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CONTROL VALVES

G 41 and G 46

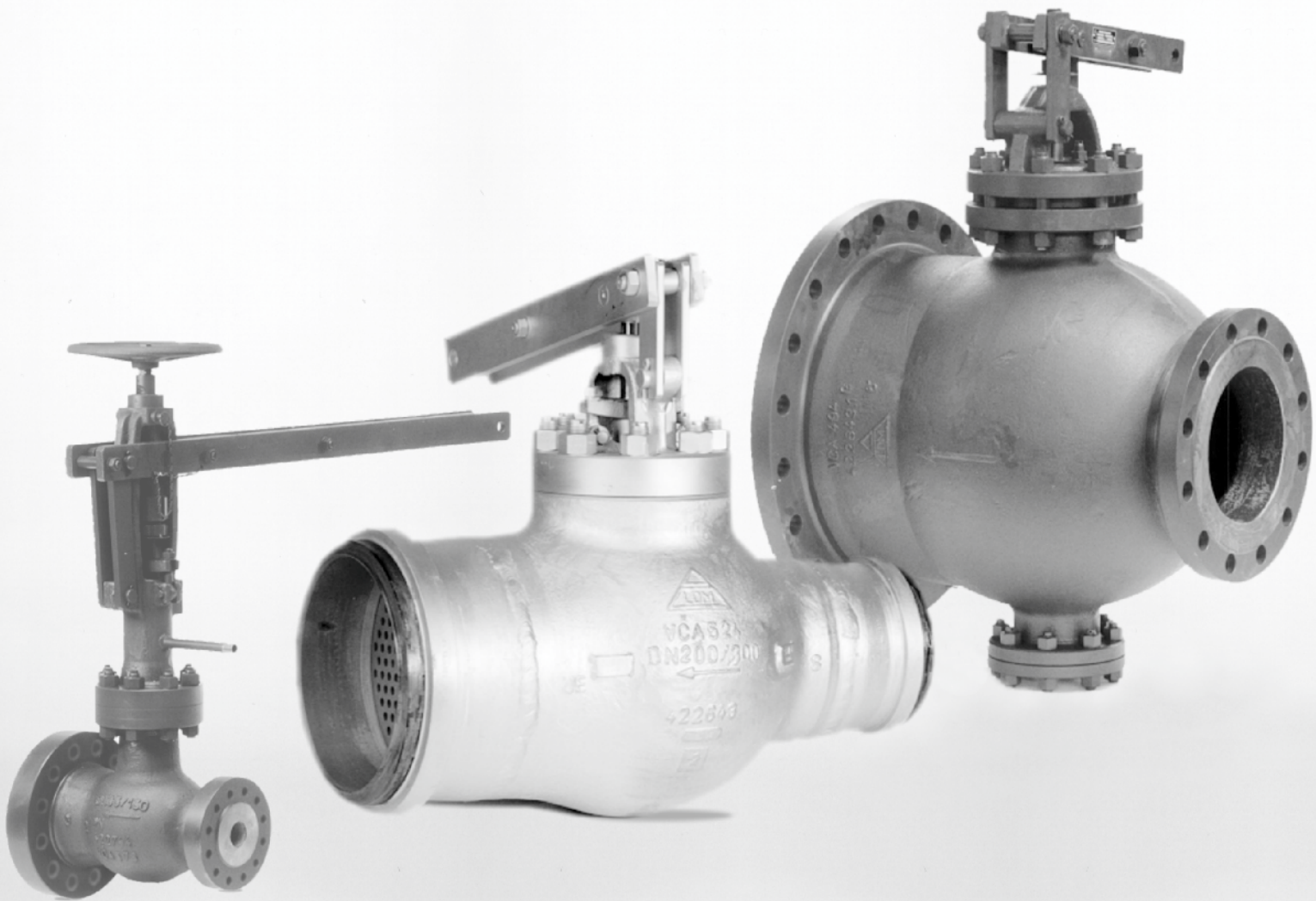
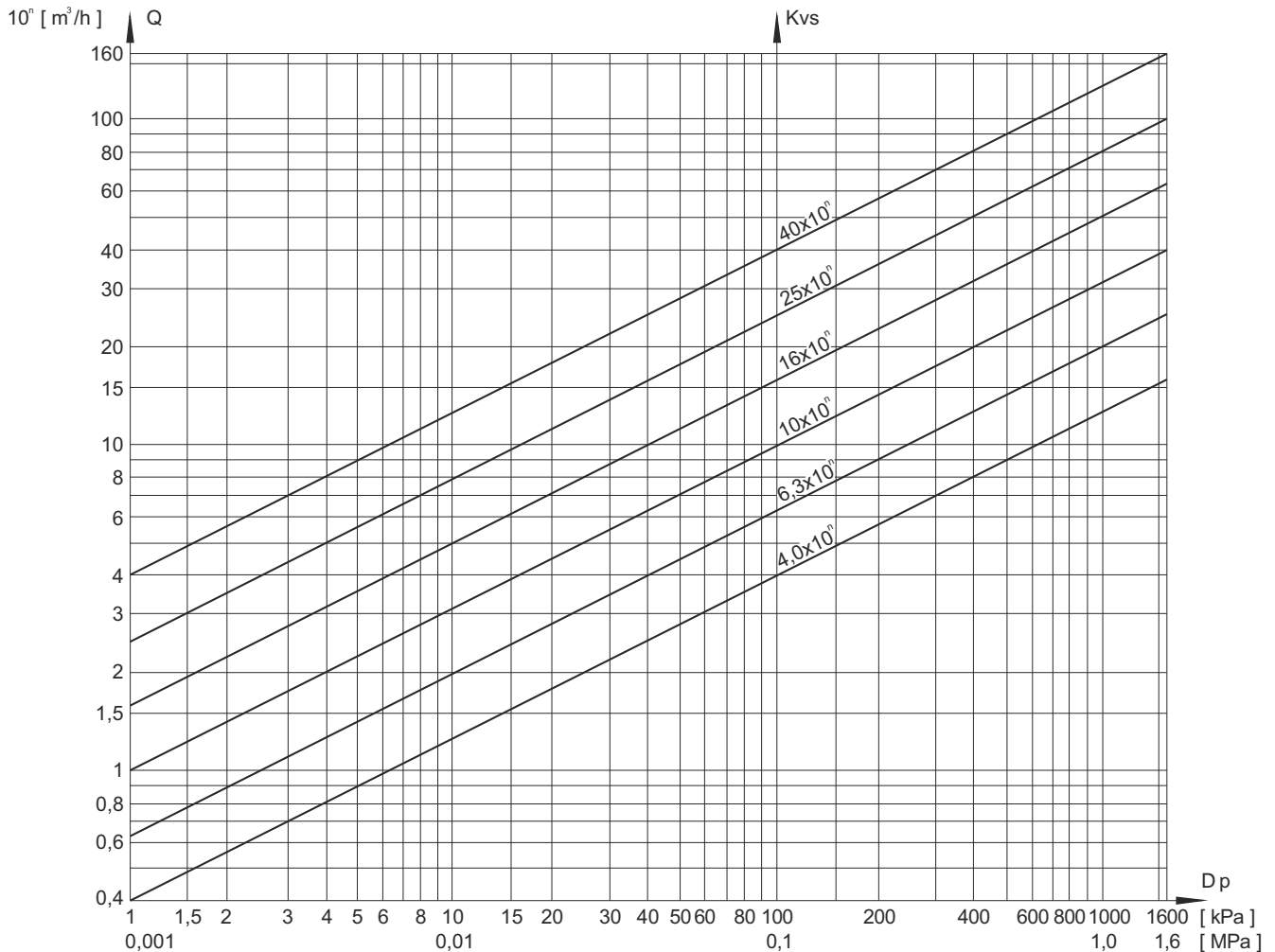


Diagram for the valve Kvs value specification according to the required flow rate of water Q and the valve differential pressure Δp



The diagram serves to specify the valve Kvs value regarding to the required flow rate of water at a given differential pressure. It can be also used for finding out the differential pressure value of the existing valve in behaviour with the flow rate. The diagram applies to water with the density of 1000 kg/m³.

For the value $Q = q \cdot 10^3$, it is necessary to calculate with $Kvs = k \cdot 10^5$. Example: water flow rate of $16 \cdot 10^3 = 1,6 \text{ m}^3/\text{hour}$ corresponds to $Kv = 2,5 = 25 \cdot 10$ when differential pressure 40kPa.

