C0 Controls and Basic Latin

Range: 0000–007F

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ISO/IEC DIS 10646:2026(en) - 7th Edition Draft

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	000	001	002	003	004	005	006	007
0	NUL 0000	DLE 0010	SP 0020	0 0030	@ 0040	P 0050	` 0060	p 0070
1	SOH 0001	DC1 0011	! 0021	1 0031	A 0041	Q 0051	a 0061	q 0071
2	STX 0002	DC2 0012	" 0022	2 0032	B 0042	R 0052	b 0062	r 0072
3	ETX 0003	DC3 0013	# 0023	3 0033	C 0043	S 0053	c 0063	s 0073
4	EOT 0004	DC4 0014	$ 0024	4 0034	D 0044	T 0054	d 0064	t 0074
5	ENQ 0005	NAK 0015	% 0025	5 0035	E 0045	U 0055	e 0065	u 0075
6	ACK 0006	SYN 0016	& 0026	6 0036	F 0046	V 0056	f 0066	v 0076
7	BEL 0007	ETB 0017	' 0027	7 0037	G 0047	W 0057	g 0067	w 0077
8	BS 0008	CAN 0018	(0028	8 0038	H 0048	X 0058	h 0068	x 0078
9	HT 0009	EM 0019	) 0029	9 0039	I 0049	Y 0059	i 0069	y 0079
A	LF 000A	SUB 001A	* 002A	: 003A	J 004A	Z 005A	j 006A	z 007A
B	VT 000B	ESC 001B	+ 002B	; 003B	K 004B	[005B	k 006B	{ 007B
C	FF 000C	FS 001C	, 002C	< 003C	L 004C	\ 005C	l 006C	| 007C
D	CR 000D	GS 001D	- 002D	= 003D	M 004D	] 005D	m 006D	} 007D
E	SO 000E	RS 001E	. 002E	> 003E	N 004E	^ 005E	n 006E	~ 007E
F	SI 000F	US 001F	/ 002F	? 003F	O 004F	_ 005F	o 006F	DEL 007F

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C0 controls

Alias names are those for ISO/IEC 6429:1992. Commonly used alternative aliases are also shown.

0000 NUL <control>
= NULL

0001 SOH <control>
= START OF HEADING

0002 STX <control>
= START OF TEXT

0003 ETX <control>
= END OF TEXT

0004 EOT <control>
= END OF TRANSMISSION

0005 ENQ <control>
= ENQUIRY

0006 ACK <control>
= ACKNOWLEDGE

0007 BEL <control>
= BELL

0008 BS <control>
= BACKSPACE

0009 HT <control>
= CHARACTER TABULATION
= horizontal tabulation (HT)
= tab

000A LF <control>
= LINE FEED (LF)
= new line (NL)
= end of line (EOL)

000B VT <control>
= LINE TABULATION
= vertical tabulation (VT)

000C FF <control>
= FORM FEED (FF)

000D CR <control>
= CARRIAGE RETURN (CR)

000E SO <control>
= SHIFT OUT
• known as LOCKING-SHIFT ONE in 8-bit environments

000F SI <control>
= SHIFT IN
• known as LOCKING-SHIFT ZERO in 8-bit environments

0010 DLE <control>
= DATA LINK ESCAPE

0011 DC1 <control>
= DEVICE CONTROL ONE

0012 DC2 <control>
= DEVICE CONTROL TWO

0013 DC3 <control>
= DEVICE CONTROL THREE

0014 DC4 <control>
= DEVICE CONTROL FOUR

0015 NAK <control>
= NEGATIVE ACKNOWLEDGE

0016 SYN <control>
= SYNCHRONOUS IDLE

0017 ETB <control>
= END OF TRANSMISSION BLOCK

0018 CAN <control>
= CANCEL

0019 EM <control>
= END OF MEDIUM

001A SUB <control>
= SUBSTITUTE
→ FFFD 🞜 replacement character

001B ESC <control>
= ESCAPE

001C FS <control>
= INFORMATION SEPARATOR FOUR
= file separator (FS)

001D GS <control>
= INFORMATION SEPARATOR THREE
= group separator (GS)

001E RS <control>
= INFORMATION SEPARATOR TWO
= record separator (RS)

001F US <control>
= INFORMATION SEPARATOR ONE
= unit separator (US)

ASCII punctuation and symbols

Based on ISO/IEC 646.

