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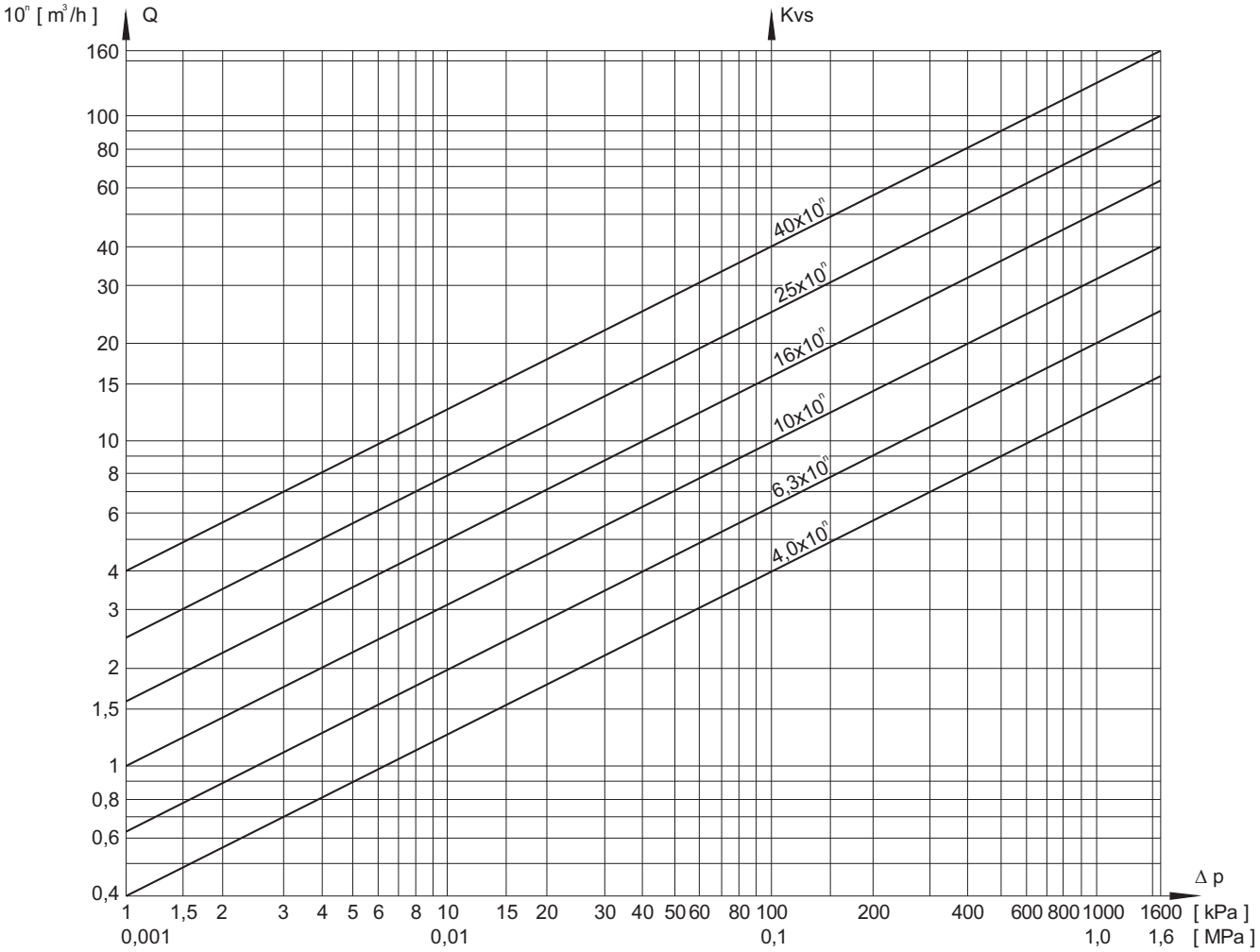
CONTROL VALVES

G 41 and G 46



POWER THROUGH IDEAS
www.ldmvalves.com

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 apllies to water with the density of 1000 kg/m³.

For the value Q = q .10^n, it is necessary to calculate with Kvs = k .10^n. Example: water flow rate of 16 .10^-1 = 1,6 m³ /hour corresponds to Kv = 2,5 = 25. 10 when differential pressure 40kPa.

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

		X XX	X X X	-	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 parametres 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.

