



easyCredit

Integration Guide

Version 6.2.1

As of: 01.03.2018

Table of Contents

About easyCredit	4
General information about easyCredit.....	4
Process flow chart.....	5
Paygate interface	6
Definitions	6
easyCredit purchase on invoice and hire purchase	6
Retrieve information about payment by installments	10
Confirm hire purchase	13
Capture (notify a delivery)	14
Credit (notify a reversed transaction)	15

Document history

Date	Name	Change
26.01.2017	Peter Posse	URL easyCreditDirect.aspx corrected
28.06.2017	Peter Posse	First version

ABOUT EASYCREDIT

General information about easyCredit

Since 2003 TeamBank AG is a member of the Genossenschaftliche FinanzGruppe and with its product easyCredit the expert for hire purchase of the Volksbanken Raiffeisenbanken. Under the name ratenkauf by easyCredit the TeamBank AG offers a hire purchase solution which combines a simple and consistently designed fire purchase function for E-Commerce and Point of Sale (PoS).

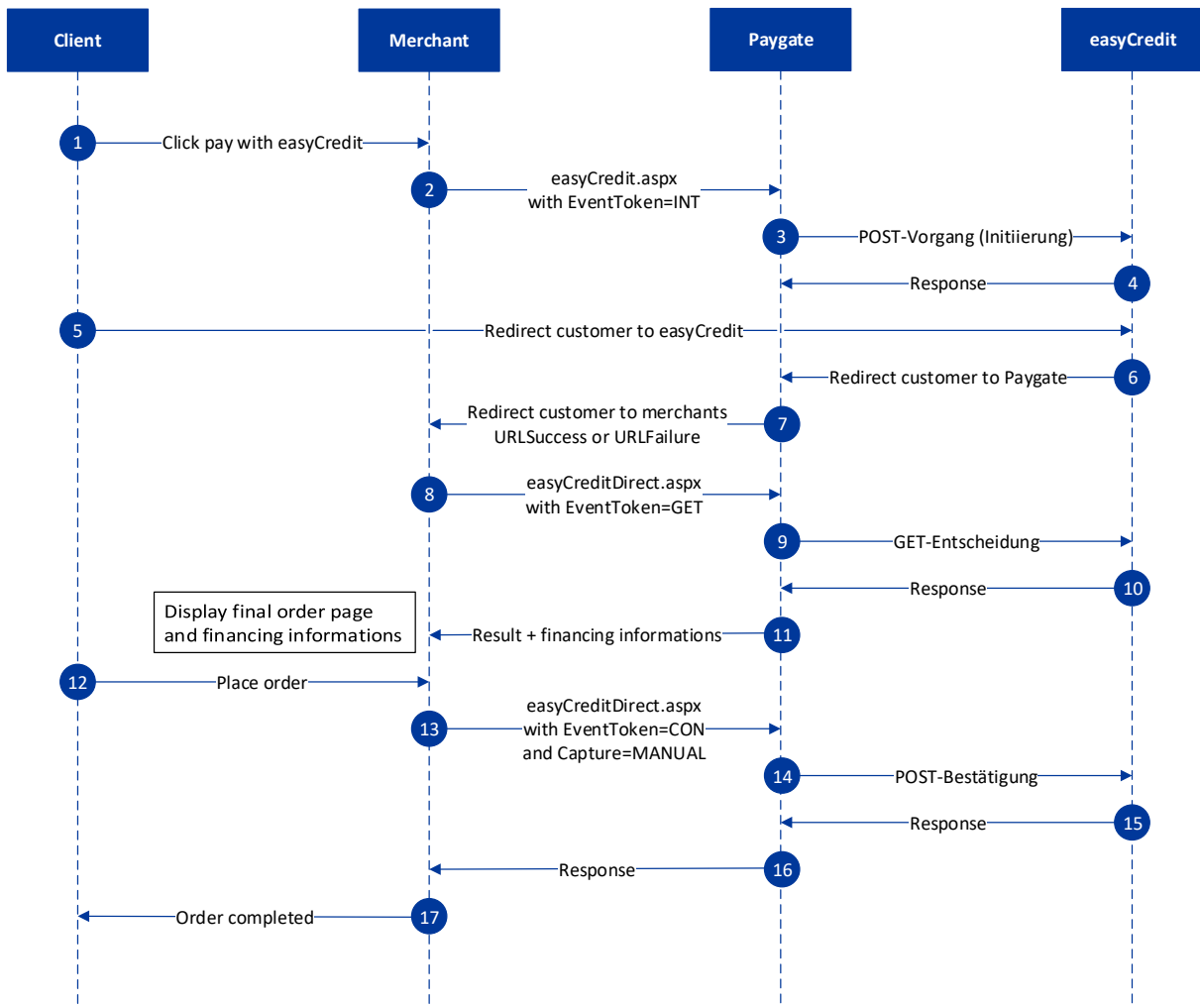
The customer needs only a few to get his ratenkauf by easyCredit: select article, calculate preferred rate, enter personal data and pay. All without paperworks, with immediate confirmation and full flexibility during the period. Simple and fair hire purchase with ratenkauf by easyCredit.



