Symbol	Typ	Titel
H	**Sektion**	**SECTION H — ELECTRICITY**
H03	**Klasse**	**BASIC ELECTRONIC CIRCUITRY**
H03M	**Unterklasse**	**CODING, DECODING OR CODE CONVERSION, IN GENERAL (using fluidic means F15C 4/00 ; optical analogue/digital converters G02F 7/00; coding, decoding or code conversion, specially adapted for particular applications, see the relevant subclasses, e.g. G01D, G01R, G06F, G06T, G09G, G10L, G11B, G11C, H04B, H04L, H04M, H04N; ciphering or deciphering for cryptography or other purposes involving the need for secrecy G09C) [4]**
H03M 1/00	**Hauptgruppe**	**Analogue/digital conversion; Digital/analogue conversion (conversion of analogue values to or from differential modulation H03M 3/00) [4]**
H03M 1/02	1-Punkt Untergruppe	. Reversible analogue/digital converters [4]
H03M 1/04	1-Punkt Untergruppe	. using stochastic techniques [4]
H03M 1/06	1-Punkt Untergruppe	. Continuously compensating for, or preventing, undesired influence of physical parameters (periodically H03M 1/10) [4]
H03M 1/08	2-Punkt Untergruppe	. . of noise [4]
H03M 1/10	1-Punkt Untergruppe	. Calibration or testing [4]
H03M 1/12	1-Punkt Untergruppe	. Analogue/digital converters (H03M 1/02-H03M 1/10 take precedence) [4]
H03M 1/14	2-Punkt Untergruppe	. . Conversion in steps with each step involving the same or a different conversion means and delivering more than one bit [4]
H03M 1/16	3-Punkt Untergruppe	. . . with scale factor modification, i.e. by changing the amplification between the steps [4]
H03M 1/18	2-Punkt Untergruppe	. . Automatic control for modifying the range of signals the converter can handle, e.g. gain ranging [4]
H03M 1/20	2-Punkt Untergruppe	. . Increasing resolution using an n bit system to obtain n + m bits, e.g. by dithering [4]
H03M 1/22	2-Punkt Untergruppe	. . pattern-reading type [4]
H03M 1/24	3-Punkt Untergruppe	. . . using relatively movable reader and disc or strip [4, 6]
H03M 1/26	4-Punkt Untergruppe	. . . . with weighted coding, i.e. the weight given to a digit depends on the position of the digit within the block or code word, e.g. there is a given radix and the weights are powers of this radix [4]
H03M 1/28	4-Punkt Untergruppe	. . . . with non-weighted coding [4]
H03M 1/30	5-Punkt Untergruppe	. . . . . incremental [4]
H03M 1/32	3-Punkt Untergruppe	. . . using cathode-ray tubes [4]
H03M 1/34	2-Punkt Untergruppe	. . Analogue value compared with reference values (H03M 1/48 takes precedence) [4]
H03M 1/36	3-Punkt Untergruppe	. . . simultaneously only, i.e. parallel type [4]
H03M 1/38	3-Punkt Untergruppe	. . . sequentially only, e.g. successive approximation type (converting more than one bit per step H03M 1/14) [4]
H03M 1/40	4-Punkt Untergruppe	. . . . recirculation type [4]
H03M 1/42	4-Punkt Untergruppe	. . . . Sequential comparisons in series-connected stages with no change in value of analogue signal [4]
H03M 1/44	4-Punkt Untergruppe	. . . . Sequential comparisons in series-connected stages with change in value of analogue signal [4]

Symbol	Typ	Titel
H03M 1/46	4-Punkt Untergruppe	. . . . with digital/analogue converter for supplying reference values to converter [4]
H03M 1/48	2-Punkt Untergruppe	. . Servo-type converters [4]
H03M 1/50	2-Punkt Untergruppe	. . with intermediate conversion to time interval (H03M 1/64 takes precedence) [4]
H03M 1/52	3-Punkt Untergruppe	. . . Input signal integrated with linear return to datum [4]
H03M 1/54	3-Punkt Untergruppe	. . . Input signal sampled and held with linear return to datum [4]
H03M 1/56	3-Punkt Untergruppe	. . . Input signal compared with linear ramp [4]
H03M 1/58	3-Punkt Untergruppe	. . . Non-linear conversion [4]
H03M 1/60	2-Punkt Untergruppe	. . with intermediate conversion to frequency of pulses [4]
H03M 1/62	3-Punkt Untergruppe	. . . Non-linear conversion [4]
H03M 1/64	2-Punkt Untergruppe	. . with intermediate conversion to phase of sinusoidal signals [4]
