

GEAR PUMPS

Standard and custom-made products



PUTZIN
Maschinenbau GmbH



RANGE OF APPLICATIONS



Escalators



Printing machines



Forming presses



Machine tools

PRODUCT OVERVIEW

Gear pump type PR 1

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Gear pump type PR 2

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Gear pump unit PRMH

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Gear pump unit BMH

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Impulse flow controls

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Pressure relief valves

Page 13



GEAR PUMP TYPE PR 1

Technical Data:

Housing and cover made from EN-GJL-250

Gears hardened and ground

Pressure class I up to 35 bar

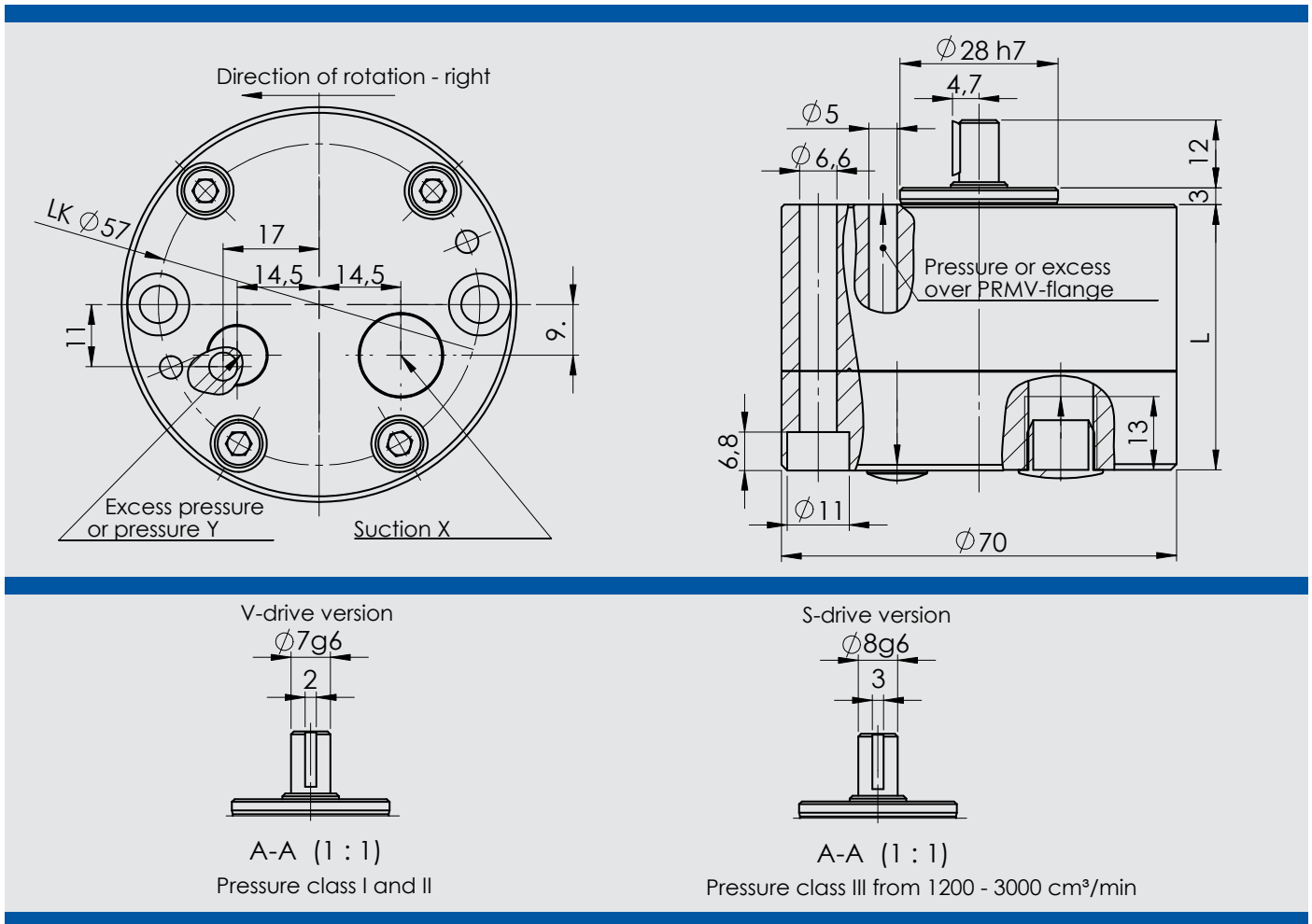
Pressure class II up to 60 bar

Pressure class III up to 100 bar



Order example - gear pump

PR1 - 500 / Pressure class I



Dimensions

Type PR 1 -	-60	-120	-180	-250	-375	-500	-750	-1000	-1200	-1500	-2000	-2500	-3000
Flow rate at 1400 rpm in l/min	0,060	0,120	0,180	0,250	0,375	0,500	0,750	1,000	1,200	1,500	2,000	2,500	3,000
Dimension L	37	37	37	37	38,5	40	45	45	47	47	47	47	50,5
Suction connection X	G ¼	G ¼	G ¼	G ¼	G ¼	G ¼	G ¼	G ¼	G ¾	G ¾	G ¾	G ¾	G ¾
Pressure connection Y	M10 x 1	M10 x 1	M10 x 1	M10 x 1	M10 x 1	M10 x 1	M10 x 1	M10 x 1	M10 x 1	M10 x 1	M10 x 1	M10 x 1	M10 x 1

GEAR PUMP TYPE PR 2

Technical Data:

Housing and cover made from EN-GJL-250

Gears hardened and ground

Pressure class I up to 35 bar

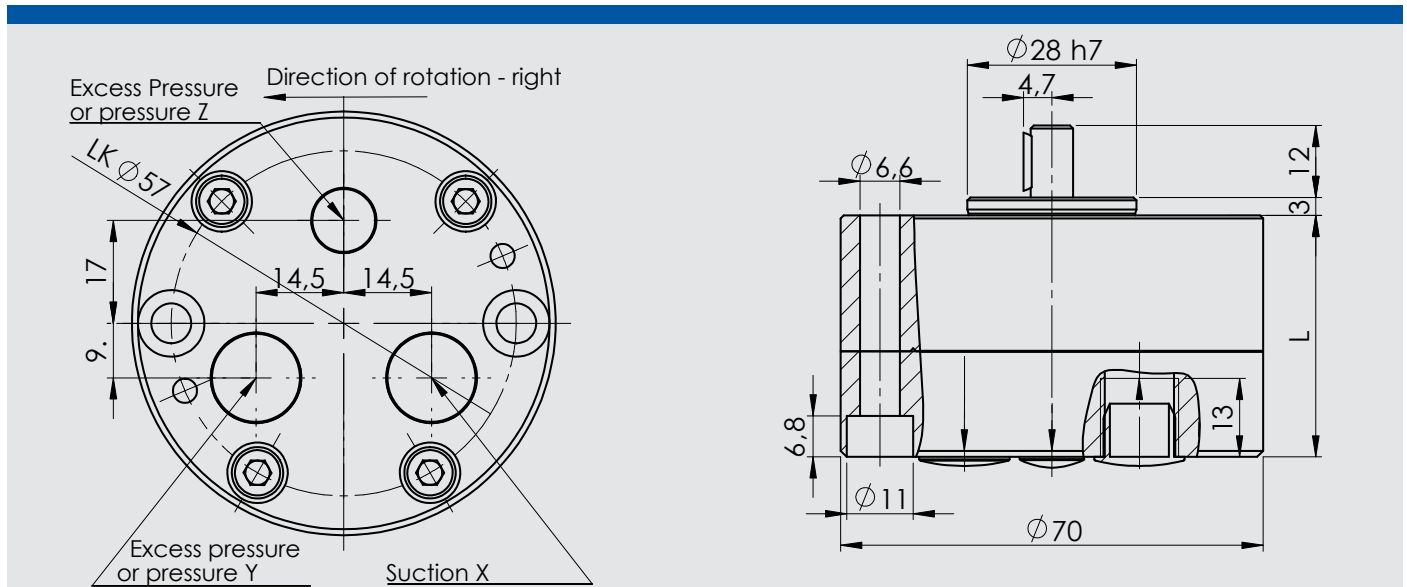
Pressure class II up to 60 bar

Pressure class III up to 100 bar

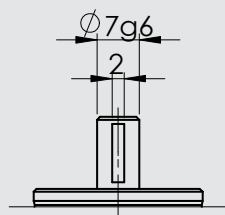


Order example - gear pump

PR2 - 1000 / Pressure class II



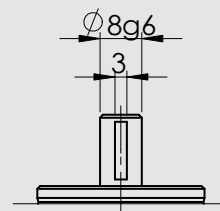
V-drive version



A-A (1 : 1)

Pressure class I and II

S-drive version



A-A (1 : 1)

Pressure class III from 1200 - 3000 cm³/min

Dimensions

Type PR 2 -	-60	-120	-180	-250	-375	-500	-750	-1000	-1200	-1500	-2000	-2500	-3000
Flow rate at 1400 rpm in l/min	0,060	0,120	0,180	0,250	0,375	0,500	0,750	1,000	1,200	1,500	2,000	2,500	3,000
Dimension L	37	37	37	37	38,5	40	45	45	47	47	47	47	50,5
Suction connection X	G ¼	G ¼	G ¼	G ¼	G ¼	G ¼	G ¼	G ¼	G ¾	G ¾	G ¾	G ¾	G ¾
Pressure connection Y	G ¼	G ¼	G ¼	G ¼	G ¼	G ¼	G ¼	G ¼	G ¼	G ¼	G ¼	G ¼	G ¼
Pressure connection Z	M10 x 1	M10 x 1	M10 x 1	M10 x 1	M10 x 1	M10 x 1	M10 x 1	M10 x 1	M10 x 1	M10 x 1	M10 x 1	M10 x 1	M10 x 1

GEAR PUMP UNIT PRMH

Technical Data:

Three-phase standard motor

Version: Design IMB 34;