0020 SP SPACE
• sometimes considered a control code
• other space characters: 2000 NQSP –200A HSP
→ 00A0 NBSP no-break space
→ 200B ZWSP zero width space
→ 202F NNBSP narrow no-break space
→ 2060 WJ word joiner
→ 2420 ␠ symbol for space
→ 2422 ␢ blank symbol
→ 2423 ␣ open box
→ 3000 IDSP ideographic space
→ FEFF ZWNBSP zero width no-break space

0021 ! EXCLAMATION MARK
= factorial
= bang
→ 00A1 ¡ inverted exclamation mark
→ 01C3 ǃ latin letter retroflex click
→ 203C ‼ double exclamation mark
→ 203D ⁉ interrobang
→ 26A0 ⚠ warning sign
→ 2757 ❗ heavy exclamation mark symbol
→ 2762 ❢ heavy exclamation mark ornament
→ 2E53 ⸓ medieval exclamation mark
→ A71D ꜝ modifier letter raised exclamation mark

0022 " QUOTATION MARK
= double quote
• neutral (vertical), used as opening or closing quotation mark
• preferred characters in English for paired quotation marks are 201C “ & 201D ”
• 05F4 ״ is preferred for gershayim when writing Hebrew
→ 02BA ʺ modifier letter double prime
→ 02DD ˝ double acute accent
→ 02EE ˮ modifier letter double apostrophe
→ 030B ◌̋ combining double acute accent
→ 030E ◌̎ combining double vertical line above
→ 05F4 ״ hebrew punctuation gershayim
→ 201C “ left double quotation mark
→ 201D ” right double quotation mark
→ 2033 ″ double prime
→ 3003 〃 ditto mark

0023 # NUMBER SIGN
= pound sign (weight)
= hashtag, hash
= crosshatch, octothorpe
• for denoting musical sharp 266F ♯ is preferred
→ 2114 ℔ l b bar symbol
→ 2116 № numero sign
→ 2317 ⌗ viewdata square
→ 266F ♯ music sharp sign
→ 29E3 ⧣ equals sign and slanted parallel

0024 $ DOLLAR SIGN
= milréis, escudo
• used for many peso currencies in Latin America and elsewhere
• glyph may have one or two vertical bars
• other currency symbol characters start at 20A0 ₠
→ 00A2 ¢ cent sign
→ 00A4 ¤ currency sign
→ 20B1 ₱ peso sign
→ 1F4B2 💲 heavy dollar sign

0025 % PERCENT SIGN
→ 066A ٪ arabic percent sign
→ 2030 ‰ per mille sign
→ 2031 ‱ per ten thousand sign
→ 2052 ⁒ commercial minus sign

0026 & AMPERSAND
= and
• originally derived from a ligature of 'e' and 't'
→ 204A ⁊ tironian sign et
→ 214B ⅋ turned ampersand
→ 1F674 🙴 heavy ampersand ornament

0027 ' APOSTROPHE
= apostrophe-quote (1.0)
= single quote
= APL quote
• neutral (vertical) glyph with mixed usage
• 2019 ’ is preferred for apostrophe
• preferred characters in English for paired quotation marks are 2018 ‘ & 2019 ’
• 05F3 ׳ is preferred for geresh when writing Hebrew
→ 02B9 ′ modifier letter prime
→ 02BC ʼ modifier letter apostrophe
→ 02C8 ˈ modifier letter vertical line
→ 0301 ◌́ combining acute accent
→ 030D ◌̍ combining vertical line above
→ 05F3 ׳ hebrew punctuation geresh
→ 2018 ‘ left single quotation mark
→ 2019 ’ right single quotation mark
→ 2032 ′ prime
→ A78C ꞌ latin small letter saltillo

