

Methodological annex – Chapter 9

Information & Communication Technology (ICT) in São Paulo State: characterization and diffusion indicators

1. Indicators of geographical concentration and economic specialization

The location quotients (LQ) and horizontal clustering (HC) indicators presented in this chapter were constructed using the number of formal employees in the ICT industry as a measure of specialization in specific microregions of São Paulo State.

LQ compares the ICT industry's share of industrial activity in the microregion concerned with its share of industrial activity in São Paulo State. Thus a high LQ indicates that the productive structure of the microregion specializes in the activity analyzed. LQ can be expressed in the following synthetic manner:

$$QL_{ij} = \frac{\frac{E_{ij}}{E_{i.}}}{\frac{E_{.j}}{E_{..}}}$$

Where: E_{ij} = employment in sector i in region j

$E_{.j} = \sum_i E_{ij}$ = employment in all sectors in region j ;

$E_{i.} = \sum_j E_{ij}$ = total employment in sector i in all regions

$E_{..} = \sum_i \sum_j E_{ij}$ = employment in all sectors in all regions

HC, which is based on LQ, is designed to measure the absolute dimension of economic specialization in a given microregion. The number of people that would be employed in sector i in a specific region j if it were consistent with the statewide average, i.e. if LQ were equal to 1, is subtracted from the actual number em-

ployed (E_{ij}) to find the number of "surplus" employees in the sector for that region.

Thus:

HC_{ij} = actual number of employees – expected number of employees

where: Number of employees (E_{ij}) = $(E_{i.} * E_{.j}) / (E_{..})$

When LQ is equal to 1, HC is neutral. When LQ is greater than 1, HC is positive. When LQ is less than 1, HC is negative. Thus if LQ is greater than 1, the region specializes in ICT because its share of employment is above average. If LQ is equal to 1, ICT's share is the same as in all regions. If LQ is less than 1, ICT's share of employment in the region is below average.

2. Discrimination of ICT products by segment

The first step in measuring ICT exports and imports was to identify all the products involved in each segment. This was done using IBGE's National Industrial Product Classification (PRODLIST 2004), based on the International Standard Industrial Classification (ISIC) and linked to CNAE version 1.0,¹ with the maximum disaggregation permitted by this classification, which is the four-digit level.

These products were grouped into the respective ICT segments and their classification in PRODLIST 2004 was cross-tabulated with their classification in the Mercosur Common Nomenclature (NCM), 2003-04 version.

In sum, as a result of this procedure it was possible to measure the export and import values associated with each ICT product and then group these values by ICT segment, in accordance with the groupings shown in Charts M9.1-M9.8.

1. PRODLIST is a detailed list of industrial goods and services derived from IBGE's Annual Survey of Industry (PIA), and harmonized with the Mercosur Common Nomenclature (NCM), Brazil's National Economic Activity Classification (CNAE) and the U.N. Central Product Classification (CPC).

Chart M9.1
Products in the Office Equipment segment (CNAE 30.1), as described in the Mercosur Common Nomenclature (NCM)

Mercosur Common Nomenclature (NCM) 2003/2004	CNAE 1.0	PRODLIST (1) 2004	Products in Office Equipment segment (CNAE 30.1), as described in Mercosur Common Nomenclature (NCM)
84431200	(2) 3011.2	3011.0040	Sheet-fed office-type offset printing machinery with sheet size not exceeding 22 x 36 cm
84439010	3011.2	3011.0050	Parts for sheet-fed office-type offset printing machinery with sheet size not exceeding 22 x 36 cm
84692000	3011.2	3011.0030	Typewriters, electric
84693010	3011.2	3011.0030	Stenotype machines, non-electric, weighing not more than 12kg
84693090	3011.2	3011.0030	Other typewriters, non-electric
84703000	3011.2	3011.0020	Other calculating machines
84721000	3011.2	3011.0010	Duplicating machines, hectograph & stencil-type, for office use
84731090	3011.2	3011.0070	Typewriter parts & accessories
(2) 84734010	3011.2	3011.0060	Printed circuit boards with mounted components for office machinery & equipment
84734070	(2) 3011.2	3011.0060	Other parts & accessories for bank teller machines, cash dispensers
(2) 84734090	3011.2	3011.0060	Other parts & accessories for office machinery & equipment etc.
84691100	3012.0	3012.0060	Word processing machines
84691210	3012.0	3012.0060	Typewriters, electronic, of a printing speed not exceeding 40 characters per second
84691290	3012.0	3012.0060	Other automatic typewriters
84701000	3012.0	(3) 3012.0030	Electronic calculators with functions, capable of operating without external power supply etc.
84701000	3012.0	(3) 3012.0045	Electronic calculators with functions, capable of operating without external power supply etc.
84702100	3012.0	3012.0045	Electronic calculating machines with built-in printing device
84702900	3012.0	3012.0045	Other calculating machines, electronic
84704000	3012.0	3012.0045	Accounting machines
84705011	3012.0	3012.0045	Electronic cash registers capable of communicating with computers etc.
84705019	3012.0	3012.0045	Other electronic cash registers
84705090	3012.0	3012.0045	Other cash registers
84709010	3012.0	3012.0080	Postage-franking machines
84709090	3012.0	3012.0080	Other franking, ticket-issuing & similar machines
84722000	3012.0	3012.0070	Addressing & address-plate embossing machines
84723010	3012.0	3012.0080	Automatic machines for cancelling postage stamps
84723020	3012.0	3012.0080	Automatic machines for sorting mail, with optical postcode readers etc.
84723030	3012.0	3012.0080	Automatic machines for sorting postal packages, with optical postcode readers etc.
84723090	3012.0	3012.0080	Other machines for sorting, folding, opening mail etc.
84729010	3012.0	3012.0150	Automatic banknote dispensers etc.
84729021	3012.0	3012.0150	Electronic bank teller machines with authentication mechanisms, capable of communicating with computers etc.
84729029	3012.0	3012.0150	Coin-sorting and coin-counting machines, machines for banknote counting & dispensing

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Chart M9.1
Products in the Office Equipment segment (CNAE 30.1), as described in the Mercosur Common Nomenclature (NCM)

Mercosur Common Nomenclature (NCM) 2003/2004	CNAE 1.0	PRODLIST (1) 2004	Products in Office Equipment segment (CNAE 30.1), as described in Mercosur Common Nomenclature (NCM)
84729030	3012.0	3012.0150	Automatic document filing machines incorporating reading & writing units, with filing capacity exceeding 400 documents per minute
84729051	3012.0	3012.0150	Automatic document filing machines incorporating reading & writing units
84729059	3012.0	3012.0150	Coin-sorting and coin-counting machines, machines for banknote counting & dispensing
84729090	3012.0	3012.0070	Other office, bank machinery & equipment etc.
84732100	3012.0	3012.0110	Parts & accessories for electronic calculating machines
84732910	3012.0	3012.0110	Printed circuit boards with mounted components for cash registers
84732920	3012.0	3012.0110	Parts & accessories for other calculating or accounting machines
84732990	3012.0	3012.0110	Parts & accessories for franking, ticket-issuing machines etc.
(2) 84734010	3012.0	3012.0130	Printed circuit boards with mounted components for office machinery & equipment
84734070	(2) 3012.0	3012.0130	Other parts & accessories for bank machines & cash dispensers
(2) 84734090	3012.0	3012.0130	Other parts & accessories for office machinery & equipment etc.
90091100	3012.0	3012.0010	Electrostatic photocopying apparatus, direct process
90091210	3012.0	3012.0010	Electrostatic photocopying apparatus, indirect process, monochrome
90091290	3012.0	3012.0010	Other electrostatic photocopying apparatus, indirect process
90092100	3012.0	3012.0010	Photocopying apparatus with optical system
90092200	3012.0	3012.0010	Photocopying apparatus, contact type
90093000	3012.0	3012.0010	Thermocopying apparatus
90099100	3012.0	3012.0100	Parts & accessories for other photocopying or thermocopying apparatus
90099200	3012.0	3012.0100	Parts & accessories for other photocopying or thermocopying apparatus
90099300	3012.0	3012.0100	Parts & accessories for other photocopying or thermocopying apparatus
90099910	3012.0	3012.0100	Selenium-coated cylinders for photocopying apparatus, indirect process
90099990	3012.0	3012.0100	Parts & accessories for other photocopying or thermocopying apparatus

Source: IBGE, CONCLA. Available at <http://www.ibge.gov.br/concla/cl_corresp.php?sl=3>. Last visited August 28, 2009.

(1) PRODLIST is a detailed list of industrial goods and services derived by IBGE from its Annual Survey of Industry (PIA), covering Brazil's mining and manufacturing firms and harmonized with the Mercosur Common Nomenclature (NCM), the National Economic Activity Classification (CNAE) and the UN Central Product Classification (CPC).

(2) Same NCM code, different CNAE code or vice-versa.

(3) Same NCM code, same CNAE code, different PRODLIST codes.