EasyCredit is a provider of hire purchase and purchase on invoice in Germany. After the customer is forwarded to easyCredit they undertake the calculation of all possible installments.

Further information can be found on the webpage of easyCredit (<https://www.easycredit.de/>).

Process flow chart



easyCredit process flow

PAYGATE INTERFACE

Definitions

Data formats:

Format	Description
a	alphabetical
as	alphabetical with special characters
n	numeric
an	alphanumeric
ans	alphanumeric with special characters
ns	numeric with special characters
bool	boolean expression (true or false)
3	fixed length with 3 digits/characters
..3	variable length with maximum 3 digits/characters
enum	enumeration of allowed values
dtm	ISODateTime (YYYY-MM-DDDhh:mm:ss)

Abbreviations:

Abbreviation	Description
CND	condition
M	mandatory
O	optional
C	conditional

easyCredit purchase on invoice and hire purchase

In order to initialise an installment payment with easyCredit via a Paygate form, go to the following URL:

<https://www.computop-paygate.com/easyCredit.aspx>

Notice: For security reasons, Paygate rejects all payment requests with formatting errors. Therefore, please use the correct data type for each parameter.

The following table describes the transfer parameters to be encrypted:

Parameter	Format	CND	Description
MerchantID	ans..30	M	MerchantID, assigned by Computop
TransID	ans..64	M	TransactionID which should be unique for each payment

RefNr	ns..30	O	Unique reference number
Amount	n..12	M	Amount in the smallest currency unit (e.g. EUR Cent) Please contact the helpdesk, if you want to capture amounts < 100 (smallest currency unit).
Currency	a3	M	Currency, three digits DIN / ISO 4217
MAC	an64	O	Hash Message Authentication Code (HMAC) with SHA-256 algorithm
Term	n..2	O	Duration in months. If applicable here the duration can be preset with a value the customer has already selected for the example calculation.
EventToken	enum	M	Defines the request to be made at easyCredit: <INT> for initialising the transaction
URLSuccess	ans..256	M	Complete URL which calls up Paygate if payment has been successful. The URL may be called up only via port 443 This URL may not contain parameters: In order to exchange values between Paygate and shop, please use the parameter UserData .
URLFailure	ans..256	M	Complete URL which calls up Paygate if payment has been unsuccessful. The URL may be called up only via port 443 This URL may not contain parameters: In order to exchange values between Paygate and shop, please use the parameter UserData .
Response	a7	O	Status response sent by Paygate to URLSuccess and URLFailure , should be encrypted. For this purpose, transmit Response=encrypt parameter.
URLNotify	ans..256	M	Complete URL which Paygate calls up in order to notify the shop about the payment result. The URL may be called up only via port 443 It may not contain parameters: Use the UserData parameter instead.
UserData	ans..1024	O	If specified at request, Paygate forwards the parameter with the payment result to the shop

Personal details

Notice: If personal details are submitted then this group must be transferred completely.

