-C ₄ H ₁₀)	2	4	mol%
I-pentane (I-C ₅ H ₁₂)	2	4	mol%
N-pentane (N-C ₅ H ₁₂)	2	4	mol%
Neo-pentane (Neo-C ₅ H ₁₂)	2	4	mol%
C ₃ H ₈ (Propane)	2	4	mol%
C ₃ H ₆ (Propene)	2	4	mol%
Component C ₄ + (C ₄ plus)	2	4	mol%
Component C ₆ + (C ₆ plus)	2	4	mol%
TP (water dew point)	2	1	oC
Rho0 (normal density)	1	4	kg/m ³
Counters			
E (counter value energy)	9	3	GJ
Vn (counter value normalized volume)	12	3	m ³ (n)
Vb (counter value corrected volume)	12	3	m ³ (b)
Vbu (counter value uncorrected volume)	12	3	m ³ (b)
Others			
AlfaValue	1	4	-
BetaValue	1	4	-
Quantity	18	6	kWh
Cumulative Quantity	18	6	kWh

2 Operational Portfolio Networkpoints

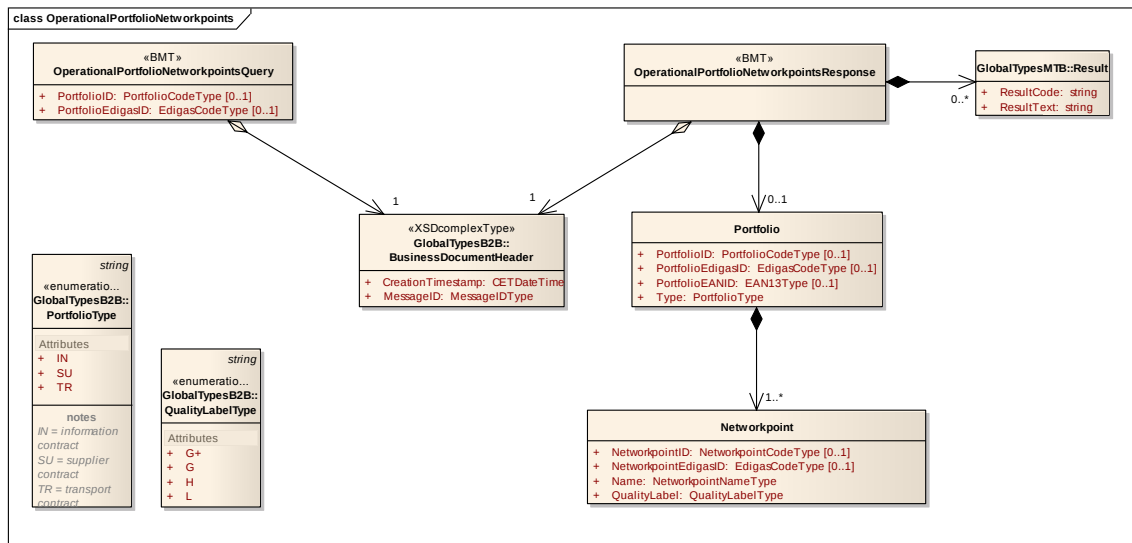
This GTS Information Service is a query/response business transaction. The query must contain a Portfolio identifier. The response returns all Networkpoints for the requested Portfolio. It applies to both Information Portfolios and Transport Portfolios.

2.1 Class diagram

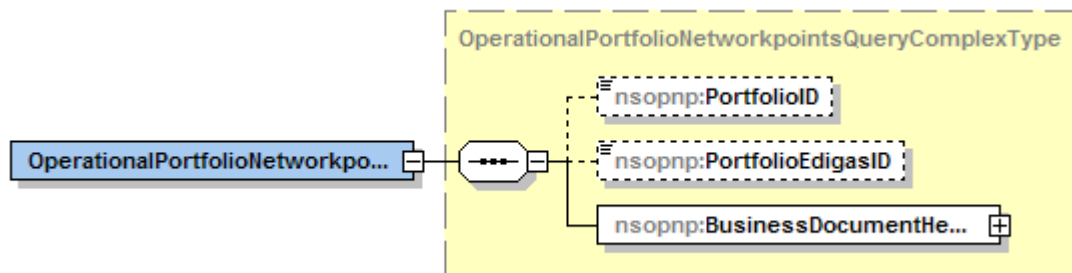
The class diagram represents the information being exchanged in this synchronous query/response business transaction.

An explanation of the most important attributes of this GTS Information Service can be found in this table:

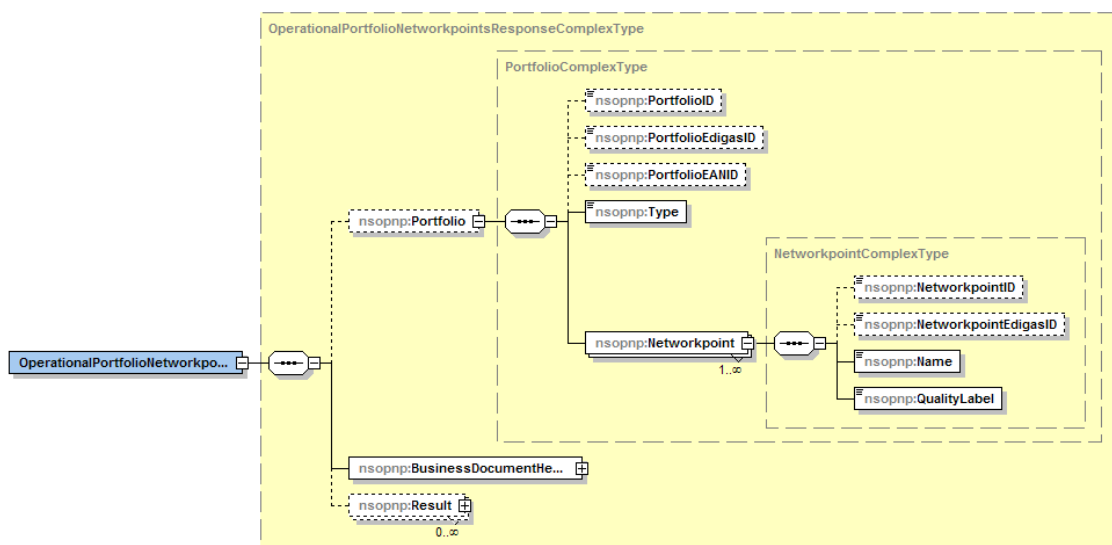
Attribute	Class	Description
MessageID	BusinessDocument Header	This identifier is a UUID used to uniquely identify every document instance, this UUID is provided by the infrastructure.
CreationTimestamp	BusinessDocument Header	The date and time when the query or response was created. Pattern is [YYYY]-[MM]-[DD]T[hh]:[mm]:[ss]+01:00.
PortfolioID	OperationalPortfolio NetworkpointsQuery Portfolio	This identifier is the GTS code of the Portfolio.
PortfolioEdigasID	OperationalPortfolio NetworkpointsQuery Portfolio	This identifier is the Edigas code of the Portfolio.
PortfolioEANID	Portfolio	This identifier is the EAN13 code of the Portfolio.
NetworkpointID	Networkpoint	This identifier is the GTS code of the Networkpoint.
NetworkpointEdigas ID	Networkpoint	This identifier is the Edigas code of the Networkpoint.
QualityLabel	Networkpoint	Last known quality label.



2.2 Query XML Schema



2.3 Response XML Schema



3 Analysis Portfolio Networkpoints

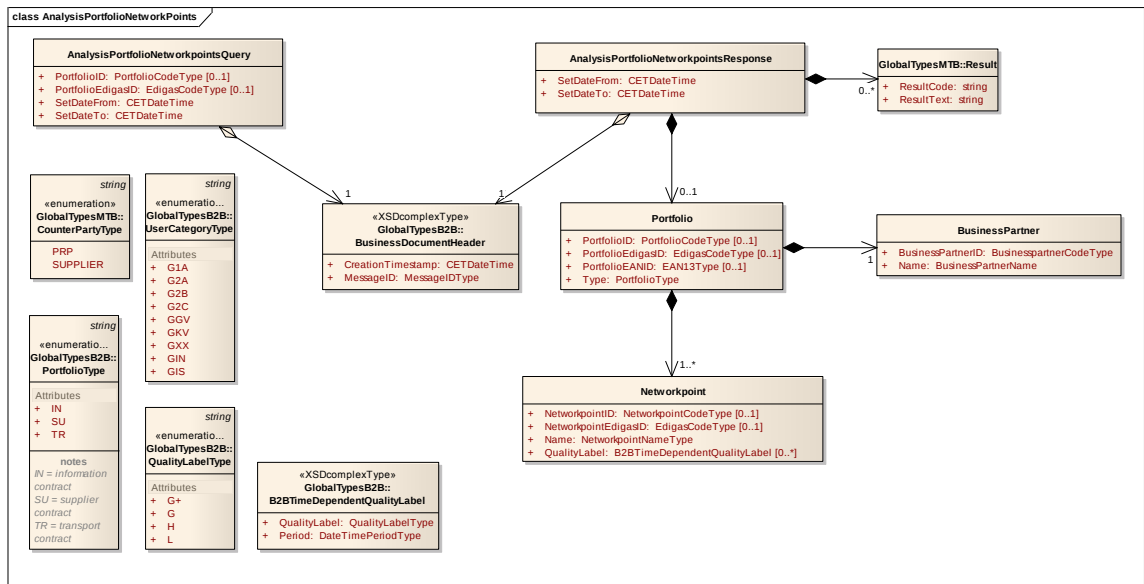
This GTS Information Service is a query/response business transaction. The query must contain a Portfolio identifier and the selected period. The response returns all Networkpoints for the requested Portfolio for the selected period. It applies to both Information Portfolios and Transport Portfolios.

3.1 Class diagram

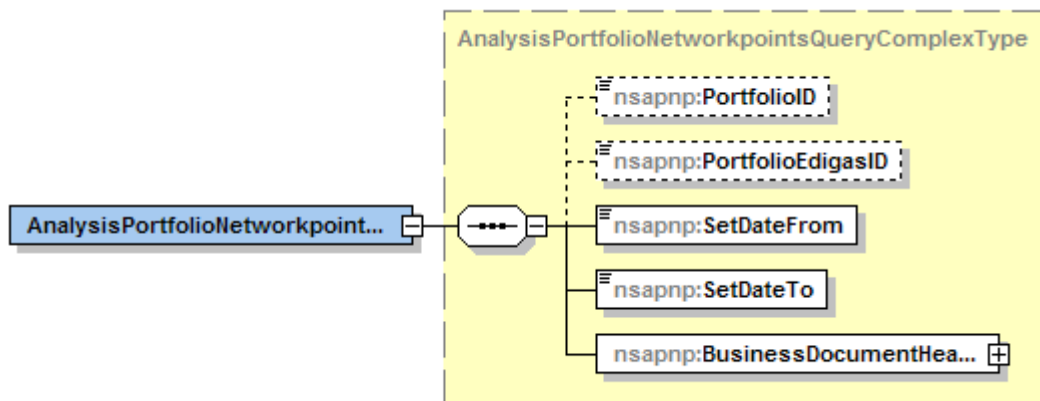
The class diagram represents the information being exchanged in this synchronous query/response business transaction.

An explanation of the most important attributes of this GTS Information Service can be found in this table:

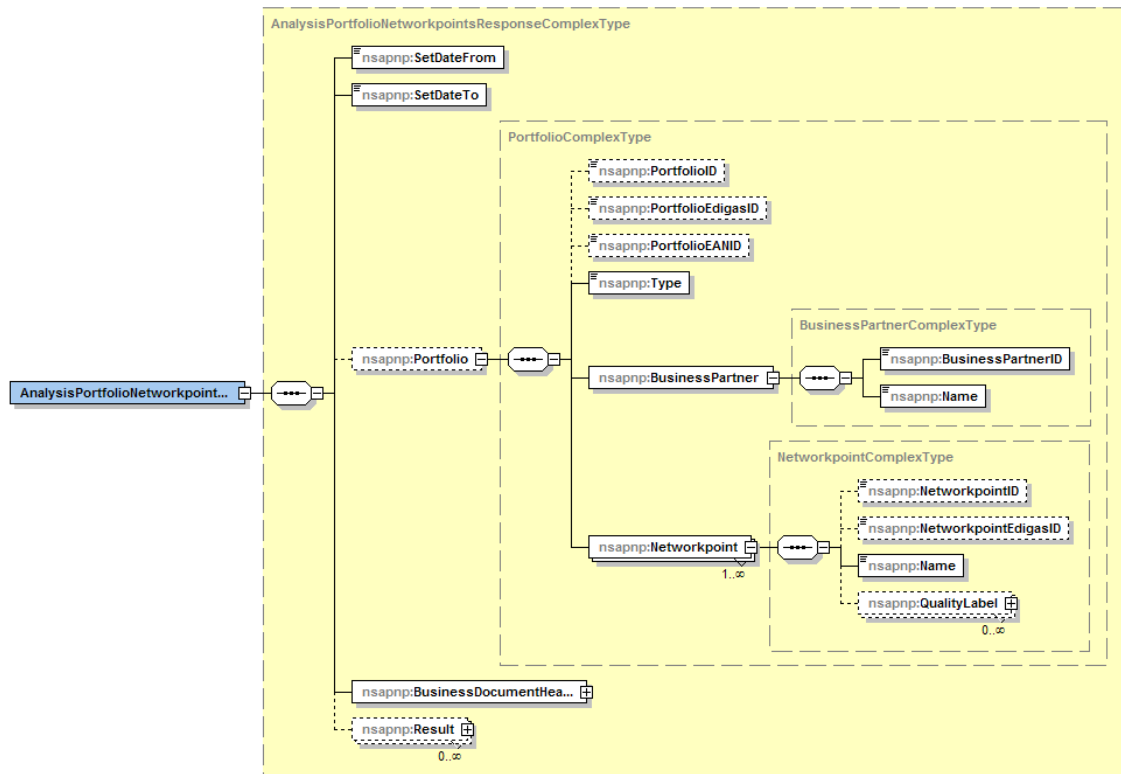
Attribute	Class	Description
MessageID	BusinessDocument Header	This identifier is a UUID used to uniquely identify every document instance, this UUID is provided by the infrastructure.
CreationTimestamp	BusinessDocument Header	The date and time when the query or response was created. Pattern is [YYYY]-[MM]-[DD]T[hh]:[mm]:[ss]+01:00.
PortfolioID	AnalysisPortfolio NetworkpointsQuery Portfolio	This identifier is the GTS code of the Portfolio.
PortfolioEdigasID	AnalysisPortfolio NetworkpointsQuery Portfolio	This identifier is the Edigas code of the Portfolio.
PortfolioEANID	Portfolio	This identifier is the EAN13 code of the Portfolio.
NetworkpointID	Networkpoint	This identifier is the GTS code of the Networkpoint.
NetworkpointEdigas ID	Networkpoint	This identifier is the Edigas code of the Networkpoint.
SetDateFrom	AnalysisPortfolio NetworkpointsQuery AnalysisPortfolio NetworkpointsResponse	Start date and time (in CET) of a period. Pattern is [YYYY]-[MM]-[DD]T[hh]:[mm]:[ss]+01:00.
SetDateTo	AnalysisPortfolio NetworkpointsQuery AnalysisPortfolio NetworkpointsResponse	End date and time (in CET) of a period. Pattern is [YYYY]-[MM]-[DD]T[hh]:[mm]:[ss]+01:00.
QualityLabel	Networkpoint	History of quality label from SetDateFrom to SetDateTo.