Chart M9.2
Products in the Data Processing Equipment segment (CNAE 30.2), as described in the Mercosur Common Nomenclature (NCM)

Mercosur Common Nomenclature (NCM) 2003/2004	CNAE 1.0	PRODLIST (1) 2004	Products in Data Processing Equipment segment (CNAE 30.2), as described in Mercosur Common Nomenclature (NCM)
84711000	3021.0	3021.0040	Data processing machines, analog or hybrid
84713011	3021.0	3021.0010	Data processing machines, digital, portable, battery operated or with external power supply, weighing no more than 350g, display with surface area of no more than 140cm ²
84713012	3021.0	3021.0010	Data processing machines, digital, portable, battery operated or with external power supply, weighing less than 3.5kg, display with surface area of less than 560cm ²
84713019	3021.0	3021.0010	Other data processing machines, digital, portable, battery operated or with external power supply, weighing no more than 10kg
84713090	3021.0	3021.0010	Other automatic data processing machines, digital, portable, weighing no more than 10kg etc
84714110	3021.0	3021.0020	Data processing machines, digital, weighing less than 750g, without keyboard, data input through display, surface area of less than 280cm ²
84714190	3021.0	3021.0020	Other data processing machines with CPU, whether or not with I/O units
84714911	3021.0	3021.0015	Data processing systems, digital, low capacity etc., FOB value not exceeding \$ 12,500 per unit
84714912	3021.0	3021.0015	Data processing systems, digital, medium capacity etc., FOB value not exceeding \$ 46,000 per unit
84714913	3021.0	3021.0015	Data processing systems, digital, high capacity etc., FOB value not exceeding \$ 100,000 per unit
84714914	3021.0	3021.0015	Data processing systems, digital, very high capacity etc., FOB value exceeding \$ 100,000 per unit
84714915	3021.0	3021.0015	Other data processing systems with storage units and/or I/O units
84714921	3021.0	3021.0015	Impact line printer systems
84714922	3021.0	3021.0015	Impact braille printer systems
84714923	3021.0	3021.0015	Other impact printer systems, matrix
84714924	3021.0	3021.0015	Other impact printer systems
84714925	3021.0	3021.0015	Printer systems with output of 30 pages per minute or more
84714931	3021.0	3021.0015	Ink-jet printer systems with output of less than 30 pages per minute, printing width not exceeding 420mm
84714932	3021.0	3021.0015	Thermal transfer printer systems, solid ink, with output of less than 30 pages per minute
84714933	3021.0	3021.0015	Laser printer systems, monochrome, with output of less than 30 pages per minute, printing width exceeding 230mm
84714934	3021.0	3021.0015	Laser printer systems, color, with output of less than 30 pages per minute etc.
84714935	3021.0	3021.0015	Laser printer systems, monochrome, with output of less than 30 pages per minute, printing width not exceeding 420mm
84714936	3021.0	3021.0015	Other printer systems with output of less than 30 pages per minute, printing width exceeding 420mm
84714937	3021.0	3021.0015	Other printer systems with output of less than 30 pages per minute
84714941	3021.0	3021.0015	Dot matrix plotter systems
84714942	3021.0	3021.0015	Other plotter systems with printing width exceeding 580mm

Chart M9.2
Products in the Data Processing Equipment segment (CNAE 30.2), as described in the Mercosur Common Nomenclature (NCM)

Mercosur Common Nomenclature (NCM) 2003/2004	CNAE 1.0	PRODLIST (1) 2004	Products in Data Processing Equipment segment (CNAE 30.2), as described in Mercosur Common Nomenclature (NCM)
84714943	3021.0	3021.0015	Other plotter systems
84714944	3021.0	3021.0015	Scanner systems for data processing machines
84714945	3021.0	3021.0015	Keyboard systems for data processing machines
84714946	3021.0	3021.0015	Pointer systems for data processing machines
84714947	3021.0	3021.0015	Digitizing table systems for data processing machines
84714948	3021.0	3021.0015	Other input unit systems for data processing machines
84714951	3021.0	3021.0015	Terminal systems with keyboards & monochrome video displays
84714952	3021.0	3021.0015	Terminal systems with keyboards & color video displays
84714953	3021.0	3021.0015	Video output unit systems with monochrome cathode-ray tubes
84714954	3021.0	3021.0015	Video output unit systems with color cathode-ray tubes
84714955	3021.0	3021.0015	Other video output unit systems with monochrome cathode-ray tubes
84714956	3021.0	3021.0015	Other video output unit systems with color cathode-ray tubes
84714957	3021.0	3021.0015	Automatic teller machine systems
84714958	3021.0	3021.0015	Postal barcode printer systems, 3 by 5 type etc.
84714959	3021.0	3021.0015	Other I/O unit systems, whether or not with storage units
84714961	3021.0	3021.0015	Floppy disk drive systems
84714962	3021.0	3021.0015	Hard disk drive systems
84714963	3021.0	3021.0015	Other disk drive systems
84714964	3021.0	3021.0015	Optical disk drive systems
84714965	3021.0	3021.0015	Magnetic tape drive systems for reels
84714966	3021.0	3021.0015	Magnetic tape drives for cartridges
84714967	3021.0	3021.0015	Magnetic tape drive systems for cassettes
84714968	3021.0	3021.0015	Other magnetic tape drive systems
84714969	3021.0	3021.0015	Other storage unit systems
84714971	3021.0	3021.0015	Terminal controller systems
84714972	3021.0	3021.0015	Communications controller systems
84714973	3021.0	3021.0015	Protocol translator systems for interconnecting networks
84714974	3021.0	3021.0015	Network connection distributor systems or hubs
84714975	3021.0	3021.0015	Other signal controller systems etc.
84714976	3021.0	3021.0015	Other automatic data processing machine systems
84714991	3021.0	3021.0015	Magnetic card read/write systems
84714992	3021.0	3021.0015	Barcode reader systems
84714993	3021.0	3021.0015	Magnetizable type read systems
84714994	3021.0	3021.0015	Other read/write systems for data processing machines
84714995	3021.0	3021.0015	Other automatic data processing machine systems
84714996	3021.0	3021.0015	Scanner systems
84715010	3021.0	3021.0030	Digital processing units, low capacity, microprocessor based, FOB value not exceeding \$ 12,500 each
84715020	3021.0	3021.0030	Digital processing units, medium capacity, etc. FOB value exceeding \$ 12,500 but not exceeding \$ 46,000 each

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Chart M9.2
Products in the Data Processing Equipment segment (CNAE 30.2), as described in the Mercosur Common Nomenclature (NCM)

Mercosur Common Nomenclature (NCM) 2003/2004	CNAE 1.0	PRODLIST (1) 2004	Products in Data Processing Equipment segment (CNAE 30.2), as described in Mercosur Common Nomenclature (NCM)
84715030	3021.0	3021.0030	Digital processing units, high capacity, etc. FOB value exceeding \$ 46,000 but not exceeding \$ 100,000 each
84715040	3021.0	3021.0030	Digital processing units, very high capacity, etc. FOB value exceeding \$ 100,000 each
84715090	3021.0	3021.0030	Other digital processing units with storage and/or I/O unit
84719090	3021.0	3021.0020	Other automatic data processing machines & units
84731010	3021.0	3012.0120	Parts & accessories of word processing machines
84716011	3022.8	3022.0010	Impact line printers
84716013	3022.8	3022.0010	Impact braille printers
84716014	3022.8	3022.0010	Other impact printers, dot matrix
84716019	3022.8	3022.0010	Other impact printers
84716021	3022.8	3022.0010	Ink-jet printers with output of less than 30 pages per minute and printing width not exceeding 420mm
84716022	3022.8	3022.0010	Thermal transfer printers, solid ink, with output of less than 30 pages per minute
84716023	3022.8	3022.0010	Laser printers, monochrome, with output of less than 30 pages per minute, printing width exceeding 230mm
84716024	3022.8	3022.0010	Laser printer systems, color, with output of less than 30 pages per minute etc.
84716025	3022.8	3022.0010	Laser printer systems, monochrome, with output of less than 30 pages per minute, printing width not exceeding 420mm
84716026	3022.8	3022.0010	Other printers with output of less than 30 pages per minute, printing width exceeding 420mm
84716029	3022.8	3022.0010	Other printers with output of less than 30 pages per minute
84716030	3022.8	3022.0010	Other printers with output of 30 pages per minute or more
84716041	3022.8	3022.0055	Dot matrix plotters
84716042	3022.8	3022.0055	Other plotters with printing width exceeding 580mm
84716049	3022.8	3022.0055	Other plotters
84716052	3022.8	3022.0085	Keyboards for automatic data processing machines
84716053	3022.8	3022.0055	Pointers for automatic data processing machines
84716054	3022.8	3022.0055	Digitizing tables for automatic data processing machines
84716059	3022.8	3022.0055	Other input units for automatic data processing machines
84716061	3022.8	3022.0070	Terminals with alphanumeric keyboards & monochrome displays
84716062	3022.8	3022.0070	Terminals with alphanumeric keyboards & color displays
84716071	3022.8	3022.0050	Video output units with monochrome cathode-ray tubes
84716072	3022.8	3022.0050	Video put units with color cathode-ray tubes
84716073	3022.8	3022.0050	Other video output units, monochrome
84716074	3022.8	3022.0050	Other video output units, color
84716080	3022.8	3022.0090	Automatic teller machines
84716091	3022.8	3022.0010	Postal barcode printers, 3 by 5 type etc.
84716099	3022.8	3022.0060	Other I/O units for data processing machines
(2) 84717011	3022.8	3022.0110	Floppy disk drives
(2) 84717011	3022.8	3022.0120	Floppy disk drives

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Chart M9.2
Products in the Data Processing Equipment segment (CNAE 30.2), as described in the Mercosur Common Nomenclature (NCM)