Salutation	a..15	C	Salutation MR or MRS
FirstName	ans..50	C	First name
LastName	ans..50	C	Last name
DateOfBirth	dtm	C	Date of birth in the format YYYY-MM-DD

Occupation data

Notice: If occupation data are submitted then this group must be transferred completely.

Employment	enum	C	Occupation of the customer. Possible entries are: <ANGESTELLTER> <ANGESTELLTER_OEFFENTLICHER_DIENST> <ARBEITER> <BEAMTER> <RENTNER> <SELBSTAENDIGER> <ARBEITSLOSER> <SONSTIGES>
MonthlyNetIncome	n..12	C	Monthly net income of the customer in the smallest currency unit (e.g. EUR Cent).

Invoicing address

Notice: If an invoicing address is given, then this must be transferred completely.

bdStreet	a..50	C	Street
bdStreetNr	ans..5	C	Street number
bdAddressAddition	a..50	C	Address c/o
bdZip	n5	C	Postcode

bdCity	ans..50	C	Town
bdCountryCode	a2	C	Country code for the invoicing address, 2 characters according to ISO 3166 Presently only DE is allowed.
Delivery address			
Notice: If an delivery address is given, then this must be transferred completely.			
PackingStation	an..30	O	Packing station
sdStreet	a..50	C	Street
sdStreetNr	ans..5	C	Street number
sdAddressAddition	a..50	C	Address c/o
sdZip	n5	C	Postcode
sdCity	ans..50	C	Town
sdCountryCode	a2	C	Country code for the delivery address, 2 characters according to ISO 3166 Presently only DE is allowed.
Contact data			
Email	ans..50	O	Email address of the customer
MobileNr	ans..50	O	Customer's mobile telephone number
Bank data			
IBAN	ans..34	O	Customer's IBAN
BIC	an..11	O	Customer's BIC
Further customer data			
Phone	ans..15	O	Customer's phone number
Title	enum	O	Title of the customer. Possible entries are: <PROFDR> for Prof. Dr. <DR> for Dr. <PROF> for Prof. <DRDR> for Dr. Dr.
MaidenName	ans..50	O	Maiden name
PlaceOfBirth	ans..50	O	Place of birth
Risk-relevant data			
CustomerStatus	enum	O	Customer's status at the webshop. Possible entries are: <NEUKUNDE> <BESTANDSKUNDE> <PREMIUMKUNDE>
CustomerSince	dtm	O	Start of customer relation at the webshop in the format YYYY-MM-DD
CustomerLoggedIn	enum	O	Flag if order is made from a registered customer with login or from a guest: <YES> Customer was logged in <NO> Customer has ordered as a guest
NumberArticles	n..5	O	Number of articles within basket
NumberOrders	n..10	O	Number of previous orders within the webshop
NegativePaymentInfo	enum	O	Negative payment information about the customer. Possible entries are: <KEINE_ZAHLUNGSSTOERUNGEN> <ZAHLUNGSVERZOEGERUNG> <ZAHLUNGSAUSFALL> <KEINE_INFORMATION>

RiskArticles	enum	O	Merchant's assessment if there is a solvency crucial article within the basket. Possible entries are: <YES> There is a solvency crucial article within the basket <NO> There is no solvency crucial article within the basket
Article list:			
ArticleList	ans..1024	O	Basket information (incl. article numbers) for the articles ordered with hire purchase. These date can have some influence on the credit decision. The article list must be created in JSON format. Example: <pre> { "warenkorbinfo": [{ "produktbezeichnung": "Fahrrad", "menge": 1, "preis": 100.00, "hersteller": "Cube", "produktkategorie": "Sport & Freizeit", "artikelnummern": [{ "nummerentyp": "EAN", "nummer": "111111" }, { "nummerentyp": "GTIN", "nummer": "222222" }] }, { "produktbezeichnung": "Helm", "menge": 1, "preis": 50.00, "hersteller": "Cube", "produktkategorie": "Sport & Freizeit", "artikelnummern": [{ "nummerentyp": "EAN", "nummer": "333333" }] }] } </pre> <p>Afterwards the article list created in JSON format must be Base64 encoded.</p>

