

Symbol	Typ	Titel
F	Sektion	MECHANICAL ENGINEERING; LIGHTING; HEATING; WEAPONS; BLASTING
F16	Klasse	ENGINEERING ELEMENTS OR UNITS; GENERAL MEASURES FOR PRODUCING AND MAINTAINING EFFECTIVE FUNCTIONING OF MACHINES OR INSTALLATIONS ; THERMAL INSULATION IN GENERAL
F16K	Unterklasse	VALVES; TAPS; COCKS; ACTUATING-FLOATS; DEVICES FOR VENTING OR AERATING <u>Constructional types (check valves F16K 15/00)</u>
F16K 1/00	Hauptgruppe	Lift valves, i.e. cut-off apparatus with closure members having at least a component of their opening and closing motion perpendicular to the closing faces (diaphragm valves F16K 7/00)
F16K 1/02	1-Punkt Untergruppe	. with screw-spindle (F16K 1/12 to F16K 1/28 take precedence; actuating mechanisms with screw-spindles F16K 31/50)
F16K 1/04	2-Punkt Untergruppe	. . with a cut-off member rigid with the spindle, e.g. main valves
F16K 1/06	2-Punkt Untergruppe	. . Special arrangements for improving the flow, e.g. special shape of passages or casings
F16K 1/08	3-Punkt Untergruppe	. . . in which the spindle is perpendicular to the general direction of flow
F16K 1/10	3-Punkt Untergruppe	. . . in which the spindle is inclined to the general direction of flow
F16K 1/12	1-Punkt Untergruppe	. with streamlined valve member around which the fluid flows when the valve is opened
F16K 1/14	1-Punkt Untergruppe	. with ball-shaped valve members (check valves F16K 15/04)
F16K 1/16	1-Punkt Untergruppe	. with pivoted closure members
F16K 1/18	2-Punkt Untergruppe	. . with pivoted discs or flaps
F16K 1/20	3-Punkt Untergruppe	. . . with axis of rotation arranged externally of valve member
F16K 1/22	3-Punkt Untergruppe	. . . with axis of rotation crossing the valve member, e.g. butterfly valves
F16K 1/226	4-Punkt Untergruppe	 Shape or arrangement of the sealing
F16K 1/228	5-Punkt Untergruppe	 Movable sealing bodies
F16K 1/24	1-Punkt Untergruppe	. with valve members that, on opening of the valve, are initially lifted from the seat and next are turned around an axis parallel to the seat
F16K 1/26	2-Punkt Untergruppe	. . Shape or arrangement of the sealing
F16K 1/28	3-Punkt Untergruppe	. . . Movable sealing bodies
F16K 1/30	1-Punkt Untergruppe	. specially adapted for pressure containers
F16K 1/32	1-Punkt Untergruppe	. Details (details of more general applicability F16K 25/00 to F16K 51/00)
F16K 1/34	2-Punkt Untergruppe	. . Cutting-off parts (F16K 1/06 , F16K 1/12 , F16K 1/14 , F16K 1/26 take precedence)
F16K 1/36	3-Punkt Untergruppe	. . . Valve members (for double-seat valves F16K 1/44)
F16K 1/38	4-Punkt Untergruppe	 of conical shape
F16K 1/40	4-Punkt Untergruppe	 of helical shape
F16K 1/42	3-Punkt Untergruppe	. . . Valve seats (for double-seat valves F16K 1/44)
F16K 1/44	3-Punkt Untergruppe	. . . Details of seats or valve members of double-seat valves
F16K 1/46	3-Punkt Untergruppe	. . . Attachment of sealing rings

Symbol	Typ	Titel
F16K 1/48	2-Punkt Untergruppe	. . Attaching valve members to valve-spindles [4]
F16K 1/50	2-Punkt Untergruppe	. . Preventing rotation of valve members
F16K 1/52	2-Punkt Untergruppe	. . Means for additional adjustment of the rate of flow
F16K 1/54	2-Punkt Untergruppe	. . Arrangements for modifying the way in which the rate of flow varies during the actuation of the valve
F16K 3/00	Hauptgruppe	Gate valves or sliding valves, i.e. cut-off apparatus with closing members having a sliding movement along the seat for opening and closing (F16K 5/00 takes precedence; in barrages or weirs E02B 8/04)
F16K 3/02	1-Punkt Untergruppe	. with flat sealing faces; Packings therefor
F16K 3/03	2-Punkt Untergruppe	. . with a closure member in the form of an iris-diaphragm
F16K 3/04	2-Punkt Untergruppe	. . with pivoted closure members