H03M 1/66	1-Punkt Untergruppe	. Digital/analogue converters (H03M 1/02-H03M 1/10 take precedence) [4]
H03M 1/68	2-Punkt Untergruppe	. . with conversions of different sensitivity, i.e. one conversion relating to the more significant digital bits and another conversion to the less significant bits [4]
H03M 1/70	2-Punkt Untergruppe	. . Automatic control for modifying converter range [4]
H03M 1/72	2-Punkt Untergruppe	. . Sequential conversion in series-connected stages (H03M 1/68 takes precedence) [4]
H03M 1/74	2-Punkt Untergruppe	. . Simultaneous conversion [4]
H03M 1/76	3-Punkt Untergruppe	. . . using switching tree [4]
H03M 1/78	3-Punkt Untergruppe	. . . using ladder network [4]
H03M 1/80	3-Punkt Untergruppe	. . . using weighted impedances (H03M 1/76 takes precedence) [4]
H03M 1/82	2-Punkt Untergruppe	. . with intermediate conversion to time interval [4]
H03M 1/84	3-Punkt Untergruppe	. . . Non-linear conversion [4]
H03M 1/86	2-Punkt Untergruppe	. . with intermediate conversion to frequency of pulses [4]
H03M 1/88	3-Punkt Untergruppe	. . . Non-linear conversion [4]
H03M 3/00	**Hauptgruppe**	**Conversion of analogue values to or from differential modulation [4]**
H03M 3/02	1-Punkt Untergruppe	. Delta modulation, i.e. one-bit differential modulation [4]
H03M 3/04	1-Punkt Untergruppe	. Differential modulation with several bits [4]
H03M 5/00	**Hauptgruppe**	**Conversion of the form of the representation of individual digits [4]**
H03M 5/02	1-Punkt Untergruppe	. Conversion to or from representation by pulses [4]
H03M 5/04	2-Punkt Untergruppe	. . the pulses having two levels [4]
H03M 5/06	3-Punkt Untergruppe	. . . Code representation, e.g. transition, for a given bit cell depending only on the information in that bit cell [4]
H03M 5/08	4-Punkt Untergruppe	. . . . Code representation by pulse width [4]
H03M 5/10	4-Punkt Untergruppe	. . . . Code representation by pulse frequency [4]

Symbol	Typ	Titel
H03M 5/12	4-Punkt Untergruppe	. . . . Biphase level code, e.g. split phase code, Manchester code; Biphase space or mark code, e.g. double frequency code [4]
H03M 5/14	3-Punkt Untergruppe	. . . Code representation, e.g. transition, for a given bit cell depending on the information in one or more adjacent bit cells, e.g. delay modulation code, double density code [4]
H03M 5/16	2-Punkt Untergruppe	. . the pulses having three levels [4]
H03M 5/18	3-Punkt Untergruppe	. . . two levels being symmetrical with respect to the third level, i.e. balanced bipolar ternary code [4]
H03M 5/20	2-Punkt Untergruppe	. . the pulses having more than three levels [4]
H03M 5/22	1-Punkt Untergruppe	. Conversion to or from representation by sinusoidal signals [4]
H03M 7/00	**Hauptgruppe**	**Conversion of a code where information is represented by a given sequence or number of digits to a code where the same information is represented by a different sequence or number of digits [4]**
H03M 7/02	1-Punkt Untergruppe	. Conversion to or from weighted codes, i.e. the weight given to a digit depending on the position of the digit within the block or code word [4]
H03M 7/04	2-Punkt Untergruppe	. . the radix thereof being two [4]
H03M 7/06	2-Punkt Untergruppe	. . the radix thereof being a positive integer different from two [4]
H03M 7/08	3-Punkt Untergruppe	. . . the radix being ten, i.e. pure decimal code [4]
H03M 7/10	2-Punkt Untergruppe	. . the radix thereof being negative [4]
H03M 7/12	2-Punkt Untergruppe	. . having two radices, e.g. binary-coded-decimal code [4]
H03M 7/14	1-Punkt Untergruppe	. Conversion to or from non-weighted codes [4]
H03M 7/16	2-Punkt Untergruppe	. . Conversion to or from unit-distance codes, e.g. Gray code, reflected binary code [4]
H03M 7/18	2-Punkt Untergruppe	. . Conversion to or from residue codes [4]
H03M 7/20	2-Punkt Untergruppe	. . Conversion to or from n-out-of-m codes [4]