0028 (LEFT PARENTHESIS
= opening parenthesis (1.0)

0029) RIGHT PARENTHESIS
= closing parenthesis (1.0)
• see discussion on semantics of paired bracketing characters

002A * ASTERISK
= star
• can have five or six spokes
→ 066D ٭ arabic five pointed star
→ 203B ※ reference mark
→ 2042 ⁂ asterism
→ 204E ⁎ low asterisk
→ 2051 ⁑ two asterisks aligned vertically
→ 20F0 ◌⃰ combining asterisk above
→ 2217 ∗ asterisk operator
→ 26B9 ⚹ sextile
→ 2731 ✱ heavy asterisk
→ A673 ꙳ slavonic asterisk
→ 1F7B6 🟶 medium six spoked asterisk

ASCII math operator

002B + PLUS SIGN
→ 02D6 ˖ modifier letter plus sign
→ 2212 − minus sign
→ 2795 ➕ heavy plus sign
→ FB29 ﬩ hebrew letter alternative plus sign
→ 1F7A2 🞢 light greek cross

ASCII punctuation

002C , COMMA
= the use as decimal or thousands separator is locale dependent
→ 060C ، arabic comma
→ 066B ٫ arabic decimal separator
→ 201A ‚ single low-9 quotation mark
→ 2E12 ⸒ hypodiastole
→ 2E41 ⸁ reversed comma
→ 2E4C ⸌ medieval comma
→ 3001 、 ideographic comma

002D - HYPHEN-MINUS
= hyphen, dash
= minus sign
• used generically for hyphen, minus sign or en dash, all of which have dedicated alternatives
→ 00AD soft hyphen
→ 02D7 ˗ modifier letter minus sign
→ 2010 ‐ hyphen
→ 2011 ‑ non-breaking hyphen
→ 2012 ‒ figure dash
→ 2013 – en dash
→ 2027 ‧ hyphenation point
→ 2043 ⁃ hyphen bullet
→ 2212 − minus sign
→ 10191 𐆑 roman uncia sign

002E . FULL STOP
= period, dot, decimal point
• the use as decimal point is locale dependent
• may be rendered as a raised decimal point in old style numbers
→ 00B7 · middle dot
→ 06D4 ۔ arabic full stop
→ 2024 ․ one dot leader
→ 2026 … horizontal ellipsis
→ 2E33 ⸳ raised dot
→ 2E3C ⸼ stenographic full stop
→ 3002 。 ideographic full stop

002F / SOLIDUS
= slash, forward slash, virgule
→ 0338 ⃠ combining long solidus overlay
→ 2044 ⁄ fraction slash
→ 2215 ∕ division slash
→ 27CB ⟋ mathematical rising diagonal
→ 29F8 ⧸ big solidus
→ 2E4A ⸫ dotted solidus

ASCII digits

0030 0 DIGIT ZERO
~ 0030 FE00 0 short diagonal stroke form
0031 1 DIGIT ONE
0032 2 DIGIT TWO
→ 01BB 2 latin letter two with stroke
→ 218A 2 turned digit two
0033 3 DIGIT THREE
→ 218B 3 turned digit three
→ A7AB 3 latin capital letter reversed open e
0034 4 DIGIT FOUR
→ A72C 4 latin capital letter cuatrillo
0035 5 DIGIT FIVE
→ 01BC 5 latin capital letter tone five
0036 6 DIGIT SIX
0037 7 DIGIT SEVEN
0038 8 DIGIT EIGHT
0039 9 DIGIT NINE