3.2 Query XML Schema



3.3 Response XML Schema



4 Operational Prognosis Run Measurements

This GTS Information Service is a query/response business transaction. The query must contain a Portfolio identifier and optional one or more Networkpoint identifier(s). The response returns the last cycle of 5-minute cumulated energy and running sum (the measured amount of energy in the past 60 minutes).

Every 5 minutes the energy until the last cycle time is measured. I.e. for 11:20 the cumulated energy for the period from 11:00 to 11:20 and the running sum cumulated energy from 10.20 to 11.20 is given.

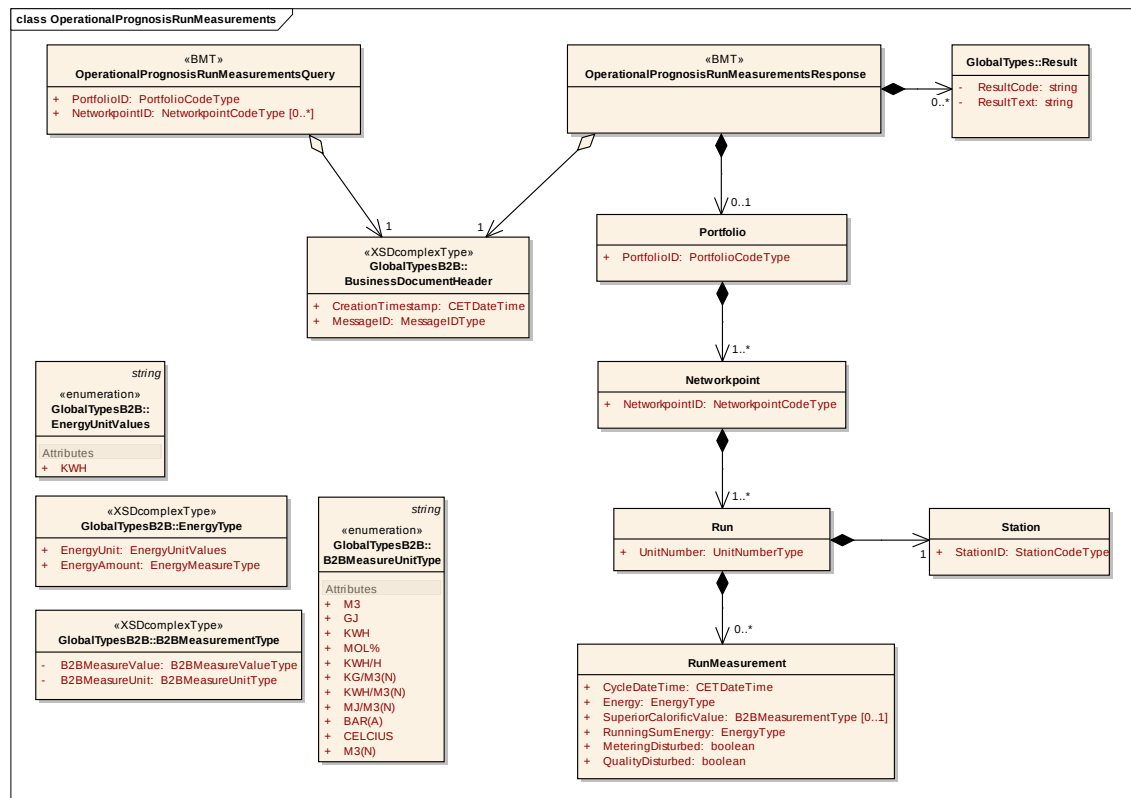
4.1 Class diagram

The class diagram represents the information being exchanged in this synchronous query/response business transaction.

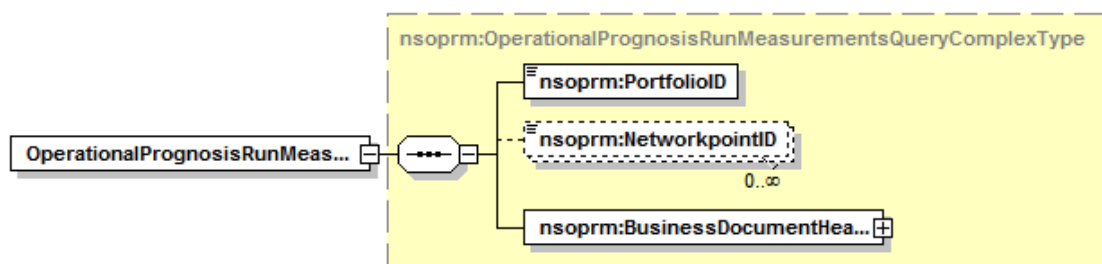
An explanation of the most important attributes of this GTS Information Service can be found in this table:

Attribute	Class	Description
MessageID	BusinessDocument Header	This identifier is a UUID used to uniquely identify every document instance, this UUID is provided by the infrastructure.
CreationTimestamp	BusinessDocument Header	The date and time when the query or response was created. Pattern is [YYYY]-[MM]-[DD]T[hh]:[mm]:[ss]+01:00.
PortfolioID	OperationalPrognosisRun MeasurementsQuery Portfolio	This identifier is the GTS code of the Portfolio.
NetworkpointID	OperationalPrognosisRun MeasurementsQuery Networkpoint	This identifier is the GTS code of the Networkpoint. The optional identifier in the request can be: 1. single specified Networkpoint; 2. multiple specified Networkpoints. If the Networkpoint identifier is not specified, all Networkpoints for the requested Portfolio will be returned in the response.
StationID	Station	This identifier is the GTS code of a location where GTS regulates/measures the gasquality, gaspressure and/or can switch or block the gasflows.
UnitNumber	Run	This number is the GTS code of a run within a station where the delivered gas is regulated and physical measured.
CycleDateTime	RunMeasurement	Date and time label (in CET). Pattern is [YYYY]-[MM]-[DD]T[hh]:[mm]:[ss]+01:00.

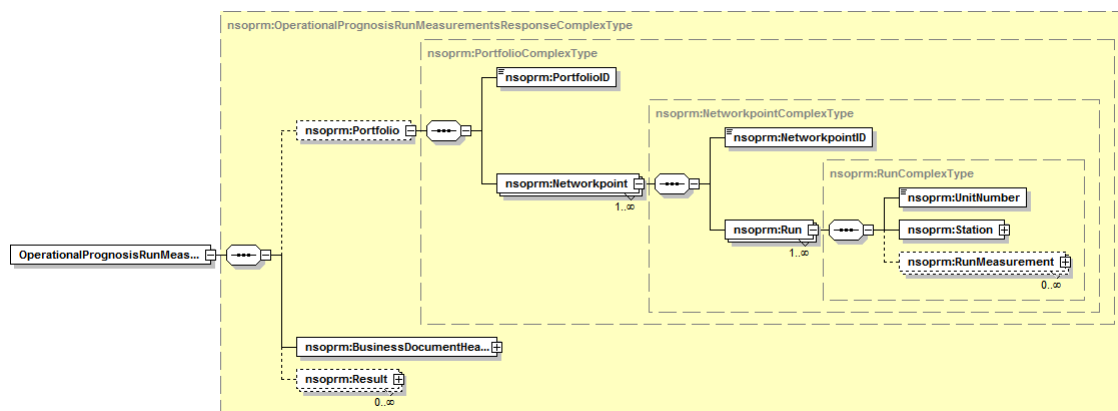
Attribute	Class	Description
Energy	RunMeasurement	Cumulated amount of energy. Example: for CycleDateTime 11:20 the amount of energy is returned from 11:00 to 11:20.
RunningSumEnergy	RunMeasurement	Running sum of energy. Example: for CycleDateTime 11:20 the amount of energy is returned from 10:20 to 11:20.
MeteringDisturbed	RunMeasurement	Flag (boolean) for disturbed metering. 0 = metering not disturbed. 1 = metering disturbed.
QualityDisturbed	RunMeasurement	Flag (boolean) for disturbed gas quality. 0 = quality not disturbed. 1 = quality disturbed.



4.2 Query XML Schema



4.3 Response XML Schema



5 Operational Run Measurements

This GTS Information Service is a query/response business transaction. The query must contain a Portfolio identifier, optional one or more Networkpoint identifier(s) and the choice for the period (1 hour or 24 hours). The response returns the hourly run measurements for the requested Portfolio for the past hour or the past 24 hours.

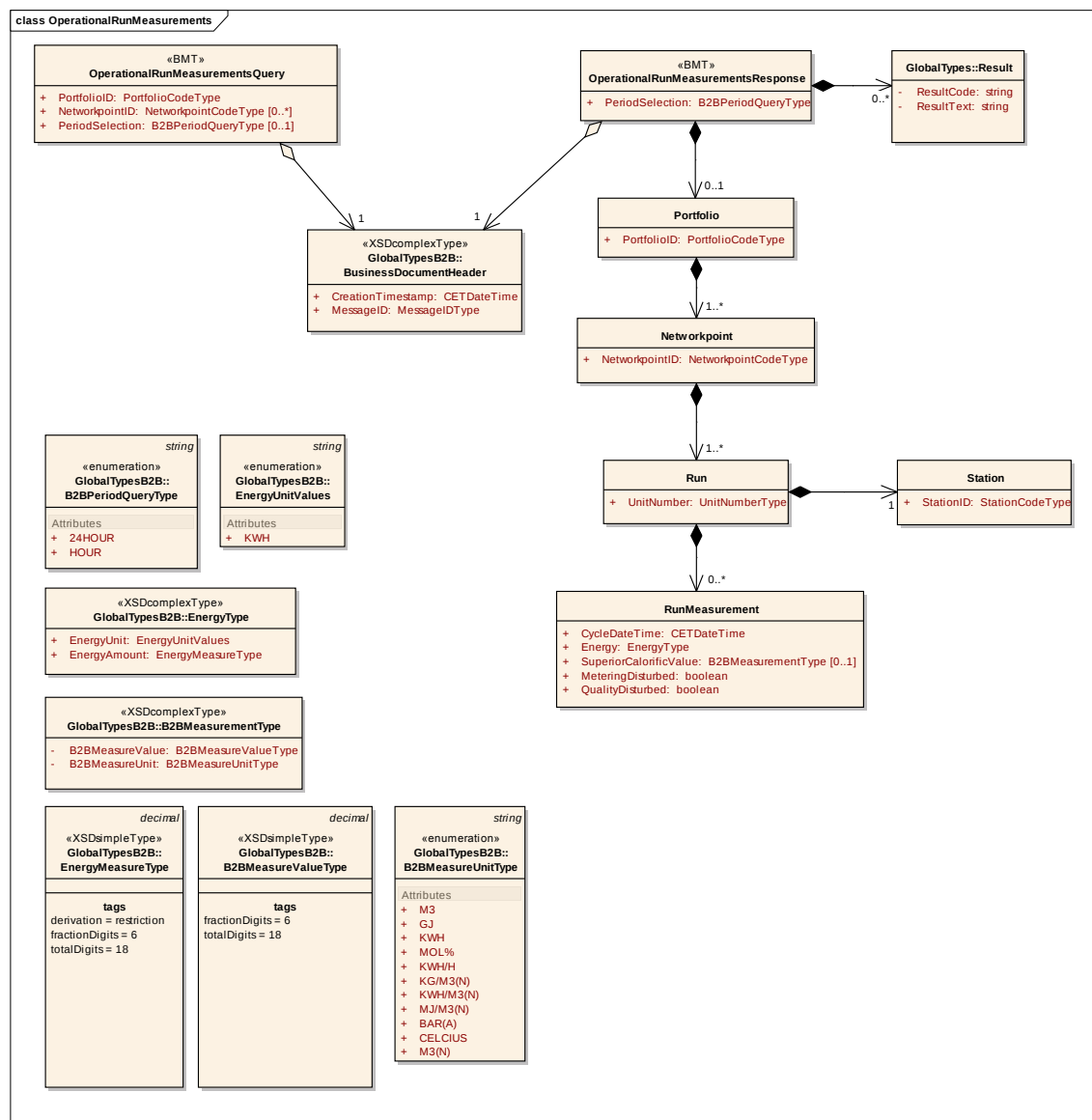
5.1 Class diagram

The class diagram represents the information being exchanged in this synchronous query/response business transaction.