H03M 7/22	3-Punkt Untergruppe	. . . to or from one-out-of-m codes [4]
H03M 7/24	2-Punkt Untergruppe	. . Conversion to or from floating-point codes [4]
H03M 7/26	1-Punkt Untergruppe	. Conversion to or from stochastic codes [4]
H03M 7/28	1-Punkt Untergruppe	. Programmable structures, i.e. where the code converter contains apparatus which is operator-changeable to modify the conversion process [4]
H03M 7/30	1-Punkt Untergruppe	. Compression (speech analysis-synthesis for redundancy reduction G10L 19/00; for image communication H04N); Expansion; Suppression of unnecessary data, e.g. redundancy reduction [4]
H03M 7/32	2-Punkt Untergruppe	. . Conversion to or from delta modulation, i.e. one-bit differential modulation [4]
H03M 7/34	3-Punkt Untergruppe	. . . adaptive [4]
H03M 7/36	2-Punkt Untergruppe	. . Conversion to or from differential modulation with several bits, i.e. the difference between successive samples being coded by more than one bit [4]
H03M 7/38	3-Punkt Untergruppe	. . . adaptive [4]
H03M 7/40	2-Punkt Untergruppe	. . Conversion to or from variable length codes, e.g. Shannon-Fano code, Huffman code, Morse code [4]
H03M 7/42	3-Punkt Untergruppe	. . . using table look-up for the coding or decoding process, e.g. using read-only memory [4]

Symbol	Typ	Titel
H03M 7/44	3-Punkt Untergruppe	. . . Suppression of irrelevant zeroes [4]
H03M 7/46	2-Punkt Untergruppe	. . Conversion to or from run-length codes, i.e. by representing the number of consecutive digits, or groups of digits, of the same kind by a code word and a digit indicative of that kind [4]
H03M 7/48	3-Punkt Untergruppe	. . . alternating with other codes during the code conversion process, e.g. run-length coding being performed only as long as sufficiently long runs of digits of the same kind are present [4]
H03M 7/50	2-Punkt Untergruppe	. . Conversion to or from non-linear codes, e.g. companding [4]
H03M 9/00	**Hauptgruppe**	**Parallel/series conversion or vice versa (digital stores in which the information is moved stepwise G11C 19/00) [4]**
H03M 11/00	**Hauptgruppe**	**Coding in connection with keyboards or like devices, i.e. coding of the position of operated keys (keyboard switch arrangements, structural association of coders and keyboards H01H 13/70, H03K 17/94) [4]**
H03M 11/02	1-Punkt Untergruppe	. Details [5]
H03M 11/04	2-Punkt Untergruppe	. . Coding of multifunction keys [5]
H03M 11/06	3-Punkt Untergruppe	. . . by operating the multifunction key itself in different ways [5]
H03M 11/08	4-Punkt Untergruppe	. . . . by operating selected combinations of multifunction keys [5]
H03M 11/10	4-Punkt Untergruppe	. . . . by methods based on duration or pressure detection of keystrokes [5]
H03M 11/12	4-Punkt Untergruppe	. . . . by operating a key a selected number of consecutive times whereafter a separate enter key is used which marks the end of the series [5]
H03M 11/14	3-Punkt Untergruppe	. . . by using additional keys, e.g. shift keys, which determine the function performed by the multifunction key [5]
H03M 11/16	4-Punkt Untergruppe	. . . . wherein the shift keys are operated after the operation of the multifunction keys [5]
H03M 11/18	4-Punkt Untergruppe	. . . . wherein the shift keys are operated before the operation of the multifunction keys [5]
H03M 11/20	1-Punkt Untergruppe	. Dynamic coding, i.e. by key scanning (H03M 11/26 takes precedence) [5]
H03M 11/22	1-Punkt Untergruppe	. Static coding (H03M 11/26 takes precedence) [5]
H03M 11/24	2-Punkt Untergruppe	. . using analogue means [5]
H03M 11/26	1-Punkt Untergruppe	. using opto-electronic means [5]
H03M 13/00	**Hauptgruppe**	**Coding, decoding or code conversion, for error detection or error correction; Coding theory basic assumptions; Coding bounds; Error probability evaluation methods; Channel models; Simulation or testing of codes (error detection or error correction for analogue/digital, digital/analogue or code conversion H03M 1/00-H03M 11/00; specially adapted for digital computers G06F 11/08, for information storage based on relative movement between record carrier and transducer G11B, e.g. G11B 20/18, for static stores G11C) [4, 7]**