Valve complete specification No. for ordering G 41 and G 46

		X XX	X XX	- X XXX	/ XXX	- XXX
1. Valve	Control valves	G				
2. Series	Control valve, lever-actuated, single-seated with extended outlet	41				
	Control valve, lever-actuated, double-seated with extended outlet	46				
3. Flow direction	Straight-through		1			
4. Connection	Flanged		1			
	Weld ends		2			
5. Actuating	Adjusted for remote control		5			
6. Material	Alloy steel 1.7357			2		
	Carbon steel 1.0619			5		
7. Nominal pressure PN °	Acc. to the valve execution			XXX		
8. Max. operating temp. C	Acc. to the valve execution				XXX	
9. Nominal size DN	Acc. to the valve execution					XXX



G 41 115 ...

Lever control valves

DN 40/100 and 65/100
PN 250/160

Description

The valve is single-seated, lever-actuated, designed to be actuated with an electric actuator or a hydraulic cylinder. In case of manual operation, it is possible to lock the levers with an arresting pin and to actuate the valve with its hand wheel. The valve is equipped with a position indicator.

The control valves for temperatures exceeding 400 °C are equipped with a labyrinth packing with the drain off. The valve control plug is always designed for the parameters specified in the order and according to the requested type of flow characteristic.

The valve can be delivered with actuators of the following producers: ZPA Pečky - Modact MPS, Modact Control MPS and Modact Variant MPR. The connection stem between the valve's lever and the actuator's is not a subject of the delivery unless it is ordered.

Application

The valve serves as a control, reducing or bypass element with indirect actuating. The max. permissible operating pressures acc. to EN 12 516-1 see page 18 of this catalogue. The intention to use the valve for higher temperatures must be agreed upon with the producer. The control valve's proper function depends on the sizing and execution of the control station, therefore the valve design and its specification is recommended to be carried out together with the producer.

Process media

The valves are designed to regulate the flow and pressure of liquids, possibly vapours and gases such as water, steam and other media compatible with the material of the valve's inner parts. The valve max. differential pressure is 4,0 MPa with respect to pressure nominal value and to concrete service conditions (ratio p_1 / p_2 , creation of cavitation, above-critical flow etc.)

Installation

The valve can be piped only in a horizontal pipeline with vertically positioned stem and the valve's lever above the valve body. The medium flow direction shall coincide with the arrows indicated on the valve body. The lever is mounted on the right side from the medium flow direction unless it is required otherwise. For control valves with an extended outlet, it is necessary to secure the outlet pipeline with a safety valve sized to the valve's full output.

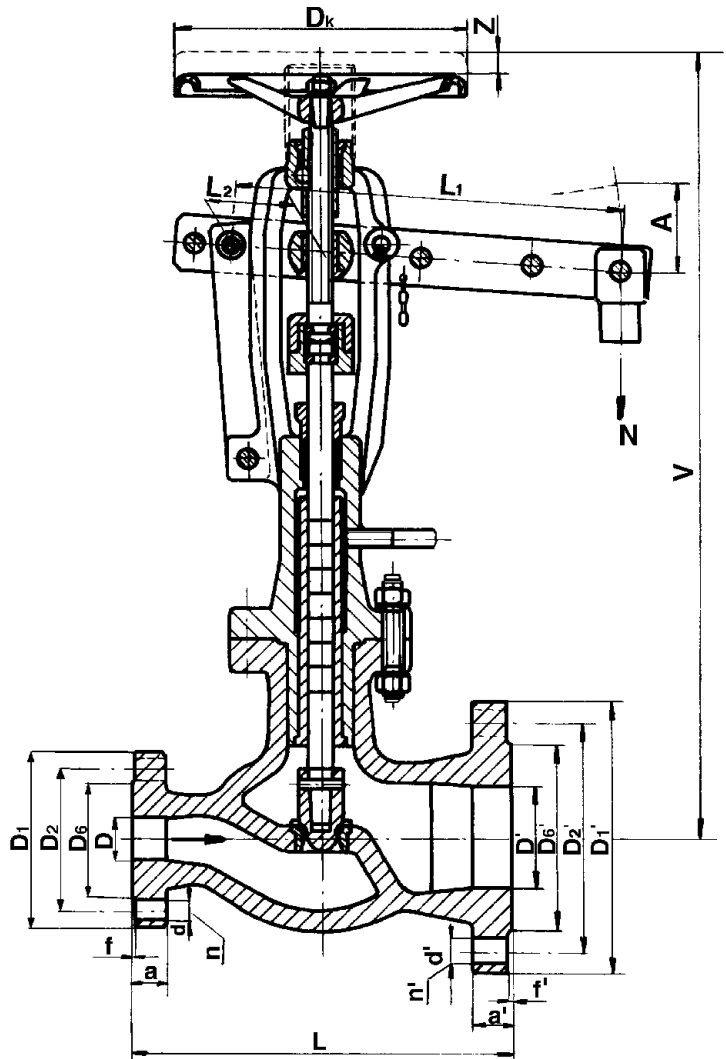
Technical data

Series	G 41 115 2250
Type of valve	Control valves, single-seated, flanged, straight-through, with extended outlet
Nominal size	40/100 a 65/150
Nominal pressure	250/160
Body material	Alloy steel 1.7357
Process media temp. range	-20 to 550 °C
Connection *)	Inlet acc. to ČSN 13 1217 Outlet acc. to ČSN 13 1216
Type of trim	Seat - parabolic plug
Flow characteristic	Linear, equal-percentage acc. to ČSN EN 60 534-1 (4/1997)
Flow area range F_s [cm²]	1,3 - 25
Kvs value range	5,85 - 112,5
Leakage rate	Class II. acc. to ČSN EN 1349 (5/2001)

*) mentioned ČSN standards are from 1963. After the agreement with the producer, it is possible to make the connection acc. to the valid ČSN EN 1092-1 (4/2002)

Dimensions and weights of the type G 41 115 2250

Type		G 41 115 2250	
DN	[mm]	40/100	65/150
D	[mm]	31,5	52
L	[mm]	350	470
L ₁	[mm]	770	770
L ₂	[mm]	110	110
~V	[mm]	890	990
D ₁	[mm]	185	230
D ₂	[mm]	135	180
D ₆	[mm]	90	130
D ^c	[mm]	88	131
D ₁ ^c	[mm]	265	350
D ₂ ^c	[mm]	210	290
D ₆ ^c	[mm]	160	220
D _k ^c	[mm]	250	360
A	[mm]	160	175
f	[mm]	3	3
a	[mm]	40	48
d	[mm]	27	27
n	[mm]	4	8
f ^c	[mm]	3	3
a ^c	[mm]	50	62
d ^c	[mm]	30	33
n ^c	[mm]	8	12
zdvih	[mm]	20	25
Fs	[cm ²]	1,3-4,9	3,6-25
Kvs	[m ³ /hod]	5,85-22,05	16,2-112,5
m	[kg]	120	210





G 46 115 ...

Lever control valves

DN 200/400 to 300/600
PN 16/10 to 40/25

Description

The valve is single-seated, lever-actuated, designed to be actuated with an electric actuator, possibly with an electric or a hydraulic cylinder. In case of emergency, it is possible for the valve equipped with hand wheel to lock the levers with an arresting pin and actuate the valve with its hand wheel. For sizes above DN 150, it is possible to use linear or rotative actuator. Its control plug is always designed according to the parameters specified in the order and according to the required type of flow characteristic.

The valves are supplied with the following actuators of the following producers: ZPA Pečky - Modact Konstant MPS, Modact Control MPS and Modact Variant MPR possibly with linear actuators ZPA Pečky, Regada Prešov and rotative actuators Auma or Schiebel. The connection stem between the valve lever and the actuator is not a subject of the delivery unless it is ordered.

Application

The valve serves as a control, reduction or by-pass element with indirect or direct actuating. The max. permissible pressures are according to EN 12 516-1 see page 18 of this catalogue. The intention to use the valve for higher temperatures must be agreed upon with the producer. The control valves proper function depends on the sizing and execution of the control station, therefore the valve design and its specification is recommended to be carried out together with the producer.