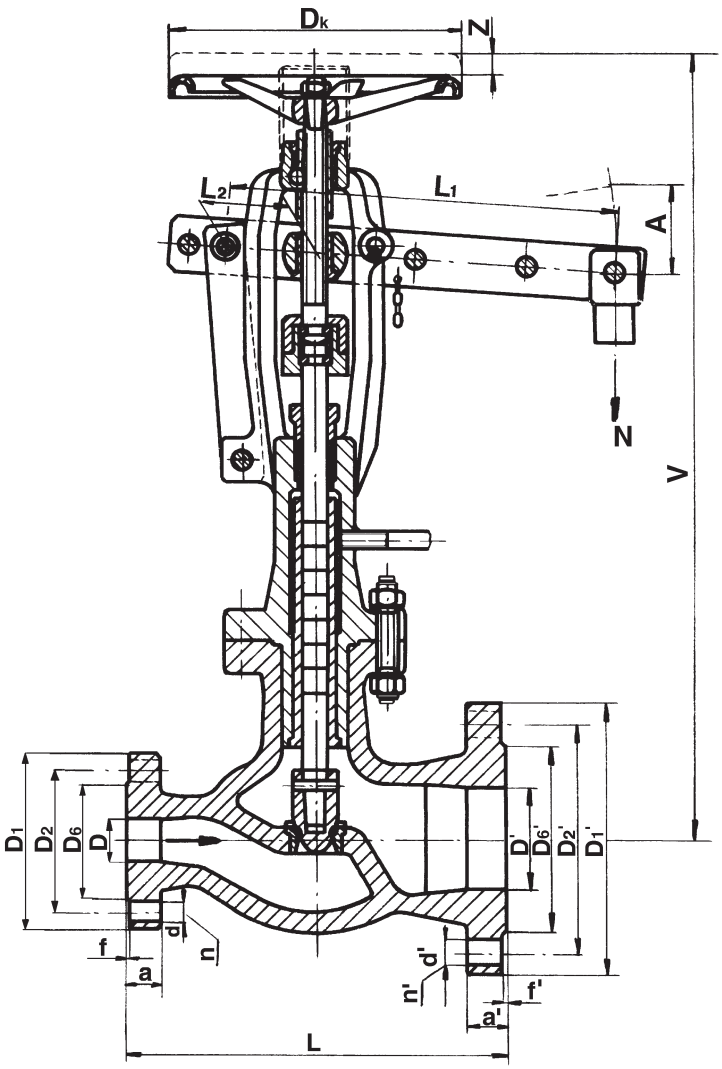
Technical data

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. toČSN EN 60 534-1 (4/1997)
Flow area range Fs [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‘	[mm]	88	131
D_1'	[mm]	265	350
D_2'	[mm]	210	290
D_6'	[mm]	160	220
D_k'	[mm]	250	360
A	[mm]	160	175
f	[mm]	3	3
a	[mm]	40	48
d	[mm]	27	27
n	[mm]	4	8
f‘	[mm]	3	3
a‘	[mm]	50	62
d‘	[mm]	30	33
n‘	[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.

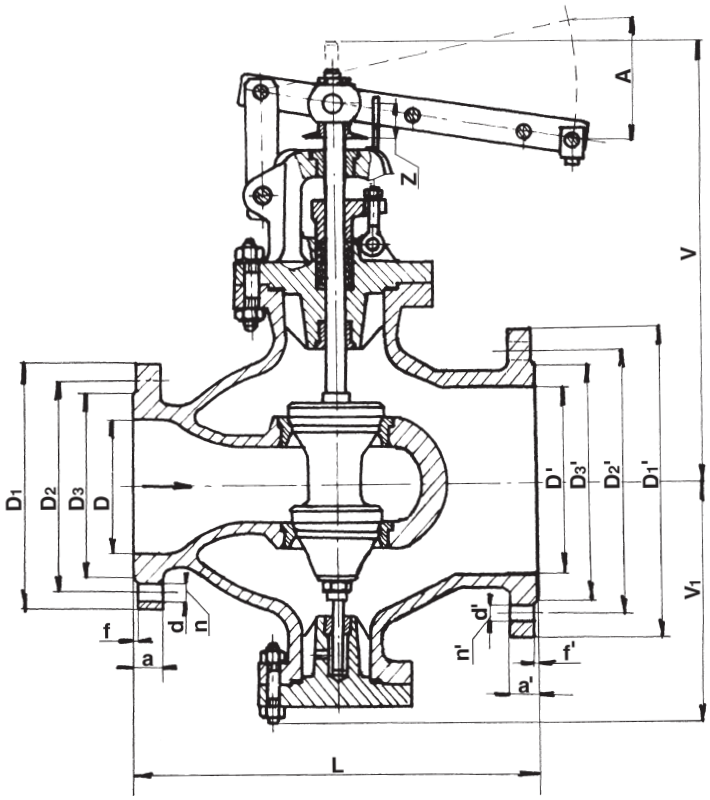
Technical data

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 [cm²]	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‘	[mm]	600	500
D_1‘	[mm]	780	730
D_2‘	[mm]	725	660
D_3‘	[mm]	685	615
A	[mm]	270	300
f	[mm]	4	3
a	[mm]	28	38
d	[mm]	27	33
n	[mm]	12	12
f‘	[mm]	5	4
a‘	[mm]	34	44
d‘	[mm]	30	36
n‘	[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

