

Hierarchy	Metadata Name	Data Type	Obligation	Description	Source of information or name of metadata element at WDC	Reference
MD_Metadata				information describing the metadata file		ISO19115 B.2.1 (1)
	fileIdentifier	String	M	unique identifier for this metadata file, following internal file naming convention of WDC (e.g.: Mission.Sensor.Level.Specie.geolD.ProcessinLevel.Version.yyyymmdd.nc)	[Station code].[Contributor].[Observation category].[Sampling type]. [Parameter].[Auxiliary item].[Data type].[Data version]. [Update date].dat	ISO19115 B.2.1 (2)
	language	String	C	language used for documenting metadata (→WIS requires english "en")	en	ISO19115 B.2.1 (3)
	characterSet	CodeList B.5.10	C	full name of the character coding standard used for the metadata set (→WIS requires "utf-8")	8859part1	ISO19115 B.2.1 (4)
	parentIdentifier	String	C	file identifier of the metadata to which this metadata is a subset, following internal file naming convention of WDC (e.g.: Mission.Sensor.Level.Specie.geolD.ProcessinLevel.Version)	not applicable	ISO19115 B.2.1 (5)
	hierarchyLevel	CodeList B.5.25	C	scope to which the metadata applies: (→WIS requires "dataset" or "series", where "series" describes a collection of single datasets)	series	ISO19115 B.2.1 (6)
	hierarchyLevelName	String	C	name of the hierarchy levels for which the metadata is provided	not applicable	ISO19115 B.2.1 (7)
	dateStamp	Date (B.4.2)	M	date of metadata creation: yyyy-mm-ddThh:mm:ss (e.g.: 2012-05-20T09:45:00)	system date on database index creation	ISO19115 B.2.1 (9)
	metadataStandardName	String	O	name of the metadata standard used (including profile name) (e.g.: ISO19115 / WDC-RSAT Profile V1.0)	ISO19115 / GAW-WDCGG Profile	ISO19115 B.2.1 (10)
	metadataStandardVersion	String	O	version (profile) of the metadata standard used (e.g.: V1.0)	V1.0.0	ISO19115 B.2.1 (11)
L→ Contact information (MD_Metadata > contact)				→contact details of party responsible for metadata information within WDC host organisation		ISO19115 B.2.1 (8)
L→ CI_ResponsibleParty			M			ISO19115 B.3.2.1 (374)
	individualName	String	C	name of the responsible person within WDC host organisation: surname, given name, title separated by a delimiter	Sasaki, Toru, Dr.; Koide, Hiroshi, Mr.; Kawasaki, Takashi, Mr.	ISO19115 B.3.2.1 (375)
	organisationName	String	C	name of WDC host organisation	Japan Meteorological Agency	ISO19115 B.3.2.1 (376)
	positionName	String	C	role or position of the responsible person within WDC host organisation (function, division)	Atmospheric Environmental Division	ISO19115 B.3.2.1 (377)
	RoleCode	CodeList B.5.5	M	function performed by the WDC host organisation (select from dropdown list)	custodian	ISO19115 B.3.2.1 (379)
L→ CI_Contact			O			ISO19115 B.3.2.2 (387)
L→CI_Address			O	→physical address of WDC host organisation		ISO19115 B.3.2.2 (380)
	deliveryPoint	String	O	street name and number	1-3-4 Ohtemachi	ISO19115 B.3.2.2 (381)
	Address.city	String	O	city	Chiyoda-ku	ISO19115 B.3.2.2 (382)
	administrativeArea	String	O	state, province	Tokyo	ISO19115 B.3.2.2 (383)
	postalCode	String	O	ZIP or other postal code	100-8122	ISO19115 B.3.2.2 (384)
	country	String	O	country	Japan	ISO19115 B.3.2.2 (385)
	electronicMailAddress	String	O	email address of the responsible organization or individual	wdcgg@met.kishou.go.jp	ISO19115 B.3.2.2 (386)