F16K 3/06	3-Punkt Untergruppe	. . . in the form of closure plates arranged between supply and discharge passages (F16K 3/10 takes precedence)
F16K 3/08	4-Punkt Untergruppe	 with circular closure plates rotatable around their centres
F16K 3/10	3-Punkt Untergruppe	. . . with special arrangements for separating the sealing faces or for pressing them together
F16K 3/12	2-Punkt Untergruppe	. . with wedge-shaped arrangements of sealing faces
F16K 3/14	3-Punkt Untergruppe	. . . with special arrangements for separating the sealing faces or for pressing them together
F16K 3/16	2-Punkt Untergruppe	. . with special arrangements for separating the sealing faces or for pressing them together (F16K 3/10 , F16K 3/14 take precedence)
F16K 3/18	3-Punkt Untergruppe	. . . by movement of the closure members
F16K 3/20	3-Punkt Untergruppe	. . . by movement of the seats
F16K 3/22	1-Punkt Untergruppe	. with sealing faces shaped as surfaces of solids of revolution (F16K 13/02 takes precedence; with resilient valve members F16K 3/28)
F16K 3/24	2-Punkt Untergruppe	. . with cylindrical valve members
F16K 3/26	3-Punkt Untergruppe	. . . with fluid passages in the valve member
F16K 3/28	1-Punkt Untergruppe	. with resilient valve members
F16K 3/30	1-Punkt Untergruppe	. Details
F16K 3/312	2-Punkt Untergruppe	. . Line blinds
F16K 3/314	2-Punkt Untergruppe	. . Forms or constructions of slides; Attachment of the slide to the spindle
F16K 3/316	2-Punkt Untergruppe	. . Guiding of the slide
F16K 3/32	2-Punkt Untergruppe	. . Means for additional adjustment of the rate of flow
F16K 3/34	2-Punkt Untergruppe	. . Arrangements for modifying the way in which the rate of flow varies during the actuation of the valve
F16K 3/36	2-Punkt Untergruppe	. . Features relating to lubrication
F16K 5/00	Hauptgruppe	Taps or cocks comprising only cut-off apparatus having at least one of the sealing faces shaped as a more or less complete surface of a solid of revolution, the opening and closing movement being predominantly rotary (taps of the lift-valve type F16K 1/00)
F16K 5/02	1-Punkt Untergruppe	. with plugs having conical surfaces; Packings therefor

Symbol	Typ	Titel
F16K 5/04	1-Punkt Untergruppe	. with plugs having cylindrical surfaces; Packings therefor
F16K 5/06	1-Punkt Untergruppe	. with plugs having spherical surfaces; Packings therefor
F16K 5/08	1-Punkt Untergruppe	. Details
F16K 5/10	2-Punkt Untergruppe	. . Means for additional adjustment of the rate of flow
F16K 5/12	2-Punkt Untergruppe	. . Arrangements for modifying the way in which the rate of flow varies during the actuation of the valve
F16K 5/14	2-Punkt Untergruppe	. . Special arrangements for separating the sealing faces or for pressing them together
F16K 5/16	3-Punkt Untergruppe	. . . for plugs with conical surfaces
F16K 5/18	3-Punkt Untergruppe	. . . for plugs with cylindrical surfaces
F16K 5/20	3-Punkt Untergruppe	. . . for plugs with spherical surfaces
F16K 5/22	2-Punkt Untergruppe	. . Features relating to lubrication
F16K 7/00	Hauptgruppe	Diaphragm cut-off apparatus, e.g. with a member deformed, but not moved bodily, to close the passage (container gates or closures operating by deformation of flexible walls B65D 90/56; means for plugging pipes or hoses F16L 55/10)
F16K 7/02	1-Punkt Untergruppe	. with tubular diaphragm
F16K 7/04	2-Punkt Untergruppe	. . constrictable by external radial force
F16K 7/06	3-Punkt Untergruppe	. . . by means of a screw-spindle, cam, or other mechanical means
F16K 7/07	3-Punkt Untergruppe	. . . by means of fluid pressure
F16K 7/08	2-Punkt Untergruppe	. . constrictable by twisting
F16K 7/10	1-Punkt Untergruppe	. with inflatable member
F16K 7/12	1-Punkt Untergruppe	. with flat, dished, or bowl-shaped diaphragm
