



**Agilent Technologies**

# **Agilent Technologies Company Guideline**

For  
**Electronic  
Data  
Interchange  
Transaction Set**

# **850**

## **Purchase Order - Outbound**

Functional Group ID=**PO**

Version 003  
Release 020

March 2002

# 850 Purchase Order

## Functional Group=PO

This Standard contains the format and establishes the data contents of the Purchase Order Transaction Set (850) for use within the context of an Electronic Data Interchange (EDI) environment. The transaction set can be used to provide for customary and established business and industry practice relative to the placement of purchase orders for goods and services. This transaction set should not be used to convey purchase order changes or purchase order acknowledgment information.

### Notes:

- 2/010 PO102 is required.
- 2/295 The SCH segment is used to specify various quantities of items ordered that are to be scheduled. When this segment is used the unit of measurement code (SCH02) should always be identical to the unit of measurement code in the associated PO1 segment (PO103) and the sum of values of quantity (SCH01) should always equal the quantity ordered (PO102) in the PO1 segment.
- 3/010 The number of line items (CTT01) is the accumulation of the number of PO1 segments. If used, hash total (CTT02) is the sum of the value of quantities ordered (PO102) for each PO1 segment.

### Trading Partner:

Agilent Outbound 850 Trading Partner Guidelines for version 3020

### Heading:

<u>Pos</u>	<u>Id</u>	<u>Segment Name</u>	<u>Req</u>	<u>Max Use</u>	<u>Repeat</u>	<u>Notes</u>	<u>Usage</u>
010	ST	Transaction Set Header	M	1			Must use
020	BEG	Beginning Segment for Purchase Order	M	1			Must use
040	CUR	Currency	O	1			Used
070	TAX	Tax Reference	O	>1			Used
<b>LOOP ID - N1</b>					<b>200</b>		
310	N1	Name	O	1			Used
360	PER	Administrative Communications Contact	O	>1			Used

### Detail:

<u>Pos</u>	<u>Id</u>	<u>Segment Name</u>	<u>Req</u>	<u>Max Use</u>	<u>Repeat</u>	<u>Notes</u>	<u>Usage</u>
<b>LOOP ID - PO1</b>					<b>100000</b>		
010	PO1	Baseline Item Data	M	1		N2/010	Must use
090	PO4	Item Physical Details	O	>1			Used
<b>LOOP ID - SCH</b>					<b>200</b>		
295	SCH	Line Item Schedule	O	1		N2/295	Used
297	TD5	Carrier Details (Routing Sequence/Transit Time)	O	12			Used

### Summary:

<u>Pos</u>	<u>Id</u>	<u>Segment Name</u>	<u>Req</u>	<u>Max Use</u>	<u>Repeat</u>	<u>Notes</u>	<u>Usage</u>
<b>LOOP ID - CTT</b>					<b>1</b>		
010	CTT	Transaction Totals	O	1		N3/010	Used
030	SE	Transaction Set Trailer	M	1			Must use

# ST Transaction Set Header

Pos: 010	Max: 1
Heading - Mandatory	
Loop: N/A	Elements: 2

To indicate the start of a transaction set and to assign a control number

## Semantics:

- The transaction set identifier (ST01) used by the translation routines of the interchange partners to select the appropriate transaction set definition (e.g., 810 selects the Invoice Transaction Set).

## Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
ST01	143	<b>Transaction Set Identifier Code</b> <b>Description:</b> Code uniquely identifying a Transaction Set	M	ID	3/3	Must use
		<u>Code Name</u> 850 X12.1 Purchase Order				
ST02	329	<b>Transaction Set Control Number</b> <b>Description:</b> Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set	M	AN	4/9	Must use

# BEG Beginning Segment for Purchase Order

Pos: 020	Max: 1
Heading - Mandatory	
Loop: N/A	Elements: 6

To indicate the beginning of the Purchase Order Transaction Set and transmit identifying numbers and dates