4-pole; 400 V, 50 Hz

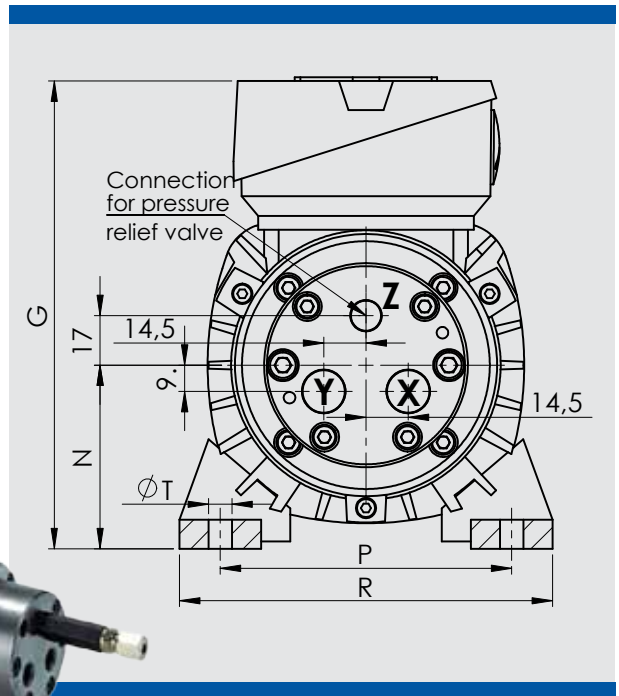
Special voltages on request

Flow rate in litres at $n=1400 \text{ min}^{-1}$ and oil viscosity 50 - 700 c St

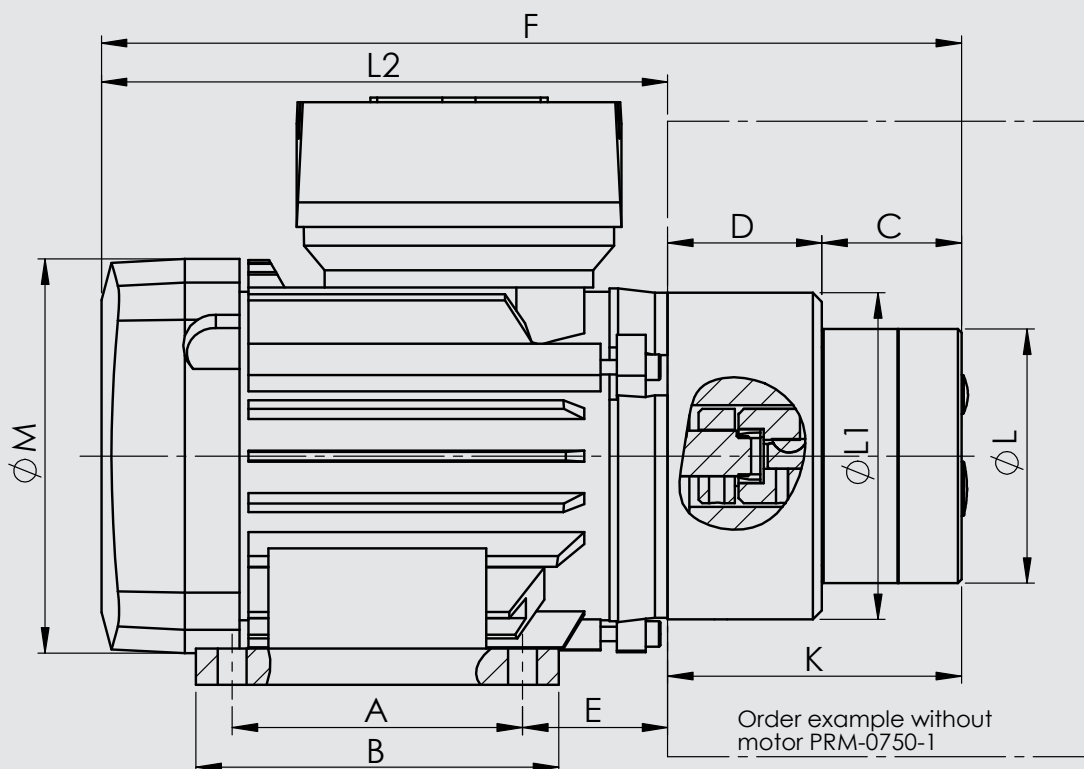
Pressure class I up to 35 bar

Pressure class II up to 60 bar

Pressure class III up to 100 bar



Order example 1



Technical Data

Description	Flow rate at 1400 rpm	Motor power in kW for pressure class			Suction connection X	Pressure connection Y	Pres. relief valve connection Z
		I	II	III			
PRMH - 60	0,060 l/min	0,18	0,18	0,25	G ¼	G ¼	M10 x 1
PRMH - 120	0,120 l/min	0,18	0,18	0,25	G ¼	G ¼	M10 x 1
PRMH - 180	0,180 l/min	0,18	0,18	0,25	G ¼	G ¼	M10 x 1
PRMH - 250	0,250 l/min	0,18	0,18	0,25	G ¼	G ¼	M10 x 1
PRMH - 375	0,375 l/min	0,18	0,18	0,25	G ¼	G ¼	M10 x 1
PRMH - 500	0,500 l/min	0,18	0,18	0,25	G ¼	G ¼	M10 x 1
PRMH - 750	0,750 l/min	0,25	0,25	0,37	G ¼	G ¼	M10 x 1
PRMH - 1000	1,000 l/min	0,25	0,25	0,37	G ¼	G ¼	M10 x 1
PRMH - 1200	1,200 l/min	0,37	0,55	x	G ¾	G ¼	M10 x 1
PRMH - 1500	1,500 l/min	0,37	0,55	x	G ¾	G ¼	M10 x 1
PRMH - 2000	2,000 l/min	0,37	0,55	x	G ¾	G ¼	M10 x 1
PRMH - 2500	2,500 l/min	0,55	x	x	G ¾	G ¼	M10 x 1
PRMH - 3000	3,000 l/min	0,55	x	x	G ¾	G ¼	M10 x 1

x = on request

Dimensions

Description	Pressure class	A	B	C	D	E	F	G	H	K	L	L1	M	N	P	R	T	U	V	L2
PRMH - 60 to PRMH - 250	I + II	80	100	37	42,5	40	236	161	137	79,5	70	90	109	63	100	128	8	14,5	9	156
PRMH - 60 to PRMH - 250	III	90	116	37	52,5	45	266	175	151	89,5	70	102	124	71	112	138	8	14,5	9	176
PRMH - 375	I + II	80	100	38,5	42,5	40	237,5	161	138,5	81	70	90	109	63	100	128	8	14,5	9	156
PRMH - 375	III	90	116	38,5	52,5	45	267	175	152	91	70	102	124	71	112	138	8	14,5	9	176
PRMH - 500	I + II	80	100	40	42,5	40	239	161	140	82,5	70	90	109	63	100	128	8	14,5	9	156
PRMH - 500	III	90	116	40	52,5	45	269	175	154	92,5	70	102	124	71	112	138	8	14,5	9	176
PRMH - 750 to PRMH - 1000	I + II	90	116	45	52,5	45	274	175	159	97,5	70	102	124	71	112	138	8	14,5	9	176
PRMH - 750 to PRMH - 1000	III	90	116	45	52,5	45	274	175	159	97,5	70	102	124	71	112	138	8	14,5	9	176
PRMH - 1200 to PRMH - 2000	I	90	116	47	52,5	45	276	175	161	99,5	70	102	124	71	112	138	8	14,5	9	176
PRMH - 1200 to PRMH - 2000	II	90	116	47	52,5	45	309	182	167	99,5	70	102	139	71	112	135	7	14,5	9	209
PRMH - 2500	I	90	116	47	52,5	45	309	182	167	99,5	70	102	139	71	112	135	7	14,5	9	209
PRMH - 3000	I	90	116	50,5	52,5	45	312	182	170	103	70	102	139	71	112	135	7	14,5	9	209

Order example 1 Gear pump unit

PR	M	H	750 /	I
Pump	Motor	Aluminium flange and coupling	Example: Flow rate corresponds to 0.75 l/min	Pressure class

Order example 2 Gear pump incl. aluminium flange and coupling (without motor)

PR	-	H	500 /	I
Pump		Aluminium flange and coupling	Example: Flow rate corresponds to 0.50 l/min	Pressure class

GEAR PUMP UNIT PRMV

Technical data:

Three-phase standard motor

Version: Design IMB 14;

