EUROPEAN PATENT OFFICE
U.S. PATENT AND TRADEMARK OFFICE

CPC NOTICE OF CHANGES 565

DATE: JANUARY 1, 2019

PROJECT RP0254

The following classification changes will be effected by this Notice of Changes:

Action	**Subclass**	**Group(s)**
SCHEME:		
Symbols Deleted:	G05D	16/0602
	G05D	16/0605
Symbols New:	G05D	16/024
	G05D	16/028
	G05D	16/0402
	G05D	16/0404
	G05D	16/101
	G05D	16/107
	G05D	16/109
	G05D	16/187
	G05D	16/2022
	G05D	16/2024
	G05D	16/2095
	G05D	16/2097
Titles Changed:	G05D	1/00
	G05D	7/00
	G05D	16/00
	G05D	16/02
	G05D	16/103
	G05D	16/106
	G05D	16/163
	G05D	16/166
	G05D	16/185
	G05D	16/2006
	G05D	16/2013
	G05D	16/2066
	G05D	16/2086
	G05D	23/00
	H05B	1/02
Warnings New:	G05D	16/00
	G05D	16/024
	G05D	16/028
	G05D	16/04
	G05D	16/0402
	G05D	16/0404

Action	**Subclass**	**Group(s)**
	G05D	16/10
	G05D	16/101
	G05D	16/103
	G05D	16/107
	G05D	16/109
	G05D	16/18
	G05D	16/187
	G05D	16/2013
	G05D	16/2022
	G05D	16/2024
	G05D	16/2093
	G05D	16/2095
	G05D	16/2097
Notes New:	G05D	16/00
DEFINITIONS:		
Definitions New:	G05D	16/0402
	G05D	16/0404
	G05D	16/10
	G05D	16/103
	G05D	16/106
	G05D	16/107
	G05D	16/109
	G05D	16/14
	G05D	16/16
	G05D	16/2006
	G05D	16/2013
	G05D	16/2022
	G05D	16/2026
	G05D	16/2086
	G05D	16/2093
Definitions Modified:	G05D	1/00
	G05D	7/00
	G05D	16/00
	G05D	23/00
	H05B	1/00

CPC NOTICE OF CHANGES 565

DATE: JANUARY 1, 2019

PROJECT RP0254

This Notice of Changes includes the following *[Check the ones included]:*

1. CLASSIFICATION SCHEME CHANGES
    - ☒ A. New, Modified or Deleted Group(s)
    - ☒ B. New, Modified or Deleted Warning(s)
    - ☒ C. New, Modified or Deleted Note(s)
    - ☐ D. New, Modified or Deleted Guidance Heading(s)
2. DEFINITIONS
    - ☒ A. New or Modified Definitions (Full definition template)
    - ☐ B. Modified or Deleted Definitions (Definitions Quick Fix)
3. ☒ REVISION CONCORDANCE LIST (RCL)
4. ☒ CHANGES TO THE CPC-TO-IPC CONCORDANCE LIST (CICL)
5. ☐ CHANGES TO THE CROSS-REFERENCE LIST (CRL)

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DATE: JANUARY 1, 2019

PROJECT RP0254

1. CLASSIFICATION SCHEME CHANGES

A. New, Modified or Deleted Group(s)

SUBCLASS G05D - SYSTEMS FOR CONTROLLING OR REGULATING NON-ELECTRIC VARIABLES

Type*	Symbol	Indent Level Number of dots (e.g. 0, 1, 2)	Title (new or modified) "CPC only" text should normally be enclosed in {curly brackets}**	Transferred to#
M	G05D 1/00	0	Control of position, course or altitude of land, water, air, or space vehicles, e.g. automatic pilot (radio navigation systems or analogous systems using other waves G01S)	
M	G05D 7/00	0	Control of flow (level control G05D 9/00; ratio control G05D 11/00; weighing apparatus G01G)	
C	G05D 16/00	0	Control of fluid pressure	G05D16/00, G05D16/024, G05D16/028
M	G05D 16/02	1	Modifications to reduce the effects of instability, e.g. due to vibrations, friction, abnormal temperature, overloading, unbalance (vibration-dampers F16F 7/00)	
N	G05D 16/024	1	{Controlling the inlet pressure, e.g. back-pressure regulator}	
N	G05D 16/028	1	{Controlling a pressure difference (control of flow G05D7/00)}	
C	G05D 16/04	1	without auxiliary power	G05D16/04, G05D16/0402, G05D16/0404
N	G05D 16/0402	2	{with two or more controllers mounted in series}	
N	G05D 16/0404	2	{with two or more controllers mounted in parallel}	
U	G05D 16/06	2	the sensing element being a flexible membrane, yielding to pressure, e.g. diaphragm, bellows, capsule	
D	G05D 16/0602	3	{two controllers being mounted in series}	<administrative transfer to G05D16/0402>
D	G05D 16/0605	3	{two controllers being mounted in parallel}	<administrative transfer to G05D16/0404>
C	G05D 16/10	2	the sensing element being a piston or plunger	G05D16/10, G05D16/101, G05D16/107, G05D16/109, G05D16/0402, G05D16/0404