## Semantics:

1. BEG05 is the date assigned by the purchaser to purchase order.

## Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
BEG01	353	<b>Transaction Set Purpose Code</b> <b>Description:</b> Code identifying purpose of transaction set	M	ID	2/2	Must use
BEG02	92	<b>Purchase Order Type Code</b> <b>Description:</b> Code specifying the type of Purchase Order <u>Code Name</u> BK Blanket SA Stand Alone	M	ID	2/2	Must use
BEG03	324	<b>Purchase Order Number</b> <b>Description:</b> Identifying number for Purchase Order assigned by the orderer/purchaser <b>Trading Partner:</b> Purchase Order Number - to be returned on the 855 Acknowledgement in the BAK03, to be returned on the 856 Ship Manifest in the Order Level PRF01	M	AN	1/22	Must use
BEG04	328	<b>Release Number</b> <b>Description:</b> Number identifying a release against a Purchase Order previously placed by the parties involved in the transaction <b>Trading Partner:</b> Purchase Order Release Number - to be returned on the 855 Acknowledgement in the BAK05, to be returned on the 856 Ship Manifest in the Shipment Level REF Segment where the REF01 = "RE"	O	AN	1/30	Used
BEG05	373	<b>Date</b> <b>Description:</b> Date expressed as YYMMDD <b>Trading Partner:</b> Purchase Order Date - to be returned on the 855 Acknowledgement in the BAK04 Since the standard only allows Agilent Technologies to send a 'YYMMDD' date with no century reference, Agilent Technologies advises that trading partners who need to map century to their application use a windowing technique to calculate the century value. Recommended: If the 'YY' portion of the date is between 90-99, map '19' as the century value sent to the application; if the 'YY' portion of the date is between 00-89, map '20' as the century value sent to the application.	M	DT	6/6	Must use
BEG06	367	<b>Contract Number</b> <b>Description:</b> Contract number	O	AN	1/30	Used

# CUR Currency

Pos: 040	Max: 1
Heading - Optional	
Loop: N/A	Elements: 2

To specify the currency (dollars, pounds, francs, etc.) used in a transaction

**Comments:**

1. See Figures Appendix for examples detailing the use of the CUR segment.

**Element Summary:**

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
CUR01	98	<b>Entity Identifier Code</b> <b>Description:</b> Code identifying an organizational entity, a physical location, property or an individual <u>Code Name</u> BY Buying Party (Purchaser)	M	ID	2/3	Must use
CUR02	100	<b>Currency Code</b> <b>Description:</b> Code (Standard ISO) for country in whose currency the charges are specified <b>Trading Partner:</b> Currency Code	M	ID	3/3	Must use

# TAX Tax Reference

Pos: 070	Max: >1
Heading - Optional	
Loop: N/A	Elements: 2

To provide data required for proper notification/determination of applicable taxes applying to the transaction or business described in the transaction

## Syntax:

R0103 -- At least one of TAX01 or TAX03 is required.

## Comments:

1. TAX01 is required if tax exemption is being claimed.

## Trading Partner:

This will only be sent if the Order is Tax Exempt

## Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
TAX01	325	<b>Tax Identification Number</b> <b>Description:</b> Number assigned to a purchaser (buyer, orderer) by a taxing jurisdiction (state, county, etc.); often called a tax exemption number or certificate number	C	AN	1/20	Used
TAX12	441	<b>Tax Exempt Code</b> <b>Description:</b> Code identifying exemption status from sales and use tax <u>Code Name</u> 3 Exempt (For Resale)	O	ID	1/1	Used

# N1 Name

<b>Pos: 310</b>	<b>Max: 1</b>
<b>Heading - Optional</b>	
<b>Loop: N1</b>	<b>Elements: 4</b>

To identify a party by type of organization, name, and code

## Syntax:

R0203 -- At least one of N102 or N103 is required.

P0304 -- If either N103,N104 is present, then the other is required

## Comments:

This segment, used alone, provides the most efficient method of providing organizational identification. To obtain this efficiency the "ID Code" (N104) must provide a key to the table maintained by the transaction processing party.

## Trading Partner:

We will send up to 3 different N1 Address Loops, You will receive them in the Following Order Selling Party, Ship To, and Bill To

## Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
N101	98	<b>Entity Identifier Code</b> <b>Description:</b> Code identifying an organizational entity, a physical location, property or an individual <u>Code Name</u> BT Bill To SE Selling Party ST Ship To	M	ID	2/3	Must use
N102	93	<b>Name</b> <b>Description:</b> Free-form name	C	AN	1/60	Used
N103	66	<b>Identification Code Qualifier</b> <b>Description:</b> Code designating the system/method of code structure used for Identification Code (67) <u>Code Name</u> 92 Assigned by Buyer or Buyer's Agent	C	ID	1/2	Used
N104	67	<b>Identification Code</b> <b>Description:</b> Code identifying a party or other code	C	AN	2/80	Used

# PER Administrative Communications Contact

Pos: 360	Max: >1
Heading - Optional	
Loop: N1	Elements: 4

To identify a person or office to whom administrative communications should be directed

## Syntax:

P0304 -- If either PER03 or PER04 are present, then the others are required.