Mercosur Common Nomenclature (NCM) 2003/2004	CNAE 1.0	PRODLIST (1) 2004	Products in Data Processing Equipment segment (CNAE 30.2), as described in Mercosur Common Nomenclature (NCM)
84717012	(2) 3022.8	3022.0110	Hard disk drives
84717012	(2) 3022.8	3022.0120	Hard disk drives
(2) 84717019	3022.8	3022.0110	Other disk drives
(2) 84717019	3022.8	3022.0120	Other disk drives
84717021	(2) 3022.8	3022.0110	Optical disk drives for reading data
84717021	(2) 3022.8	3022.0120	Optical disk drives for reading data
(2) 84717029	3022.8	3022.0110	Other optical disk drives
(2) 84717029	3022.8	3022.0120	Other optical disk drives
84717031	(2) 3022.8	3022.0110	Magnetic tape drives for reels
84717031	(2) 3022.8	3022.0120	Magnetic tape drives for reels
(2) 84717032	3022.8	3022.0110	Magnetic tape drives for cartridges
(2) 84717032	3022.8	3022.0120	Magnetic tape drives for cartridges
84717033	(2) 3022.8	3022.0110	Magnetic tape drives for cassettes
84717033	(2) 3022.8	3022.0120	Magnetic tape drives for cassettes
(2) 84717039	3022.8	3022.0110	Other tape drives
(2) 84717039	3022.8	3022.0120	Other tape drives
84717090	(2) 3022.8	3022.0110	Other storage units
84717090	(2) 3022.8	3022.0120	Other storage units
84718012	3022.8	3022.0070	Communications controllers for data processing
84718013	3022.8	3022.0070	Protocol translator systems for interconnecting networks (gateways)
84718014	3022.8	3022.0070	Network connection distributors
84718019	3022.8	3022.0070	Other control or adapter units, signal converter units
84718090	3022.8	3022.0070	Other units of automatic data processing machines
84719011	3022.8	3022.0020	Magnetic card readers or writers
84719012	3022.8	3022.0020	Barcode readers
84719013	3022.8	3022.0020	Magnetizable type readers
84719014	3022.8	3022.0055	Scanners for automatic data processing machines
84719019	3022.8	3022.0020	Other readers or writers for data processing
84733011	3022.8	3022.0080	Cabinets with power supplies for automatic data processing machines
84733019	3022.8	3022.0080	Other cabinets for automatic data processing machines
84733021	3022.8	3022.0080	Dot matrix, ink-jet etc. printer mechanisms, mounted
84733022	3022.8	3022.0080	Laser, LED or LCS printer mechanisms, mounted
84733023	3022.8	3022.0080	Printing hammers & hammer banks for printers
84733024	3022.8	3022.0080	Other printing heads for printers
84733025	3022.8	3022.0080	Thermal or ink-jet printing heads for printers
84733026	3022.8	3022.0080	Type ribbons for printers
84733027	3022.8	3022.0005	Ink cartridges for printers
84733029	3022.8	3022.0080	Other parts & accessories for printers or plotters

Chart M9.2
Products in the Data Processing Equipment segment (CNAE 30.2), as described in the Mercosur Common Nomenclature (NCM)

Mercosur Common Nomenclature (NCM) 2003/2004	CNAE 1.0	PRODLIST (1) 2004	Products in Data Processing Equipment segment (CNAE 30.2), as described in Mercosur Common Nomenclature (NCM)
84733031	3022.8	3022.0080	Head-disk assemblies for hard disk drives, mounted
84733032	3022.8	3022.0080	Magnetic head positioning arms for disk or tape units
84733033	3022.8	3022.0080	Magnetic heads for disk or tape units
84733034	3022.8	3022.0080	Transporter mechanisms for magnetic tape units
84733039	3022.8	3022.0080	Other parts & accessories for magnetic disk or tape units
84733041	3022.8	3022.0080	Mother boards for data processing machines, mounted (printed circuits)
84733042	3022.8	3022.0080	Storage modules for data processing machines, mounted, surface area not exceeding 50cm ²
84733043	3022.8	3022.0080	Microprocessor modules with cooling devices (...)
84733049	3022.8	3022.0080	Other printed circuits for automatic data processing machines
84733050	3022.8	3022.0080	Memory cards for automatic data processing machines
84733091	3022.8	3022.0080	Displays for portable microcomputers, monochrome
84733092	3022.8	3022.0080	Displays for portable microcomputers, color
84733099	3022.8	3022.0080	Other parts & accessories for automatic data processing machines
84735010	3022.8	3022.0080	Printed circuits, mounted, for use in two or more different machines
84735020	3022.8	3022.0080	Memory cards for use in two or more different machines
84735031	3022.8	3022.0080	Printing hammers etc. for use in two or more different machines
84735032	3022.8	3022.0080	Other printing heads for use in two or more different machines
84735033	3022.8	3022.0080	Thermal etc. printing heads for use in two or more different machines
84735034	3022.8	3022.0080	Type ribbons for use in two or more different machines
84735035	3022.8	3022.0080	Ink cartridges for use in two or more different machines
84735039	3022.8	3022.0080	Other printer parts & accessories for use in two or more different machines
84735040	3022.8	3022.0080	Magnetic heads for use in two or more different machines
84735050	3022.8	3022.0080	Memory boards with surface area not exceeding 50cm ² for use in two or more different machines
84735090	3022.8	3022.0080	Other parts & accessories for use in two or more different machines

Source: IBGE, CONCLA. Available at: <http://www.ibge.gov.br/concla/cl_corresp.php?sl=3>. Last visited Aug. 28, 2009.

(1) PRODLIST is a detailed list of industrial goods and services derived by IBGE from its Annual Survey of Industry (PIA), covering Brazil's mining and manufacturing firms and harmonized with the Mercosur Common Nomenclature (NCM), the National Economic Activity Classification (CNAE) and the UN Central Product Classification (CPC).

(2) NCM codes with same CNAE codes but different PRODLIST codes.

Chart M9.3**Products in the Insulated Wire, Cable & Electric Conductors segment (CNAE 31.3), as described in the Mercosur Common Nomenclature (NCM)**

Mercosur Common Nomenclature (NCM) 2003/2004	CNAE 1.0	PRODLIST (1) 2004	Products in Insulated Wire & Cable segment (CNAE 31.3), as described in Mercosur Common Nomenclature (NCM)
85441100	3130.5	3130.0070	Copper insulated winding wire for electrical purposes
85441910	3130.5	3130.0080	Aluminium insulated winding wire for electrical purposes
85441990	3130.5	3130.0080	Other insulated winding wire for electrical purposes
85442000	3130.5	3130.0010	Insulated wire & cable including coaxial cable
85443000	(2) 3130.5	3130.0025	Ignition wiring sets & other wiring sets used in vehicles
85444100	3130.5	3130.0047	Other electric conductors fitted with connectors for voltages not exceeding 80V
85444900	3130.5	3130.0045	Other electric conductors for voltages not exceeding 80V
85445100	3130.5	3130.0045	Other electric conductors fitted with connectors for voltages exceeding 80V but less than 1000V
85445900	3130.5	3130.0045	Other electric conductors for voltages exceeding 80V but less than 1000V
85446000	3130.5	3130.0030	Other electric conductors fitted with connectors for voltages exceeding 1000V
85447010	3130.5	3130.0020	Optical fiber cables, made up of individually sheathed fibers
85447020	3130.5	3130.0020	Submarine fiber optic cables with steel armoring
85447030	3130.5	3130.0020	Submarine fiber optic cables with aluminium armoring
85447090	3130.5	3130.0020	Other optical fiber cables

Source: IBGE, CONCLA. Available at: <http://www.ibge.gov.br/concla/cl_corresp.php?sl=3>. Last visited Aug. 28, 2009.

(1) PRODLIST is a detailed list of industrial goods and services derived by IBGE from its Annual Survey of Industry (PIA), covering Brazil's mining and manufacturing firms and harmonized with the Mercosur Common Nomenclature (NCM), the National Economic Activity Classification (CNAE) and the UN Central Product Classification (CPC).

(2) NCM code with different CNAE codes.

Chart M9.4
Products in the Basic Electronic Material segment (CNAE 32.1), as described
in the Mercosur Common Nomenclature (NCM)

Mercosur Common Nomenclature (NCM) 2003/200	CNAE 1.0	PRODLIST (1) 2004	Products in Basic Electronic Material segment (CNAE 32.1), as described in Mercosur Common Nomenclature (NCM)
85321000	3210.7	3210.0030	Fixed capacitors for 50/60Hz circuits, power handling capacity of not less than 0.5 kva
85322111	3210.7	3210.0030	Fixed capacitors, tantalum, surface mount, for voltages not exceeding 125V
85322119	3210.7	3210.0030	Other fixed capacitors, tantalum, surface mount
85322190	3210.7	3210.0030	Other fixed capacitors, tantalum
85322200	3210.7	3210.0030	Other fixed capacitors, aluminium electrolytic
85322310	3210.7	3210.0030	Fixed capacitors, ceramic dielectric, single layer, surface mount
85322390	3210.7	3210.0030	Other fixed capacitors, ceramic dielectric, single layer
85322410	3210.7	3210.0030	Other fixed capacitors, ceramic dielectric, surface mount
85322490	3210.7	3210.0030	Other fixed capacitors, ceramic dielectric
85322510	3210.7	3210.0030	Fixed capacitors, paper or plastic dielectric, surface mount
85322590	3210.7	3210.0030	Other fixed capacitors, paper or plastic dielectric
85322910	3210.7	3210.0030	Other surface mount fixed capacitors
85322990	3210.7	3210.0030	Other fixed capacitors
85323010	3210.7	3210.0050	Variable or adjustable capacitors, surface mount
85323090	3210.7	3210.0050	Other variable or adjustable capacitors
85329000	3210.7	3210.0380	Parts of fixed, variable or adjustable capacitors
85331000	3210.7	3210.0480	Fixed carbon resistors, agglomerated or layers
85332110	3210.7	3210.0480	Fixed resistors, power handling capacity not exceeding 20W, wirewound
85332120	3210.7	3210.0480	Fixed resistors, power handling capacity not exceeding 20W, surface mount
85332190	3210.7	3210.0480	Other fixed resistors, power handling capacity not exceeding 20W
85332900	3210.7	3210.0480	Other fixed resistors
85333110	3210.7	3210.0480	Potentiometers, power handling capacity not exceeding 20W
85333190	3210.7	3210.0480	Other wirewound variable resistors, power handling capacity not exceeding 20W
85333910	3210.7	3210.0480	Other potentiometers
85333990	3210.7	3210.0480	Other wirewound variable resistors
85334011	3210.7	3210.0480	Thermistors
85334012	3210.7	3210.0480	Varistors
85334019	3210.7	3210.0480	Other variable non-linear semiconductor resistors
85334091	3210.7	3210.0480	Carbon potentiometers for fuel injection systems (...)
85334092	3210.7	3210.0480	Other carbon potentiometers
85334099	3210.7	3210.0480	Other variable resistors
85339000	3210.7	3210.0430	Parts of electrical resistors
85340000	3210.7	3210.0120	Printed circuits
85369030	3210.7	3210.0510	Sockets for electronic microstructures for voltages not exceeding 1 kV
85369040	3210.7	3210.0200	Printed circuit connectors for voltages not exceeding 1 kV
85401100	3210.7	3210.0570	Cathode-ray television picture tubes, color etc.
85401200	3210.7	3210.0570	Cathode-ray television picture tubes, black & white etc.
85402011	3210.7	3210.0570	Television camera tubes, black & white etc.