Type*	Symbol	Indent Level Number of dots (e.g. 0, 1, 2)	Title (new or modified) "CPC only" text should normally be enclosed in {curly brackets}**	Transferred to#
N	G05D 16/101	3	{the controller being arranged as a multiple-way valve}	
C	G05D 16/103	3	{the sensing element placed between the inlet and outlet (multiple-way valve G05D16/101)}	G05D16/103, G05D16/101
M	G05D 16/106	4	{Sleeve-like sensing elements; Sensing elements surrounded by the flow path}	
N	G05D 16/107	3	{with a spring-loaded piston in combination with a spring-loaded slideable obturator that move together over range of motion during normal operation}	
N	G05D 16/109	3	{with two or more pistons acting as a single pressure controller that move together over range of motion during normal operations (controllers mounted in series G05D16/0402, controller mounted in parallel G05D16/0404)}	
U	G05D 16/14	1	with auxiliary non-electric power	
U	G05D 16/16	2	derived from the controlled fluid	
M	G05D 16/163	3	{using membranes within the main valve}	
M	G05D 16/166	3	{using pistons within the main valve}	
C	G05D 16/18	2	derived from an external source	G05D16/18, G05D16/187
M	G05D 16/185	3	{using membranes within the main valve}	
N	G05D 16/187	3	{using pistons within the main valve}	
U	G05D 16/20	1	characterised by the use of electric means	
M	G05D 16/2006	2	{with direct action of electric energy on controlling means (combination of electric and non-electric auxiliary G05D 16/2093)}	
C	G05D 16/2013	3	{using throttling means as controlling means}	G05D16/2013, G05D16/2022, G05D16/2024
U	G05D 16/202	4	{actuated by an electric motor}	
N	G05D 16/2022	4	{actuated by a proportional solenoid (throttling means G05D16/2024)}	
N	G05D 16/2024	4	{the throttling means being a multiple-way valve}	
M	G05D 16/2066	3	{using controlling means acting on the pressure source}	
M	G05D 16/2086	2	{without direct action of electric energy on the controlling means (combination of electric and non-electric auxiliary G05D 16/2093)}	
C	G05D 16/2093	2	{with combination of electric and non-electric auxiliary power}	G05D16/2093, G05D16/2095, G05D16/2097
N	G05D 16/2095	3	{using membranes within the main valve}	
N	G05D 16/2097	3	{using pistons within the main valve}	

Type*	Symbol	Indent Level Number of dots (e.g. 0, 1, 2)	Title (new or modified) "CPC only" text should normally be enclosed in {curly brackets}**	Transferred to#
M	G05D 23/00	0	Control of temperature (automatic switching arrangements for electric heating apparatus H05B 1/02)	

SUBCLASS H01B - ELECTRIC HEATING; ELECTRIC LIGHTING NOT OTHERWISE PROVIDED FOR

Type*	Symbol	Indent Level Number of dots (e.g. 0, 1, 2)	Title (new or modified) "CPC only" text should normally be enclosed in {curly brackets}**	Transferred to#
M	H05B 1/02	1	Automatic switching arrangements specially adapted to apparatus{; Control of heating devices} (thermally-actuated switches H01H 37/00)	

*N = new entries where reclassification into entries is involved; C = entries with modified file scope where reclassification of documents from the entries is involved; Q = new entries which are firstly populated with documents via administrative transfers from deleted (D) entries. Afterwards, the transferred documents into the Q entry will either stay or be moved to more appropriate entries, as determined by intellectual reclassification; E= existing entries with enlarged file scope, which receive documents from C or D entries, e.g. when a limiting reference is removed from the entry title; M = entries with no change to the file scope (no reclassification); D = deleted entries; F = frozen entries will be deleted once reclassification of documents from the entries is completed; U = entries that are unchanged.

NOTES:

- **No {curly brackets} are used for titles in CPC only subclasses, e.g. C12Y, A23Y; 2000 series symbol titles of groups found at the end of schemes (orthogonal codes); or the Y section titles. The {curly brackets} are used for 2000 series symbol titles found interspersed throughout the main trunk schemes (breakdown codes).
- U groups: it is obligatory to display the required "anchor" symbol (U group), i.e. the entry immediately preceding a new group or an array of new groups to be created (in case new groups are not clearly subgroups of C-type groups).Always include the symbol, indent level and title of the U group in the table above.
- All entry types should be included in the scheme changes table above for better understanding of the overall scheme change picture. Symbol, indent level, and title are required for all types.
- "Transferred to" column must be completed for all C, D, F, and Q type entries. F groups will be deleted once reclassification is completed.
- When multiple symbols are included in the "Transferred to" column, avoid using ranges of symbols in order to be as precise as possible.
- For administrative transfer of documents, the following text should be used: "< administrative transfer to XX>", "<administrative transfer to XX and YY simultaneously>", or "<administrative transfer to XX, YY, and ZZ simultaneously>" when administrative transfer of the same documents is to more than one place.
- Administrative transfer to main trunk groups is assumed to be the source allocation type, unless otherwise indicated.
- Administrative transfer to 2000/Y series groups is assumed to be "additional information".
- If needed, instructions for allocation type should be indicated within the angle brackets using the abbreviations "ADD" or "INV": <administrative transfer to XX ADD> , <administrative transfer to XX INV>, or < administrative transfer to XX ADD, YY INV, ... and ZZ ADD simultaneously>.
- In certain situations, the "D" entries of 2000-series or Y-series groups may not require a destination ("Transferred to") symbol, however it is required to specify "<no transfer>" in the "Transferred to" column for such cases.