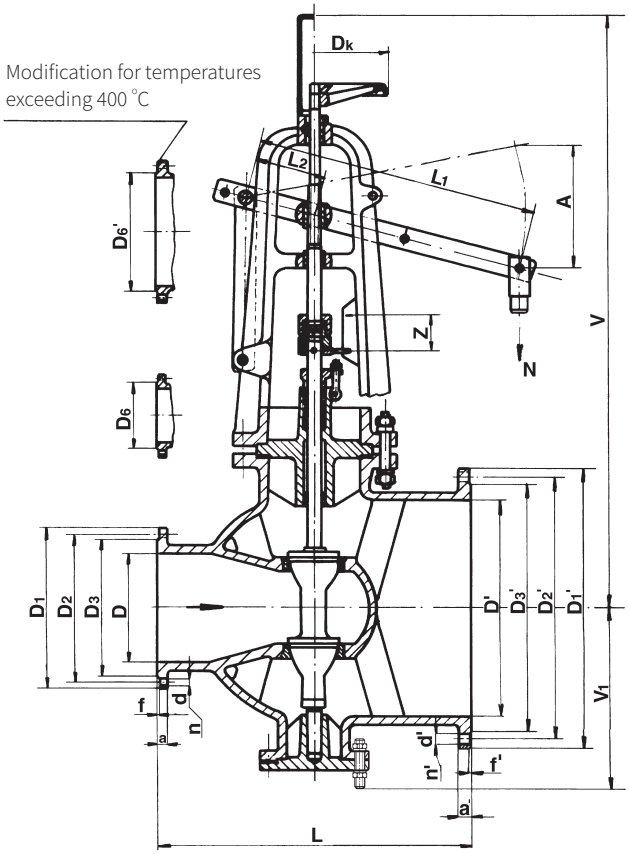


Dimensions and weights G 46 115, PN 25 to 40

Type		G 46 115 240 G 46 115 540
DN	[mm]	200/400
D	[mm]	200
L	[mm]	600
L_1	[mm]	600
L_2	[mm]	120
~V	[mm]	1155
~V_1	[mm]	355
D_1	[mm]	375
D_2	[mm]	320
D_3	[mm]	280
D_6	[mm]	260
D‘	[mm]	400
D_1‘	[mm]	610
D_2‘	[mm]	550
D_3‘	[mm]	505
D_6‘	[mm]	475
D_k	[mm]	250
A	[mm]	250
f	[mm]	3
a	[mm]	34

Type		G 46 115 240 G 46 115 540
d	[mm]	30
n	[mm]	12
f‘	[mm]	4
a‘	[mm]	40
d‘	[mm]	33
n‘	[mm]	16
Zdvih	[mm]	50
Fs (540)	[cm^2]	22 - 135
Fs (240)	[cm^2]	35 - 90
Kvs	[m^3/hod]	157,5 - 405
m	[kg]	520

Modification for temperatures exceeding 400 °C





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 parametres specified in the order and according to the requested type of flow characteristic.
The valves are delivered with the folowing actuators of the followig 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

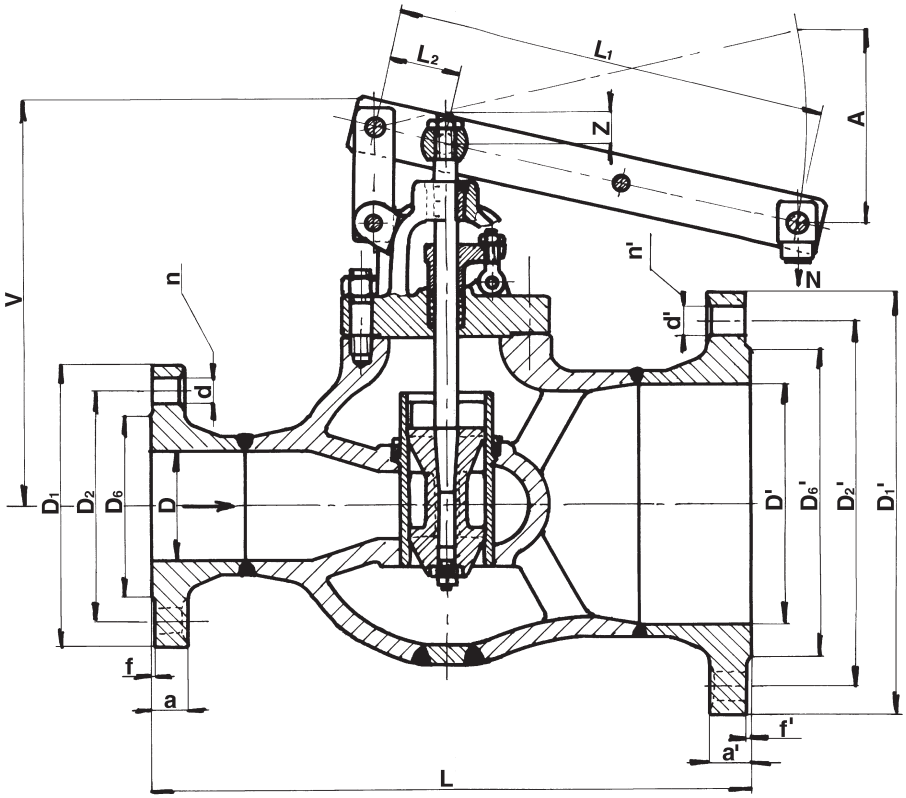
Technical data

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 Fs [cm²]	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
L_1	[mm]	600	540
L_2	[mm]	75	90
~V	[mm]	475	595
D_1	[mm]	265	430
D_2	[mm]	210	360
D_6	[mm]	160	275
D‘	[mm]	201	300
D_1‘	[mm]	405	530
D_2‘	[mm]	345	460
D_6‘	[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 paramteres 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