4-pole; 400 V, 50 Hz

Special voltages on request

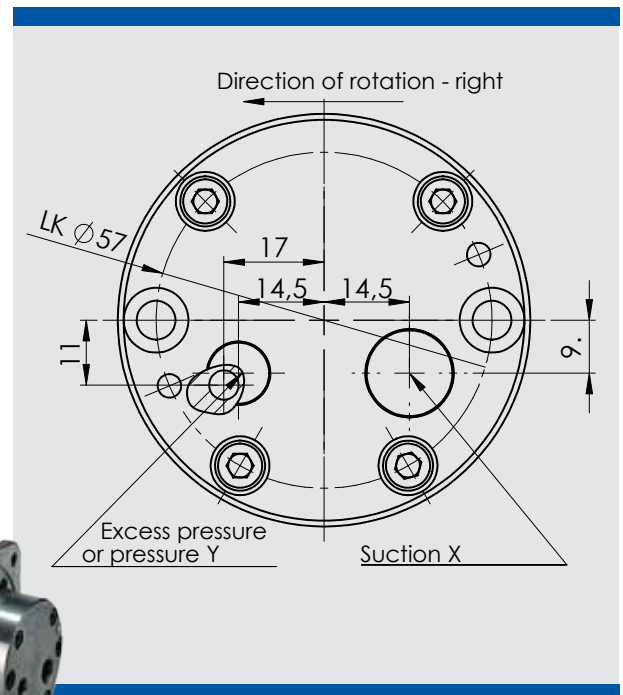
Flow rate in litres at $n=1400 \text{ min}^{-1}$

and oil viscosity 50 - 700 c St

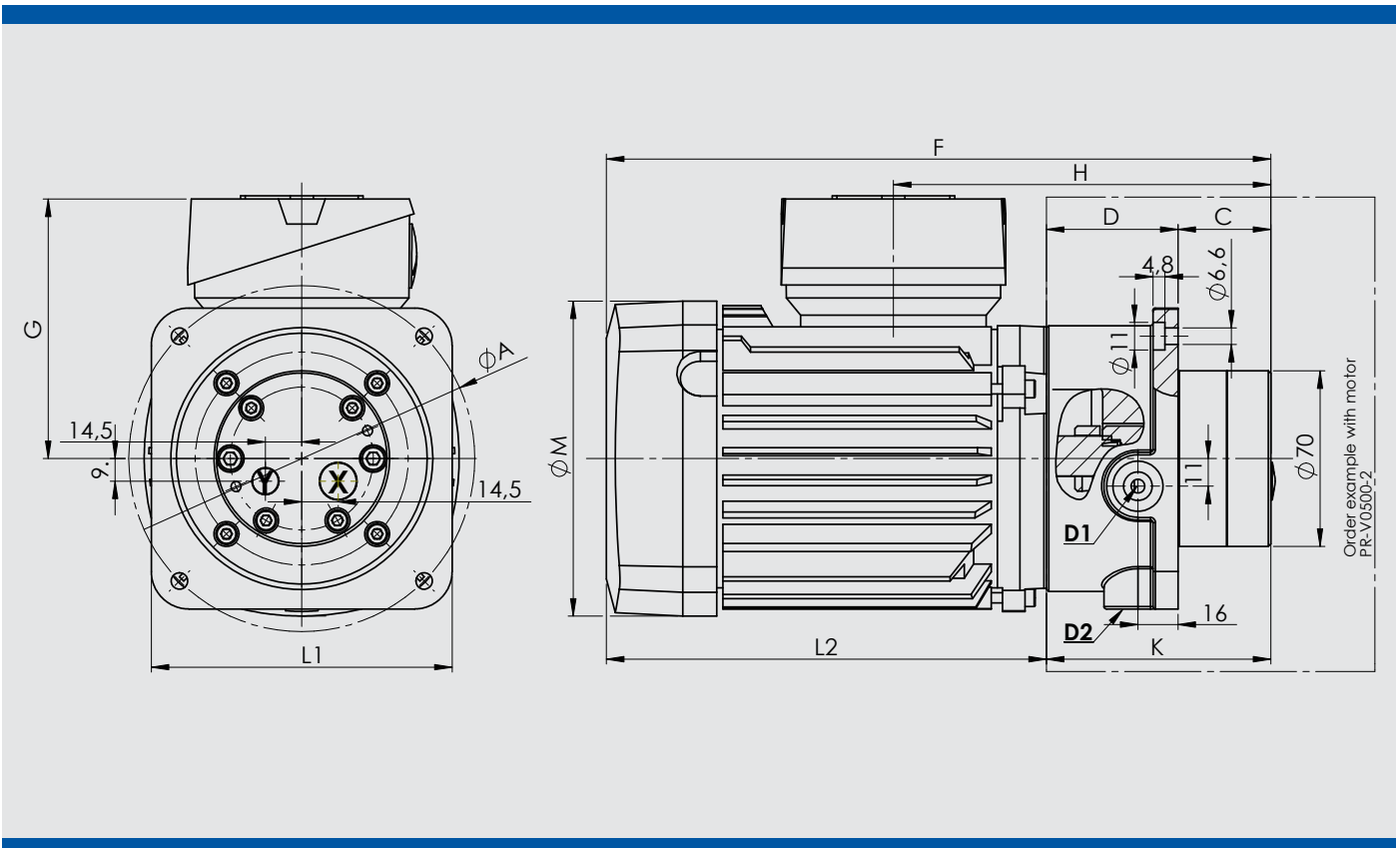
Pressure class I up to 35 bar

Pressure class II up to 60 bar

Pressure class III up to 100 bar



Order example 1



Technical Data

Description	Flow rate at 1400 rpm	Motor power in kW for pressure class			Suction connection X	Pressure connection Y
		I	II	III		
PRMV - 60	0,060 l/min	0,18	0,18	0,25	G ¼	M10 x 1
PRMV - 120	0,120 l/min	0,18	0,18	0,25	G ¼	M10 x 1
PRMV - 180	0,180 l/min	0,18	0,18	0,25	G ¼	M10 x 1
PRMV - 250	0,250 l/min	0,18	0,18	0,25	G ¼	M10 x 1
PRMV - 375	0,375 l/min	0,18	0,18	0,25	G ¼	M10 x 1
PRMV - 500	0,500 l/min	0,18	0,18	0,25	G ¼	M10 x 1
PRMV - 750	0,750 l/min	0,25	0,25	0,37	G ¼	M10 x 1
PRMV - 1000	1,000 l/min	0,25	0,25	0,37	G ¼	M10 x 1
PRMV - 1200	1,200 l/min	0,37	0,55	x	G ¾	M10 x 1
PRMV - 1500	1,500 l/min	0,37	0,55	x	G ¾	M10 x 1
PRMV - 2000	2,000 l/min	0,37	0,55	x	G ¾	M10 x 1
PRMV - 2500	2,500 l/min	0,55	x	x	G ¾	M10 x 1
PRMV - 3000	3,000 l/min	0,55	x	x	G ¾	M10 x 1