- For finalisation projects, the deleted “F” symbols should have <no transfer> in the “Transferred to” column.
- For more details about the types of scheme change, see CPC Guide.

B. New, Modified or Deleted Warning(s)

SUBCLASS G05D - SYSTEMS FOR CONTROLLING OR REGULATING NON-ELECTRIC VARIABLES

Type*	Location	Old Warning notice	New/Modified Warning notice
N	G05D 16/00		Group G05D16/00 is impacted by reclassification into groups G05D16/024 and G05D16/028. Groups G05D 16/00, G05D16/024, and G05D16/028 should be considered in order to perform a complete search.
N	G05D 16/024		Group G05D16/024 is incomplete pending reclassification of documents from group G05D16/00. Groups G05D16/00 and G05D16/024 should be considered in order to perform a complete search.
N	G05D 16/028		Group G05D16/028 is incomplete pending reclassification of documents from group G05D16/00. Groups G05D16/00 and G05D16/028 should be considered in order to perform a complete search.
N	G05D 16/04		Group G05D16/04 is impacted by reclassification into groups G05D16/0402 and G05D16/0404. Groups G05D16/04, G05D16/0402, and G05D16/0404 should be considered in order to perform a complete search.
N	G05D 16/0402		Group G05D16/0402 is incomplete pending reclassification of documents from groups G05D16/04 and G05D16/10. Groups G05D16/04, G05D16/10, and G05D16/0402 should be considered in order to perform a complete search.
N	G05D 16/0404		Group G05D16/0404 is incomplete pending reclassification of documents from groups G05D16/04 and G05D16/10. Groups G05D16/04, G05D16/10 and G05D16/0404 should be considered in order to perform a complete search.
N	G05D 16/10		Group G05D16/10 is impacted by reclassification into groups G05D16/101, G05D16/107, G05D16/109, G05D16/0402, and G05D16/0404. All groups listed in this Warning should be considered in order to perform a complete search.
N	G05D 16/101		Group G05D16/101 is incomplete pending reclassification of documents from groups G05D16/10 and G05D16/103. Groups G05D16/10, G05D16/103 and G05D16/101 should be considered in order to perform a complete search.
N	G05D 16/103		Group G05D16/103 is impacted by reclassification into group G05D16/101. Groups G05D 16/103 and G05D16/101 should be considered in order to perform a complete search.

Type*	Location	Old Warning notice	New/Modified Warning notice
N	G05D 16/107		Group G05D16/107 is incomplete pending reclassification of documents from group G05D16/10. Groups G05D16/10 and G05D16/107 should be considered in order to perform a complete search.
N	G05D16/109		Group G05D16/109 is incomplete pending reclassification of documents from group G05D16/10. Groups G05D16/10 and G05D16/109 should be considered in order to perform a complete search.
N	G05D16/18		Group G05D16/18 is impacted by reclassification into group G05D16/187. Groups G05D16/18 and G05D16/187 should be considered in order to perform a complete search.
N	G05D16/187		Group G05D16/187 is incomplete pending reclassification of documents from group G05D16/18. Groups G05D16/18 and G05D16/187 should be considered in order to perform a complete search.
N	G05D16/2013		Group G05D16/2013 is impacted by reclassification into groups G05D16/2022 and G05D16/2024. Groups G05D16/2013, G05D16/2022, and G05D16/2024 should be considered in order to perform a complete search.
N	G05D16/2022		Group G05D16/2022 is incomplete pending reclassification of documents from group G05D16/2013. Groups G05D16/2013 and G05D16/2022 should be considered in order to perform a complete search.
N	G05D16/2024		Group G05D16/2024 is incomplete pending reclassification of documents from group G05D16/2013. Groups G05D16/2013 and G05D16/2024 should be considered in order to perform a complete search.
N	G05D16/2093		Group G05D16/2093 is impacted by reclassification into groups G05D16/2095 and G05D16/2097. Groups G05D16/2093, G05D16/2095, and G05D16/2097 should be considered in order to perform a complete search.
N	G05D16/2095		Group G05D16/2095 is incomplete pending reclassification of documents from group G05D16/2093. Groups G05D16/2093 and G05D16/2095 should be considered in order to perform a complete search.
N	G05D16/2097		Group G05D16/2097 is incomplete pending reclassification of documents from group G05D16/2093. Groups G05D16/2093 and G05D16/2097 should be considered in order to perform a complete search.

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*N = new warning, M = modified warning, D = deleted warning

NOTE: The “Location” column only requires the symbol PRIOR to the location of the warning. No further directions such as “before” or “after” are required.

C. New, Modified or Deleted Note(s)

SUBCLASS G05D - SYSTEMS FOR CONTROLLING OR REGULATING NON-ELECTRIC VARIABLES

Type*	**Location**	**Old Note**	**New/Modified Note**
N	G05D 16/00		{Note: In this group, multi-aspect classification is applied, so that subject matter characterised by aspects covered by more than one of its subgroups, which is considered to represent information of interest for search, should be classified in each of those subgroups.}

*N = new note, M = modified note, D = deleted note

NOTE: The "Location" column only requires the symbol PRIOR to the location of the note. No further directions such as "before" or "after" are required.

2. A. DEFINITIONS (new)

Insert the following NEW definitions**.**

G05D 16/0402

Definition statement

This place covers:

- Valves in a series, where the output of one valve is the input of another one.