F16K 7/14	2-Punkt Untergruppe	. . arranged to be deformed against a flat seat
F16K 7/16	3-Punkt Untergruppe	. . . the diaphragm being mechanically actuated, e.g. by screw-spindle or cam
F16K 7/17	3-Punkt Untergruppe	. . . the diaphragm being actuated by fluid pressure
F16K 7/18	1-Punkt Untergruppe	. with diaphragm secured at one side only, e.g. to be laid on the seat by rolling action
F16K 7/20	1-Punkt Untergruppe	. with a compressible solid closure member
F16K 11/00	Hauptgruppe	Multiple-way valves, e.g. mixing valves; Pipe fittings incorporating such valves; Arrangement of valves and flow lines specially adapted for mixing fluid [4]
F16K 11/02	1-Punkt Untergruppe	. with all movable sealing faces moving as one unit
F16K 11/04	2-Punkt Untergruppe	. . comprising only lift valves
F16K 11/044	3-Punkt Untergruppe	. . . with movable valve members positioned between valve seats [4]
F16K 11/048	3-Punkt Untergruppe	. . . with valve seats positioned between movable valve members [4]
F16K 11/052	3-Punkt Untergruppe	. . . with pivoted closure members, e.g. butterfly valves [4]
F16K 11/056	3-Punkt Untergruppe	. . . with ball-shaped valve members [4]
F16K 11/06	2-Punkt Untergruppe	. . comprising only sliding valves

Symbol	Typ	Titel
F16K 11/065	3-Punkt Untergruppe	. . . with linearly sliding closure members [4]
F16K 11/07	4-Punkt Untergruppe	 with cylindrical slides [4]
F16K 11/072	3-Punkt Untergruppe	. . . with pivoted closure members [4]
F16K 11/074	4-Punkt Untergruppe	 with flat sealing faces [4]
F16K 11/076	4-Punkt Untergruppe	 with sealing faces shaped as surfaces of solids of revolution [4]
F16K 11/078	3-Punkt Untergruppe	. . . with pivoted and linearly movable closure members [4]
F16K 11/08	2-Punkt Untergruppe	. . comprising only taps or cocks
F16K 11/083	3-Punkt Untergruppe	. . . with tapered plug [2]
F16K 11/085	3-Punkt Untergruppe	. . . with cylindrical plug [2]
F16K 11/087	3-Punkt Untergruppe	. . . with spherical plug [2]
F16K 11/10	1-Punkt Untergruppe	. with two or more closure members not moving as a unit
F16K 11/12	2-Punkt Untergruppe	. . with one plug turning in another
F16K 11/14	2-Punkt Untergruppe	. . operated by one actuating member, e.g. a handle (with one plug turning in another F16K 11/12)
F16K 11/16	3-Punkt Untergruppe	. . . which only slides, or only turns, or only swings in one plane
F16K 11/18	3-Punkt Untergruppe	. . . with separate operating movements for separate closure members
F16K 11/20	2-Punkt Untergruppe	. . operated by separate actuating members (with one plug turning in another F16K 11/12)
F16K 11/22	3-Punkt Untergruppe	. . . with an actuating member for each valve, e.g. interconnected to form multiple-way valves
F16K 11/24	3-Punkt Untergruppe	. . . with an electromagnetically-operated valve, e.g. for washing machines
F16K 13/00	Hauptgruppe	Other constructional types of cut-off apparatus (means for plugging pipes or hoses F16L 55/10); Arrangements for cutting-off [4]
F16K 13/02	1-Punkt Untergruppe	. with both sealing faces shaped as small segments of a cylinder and the moving member pivotally mounted
F16K 13/08	1-Punkt Untergruppe	. Arrangements for cutting-off [4]
F16K 13/10	2-Punkt Untergruppe	. . by means of liquid or granular medium [4]
		<u>Functional types</u>
F16K 15/00	Hauptgruppe	Check valves (valves specially adapted for inflatable balls A63B 41/00)
F16K 15/02	1-Punkt Untergruppe	. with guided rigid valve members
F16K 15/03	2-Punkt Untergruppe	. . with a hinged closure member
F16K 15/04	2-Punkt Untergruppe	. . shaped as balls
F16K 15/06	2-Punkt Untergruppe	. . with guided stems
F16K 15/08	2-Punkt Untergruppe	. . shaped as rings
F16K 15/10	3-Punkt Untergruppe	. . . integral with, or rigidly fixed to, a common valve plate