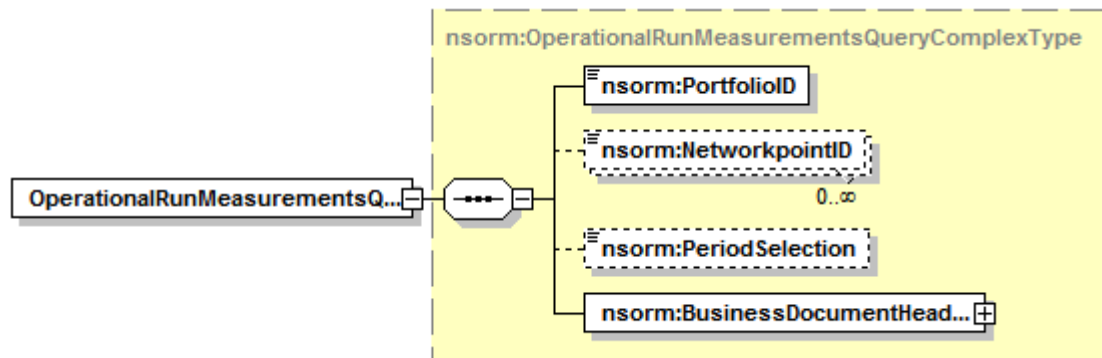
An explanation of the most important attributes of this GTS Information Service can be found in this table:

Attribute	Class	Description
MessageID	BusinessDocument Header	This identifier is a UUID used to uniquely identify every document instance, this UUID is provided by the infrastructure.
CreationTimestamp	BusinessDocument Header	The date and time when the query or response was created. Pattern is [YYYY]-[MM]-[DD]T[hh]:[mm]:[ss]+01:00.
PortfolioID	OperationalRunMeasurements Query Portfolio	This identifier is the GTS code of the Portfolio.
NetworkpointID	OperationalRunMeasurements Query Networkpoint	This identifier is the GTS code of the Networkpoint. The optional identifier in the request can be: 1. single specified Networkpoint; 2. multiple specified Networkpoints. If the Networkpoint identifier is not specified, all Networkpoints for the requested Portfolio will be returned in the response.
PeriodSelection	OperationalRunMeasurements Query OperationalRunMeasurements Response	PeriodSelection choice HOUR or 24HOUR offers: HOUR returns the last hourly value; 24HOUR returns the last 24 hourly values. HOUR is the default value.
StationID	Station	This identifier is the GTS code of a location where GTS regulates/measures the gasquality, gaspressure and/or can switch or block the gasflows.
UnitNumber	Run	This number is the GTS code of a run within a station where the delivered gas is regulated and physical measured.
CycleDateTime	RunMeasurement	Date and time label (in CET).

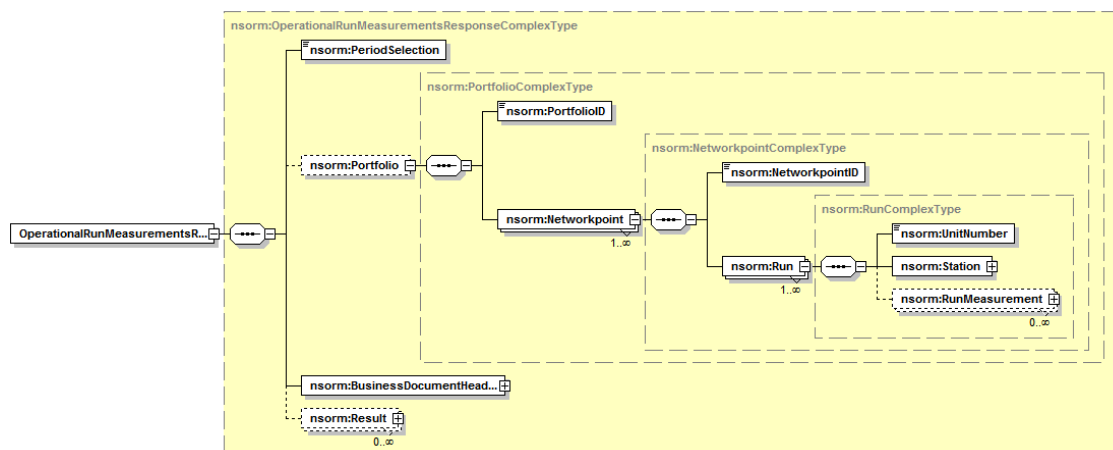
Attribute	Class	Description
		Pattern is [YYYY]-[MM]-[DD]T[hh]:[mm]:[ss]+01:00.
Energy	RunMeasurement	Cumulated amount of energy. Example: for CycleDateTime 11:20 the amount of energy is returned from 11:00 to 11:20.
MeteringDisturbed	RunMeasurement	Flag (boolean) for disturbed metering. 0 = metering not disturbed. 1 = metering disturbed.
QualityDisturbed	RunMeasurement	Flag (boolean) for disturbed gas quality. 0 = quality not disturbed. 1 = quality disturbed.



5.2 Query XML Schema



5.3 Response XML Schema



6 Operational Run Quality

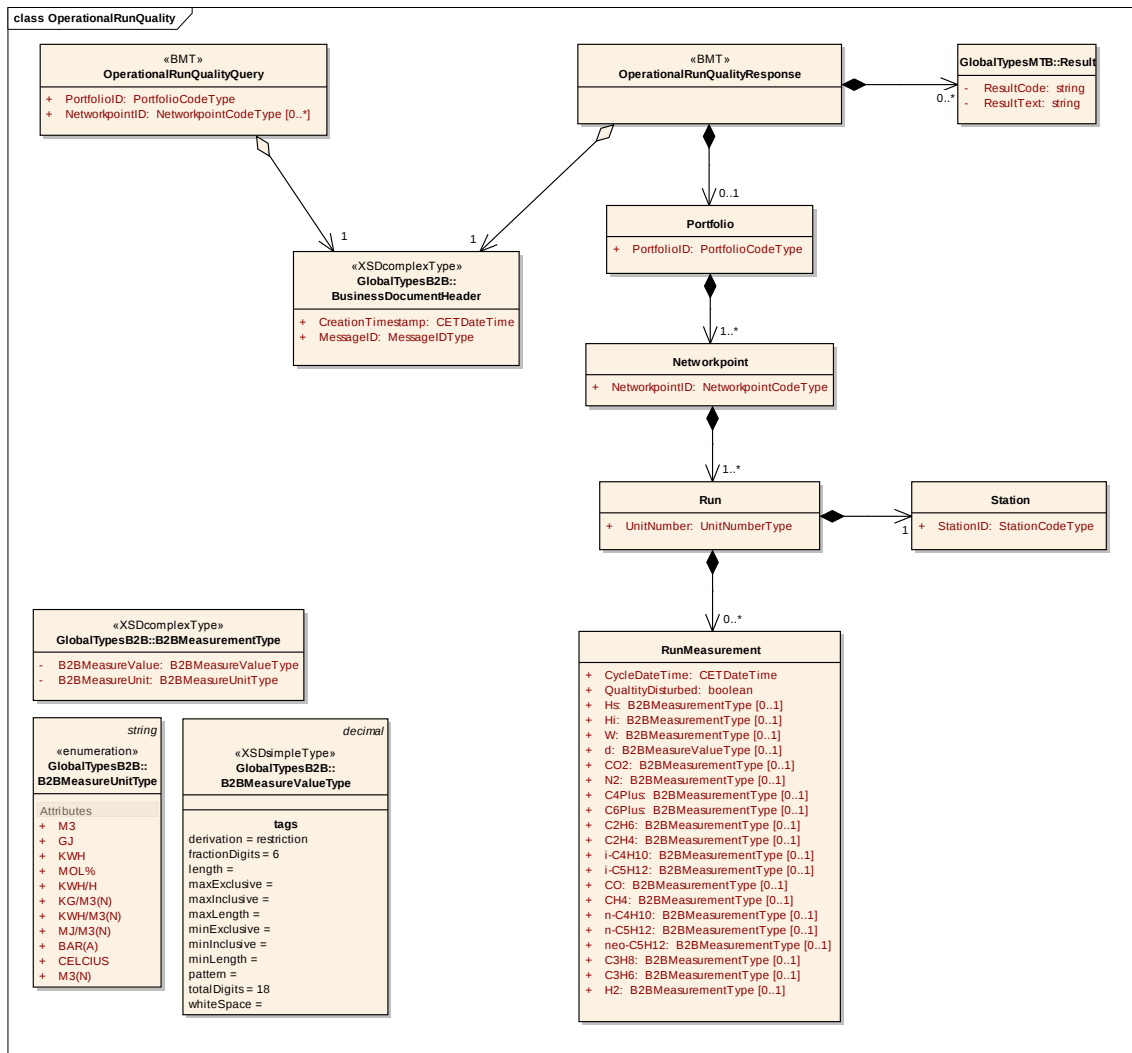
This GTS Information Service is a query/response business transaction. The query must contain a Portfolio identifier and optional one or more Networkpoint identifier(s). The response returns the last cycle of 15-minute based quality values per UnitNumber.

6.1 Class diagram

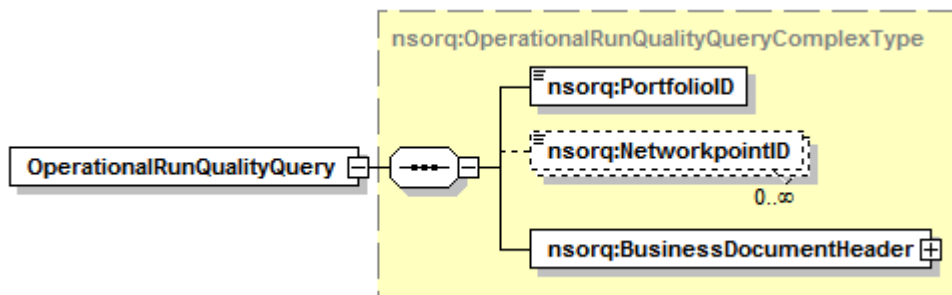
The class diagram represents the information being exchanged in this synchronous query/response business transaction.

An explanation of the most important attributes of this GTS Information Service can be found in this table:

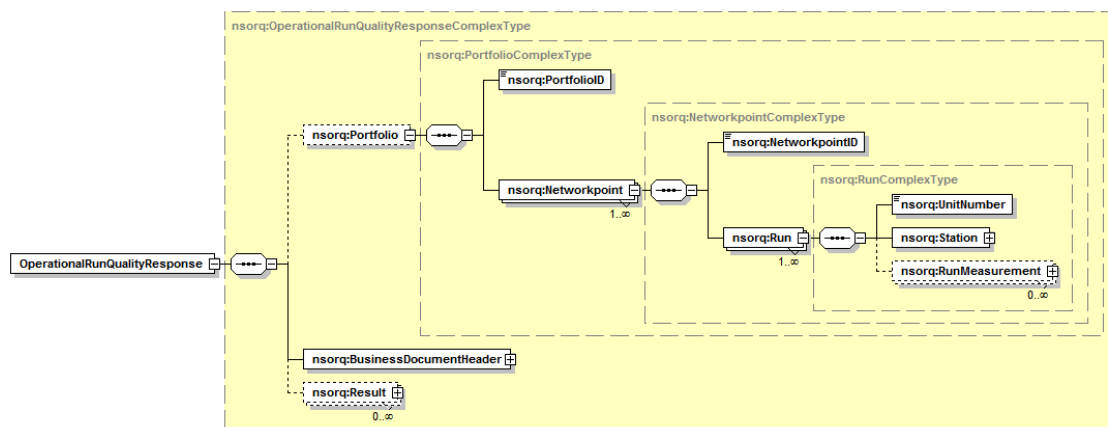
Attribute	Class	Description
MessageID	BusinessDocument Header	This identifier is a UUID used to uniquely identify every document instance, this UUID is provided by the infrastructure.
CreationTimestamp	BusinessDocument Header	The date and time when the query or response was created. Pattern is [YYYY]-[MM]-[DD]T[hh]:[mm]:[ss]+01:00.
PortfolioID	OperationalRunQuality Query Portfolio	This identifier is the GTS code of the Portfolio.
NetworkpointID	OperationalRunQuality Query Networkpoint	This identifier is the GTS code of the Networkpoint. The optional identifier in the request can be: 1. single specified Networkpoint; 2. multiple specified Networkpoints. If the Networkpoint identifier is not specified, all Networkpoints for the requested Portfolio will be returned in the response.
StationID	Station	This identifier is the GTS code of a location where GTS regulates/measures the gasquality, gaspressure and/or can switch or block the gasflows.
UnitNumber	Run	This number is the GTS code of a run within a station where the delivered gas is regulated and physical measured.
CycleDateTime	RunMeasurement	Date and time label (in CET). Pattern is [YYYY]-[MM]-[DD]T[hh]:[mm]:[ss]+01:00.
QualityDisturbed	RunMeasurement	Flag (boolean) for disturbed gas quality. 0 = quality not disturbed. 1 = quality disturbed.