G05D 16/0404

Definition statement

This place covers:

- Valves having their inputs and/or outputs connected together.

G05D 16/10

Definition statement

This place covers:

- Valves comprising a piston or plunger, which reacts to fluid pressure in contact therewith.

G05D 16/103

Definition statement

This place covers:

- Valves comprising a piston having one extreme facing the inlet chamber and an opposite extreme facing the outlet chamber, for example:

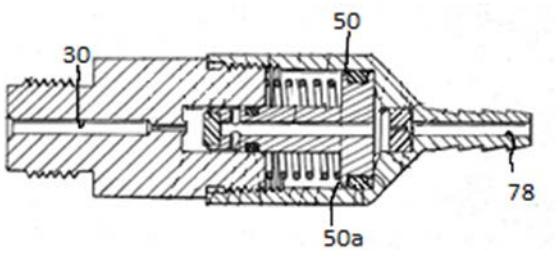

Figure 1. A piston 50 having one extreme 50a facing the inlet 30 and an opposite extreme facing the outlet chamber 78.

References

Limiting references

This place does not cover:

Multiple-way valve	G05D 16/101

G05D 16/106

Definition statement

This place covers:

- Valves in which at least part of the piston has the form of a cylindrical sleeve in contact with and sliding over a fixed or moving stem.
- Valves in which the control chamber comprising the biasing member is surrounded by the controlled fluid, for example:

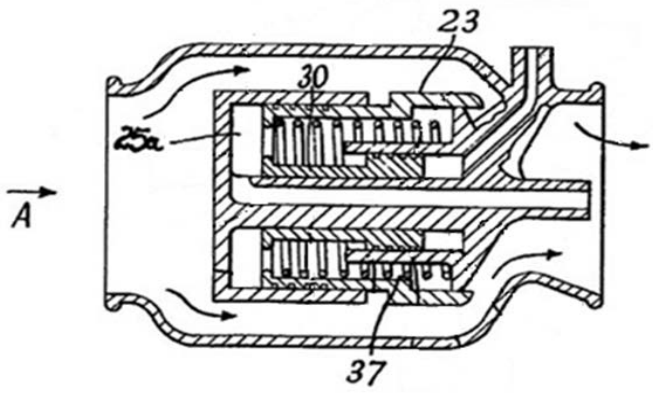

Figure 1. A part 30 of the piston 23 has the form of a cylindrical sleeve in contact with and sliding over a fixed stem 29. Furthermore, the control chamber 25a comprising the biasing member 37 is surrounded by the controlled fluid.

G05D 16/107

Definition statement

This place covers:

- Valves having a detached obturator that is biased against the sensing piston so that they move together over the range of motion during normal operations, for example:

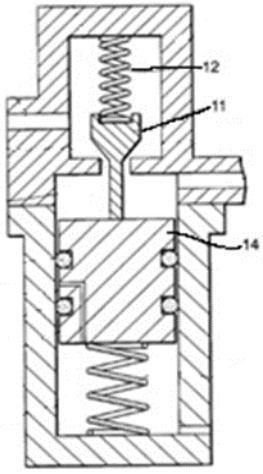

Figure 1. A detached obturator 11 is biased by the auxiliary spring 12 against the sensing piston 14 so that they move together over the range of motion during normal operations.

G05D 16/109

Definition statement

This place covers:

- Valves comprising two or more pistons that move independently of each other over the range of motion during normal operation, at least one of them being the sensing element.

References

Limiting references

This place does not cover:

Control of fluid pressure without auxiliary power with two or more controllers mounted in series	G05D 16/0402
Control of fluid pressure without auxiliary power with two or more controllers mounted in parallel	G05D 16/0404

G05D 16/14

Definition statement

This place covers:

- Valves in which the controlled pressure is compared to a reference fluid pressure generated by means of an auxiliary pilot valve or any other means.

G05D 16/16

Special rules of classification

This group may be used in combination with groups G05D 16/06 – G05D 16/12 describing structural details of the auxiliary pilot valve.

G05D 16/2006

Definition statement

This place covers:

- Electric energy acting on the main valve, and
- Electric energy acting on the control element of the pump

References

Limiting references

This place does not cover:

With combination of electric and non-electric auxiliary power	G05D 16/2093

G05D 16/2013

Definition statement

This place covers:

- Systems controlling the pressure using the electromagnetic valves.

Special rules of classification

Electromagnetic valves allowing only on/off operation are only classified in this group.

G05D 16/2022

Definition statement

This place covers:

- Electromagnetic valves generating an intermediate closing force that is proportional to the current supplied.

References

Limiting references

This place does not cover:

The throttling means being a multiple-way valve	G05D 16/2024

G05D 16/2026

Special rules of classification

This group may be used in combination - with groups G05D 16/202 - G05D 16/2024 to describe one or more of the valves.

G05D 16/2086

Definition statement

This place covers:

- Valves where the electric energy is used for an auxiliary function of an otherwise purely mechanical regulator, e.g. adjusting the set point.

References

Limiting references

This place does not cover:

With combination of electric and non-electric auxiliary power	G05D 16/2093

G05D 16/2093

Definition statement

This place covers:

- Valves in which the controller pressure is compared to a reference fluid pressure generated by means of an electromagnetic pilot valve or any other means.

Special rules of classification

This group may be used in combination with subgroups G05D16/202 - G05D16/208 describing structural details of the auxiliary pilot valve.