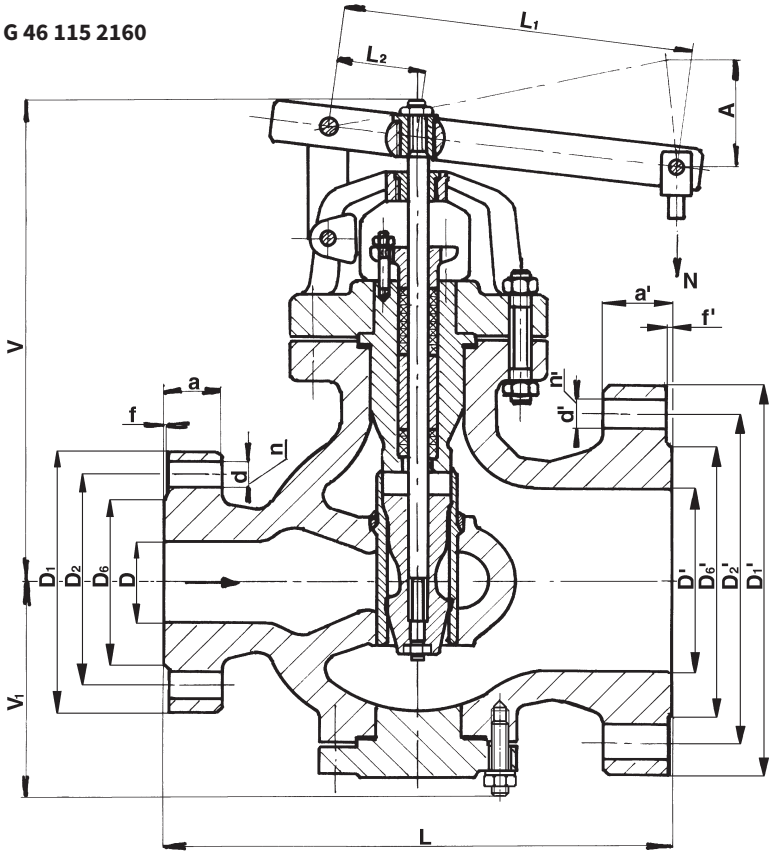
Series	**G 46 115 2160**	**G 46 115 2250**
Type of valve	**Regulační ventily dvousedlové, přírubové přímé, s rozšířeným výstupem**	
Nominal size	65/125, 100/200, 150/300	150/300
Nominal pressure	160/100	250/160
Body material	Alloy steel 1.7357	
Operating temperature range	-20 to 575 °C	
Connection *)	inlet acc. to ČSN 13 1216	inlet acc. to ČSN 13 1217
	outlet acc. to ČSN 13 1215	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 [cm²]	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).

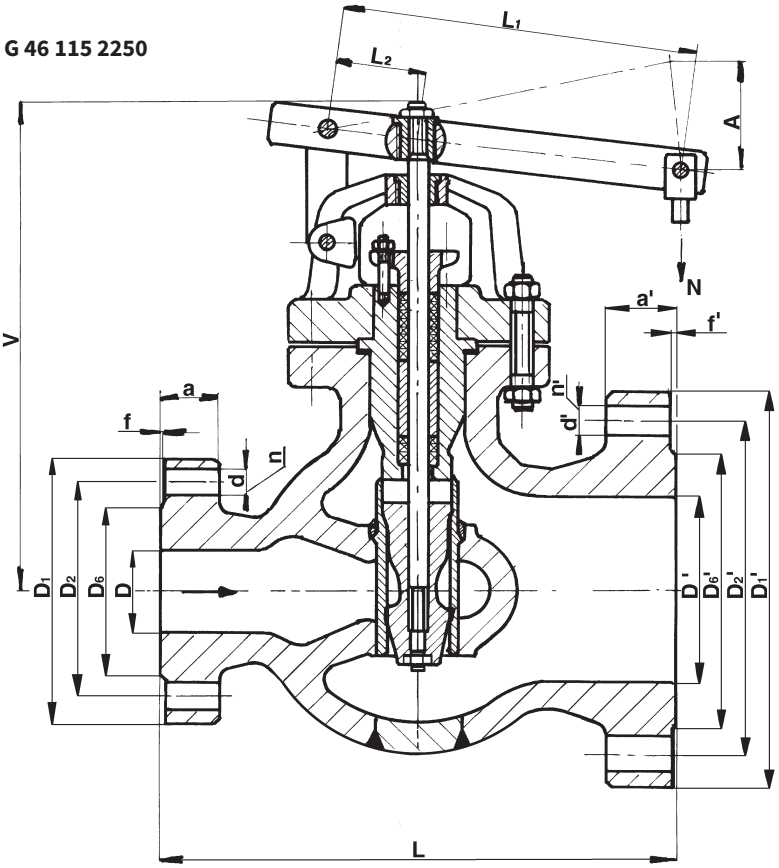
Dimensions and weights for G 46 115 PN 100 to 250