Process media

The valves are designed to regulate the flow and pressure of liquids, possibly vapours and gases e.g. water, steam and other media compatible with material of the valve inner parts. The valve max. differential pressure is 4,0 MPa with respect to the pressure nominal and concrete conditions of operation (ratio p_1 / p_2 , creation of cavitation, above critical flow etc.).

Installation

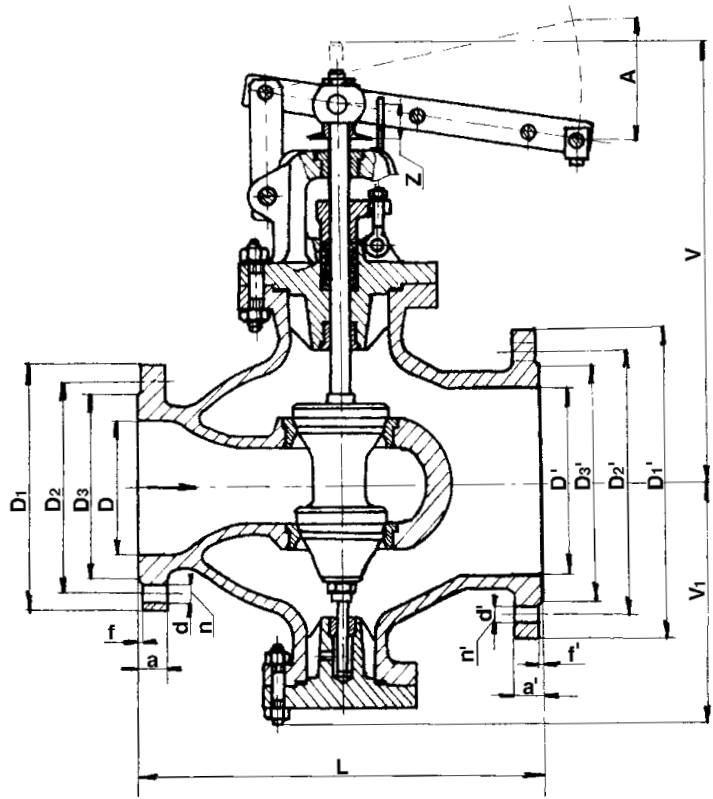
The valve can be piped only in a horizontal pipeline with vertically positioned stem and the valve lever positioned above the valve body. The medium flow direction shall coincide with the arrows indicated on the valve body. The lever is mounted on the right side from the medium flow direction unless it is required otherwise. For control valves with an extended outlet, it is necessary to secure the outlet pipeline with a safety valve sized to the control valve full output.

Technical data				
Series	G 46 115 216	G 46 115 240	G 46 115 516	G 46 115 540
Type of valve	Control valves, double-seated, flanged, straight-through, with extended outlet			
Nominal size	300/600	200/400	300/600	200/400, 250/500
Nominal pressure	16/10	40/25	16/10	40/25
Body material	Alloy steel 1.7357		Carbon steel 1.0619	
Operating temp. range	-20 to 550 °C		-20 to 400 °C	
Connection *)	inlet acc. to ČSN 13 1211	inlet acc. to ČSN 13 1213	inlet acc. to ČSN 13 1211	inlet acc. to ČSN 13 1213
	outlet acc. to ČSN 13 1210	outlet acc. to ČSN 13 1212	outlet acc. to ČSN 13 1210	outlet acc. to ČSN 13 1212
Type of trim	Seat - contoured plug			
Flow characteristic	Linear, equal-percentage acc. to ČSN EN 60 534-1 (4/1997)			
Flow area range Fs [cm ²]	30 - 250	35 - 90	30 - 250	22 - 200
Kvs value range	135 - 1125	157,5 - 405	135 - 1125	99 - 900
Leakage rate	Class II acc. to ČSN EN 1349 (5/2001)			

*) mentioned ČSN standards from 1963. After the agreement with the producer, it is possible to make the connection acc. to the ČSN 13 1060 (7/1995) or ČSN EN 1092-1 (4/2002).

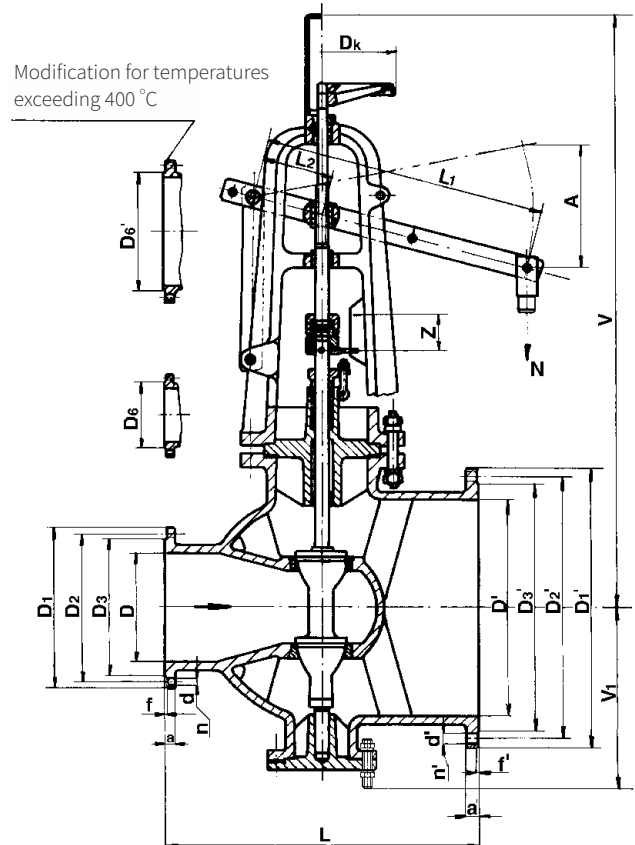
Dimensions and weights of the type G 46 115 PN 10 to 40

Type	G 46 115 216 G 46 115 516	G 46 115 540
DN [mm]	300/600	250/500
D [mm]	300	250
L [mm]	850	730
~V [mm]	930	700
~V ₁ [mm]	500	425
D ₁ [mm]	460	445
D ₂ [mm]	410	385
D ₃ [mm]	378	345
D ^c [mm]	600	500
D ₁ ^c [mm]	780	730
D ₂ ^c [mm]	725	660
D ₃ ^c [mm]	685	615
A [mm]	270	300
f [mm]	4	3
a [mm]	28	38
d [mm]	27	33
n [mm]	12	12
f ^c [mm]	5	4
a ^c [mm]	34	44
d ^c [mm]	30	36
n ^c [mm]	20	20
zdvih [mm]	60	60
Fs [cm ²]	30-250	50-200
Kvs [m ³ /h]	135-1125	225-900
m [kg]	510	433



Dimensions and weights G 46 115, PN 25 to 40

Type	G 46 115 240 G 46 115 540	Type	G 46 115 240 G 46 115 540
DN [mm]	200/400	d [mm]	30
D [mm]	200	n [mm]	12
L [mm]	600	f ^c [mm]	4
L ₁ [mm]	600	a ^c [mm]	40
L ₂ [mm]	120	d ^c [mm]	33
~V [mm]	1155	n ^c [mm]	16
~V ₁ [mm]	355	Zdvh [mm]	50
D ₁ [mm]	375	Fs (540) [cm ²]	22 - 135
D ₂ [mm]	320	Fs (240) [cm ²]	35 - 90
D ₃ [mm]	280	Kvs [m ³ /hod]	157,5 - 405
D ₆ [mm]	260	m [kg]	520
D ^c [mm]	400		
D ₁ ^c [mm]	610		
D ₂ ^c [mm]	550		
D ₃ ^c [mm]	505		
D ₆ ^c [mm]	475		
D _k [mm]	250		
A [mm]	250		
f [mm]	3		
a [mm]	34		





G 46 115 ...

Lever control valves

DN 100/200 až 200/300
PN 100/64

Description

The valve is double-seated, lever-actuated, designed to be actuated with an electric actuator, possibly with a hydraulic or pneumatic cylinder. Its control plug is always designed according to the parameters specified in the order and according to the requested type of flow characteristic.

The valves are delivered with the following actuators of the following producer: ZPA Pečky - Modact MPS, Modact Control MPS, Modact Variant MPR. The connection stem between the valve lever and the actuator is not a subject of delivery unless it is ordered.