2. A. DEFINITIONS (modified)

G05D 1/00

Insert: The following new Definition statement section.

Definition statement

This place covers:

Control of position, course or altitude of land, water, air, or space vehicles, e.g. automatic pilot

Further details of subgroups

G05D 1/0005

This subgroup covers control systems where the trajectory of an aircraft or satellite is optimized.

G05D 1/0077

Redundant control systems in general are classified only in G05B 9/03.

G05D 1/0083

This subgroup covers control of an aircraft while on the ground, i.e. while accelerating before taking-off, braking after touching down or taxiing.

G05D 1/02 and subgroups

This subgroup covers control systems where the position determination or the position evolution takes place on a two-dimensional space. If the nature of the vehicle is specified, then it is classified in the corresponding subgroup.

G05D 1/0202 and subgroup

This subgroup covers two-dimensional navigation of an aircraft while in flight.

G05D 1/021 and subgroups

This subgroup covers control systems to define a trajectory for a land vehicle, and to take suitable actions to make the vehicle follow said trajectory.

Aspects of navigation systems that are important per se should also be classified in the relevant groups of G01C.

Aspects of radio, sonar or lidar navigation systems that are important per se should also be classified in the relevant groups of G01S.

Aspects of navigation systems for traffic purposes that are important per se should also be classified in the relevant groups of G08G.

G05D 1/0236

This subgroup also covers control systems using barcode readers for positioning.

G05D 1/0261

This subgroup also covers control systems using RFID tags for positioning.

G05D 1/0295

This subgroup covers control systems where one of the vehicles sends orders to the others.

Limiting references

Insert: The following new row in the Limiting references table.

Radio navigation systems or analogous systems using other waves	G01S

Delete: The following three rows from the Limiting references table.

Linear or angular position control of an object not being a vehicle	G05D 3/00
Control of linear or angular speed or of acceleration	G05D 13/00
Rail vehicles	B61

Application-oriented references

Insert: The following new row in the Application-oriented references table.

Active steering aids	B62D 15/025

Replace: The invalid symbol: **B64D 25/11** in the existing row with the valid symbol shown in the row below.

Controlling attitude or direction of aircraft ejector seats	B64D 25/10

Informative references

Insert: The following new rows in the existing Informative references table.

Aircraft capable of landing or taking-off vertically	B64C 29/00
Altitude control by jet reaction	B64C 15/00
Flying bombs	B64C 2201/121
Unmanned aerial vehicles characterized by flight control	B64C 2201/14
Unmanned aerial vehicles characterized by landing method	B64C 2201/18
Aircraft carrier installations	B64F
Altimeters	G01C 5/005
Flight directors	G01C 23/005
Displays for beacons e.g. LORAN, VOR	G01S 1/047
Using amplitude comparison of signals transmitted simultaneously from aerials or aerials systems having differently-oriented overlapping directivity-characteristics	G01S 1/14
LORAN systems	G01S 1/24
LORAC or TORAN systems	G01S 1/304

TACAN systems	G01S 1/48
VOR systems	G01S 1/50
Radar systems specially designed for missile homing, autodirectors	G01S 13/883
Radar systems specially designed for terrain avoidance	G01S 13/94
Modification of a flight plan	G08G 5/0039
Terrain avoidance systems	G08G 5/0086
Systems for monitoring atmospheric conditions	G08G 5/0091
Traffic collision avoidance systems	G08G 5/04
Linear or angular position control of an object not being a vehicle	G05D 3/00
Control of linear or angular speed or of acceleration	G05D 13/00
Rail vehicles	B61
Steering applicable only to other than landborne vehicles, e.g. three-dimensional steering applicable to both aircraft and submarines	B60K
Construction or disposition of steering means on land vehicles	B62
on waterborne vessels	B63
Manual or automatic control of aircraft, e.g. using automatic pilot or radiated signal	B64C

Special rules of classification

Delete: From the Special rules of classification section, all of the text shown below.

Further details of subgroups

G05D 1/0005

This subgroup covers control systems where the trajectory of an aircraft or satellite is optimized.

G05D 1/0077

Redundant control systems in general are classified only in G05B 9/03.

G05D 1/0083

This subgroup covers control of an aircraft while on the ground, i.e. while accelerating before taking off, braking after touching down or taxiing.

G05D 1/02 and subgroups
This subgroup covers control systems where the position determination or the position evolution takes place on a two-dimensional space. If the nature of the vehicle is specified, then it is classified in the corresponding subgroup.
G05D 1/0202 and subgroup
This subgroup covers two-dimensional navigation of an aircraft while in flight.
G05D 1/021 and subgroups
This subgroup covers control systems to define a trajectory for a land vehicle, and to take suitable actions to make the vehicle follow said trajectory.
Aspects of navigation systems that are important per se should also be classified in the relevant groups of G01C.
Aspects of radio, sonar or lidar navigation systems that are important per se should also be classified in the relevant groups of G01S.
Aspects of navigation systems for traffic purposes that are important per se should also be classified in the relevant groups of G08G.
G05D 1/0236
This subgroup also covers control systems using barcode readers for positioning.
G05D 1/0261
This subgroup also covers control systems using RFID tags for positioning.
G05D 1/0295
This subgroup covers control systems where one of the vehicles sends orders to the others.

G05D 7/00

Definition statement

Insert: In the Definition statement section, **under** the existing statement: *Control of flow of liquids…throttling means and/or flow sources*, the text shown below.