6.2 Query XML Schema



6.3 Response XML Schema



7 Operational PTV Run Measurements

This GTS Information Service is a [query/response](#) business transaction. The query must contain a Portfolio identifier, optional one or more Networkpoint identifier(s) and optional a period selection. The response returns the last 5-minute pressure, temperature and cumulated volume (M3) since the last whole hour.

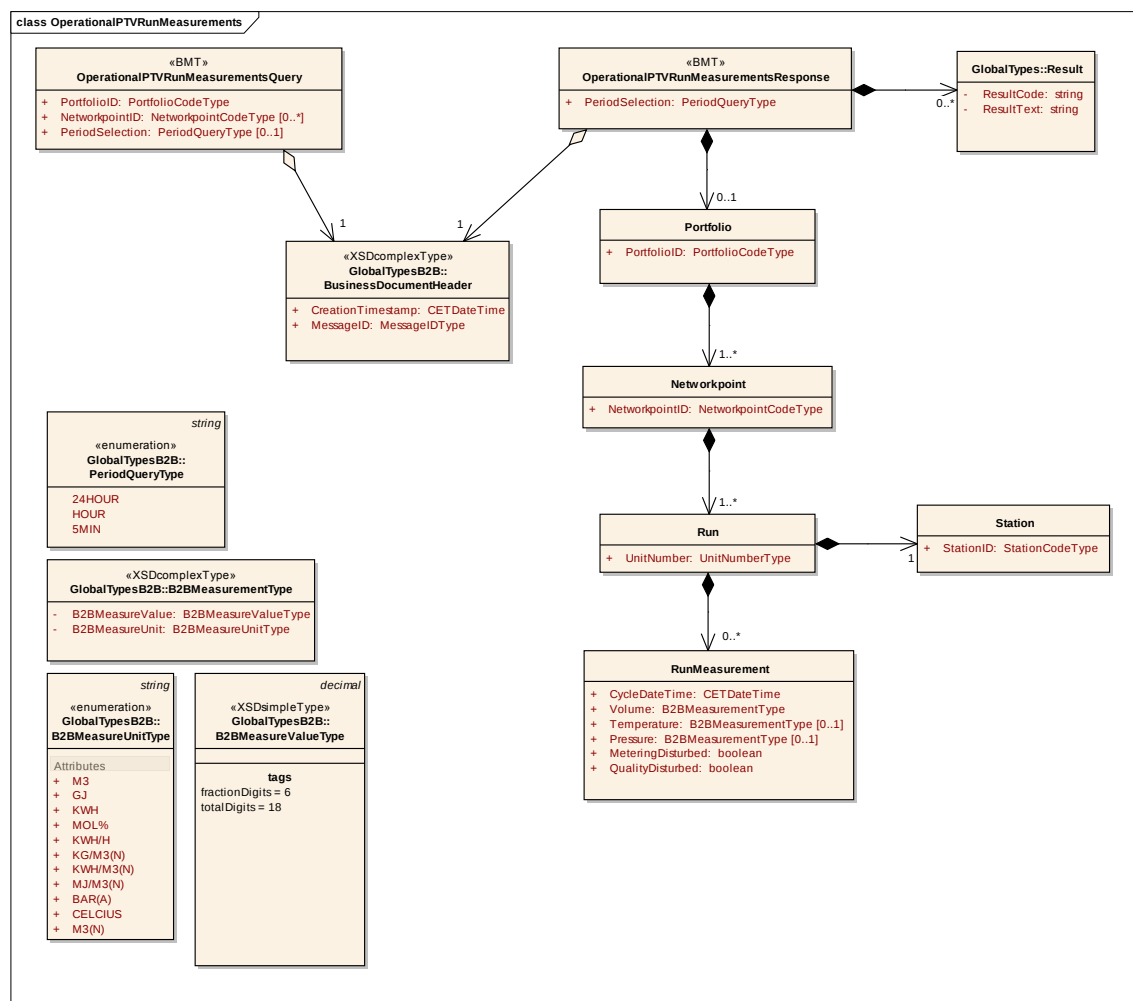
7.1 Class diagram

The class diagram represents the information being exchanged in this synchronous query/response business transaction.

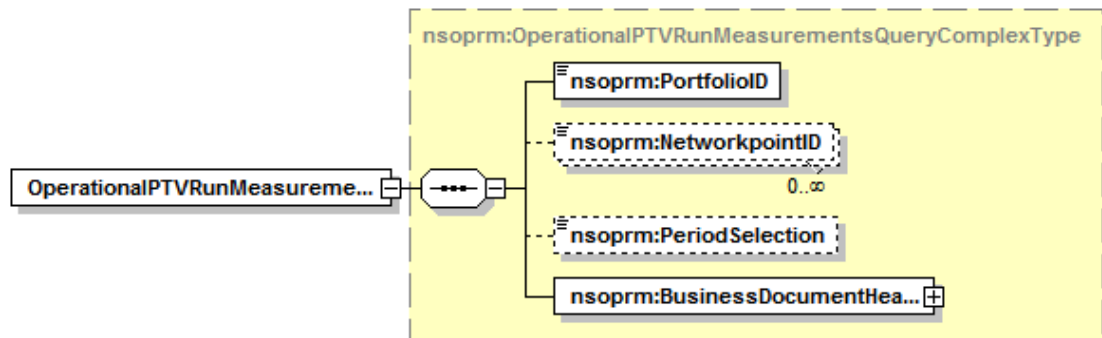
An explanation of the most important attributes of this GTS Information Service can be found in this table:

Attribute	Class	Description
MessageID	BusinessDocument Header	This identifier is a UUID used to uniquely identify every document instance, this UUID is provided by the infrastructure.
CreationTimestamp	BusinessDocument Header	The date and time when the query or response was created. Pattern is [YYYY]-[MM]-[DD]T[hh]:[mm]:[ss]+01:00.
PortfolioID	OperationalPTVRun MeasurementsQuery Portfolio	This identifier is the GTS code of the Portfolio.
NetworkpointID	OperationalPTVRun MeasurementsQuery Networkpoint	This identifier is the GTS code of the Networkpoint. The optional identifier in the request can be: 1. single specified Networkpoint; 2. multiple specified Networkpoints. If the Networkpoint identifier is not specified, all Networkpoints for the requested Portfolio will be returned in the response.
PeriodSelection	OperationalPTVRun MeasurementsQuery OperationalPTVRun MeasurementsResponse	PeriodSelection choice 5MIN, HOUR or 24HOUR offers: 5MIN returns the last 5-minute value; HOUR returns the last hourly value; 24HOUR returns the last 24 hourly values. 5MIN is the default value.
StationID	Station	This identifier is the GTS code of a location where GTS regulates/measures the gasquality, gaspressure and/or can switch or block the gasflows.
UnitNumber	Run	This number is the GTS code of a run within a station where the delivered gas

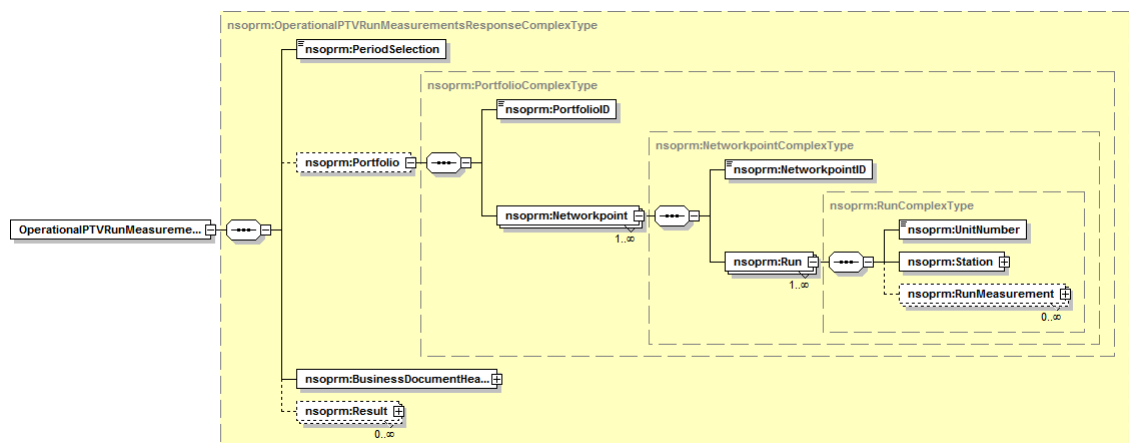
Attribute	Class	Description
		is regulated and physical measured.
CycleDateTime	RunMeasurement	Date and time label (in CET). Pattern is [YYYY]-[MM]-[DD]T[hh]:[mm]:[ss]+01:00.
MeteringDisturbed	RunMeasurement	Flag (boolean) for disturbed metering. 0 = metering not disturbed. 1 = metering disturbed.
QualityDisturbed	RunMeasurement	Flag (boolean) for disturbed gas quality. 0 = quality not disturbed. 1 = quality disturbed.



7.2 Query XML Schema



7.3 Response XML Schema



8 Operational Networkpoint Measurements

This GTS Information Service is a query/response business transaction.

The query must contain a Portfolio identifier, optional one or more Networkpoint identifier(s) and a period selection.

The response returns the hourly networkpoint measurements for the requested Portfolio for the past 5 minutes, past hour or the past 24 hours.

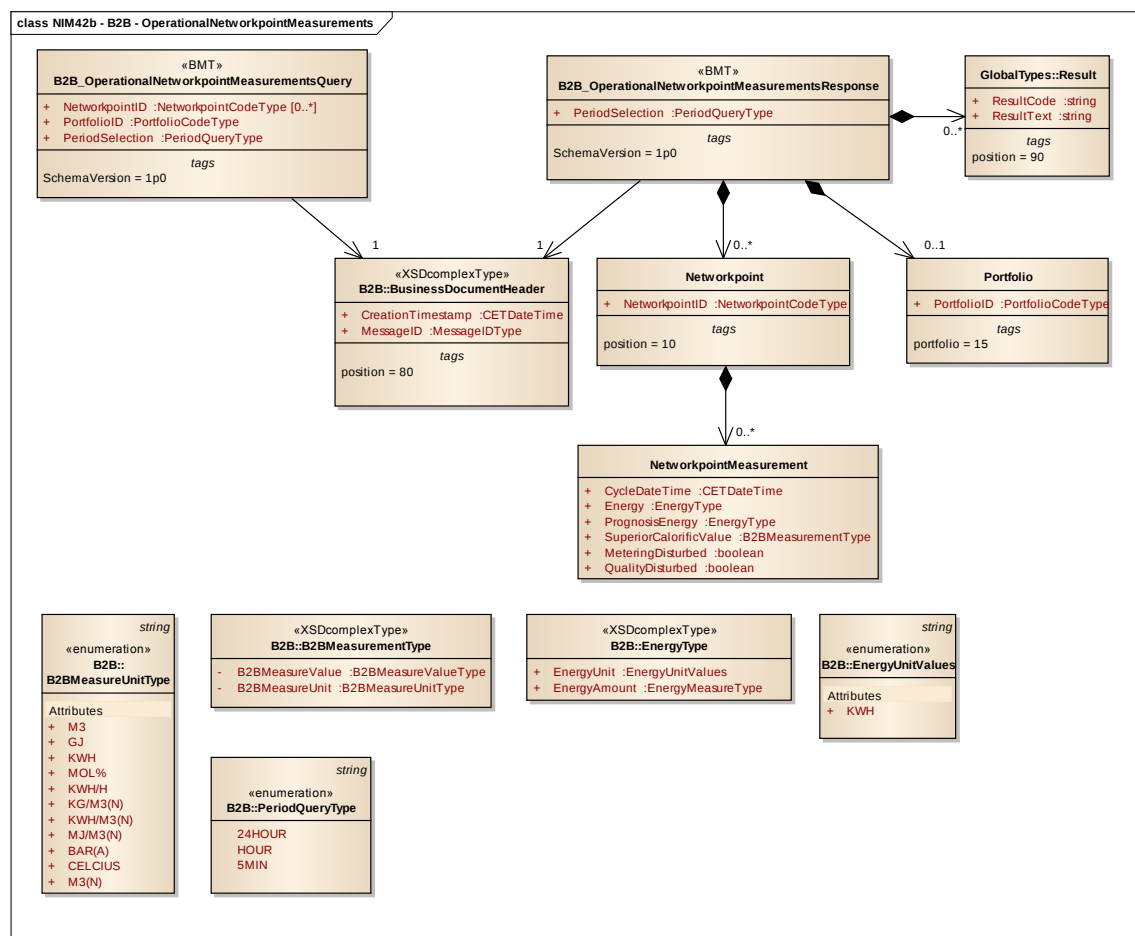
8.1 Class diagram

The class diagram represents the information being exchanged in this synchronous query/response business transaction.