x = auf Anfrage

Dimensions

Description	Pressure class	A	C	D	F	G	H	K	L	L1	M	L2	U	D1	D2*
PRMV - 60 to PRMV - 250	I + II	110	37	42,5	235,5	106,5	137	79,5	70	100	109	156	14,5	G ¼	G ¼
PRMV - 60 to PRMV - 250	III	138	37	52,5	265,5	113	151	89,5	70	120	124	176	14,5	G ¼	G ¼
PRMV - 375	I + II	110	38,5	42,5	237	106,5	138,5	81	70	100	109	156	14,5	G ¼	G ¼
PRMV - 375	III	138	38,5	52,5	267	113	152	91	70	120	124	176	14,5	G ¼	G ¼
PRMV - 500	I + II	110	40	42,5	238,5	106,5	140	82,5	70	100	109	156	14,5	G ¼	G ¼
PRMV - 500	III	138	40	52,5	268,5	113	154	92,5	70	120	124	176	14,5	G ¼	G ¼
PRMV - 750 to PRMV - 1000	I + II	138	45	52,5	273,5	113	159	97,5	70	120	124	176	14,5	G ¼	G ¼
PRMV - 750 to PRMV - 1000	III	138	45	52,5	273,5	113	159	97,5	70	120	124	176	14,5	G ¼	G ¼
PRMV - 1200 to PRMV - 2000	I	138	47	52,5	275,5	113	161	99,5	70	120	124	176	14,5	G ¼	G ¼
PRMV - 1200 to PRMV - 2000	II	138	47	52,5	308,5	112,5	167	99,5	70	120	139	209	14,5	G ¼	G ¼
PRMV - 2500	I	138	47	52,5	308,5	112,5	167	99,5	70	120	139	209	14,5	G ¼	G ¼
PRMV - 3000	I	138	50,5	52,5	312	112,5	170	103	70	120	139	209	14,5	G ¼	G ¼

x = Connection D2 only on special request

Order example 1 Gear pump unit

PR	M	V	750 / III
Pump	Motor	Cast iron flange and coupling	Example: Flow rate corresponds to 0.75 l/min Pressure Class

Order example 2 Gear pump incl. cast iron flange and coupling (without motor)

PR	-	V	500 / I
Pump		Cast iron flange and coupling	Example: Flow rate corresponds to 0.50 l/min Pressure Class

GEAR PUMP TYPE B

Technical Data:

Housing and cover made from EN-GJL-250
Gears hardened and ground
Max pressure 35 bar

Version A:

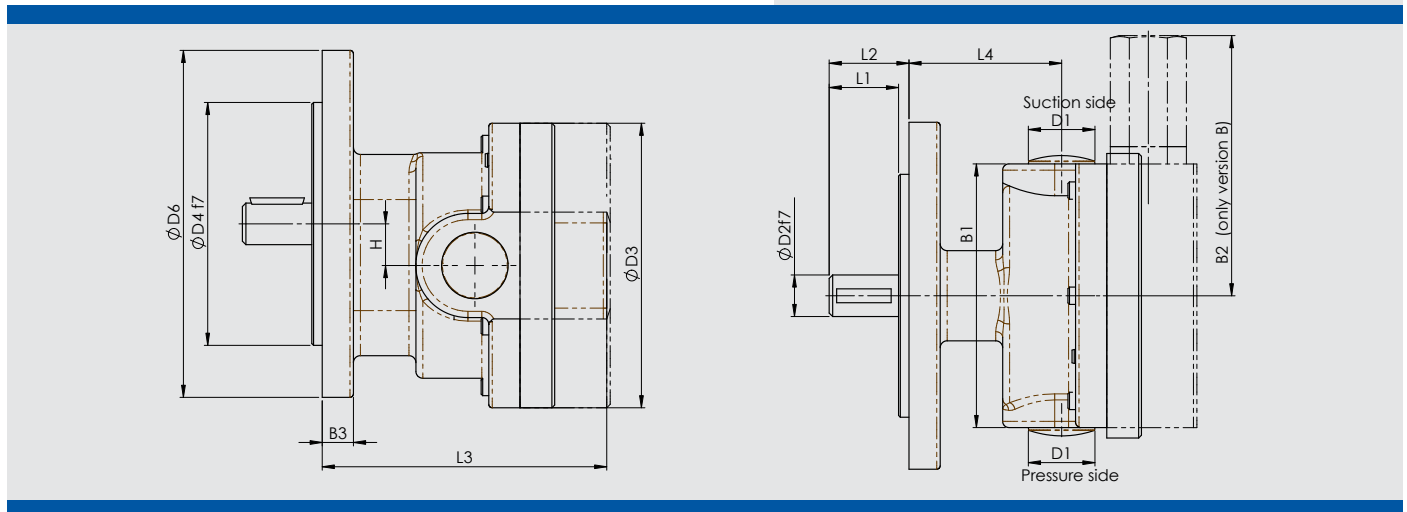
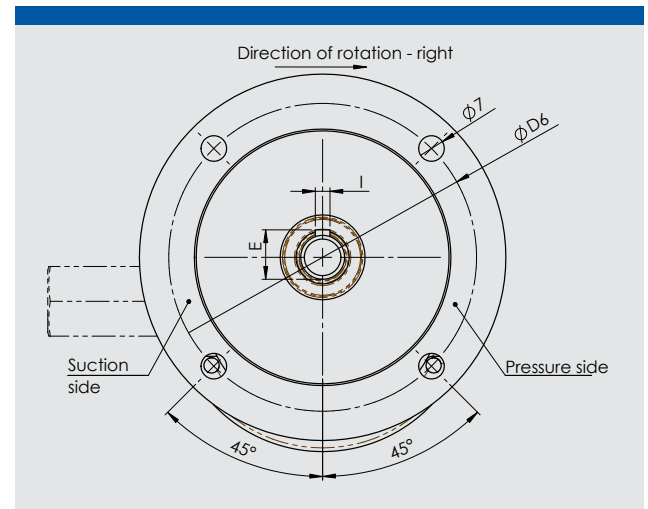
Rotational and flow direction looking at the drive shaft stub: right.