Further details of subgroups:

G05D 7/0113

This subgroup covers valves where the flexible member itself, e.g. a membrane, acts on the valve seat.

G05D 7/012

This subgroup covers for example flexible members having the form of a torus.

G05D 7/0133

This subgroup covers valves with a piston having one extreme facing the inlet chamber and an opposite extreme facing the outlet chamber.

G05D 7/014 and G05D 7/0153

These subgroups cover valves in which at least part of the piston has the form of a cylindrical sleeve in contact with and sliding over a fixed or moving stem. They also cover valves in which the control chamber comprising the biasing member is surrounded by the controlled fluid

G05D 7/0186

This subgroup covers valves using calibrated orifices for achieving a constant flow.

G05D 7/0611 and G05D 7/0623

These subgroups cover systems where the target flow is defined in dependence on a specific parameter, e.g. the speed of a vehicle.

Insert: The following new section: Limiting references.

Limiting references

This place does not cover:

Level control	G05D 9/00
Ratio control	G05D 11/00
Weighing apparatus	G01G

Application-oriented references

Replace: In the Application-oriented references table, the invalid symbol: **B67D 5/28** with the valid symbol shown in the row below.

Transferring liquids	B67D 7/28

Delete: ALL of the following text located **under** the Application-oriented references table.

Further details of subgroups:
G05D 7/0113
This subgroup covers valves where the flexible member itself, e.g. a membrane, acts on the valve seat.
G05D 7/0113
This subgroup covers for example flexible members having the form of a torus.
G05D 7/014
This subgroup covers valves comprising several pistons sliding one over the other.
G05D 7/0186
This subgroup covers valves using calibrated orifices for achieving a constant flow.
G05D 7/0611 and G05D 7/0623
These subgroups cover systems where the target flow is defined in dependence on a specific parameter, e.g. the speed of a vehicle.
G05D 7/0629
Within this subgroup, an invention is classified in the last appropriate place.

Insert: The following two new sections: Informative references and Special rules of classification.

Informative references

Attention is drawn to the following places, which may be of interest for search:

Of media to the human body	A61M 5/168

Special rules of classification

G05D 7/0629
Within this subgroup, an invention is classified in the last appropriate place.

G05D 16/00

Delete: The entire Limiting references section.

Limiting references

This place does not cover:

Valves per se	F16K

Application-oriented references

Delete: ALL of the following text located **under** the Application-oriented references table.

Further details of subgroups
G05D 16/0602
This subgroup covers valves in series or in cascade, where the output of one valve is the input of another one.
G05D 16/0605
This subgroup covers valves having their inputs and/or outputs connected together.
G05D 16/106
This subgroup covers valves comprising several pistons sliding one over the other.
G05D 16/14 and subgroups
This subgroup covers non-electric pilot valves.
G05D 16/2086
This subgroup covers valves where the electric energy is used for adjusting the set point of an otherwise purely mechanical regulator.
G05D 16/2093
This subgroup covers electromagnetic pilot valves.

Insert: The following two new sections: Informative references and Special rules of classification.

Informative references

Attention is drawn to the following places, which may be of interest for search:

Control of pressure in electric discharge tubes or lamps	H01J 7/14
Control of pressure in electric incandescent lamps	H01K 1/52
Valves per se	F16K

Special rules of classification

Groups G05D 16/02, G05D 16/024 and G05D 16/028

These groups describing functional aspects of the invention are generally used in combination with groups G05D 16/04 - G05D16/2097 describing structural aspects of the valves.

Group G05D 16/028

This group covers valves controlling a difference between two systems pressures, excluding the following cases:

- When one of the pressures is the ambient (atmospheric) pressure or any other uncontrolled pressure that is external to the system; in this case only the structural aspects of the valve are classified in groups G05D 16/04 – G05D 16/2097.
- When the controlled pressures are across a fixed or adjustable restriction for the purpose of flow regulation, in which case the document should be classified in G05D 7/00; and
- When one of the pressures is a reference pressure generated by a pilot valve or any other means for the purpose of keeping the other pressure at a difference to said reference pressure, in which case the document should be classified either in G05D 16/14 or in G05D 16/2093.

Groups G05D 16/0402 and G05D 16/0404

These groups are used in combination with groups G05D 16/06 – G05D 16/12 describing one or more of the valves.

G05D 23/00

Insert: The following new Definition statement section.

Definition statement

This place covers:

Control of temperature

Further details of subgroups:

G05D 23/022, G05D 23/025 and G05D 23/123

These subgroups cover valves controlling the flow of a fluid as a function of the temperature of said fluid.

G05D 23/023, G05D 23/026 and G05D 23/125

These subgroups cover valves controlling the flow of a fluid as a function of the temperature of an external sensor, e.g. thermostat for radiator.

G05D 23/024 and subgroups

These subgroups cover memory shape alloys working as a sensing element.

G05D 23/028

This subgroup covers systems where the fusing of an element irreversibly releases a cooling fluid.

G05D 23/128

This subgroup covers valves controlling the flow of fuel to a burner as a function of the temperature of a controlled space.

G05D 23/1333
This subgroup covers valves distributing the flow of a fluid among two conduits as a function of the temperature of said fluid, e.g. refrigerating systems.

G05D 23/1353

This subgroup covers not only valves where the flow is regulated, but also where it is just set by the user.