ASCII punctuation

003A : COLON
• also used to denote division or scale; for that mathematical use 2236 : is preferred
• in Finnish and Swedish, also used as intra-word punctation (abbreviation mark)
→ 02D0 : modifier letter triangular colon
→ 02F8 ⁚ modifier letter raised colon
→ 0589 : armenian full stop
→ 05C3 : hebrew punctuation sof pasuq
→ 1361 ⁝ ethiopic wordspace
→ 1365 ⁝ ethiopic colon
→ 205A ⁚ two dot punctuation
→ 205D ⁝ tricolon
→ 2236 : ratio
→ A789 : modifier letter colon
→ FE30 ⁚ presentation form for vertical two dot leader
003B ; SEMICOLON
• this, and not 037E ; , is the preferred character for "Greek question mark"
→ 037E ; greek question mark
→ 061B ؛ arabic semicolon
→ 204F ⁏ reversed semicolon
→ 2E35 ⁏ turned semicolon

ASCII mathematical operators

Other mathematical operators start at 2200.

003C < LESS-THAN SIGN
• paired with 003E > for ASCII-based angle bracket markup conventions
→ 02C2 < modifier letter left arrowhead
→ 2039 ‹ single left-pointing angle quotation mark
→ 2329 〈 left-pointing angle bracket
→ 27E8 ⟨ mathematical left angle bracket
→ 3008 〈 left angle bracket

003D = EQUALS SIGN
• other related characters: 2241 ≁ –2263 ≣
→ 1400 = canadian syllabics hyphen
→ 2248 ≈ almost equal to
→ 2260 ≠ not equal to
→ 2261 ≡ identical to
→ 2E40 = double hyphen
→ 30A0 = katakana-hiragana double hyphen
→ A78A = modifier letter short equals sign
→ FE66 = small equals sign
→ 10190 = roman sextans sign
→ 1F7F0 = heavy equals sign
003E > GREATER-THAN SIGN
→ 02C3 > modifier letter right arrowhead
→ 203A › single right-pointing angle quotation mark
→ 232A 〉 right-pointing angle bracket
→ 27E9 〉 mathematical right angle bracket
→ 3009 〉 right angle bracket

ASCII punctuation

003F ? QUESTION MARK
→ 00BF ¿ inverted question mark
→ 037E ; greek question mark
→ 061F ؟ arabic question mark
→ 203D ⁉ interrobang
→ 2047 ⁇ double question mark
→ 2753 ❓ black question mark ornament
→ 2BD1 ⸮ uncertainty sign
→ 2E2E ⸮ reversed question mark
→ 2E54 ⸮ medieval question mark
→ FFFD ⸮ replacement character
0040 @ COMMERCIAL AT
= at sign
= arroba (old Spanish unit of weight)
→ 24D0 ⓐ circled latin small letter a

Uppercase Latin alphabet

0041 A LATIN CAPITAL LETTER A
0042 B LATIN CAPITAL LETTER B
→ 212C ℬ script capital b
0043 C LATIN CAPITAL LETTER C
→ 03F9 C greek capital lunate sigma symbol
→ 2102 ℂ double-struck capital c
→ 2103 ℃ degree celsius
→ 212D ℭ black-letter capital c
→ 216D C roman numeral one hundred
0044 D LATIN CAPITAL LETTER D
→ 216E D roman numeral five hundred
0045 E LATIN CAPITAL LETTER E
→ 0190 Ɛ latin capital letter open e
→ 2107 Ɛ euler constant
→ 2130 ℰ script capital e
0046 F LATIN CAPITAL LETTER F
→ 2109 ℉ degree fahrenheit
→ 2131 ℱ script capital f
→ 2132 Ⅎ turned capital f
0047 G LATIN CAPITAL LETTER G
0048 H LATIN CAPITAL LETTER H
→ 210B ℋ script capital h
→ 210C ℌ black-letter capital h
→ 210D ℍ double-struck capital h