Application

The valve serves as a control, reduction or by-pass element with direct or indirect actuating. The max. permissible operating pressures correspond to EN 12 516-1 see page No. 19 of this catalogue. The intention to use the valve for higher temperatures must be agreed upon with the producer. The valve proper function depends on the sizing and execution of the control station, therefore the valve design and its specification is recommended to be carried out together with the producer.

Process media

The valves are designed to regulate the flow and pressure of liquids, possibly vapours and gases e.g. water, steam and other media compatible with material of the valve inner parts. The valve max. differential pressure is 4,0 MPa with respect to the pressure nominal and concrete conditions of operation (ratio p_1 / p_2 , creation of cavitation, above critical flow etc.).

Installation

The valve can be piped only in a horizontal pipeline with vertically positioned stem and the valve lever positioned above the valve body. The medium flow direction shall correspond to the arrows indicated on the valve body. The lever is mounted on the right side from the medium flow direction unless it is required otherwise. For control valves with an extended outlet, it is necessary to secure the outlet pipeline with a safety valve sized to the control valve full

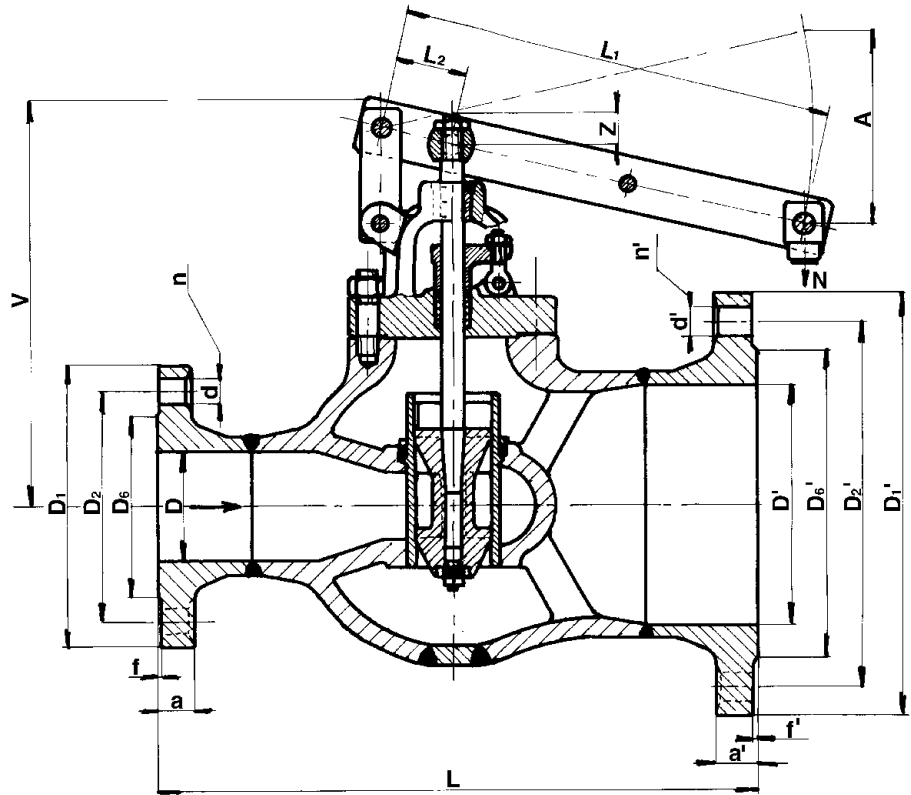
Technical data

Series	G 46 115 2100	G 46 115 5100
Type of valve	Control valves, double-seated, flanged, straight-through, with extended outlet	
Nominal size	100/200, 200/300	200/300
Nominal pressure	100/64	100/64
Body material	Alloy steel 1.7357	Carbon steel 1.0619
Operation temperature range	-20 to 550 °C	-20 to 400 °C
Connection *	inlet acc. to ČSN 13 1215 outlet acc. to ČSN 13 1214	
Type of trim	Seat cage - contoured plug	
Flow characteristic	Linear, equal-percentage acc. to ČSN EN 60 534-1 (4/1997)	
Flow area range F_s [cm ²]	3,8 - 88	11 - 88
Kvs value range	17,1 - 396	49,5 - 396
Leakage rate	Class II acc. to ČSN EN 1349 (5/2001)	

*) uvedené ČSN jsou z roku 1963, po dohodě s výrobcem je možné provedení připojení dle ČSN 13 1060 (7/1995) nebo ČSN EN 1092-1 (4/2002)

Rozměry a hmotnosti ventilů G 46 115 PN 100

Type	G 46 115 2100		G 46 115 2100 G 46 115 5100	
DN [mm]	100/200	200/300		
D [mm]	95	191		
L [mm]	600	750		
L₁ [mm]	600	540		
L₂ [mm]	75	90		
~V [mm]	475	595		
D₁ [mm]	265	430		
D₂ [mm]	210	360		
D₆ [mm]	160	275		
D['] [mm]	201	300		
D₁['] [mm]	405	530		
D₂['] [mm]	345	460		
D₆['] [mm]	275	375		
A [mm]	240	240		
f [mm]	3	3		
a [mm]	36	52		
d [mm]	30	36		
n [mm]	8	12		
f['] [mm]	3	4		
a['] [mm]	42	52		
d['] [mm]	33	36		
n['] [mm]	12	16		
Zdvih [mm]	30	40		
Fs [cm ²]	3,8-40	11-88		
Kvs [m ³ /hod]	17,1-180	49,5-396		
m [kg]	302	678		





G 46 115 ...

Lever control valves

DN 65/125 to 150/300
PN 160/100 to 250/160

Description

The valve is double-seated, lever-actuated, designed to be actuated with an electric actuator or a hydraulic or pneumatic cylinder. In case of emergency, it is possible for the valves equipped with hand wheel to lock the levers with an arresting pin and operate the valve with its hand wheel. The control valve plug is always designed according to the parameters specified in the order and according to the requested type of flow characteristic.

The valves are delivered with the following actuators of the following producer: ZPA Pečky - Modact MPS, Modact Control MPS, Modact Variant MPR. The connection stem between the valve lever and the actuator is not a subject of delivery unless it is ordered.

Application

The valve serves as a control, reduction or by-pass element with direct or indirect actuating. The max. permissible operating pressures correspond to EN 12 516-1 see page No. 19 of this catalogue. The intention to use the valve for higher temperatures must be agreed upon with the producer. The control valve proper function depends on the sizing and execution of the control station, therefore the valve design and its specification is recommended to be carried out together with the producer.

Process media

The valves are designed to regulate the flow and pressure of liquids, possibly vapours and gases e.g. water, steam and other media compatible with material of the valve inner parts. The valve max. differential pressure is 4,0 MPa with respect to the pressure nominal and concrete conditions of operation (ratio p_1/p_2 , creation of cavitation, above critical flow etc.).

Installation

The valve can be piped only in a horizontal pipeline with vertically positioned stem and the valve lever positioned above the valve body. The medium flow direction shall correspond to the arrows indicated on the valve body. The lever is mounted on the right side from the medium flow direction unless it is required otherwise. For control valves with an extended outlet, it is necessary to secure the outlet pipeline with a safety valve sized to the control valve full output.