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

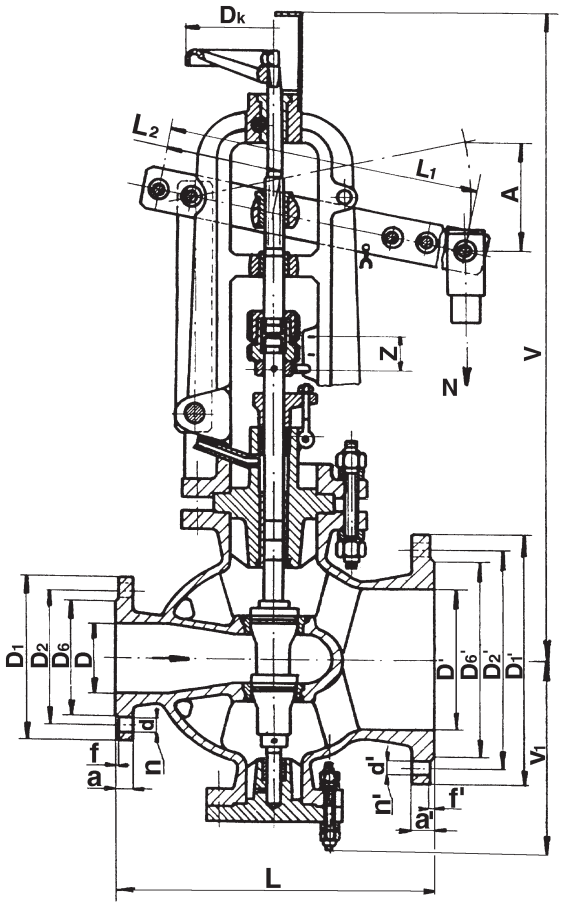


G 46 115 2250



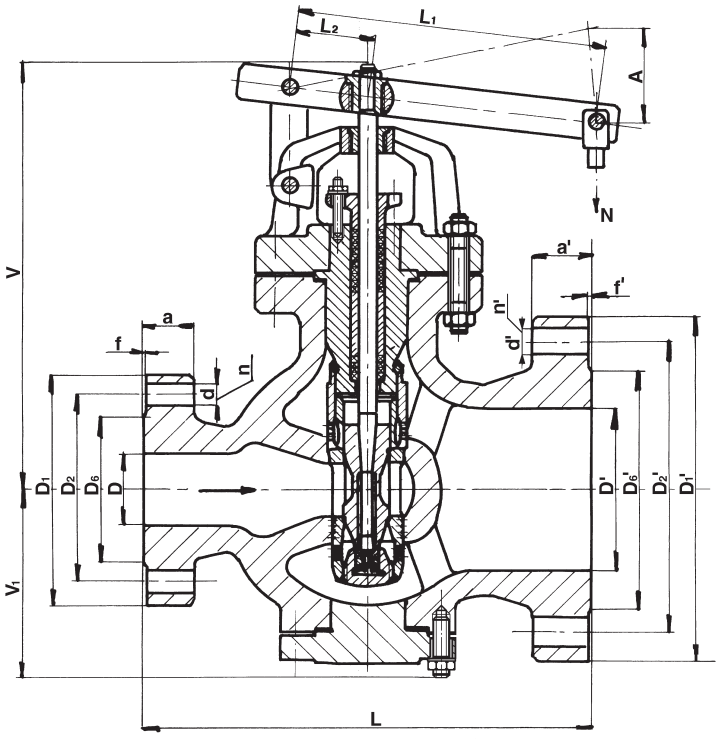
Dimensions and weights for G 46 115 PN 100 to 160 with lower guide

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 buildt-in orifice plate

Type		G 46 115 2160		G 46 115 2250
DN	[mm]	100/200	150/300	150/300
D	[mm]	88	131	115
L	[mm]	560	700	730
L_1	[mm]	700	720	720
L_2	[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 parametres specified in the order and according to the requested type of flow characteristic.
The valves are delivered with the folowing actuators of the followig 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.