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0049 I LATIN CAPITAL LETTER I
- Turkish and Azerbaijani use 0131 ı for lowercase
→ 0130 İ latin capital letter i with dot above
→ 2110 ℐ script capital i
→ 2111 ℑ black-letter capital i
→ 2160 Ⅰ roman numeral one

004A J LATIN CAPITAL LETTER J

004B K LATIN CAPITAL LETTER K
→ 212A K kelvin sign

004C L LATIN CAPITAL LETTER L
→ 2112 ℒ script capital l

004D M LATIN CAPITAL LETTER M
→ 2133 ℳ script capital m
→ 216F Ⅿ roman numeral one thousand

004E N LATIN CAPITAL LETTER N
→ 2115 ℕ double-struck capital n

004F O LATIN CAPITAL LETTER O

0050 P LATIN CAPITAL LETTER P
→ 2118 ℘ script capital p
→ 2119 ℙ double-struck capital p

0051 Q LATIN CAPITAL LETTER Q
→ 051A Ԛ cyrillic capital letter qa
→ 211A ℚ double-struck capital q
→ 213A ⅁ rotated capital q

0052 R LATIN CAPITAL LETTER R
→ 211B ℛ script capital r
→ 211C ℜ black-letter capital r
→ 211D ℝ double-struck capital r

0053 S LATIN CAPITAL LETTER S

0054 T LATIN CAPITAL LETTER T

0055 U LATIN CAPITAL LETTER U

0056 V LATIN CAPITAL LETTER V
→ 2164 Ⅴ roman numeral five

0057 W LATIN CAPITAL LETTER W
→ 051C Ԝ cyrillic capital letter we

0058 X LATIN CAPITAL LETTER X
→ 2169 Ⅹ roman numeral ten

0059 Y LATIN CAPITAL LETTER Y

005A Z LATIN CAPITAL LETTER Z
→ 2124 ℤ double-struck capital z
→ 2128 ℨ black-letter capital z

ASCII punctuation and symbols

005B [LEFT SQUARE BRACKET
= opening square bracket (1.0)
- other bracket characters: 27E6 ⟦ –27EB ⟫ , 2983 ⦃ –2998 ⦄ , 3008 〈 –301B 〛

005C \ REVERSE SOLIDUS
= backslash
→ 20E5 ⃥ combining reverse solidus overlay
→ 2216 ∖ set minus
→ 27CD ⟍ mathematical falling diagonal
→ 29F9 ⧹ big reverse solidus

005D] RIGHT SQUARE BRACKET
= closing square bracket (1.0)

005E ^ CIRCUMFLEX ACCENT
- this is a spacing character
- used in ASCII-based representation of exponentiation
→ 02C4 ˄ modifier letter up arrowhead
→ 02C6 ˆ modifier letter circumflex accent
→ 0302 ◌̂ combining circumflex accent
→ 2038 ‸ caret
→ 2227 ∧ logical and
→ 2303 ⌃ up arrowhead

005F _ LOW LINE
= spacing underscore (1.0)
- this is a spacing character
- joins with adjacent instances of itself
→ 02CD ˍ modifier letter low macron
→ 0331 ◌̱ combining macron below
→ 0332 ◌̲ combining low line
→ 2017 ‗ double low line
→ FE2D ◌﹭ combining conjoining macron below

0060 ` GRAVE ACCENT
= backtick, backquote
- this is a spacing character
- in some technical contexts functions as opening quote, paired with apostrophe
→ 00B4 ´ acute accent
→ 02CB ˋ modifier letter grave accent
→ 0300 ◌̀ combining grave accent
→ 1FEF ` greek varia
→ 2018 ‘ left single quotation mark
→ 2035 ‵ reversed prime