Parameters for easyCredit payments

The following table describes the result parameters that the Paygate transmits to your **URLSuccess** or **URLFailure**. If you have specified the **Response=encrypt** parameter, the following parameters are sent Blowfish encrypted to your system:

Parameter	Format	CND	Description
MID	ans..30	M	MerchantID, assigned by Computop
PayID	an32	M	ID assigned by Paygate for the payment, e.g. for referencing in batch files.
XID	an32	M	ID for all single transactions (authorisation, capture, credit note) for one payment assigned by Paygate
TransID	ans..64	M	Merchant's transaction number
RefNr	ns..30	O	Unique reference number
Status	a..50	M	AUTHORIZE_REQUEST (URLSuccess) and FAILED (URLFailure)
Description	ans..1024	M	Further details in the event that payment is rejected. Please do not use the Description but the Code parameter for the transaction status analysis!

Code	n8	M	Error code according to Paygate Response Codes Excel file (part of the software client from www.computop.de/manual)
MAC	an64	M	Hash Message Authentication Code (HMAC) with SHA-256 algorithm
UserData	ans..1024	O	If specified upon call, Paygate forwards the parameter with the payment result to the shop.
CodeExt	ans..1024	O	Error code from easyCredit, if agreed with Computop Support
ErrorText	ans..1024	O	Error text from easyCredit, if agreed with Computop Support

Response parameters for URLSuccess and URLFailure with easyCredit

Retrieve information about payment by installments

In order to retrieve the data for decision, general transaction as well as financing data in case of a successfully established payment by installments via a server to server connection with easyCredit, please call the following URL:

<https://www.computop-paygate.com/easyCreditDirect.aspx>

Notice: For security reasons, Paygate rejects all payment requests with formatting errors. Therefore, please use the correct data type for each parameter.

The following table describes the encrypted payment request parameters:

Parameter	Format	CND	Description
MerchantID	ans..30	M	MerchantID, assigned by Computop
PayID	an32	M	ID assigned by Paygate for the payment, e.g. for referencing in batch files.
TransID	ans..64	M	TransactionID which should be unique for each payment
RefNr	ns..30	O	Unique reference number
Amount	n..12	M	Amount in the smallest currency unit (e.g. EUR Cent) Please contact the helpdesk, if you want to capture amounts < 100 (smallest currency unit).
Currency	a3	M	Currency, three digits DIN / ISO 4217
MAC	an64	M	Hash Message Authentication Code (HMAC) with SHA-256 algorithm
EventToken	enum	M	Defines the request to be made at easyCredit: <DEC> loads decision date for a previous initialization <PRO> loads general transaction data for a previous initialization <FIN> loads financing data for a previous initialization <GET> With this EventToken the three requests <DEC>, <PRO> and <FIN> can be triggered with one call (recommended).

Parameters for retrieving installment information from easyCredit

The following table describes the Paygate response parameters:

Parameter	Format	CND	Description
MID	ans..30	M	MerchantID, assigned by Computop
PayID	an32	M	ID assigned by Paygate for the payment, e.g. for referencing in batch files.
XID	an32	M	ID for all single transactions (authorisation, capture, credit note) for one payment assigned by Paygate