F16K 15/12	3-Punkt Untergruppe	. . . Springs for ring valves [3]
F16K 15/14	1-Punkt Untergruppe	. with flexible valve members

Symbol	Typ	Titel
F16K 15/16	2-Punkt Untergruppe	. . with tongue-shaped laminae
F16K 15/18	1-Punkt Untergruppe	. with actuating mechanism; Combined check valves and actuated valves
F16K 15/20	1-Punkt Untergruppe	. specially designed for inflatable bodies, e.g. tyres (connecting valves to inflatable elastic bodies B60C 29/00)
F16K 17/00	Hauptgruppe	Safety valves; Equalising valves (pressure relief devices for aerosol containers B65D 83/70)
F16K 17/02	1-Punkt Untergruppe	. opening on surplus pressure on one side; closing on insufficient pressure on one side (check valves F16K 15/00)
F16K 17/04	2-Punkt Untergruppe	. . spring-loaded
F16K 17/06	3-Punkt Untergruppe	. . . with special arrangements for adjusting the opening pressure
F16K 17/08	3-Punkt Untergruppe	. . . with special arrangements for providing a large discharge passage
F16K 17/10	3-Punkt Untergruppe	. . . with auxiliary valve for fluid operation of the main valve
F16K 17/12	2-Punkt Untergruppe	. . weight-loaded
F16K 17/14	2-Punkt Untergruppe	. . with fracturing member
F16K 17/16	3-Punkt Untergruppe	. . . with fracturing diaphragm
F16K 17/164	2-Punkt Untergruppe	. . and remaining closed after return of the normal pressure
F16K 17/168	2-Punkt Untergruppe	. . combined with manually-controlled valves, e.g. a valve combined with a safety valve
F16K 17/18	1-Punkt Untergruppe	. opening on surplus pressure on either side
F16K 17/19	2-Punkt Untergruppe	. . Equalising valves predominantly for tanks
F16K 17/192	3-Punkt Untergruppe	. . . with closure member in the form of a movable liquid column
F16K 17/194	3-Punkt Untergruppe	. . . weight-loaded
F16K 17/196	3-Punkt Untergruppe	. . . spring-loaded
F16K 17/20	1-Punkt Untergruppe	. Excess-flow valves (actuated in consequence of shock or similar extraneous influence F16K 17/36)
F16K 17/22	2-Punkt Untergruppe	. . actuated by the difference of pressure between two places in the flow line
F16K 17/24	3-Punkt Untergruppe	. . . acting directly on the cutting-off member
F16K 17/26	4-Punkt Untergruppe	 operating in either direction
F16K 17/28	4-Punkt Untergruppe	 operating in one direction only
F16K 17/30	5-Punkt Untergruppe	 spring-loaded
F16K 17/32	3-Punkt Untergruppe	. . . acting on a servo-mechanism or on a catch-releasing mechanism
F16K 17/34	2-Punkt Untergruppe	. . in which the flow-energy of the flowing medium actuates the closing mechanism
F16K 17/36	1-Punkt Untergruppe	. actuated in consequence of extraneous circumstances, e.g. shock, change of position
F16K 17/38	2-Punkt Untergruppe	. . of excessive temperature
F16K 17/40	1-Punkt Untergruppe	. with fracturing member, e.g. fracturing diaphragm, fusible joint (valves with fracturing member opening on surplus pressure on one side F16K 17/14)
F16K 17/42	1-Punkt Untergruppe	. Valves preventing penetration of air in the outlet of containers for liquids
F16K 21/00	Hauptgruppe	Fluid-delivery valves (specially adapted for aerosol containers B65D 83/44; for liquid handling)

Symbol	Typ	Titel
B67D; for flushing devices for water-closets or the like E03D)		
F16K 21/02	1-Punkt Untergruppe	. providing a continuous small flow
F16K 21/04	1-Punkt Untergruppe	. Self-closing valves, i.e. closing automatically after operation
F16K 21/06	2-Punkt Untergruppe	. . in which the closing movement, either retarded or not, starts immediately after opening
F16K 21/08	3-Punkt Untergruppe	. . . with ball-shaped closing members
F16K 21/10	3-Punkt Untergruppe	. . . with hydraulic brake cylinder acting on the closure member
F16K 21/12	3-Punkt Untergruppe	. . . with hydraulically-operated opening means; with arrangements for pressure relief before opening