Lowercase Latin alphabet

0061 a LATIN SMALL LETTER A
→ 0251 ɑ latin small letter alpha

0062 b LATIN SMALL LETTER B

0063 c LATIN SMALL LETTER C
→ 03F2 ϲ greek lunate sigma symbol
→ 1D04 ᴄ latin letter small capital c

0064 d LATIN SMALL LETTER D
→ 0501 ԁ cyrillic small letter komi de

0065 e LATIN SMALL LETTER E
→ 212E ℮ estimated symbol
→ 212F ℯ script small e
→ AB32 ꬲ latin small letter blackletter e

0066 f LATIN SMALL LETTER F
→ 0192 ƒ latin small letter f with hook
→ AB35 ꬵ latin small letter lenis f

0067 g LATIN SMALL LETTER G
→ 0261 ɡ latin small letter script g
→ 210A ℊ script small g

0068 h LATIN SMALL LETTER H
→ 04BB һ cyrillic small letter shha
→ 210E ℎ planck constant

0069 i LATIN SMALL LETTER I
- Turkish and Azerbaijani use 0130 İ for uppercase
→ 0131 ı latin small letter dotless i
→ 2071 ⁱ superscript latin small letter i
→ 1D6A4 𝚤 mathematical italic small dotless i

006A j LATIN SMALL LETTER J
→ 0237 ȷ latin small letter dotless j
→ 03F3 ϳ greek letter yot
→ 1D6A5 𝚥 mathematical italic small dotless j

006B k LATIN SMALL LETTER K

006C l LATIN SMALL LETTER L
→ 2113 ℓ script small l
→ 1D4C1 𝓁 mathematical script small l
006D m LATIN SMALL LETTER M
006E n LATIN SMALL LETTER N
→ 207F ⁿ superscript latin small letter n
006F o LATIN SMALL LETTER O
→ 1D0F ᴏ latin letter small capital o
→ 2134 ℴ script small o
→ AB3D 𝖔 latin small letter blackletter o
0070 p LATIN SMALL LETTER P
0071 q LATIN SMALL LETTER Q
→ 051B ԛ cyrillic small letter qa
0072 r LATIN SMALL LETTER R
0073 s LATIN SMALL LETTER S
→ 017F ſ latin small letter long s
→ A731 ꜱ latin letter small capital s
0074 t LATIN SMALL LETTER T
0075 u LATIN SMALL LETTER U
0076 v LATIN SMALL LETTER V
0077 w LATIN SMALL LETTER W
→ 051D ԝ cyrillic small letter we
→ 1D21 ᴡ latin letter small capital w
0078 x LATIN SMALL LETTER X
→ 00D7 × multiplication sign
0079 y LATIN SMALL LETTER Y
007A z LATIN SMALL LETTER Z
→ 01B6 ƶ latin small letter z with stroke
→ 1D22 ᴢ latin letter small capital z

ASCII punctuation and symbols

007B { LEFT CURLY BRACKET
= opening curly bracket (1.0)
= left brace
007C | VERTICAL LINE
= vertical bar, pipe
• used in pairs to indicate absolute value
• also used as an unpaired separator or as a fence
→ 00A6 ¦ broken bar
→ 01C0 ǀ latin letter dental click
→ 05C0 ׀ hebrew punctuation paseq
→ 0964 । devanagari danda
→ 20D2 ⃒ combining long vertical line overlay
→ 2223 ∣ divides
→ 2758 ❘ light vertical bar
007D } RIGHT CURLY BRACKET
= closing curly bracket (1.0)
= right brace
007E ~ TILDE
• this is a spacing character
→ 02DC ˜ small tilde
→ 0303 ◌̃ combining tilde
→ 0334 ◌̴ combining tilde overlay
→ 2053 ⁓ swung dash
→ 223C ∼ tilde operator
→ 2E1B ⸛ tilde with ring above
→ 2E2F ⸯ vertical tilde
→ 301C 〜 wave dash
→ FF5E ～ fullwidth tilde

Control character

007F DEL <control>
= DELETE