## Trading Partner:

This will be sent to you in the N1 (SE) Selling Party Loop however if the Selling Party is not present, then this will be sent in N1 (ST) Ship to Loop

## Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
PER01	366	<b>Contact Function Code</b> <b>Description:</b> Code identifying the major duty or responsibility of the person or group named <u>Code Name</u> BD Buyer Name or Department	M	ID	2/2	Must use
PER02	93	<b>Name</b> <b>Description:</b> Free-form name <b>Trading Partner:</b> Agilent Contact Name	O	AN	1/60	Used
PER03	365	<b>Communication Number Qualifier</b> <b>Description:</b> Code identifying the type of communication number <u>Code Name</u> TE Telephone	C	ID	2/2	Used
PER04	364	<b>Communication Number</b> <b>Description:</b> Complete communications number including country or area code when applicable <b>Trading Partner:</b> Agilent Contact Number	C	AN	1/80	Used



# PO1 Baseline Item Data

Pos: 010	Max: 1
Detail - Mandatory	
Loop: PO1	Elements: 10

To specify basic and most frequently used line item data

## Syntax:

- C0302 -- If PO103 is present, then PO102 is required  
 P0607 -- If either PO106 or PO107 are present, then the others are required.  
 P0809 -- If either PO108 or PO109 are present, then the others are required.  
 P1011 -- If either PO110 or PO111 are present, then the others are required.

## Comments:

1. See the Data Element Dictionary for a complete list of IDs.
2. PO101 is the line item identification.

## Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
PO101	350	<b>Assigned Identification</b> <b>Description:</b> Alphanumeric characters assigned for differentiation within a transaction set <b>Trading Partner:</b> Purchase order Line Number, to be returned on the 855 PO Ack Element PO1_01	O	AN	1/20	Used
PO102	330	<b>Quantity Ordered</b> <b>Description:</b> Quantity ordered <b>Trading Partner:</b> Quantity Ordered, to be returned on the 855 PO Ack Element PO1_02, this is a mandatory requirement of Agilent	C	R	1/15	Must use
PO103	355	<b>Unit or Basis for Measurement Code</b> <b>Description:</b> Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken <b>Trading Partner:</b> Unit of Measure, to be returned on the 855 PO Ack Element PO1_03	O	ID	2/2	Used
PO104	212	<b>Unit Price</b> <b>Description:</b> Price per unit of product, service, commodity, etc. <b>Trading Partner:</b> Unit Price, to be returned on the 855 PO Ack Element PO1_04	C	R	1/17	Used
PO106	235	<b>Product/Service ID Qualifier</b> <b>Description:</b> Code identifying the type/source of the descriptive number used in Product/Service ID (234) <u>Code Name</u> BP Buyer's Part Number	C	ID	2/2	Used
PO107	234	<b>Product/Service ID</b> <b>Description:</b> Identifying number for a product or service <b>Trading Partner:</b> Buyer Part Number	C	AN	1/48	Used
PO108	235	<b>Product/Service ID Qualifier</b> <b>Description:</b> Code identifying the type/source of the descriptive number used in Product/Service ID (234)	C	ID	2/2	Used

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
		<u>Code Name</u> EC Engineering Change Level				
PO109	234	<b>Product/Service ID</b> <b>Description:</b> Identifying number for a product or service <b>Trading Partner:</b> Engineering Change, this will be sent to communicate a Item Revision Number	C	AN	1/48	Used
PO110	235	<b>Product/Service ID Qualifier</b> <b>Description:</b> Code identifying the type/source of the descriptive number used in Product/Service ID (234) <u>Code Name</u> VP Vendor's Part Number	C	ID	2/2	Used
PO111	234	<b>Product/Service ID</b> <b>Description:</b> Identifying number for a product or service <b>Trading Partner:</b> Vendor Part Number	C	AN	1/48	Used

# PO4 Item Physical Details

Pos: 090	Max: >1
Detail - Optional	
Loop: PO1	Elements: 1

To specify the physical qualities, packaging, weights, and dimensions relating to the item

## Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>						
PO404	103	<b>Packaging Code</b>	C	AN	3/5	Used						
<b>Description:</b> Code identifying the type of packaging; Part 1: Packaging Form, Part 2: Packaging Material; if the Data Element is used, then Part 1 is always required												
<table border="1"> <thead> <tr> <th><u>Code</u></th> <th><u>Name</u></th> </tr> </thead> <tbody> <tr> <td>90</td> <td>Standard</td> </tr> <tr> <td>PKG</td> <td>Package</td> </tr> </tbody> </table>							<u>Code</u>	<u>Name</u>	90	Standard	PKG	Package
<u>Code</u>	<u>Name</u>											
90	Standard											
PKG	Package											

# SCH Line Item Schedule

Pos: 295	Max: 1
Detail - Optional	
Loop: SCH	Elements: 5

To specify the data for scheduling a specific line-item

## Syntax:

C0304 -- If SCH03 is present, then SCH04 is required

## Trading Partner:

For every PO1 Sent, we will always send 1 SCH Segment. We may send multiple SCH Segments under a Single PO1 Loop as well. Each SCH received will have a unique Shipment Request Date associated with it. The PO102 Quantity is also the sum total of all SCH quantities received within the PO1 loop. As an example see illustration below.