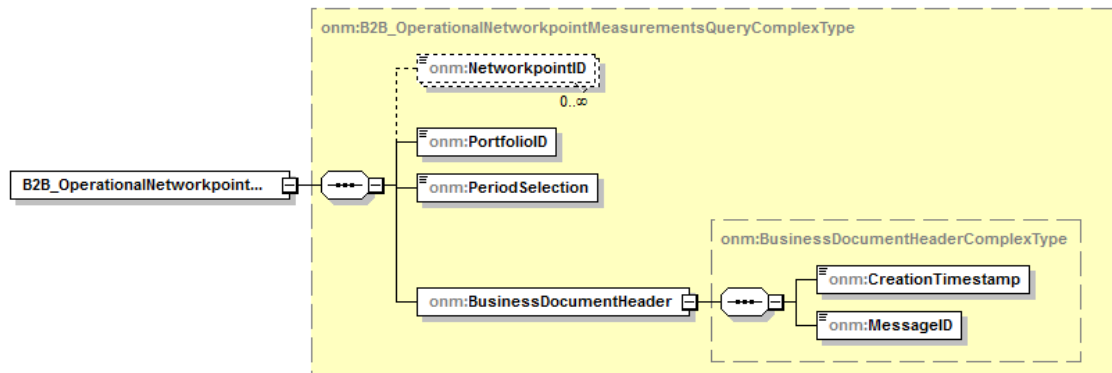
An explanation of the most important attributes of this GTS Information Service can be found in this table:

Attribute	Class	Description
MessageID	BusinessDocument Header	This identifier is a UUID used to uniquely identify every document instance, this UUID is provided by the infrastructure.
CreationTimestamp	BusinessDocument Header	The date and time when the query or response was created. Pattern is [YYYY]-[MM]-[DD]T[hh]:[mm]:[ss]+01:00.
PortfolioID	B2B_OperationalNetworkpoint sMeasurementsQuery Portfolio	This identifier is the GTS code of the Portfolio.
NetworkpointID	B2B_OperationalNetworkpoint sMeasurementsQuery Networkpoint	This identifier is the GTS code of the Networkpoint. The optional identifier in the request can be: 3. single specified Networkpoint; 4. multiple specified Networkpoints. If the Networkpoint identifier is not specified, all Networkpoints for the requested Portfolio will be returned in the response.
PeriodSelection	B2B_OperationalNetworkpoint sMeasurementsQuery B2B_OperationalNetworkpoint sMeasurementsResponse	PeriodSelection choice 5MIN, HOUR or 24HOUR offers: 5MIN returns the last 5-minute value; HOUR returns the last hourly value; 24HOUR returns the last 24 hourly values. 5MIN is the default value.
CycleDateTime	NetworkpointMeasurement	
Energy	NetworkpointMeasurement	Cumulated amount of energy. Example: for CycleDateTime 11:20 the amount of energy is returned from 11:00 to 11:20.

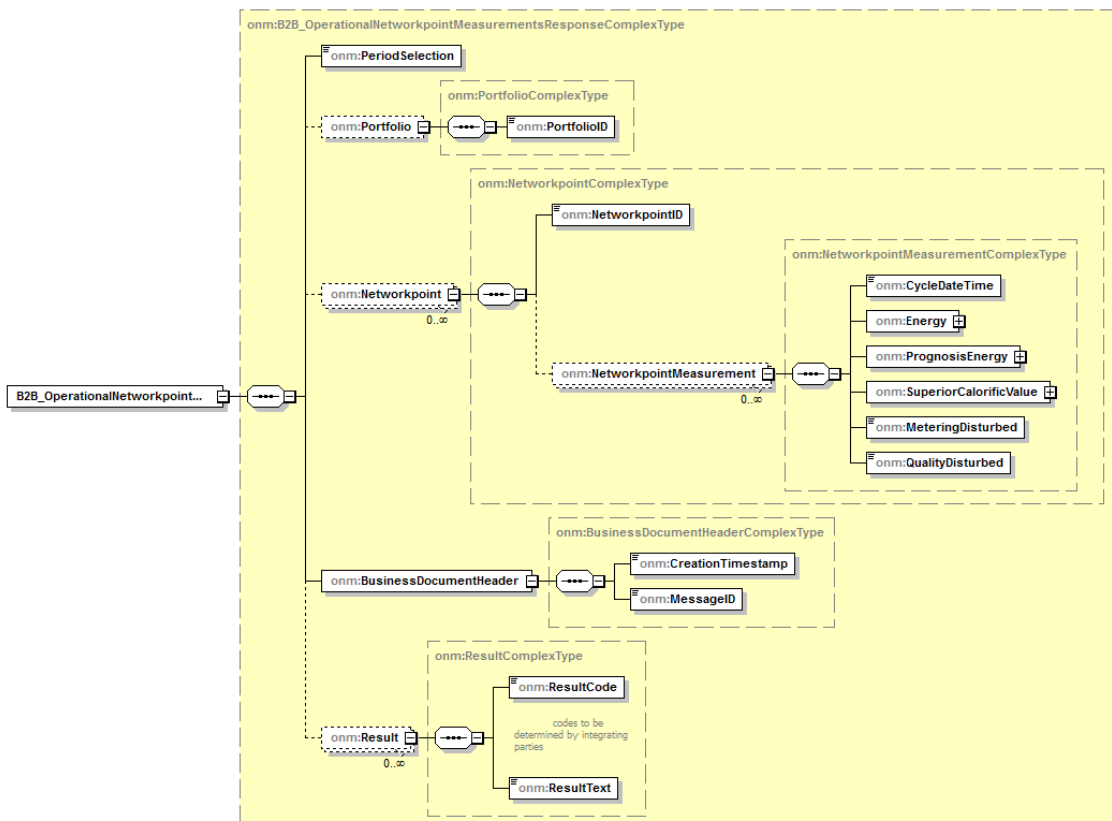
Attribute	Class	Description
PrognosisEnergy	NetworkpointMeasurement	The amount of energy prognosed at the end of the running hour.
SuperiorCalorificValue	NetworkpointMeasurement	The superior calorific value measured in this period on this location.
MeteringDisturbed	NetworkpointMeasurement	Flag (boolean) for disturbed metering. 0 = metering not disturbed. 1 = metering disturbed.
QualityDisturbed	NetworkpointMeasurement	Flag (boolean) for disturbed gas quality. 0 = quality not disturbed. 1 = quality disturbed.



8.2 Query XML Schema



8.3 Response XML Schema



9 Analysis Accountable Run Measurements And Quality

This GTS Information Service is a [query/response](#) business transaction. The query must contain among others a Portfolio identifier, optional one or more Networkpoint identifier(s) and the selected period. The response returns the hourly energy values and quality measurements for the requested Portfolio for the selected period.

The returned values are the accountable and, possible, corrected values used for invoicing.

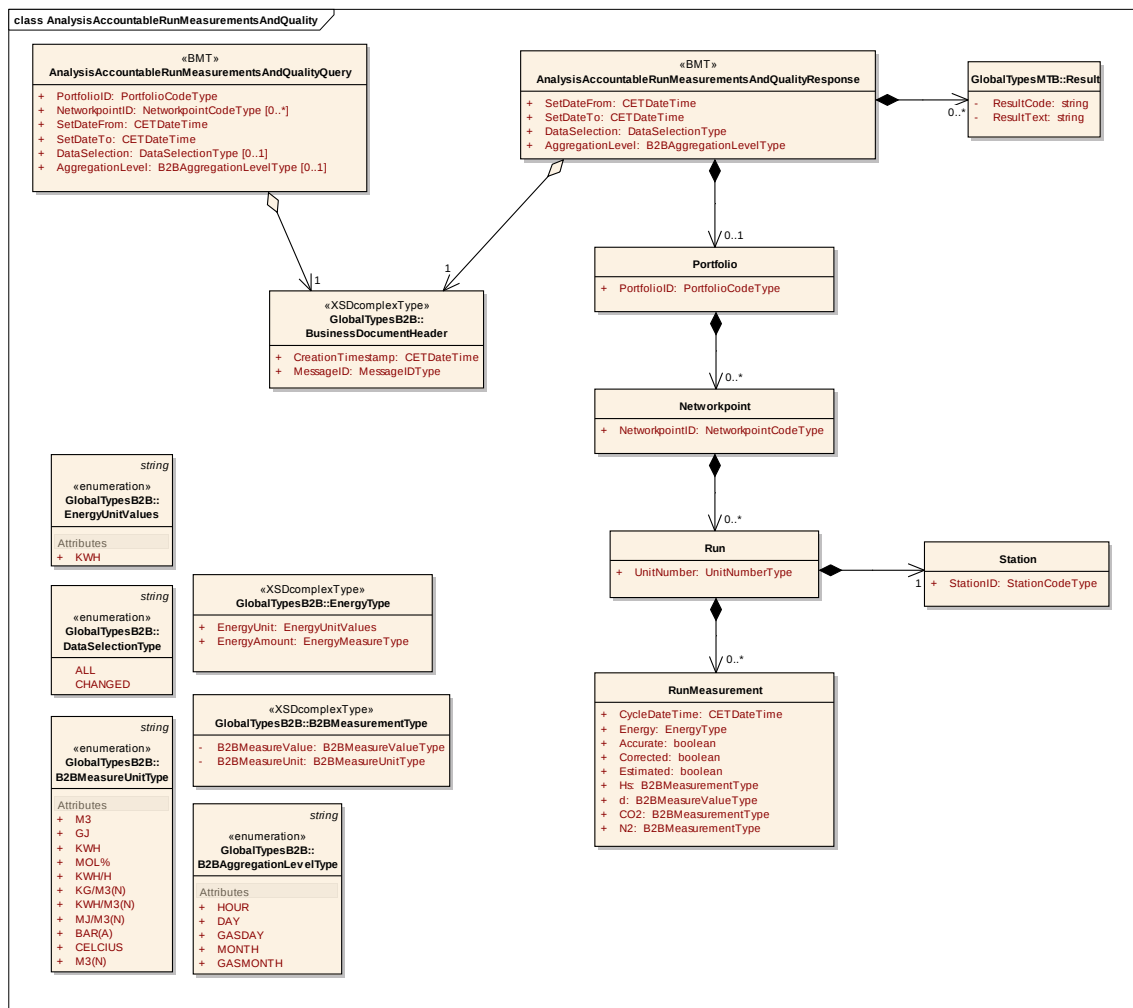
9.1 Class diagram

The class diagram represents the information being exchanged in this synchronous query/response business transaction.

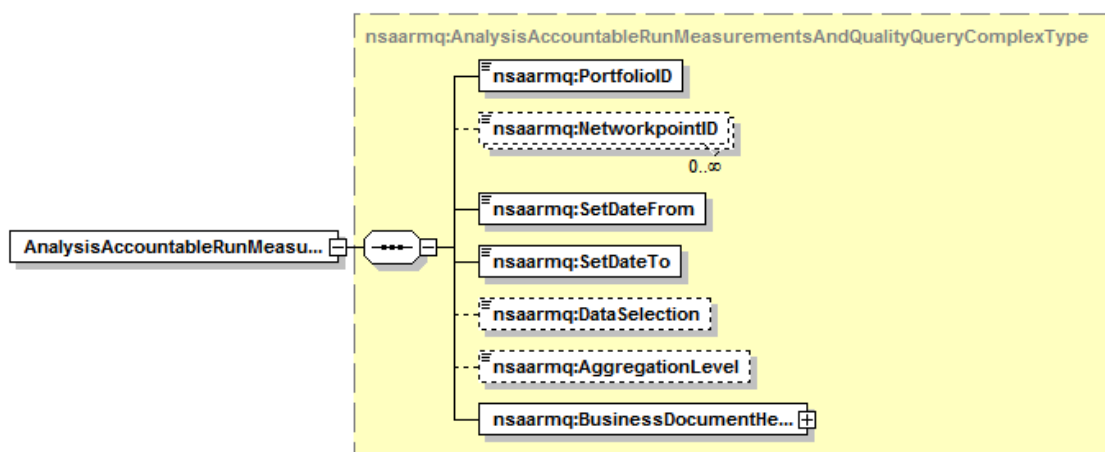
An explanation of the most important attributes of this GTS Information Service can be found in this table:

Attribute	Class	Description
MessageID	BusinessDocument Header	This identifier is a UUID used to uniquely identify every document instance, this UUID is provided by the infrastructure.
CreationTimestamp	BusinessDocument Header	The date and time when the query or response was created. Pattern is [YYYY]-[MM]-[DD]T[hh]:[mm]:[ss]+01:00.
PortfolioID	AnalysisAccountableRun MeasurementsAndQualityQuery Portfolio	This identifier is the GTS code of the Portfolio.
NetworkpointID	AnalysisAccountableRun MeasurementsAndQualityQuery Networkpoint	This identifier is the GTS code of the Networkpoint. The optional identifier in the request can be: 1. single specified Networkpoint; 2. multiple specified Networkpoints. If the Networkpoint identifier is not specified, all Networkpoints for the requested Portfolio will be returned in the response.
SetDateFrom	AnalysisAccountableRun MeasurementsAndQualityQuery AnalysisAccountableRun MeasurementsAndQuality Response	Start date and time (in CET) of a period. Pattern is [YYYY]-[MM]-[DD]T[hh]:[mm]:[ss]+01:00.
SetDateTo	AnalysisAccountableRun MeasurementsAndQualityQuery AnalysisAccountableRun MeasurementsAndQuality	End date and time (in CET) of a period. Pattern is [YYYY]-[MM]-[DD]T[hh]:[mm]:[ss]+01:00.