G05D 23/185 and subgroups

These subgroups cover valves similar to the corresponding subgroups in G05D 23/01, but further comprising the use of auxiliary pneumatic or hydraulic energy.

G05D 23/19 and subgroups

In G05D 23/19 documents are classified in G05D 23/20, G05D 23/22, G05D 23/24 G05D 23/26, G05D 23/27, or G05D 23/275 and their subgroups according to the nature of the main temperature sensor used. Additionally, documents are also classified in the CPC subgroups G05D 23/1902 to G05D 23/1951 relating to control features, if one or more them apply. In case the nature of the temperature sensing element is not mentioned or is irrelevant for the invention, documents are classified only in G05D 23/19 or in one of more subgroups G05D23/1902 to G05D23/1951.

G05D 23/20 and subgroups

This covers inventions where the sensing element has a variation of electric or magnetic properties other than defined in G05D 23/22, G05D 23/24 or G05D 23/26, e.g. a semiconductor, an ionized gas or a capacitor.

G05D 23/1902
This subgroup covers inventions relating to the input means of the reference value.

G05D 23/1904

This subgroup covers systems where a temperature profile is defined as a function of time.

G05D 23/1906
This subgroup covers systems where the control action is a continuous function of the measured error.

G05D 23/1913

This subgroup covers systems delivering a series of pulses having a frequency that is a continuous function of the measured error.

G05D 23/1919
This subgroup covers systems using Peltier effect devices.

G05D 23/1921

This subgroup covers systems where the actuator consists of a heat expanding element being heated electrically in order to act on a valve.

G05D 23/1923

This subgroup covers control systems for storage heaters.

G05D 23/1924

This subgroup covers systems using solar energy.

G05D 23/1931
This subgroup covers systems measuring the temperature of the controlled space and of another space in thermal relationship with it, e.g. outdoors.

G05D 23/1935

This subgroup covers systems where one sensor is used for control after the other, e.g. measuring the input flow temperature of a heating system and later switching to measuring the output flow temperature.

Insert: The following two new sections: Limiting references and Informative references.

Limiting references

This place does not cover:

Automatic switching arrangements for electric heating apparatus	H05B 1/02

Informative references

Attention is drawn to the following places, which may be of interest for search:

Controlling induction heating	H05B 6/06
Regulating temperature of anode of X-ray tube	H05G 1/36
Control of air-humidification systems	F24F 11/0008
Control of central heating systems	F24D 19/10
Thermal management of data-processing equipment	G06F 1/206
Cooling arrangement of electrical apparatus	H05K 7/20

Special rules of classification

Delete: From the Special rules of classification section all of the text shown below.

Further details of subgroups:

G05D23/022, G05D23/025 and G05D23/123
These subgroups cover valves controlling the flow of a fluid as a function of the temperature of said fluid.

G05D23/023, G05D23/026 and G05D23/125
These subgroups cover valves controlling the flow of a fluid as a function of the temperature of an external sensor, e.g. thermostat for radiator.

G05D23/024 and subgroups
These subgroups cover memory shape alloys working as a sensing element.

G05D23/028
This subgroup covers systems where the fusing of an element irreversibly releases a cooling fluid.

G05D23/128
This subgroup covers valves controlling the flow of fuel to a burner as a function of the temperature of a controlled space.

G05D23/1333
This subgroup covers valves distributing the flow of a fluid among two conduits as a function of the temperature of said fluid, e.g. refrigerating systems.

G05D23/1353
This subgroup covers not only valves where the flow is regulated, but also where it is just set by the user.

G05D23/185 and subgroups
These subgroups cover valves similar to the corresponding subgroups in G05D23/01, but further comprising the use of auxiliary pneumatic or hydraulic energy.

G05D23/19 and subgroups
In G05D23/19 documents are classified in G05D23/20, G05D23/22, G05D23/24G05D23/26, G05D23/27, or G05D23/275 and their subgroups according to the nature of the main temperature sensor used. Documents are also classified in the CPC subgroups related to control features directly under G05D23/19, if one or more of them apply. In case the nature of the temperature sensing element is not mentioned or is irrelevant for the invention, documents are classified only in G05D23/19 and its directly dependent subgroups.

G05D23/20 and subgroups
This covers inventions where the sensing element has a variation of electric or magnetic properties other than defined in G05D23/22, G05D23/24 or G05D23/26, e.g. a semiconductor, an ionized gas or a capacitor.

G05D23/1902, G05D23/20, G05D23/22, G05D23/24, G05D23/26, G05D23/27, and G05D23/275
These subgroups cover inventions relating to the input means of the reference value.

G05D23/1904, G05D23/20, G05D23/22, G05D23/24, and G05D23/275
These subgroups cover systems where a temperature profile is defined as a function of time.

G05D23/1906, G05D23/20, G05D23/22, G05D23/24, G05D23/26, G05D23/27, and G05D23/275
These subgroups cover systems where the control action is a continuous function of the measured error.

G05D23/1913, G05D23/20, G05D23/22, G05D23/24, and G05D23/275
These subgroups cover systems delivering a series of pulses having a frequency that is a continuous function of the measured error.

G05D23/1919, G05D23/20, G05D23/22, G05D23/24, G05D23/26, G05D23/27, and G05D23/275
These subgroups also cover systems using Peltier effect devices.