L→CI_Telephone			O			ISO19115 B.3.2.7 (407)
	voice	String	O	telephone number	+81 (0)3 3287 3439	ISO19115 B.3.2.7 (408)
	facsimile	String	O	telephone number of a facsimile machine	+81 (0)3 3211 4640	ISO19115 B.3.2.7 (409)
L→CI_OnlineResource			C			ISO19115 B.3.2.5 (396)
	linkage	URL	C	web address of the WDC (URL) (e.g.: http://wdc.dlr.de)	http://ds.data.jma.go.jp/gmd/wdcgg/wdcgg.html	ISO19115 B.3.2.5 (397)
L→Reference System Information (MD_Metadata > referenceSystemInfo)				→description of the spatial and temporal reference systems		ISO19115 B.2.1 (13)
L→ MD_ReferenceSystem			O			ISO19115 B.2.7.3 (205)
L→ MD_Identifier			O			ISO19115 B.2.7.3 (205)

	code	String	C	alphanumeric identifier of the reference system (e.g.: WGS 84)	WGS 84	ISO19115 B.2.7.3 (207)
L→CI_Citation						
	title	String	C	name of reference system (e.g.: World Geodetic System)	World Geodetic System	ISO19115 B.3.2.1 (360)
L→CI_Date						
	date	Date	C	reference date of the reference system: yyyy-mm-dd	data_catalogue.last_edit_date	ISO19115 B.3.2.4 (394)
	dateType	CodeList B.5.2	C	event used for reference date (select from dropdown list)	revision	ISO19115 B.3.2.4 (395)
L→ MD_Identifier						
	version	String	O	version of the reference system (e.g.: V1.0)		ISO19115 B.2.7.3 (208.2)
L→Identification Information (MD_Metadata > identificationInfo)				→information used to identify the dataset referred to by this metadata file		ISO19115 B.2.1 (15)
L→MD_Identifier						
	abstract	String	M	short description of the dataset described (abstract) (e.g.: parameter, method, instrument, interval, site etc)	Station name, GAW ID, contributor, observation category, sampling type, parameter, a	ISO19115 B.2.2.1 (25)
	status	CodeList B.5.23	O	status of the data/dataset (select from dropdown list)	onGoing / completed	ISO19115 B.2.2.1 (28)
L→CI_Citation						
	title	String	M	name of the dataset/series referred to by this metadatafile following the internal file naming convention of the WDC (e.g.: Mission.Sensor.Level.Specie.geolD.Processin Level.Version.TimePeriod.nc)	[Station code].[Contributor].[Observation category].[Sampling type]. [Parameter].[Auxiliary item].[Data type].[Data version]. [Update date].dat	ISO19115 B.3.2.1 (360)
	edition	String	O	version of the dataset	Data version	ISO19115 B.3.2.1 (363)
	editionDate	DateTime	O	date of the edition: yyyy-mm-ddThh-mm-ss	Update date	ISO19115 B.3.2.1 (364)
	identifier	String	O	value uniquely identifying an object within a namespace (e.g.: DOI of the dataset, if available)		ISO19115 B.3.2.1 (365)
L→CI_Date						
	date	Date B4.2	M	reference date of the dataset: yyyy-mm-ddThh-mm-ss	Update date	ISO19115 B.3.2.4 (394)
	dateType	CodeList B.5.2	M	event used for reference date (select from dropdown list)	revision	ISO19115 B.3.2.4 (395)
L→CI_ResponsibleParty						
	individualName	String	C	name of the person responsible for the dataset: surname, given name, title, separated by a delimiter	parameter_catalogue.responsible_investigator	ISO19115 B.3.2.1 (375)
	organisationName	String	C	name of the organisation responsible for the dataset/data generation	contributor_table.contributor	ISO19115 B.3.2.1 (376)
	positionName	String	C	role or position of the person responsible for the dataset (function, division)		ISO19115 B.3.2.1 (377)