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Chart M9.4
Products in the Basic Electronic Material segment (CNAE 32.1), as described
in the Mercosur Common Nomenclature (NCM)

Mercosur Common Nomenclature (NCM) 2003/2004	CNAE 1.0	PRODLIST (1) 2004	Products in Basic Electronic Material segment (CNAE 32.1), as described in Mercosur Common Nomenclature (NCM)
85402019	3210.7	3210.0570	Other television camera tubes
85402020	3210.7	3210.0570	X-ray image intensifier tubes
85402090	3210.7	3210.0570	Other image intensifier tubes etc.
85404000	3210.7	3210.0570	Data or graphic display tubes, color, with phosphor dot screen etc.
85405010	3210.7	3210.0570	Data or graphic display tubes, black & white, with video display of less than 14in
85405020	3210.7	3210.0570	Data or graphic display tubes, black & white, with video display of at least 14in
85406010	3210.7	3210.0570	Other data or graphic display tubes, color etc.
85406090	3210.7	3210.0570	Other cathode-ray tubes
85407100	3210.7	3210.0570	Microwave tubes, magnetrons
85407200	3210.7	3210.0570	Microwave tubes, klystrons
85407900	3210.7	3210.0570	Other microwave tubes
85408100	3210.7	3210.0570	Receiver or amplifier tubes
85408910	3210.7	3210.0570	Thermionic valves for transmitters
85408990	3210.7	3210.0340	Other lamps, tubes & valves etc.
85409110	3210.7	3210.0440	Cathode-ray tube deflection yokes
85409120	3210.7	3210.0440	Ferrite cores for deflection yokes
85409130	3210.7	3210.0440	Electron guns for cathode-ray tubes
85409140	3210.7	3210.0440	Glass panels & masks, assembled, for RGB color tubes
85409190	3210.7	3210.0440	Other parts for cathode-ray tubes
85409900	3210.7	3210.0400	Parts for lamps, other tubes & valves etc.
85411011	3210.7	3210.0250	Zener diodes, unmounted
85411012	3210.7	3210.0250	Diodes, unmounted, for currents not exceeding 3 amps
85411019	3210.7	3210.0250	Other unmounted diodes
85411021	3210.7	3210.0250	Surface mount Zener diodes, mounted
85411022	3210.7	3210.0250	Surface mount diodes, mounted, for currents not exceeding 3 amps
85411029	3210.7	3210.0250	Other mounted surface mount diodes
85411091	3210.7	3210.0250	Other Zener diodes
85411092	3210.7	3210.0250	Other diodes for currents not exceeding 3 amps
85411099	3210.7	3210.0250	Other diodes except photosensitive & light-emitting diodes
85412110	3210.7	3210.0540	Transistors with dissipation rates of less than 1W, unmounted
85412120	3210.7	3210.0540	Surface mount transistors with dissipation rates of less than 1W, mounted
85412191	3210.7	3210.0540	Other heterojunction field-effect transistors with dissipation rates of less than 1W, except photosensitive transistors (HJFET or HEMT)
85412199	3210.7	3210.0540	Other transistors with dissipation rates of less than 1 W, except photosensitive transistors
85412910	3210.7	3210.0540	Other transistors, unmounted, except photosensitive transistors
85412920	3210.7	3210.0540	Other transistors, mounted, except photosensitive transistors
85413011	3210.7	3210.0250	Thyristors, diacs etc., unmounted, for currents not exceeding 3 amps
85413019	3210.7	3210.0250	Other thyristors, diacs & triacs, unmounted

(CONTINUED ON NEXT PAGE)

Chart M9.4
Products in the Basic Electronic Material segment (CNAE 32.1), as described in the Mercosur Common Nomenclature (NCM)

Mercosur Common Nomenclature (NCM) 2003/2004	CNAE 1.0	PRODLIST (1) 2004	Products in Basic Electronic Material segment (CNAE 32.1), as described in Mercosur Common Nomenclature (NCM)
85413021	3210.7	3210.0250	Thyristors diacs etc., mounted, for currents not exceeding 3 amps
85413029	3210.7	3210.0250	Other thyristors, diacs & triacs, mounted
85414011	3210.7	3210.0250	Light-emitting diodes (LEDs), unmounted, except laser diodes
85414012	3210.7	3210.0250	Laser diodes, unmounted
85414013	3210.7	3210.0250	Photosensitive diodes, unmounted
85414014	3210.7	3210.0250	Photosensitive transistors, unmounted
85414015	3210.7	3210.0250	Photosensitive thyristors, unmounted
85414016	3210.7	3210.0250	Solar cells, unmounted
85414019	3210.7	3210.0250	Other photosensitive semiconductor devices, unmounted
85414021	3210.7	3210.0250	Light-emitting diodes (LEDs), mounted, except laser diodes
85414022	3210.7	3210.0250	Other light-emitting diodes (LEDs), mounted, except laser diodes
85414023	3210.7	3210.0250	Laser diodes with wavelengths of 1300nm or 1500nm
85414024	3210.7	3210.0250	Other laser diodes
85414025	3210.7	3210.0250	Photosensitive diodes, transistors & thyristors, mounted
85414026	3210.7	3210.0250	Photosensitive resistors, mounted
85414027	3210.7	3210.0250	Optical couplers, mounted
85414029	3210.7	3210.0250	Other photosensitive semiconductor devices, mounted
85414031	3210.7	3210.0250	Photosensitive diodes in modules or panels
85414032	3210.7	3210.0250	Solar cells in modules or panels
85414039	3210.7	3210.0070	Other photovoltaic cells in modules or panels
85415010	3210.7	3210.0250	Other semiconductor devices, unmounted
85415020	3210.7	3210.0250	Other semiconductor devices, mounted
85416010	3210.7	3210.0250	Piezoelectric quartz crystals, mounted, for frequencies not exceeding 100MHz
85416090	3210.7	3210.0250	Other mounted piezoelectric crystals
85419010	3210.7	3210.0190	Semiconductor lead frames
85419020	3210.7	3210.0170	Capsules
85419090	3210.7	3210.0425	Other parts of semiconductor diodes, transistors etc.
85421000	3210.7	3210.0060	Cards with embedded electronic integrated circuit (smart cards)
85422110	3210.7	3210.0150	Metal oxide semiconductors (MOS), unmounted
85422121	3210.7	3210.0150	Memories designed for surface mounting, mounted
85422122	3210.7	3210.0150	Microprocessors designed for surface mounting, mounted
85422123	3210.7	3210.0150	Microcontrollers designed for surface mounting, mounted
85422124	3210.7	3210.0150	Coprocessors designed for surface mounting, mounted
85422125	3210.7	3210.0150	Metal oxide semiconductors, mounted (chipsets)
85422128	3210.7	3210.0150	Other memories
85422129	3210.7	3210.0150	Other metal oxide semiconductors designed for surface mounting, mounted
85422191	3210.7	3210.0150	Metal oxide memories (MOS), mounted
85422192	3210.7	3210.0150	Other microprocessors, mounted

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Chart M9.4
Products in the Basic Electronic Material segment (CNAE 32.1), as described
in the Mercosur Common Nomenclature (NCM)

Mercosur Common Nomenclature (NCM) 2003/2004	CNAE 1.0	PRODLIST (1) 2004	Products in Basic Electronic Material segment (CNAE 32.1), as described in Mercosur Common Nomenclature (NCM)
85422193	3210.7	3210.0150	Other microcontrollers, mounted
85422194	3210.7	3210.0150	Other coprocessors, mounted
85422195	3210.7	3210.0150	Other metal oxide semiconductors, mounted (chipsets)
85422198	3210.7	3210.0150	Other memories
85422199	3210.7	3210.0150	Other metal oxide semiconductors, mounted
85422910	3210.7	3210.0150	Other monolithic integrated circuits, unmounted
85422921	3210.7	3210.0150	Other digital or analogue monolithic integrated circuits, mounted
85422929	3210.7	3210.0150	Other monolithic integrated circuits, mounted
85426011	3210.7	3210.0150	Hybrid integrated circuits with film thickness not exceeding 1 micron & operating frequency of not less than 800MHz
85426019	3210.7	3210.0150	Other (hybrid integrated circuits with film thickness not exceeding 1 micron)
85426090	3210.7	3210.0150	Other hybrid integrated circuits
85427000	3210.7	3210.0150	Electronic microassemblies
85429010	3210.7	3210.0190	Lead frames for integrated circuits etc.
85429020	3210.7	3210.0170	Capsules for integrated circuits
85429090	3210.7	3210.0410	Other parts for integrated circuits & electronic microassemblies

Source: IBGE, CONCLA. Available at: <http://www.ibge.gov.br/concla/cl_corresp.php?sl=3>. Last visited Aug. 28, 2009.