G05D23/1921, G05D23/20, G05D23/22, G05D23/24, and G05D23/275
These subgroups cover systems where the actuator consists of a heat expanding element being heated electrically in order to act on a valve.

G05D23/1923, G05D23/20, G05D23/22, G05D23/24, and G05D23/275
These subgroups cover control systems for storage heaters.

G05D23/1924, G05D23/20, G05D23/22, G05D23/24, and G05D23/275
These subgroups cover systems using solar energy.

G05D23/1931, G05D23/20, and G05D23/22
These subgroups cover systems measuring the temperature of the controlled space and of another space in thermal relationship with it, e.g. outdoors.

G05D23/1951
This subgroup covers systems where one sensor is used for control after the other, e.g. measuring the input flow temperature of a heating system and later switching to measuring the output flow temperature.

H05B 1/00

Delete: The entire Limiting references section.

Limiting references

This place does not cover:

Control of induction heating devices	H05B 6/06
Control of electric discharge heating devices	H05B 6/148
Control of microwave heating devices	H05B 6/68
Control of temperature in general	G05D 23/00
Thermally-actuated switches	H01H 37/00

Informative references

Insert: The following five new rows in the existing Informative references table.

Control of temperature in general	G05D 23/00
Thermally actuated switches	H01H 37/00

Control of induction heating devices	H05B 6/06
Control of electric discharge heating devices	H05B 7/00
Control of microwave heating devices	H05B 6/68

3. REVISION CONCORDANCE LIST (RCL)

Type*	**From CPC Symbol (existing)**	**To CPC Symbol(s)**
C	G05D 16/00	G05D 16/00, G05D 16/024, G05D 16/028
C	G05D 16/04	G05D 16/04, G05D 16/0402, G05D 16/0404
D	G05D 16/0602	<administrative transfer to G05D 16/0402>
D	G05D 16/0605	<administrative transfer to G05D 16/0404>
C	G05D 16/10	G05D 16/10, G05D 16/101, G05D 16/107, G05D 16/109, G05D16/0402, G05D 16/0404
C	G05D 16/103	G05D 16/103, G05D 16/101
C	G05D 16/18	G05D 16/18, G05D 16/187
C	G05D 16/2013	G05D 16/2013, G05D 16/2022, G05D 16/2024
C	G05D 16/2093	G05D 16/2093, G05D 16/2095, G05D 16/2097

* C = entries with modified file scope where reclassification of documents from the entries is involved; Q = new entries which are firstly populated with documents via administrative transfers from deleted (D) entries. Afterwards, the transferred documents into the Q entry will either stay or be moved to more appropriate entries, as determined by intellectual reclassification; D = deleted entries; F = frozen entries will be deleted once reclassification of documents from the entries is completed.

NOTES:

- Only C, D, F, and Q type entries are included in the table above.
- When multiple symbols are included in the “To” column, do not use ranges of symbols.
- For administrative transfer of documents, the following text should be used: “< administrative transfer to XX>”, “<administrative transfer to XX and YY simultaneously>”, or “<administrative transfer to XX, YY, and ZZ simultaneously>” when administrative transfer of the same documents is to more than one place.
- Administrative transfer to main trunk groups is assumed to be the source allocation type, unless otherwise indicated.
- Administrative transfer to 2000/Y series groups is assumed to be “additional information”.
- If needed, instructions for allocation type should be indicated within the angle brackets using the abbreviations “ADD” or “INV”: <administrative transfer to XX ADD>, <administrative transfer to XX INV>, or < administrative transfer to XX ADD, YY INV, ... and ZZ ADD simultaneously>.
- In certain situations, the “D” entries of 2000-series or Y-series groups may not require a destination (“To”) symbol, however it is required to specify “<no transfer>” in the “To” column for such cases.
- RCL is not needed for finalisation projects.

4. CHANGES TO THE CPC-TO-IPC CONCORDANCE LIST (CICL)

CPC	**IPC**	**Action***
G05D 16/024	G05D 16/00	New
G05D 16/028	G05D 16/00	New
G05D 16/0402	G05D 16/04	New
G05D 16/0404	G05D16/04	New
G05D 16/0602		Delete
G05D 16/0605		Delete
G05D 16/101	G05D 16/10	New
G05D 16/107	G05D 16/10	New
G05D 16/109	G05D 16/10	New
G05D 16/187	G05D 16/18	New
G05D 16/2022	G05D 16/20	New
G05D 16/2024	G05D 16/20	New
G05D 16/2095	G05D 16/20	New
G05D 16/2097	G05D 16/20	New

*Action column:

- For an (N) or (Q) entry, provide an IPC symbol and complete the Action column with “NEW.”
- For an existing CPC main trunk entry or indexing entry where the existing IPC symbol needs to be changed, provide an updated IPC symbol and complete the Action column with “UPDATED.”
- For a (D) CPC entry or indexing entry complete the Action column with “DELETE.” IPC symbol does not need to be included in the IPC column.
- For an (N) 2000 series CPC entry which is positioned within the main trunk scheme (breakdown code) provide an IPC symbol and complete the action column with “NEW”.
- For an (N) 2000 series CPC entry positioned at the end of the CPC scheme (orthogonal code), with no IPC equivalent, complete the IPC column with “CPCONLY” and complete the action column with “NEW”.

NOTES:

- F symbols are <u>not</u> included in the CICL table above.
- E and M symbols are not included in the CICL table above unless a change to the existing IPC is desired.