	role	CodeList B.5.5	C	function performed by the organisation responsible for the dataset (select from dropdown list)	owner	ISO19115 B.3.2.1 (379)
L→CI_Contact						
L→CI_Address						
	deliveryPoint	String	O	street name and number	contact_persion_catalogue.address	ISO19115 B.3.2.2 (381)
	Address.city	String	O	city	contact_persion_catalogue.address	ISO19115 B.3.2.2 (382)
	administrativeArea	String	O	state, province	contact_persion_catalogue.address	ISO19115 B.3.2.2 (383)
	postalCode	String	O	ZIP or other postal code	contact_persion_catalogue.address	ISO19115 B.3.2.2 (384)
	country	String	O	country	contact_persion_catalogue.address	ISO19115 B.3.2.2 (385)
	electronicMailAddress	String	O	email address of the responsible organization or individual	contact_person_catalogue.email	ISO19115 B.3.2.2 (386)
L→CI_Telephone						
	voice	String	O	telephone number	contact_persion_catalogue.telephone	ISO19115 B.3.2.7 (408)
	facsimile	String	O	telephone number of a facsimile machine	contact_persion_catalogue.telefax	ISO19115 B.3.2.7 (409)
L→CI_OnlineResource						
			C			ISO19115 B.3.2.5 (396)

	linkage	URL	C	web address of the organisation responsible for the dataset (URL) (e.g.: http://meteoswiss.admin.ch)	not available	ISO19115 B.3.2.5 (397)
L→MD_resourceConstraints						
L→MD_legalConstraints						
	accessConstraints	CodeList B.5.24	O	access constraints applied to assure the protection of data published by WDC, and any special restrictions or limitations on obtaining the data (select from dropdown list)	otherRestrictions	ISO19115 B.2.3 (70)
	useConstraints	CodeList B.5.24	O	any special restrictions or limitations or warnings on using the data (select from dropdown list)	otherRestrictions	ISO19115 B.2.3 (71)
	otherConstraints	String	C	other restrictions and legal prerequisites for accessing and using the resource or metadata	On any publication using data from the individual station, the author must contact the data submitters concerning co-authorship or acknowledgments, and make proper descriptions on the data sources in their references.	ISO19115 B.2.3 (72)
L→MD_Keywords						
	keyword	String	C	keyword(s) describing the theme of the dataset (select keyword from WMO keyword list on http://www.wmo.int/pages/prog/www/metadata/WMO-keywords.html)	Atmospheric, Chemistry, Measurement	ISO19115 B.2.2.3 (53)
	type	CodeList B.5.17	O	subject matter used to group similar keywords (→WIS requires "theme")	theme	ISO19115 B.2.2.3 (54)
L→CI_Citation						
	title	String	O	name of the formally registered thesaurus or a similar authoritative source of keywords (→WIS requires "WMO keyword list, version 1.0")	WMO keyword list, version 1.0	ISO19115 B.3.2.1 (360)
L→CI_Date						
	date	Date	O	reference date for the WMO keyword list: yyyy-mm-dd	30.01.2004	ISO19115 B.3.2.4 (394)
	dateType	CodeList B.5.2	O	event used for reference date (select from dropdown list)		ISO19115 B.3.2.4 (395)
L→CI_OnlineResource						
	linkage	URL	C	web address for keyword list (URL)	http://www.wmo.int/pages/prog/www/metadata/WMO-keywords.html	ISO19115 B.3.2.5 (397)
L→MD_DataIdentification						
	spatialRepresentationType	CodeList B.5.26	O	method used to spatially represent geographic information of the dataset		ISO19115 B.2.2.1 (37)
	language	String	M	language used within the dataset (→WIS requires english "en")	en	ISO19115 B.2.2.1 (39)