(1) PRODLIST is a detailed list of industrial goods and services derived by IBGE from its Annual Survey of Industry (PIA), covering Brazil's mining and manufacturing firms and harmonized with the Mercosur Common Nomenclature (NCM), the National Economic Activity Classification (CNAE) and the UN Central Product Classification (CPC).

Chart M9.5
Products in the Telephone Apparatus & Equipment segment (CNAE 32.2),
as described in the Mercosur Common Nomenclature (NCM)

Mercosur Common Nomenclature (NCM) 2003/2004	CNAE 1.0	PRODLIST (1) 2004	Products in Telephone Apparatus & Equipment segment (CNAE 32.2), as described in Mercosur Common Nomenclature (NCM)
85172110	3221.2	3221.0080	Facsimile machines, thermal printing
85172120	3221.2	3221.0080	Facsimile machines, laser printing
85172130	3221.2	3221.0080	Facsimile machines, ink-jet printing
85172190	3221.2	3221.0080	Other facsimile machines
85172210	3221.2	3221.0080	Telex machines
85172290	3221.2	3221.0080	Other teleprinters
85173011	3221.2	3221.0050	Automatic electronic public telephone exchanges
85173012	3221.2	3221.0050	Automatic electromechanical public telephone exchanges
85173013	3221.2	3221.0050	Automatic private telephone exchanges with not more than 25 internal lines
85173014	3221.2	3221.0050	Automatic private telephone exchanges with more than 25 but not more than 200 internal lines
85173015	3221.2	3221.0050	Automatic private telephone exchanges with more than 200 internal lines
85173019	3221.2	3221.0050	Other automatic telephone exchanges
85173020	3221.2	3221.0050	Automatic videotext exchanges
85173030	3221.2	3221.0050	Automatic telex exchanges
85173041	3221.2	3221.0050	Automatic packet switching exchanges, with trunk speeds exceeding 72 kbps & switching speeds exceeding 3600 packets/s
85173049	3221.2	3221.0050	Other automatic packet switching exchanges for telephony etc.
85173050	3221.2	3221.0050	Automatic telephone exchange with trunking system etc.
85173061	3221.2	3221.0050	Digital cross-connect switches with granularities of at least 2Mbps
85173062	3221.2	3221.0050	Digital routers with serial connection speeds exceeding 4Mbps etc.
85173069	3221.2	3221.0050	Other electronic digital routers for telephony & telegraphy
85173090	3221.2	3221.0050	Other electronic switches for telephony & telegraphy
85175010	3221.2	3221.0070	Modems
85175021	3221.2	3221.0350	Metal wire terminals or repeaters
85175022	3221.2	3221.0350	Fiber optic terminals or repeaters etc.
85175029	3221.2	3221.0350	Other terminals or repeaters
85175030	3221.2	3221.0450	Frequency division multiplexers
85175041	3221.2	3221.0450	Time division multiplexers, synchronous etc.
85175049	3221.2	3221.0450	Other time division multiplexers
85175050	3221.2	3221.0070	Signal converters, synchronous or asynchronous etc.
85175061	3221.2	3221.0090	Subscriber line concentrators
85175062	3221.2	3221.0090	Digital circuit concentrators (DCME)
85175069	3221.2	3221.0090	Other electronic concentrators for telephony & telegraphy
85175091	3221.2	3221.0070	Text terminals with code transmission, keyboard & VDU, whether or not with telephone handsets included
85175099	3221.2	3221.0070	Other apparatus for carrier-current line systems or digital line systems
85178000	3221.2	(2) 3221.0060	Other electronic apparatus for telephony & telegraphy
85178000	3221.2	(2) 3221.0090	Other electronic apparatus for telephony & telegraphy
85179010	(3) 3221.2	3221.0230	Printed circuits for telephony, mounted etc.

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Chart M9.5
Products in the Telephone Apparatus & Equipment segment (CNAE 32.2), as described in the Mercosur Common Nomenclature (NCM)

Mercosur Common Nomenclature (NCM) 2003/2004	CNAE 1.0	PRODLIST (1) 2004	Products in Telephone Apparatus & Equipment segment (CNAE 32.2), as described in Mercosur Common Nomenclature (NCM)
85179092	(3) 3221.2	3221.0110	Cabinets, racks & frames for telephone & telegraph apparatus
(3) 85179093	3221.2	3221.0480	Registration & selection devices for automatic telephone exchanges etc.
85179094	(3) 3221.2	3221.0160	Piezoelectric transducers for telephone handsets
(3) 85179099	3221.2	3221.0470	Other parts for telephone & telegraph apparatus
85251010	3221.2	3221.0630	Transmission apparatus for radiotelephony or radiotelegraphy
85251021	3221.2	3221.0630	Transmission apparatus for AM radio broadcasting, modulating pulse width, solid-state, output power exceeding 10kW
85251022	3221.2	3221.0630	Transmission apparatus for FM broadcasting with valve-controlled output stage, output power exceeding 30 kW
85251029	3221.2	3221.0630	Other transmission apparatus for broadcasting
85251031	3221.2	3221.0630	Transmission apparatus for television broadcasting, frequencies exceeding 7GHz
85251032	3221.2	3221.0630	Transmission apparatus for television broadcasting, UHF band, frequencies of 2.0GHz or more but not more than 2.7 GHz, output of 10W or more but not exceeding 100 W
85251033	3221.2	3221.0630	Transmission apparatus for television broadcasting, UHF band, output exceeding 10kW
85251034	3221.2	3221.0630	Transmission apparatus for television broadcasting, VHF band, output of not less than 20kW
85251039	3221.2	3221.0630	Other television transmission apparatus
85252011	3221.2	3221.0590	Satellite telecommunications transmission & reception apparatus, for ground stations
85252012	3221.2	3221.0590	Satellite telecommunications transmission & reception apparatus, for VSAT stations
85252013	3221.2	3221.0590	Satellite telecommunications voice or data transmission & reception apparatus, digital, frequency band C, Ku, L or S
85252019	3221.2	(2) 3221.0590	Other Satellite telecommunications transmission & reception apparatus
85252019	3221.2	(2) 3221.0600	Other Satellite telecommunications transmission & reception apparatus
85252021	3221.2	3221.0690	Cellular telephony transmission & reception apparatus, for base stations
85252022	(3) 3221.2	3221.0690	Cellular telephone handsets, portable
85252023	3221.2	3221.0690	Cellular telephone handsets, fixed, without internal power supply
85252024	3221.2	3221.0690	Cellular telephone handsets, mobile, for motor vehicles
85252029	3221.2	3221.0690	Other cellular telephony transmission & reception apparatus
85252030	3221.2	3221.0100	Modulator-demodulator (modem) transmission & reception apparatus
85252041	3221.2	3221.0700	Radio broadcasting transmission & reception apparatus
85252042	3221.2	3221.0700	Television broadcasting transmission & reception apparatus, frequencies exceeding 7GHz
85252049	3221.2	3221.0700	Other television transmission & reception apparatus
85252051	3221.2	3221.0680	Central switch trunking system transmission & reception apparatus
85252052	3221.2	3221.0520	Trunking system handsets, portable
85252053	3221.2	3221.0520	Trunking system handsets, fixed, without internal power supply
85252054	3221.2	3221.0520	Trunking system handsets, mobile, for motor vehicles

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Chart M9.5
Products in the Telephone Apparatus & Equipment segment (CNAE 32.2),
as described in the Mercosur Common Nomenclature (NCM)

Mercosur Common Nomenclature (NCM) 2003/2004	CNAE 1.0	PRODLIST (1) 2004	Products in Telephone Apparatus & Equipment segment (CNAE 32.2), as described in Mercosur Common Nomenclature (NCM)
85252059	3221.2	3221.0520	Other trunking system transmission & reception apparatus
85252061	3221.2	3221.0660	Transmission & reception apparatus for radiotelephony, analog, portable etc.
85252062	3221.2	3221.0660	Fixed handsets for radiotelephony, analog, portable, single-channel
85252063	3221.2	3221.0660	Mobile handsets for radiotelephony, analog, for motor vehicles
85252069	3221.2	3221.0660	Other transmission & reception apparatus for radiotelephony, analog etc.
85252071	3221.2	3221.0670	Digital transmission & reception apparatus for radiotelephony, frequencies less than 15GHz, transmission rate not more than 8Mbps (except two-way radio ... not more than 112kbps)
85252072	3221.2	3221.0670	Digital transmission & reception apparatus for radiotelephony, frequencies less than 15GHz, transmission rate not more than 34Mbps
85252073	3221.2	3221.0670	Digital transmission & reception apparatus for radiotelephony (for two-way radio messaging system base stations...)
85252074	3221.2	3221.0670	Digital transmission & reception apparatus for radiotelephony (portable handsets for two-way radio messaging systems...)
85252079	3221.2	3221.0670	Other digital transmission & reception apparatus for radiotelephony, frequencies less than 15GHz
85252081	3221.2	3221.0670	Other digital transmission & reception apparatus for radiotelephony etc., frequencies not more than 23GHz ...
85252089	3221.2	3221.0670	Other digital transmission & reception apparatus for radiotelephony & radiotelegraphy
85252090	3221.2	3221.0670	Other transmission apparatus with telephone handsets included
85253010	3221.2	3221.0140	Television cameras with three or more image recorders
85253020	3221.2	3221.0140	Television cameras with CCD image sensors etc., sensitive to less than 0.20lux
85253030	3221.2	3221.0140	Television cameras with 14 micron image sensors etc.
85253090	3221.2	3221.0140	Other television cameras
85365010	3221.2	3221.0730	Converter switching units for satellite telecommunications systems, voltages not exceeding 1kV
85365020	3221.2	3221.0730	High-power amplifier (HPA) switching units for satellite telecommunications systems, voltages not exceeding 1kV
85432000	3221.2	3221.0380	Signal generators
85438911	3221.2	3221.0030	Radiofrequency amplifiers for transmission of high-power microwave signals, HPA etc.
85438912	3221.2	3221.0030	Radiofrequency amplifiers for transmission of low-noise microwave signals, LNA etc.
85438913	3221.2	3221.0030	Radiofrequency amplifiers for distribution of television signals
85438914	3221.2	3221.0030	Other radiofrequency amplifiers for transmission of microwave signals
85438915	3221.2	3221.0030	Other radiofrequency amplifiers for transmission of microwave signals
85438919	3221.2	3221.0030	Other radiofrequency amplifiers
85438931	3221.2	3221.0495	Special effects generators, 2D or 3D etc. for video
85438932	3221.2	3221.0495	Digital character generators for video
85438933	3221.2	3221.0495	Frame synchronizers, time-base correctors etc. for video
85438934	3221.2	3221.0495	Editing controllers for video