H03M 13/01	1-Punkt Untergruppe	. Coding theory basic assumptions; Coding bounds; Error probability evaluation methods; Channel models; Simulation or testing of codes [7]
H03M 13/03	1-Punkt Untergruppe	. Error detection or forward error correction by redundancy in data representation, i.e. code words containing more digits than the source words [7]
H03M 13/05	2-Punkt Untergruppe	. . using block codes, i.e. a predetermined number of check bits joined to a predetermined number of information bits [7]
H03M 13/07	3-Punkt Untergruppe	. . . Arithmetic codes [7]
H03M 13/09	3-Punkt Untergruppe	. . . Error detection only, e.g. using cyclic redundancy check (CRC) codes or single parity bit [7]

Symbol	Typ	Titel
H03M 13/11	3-Punkt Untergruppe	. . . using multiple parity bits [7]
H03M 13/13	3-Punkt Untergruppe	. . . Linear codes [7]
H03M 13/15	4-Punkt Untergruppe	. . . . Cyclic codes, i.e. cyclic shifts of codewords produce other codewords, e.g. codes defined by a generator polynomial, Bose-Chaudhuri-Hocquenghem (BCH) codes (H03M 13/17 takes precedence) [7]
H03M 13/17	4-Punkt Untergruppe	. . . . Burst error correction, e.g. error trapping, Fire codes [7]
H03M 13/19	4-Punkt Untergruppe	. . . . Single error correction without using particular properties of the cyclic codes, e.g. Hamming codes, extended or generalised Hamming codes [7]
H03M 13/21	3-Punkt Untergruppe	. . . Non-linear codes, e.g. m-bit data word to n-bit code word (mBnB) conversion with error detection or error correction [7]
H03M 13/23	2-Punkt Untergruppe	. . using convolutional codes, e.g. unit memory codes [7]
H03M 13/25	1-Punkt Untergruppe	. Error detection or forward error correction by signal space coding, i.e. adding redundancy in the signal constellation, e.g. Trellis Coded Modulation (TCM) [7]
H03M 13/27	1-Punkt Untergruppe	. using interleaving techniques [7]
H03M 13/29	1-Punkt Untergruppe	. combining two or more codes or code structures, e.g. product codes, generalised product codes, concatenated codes, inner and outer codes [7]
H03M 13/31	1-Punkt Untergruppe	. combining coding for error detection or correction and efficient use of the spectrum (without error detection or correction H03M 5/14) [7]
H03M 13/33	1-Punkt Untergruppe	. Synchronisation based on error coding or decoding [7]
H03M 13/35	1-Punkt Untergruppe	. Unequal or adaptive error protection, e.g. by providing a different level of protection according to significance of source information or by adapting the coding according to the change of transmission channel characteristics [7]
H03M 13/37	1-Punkt Untergruppe	. Decoding methods or techniques, not specific to the particular type of coding provided for in groups H03M 13/03-H03M 13/35 [7]
H03M 13/39	2-Punkt Untergruppe	. . Sequence estimation, i.e using statistical methods for the reconstruction of the original codes [7]
H03M 13/41	3-Punkt Untergruppe	. . . using the Viterbi algorithm or Viterbi processors [7]
H03M 13/43	2-Punkt Untergruppe	. . Majority logic or threshold decoding [7]
H03M 13/45	2-Punkt Untergruppe	. . Soft decoding, i.e. using symbol reliability information (H03M 13/41 takes precedence) [7]
H03M 13/47	1-Punkt Untergruppe	. Error detection, forward error correction or error protection, not provided for in groups H03M 13/01-H03M 13/37 [7]
H03M 13/49	2-Punkt Untergruppe	. . Unidirectional error detection or correction [7]
H03M 13/51	2-Punkt Untergruppe	. . Constant weight codes; n-out-of-m codes; Berger codes [7]
H03M 13/53	2-Punkt Untergruppe	. . Codes using Fibonacci numbers series [7]
H03M 99/00	***Hauptgruppe***	***Subject matter not provided for in other groups of this subclass [2006.01]***