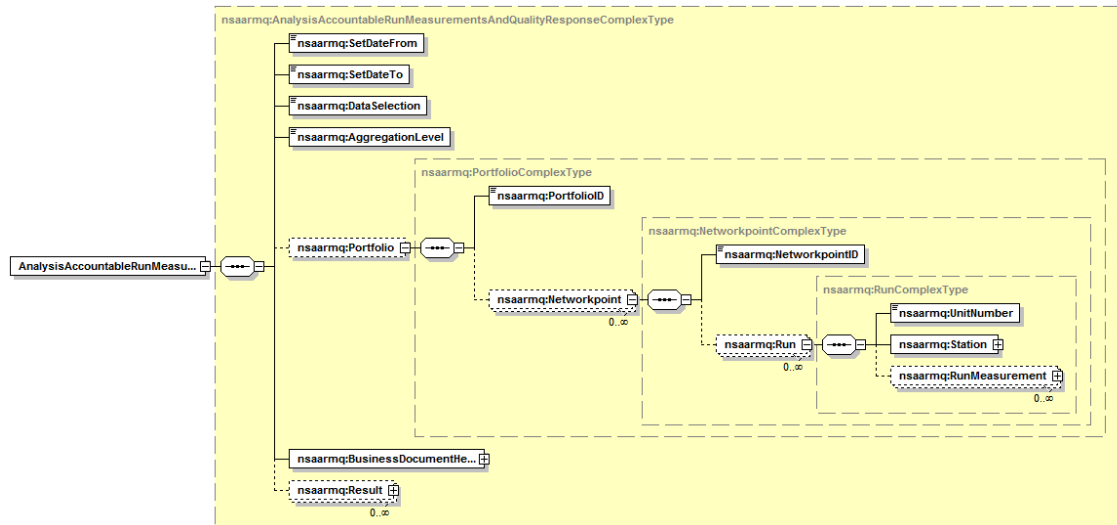
Attribute	Class	Description
	Response	
DataSelection	AnalysisAccountableRun MeasurementsAndQualityQuery AnalysisAccountableRun MeasurementsAndQuality Response	Data selection of information: ALL returns all data; CHANGED returns all data that has been changed between SetDateFrom and SetDateTo. ALL is the default value.
AggregationLevel	AnalysisAccountableRun MeasurementsAndQualityQuery AnalysisAccountableRun MeasurementsAndQuality Response	Aggregation of information: HOUR return the hourly values; DAY returns the aggregation of hourly values to day values; GASDAY returns the aggregation of hourly values to gasday values; MONTH returns the aggregation of hourly values to month values; GASMONTH returns the aggregation of hourly values to gasmonth values. HOUR is the default value.
StationID	Station	This identifier is the GTS code of a location where GTS regulates/measures the gasquality, gaspressure and/or can switch or block the gasflows.
UnitNumber	Run	This number is the GTS code of a run within a station where the delivered gas is regulated and physical measured.
CycleDateTime	RunMeasurement	Date and time label (in CET). Pattern is [YYYY]-[MM]- [DD]T[hh]:[mm]:[ss]+01:00.
Energy	RunMeasurement	Amount of energy.



9.2 Query XML Schema



9.3 Response XML Schema



10 Analysis Accountable Run Rest Energy

This GTS Information Service is a query/response business transaction. The query must contain among others a Portfolio identifier, optional one or more Networkpoint identifier(s) and the selected period. The response returns the monthly run rest energy for the requested Portfolio for the selected period. The RestEnergy is available at the end of the month only.

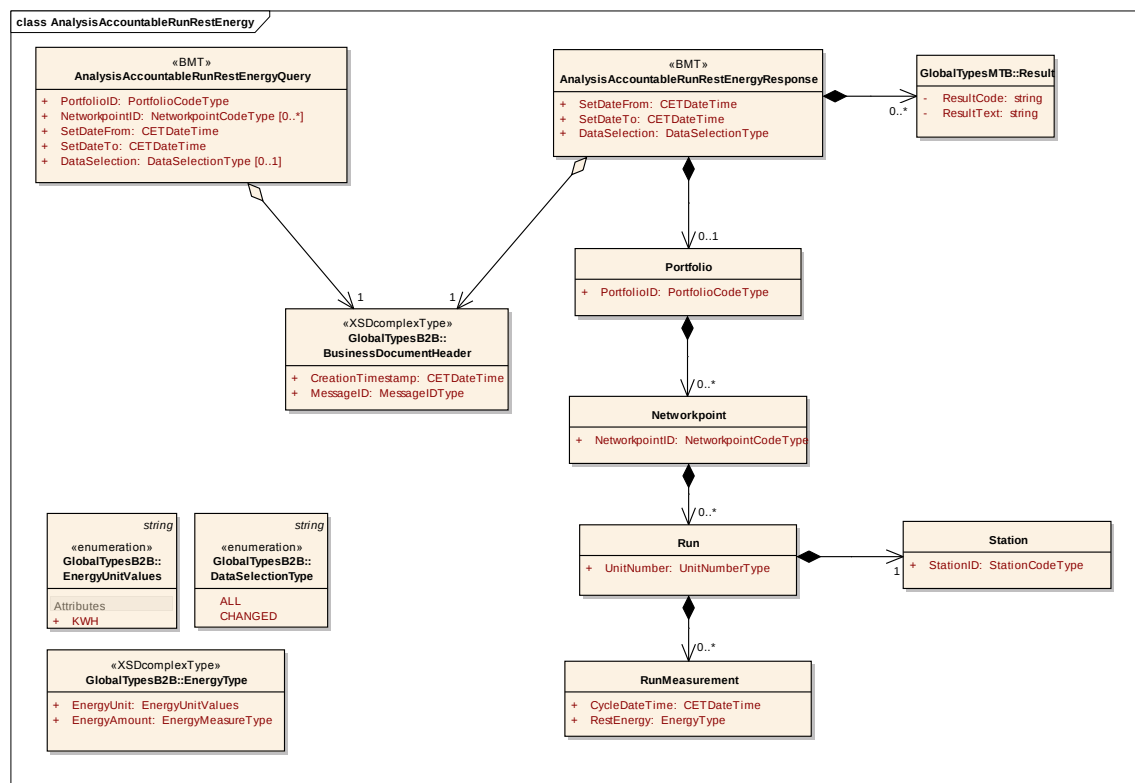
10.1 Class diagram

The class diagram represents the information being exchanged in this synchronous query/response business transaction.

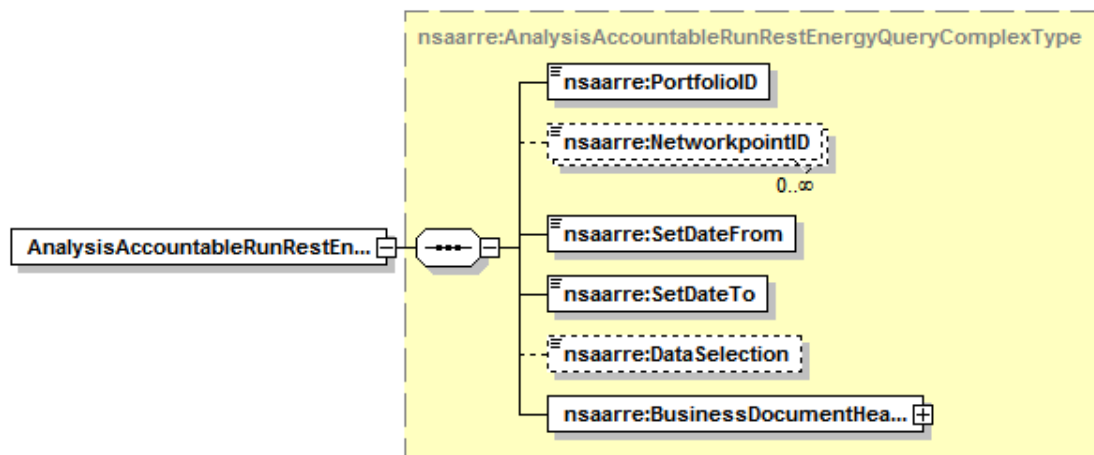
An explanation of the most important attributes of this GTS Information Service can be found in this table:

Attribute	Class	Description
MessageID	BusinessDocument Header	This identifier is a UUID used to uniquely identify every document instance, this UUID is provided by the infrastructure.
CreationTimestamp	BusinessDocument Header	The date and time when the query or response was created. Pattern is [YYYY]-[MM]-[DD]T[hh]:[mm]:[ss]+01:00.
PortfolioID	AnalysisAccountable RunRestEnergyQuery Portfolio	This identifier is the GTS code of the Portfolio.
NetworkpointID	AnalysisAccountable NetworkpointRestAllocation Query Networkpoint	This identifier is the GTS code of the Networkpoint. The optional identifier in the request can be: 1. single specified Networkpoint; 2. multiple specified Networkpoints. If the Networkpoint identifier is not specified, all Networkpoints for the requested Portfolio will be returned in the response.
SetDateFrom	AnalysisAccountable NetworkpointRestAllocation Query AnalysisAccountable NetworkpointRestAllocation Response	Start date and time (in CET) of a period. Pattern is [YYYY]-[MM]-[DD]T[hh]:[mm]:[ss]+01:00.
SetDateTo	AnalysisAccountable NetworkpointRestAllocation Query AnalysisAccountable NetworkpointRestAllocation Response	End date and time (in CET) of a period. Pattern is [YYYY]-[MM]-[DD]T[hh]:[mm]:[ss]+01:00.

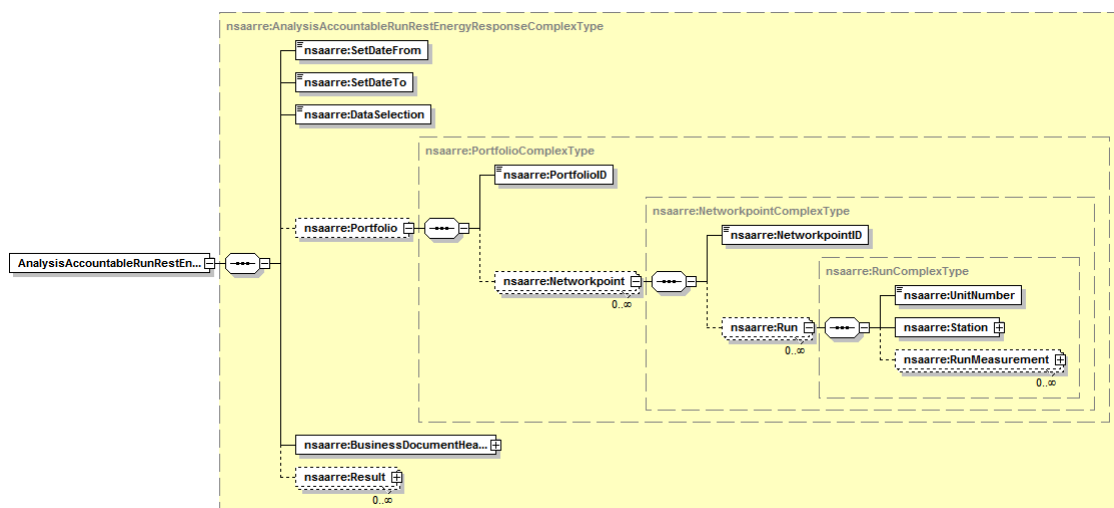
Attribute	Class	Description
DataSelection	AnalysisAccountable NetworkpointRestAllocation Query AnalysisAccountable NetworkpointRestAllocation Response	Data selection of information: ALL returns all data; CHANGED returns all data that has been changed between SetDateFrom and SetDateTo. ALL is the default value.
StationID	Station	This identifier is the GTS code of a location where GTS regulates/measures the gasquality, gaspressure and/or can switch or block the gasflows.
UnitNumber	Run	This number is the GTS code of a run within a station where the delivered gas is regulated and physical measured.
CycleDateTime	RunMeasurement	Date and time label (in CET). Pattern is [YYYY]-[MM]- [DD]T[hh]:[mm]:[ss]+01:00.
RestEnergy	RunMeasurement	Amount of energy.



10.2 Query XML Schema



10.3 Response XML Schema



11 Analysis Export Gasmeter Data

This GTS Information Service is a query/response business transaction. The query must contain a Portfolio identifier, optional one or more Networkpoint identifier(s) and the selected period. The response returns the hourly volume, energy, volumecounters, average temperature and pressure for export stations (specific networkpoints) for the requested Portfolio for the selected period.

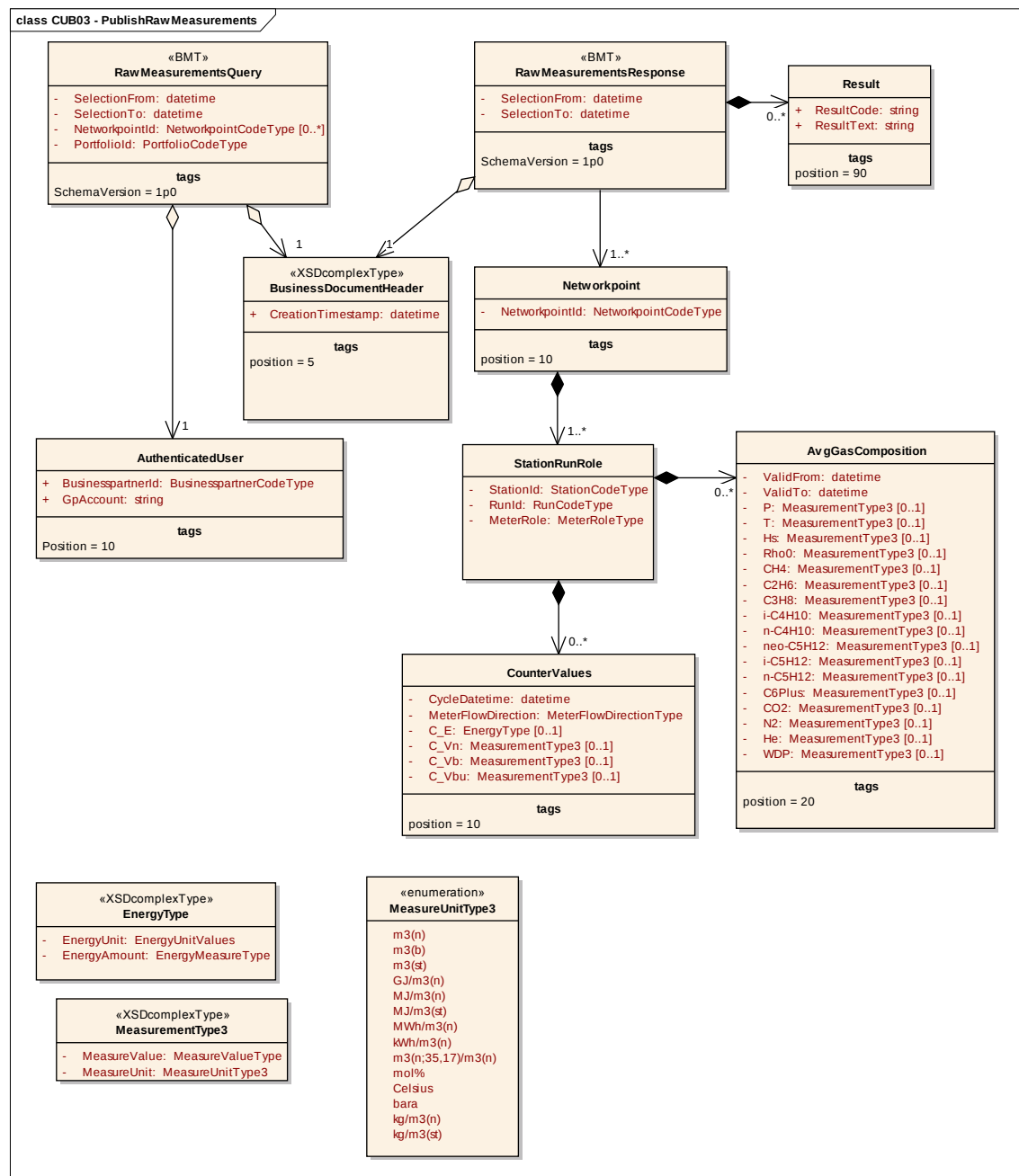
11.1 Class diagram

The class diagram represents the information being exchanged in this synchronous query/response business transaction.