	characterSet	CodeList B.5.10	C	full name of the character coding standard used for the dataset (select from the dropdown list) (→WIS requires "utf-8")	8859part1	ISO19115 B.2.2.1 (40)
	topicCategory	CodeList B.5.27	C	main theme(s) of the dataset (select from dropdown list)	climatologyMeteorologyAtmosphere	ISO19115 B.2.2.1 (41)
L→EX_Extent						
	description	String	C	description of spatial and temporal extent for the dataset (e.g.: general size of bounding box, temporal period covered etc.)	time series of measurements at fixed station or mobile platform.	ISO19115 B.3.1.1 (335)

↳EX_GeographicExtent				O			ISO19115 B.3.1.2 (339)
↳geographicElement				C			ISO19115 B.3.1.2 (336)
↳EX_GeographicDescription				C			ISO19115 B.3.1.2 (348)
↳ geographicIdentifier				M			ISO19115 B.3.1.2 (349)
↳ MD_Identifier				C			ISO19115 B.2.7.3 (205)
	code	String		C	WMO-region (e.g.: "VI - Europe")	station WMO Region	ISO19115 B.2.7.3 (207)
	code	String		C	country the measurement site is located in (in english)	station country	ISO19115 B.2.7.3 (207)
	code	String		C	name of the measurement site (station name)	station_name	ISO19115 B.2.7.3 (207)
↳EX_GeographicBoundingBox				C	→geographical coordinates of bounding box		ISO19115 B.3.1.2 (343)
	westBoundLongitude	Decimal		C	western-most coordinate of the limit of the dataset extent (bounding box), expressed in longitude in decimal degrees (positive east)	station longitude	ISO19115 B.3.1.2 (344)
	eastBoundLongitude	Decimal		C	eastern-most coordinate of the limit of the dataset extent (bounding box), expressed in longitude in decimal degrees (positive east)	station longitude	ISO19115 B.3.1.2 (345)
	southBoundLatitude	Decimal		C	southern-most coordinate of the limit of the dataset extent (bounding box), expressed in longitude in decimal degrees (positive north)	station latitude	ISO19115 B.3.1.2 (346)
	northBoundLatitude	Decimal		C	northern-most coordinate of the limit of the dataset extent (bounding box), expressed in longitude in decimal degrees (positive north)	station latitude	ISO19115 B.3.1.2 (347)
↳EX_TemporalExtent				C	→temporal information on the content of the dataset		ISO19115 B.3.1.3 (350)
	extent	Class		C	ISO19108		ISO19115 B.3.1.3 (351)
	gml:TimePeriod	Class		O	ISO8601		ISO19108
	gml:TimePeriodBegin	Date, B.4.5		O	date and time of period begin for the content of the dataset: yyyy-mm-ddThh-mm-ss	parameter start_of_data	ISO8601
	gml:TimePeriodEnd	Date, B.4.5		O	date and time of period end for the content of the dataset: yyyy-mm-ddThh-mm-ss	parameter end_of_data	ISO8601
	gml:TimePeriod.factor	Integer		O			ISO8601
	gml:TimePeriod.radix	Integer		O			ISO8601
	gml:TimePeriod.unit	Code		O	interval unit of measurement (e.g.: month, day, hour etc.)	month, day, hour	ISO8601
↳EX_VerticalExtent				C	→vertical information of instrument		ISO19115 B.3.1.4 (354)
	minimumValue	Real		C	lowest vertical extent contained in the dataset (altitude of the instrument)	station altitude	ISO19115 B.3.1.4 (355)
	maximumValue	Real		C	highest vertical extent contained in the dataset (reach of instrument)	station altitude	ISO19115 B.3.1.4 (356)
	unitOfMeasure	String		C	unit of measure (→WIS requires "m above sea level")	m above sea level	ISO19115 B.3.1.4 (357)
	VerticalCRS	Index		O		not applicable	ISO19136, ISO19139
	VerticalCRS	Class		O		not applicable	ISO19136, ISO19139
	VerticalCRS	Description		O		not applicable	ISO19136, ISO19139