F16K 21/14	2-Punkt Untergruppe	. . with special means for preventing the self-closing
F16K 21/16	2-Punkt Untergruppe	. . closing after a predetermined quantity of fluid has been delivered (F16K 21/10 takes precedence)
F16K 21/18	2-Punkt Untergruppe	. . closed when a rising liquid reaches a predetermined level (float-actuated valves F16K 31/18)
F16K 21/20	3-Punkt Untergruppe	. . . by means making use of air-suction through an opening closed by the rising liquid
F16K 23/00	Hauptgruppe	Valves for preventing drip from nozzles
F16K 24/00	Hauptgruppe	Devices, e.g. valves, for venting or aerating enclosures (equalising valves F16K 17/00; arrangement or mounting in pipes or pipe systems F16L 55/07; venting or aerating as an additional function of steam traps or like apparatus F16T; ventilation of rooms, vehicles, see the appropriate subclass, e.g. F24F) [2]
F16K 24/02	1-Punkt Untergruppe	. the enclosure being itself a valve, tap, or cock [2]
F16K 24/04	1-Punkt Untergruppe	. for venting only (F16K 24/02 takes precedence) [2]
F16K 24/06	1-Punkt Untergruppe	. for aerating only (F16K 24/02 takes precedence) [2]
<u>Details</u>		
F16K 25/00	Hauptgruppe	Details relating to contact between valve members and seats (movement of valve members other than for opening and closing F16K 29/00; sealing constructions, see the appropriate groups according to the type of valve)
F16K 25/02	1-Punkt Untergruppe	. Arrangements using fluid issuing from valve members or seats
F16K 25/04	1-Punkt Untergruppe	. Arrangements for preventing erosion, not otherwise provided for
F16K 27/00	Hauptgruppe	Construction of housings (methods for welding housings B23K); Use of materials therefor
F16K 27/02	1-Punkt Untergruppe	. of lift valves (for reducing the flow resistance of screw-spindle lift-valves F16K 1/06)
F16K 27/04	1-Punkt Untergruppe	. of sliding valves
F16K 27/06	1-Punkt Untergruppe	. of taps or cocks
F16K 27/07	1-Punkt Untergruppe	. of cutting-off parts of tanks, e.g. tank-cars [4]
F16K 27/08	1-Punkt Untergruppe	. Guiding yokes for spindles; Means for closing housings; Dust caps, e.g. for tyre valves
F16K 27/10	1-Punkt Untergruppe	. Welded housings
F16K 27/12	1-Punkt Untergruppe	. Covers for housings
F16K 29/00	Hauptgruppe	Arrangements for movement of valve members other than for opening or closing the valve, e.g. for grinding-in, for preventing sticking
F16K 29/02	1-Punkt Untergruppe	. providing for continuous motion
F16K 31/00	Hauptgruppe	Operating means; Releasing devices
F16K 31/02	1-Punkt Untergruppe	. electric; magnetic

Symbol	Typ	Titel
F16K 31/04	2-Punkt Untergruppe	. . using a motor
F16K 31/05	3-Punkt Untergruppe	. . . specially adapted for operating hand-operated valves or for combined motor and hand operation
F16K 31/06	2-Punkt Untergruppe	. . using a magnet
F16K 31/08	3-Punkt Untergruppe	. . . using a permanent magnet
F16K 31/10	3-Punkt Untergruppe	. . . with additional mechanism between armature and closure member
F16K 31/11	4-Punkt Untergruppe	 with additional hand operating means [2]
F16K 31/12	1-Punkt Untergruppe	. actuated by fluid (fluid-actuated check valves F16K 15/00; fluid-actuated safety valves F16K 17/00)
F16K 31/122	2-Punkt Untergruppe	. . the fluid acting on a piston (F16K 31/143 , F16K 31/163 , F16K 31/363 , F16K 31/383 take precedence) [2]
F16K 31/124	3-Punkt Untergruppe	. . . servo actuated [2]
F16K 31/126	2-Punkt Untergruppe	. . the fluid acting on a diaphragm, bellows, or the like (F16K 31/145 , F16K 31/165 , F16K 31/365 , F16K 31/385 take precedence) [2]
F16K 31/128	3-Punkt Untergruppe	. . . servo actuated [2]
F16K 31/14	2-Punkt Untergruppe	. . for mounting on, or in combination with, hand-actuated valves