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Chart M9.5
Products in the Telephone Apparatus & Equipment segment (CNAE 32.2),
as described in the Mercosur Common Nomenclature (NCM)

Mercosur Common Nomenclature (NCM) 2003/20	CNAE 1.0	PRODLIST (1) 2004	Products in Telephone Apparatus & Equipment segment (CNAE 32.2), as described in Mercosur Common Nomenclature (NCM)
85438935	3221.2	3221.0495	Real-time digital mixers with 8 or more inputs for video
85438936	3221.2	3221.0495	Routing switches with more than 20 inputs & more than 16 outputs for video
85438939	3221.2	3221.0495	Other machines & ancillary apparatus for video
85438940	3221.2	3221.0280	Television standard transcoders or converters
85438991	3221.2	3221.0345	Text terminals operating by code transmission (...)
85438999	(3) 3221.2	3221.0345	Other machines & apparatus with specific functions
85171100	3222.0	3222.0040	Line telephone sets with cordless handsets
85171910	3222.0	3222.0060	Intercoms
85171920	3222.0	3222.0030	Public telephones
85171991	3222.0	3222.0010	Other telephones not combined with other apparatus
85171999	3222.0	3222.0070	Other telephones & videophones
85179010	(3) 3222.0	3222.0030	Printed circuits for telephony etc. mounted
85179091	3222.0	3221.0400	Laser etc. printing mechanisms for facsimile machines
85179092	(3) 3222.0	3222.0030	Furniture & frameworks for telephone or telegraph apparatus
(3) 85179093	3222.0	3222.0030	Registration & selection devices for automatic telephone exchanges etc.
85179094	(3) 3222.0	3222.0030	Piezoelectric transducers for telephone handsets
(3) 85179099	3222.0	3222.0030	Other parts for telephone or telegraph apparatus
85202000	3222.0	3222.0068	Answering machines
85252022	(3) 3222.0	3222.0025	Cellular handsets, portable
(3) 85299011	3222.0	3222.0065	Cabinets & frames for transmission or reception apparatus
85299012	(3) 3222.0	3222.0065	Printed circuits for transmission or reception apparatus, mounted
(3) 85299019	3222.0	3222.0065	Other parts for transmission or reception apparatus

Source: IBGE, CONCLA. Available at <http://www.ibge.gov.br/concla/cl_corresp.php?sl=3>. Last visited August 28, 2009.

(1) PRODLIST is a detailed list of industrial goods and services derived by IBGE from its Annual Survey of Industry (PIA), covering Brazil's mining and manufacturing firms and harmonized with the Mercosur Common Nomenclature (NCM), the National Economic Activity Classification (CNAE) and the UN Central Product Classification (CPC).

(2) Same NCM code, same CNAE code, different PRODLIST code.

(3) NCM codes with different CNAE codes.

Chart M9.6
Products in the Other Telecommunications Equipment segment (CNAE 32.3),
as described in the Mercosur Common Nomenclature (NCM)

Mercosur Common Nomenclature (NCM) 2003/2004	CNAE 1.0	PRODLIST (1) 2004	Products in Other Telecommunications Equipment segment (CNAE 32.3), as described in Mercosur Common Nomenclature (NCM)
85181000	3230.1	3230.0200	Microphones & stands
85182100	3230.1	3230.0200	Single loudspeakers, each mounted in separate enclosure
85182200	3230.1	3230.0200	Multiple loudspeakers mounted in same enclosure
85182900	3230.1	3230.0200	Other loudspeakers
85183000	3230.1	3230.0200	Headphones & earphones, whether or not combined with microphones
85184000	3230.1	3230.0200	Audiofrequency electric amplifiers
85185000	3230.1	3230.0200	Electric sound amplifier sets
85189010	3230.1	3230.0200	Parts of loudspeakers
(2) 85189090	3230.1	3230.0200	Parts of microphones, earphones, amplifiers etc.
(2) 85189090	3230.1	3230.0240	Parts of microphones, earphones, amplifiers etc.
85191000	3230.1	3230.0060	Sound reproducing apparatus operated by coins or tokens
85192100	3230.1	3230.0060	Sound reproducing apparatus without loudspeakers
85192900	3230.1	3230.0060	Other sound reproducing apparatus
85193100	3230.1	3230.0360	Turntables with automatic record changing mechanisms
85193900	3230.1	3230.0360	Other turntables or record players
85194000	3230.1	3230.0060	Dictating machines without sound recording devices
85199200	3230.1	3230.0060	Pocket-size cassette tape players
85199300	3230.1	3230.0060	Other cassette-tape players
85199910	3230.1	3230.0370	Sound reproducing apparatus with laser optical reading systems
85199990	3230.1	3230.0060	Other sound reproducing apparatus
85201000	3230.1	3230.0160	Dictating machines with sound recording device & external power supply
85203200	3230.1	3230.0160	Digital magnetic tape sound recording & reproducing apparatus
85203300	3230.1	3230.0160	Magnetic cassette tape sound recording & reproducing apparatus
85203900	3230.1	3230.0160	Other magnetic tape sound recording & reproducing apparatus
85209011	3230.1	3230.0160	Flight data recorders without sound reproducing apparatus
85209019	3230.1	3230.0160	Other sound recording apparatus without sound reproducing devices
85209020	3230.1	3230.0160	Other sound recording apparatus with sound reproducing devices
85211010	3230.1	3230.0110	Magnetic tape recorders/reproducers without tuners
85211081	3230.1	3230.0110	Video recorders/reproducers for cassette tapes with width of 12mm
85211089	3230.1	3230.0110	Other video recorders/reproducers for magnetic tapes with width of less than 19.05mm
85211090	3230.1	3230.0110	Other video recorders/reproducers for magnetic tapes with width of 19.05mm or more
85219010	3230.1	3230.0120	Combined recording and reproducing apparatus with image & sound editor, for magnetic disks
85219090	3230.1	3230.0120	Other video recorders/reproducers
85221000	3230.1	3230.0250	Pick-up cartridges for recording/reproducing apparatus
85229010	3230.1	3230.0250	Turntable styli tipped with precious stones
85229020	3230.1	3230.0250	Cabinets for recording & reproducing apparatus

Chart M9.6
Products in the Other Telecommunications Equipment segment (CNAE 32.3),
as described in the Mercosur Common Nomenclature (NCM)

Mercosur Common Nomenclature (NCM) 2003/2004	CNAE 1.0	PRODLIST (1) 2004	Products in Other Telecommunications Equipment segment (CNAE 32.3), as described in Mercosur Common Nomenclature (NCM)
85229030	3230.1	3230.0250	Frames or bases for recording & reproducing apparatus
85229040	3230.1	3230.0250	Magnetic sound readers for reproducing apparatus
85229050	3230.1	3230.0250	Disc turning mechanisms, whether or not including disc changers, for reproducing apparatus
85229090	3230.1	3230.0250	Other parts & accessories for recording or reproducing apparatus
85254010	3230.1	3230.0065	Still image cameras & other video cameras with three or more image recorders
85254020	3230.1	3230.0065	Still image cameras & other video cameras etc. not exceeding 14 microns (integrated systems etc.)
85254090	3230.1	3230.0065	Still image cameras & other video cameras
85271200	3230.1	3230.0300	Pocket-size radio cassette players
85271310	3230.1	3230.0300	Other radio broadcast receivers combined with cassette player, battery operated or for external power supply
85271320	3230.1	3230.0300	Radio receivers combined with cassette player/recorder, battery operated or for external power supply
85271330	3230.1	3230.0300	Radio receivers combined with disc or cassette player/recorder, battery operated
85271390	3230.1	3230.0300	Radio broadcast receivers combined with sound apparatus, battery operated or for external power supply
85271910	3230.1	3230.0300	Other radio broadcast receivers, battery operated or for external power supply
85271990	3230.1	3230.0300	Radio receivers with clock, battery operated or for external power supply
85272110	3230.1	3230.0295	Radio receivers with cassette player for motor vehicles
85272190	3230.1	3230.0295	Other radio broadcast receivers with sound apparatus for motor vehicles
85272900	3230.1	3230.0295	Other radio broadcast receivers for motor vehicles etc.
85273110	3230.1	3230.0300	Other radio broadcast receivers with cassette player/recorder
85273120	3230.1	3230.0300	Other radio broadcast receivers with disk & cassette player/recorder
85273190	3230.1	3230.0300	Other radio broadcast receivers with sound recording/reproducing apparatus
85273200	3230.1	3230.0300	Radio receivers with clock, for external power supply
85273910	3230.1	3230.0040	Amplifiers with tuner (receivers)
85273990	3230.1	3230.0290	Other radio broadcast receivers etc.
85279011	3230.1	3230.0325	Paging receivers
85279019	3230.1	3230.0325	Other personal radio message receivers
85279090	3230.1	3230.0325	Other radiotelephony, radiotelegraphy, radio broadcast etc. receiving apparatus
85281211	3230.1	3230.0280	Integrated digital video signal receivers-decoders, without modulated radiofrequency output (...) but with stereo audio output (...)
85281219	3230.1	3230.0280	Other (digital video encoded integrated receivers/decoders, color)
85281290	3230.1	3230.0330	Other color television receivers, with or without audio/video apparatus
85281300	3230.1	3230.0340	Black & white television receivers with or without radio etc.
85282110	3230.1	3230.0220	Color video monitors with underscanning (...) or pulse-cross display
85282190	3230.1	3230.0220	Other (color video monitors)
85282200	3230.1	3230.0220	Black & white video monitors or other monochrome displays
85283000	3230.1	3230.0270	Video projectors