Version B:

As version A but with an integrated pressure relief valve.
(Please specify pressure relief valve settings when ordering)



**Order example - gear pump
B2 - 06 / Version B (10 bar)**



Dimensions

Type	Flow rate at 1400 rpm	D1	D2	D3	D4	D5	D6	L1	L2	L3	L4	B1	B2	B3	I	E	H
B2 - 06	6 l/min	G 3/8	12	82	70	100	84	20	23	85	44	76	78	9	4	13,6	13
B2 - 09	9 l/min	G 3/8	12	82	70	100	84	20	23	85	44	76	78	9	4	13,6	13
B3 - 13	13 l/min	G 1/2	14	98	90	120	100	21	24	100	55	90	85	10	5	16,1	15
B3 - 17	17 l/min	G 1/2	14	98	90	120	100	21	24	100	55	90	85	10	5	16,1	15

GEAR PUMP UNIT BMH

Technical Data:

Three-phase standard motor

Version: Design IMB 35;

4-pole; 400 V, 50 Hz

Special voltages on request

Flow rate in litre/min

at $n=1400 \text{ min}^{-1}$

and oil viscosity 50 - 700 c St

Max pressure 35 bar



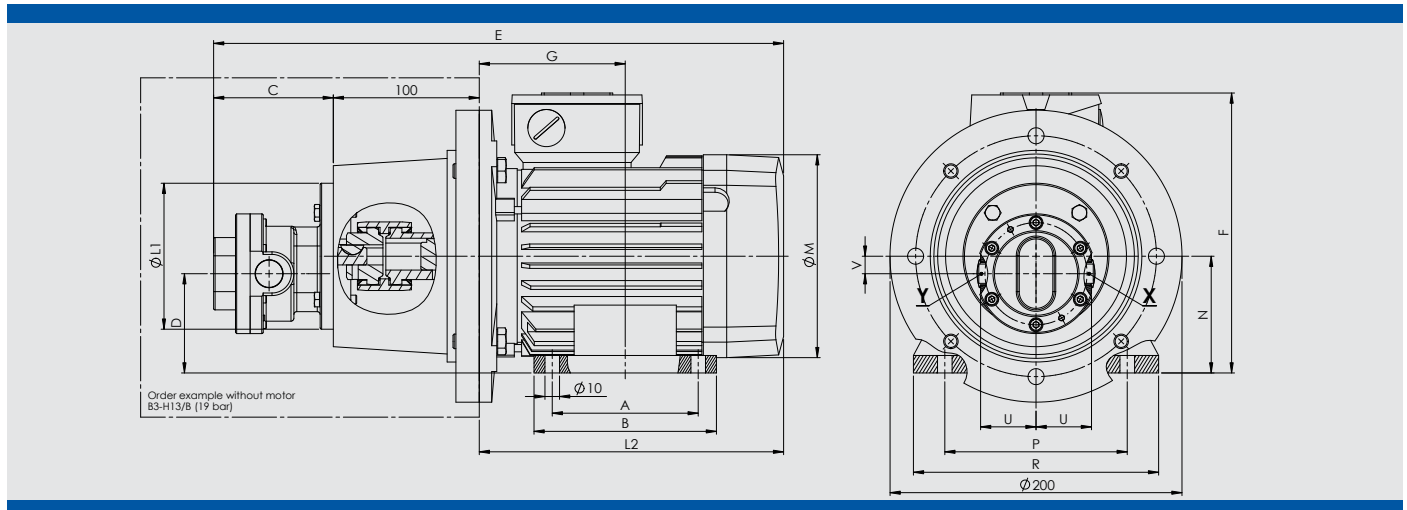
Version A:

Rotational and flow direction looking at the drive shaft stub: right.

Version B:

As version A but with an integrated pressure relief valve.

(Please specify pressure relief valve settings when ordering)



Technical Data

Description	Flow rate at 1400 rpm	Motor power in kW	Suction connection X	Pressure connection Y
B2 MH - 06	6 l/min	0,55	G 3/8	G 3/8
B2 MH - 09	9 l/min	0,75	G 3/8	G 3/8
B3 MH - 13	13 l/min	1,1	G 1/2	G 1/2
B3 MH - 17	17 l/min	1,5	G 1/2	G 1/2

Dimensions

Description	A	B	C	D	E	F	G	L1	L2	M	N	P	R	U	V
B2 MH - 06	100	125	85	67	394	192	67	100	209	139	80	125	168	38	13
B2 MH - 09	100	125	85	67	394	192	67	100	209	139	80	125	168	38	13
B3 MH - 13	100	130	100	75	426	210	70	120	226	157	90	140	178	45	15
B3 MH - 17	125	155	100	75	448	210	70	120	248	157	90	140	178	45	15

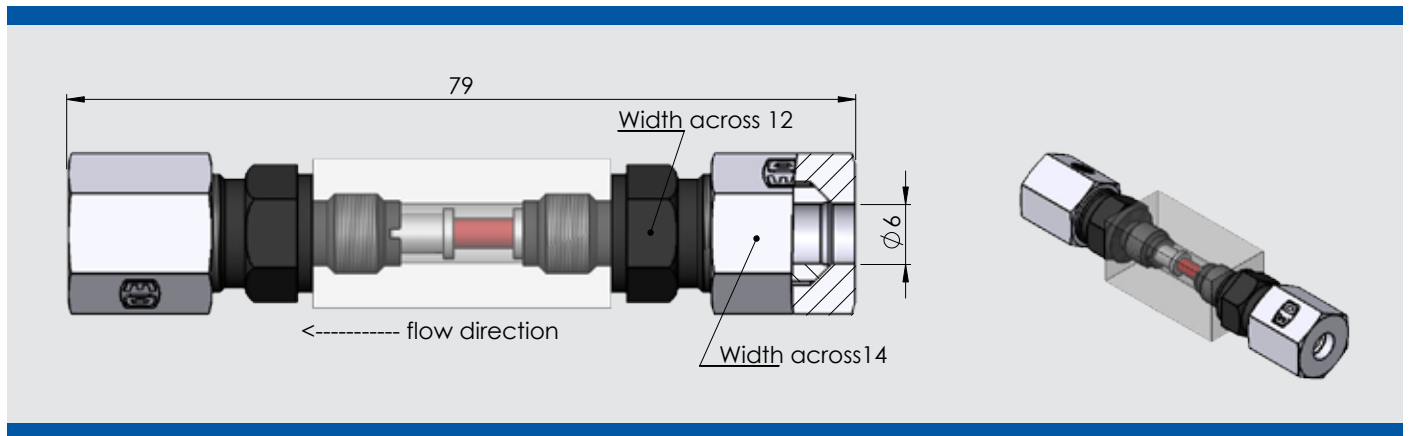
IMPULSE FLOW CONTROLS

Impulse flow control Design 6702/1:

With a clear body

Suitable even for the smallest quantities of oil

Max pressure load 5 bar

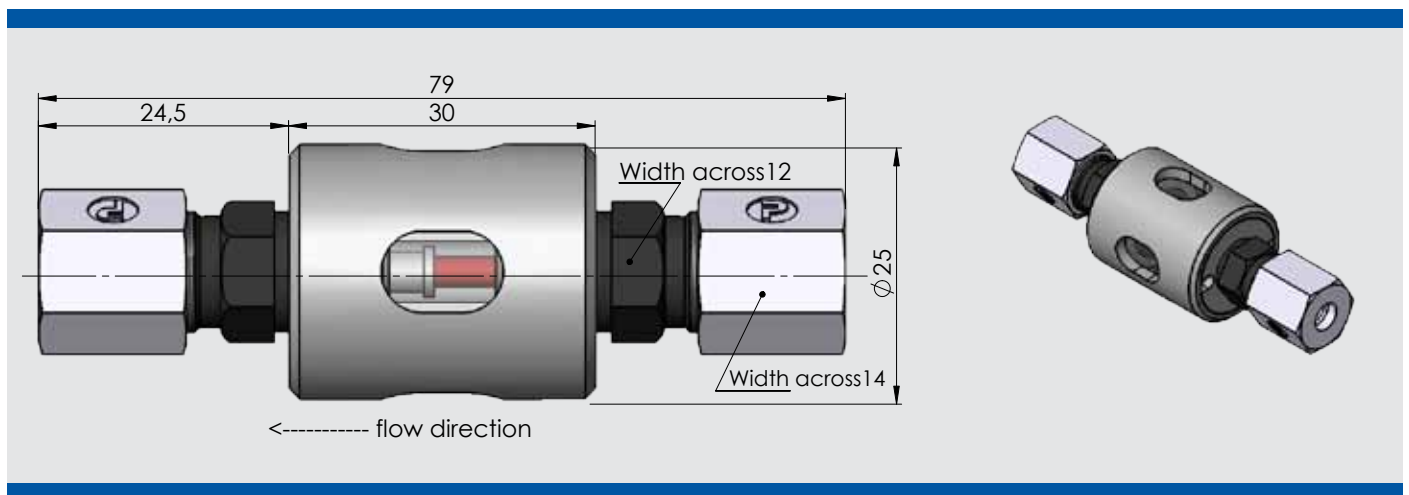


Impulse flow control Design 6702/2:

With a clear body

Suitable even for the smallest quantities of oil

Max pressure load 5 bar



PRESSURE RELIEF VALVE

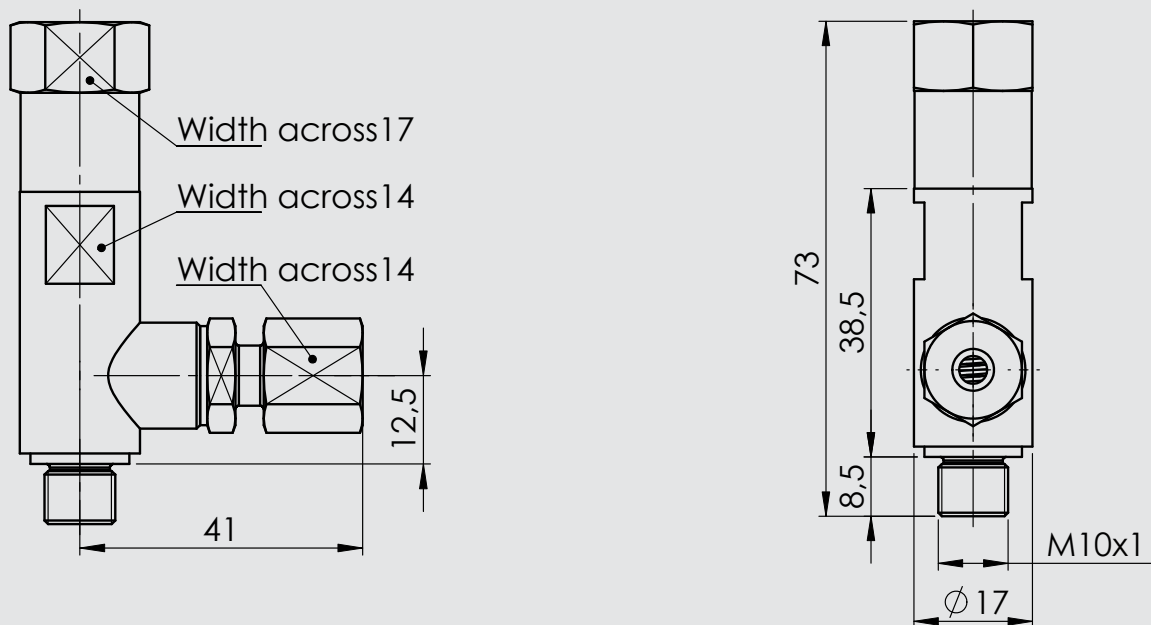
Pressure relief valve, angled, type 307/E:

Adjustable pressure relief valve up to 100 bar

For gear pumps type PR1 and type PR2

Return line solderless for 6 mm tube

Adjusted and marked according to customer requirements



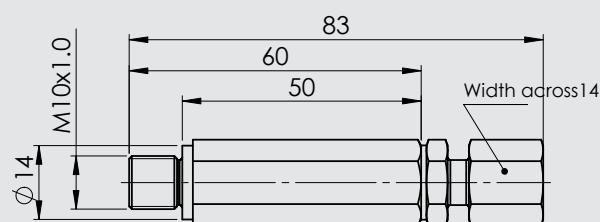
Pressure relief valve, straight, type 316:

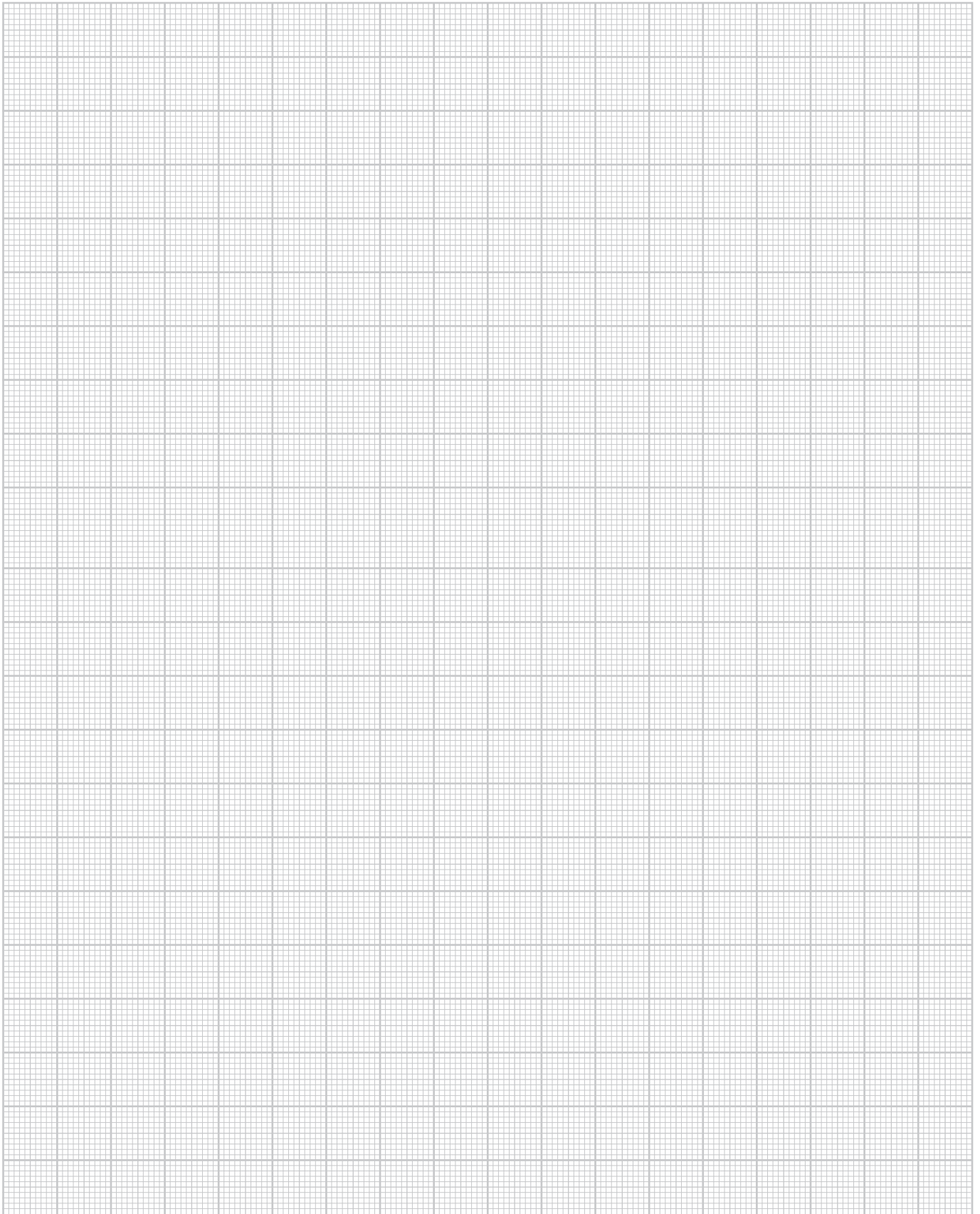
Adjustable pressure relief valve up to 100 bar

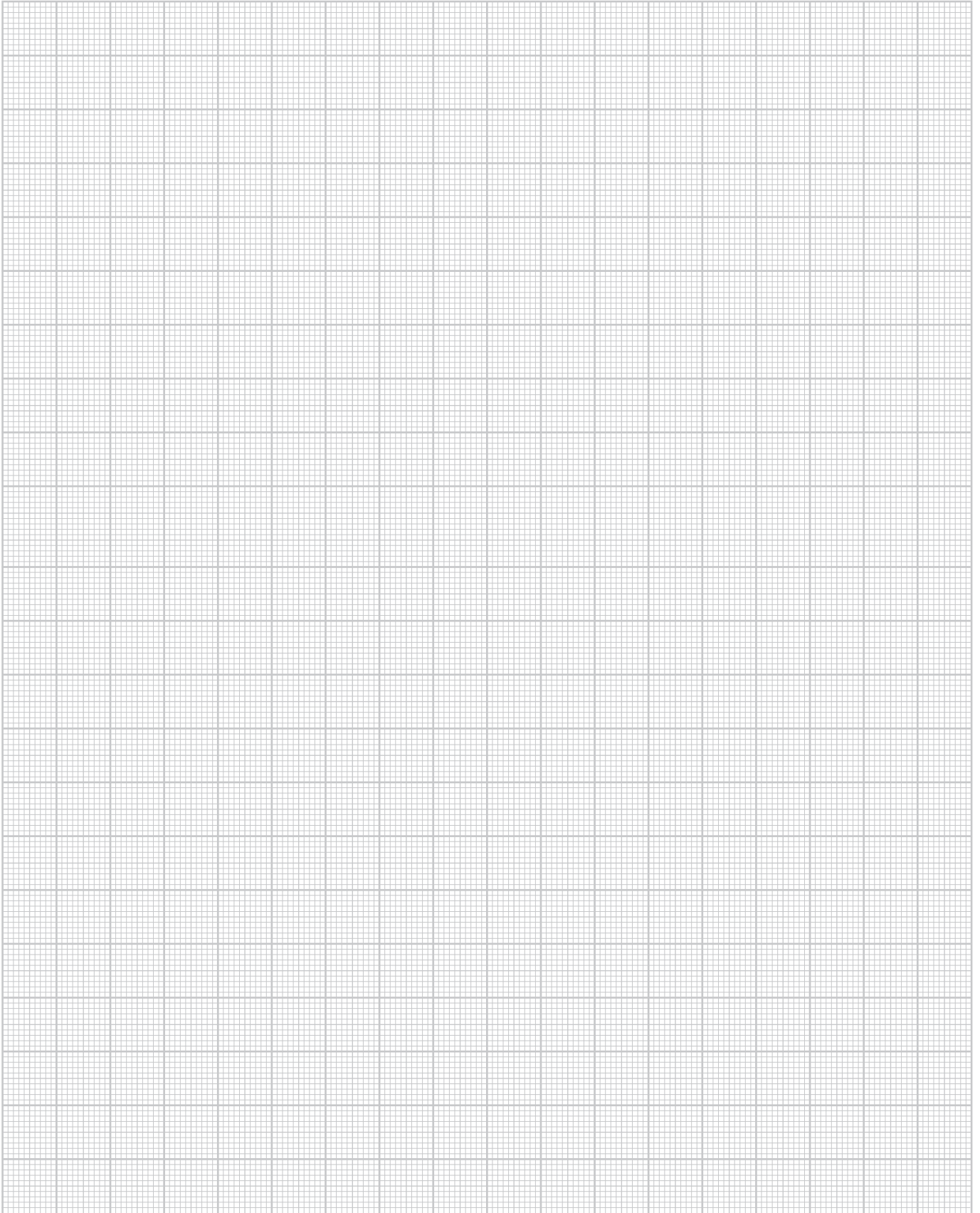
For gear pumps type PR1 and type PR2

Connection solderless for 6 mm tube

Adjusted and marked according to customer requirements









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