F16K 31/143	3-Punkt Untergruppe	. . . the fluid acting on a piston
F16K 31/145	3-Punkt Untergruppe	. . . the fluid acting on a diaphragm
F16K 31/16	2-Punkt Untergruppe	. . with a mechanism, other than pulling- or pushing-rod, between fluid motor and closure member (with float F16K 31/18)
F16K 31/163	3-Punkt Untergruppe	. . . the fluid acting on a piston
F16K 31/165	3-Punkt Untergruppe	. . . the fluid acting on a diaphragm
F16K 31/18	2-Punkt Untergruppe	. . actuated by a float (floats F16K 33/00; float-actuated valves in steam-traps F16T 1/20 , in boilers F22D 5/08)
F16K 31/20	3-Punkt Untergruppe	. . . actuating a lift valve
F16K 31/22	4-Punkt Untergruppe	 with the float rigidly connected to the valve
F16K 31/24	4-Punkt Untergruppe	 with a transmission with parts linked together from a single float to a single valve
F16K 31/26	5-Punkt Untergruppe	 with the valve guided for rectilinear movement and the float attached to a pivoted arm
F16K 31/28	4-Punkt Untergruppe	 with two or more floats actuating one valve
F16K 31/30	3-Punkt Untergruppe	. . . actuating a gate valve or sliding valve
F16K 31/32	3-Punkt Untergruppe	. . . actuating a tap or cock
F16K 31/34	3-Punkt Untergruppe	. . . acting on pilot valve controlling the cut-off apparatus
F16K 31/36	2-Punkt Untergruppe	. . in which fluid from the conduit is constantly supplied to the fluid motor
F16K 31/363	3-Punkt Untergruppe	. . . the fluid acting on a piston (F16K 31/38 takes precedence)
F16K 31/365	3-Punkt Untergruppe	. . . the fluid acting on a diaphragm

Symbol	Typ	Titel
F16K 31/38	3-Punkt Untergruppe	. . . in which the fluid works directly on both sides of the fluid motor, one side being connected by means of a restricted passage and the motor being actuated by operating a discharge from that side (F16K 31/40 takes precedence)
F16K 31/383	4-Punkt Untergruppe	 the fluid acting on a piston
F16K 31/385	4-Punkt Untergruppe	 the fluid acting on a diaphragm
F16K 31/40	3-Punkt Untergruppe	. . . with electrically-actuated member in the discharge of the motor
F16K 31/42	2-Punkt Untergruppe	. . by means of electrically-actuated members in the supply or discharge conduits of the fluid motor (F16K 31/40 takes precedence)
F16K 31/44	1-Punkt Untergruppe	. Mechanical actuating means
F16K 31/46	2-Punkt Untergruppe	. . for remote operation
F16K 31/48	2-Punkt Untergruppe	. . actuated by mechanical timing-device, e.g. with dash-pot (self-closing valves F16K 21/16)
F16K 31/50	2-Punkt Untergruppe	. . with screw-spindle
F16K 31/52	2-Punkt Untergruppe	. . with crank, eccentric, or cam
F16K 31/524	3-Punkt Untergruppe	. . . with a cam
F16K 31/528	3-Punkt Untergruppe	. . . with pin and slot
F16K 31/53	2-Punkt Untergruppe	. . with toothed gearing
F16K 31/54	3-Punkt Untergruppe	. . . with pinion and rack
F16K 31/56	2-Punkt Untergruppe	. . without stable intermediate position, e.g. with snap action
F16K 31/58	2-Punkt Untergruppe	. . comprising a movable discharge-nozzle
F16K 31/60	2-Punkt Untergruppe	. . Handles
F16K 31/62	2-Punkt Untergruppe	. . Pedals or like operating members, e.g. actuated by knee or hip
F16K 31/64	1-Punkt Untergruppe	. responsive to temperature variation (dependant on excessive temperature F16K 17/38; control of fire-fighting equipment A62C 37/00; devices for preventing bursting of water pipes by freezing E03B 7/10) [4]
F16K 31/66	2-Punkt Untergruppe	. . electrically or magnetically actuated, e.g. by magnets with variable magnetic characteristics [4]
F16K 31/68	2-Punkt Untergruppe	. . actuated by fluid pressure or volumetric variation in a confined chamber [4]
F16K 31/70	2-Punkt Untergruppe	. . mechanically actuated, e.g. by a bimetallic strip [4]