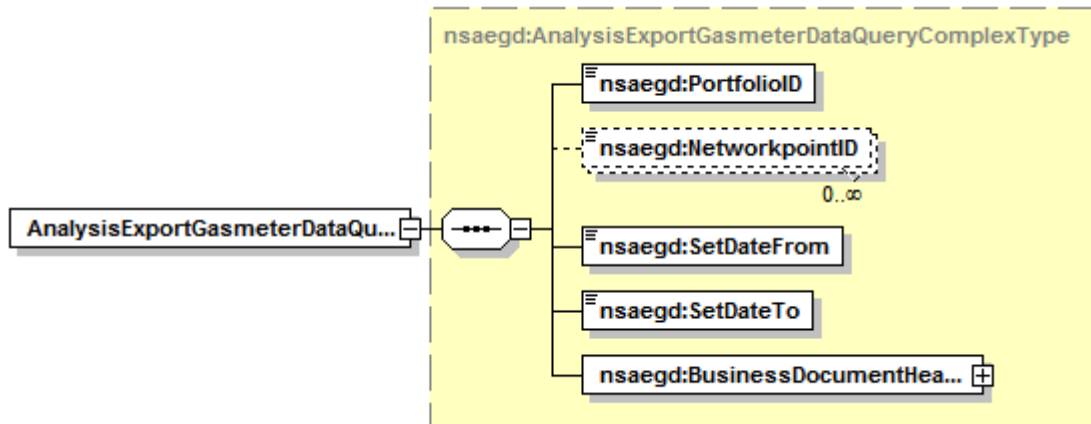
An explanation of the most important attributes of this GTS Information Service can be found in this table:

Attribute	Class	Description
MessageID	BusinessDocument Header	This identifier is a UUID used to uniquely identify every document instance, this UUID is provided by the infrastructure.
CreationTimestamp	BusinessDocument Header	The date and time when the query or response was created. Pattern is [YYYY]-[MM]-[DD]T[hh]:[mm]:[ss]+01:00.
PortfolioID	AnalysisExport GasmeterDataQuery Portfolio	This identifier is the GTS code of the Portfolio.
NetworkpointID	AnalysisExport GasmeterDataQuery Networkpoint	This identifier is the GTS code of the Networkpoint. The optional identifier in the request can be: 1. single specified Networkpoint; 2. multiple specified Networkpoints. If the Networkpoint identifier is not specified, all Networkpoints for the requested Portfolio will be returned in the response.
SetDateFrom	AnalysisExport GasmeterDataQuery AnalysisExport GasmeterDataResponse	Start date and time (in CET) of a period. Pattern is [YYYY]-[MM]-[DD]T[hh]:[mm]:[ss]+01:00.
SetDateTo	AnalysisExport GasmeterDataQuery AnalysisExport GasmeterDataResponse	End date and time (in CET) of a period. Pattern is [YYYY]-[MM]-[DD]T[hh]:[mm]:[ss]+01:00.
StationID	StationRunRole	This identifier is the GTS code of a location where GTS regulates/measures the gasquality, gaspressure and/or can

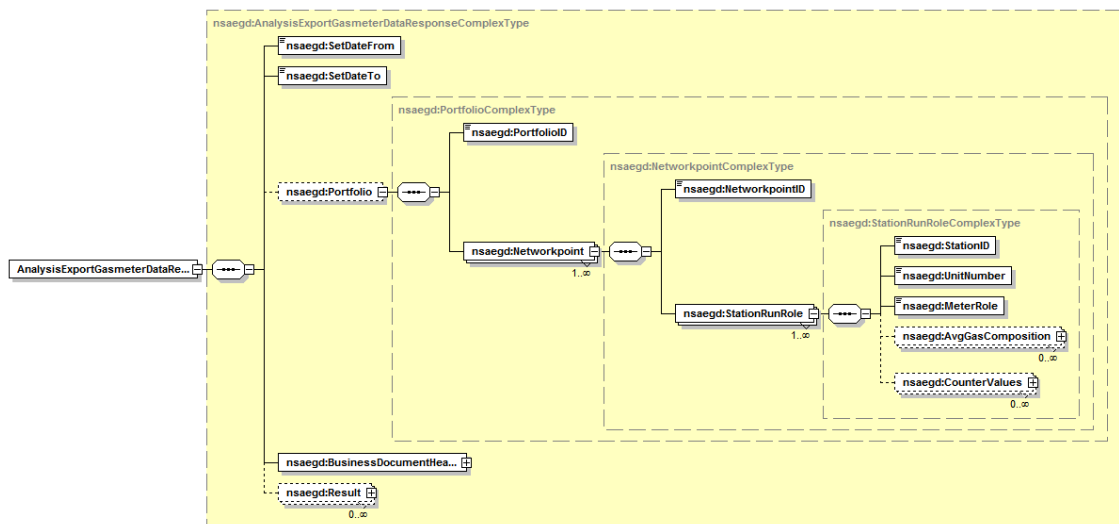
Attribute	Class	Description
		switch or block the gasflows.
UnitNumber	StationRunRole	This number is the GTS code of a run within a station where the delivered gas is regulated and physical measured.
CycleDateTime	CounterValues	Date and time label (in CET). Pattern is [YYYY]-[MM]-[DD]T[hh]:[mm]:[ss]+01:00.



11.2 Query XML Schema



11.3 Response XML Schema



12 Operational Gas Quality

This GTS Information Service is a query/response business transaction. The query must contain a Portfolio identifier and optional one or more Networkpoint identifier(s). The response returns near real time gas composition for the requested Portfolio. The supplied data are the last 15-minutes based cycle measurements of the gas chromatographs.

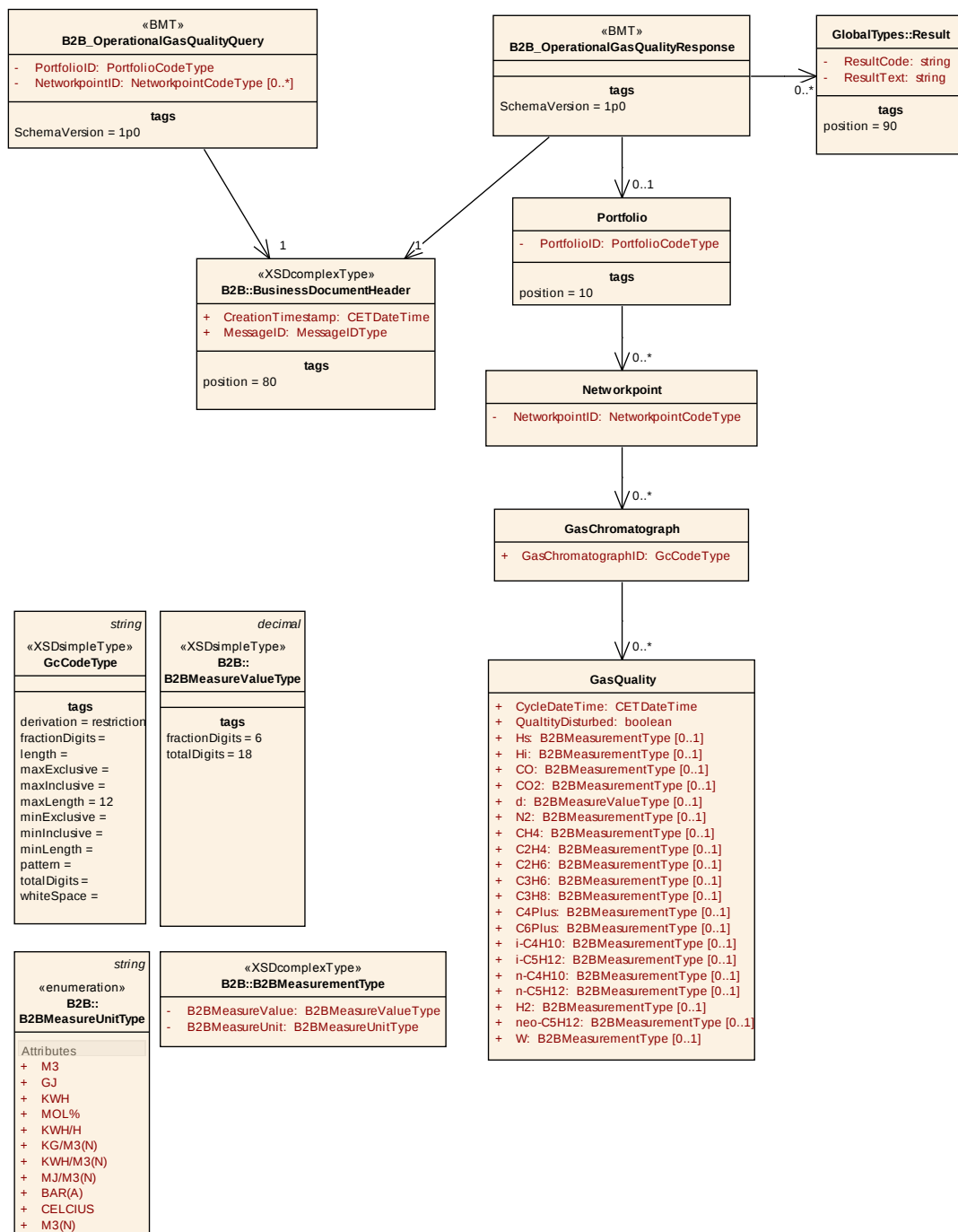
12.1 Class diagram

The class diagram represents the information being exchanged in this synchronous query/response business transaction.

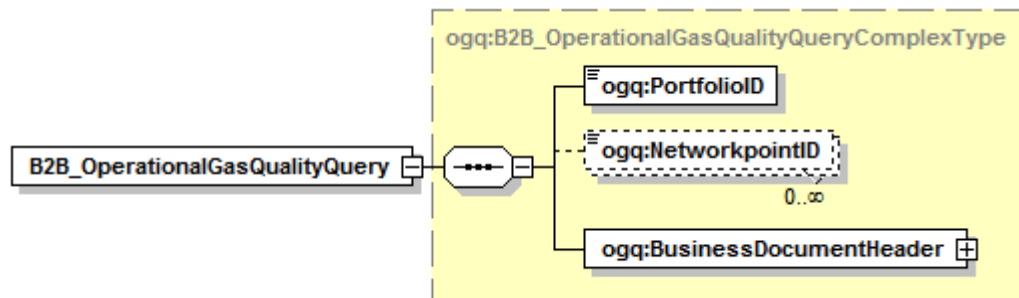
An explanation of the most important attributes of this GTS Information Service can be found in this table:

Attribute	Class	Description
MessageID	BusinessDocument Header	This identifier is a UUID used to uniquely identify every document instance, this UUID is provided by the infrastructure.
CreationTimestamp	BusinessDocument Header	The date and time when the query or response was created. Pattern is [YYYY]-[MM]-[DD]T[hh]:[mm]:[ss]+01:00.
PortfolioID	B2B_OperationalGasQuality Query Portfolio	This identifier is the GTS code of the Portfolio.
NetworkpointID	B2B_OperationalGasQuality Query Networkpoint	This identifier is the GTS code of the Networkpoint. The optional identifier in the request can be: 1. single specified Networkpoint; 2. multiple specified Networkpoints. If the Networkpoint identifier is not specified, all Networkpoints for the requested Portfolio will be returned in the response.
GasChromatographID	GasChromatograph	This identifier is the GTS code of GasChromatograph where GTS regulates/measures the gas quality.
CycleDateTime	GasQuality	Date and time label (in CET). Pattern is [YYYY]-[MM]-[DD]T[hh]:[mm]:[ss]+01:00.
QualityDisturbed	GasQuality	Flag (boolean) for disturbed gas quality. 0 = quality not disturbed. 1 = quality disturbed.