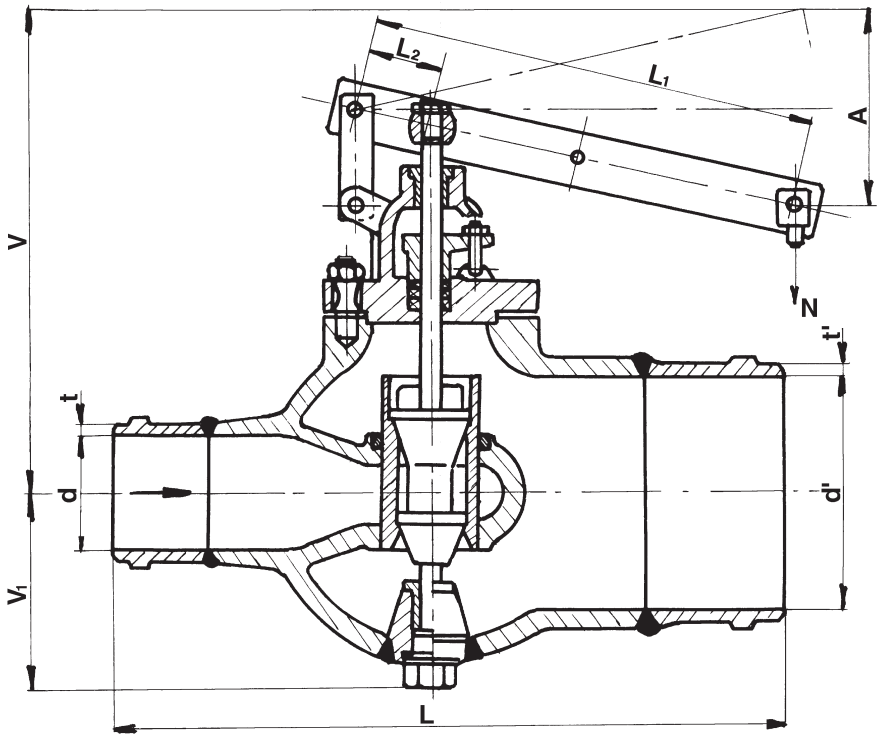
Technical data

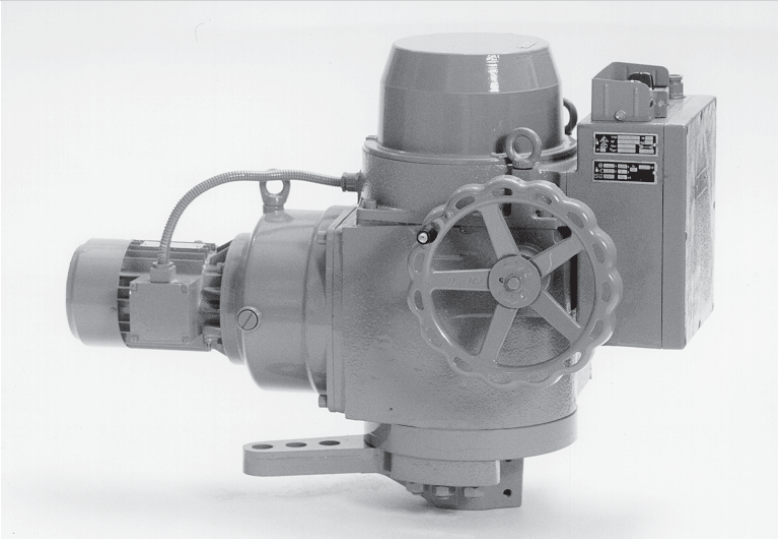
Series	G 46 125 264	G 46 125 2100	G 46 125 5100
Type of valve	**Control valves, double-seated, weld-ends, straight-through, with extended outlet**		
Nominal size	200/300	200/300, 300/400	200/300, 300/400
Nominal pressure	64/64	100/100, 100/64, 100/40, 100/25	100/100, 100/64, 100/40, 100/25
Body material	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 Fs [cm²]	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	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
~V_1	[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
L_1	[mm]	540	540	540	480	480	540
L_2	[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

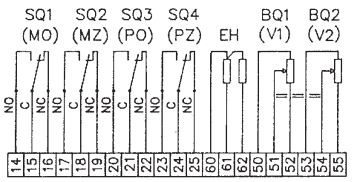
Technical data

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	

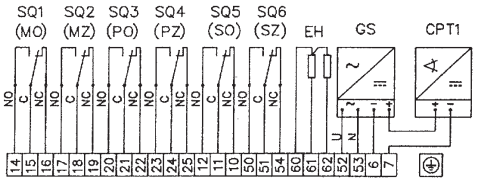
Wiring diagram of actuator Modact MPS

Execution - terminal board

Position transmitter: resistance2x100 Ohm

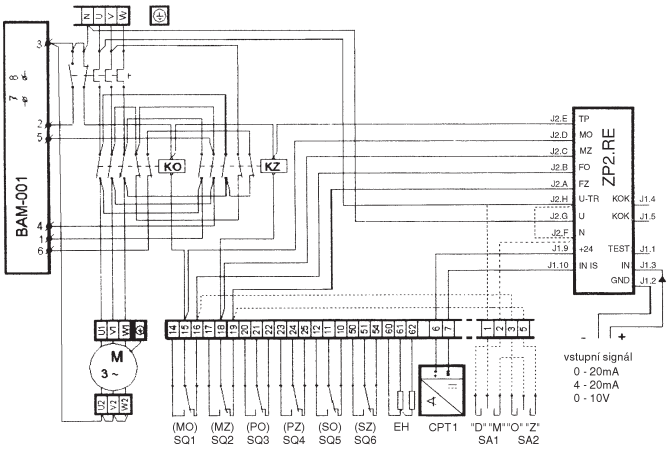


Position transmitter: capacity CPT 1 1/A 4 - 20 mA



Wiring diagram of actuator Modact MPS Control

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



SQ1 (MO)	torgue switch in "opening" direction
SQ2 (MZ)	torgue 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 2 x TR 551 10k/A
CPT1	capacity position transmitter CPT1/A 4 - 20 mA
BAM-001	dynamic brake
KO	contactor in "opening" direction
KZ	contactor in "closing" direction
F	heat reley
SA1	control switch "local -remote"
SA2	switch "open - close"
BQ1, BQ2	position transmitter 2 x 100 W
ZP2.RE	micro-computer positioner
GS	power supply source for current ransmitter 230V/24V
M1~	one-phase motor
M3~	inductive, three-phase motor
C	motor capacitor
T	mains transformer
S	terminal board
Z	plug "KBNS"

Specification for actuators Modact MPS and Modact MPS Control

Basic equipment:
1 electromotor
2 torgue switches MO, MZ
2 limit switches PO, PZ
2 heaters
2 signalisation switches SO, SZ - for actuators with CPT 1/A and actuators without any transmitter

Basic technical data:

Type	Tripping torgue setting range [Nm]	Running time [s/90°]	Elektromotor: Motor power [W]	Elektromotor: Current to motor In [A]	Elektromotor: Current to motor Iz [A]	Oil filling [l]	Weight [kg]	Specification No. basic	Specification No. additional
MPS 32/16	160 - 320	16	180	0,57	1,82	3,4	70	52 262	XX1X
MPS 32/32		32							XX2X
MPS 32/63		63							XX3X
MPS 32/120		120							XX4X
MPS 63/16	320 - 630	16	370	1,05	3,25	10	120	52 263	XX1X
MPS 63/32		32	180	0,57	1,82				XX2X
MPS 63/63		63							XX3X
MPS 63/120		120							XX4X
MPS 125/16	630 - 1250	16	370	1,05	3,25	10	120	52 264	XX1X
MPS 125/32		32							XX2X
MPS 125/63		63							XX3X
MPS 125/120		120	180	0,57	1,82				XX4X