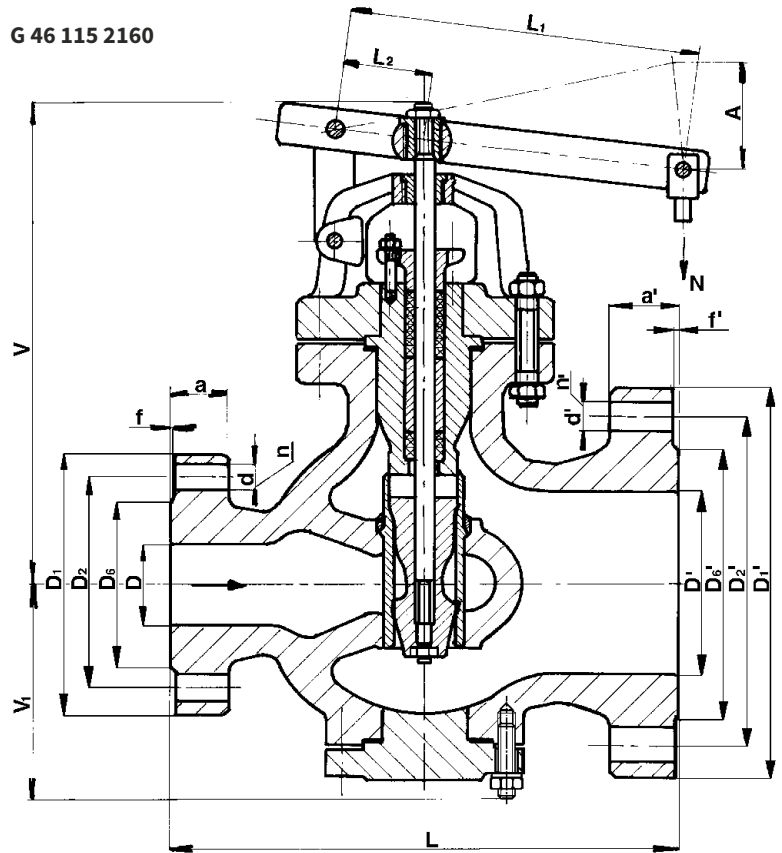
Technical data		
Series	G 46 115 2160	G 46 115 2250
Type of valve	Regulační ventily dvousedlové, přírubové přímé, s rozšířeným výstupem	
Nominal size	65/125, 100/200, 150/300	150/300
Nominal pressure	160/100	250/160
Body material	Alloy steel 1.7357	
Operating temperature range	-20 to 575 °C	
Connection *)	inlet acc. to ČSN 13 1216 outlet acc. to ČSN 13 1215	inlet acc. to ČSN 13 1217 outlet acc. to ČSN 13 1216
Type of trim	seat / seat cage - contoured plug	
Flow characteristic	Linear, equal-percentage acc. to ČSN EN 60 534-1 (4/1997)	
Flow characteristic range Fs [cm]	3 - 88	13 - 80
Kvs value range	13,5 - 396	58,5 - 360
Leakage rate	Class II acc. to ČSN EN 1349 (5/2001)	

*) mentioned ČSN standards from 1963. After the agreement with the producer, it is possible to make the connection acc. to the ČSN 13 1060 (7/1995) or ČSN EN 1092-1 (4/2002).

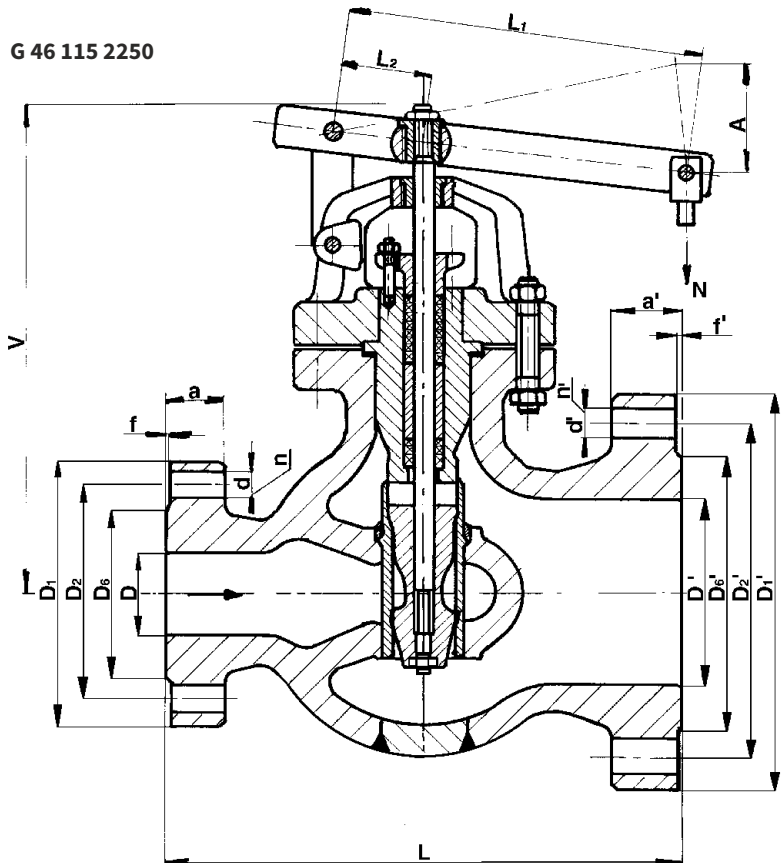
Dimensions and weights for G 46 115 PN 100 to 250

Type		G 46 115 2100	G 46 115 2100 G 46 115 5100
DN	[mm]	150/300	150/300
D	[mm]	131	115
L	[mm]	700	730
L ₁	[mm]	720	720
L ₂	[mm]	120	120
~V	[mm]	700	730
~V ₁	[mm]	310	---
D ₁	[mm]	350	390
D ₂	[mm]	290	320
D ₆	[mm]	220	240
D'	[mm]	284	268
D' ₁	[mm]	585	585
D' ₂	[mm]	500	500
D' ₆	[mm]	375	405
A	[mm]	240	240
f	[mm]	3	3
a	[mm]	62	70
d	[mm]	33	36
n	[mm]	12	12
f'	[mm]	4	4
a'	[mm]	68	100
d'	[mm]	42	42
n	[mm]	16	16
Fs	[cm ²]	16-88	13-80
Kvs	[m ³ /hod]	---	---
m	[kg]	560	630

G 46 115 2160

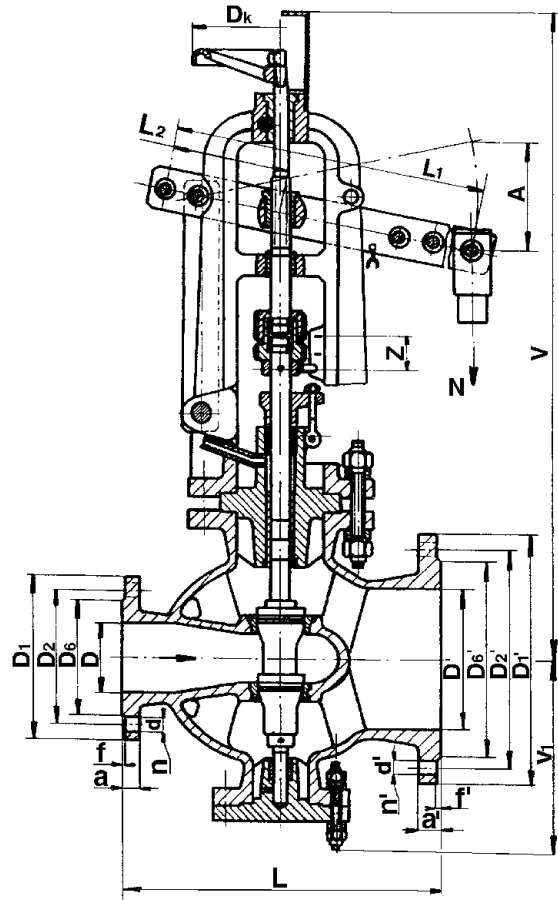


G 46 115 2250



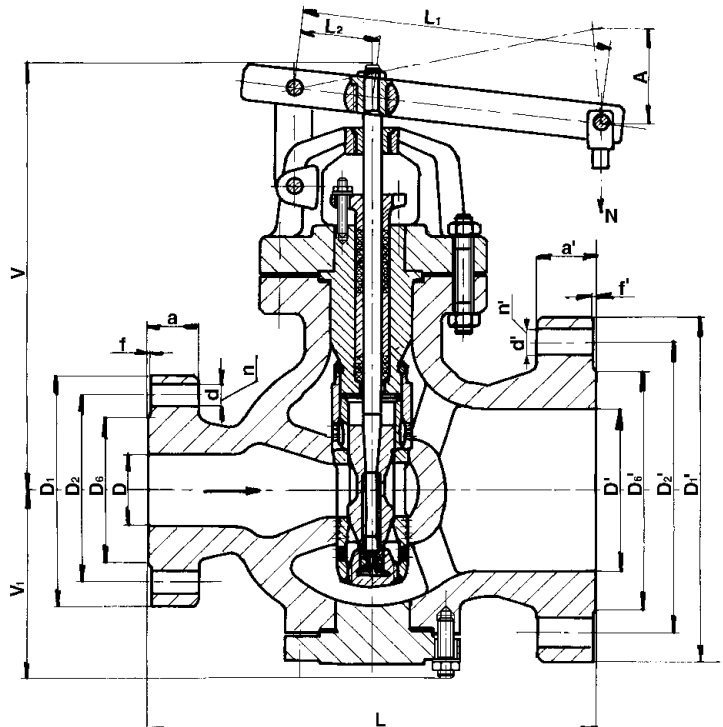
Dimensions and weights for G 46 115 PN 100 to 160 with lower guide