TransID	ans..64	M	Merchant's transaction number
RefNr	ns..30	O	Unique reference number
Status	a..50	M	OK or FAILED
Description	ans..1024	M	Further details in the event that payment is rejected. Please do not use the Description but the Code parameter for the transaction status analysis!
Code	n8	M	Error code according to Paygate Response Codes Excel file (part of the software client from www.computop.de/manual)
MAC	an64	M	Hash Message Authentication Code (HMAC) with SHA-256 algorithm
Decision	ans..1024	O	<p>Contains decision data for a previous initialization. There are returned in JSON format and Base64 encoded.</p> <p>Example JSON format (already Base64 decoded):</p> <pre> { "wsMessages": { "messages": [] }, "uuid": "5edb61ed-8989-4cb9-a313-7c46ab3227f1", "entscheidung": { "entscheidungsergebnis": "GRUEN", "textbaustein": null, "laufzeitgrenzen": { "minimaleLaufzeit": 6, "maximaleLaufzeit": 9 } } } </pre> <p>Notice: Important within this answer is the "decision result" below "decision". Only in case of positive „GREEN“ decided hire purchase all numbers, amounts and information connected with this hire purchase should be presented to the customer on the final confirmation page in the shop. These includes:</p> <ul style="list-style-type: none"> - the duration selected by the customer (number of installments) - the repayment plan (including alternative repayment plan) - precontractual information (a link to the system hire purchase) - total amount with designated interest amounts for hire purchase <p>All information are returned within parameters Process and Financing.</p>

Process	ans..1024	O	<p>Contains general transaction data for a previous initialization. They are returned in JSON format and Base64 encoded.</p> <p>Example JSON format (already Base64 decoded):</p> <pre> { "wsMessages": { "messages": [] }, "uuid": "3dee93a6-82dc-4736-bd26-66ad73c10cfb", "allgemeineVorgangsdaten": { "shopKennung": "2.de.9999.10003", "tbVorgangskennung": "b956f157.0315164039ossDXTCXqfUhezEFi5FbxWPW", "shopVorgangskennung": null, "fachlicheVorgangskennung": "TKEAAH", "deviceIdentToken": "3856af22-4d1d-46b9-b2ed-bd0ee797a708", "status": "ENTSCHIEDEN", "urlVorvertraglicheInformationen": "https://ratenkauf.easycredit.de/haendlerspezifischerZinssatz": "8.80", "moeglicheRatenplaene": [{ "gesamtsumme": "204.88", "zinsen": { "effektivzins": "8.80", "nominalzins": "8.47", "anfallendeZinsen": "4.88" }, "zahlungsplan": { "anzahlRaten": 6, "terminErsteRate": 1493589600000, "terminLetzteRate": 1506808800000, "betragRate": "35.00", "betragLetzteRate": "29.88" } }, { "gesamtsumme": "206.86", "zinsen": { "effektivzins": "8.80", "nominalzins": "8.46", "anfallendeZinsen": "6.86" }, "zahlungsplan": { "anzahlRaten": 9, "terminErsteRate": 1493589600000, "terminLetzteRate": 1514761200000, "betragRate": "24.00", "betragLetzteRate": "14.86" } }] }, "tilgungsplanText": "Tilgungsplan: Laufzeit 9 Monate, monatliche Rate 24" } </pre>
---------	-----------	---	--

Financing	ans..1024	O	<p>Contains financing data for a previous initialization. They are returned in JSON format and Base64 encoded. Example JSON format (already Base64 decoded):</p> <pre> { "wsMessages": { "messages": [] }, "uuid": "006c88f7-e854-43a9-aea7-61c21ecef8c3", "ratenplan": { "gesamtsumme": "206.86", "zinsen": { "effektivzins": "8.80", "nominalzins": "8.46", "anfallendeZinsen": "6.86" }, "zahlungsplan": { "anzahlRaten": 9, "terminErsteRate": 1493589600000, "terminLetzteRate": 1514761200000, "betragRate": "24.00", "betragLetzteRate": "14.86" } }, "laufzeitgrenzen": { "minimaleLaufzeit": 6, "maximaleLaufzeit": 9 }, "finanzierung": { "bestellwert": "200.00", "laufzeit": 9 }, "tilgungsplanText": "Tilgungsplan: Laufzeit 9 Mo } </pre>
CodeExt	ans..1024	O	Error code from easyCredit, if agreed with Computop Support
ErrorText	ans..1024	O	Error text from easyCredit, if agreed with Computop Support

Response parameters for retrieving installment information from easyCredit

Confirm hire purchase

To finally set a hire purchase with easyCredit via a Server-to-Server connection to "CONFIRMED", call the following URL:

<https://www.computop-paygate.com/easyCreditDirect.aspx>

Notice: For security reasons, Paygate rejects all payment requests with formatting errors. Therefore, please use the correct data type for each parameter.