F16K 31/72	1-Punkt Untergruppe	. Operating means or releasing devices specifically adapted to enhance the speed of valve response [4]
F16K 33/00	Hauptgruppe	Floats for actuation of valves or other apparatus
F16K 35/00	Hauptgruppe	Means to prevent accidental or unauthorised actuation
F16K 35/02	1-Punkt Untergruppe	. to be locked or disconnected by means of a push or pull
F16K 35/04	1-Punkt Untergruppe	. yieldingly resisting the actuation
F16K 35/06	1-Punkt Untergruppe	. using a removable actuating or locking member, e.g. a key (F16K 35/10 , F16K 35/12 take precedence)
F16K 35/08	1-Punkt Untergruppe	. requiring setting according to a code, e.g. permutation locks
F16K 35/10	1-Punkt Untergruppe	. with locking caps or locking bars
F16K 35/12	1-Punkt Untergruppe	. with sealing wire

Symbol	Typ	Titel
F16K 35/14	1-Punkt Untergruppe	. interlocking two or more valves
F16K 35/16	1-Punkt Untergruppe	. with locking member actuated by magnet
F16K 37/00	Hauptgruppe	Special means in or on valves or other cut-off apparatus for indicating or recording operation thereof, or for enabling an alarm to be given
F16K 39/00	Hauptgruppe	Devices for relieving the pressure on the sealing faces
F16K 39/02	1-Punkt Untergruppe	. for lift valves
F16K 39/04	1-Punkt Untergruppe	. for sliding valves
F16K 39/06	1-Punkt Untergruppe	. for taps or cocks
F16K 41/00	Hauptgruppe	Spindle sealings
F16K 41/02	1-Punkt Untergruppe	. with stuffing-box
F16K 41/04	2-Punkt Untergruppe	. . with at least one ring of rubber or like material between spindle and housing
F16K 41/06	2-Punkt Untergruppe	. . with at least one ring attached to both spindle and housing
F16K 41/08	2-Punkt Untergruppe	. . with at least one ring provided with axially-protruding peripheral closing-lip
F16K 41/10	1-Punkt Untergruppe	. with diaphragm, e.g. shaped as bellows or tube
F16K 41/12	2-Punkt Untergruppe	. . with approximately flat diaphragm
F16K 41/14	1-Punkt Untergruppe	. with conical flange on the spindle which co-operates with a conical surface in the housing
F16K 41/16	1-Punkt Untergruppe	. with a flange on the spindle which rests on a sealing ring
F16K 41/18	2-Punkt Untergruppe	. . sealing only when the closure member is in the opened position
F16K 43/00	Hauptgruppe	Auxiliary closure means in valves, which in case of repair, e.g. rewashing, of the valve, can take over the function of the normal closure means; Devices for temporary replacement of parts of valves for the same purpose
F16K 47/00	Hauptgruppe	Means in valves for absorbing fluid energy (for pipes F16L 55/00)
F16K 47/02	1-Punkt Untergruppe	. for preventing water-hammer or noise
F16K 47/04	1-Punkt Untergruppe	. for decreasing pressure, the throttle being incorporated in the closure member
F16K 47/06	2-Punkt Untergruppe	. . with a throttle in the form of a helical channel
F16K 47/08	1-Punkt Untergruppe	. for decreasing pressure and having a throttling member separate from the closure member
F16K 47/10	2-Punkt Untergruppe	. . in which the medium in one direction must flow through the throttling channel, and in the other direction may flow through a much wider channel parallel to the throttling channel
F16K 47/12	2-Punkt Untergruppe	. . the throttling channel being of helical form
F16K 47/14	2-Punkt Untergruppe	. . the throttling member being a perforated membrane
F16K 47/16	2-Punkt Untergruppe	. . the throttling member being a cone
F16K 49/00	Hauptgruppe	Means in or on valves for heating or cooling (for pipes F16L 53/00; thermal insulation in connection with pipes or pipe systems F16L 59/16)
F16K 51/00	Hauptgruppe	Other details not peculiar to particular types of valves or cut-off apparatus
F16K 51/02	1-Punkt Untergruppe	. specially adapted for high-vacuum installations [2]