Execution, electric connection			
via terminal board			6XXX
With conector KBSN (for Modact MPS only)			7XXX
Operating travel - mechanically connected with controlled element	with lever and flange with stops	60°	X1XX
		90°	X2XX
		120°	X3XX
		160°	X4XX

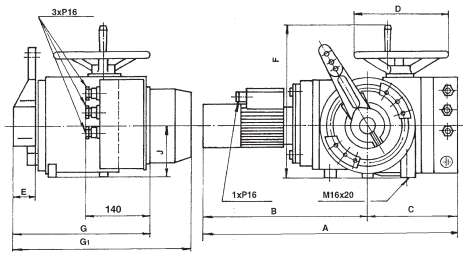
Additional equipment for actuators Modact MPS		
	Resistance position transmitter 2 x 100 Ohm	XXX1
	Execution without any position transmitter	XXX0
	Current pos. transmitter CPT 1/A 4-20 mA with built-in power supply generator	XXX7
	Current pos. transmitter CPT 1/A 4-20 mA wo. built-in power supply generator	XXX9

Additional equipment for actuators Modact MPS Control	Completely equipped with positioner and brake BAM: with BMO	Completely equipped with positioner and brake BAM: without BMO	Without positioner, with brake BAM and reversible contactors	Without positioner, with brake BAM and reversible contactors: without BMO	Without positioner and brake BAM, with reversible contactors	Without positioner and brake BAM, with reversible contactors: without BMO
Without position trasnmitter	---	---	XXXC	XXXL	XXXG	XXXR
Resistance position transmitter 2 x 100 Ohm	---	---	XXXD	XXXM	XXXH	XXXS
CPT 1/A 4-20 mA with built-in power supply generator	---	---	XXXE	XXXN	XXXJ	XXXT
CPT 1/A 4-20 mA without built-in power supply generator	XXXA	XXXB	XXXF	XXXP	XXXK	XXXU

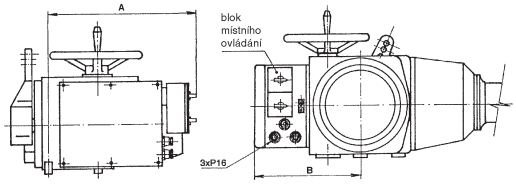
Dimensions of actuator Modact MPS and Modact MPS Control

	52 262	52 263	52 264
A	620	712	731
B	386	460	479
C	234	252	
D	ø200	ø250	
E	62	82	
E_1	60	80	
F	346	420	
G	340	445	
G_1	456	562	
J	120	145	
K	70	100	
L	90	110	
M	140	200	
N	41	60	
O	ø14	ø18	
S	56	70	
T	4	7	
U	25	30	
X	65	80	
Y	41	55	
Z	273	278	
d	ø40 h 8	ø50 h 8	
d_1	ø40 H 7	ø50 H 7	
d_2	3xø20H8	3xø25H8	
b	12 P9	16 P9	
h	8	10	
e	35	43,8	

Modact MPS

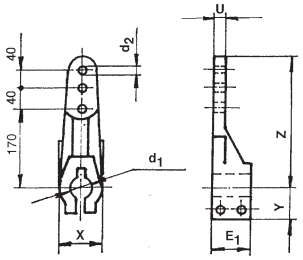


Modact MPS Control

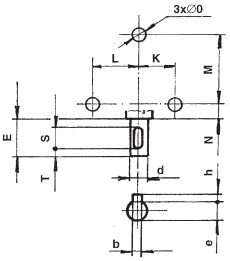


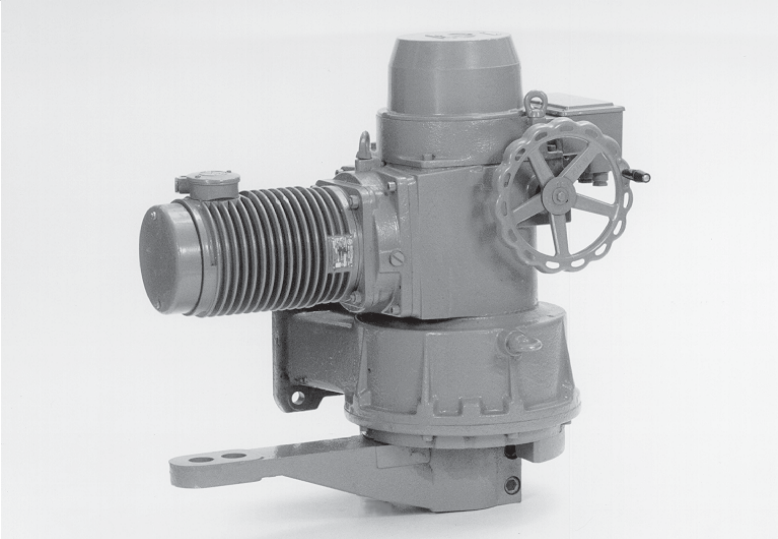
	52 262	52 263	52 264
A	370	440	
B	250	275	