(CONTINUED ON NEXT PAGE)

Chart M9.6
Products in the Other Telecommunications Equipment segment (CNAE 32.3),
as described in the Mercosur Common Nomenclature (NCM)

Mercosur Common Nomenclature (NCM) 2003/2004	CNAE 1.0	PRODLIST (1) 2004	Products in Other Telecommunications Equipment segment (CNAE 32.3), as described in Mercosur Common Nomenclature (NCM)
85291011	3230.1	3230.0050	Antennas with parabolic reflectors except for cellular telephony
85291019	3230.1	3230.0050	Other antennas except for cellular telephones
85291020	3230.1	3230.0050	Antennas for portable cellular telephones, other than telescopic
85291090	3230.1	3230.0050	Other antennas, antenna reflectors & parts
(3) 85299011	3230.1	3230.0260	Cabinets, racks & frames for transmitting or receiving apparatus
85299012	(3) 3230.1	3230.0260	Mounted printed circuits for transmitting or receiving apparatus
(3) 85299019	3230.1	3230.0260	Other parts for transmitting or receiving apparatus
85299020	3230.1	3230.0260	Other parts for radio & television receiving apparatus etc.
85299090	3230.1	3230.0260	Other parts for radio remote control apparatus, television cameras or video

Source: IBGE, CONCLA. Available at <http://www.ibge.gov.br/concla/cl_corresp.php?sl=3>. Last visited August 28, 2009.

(1) PRODLIST is a detailed list of industrial goods and services derived by IBGE from its Annual Survey of Industry (PIA), covering Brazil's mining and manufacturing firms and harmonized with the Mercosur Common Nomenclature (NCM), the National Economic Activity Classification (CNAE) and the UN Central Product Classification (CPC).

(2) NCM codes with same CNAE codes but different PRODLIST codes.

(3) NCM code with different CNAE codes.

Chart M9.7
Products in the Measuring, Testing & Control Instruments segment (CNAE 33.2),
as described in the Mercosur Common Nomenclature (NCM)

Mercosur Common Nomenclature (NCM) 2003/2004	CNAE 1.0	PRODLIST (1) 2004	Products in Measuring, Testing & Control Instruments segment (CNAE 33.2), as described in Mercosur Common Nomenclature (NCM)
85261000	3320.0	3320.0150	Radar apparatus
85269100	3320.0	3320.0160	Radio navigation apparatus
85269200	3320.0	3320.0170	Radio remote control apparatus
85299030	3320.0	3320.0150	Other parts for radar apparatus
85299040	3320.0	3320.0160	Other parts for radio navigation apparatus
90121010	3320.0	3320.0950	Electron microscopes
90121090	3320.0	3320.0940	Other microscopes & diffraction apparatus
90129010	3320.0	3320.1175	Parts & accessories for electron microscopes
90129090	3320.0	3320.1175	Parts & accessories for other microscopes & diffraction apparatus
90141000	3320.0	3320.0230	Direction-finding compasses
90142010	3320.0	3320.0700	Altimeters for aeronautical or space navigation
90142020	3320.0	3320.0700	Automatic pilots for aeronautical or space navigation
90142030	3320.0	3320.0700	Inclinometers for aeronautical or space navigation
90142090	3320.0	3320.0700	Other instruments & apparatus for aeronautical or space navigation
90148010	3320.0	3320.1410	Echo sounding, sonar or ultrasonic equipment for navigation
90148090	3320.0	3320.0180	Other apparatus & instruments for navigation
90149000	3320.0	3320.1160	Parts & accessories for apparatus & instruments for navigation
90151000	3320.0	3320.0690	Rangefinders
90152010	3320.0	3320.0690	Theodolites & tachymeters, prism reading etc., precision of 1 arc second
90152090	3320.0	3320.0690	Other theodolites & tachymeters
90153000	3320.0	3320.0690	Surveying levels
90154000	3320.0	3320.0690	Photogrammetric surveying instruments & appliances
90158010	3320.0	3320.0690	Dumas current meter, propeller type
90158090	3320.0	3320.0690	Other geodetic, topographic etc. surveying instruments & appliances
90159010	3320.0	3320.1055	Parts & accessories of photogrammetric surveying instruments & appliances
90159090	3320.0	3320.1155	Parts & accessories of geodetic etc. surveying instruments & appliances
90160010	3320.0	3320.0200	Scales, sensitivity 0.2mg or less
90160090	3320.0	3320.0190	Scales, sensitivity exceeding 0.2mg but not exceeding 50mg, with or without weights
90171010	3320.0	3320.0900	Drafting tables & machines, automated
90171090	3320.0	3320.0900	Other drafting tables & machines
90172000	3320.0	3320.0580	Other drawing, marking-out or mathematical calculating instruments
90173010	3320.0	3320.0930	Micrometers (instruments for manual measurement of distance)
90173020	3320.0	3320.0930	Callipers (instruments for manual measurement of distance)
90173090	3320.0	3320.0930	Gauges (instruments for manual measurement of distance)
90178010	3320.0	3320.0910	Measuring rods & tapes (instruments for manual measurement of distance)
90178090	3320.0	3320.0600	Other instruments for manual measurement of distance

Chart M9.7
Products in the Measuring, Testing & Control Instruments segment (CNAE 33.2),
as described in the Mercosur Common Nomenclature (NCM)

Mercosur Common Nomenclature (NCM) 2003/2004	CNAE 1.0	PRODLIST (1) 2004	Products in Measuring, Testing & Control Instruments segment (CNAE 33.2), as described in Mercosur Common Nomenclature (NCM)
90179010	3320.0	3320.1050	Parts & accessories for automated drafting tables & machines
90179090	3320.0	3320.1050	Parts & accessories for other drawing, measuring etc. instruments
90241010	3320.0	3320.0850	Machines & appliances for testing hardness, strength, compressibility, elasticity or other mechanical properties of materials
90241020	3320.0	3320.0850	Machines & appliances for testing hardness of metals
90241090	3320.0	3320.0850	Other machines & appliances for testing metals
90248011	3320.0	3320.0840	Machines & appliances for testing textiles, automated
90248019	3320.0	3320.0840	Other machines & appliances for testing textiles
90248020	3320.0	3320.0830	Machines & appliances for testing paper, paperboard, linoleum etc.
90248090	3320.0	3320.0830	Other machines & appliances for testing hardness etc. of materials
90249000	3320.0	3320.1100	Parts & accessories for machines & appliances for testing hardness etc.
90251110	3320.0	3320.1460	Clinical thermometers, liquid filled, direct reading
90251190	3320.0	3320.1470	Other thermometers & pyrometers, liquid filled, direct reading
90251910	3320.0	3320.1330	Optical pyrometers
90251990	3320.0	3320.1450	Other thermometers & pyrometers
90258000	3320.0	3320.0410	Densitometers, aerometers, hygrometers & other instruments
90259010	3320.0	3320.1200	Parts & accessories of thermometers
90259090	3320.0	3320.1030	Parts & accessories of densitometers & other instruments
90261011	3320.0	3320.0860	Electronic liquid flow measuring or transmitting apparatus operating by electro-magnetic induction
90261019	3320.0	3320.0730	Other instruments or appliances for measuring & controlling flow
90261021	3320.0	3320.0740	Instruments & appliances for measuring & controlling level, of metal, by means of stray current
90261029	3320.0	3320.0740	Other (instruments or appliances for measuring & controlling level)
90262010	3320.0	3320.0810	Manometers
90262090	3320.0	3320.0710	Other instruments or appliances for measuring & controlling pressure
90268000	3320.0	3320.0720	Other instruments or appliances for measuring & controlling liquids etc.
90269010	3320.0	3320.1070	Parts & accessories for instruments or appliances for measuring & controlling level
90269020	3320.0	3320.1090	Parts & accessories for manometers
90269090	3320.0	3320.1280	Parts & accessories for other instruments or appliances for measuring & controlling
90271000	3320.0	3320.0030	Gas or smoke analysis apparatus
90272011	3320.0	3320.0400	Gas phase chromatographs
90272012	3320.0	3320.0400	Liquid phase chromatographs
90272019	3320.0	3320.0400	Other chromatographs
90272021	3320.0	3320.0400	Automatic DNA sequencing electrophoresis apparatus
90272029	3320.0	3320.0400	Other electrophoresis instruments
90273011	3320.0	3320.0610	Spectrometers & spectrographs using optical radiations (atomic emission)
90273019	3320.0	3320.0610	Other spectrometers; other spectrographs

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Chart M9.7
Products in the Measuring, Testing & Control Instruments segment (CNAE 33.2),
as described in the Mercosur Common Nomenclature (NCM)