Type	G 46 115 2160		Type	G 46 115 2160	
DN [mm]	65/125		d' [mm]	33	
D [mm]	62		n' [mm]	8	
L [mm]	450		Zdvih [mm]	20	
L ₁ [mm]	855		Fs [cm ²]	3,0-14	
L ₂ [mm]	95		Kvs [m ³ /hod]	13,5-63	
~V [mm]	805		m [kg]	380	
~V ₁ [mm]	255		f [mm]	3	
D ₁ [mm]	220		a [mm]	42	
D ₂ [mm]	170		d [mm]	27	
D ₆ [mm]	120		n' [mm]	8	
D' [mm]	109		f' [mm]	3	
D' ₁ [mm]	310		a' [mm]	40	
D' ₂ [mm]	250				
D' ₆ [mm]	190				
D _k [mm]	250				
A [mm]	180				



Dimensions and weights for G 46 115 PN 100 to 250 with built-in orifice plate

Type	G 46 115 2160		G 46 115 2250
	100/200	150/300	150/300
DN [mm]	88	131	115
D [mm]	560	700	730
L [mm]	700	720	720
L ₁ [mm]	100	120	120
~V [mm]	600	700	730
~V ₁ [mm]	310	345	340
D ₁ [mm]	265	350	390
D ₂ [mm]	210	290	320
D ₆ [mm]	160	220	240
D' [mm]	191	284	268
D' ₁ [mm]	430	585	585
D' ₂ [mm]	360	500	500
D' ₆ [mm]	275	375	405
A [mm]	175	240	240
f [mm]	3	3	3
a [mm]	50	62	70
d [mm]	30	33	36
n [mm]	8	12	12
f' [mm]	3	4	4
a' [mm]	52	68	100
d' [mm]	36	42	42
n' [mm]	12	16	16
Fs [cm ²]	8,0-30	16-50	13-50
Kvs [m ³ /hod]	36-135	72-225	58,5-225
m [kg]	422	555	700





G 46 125 ...

Lever control valves

DN 65/150 to 300/400
PN 100/25 to 100/100

Description

The valve is double-seated, lever-actuated, designed to be actuated with an electric actuator, possibly with a hydraulic or pneumatic cylinder. For sizes above DN 150, it is possible to use linear or rotative actuator. Its control plug is always designed according to the parameters specified in the order and according to the requested type of flow characteristic.

The valves are delivered with the following actuators of the following producer: ZPA Pečky - Modact MPS, Modact Control MPS, Modact Variant MPR possibly with linear actuators ZPA Pečky, Regada Prešov and rotative actuators Auma or Schiebel. The connection stem between the valve lever and the actuator is not a subject of delivery unless it is ordered.

Application

The valve serves as a control, reduction or by-pass element with direct or indirect actuating. The max. operating permissible pressures correspond to ČSN 13 0010 see page No. 18 of this catalogue. The intention to use the valve for higher temperatures must be agreed upon with the producer. The control valve proper function depends on the sizing and execution of the control station, therefore the valve design and its specification is recommended to be carried out together with the producer.

Process media

The valves are designed to regulate the flow and pressure of liquids, possibly vapours and gases e.g. water, steam and other media compatible with material of the valve inner parts. The valve max. differential pressure is 4,0 MPa with respect to the pressure nominal and concrete conditions of operation (ratio p_1/p_2 , creation of cavitation, above critical flow etc.).

Installation

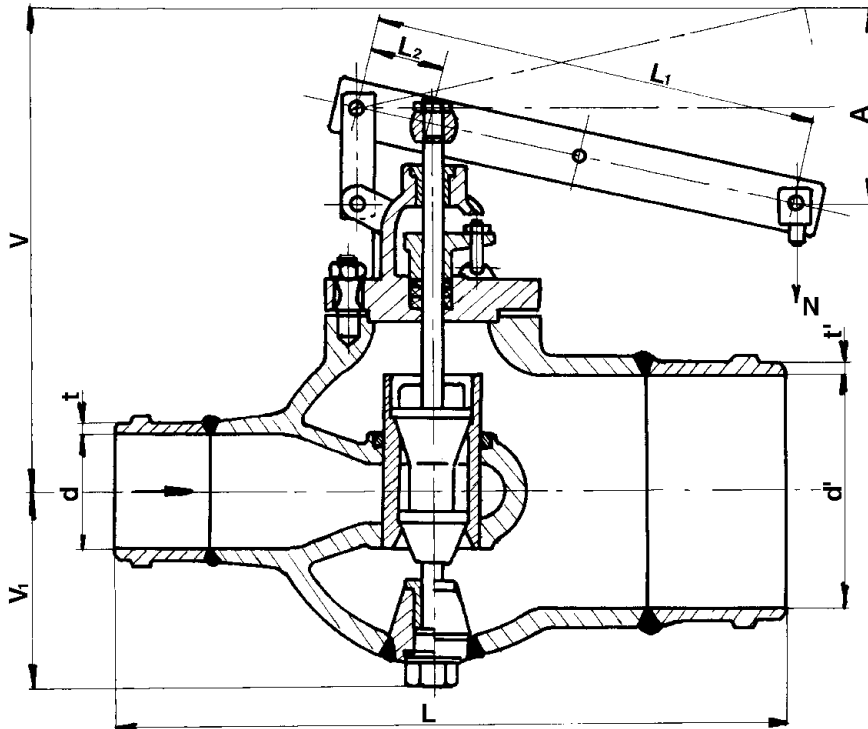
The valve can be piped only in a horizontal pipeline with vertically positioned stem and the valve lever positioned above the valve body. The medium flow direction shall correspond to the arrows indicated on the valve body. The lever is mounted on the right side from the medium flow direction unless it is required otherwise. For control valves with an extended outlet, it is necessary to secure the outlet pipeline with a safety valve sized to the control valve full output.

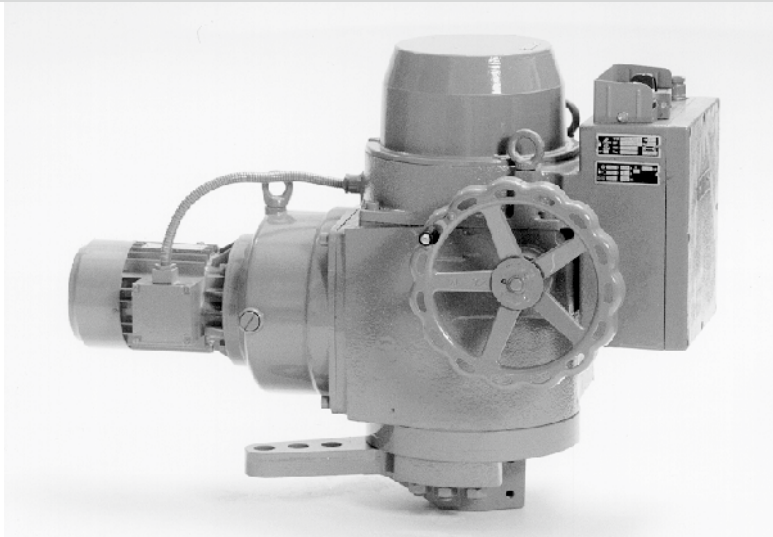
Technical data			
Series	G 46 125 264	G 46 125 2100	G 46 125 5100
Type of valve	Control valves, double-seated, weld-ends, straight-through, with extended outlet		
Nominal size	200/300	200/300, 300/400	200/300, 300/400
Nominal pressure	64/64	100/100, 100/64, 100/40, 100/25	100/100, 100/64, 100/40, 100/25
Body material	Alloy steel 1.7357		Cast steel 1.0619
Operating temp. range	-20 to 550 °C		-20 to 400 °C
Connection *)	acc. to ČSN 13 1070		
Type of trim	seat cage - contoured plug		
Flow characteristic	Linear, equal-percentage acc. to ČSN EN 60 534-1 (4/1997)		
Flow area range F_s [cm ²]	11 - 80	11 - 180	11 - 180
Kvs value range	49,5 - 360	49,5 - 810	49,5 - 810
Leakage rate	Class II acc. to ČSN EN 1349 (5/2001)		

*) mentioned ČSN standards from 1963. After the agreement with the producer, it is possible to make the connection acc. to the ČSN 13 1075 (3/1991) or ČSN EN 12627 (8/2000).