Lever



Base board - holes





Electric actuator

ZPA Pečky

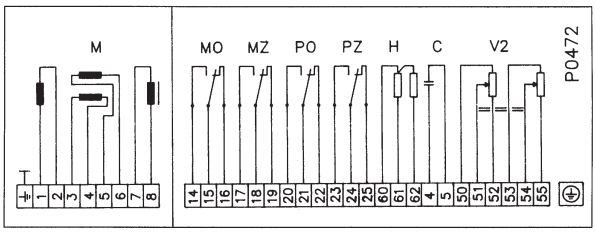
Modact Variant MPR

Technické parametry

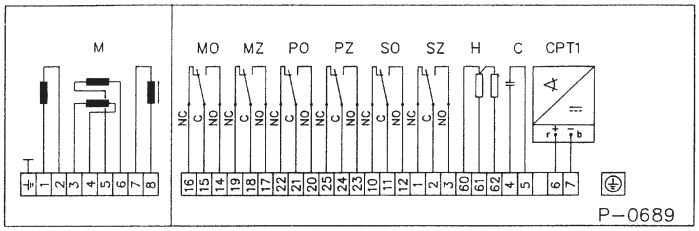
Typ	Modact Variant MPR
Napájecí napětí	230 V ± 6%
Frekvence	50 Hz
Výkon	50 W
Řízení	continuous
Kroutící moment	250 to 4000 Nm
Pracovní zdvih	60 ° to 160 °
Krytí	IP 55
Maximální teplota média	acc. to used valve
Přípustná teplota okolí	-25 to 55 °C
Přípustná vlhkost okolí	10 - 100 % with condensation
Hmotnost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

Wiring diagram of actuator

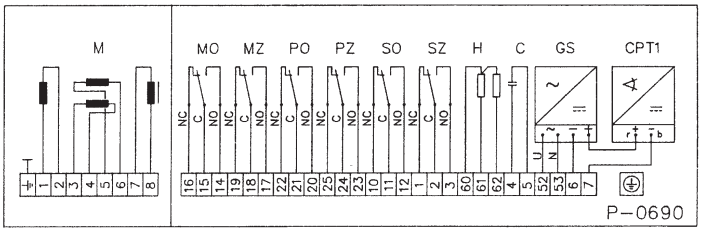
Position transmitter: resistance2x100 Ohm



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



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



MO	torgue switch in "opening" direction
MZ	torgue 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/A 4 - 20 mA
V2	resistance position transmitter 2 x 100 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

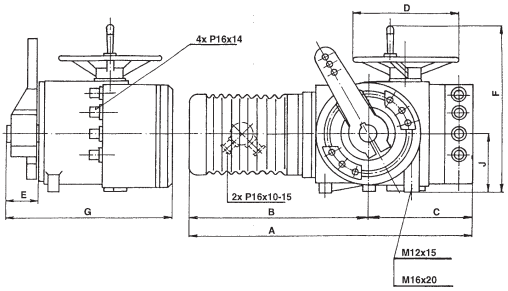
Typ	Nominal torgue [Nm]	Max. torgue [N/m]	Running time range [s/90°]	Electromotor [W]	[µF]	BF/ŘF [A]	Oil filling [kg]	Weight [kg]	Specificition No. basic	additional
MPR 25-40	250-400	1400	10-19	50	8	0,6/0,6	4,4	104	52 222	**XX0X**
MPR 40-63	400-630	1750	14-30							**XX1X**
MPR 63-100	630-1000	2650	30-55							**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		Execution without position transmitter	**XXX1**
	V2	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**

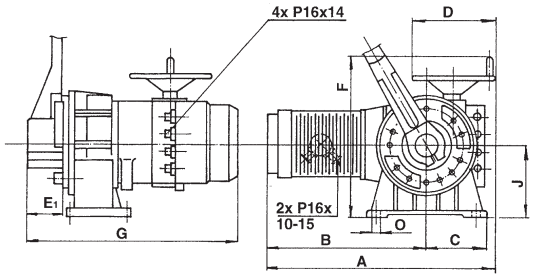
Dimensions of Modact MPS, Modact MPS Control

	52 222	52 223
A	782	793
B	517	548
C	265	220
D	ø250	ø300
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	ø18	ø22
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	ø50 h 8	ø90 h 8
d_1	ø40 h 7	ø90 h 7
d_2	3xø25H8	3xø40h8
b	16 P9	25 P9
h	10	14
e	43,8	81,3

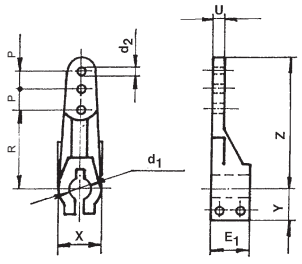
Modact Variant MPR 52 222



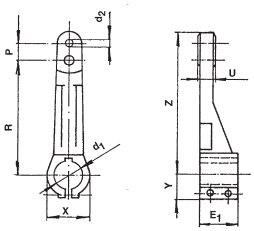
Modact Variant MPR 52 223



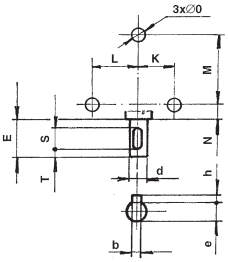
Lever



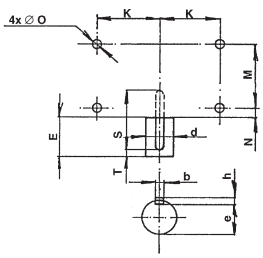
Lever



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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