Mercosur Common Nomenclature (NCM) 2003/2004	CNAE 1.0	PRODLIST (1) 2004	Products in Measuring, Testing & Control Instruments segment (CNAE 33.2), as described in Mercosur Common Nomenclature (NCM)
90273020	3320.0	3320.0610	Spectrophotometers using optical radiations (UV, visible, IV)
90274000	3320.0	3320.0610	Exposure meters
90275010	3320.0	3320.0280	Colorimeters
90275020	3320.0	3320.0610	Photometers
90275030	3320.0	3320.0610	Refractometers
90275040	3320.0	3320.0610	Saccharometers
90275050	3320.0	3320.0610	Flow cytometers
90275090	3320.0	3320.0610	Other instruments & appliances using optical radiations
90278011	3320.0	3320.0250	Calorimeters
90278012	3320.0	3320.0610	Viscometers
90278013	3320.0	3320.0610	Densitometers
90278014	3320.0	3320.0610	pH meters
90278020	3320.0	3320.0610	Mass spectrometers
90278030	3320.0	3320.0610	Polarographic analyzers
90278090	3320.0	3320.0610	Other instruments & appliances for analysis, testing, measurement etc.
90279010	3320.0	3320.0960	Microtomes
90279091	3320.0	3320.1290	Parts & accessories for optical emission spectrometers & spectrographs
90279093	3320.0	3320.1290	Parts & accessories for polarographic analyzers
90279099	3320.0	3320.1290	Parts & accessories for other instruments & appliances for analyzing etc.
90281011	3320.0	3320.0300	Compressed natural gas meters, electronic, of kind used by service stations or garages
90281019	3320.0	3320.0300	Other (compressed natural gas meters, electronic)
90281090	3320.0	3320.0310	Other gas meters
90282010	3320.0	3320.0320	Liquid meters, for not more than 50kg
90282020	3320.0	3320.0320	Liquid meters, for more than 50kg
90283011	3320.0	3320.0870	Digital electricity meters, single phase, AC
90283019	3320.0	3320.0870	Other electricity meters, single phase, AC
90283021	3320.0	3320.0870	Digital electricity meters, two phases
90283029	3320.0	3320.0870	Other two-phase electricity meters
90283031	3320.0	3320.0870	Digital electricity meters, three phases
90283039	3320.0	3320.0870	Other three-phase electricity meters
90283090	3320.0	3320.0870	Other electricity meters
90289010	3320.0	3320.1110	Parts & accessories for electricity meters
90289090	3320.0	3320.1250	Parts & accessories for gas or liquid meters
90291010	3320.0	3320.0330	Revolution or production counters, working time recorders
90291090	3320.0	3320.1420	Taximeters, odometers etc.

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Chart M9.7
Products in the Measuring, Testing & Control Instruments segment (CNAE 33.2),
as described in the Mercosur Common Nomenclature (NCM)

Mercosur Common Nomenclature (NCM) 2003/2004	CNAE 1.0	PRODLIST (1) 2004	Products in Measuring, Testing & Control Instruments segment (CNAE 33.2), as described in Mercosur Common Nomenclature (NCM)
90292010	3320.0	3320.0560	Speedometers & tachometers
90292020	3320.0	3320.0560	Stroboscopes
90299010	3320.0	3320.1040	Parts & accessories for speedometers & tachometers
90299090	3320.0	3320.1190	Parts & accessories for other counters etc. & stroboscopes
90301010	3320.0	3320.0890	Instruments & apparatus for measuring radioactivity
90301090	3320.0	3320.0890	Other instruments & apparatus for measuring ionizing radiation
90302010	3320.0	3320.1000	Cathode-ray oscilloscopes, digital
90302021	3320.0	3320.1000	Cathode-ray oscilloscopes, analog, frequency
90302022	3320.0	3320.1000	Vectorscopes (analog cathode-ray oscilloscopes)
90302029	3320.0	3320.1000	Other analog cathode-ray oscilloscopes
90302030	3320.0	3320.1000	Cathode-ray oscillographs
90303100	3320.0	3320.0980	Multimeters without recording device
90303911	3320.0	3320.0980	Voltmeters, digital, without recording device
90303919	3320.0	3320.0980	Other voltmeters without recording device
90303921	3320.0	3320.0980	Ammeters without recording device, for motor vehicles
90303929	3320.0	3320.0980	Other ammeters without recording device
90303990	3320.0	3320.0980	Other instruments & appliances for measuring or controlling voltage etc.
90304010	3320.0	3320.0060	Protocol analyzers for telecommunications
90304020	3320.0	3320.0060	Selective level meters for telecommunications
90304030	3320.0	3320.0060	Digital transmission analyzers for telecommunications
90304090	3320.0	3320.0060	Other instruments & devices for telecommunications
90308210	3320.0	3320.0625	Instruments & appliances for testing integrated circuits
90308290	3320.0	3320.0625	Other instruments & appliances for measuring/controlling discs etc.
90308310	3320.0	3320.0665	Instruments for testing continuity of printed circuits, with recording device
90308320	3320.0	3320.0665	Instruments for automatic testing of printed circuits with recording device
90308330	3320.0	3320.0665	Instruments for measuring parameters of television signals, with recording device
90308390	3320.0	3320.0665	Other instruments & appliances for measuring/controlling electricity etc. with recording device
90308910	3320.0	3320.0070	Logic analyzers for digital circuits
90308920	3320.0	3320.0020	Frequency spectrum analyzers
90308930	3320.0	3320.0520	Frequency meters
90308940	3320.0	3320.0500	Phase meters
90308990	3320.0	3320.0665	Other instruments & appliances for measuring/controlling etc.
90309010	3320.0	3320.1210	Parts & accessories for instruments/appliances for measuring etc. ionizing radiation
90309020	3320.0	3320.1210	Parts & accessories for instruments/appliances for measuring etc. without recording device
90309030	3320.0	3320.1210	Parts & accessories for instruments/appliances for measuring etc. semiconduct./rec. device
90309090	3320.0	3320.1140	Parts & accessories for oscilloscopes, oscillographs etc.

Chart M9.7
Products in the Measuring, Testing & Control Instruments segment (CNAE 33.2),
as described in the Mercosur Common Nomenclature (NCM)

Mercosur Common Nomenclature (NCM) 2003/2004	CNAE 1.0	PRODLIST (1) 2004	Products in Measuring, Testing & Control Instruments segment (CNAE 33.2), as described in Mercosur Common Nomenclature (NCM)
90311000	3320.0	3320.0820	Machines for balancing mechanical parts
90312010	3320.0	3320.0210	Test benches for engines & motors
90312090	3320.0	3320.0210	Other test benches, except for engines & motors
90313000	3320.0	3320.1360	Profile projectors
90314100	3320.0	3320.0765	Optical instruments & appliances for disc control etc.
90314910	3320.0	3320.0765	Instruments & appliances, laser type, for measuring dimensional parameters of cellulose fibers
90314920	3320.0	3320.0765	Instruments & appliances, laser type, for measuring thickness of motor vehicle tires
90314990	3320.0	3320.0765	Other optical instruments & appliances
90318011	3320.0	3320.0430	Dynamometers
90318012	3320.0	3320.1390	Surface finish testing instruments
90318020	3320.0	3320.0780	Machines for three-dimensional measurement
90318030	3320.0	3320.0920	Standard meters
90318050	3320.0	3320.0770	Program-controlled textile analyzers
90318060	3320.0	3320.0260	Load cells
90318090	3320.0	3320.0800	Other instruments, appliances & machines for measuring/controlling
90319010	3320.0	3320.1240	Parts & accessories for test benches
90319090	3320.0	3320.1080	Parts & accessories for other instruments & appliances for measuring/controlling
90321010	3320.0	3320.1480	Automatic thermostats operating by liquid expansion
90321090	3320.0	3320.1480	Other automatic thermostats
90322000	3320.0	3320.1350	Automatic manostats (pressostats)
90328100	3320.0	3320.0670	Hydraulic/pneumatic instruments & appliances, automatic
90328930	3320.0	3320.0440	Automatic digital equipment for controlling railway vehicles
90329010	3320.0	3320.0270	Printed circuits, mounted, for automatic regulating apparatus etc.
90329091	3320.0	3320.1310	Parts & accessories for automatic thermostats
90329099	3320.0	3320.1020	Parts & accessories for other automatic regulating apparatus etc.
90330000	3320.0	3320.1180	Parts & accessories for other optical etc. machines, instruments & appliances

Source: IBGE, CONCLA. Available at <http://www.ibge.gov.br/concla/cl_corresp.php?sl=3>. Last visited August 28, 2009.

(1) PRODLIST is a detailed list of industrial goods and services derived by IBGE from its Annual Survey of Industry (PIA), covering Brazil's mining and manufacturing firms and harmonized with the Mercosur Common Nomenclature (NCM), the National Economic Activity Classification (CNAE) and the UN Central Product Classification (CPC).

Chart M9.8
Products in the Industrial Automation Equipment segment (CNAE 33.3),
as described in the Mercosur Common Nomenclature (NCM)

Mercosur Common Nomenclature (NCM) 2003/2004	CNAE 1.0	PRODLIST (1) 2004	Products in Industrial Automation Equipment segment (CNAE 33.3), as described in Mercosur Common Nomenclature (NCM)
90328981	3330.8	3330.0007	Automatic instruments & appliances for pressure control
90328982	3330.8	3330.0008	Automatic instruments & appliances for temperature control
90328983	3330.8	3330.0003	Automatic instruments & appliances for humidity control
90328984	3330.8	3330.0004	Automatic instruments & appliances for electric motor speed control
90328989	3330.8	3330.0002	Other automatic instruments & appliances for controlling non-electrical quantities
90328990	3330.8	3330.0001	Other automatic instruments & appliances for regulation/control

Source: IBGE, CONCLA. Available at <http://www.ibge.gov.br/concla/cl_corresp.php?sl=3>. Last visited August 28, 2009.

(1) PRODLIST is a detailed list of industrial goods and services derived by IBGE from its Annual Survey of Industry (PIA), covering Brazil's mining and manufacturing firms and harmonized with the Mercosur Common Nomenclature (NCM), the National Economic Activity Classification (CNAE) and the UN Central Product Classification (CPC).