Dimensions and weights for G 46 125

Type		G 46 125 2100	G 46 125 2100	G 46 125 5100	G 46 125 2100	G 46 125 5100	G 46 125 2100	G 46 125 5100	G 46 125 2100	G 46 125 5100	G 46 125 264
PN		100/40	100/64	100/100	100/25	100/40	100/40	64/64			
DN	[mm]	200/300	200/300	200/300	300/400	300/400	200/300				
L	[mm]	800	800	800	1200	1200	800				
~V	[mm]	595	595	595	860	860	595				
~V₁	[mm]	250	204	204	334	334	204				
d	[mm]	194	194	194	288	288	201				
t	[mm]	12,5	12,5	12,5	18	18	9				
d'	[mm]	308	299	288	412	406	299				
t'	[mm]	8	12,5	18	7	10	12,5				
L₁	[mm]	540	540	540	480	480	540				
L₂	[mm]	90	90	90	120	120	90				
A	[mm]	240	240	240	280	280	240				
Fs	[cm ²]	11-180	11-80	11-80	30-180	30-180	11-80				
Kvs	[m ³ /hod]	49,5-360	49,5-360	49,5-360	135-810	135-810	49,5-360				
m	[kg]	442	442	442	676	676	442				





Electric actuator ZPA Pečky

Modact MPS
Modact MPS Control

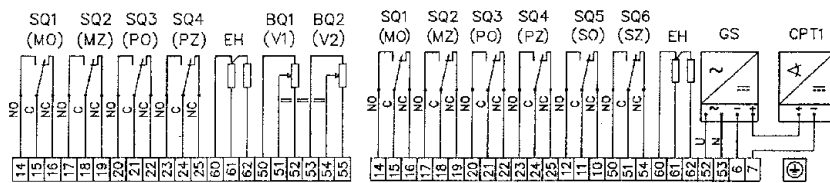
Technical data		
Type	Modact MPS	Modact MPS Control
Voltage	3 x 230 V / 400 V ± 6%	
Frequency	50 Hz	
Motor power	see specification table	
Control	2-position or 3-position	
Torgue range	160 to 1250 Nm	
Travel range	60° až 160°	
Enclosure	IP 55	
Process media max. temp.	acc. to used valve	
Ambient temp. range	-25 to 55 °C	
Ambient humidity range	10 - 100 % with condensation	
Weight	max. 120 kg	

Wiring diagram of actuator Modact MPS

Execution - terminal board

Position transmitter: resistance 2x100 Ohm

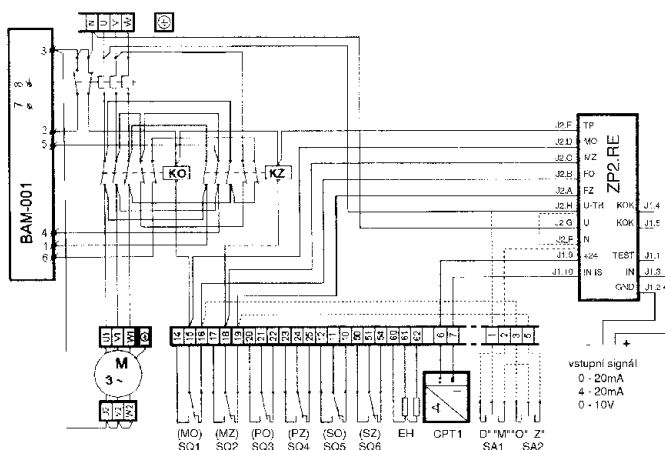
Position transmitter: capacity CPT 1 1/A 4 - 20 mA



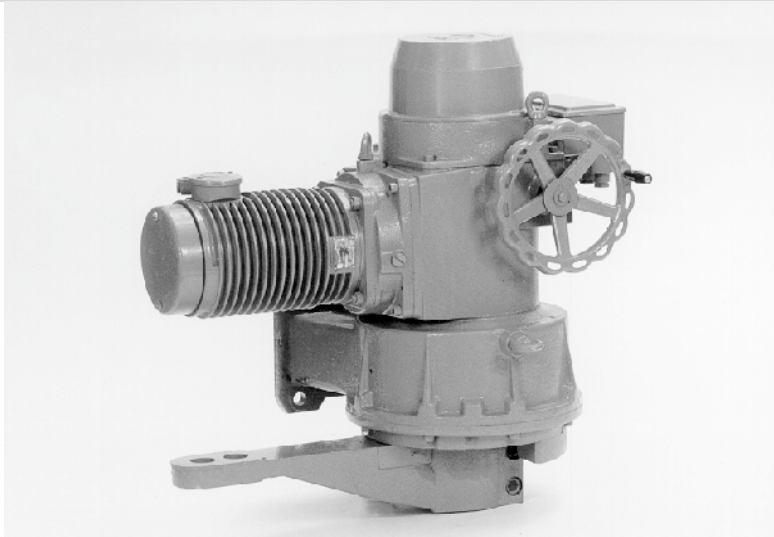
- SQ1 (MO) torque switch in "opening" direction
- SQ2 (MZ) torque switch in "closing" direction
- SQ3 (PO) limit switch in "opening" direction
- SQ5 (PZ) limit switch in "closing" direction
- SQ4 (SO) signalisation switch in "opening" direction
- SQ6 (SZ) signalisation switch in "closing" direction
- EH heaters 2x TR551 10k/A
- CPT1 capacity position transmitter CPT1/A4 - 20 mA

Wiring diagram of actuator Modact MPS Control

With current transmitter, built-in contactor combination, heat relay, positioner ZP2.RE and dynamic brake BAM-001.



- BAM-001 dynamic brake
- KO contactor in "opening" direction
- KZ contactor in "closing" direction
- F heat relay
- SA1 control switch "local-remote"
- SA2 switch "open - close"
- BQ1, BQ2 position transmitter 2x 100 W
- ZP2.RE micro-computer positioner
- GS power supply source for current transmitter 230V/24V
- M1- one-phase motor
- M3- inductive, three-phase motor
- C motor capacitor
- T mains transformer
- S terminal board
- Z plug "KBNS"



Electric actuator ZPA Pečky

Modact Variant MPR

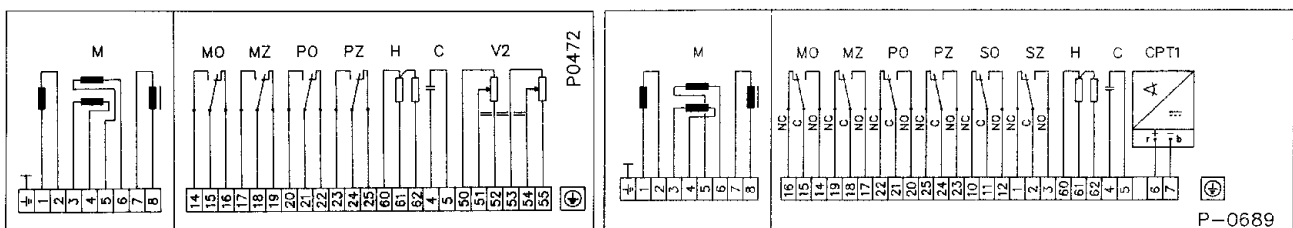
Technické parametry

Typ	Modact Variant MPR
Napájecí napětí	230 V ± 6%
Frekvence	50 Hz
Výkon	50 W
Řízení	continuous
Kroutící moment	250 to 4000 Nm
Pracovní zdvih	60° to 160°
Krytí	IP 55
Maximální teplota média	acc. to used valve
Přípustná teplota okolí	-25 to 55 °C
Přípustná vlhkost okolí	10 - 100 % with condensation
Hmotnost	max. 282 kg