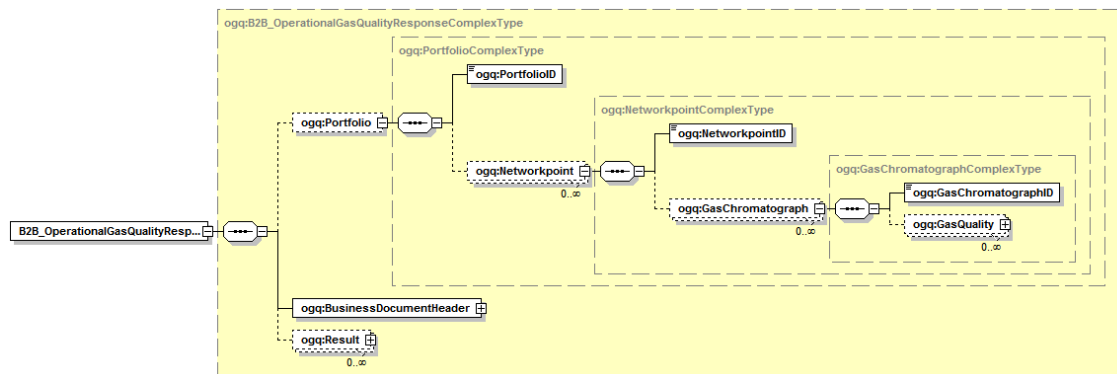
class NIM52 - B2B - OperationalGasQuality



12.2 Query XML Schema



12.3 Response XML Schema



13 Gas Components Forecast

This GTS Information Service is a query/response business transaction. The query must contain a Portfolio identifier and optional one or more Networkpoint identifier(s). The response returns a forecast of the gas composition for the requested Portfolio. The supplied data are the last 15-minutes based cycle forecast calculations of the gas composition. With this information the customers can anticipate for the composition of gas that will be supplied.

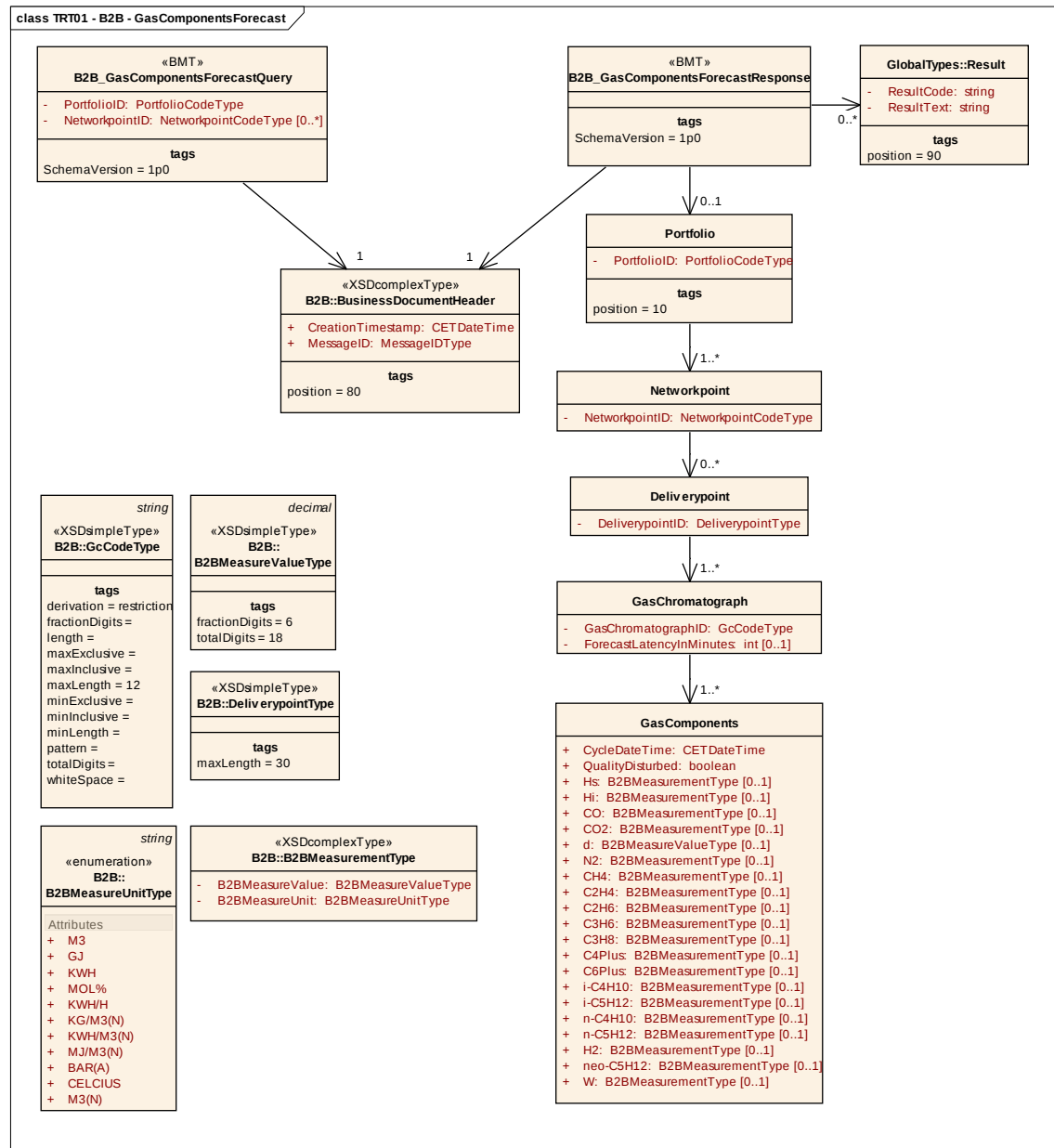
13.1 Class diagram

The class diagram represents the information being exchanged in this synchronous query/response business transaction.

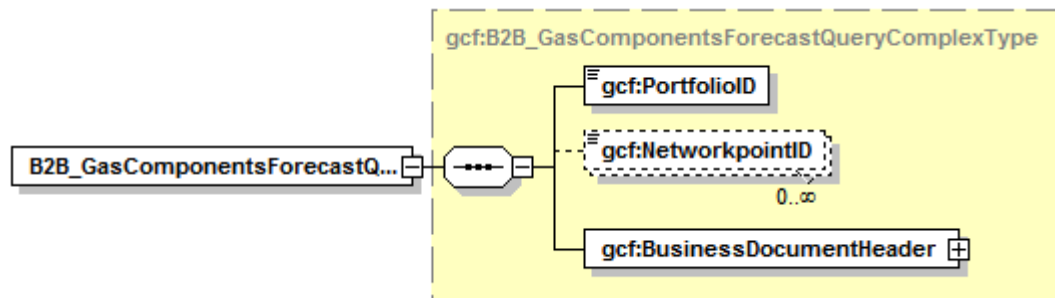
An explanation of the most important attributes of this GTS Information Service can be found in this table:

Attribute	Class	Description
MessageID	BusinessDocument Header	This identifier is a UUID used to uniquely identify every document instance, this UUID is provided by the infrastructure.
CreationTimestamp	BusinessDocument Header	The date and time when the query or response was created. Pattern is [YYYY]-[MM]-[DD]T[hh]:[mm]:[ss]+01:00.
PortfolioID	B2B_GasComponentsForecast Query Portfolio	This identifier is the GTS code of the Portfolio.
NetworkpointID	B2B_GasComponentsForecast Query Networkpoint	This identifier is the GTS code of the Networkpoint. The optional identifier in the request can be: 1. single specified Networkpoint; 2. multiple specified Networkpoints. If the Networkpoint identifier is not specified, all Networkpoints for the requested Portfolio will be returned in the response.
DeliverypointID	Deliverypoint	This identifier is the GTS code of the Deliverypoint.
GasChromatographID	GasChromatograph	This identifier is the GTS code of the GasChromatograph.
ForecastLatencyIn Minutes	GasChromatograph	Estimated latency in number of minutes (presented as an integer) of the gas flow between the GasChromatograph location and the Deliverypoint location.
CycleDateTime	GasComponents	Date and time label (in CET). Pattern is [YYYY]-[MM]-[DD]T[hh]:[mm]:[ss]+01:00.

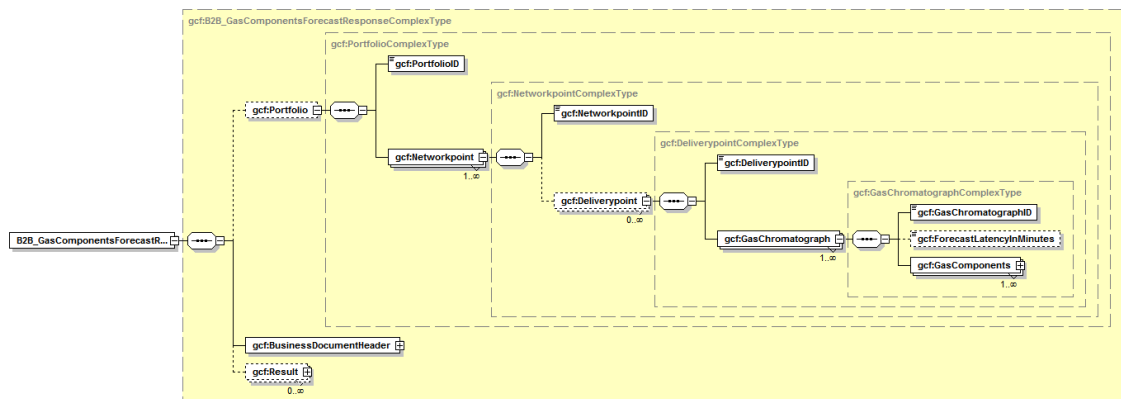
Attribute	Class	Description
QualityDisturbed	GasComponents	Flag (boolean) for disturbed gas quality. 0 = quality not disturbed. 1 = quality disturbed.



13.2 Query XML Schema



13.3 Response XML Schema



Appendix A Error codes

This appendix lists the Error Numbers that are specified for all GTS Information Services. One or more of these Error Numbers may apply to the GTS Information Service(s) described in this document.

Error Number	External Message
10006	Message Processed too late
10007	Not a valid LDC network point
10008	You are not licensed for LDC
10010	An unexpected error occurred
10011	An unexpected error occurred
10012	An unexpected error occurred
10013	Not a valid NON LDC network point
10104	Confirmation Edigas networkpoint code is empty.
10105	Confirmation Edi contractcode is empty
10107	Counterparty portfolio is not found
10108	Quantity has not a valid energy unit
10204	No measurement for allocation found
10254	End date time is in the past
10255	An unexpected error occurred
10256	An unexpected error occurred
10301	An unexpected error occurred
10501	GC Identifier not found
10502	GC Identifier not found
10601	Contracted Working Volume of portfolio [0] is not sufficient
10602	Actual Available Working Gas of Portfolio [0] is not sufficient
51121	The requested period is invalid.
51122	No data found
51140	Run Identifier without Station Identifier
51142	An unexpected error occurred
51150	Unauthorized portfolio/networkpoint combination
60022	StartDate [{0}] is older than 7 calendar years.
60130	QuantityType [{0}] not found.
60160	No Networkpoint found in request.
60170	Station [{0}] not found.
60180	Networkpoint [{0}] not found.
60181	Parent Networkpoint [{0}] not found.
60220	An unexpected error occurred
60230	Portfolio [{0}] not found.
60240	StartDate [{0}] is later than EndDate [{1}].
60280	Portfolio [{0}] not found
60320	Given enddate [{0}] is in the future
60440	Portfolio [{0}] / Networkpoint [{1}] combination not found
60470	MeasureUnitType [{0}] not found.
60480	No portfolio identification provided in request.
60481	Unauthorized portfolio [{0}] networkpoint [{1}] combination.
60520	BidPriceLadderCallType [{0}] not found
60540	QuantityType should be kWh or MWh

Error Number	External Message
60600	Unauthorized network point [{0}] for Business Partner [{1}]
60621	QuantityType should be kWh, MJ, GJ or m3g
60631	Start date [{0}] is later than end date [{1}].
60640	End time/date [{0}] may not be greater than start time/date month [{1}] plus 3 full calendar months in the future
60650	The maximum requested period is longer than one year
60690	Selection period is not for previous gas day
60700	Selection period is not for previous gas day and current gas day.
69010	Exception occurred [{0}] {1}
69020	No networkpoint supplied for run
69030	Run [{0}] not found.
69040	GasChromatograph [{0}] not found.
69050	Incorrect Message Schema
69051	Gastype [{0}] not found.
69052	Portfolio [{0}] does not match provided ClassType [{1}]
69053	Invalid system type [{0}].
70020	End time/date [{0}] may not be greater than start time/date [{1}] plus 31 full calendar days in the future
70030	End time/date [{0}] may not be greater than start time/date [{1}] plus 1 hour.
80000	Error logged in SynchronizeMessagesLog
80010	Error logged in SynchronizeMessagesLog
80020	Error logged in SynchronizeMessagesLog
80030	Error logged in SynchronizeMessagesLog
80040	Error logged in SynchronizeMessagesLog
80050	Error logged in SynchronizeMessagesLog
80060	Error logged in SynchronizeMessagesLog
80070	Error logged in SynchronizeMessagesLog
80080	Error logged in SynchronizeMessagesLog
80090	Error logged in SynchronizeMessagesLog
80110	Error logged in SynchronizeMessagesLog
80120	Error logged in SynchronizeMessagesLog
80180	Error logged in SynchronizeMessagesLog
80190	Error logged in SynchronizeMessagesLog
80200	Error logged in SynchronizeMessagesLog
80210	Error logged in SynchronizeMessagesLog
80220	Error logged in SynchronizeMessagesLog
80230	Changes found
80240	No changes found
80250	StartDate [{0}] is older than 4 years.
99995	An unexpected error occurred
99996	An unexpected error occurred
99997	An unexpected error occurred
99998	An unexpected error occurred
99999	An unexpected error occurred