PO1 Quantity 75

SCH Quantity 25, Request by date1

SCH Quantity 30, Request by date2

SCH Quantity 20, Request by date3

PO1 Quantity 100

SCH Quantity 100, Request by date4

## Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
SCH01	380	<b>Quantity</b> <b>Description:</b> Numeric value of quantity <b>Trading Partner:</b> Quantity Ordered, to be returned on the 855 PO Ack Element ACK_02	M	R	1/15	Must use
SCH02	355	<b>Unit or Basis for Measurement Code</b> <b>Description:</b> Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken <b>Trading Partner:</b> Unit of Measure, to be returned on the 855 PO Ack Element ACK_03	M	ID	2/2	Must use
SCH05	374	<b>Date/Time Qualifier</b> <b>Description:</b> Code specifying type of date or time, or both date and time <u>Code Name</u> 002 Delivery Requested	M	ID	3/3	Must use
SCH06	373	<b>Date</b> <b>Description:</b> Date expressed as YYMMDD <b>Trading Partner:</b> Date Requested, to be returned on the 855 PO Ack Element ACK_05 with ACK_04 Qualifier = "002" Since the standard only allows Agilent Technologies to send a 'YYMMDD' date with no century reference, Agilent Technologies advises that trading partners who need to map century to their application use a windowing technique to calculate the century value. Recommended: If the 'YY' portion of the date is between 90-99, map '19' as the century value sent to the application; if the 'YY' portion of the date is between 00-89, map '20' as the century value sent to the application.	M	DT	8/8	Must use
SCH11	326	<b>Request Reference Number</b> <b>Description:</b> Reference number or RFQ number to use to identify a	O	AN	1/45	Used

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
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particular transaction set and query (additional reference number or description which can be used with contract number)

**Trading Partner:** Shipment Number (Shipment Line Number), This is considered to be a mandatory field by Agilent, please return this value on the 855 Element ACK\_06, and also on the 856 Item Level REF, where the REF01 = "LI"

# TD5 Carrier Details (Routing Sequence/Transit Time)

Pos: 297	Max: 12
Detail - Optional	
Loop: SCH	Elements: 6

To specify the carrier and sequence of routing and provide transit time information

## Syntax:

R0204050612 -- At least one of TD502, TD504, TD505, TD506 or TD512 is required.

C0203 -- If TD502 is present, then TD503 is required

C1011 -- If TD510 is present, then TD511 is required

## Comments:

- When specifying a routing sequence to be used for the shipment movement in lieu of specifying each carrier within the movement, use TD502 to identify the party responsible for defining the routing sequence, and use TD503 to identify the actual routing sequence, specified by the party identified in TD502.

## Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
TD501	133	<b>Routing Sequence Code</b> <b>Description:</b> Code describing the relationship of a carrier to a specific shipment movement <u>Code Name</u> O Origin Carrier (Air, Motor, or Ocean)	O	ID	1/2	Used
TD502	66	<b>Identification Code Qualifier</b> <b>Description:</b> Code designating the system/method of code structure used for Identification Code (67) <u>Code Name</u> 92 Assigned by Buyer or Buyer's Agent	C	ID	1/2	Used
TD503	67	<b>Identification Code</b> <b>Description:</b> Code identifying a party or other code	C	AN	2/80	Used
TD509	731	<b>Transit Direction Code</b> <b>Description:</b> The point of origin and point of direction <u>Code Name</u> SB Seller to Buyer	O	ID	2/2	Used
TD510	732	<b>Transit Time Direction Qualifier</b> <b>Description:</b> Code specifying the value of time used to measure the transit time <u>Code Name</u> WD Working Days (Excludes Weekends and Holidays)	O	ID	2/2	Used
TD511	733	<b>Transit Time</b> <b>Description:</b> The numeric amount of transit time	C	R	1/4	Used

# CTT Transaction Totals

Pos: 010	Max: 1
Summary - Optional	
Loop: CTT	Elements: 1

To transmit a hash total for a specific element in the transaction set

**Comments:**

1. This segment is intended to provide hash totals to validate transaction completeness and correctness.

**Element Summary:**

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
CTT01	354	Number of Line Items <b>Description:</b> Total number of line items in the transaction set	M	N0	1/6	Must use

# SE Transaction Set Trailer

Pos: 030	Max: 1
Summary - Mandatory	
Loop: N/A	Elements: 2

To indicate the end of the transaction set and provide the count of the transmitted segments (including the beginning (ST) and ending (SE) segments)

## Comments:

- SE is the last segment of each transaction set.

## Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
SE01	96	<b>Number of Included Segments</b> <b>Description:</b> Total number of segments included in a transaction set including ST and SE segments	M	N0	1/10	Must use
SE02	329	<b>Transaction Set Control Number</b> <b>Description:</b> Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set	M	AN	4/9	Must use