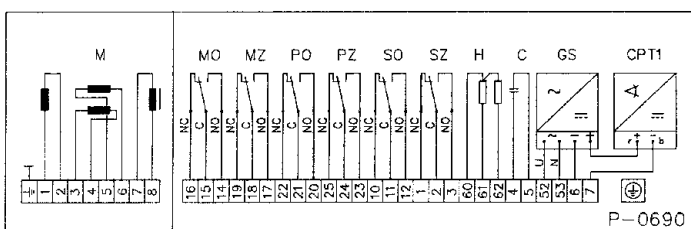
Wiring diagram of actuator

Position transmitter: resistance2x100 Ohm

With current transmitter CPT1/A, without built-in power supply source



With current transmitter CPT1/A with built-in power supply source



- MO torque switch in "opening" direction
- MZ torque switch for "closing" direction
- PO limit switch in "opening" direction
- PZ limit switch in "closing" direction
- SO signalisation switch in "opening" direction
- SZ signalisation switch in "closing" direction
- H heaters
- CPT1 capacity position transmitter CPT1/A4 - 20 mA
- V2 resistance position transmitter 2x100 W
- GS power supply source for current transmitter 230V/24V
- M induction, two-phase motor
- C capacitor
- S terminal board

Specification of actuator Modact Variant MPR

Typ	Nominal torque [Nm]	Max. torque [N/m]	Running time range [s/90°]	Electromotor			Oil filling [kg]	Weight [kg]	Specification No.	
				[W]	[mF]	BF/ŘF [A]			basic	additional
MPR 25-40	250-400	1400	10-19	50	8	0,6/0,6	4,4	104	52 222	XX0X
MPR 40-63	400-630	1750	14-30							XX1X
MPR 63-100	630-1000	2650	30-55							XX2X
MPR 100-200	1000-2000	4550	50-80	50	8	0,6/0,6	4,4	282	52 223	XX0X
MPR 160-300	1600-3000	5950	73-138							XX1X
MPR 250-400	2500-4000	8940	130-195							XX2X

Execution, electrical connection

Via terminal board	6XXX
With conector KBSN	7XXX

Operating level

60° for 52 222	67,5° for 52 223	X1XX
90° for 52 222	90° for 52 223	X2XX
120° for 52 222	112,5° for 52 223	X3XX
160° for 52 222	157° for 52 223	X4XX
90° for 52 222; direct connect.		X5XX

Additional electric equipment

V2	Execution without position transmitter	XXX1
	Position resistance transmitter 2 x 100 Ohm	XXX0
CPT1+GS	Position current transmitter CPT 1/A 4-20 mA with built-in power supply source	XXX7
CPT1	Position current transmitter CPT 1/A 4-20 mA wo. built-in power supply source	XXX9

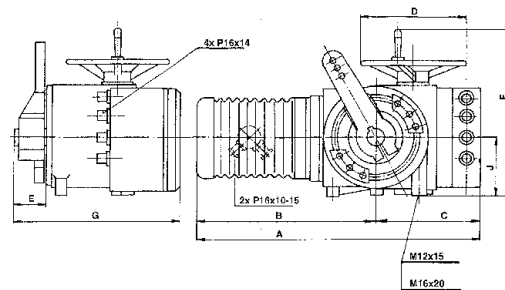
Stem

with single stem	For export only	XXXX/3
with double stem	For export only	XXXX/4

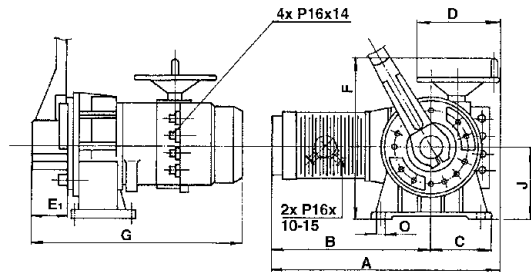
Dimensions of Modact MPS, Modact MPS Control

	52 222	52 223
A	782	793
B	517	548
C	265	220
D	250	300
E	85	123
E ₁	80	120
F	420	560
G	555	750
J	145	260
K	100	185
L	110	-
M	200	200
N	57	33
O	18	22
P	40	55
R	170	400
S	70	180
T	7	11
U	30	36
X	80	130
Y	55	80
Z	278	490
d	50 h 8	90 h 8
d ₁	40 h 7	90 h 7
d ₂	3x 25H8	3x 40h8
b	16 P9	25 P9
h	10	14
e	43,8	81,3

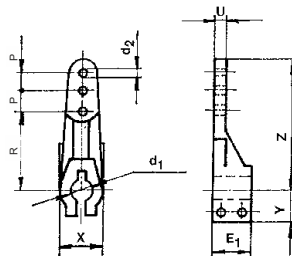
Modact Variant MPR 52 222



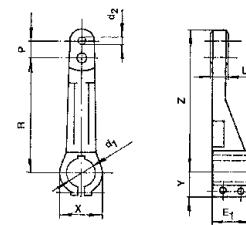
Modact Variant MPR 52 223



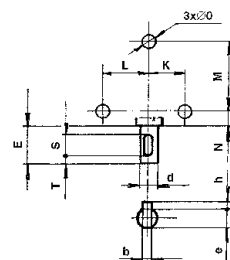
Lever



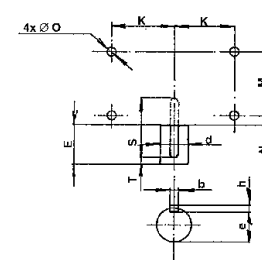
Lever



Base board - holes



Base board - holes



Maximal permissible pressures acc. to EN 12 516-1 [MPa]

Material	PN	Temperature [°C]							
		200	250	300	350	400	450	500	550
Cast steel 1.0619	10	0.71	0.65	0.59	0.55	0.53	---	---	---
	16	1.14	1.04	0.94	0.88	0.84	---	---	---
	25	1.78	1.62	1.47	1.37	1.32	---	---	---
	40	2.84	2.60	2.35	2.19	2.11	---	---	---
	63	4.48	4.09	3.71	3.45	3.33	---	---	---
	100	7.11	6.50	5.89	5.48	5.28	---	---	---
	160	11.4	10.4	9.4	8.8	8.4	---	---	---
	250	17.8	16.2	14.7	13,7	13,2	---	---	---
Alloy steel 1.7357	10	0.93	0.89	0.83	0.77	0.72	0.67	0.56	0.22
	16	1.49	1.43	1.33	1.23	1.15	1.07	0.89	0.35
	25	2.33	2.23	2.08	1.93	1.80	1.67	1.39	0.55
	40	3.47	3.57	3.33	3.09	2.89	2.67	2.23	0.88
	64	5.88	5.63	5.24	4.86	4.55	4.20	3.51	1.39
	100	9.34	8.93	8.32	7.71	7.22	6.67	5.57	2.21
	160	14.9	14.3	13.3	12.3	11.5	10.7	8.69	3.50
	250	23.3	22.3	20.8	19.3	18	16.7	13.9	5.50



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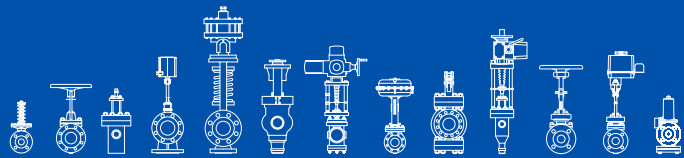
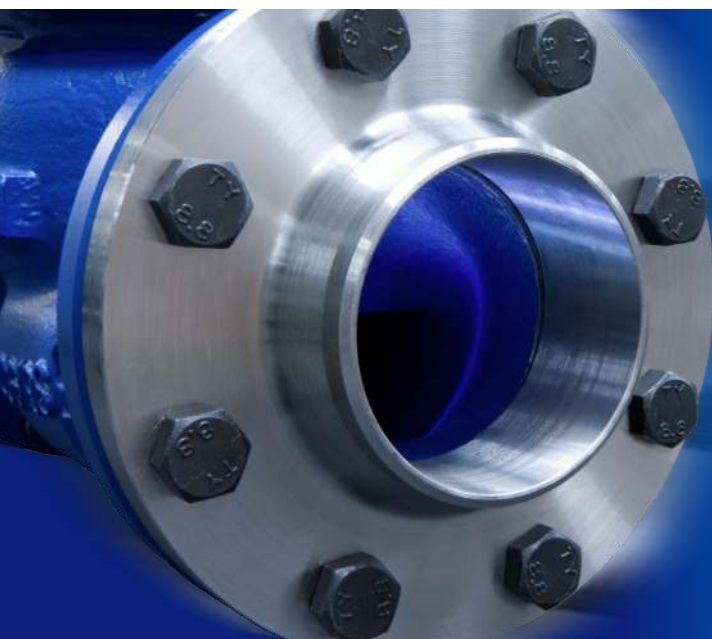
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