	VerticalCRS	DescriptionRef		O		not applicable	ISO19136, ISO19139
	VerticalCRS	Identifier		O		not applicable	ISO19136, ISO19139
	VerticalCRS	Scope		O		not applicable	ISO19136, ISO19139
	VerticalCRS	VerticalCS		O		not applicable	ISO19136, ISO19139
	VerticalCRS	VerticalDatum		O		not applicable	ISO19136, ISO19139
↳Content Information (MD_Metadata > contentInfo)							ISO19115 B.2.1 (16)
↳MD_CoverageDescription				O			ISO19115 B.2.8.1 (239)

	attributeDescription	RecordType	C	parameter name	parameter_name	ISO19115 B.2.8.1 (240)
	contentType	CodeList B5.12	C	type of information represented by the cell value (select from dropdown list)	physicalMeasurement	ISO19115 B.2.8.1 (241)
L→Distribution Information (MD_Metadata > distributionInfo)						ISO19115 B.2.1 (17)
L→MD_Distribution						ISO19115 B.2.10.1 (270)
L→MD_Format						ISO19115 B.2.10.4 (284)
	name	String	C	name of the data transfer format (e.g.: netcdf, hdf, ascii etc.)	ascii	ISO19115 B.2.10.4 (285)
	version	String	C	version number of the transfer format		ISO19115 B.2.10.4 (286)
L→MD_FormatDigitalTransferOptions						ISO19115 B.2.10.2 (274)
	transferSize	Real	O	estimated size of a unit in the specified transfer format, expressed in megabytes. The transfersize is > 0.0		ISO19115 B.2.10.2 (276)
L→CI_OnlineResource						ISO19115 B.3.2.5 (396)
	linkage	URL	O	link to the data file (URL) (e.g.: http://ebas.nilu.no/Pages/DataSetList.aspx?key=5CDED20FD7374D4982F41B0097B604E8)	URL, varies with dataset	ISO19115 B.3.2.5 (397)
	protocol	String	O	connection protocol to be used	http	ISO19115 B.3.2.5 (398)
	description	String	O	detailed text description of what the online database is/does	Web-interface to relational data base	ISO19115 B.3.2.5 (401)
	function	CodeList B.5.3	O	code for function performed by the online database (select from dropdown list)	download	ISO19115 B.3.2.5 (402)
L→Data Quality Information (MD_Metadata > dataQualityInfo)						ISO19115 B.2.1 (18)
L→DQ_DataQuality						ISO19115 B.2.4.1 (78)
L→DQ_Scope						ISO19115 B.2.4.5 (138)
	level	CodeList B.5.25	C	scope to which the metadata applies: (→WIS requires "dataset" or "series", where "series" describes a collection of single datasets)	dataset	ISO19115 B.2.4.5 (139)
L→LI_Lineage						ISO19115 B.2.4.2.1 (82)
	statement	String	C	general explanation of the data producer's knowledge about the lineage of a dataset (e.g.: general statement on data correction, quality control etc.)	Data collected according to instrument specific standard operating procedures, checked on inport into data base.	ISO19115 B.2.4.2.1 (83)
L→LI_ProcessStep						ISO19115 B.2.4.2.2 (86)
	description	String	C	description of the correction/quality control measures, including related parameters or tolerances (i.e.: description of QA/QC procedures used in the validation of the data)	Regularly calibrated by instrument operator, manually quality assured by contributor, boundary checked by data centre, outlier checkd by data centre.	ISO19115 B.2.4.2.2 (87)
L→Maintenance Information (MD_Metadata > metadataMaintenance)						ISO19115 B.2.1 (22)
L→MD_MaintenanceInformation						ISO19115 B.2.5.1 (142)
	maintenanceAnd UpdateFrequency	CodeList B.5.18	C	frequency with which changes and additions are made to the dataset after the initial dataset is completed	irregular	ISO19115 B.2.5.1 (143)