The following table describes the encrypted payment request parameters:

Parameter	Format	CND	Description
MerchantID	ans..30	M	MerchantID, assigned by Computop
PayID	an32	M	ID assigned by Paygate for the payment, e.g. for referencing in batch files.
TransID	ans..64	M	TransactionID which should be unique for each payment
RefNr	ns..30	O	Unique reference number

Amount	n..12	M	Amount in the smallest currency unit (e.g. EUR Cent) Please contact the helpdesk, if you want to capture amounts < 100 (smallest currency unit).
Currency	a3	M	Currency, three digits DIN / ISO 4217
MAC	an64	O	Hash Message Authentication Code (HMAC) with SHA-256 algorithm
EventToken	enum	M	Defines the request to be made at easyCredit: <CON> Changes a transaction at easyCredit from PERMITTED to status CONFIRMED. The permission may not be older than 30 minutes and the previously requested easyCredit decision must be GREEN.
Date	dtm	O	Date of delivery of the sold services/goods in the format YYYY-MM-DD. Hence the delivery is automatically initiated together with the confirmation. Notice: For automatic delivery execution the merchant must be configured accordingly at Computop. Please contact Computop Support in this case.

Parameters for confirming a hire purchase with easyCredit

The following table describes the Paygate response parameters:

Parameter	Format	CND	Description
MID	ans..30	M	MerchantID, assigned by Computop
PayID	an32	M	ID assigned by Paygate for the payment, e.g. for referencing in batch files.
XID	an32	M	ID for all single transactions (authorisation, capture, credit note) for one payment assigned by Paygate
TransID	ans..64	M	Merchant's transaction number
RefNr	ns..30	O	Unique reference number
Status	a..50	M	OK or FAILED
Description	ans..1024	M	Further details in the event that payment is rejected. Please do not use the Description but the Code parameter for the transaction status analysis!
Code	n8	M	Error code according to Paygate Response Codes Excel file (part of the software client from www.computop.de/manual)
MAC	an64	M	Hash Message Authentication Code (HMAC) with SHA-256 algorithm
CodeExt	ans..1024	O	Error code from easyCredit, if agreed with Computop Support
ErrorText	ans..1024	O	Error text from easyCredit, if agreed with Computop Support

Response parameters for confirming a hire purchase with easyCredit

Capture (notify a delivery)

To manually notify the delivery to easyCredit via a Server-to-Server connection, call the following URL:

<https://www.computop-paygate.com/capture.aspx>

Notice: For security reasons, Paygate rejects all payment requests with formatting errors. Therefore, please use the correct data type for each parameter.

The following table describes the encrypted payment request parameters:

Parameter	Format	CND	Description
MerchantID	ans..30	M	MerchantID, assigned by Computop

PayID	an32	M	ID assigned by Paygate for the payment, e.g. for referencing in batch files.
TransID	ans..64	M	TransactionID which should be unique for each payment
RefNr	ns..30	O	Unique reference number
Amount	n..12	M	Amount in the smallest currency unit (e.g. EUR Cent) Please contact the helpdesk, if you want to capture amounts < 100 (smallest currency unit).
Currency	a3	M	Currency, three digits DIN / ISO 4217
MAC	an64	M	Hash Message Authentication Code (HMAC) with SHA-256 algorithm
Date	dtm	O	Date of delivery of the sold services/goods in the format YYYY-MM-DD. The delivery is initiated separately from the confirmation. Notice: For manual delivery execution the merchant must be configured accordingly at Computop. This can be overridden also with the parameter Capture. Please contact Computop Support in this case.
Capture	ans..6	O	Determines the type and time of capture. AUTO: capturing immediately after authorisation (default value). MANUAL: capturing made by the merchant. <Number>: Delay in hours until the capture (whole number; 1 to 696).

Parameters for capturing a hire purchase with easyCredit

The following table describes the Paygate response parameters:

Parameter	Format	CND	Description
MID	ans..30	M	MerchantID, assigned by Computop
PayID	an32	M	ID assigned by Paygate for the payment, e.g. for referencing in batch files.
XID	an32	M	ID for all single transactions (authorisation, capture, credit note) for one payment assigned by Paygate
TransID	ans..64	M	Merchant's transaction number
RefNr	ns..30	O	Unique reference number
Status	a..50	M	OK or FAILED
Description	ans..1024	M	Further details in the event that payment is rejected. Please do not use the Description but the Code parameter for the transaction status analysis!
Code	n8	M	Error code according to Paygate Response Codes Excel file (part of the software client from www.computop.de/manual)
MAC	an64	M	Hash Message Authentication Code (HMAC) with SHA-256 algorithm
CodeExt	ans..1024	O	Error code from easyCredit, if agreed with Computop Support
ErrorText	ans..1024	O	Error text from easyCredit, if agreed with Computop Support

Response parameters for capturing a hire purchase with easyCredit

Credit (notify a reversed transaction)

To notify a reversed transaction to easyCredit via a Server-to-Server connection, call the following URL:

<https://www.computop-paygate.com/credit.aspx>

Notice: For security reasons, Paygate rejects all payment requests with formatting errors. Therefore, please use the correct data type for each parameter.

The following table describes the encrypted payment request parameters:

Parameter	Format	CND	Description
MerchantID	ans..30	M	MerchantID, assigned by Computop
PayID	an32	M	ID assigned by Paygate for the payment, e.g. for referencing in batch files.
TransID	ans..64	M	TransactionID which should be unique for each payment
RefNr	ns..30	O	Unique reference number
Amount	n..12	M	Amount in the smallest currency unit (e.g. EUR Cent) Please contact the helpdesk, if you want to capture amounts < 100 (smallest currency unit).
Currency	a3	M	Currency, three digits DIN / ISO 4217
MAC	an64	M	Hash Message Authentication Code (HMAC) with SHA-256 algorithm
Date	dtm	M	Date the merchant received the reversed transaction in the format YYYY-MM-DD
Reason	enum	M	Reason for the reversed transaction. Possible entries are: <WIDERRUF_VOLLSTAENDIG> <WIDERRUF_TEILWEISE> <RUECKGABE_GARANTIE_GEWAEHRLEISTUNG> <MINDERUNG_GARANTIE_GEWAEHRLEISTUNG>

Parameters for reverse of a hire purchase with easyCredit

The following table describes the Paygate response parameters:

Parameter	Format	CND	Description
MID	ans..30	M	MerchantID, assigned by Computop
PayID	an32	M	ID assigned by Paygate for the payment, e.g. for referencing in batch files.
XID	an32	M	ID for all single transactions (authorisation, capture, credit note) for one payment assigned by Paygate
TransID	ans..64	M	Merchant's transaction number
RefNr	ns..30	O	Unique reference number
Status	a..50	M	OK or FAILED
Description	ans..1024	M	Further details in the event that payment is rejected. Please do not use the Description but the Code parameter for the transaction status analysis!
Code	n8	M	Error code according to Paygate Response Codes Excel file (part of the software client from www.computop.de/manual)
MAC	an64	M	Hash Message Authentication Code (HMAC) with SHA-256 algorithm
CodeExt	ans..1024	O	Error code from easyCredit, if agreed with Computop Support
ErrorText	ans..1024	O	Error text from easyCredit, if agreed with Computop Support

Response parameters for reverse of a hire purchase with easyCredit