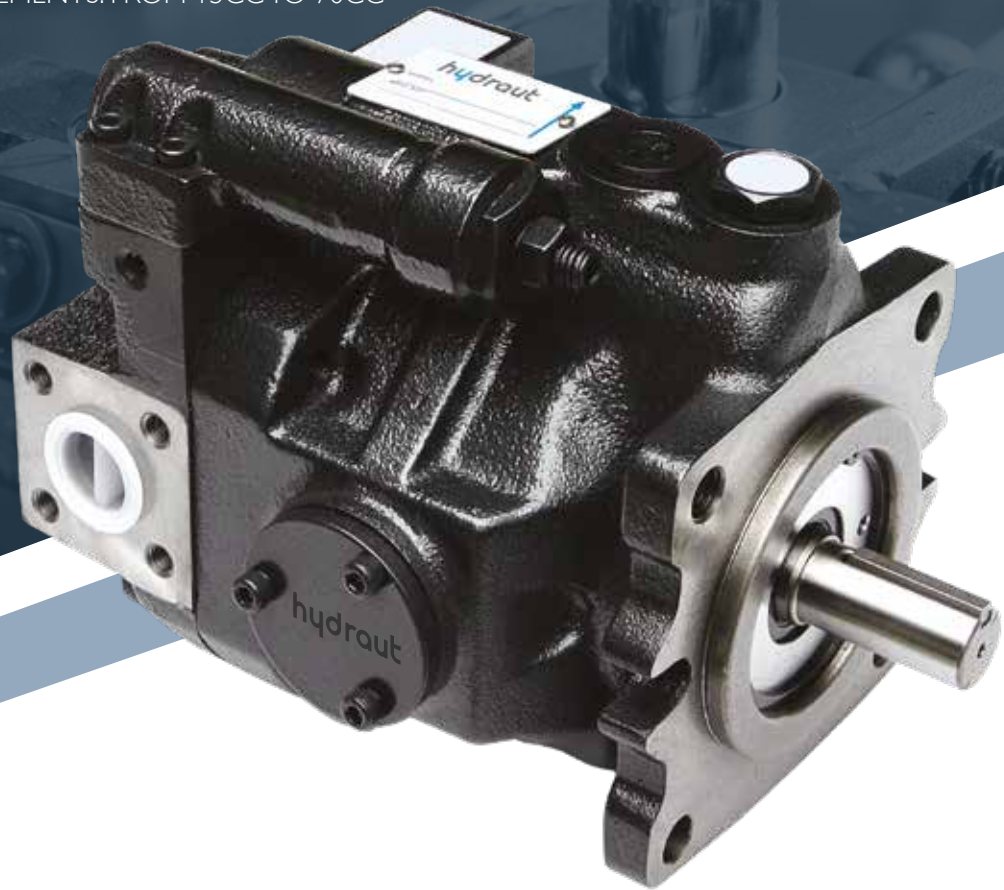


Hydraulic piston pumps PQ SERIES

WORKING PRESSURE: UP TO 250 BAR
PEAK PRESSURE: UP TO 280 BAR
DISPLACEMENTS: FROM 15CC TO 70CC

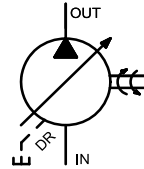


hydrout

AXIAL PISTON PUMP



1. PQ Series pump, swash plate design suitable for various applications
2. Special design, low noise level during full pressure time
3. Modular control, advantages are: power saving small size, low cost
4. Low power consuming, low oil temperature rising, suitable application for assembling small power units



nominal pressure: 250 bar
max. pressure: 280 bar

SPECIFICATIONS

Size	Model	Displacement		at (7 bar) 100 PSI				Pressure Adj. bar	Speed		Weight KG (LB)
		cm ³ /rev	In ³ /rev	1500 RPM		1800 RPM			Max. RPM	Min. RPM	
				LPM	U.S. GPM	LPM	U.S. GPM				
1	PQ 15	15.0	0.90	22.5	5.78	27.0	7.05	1: 8~70	1800	500	13 (28.6)
2	PQ 23	23.0	1.40	35.4	9.11	41.4	10.94	2: 15~140			22 (48.4)
3	PQ 38	37.8	2.31	56.7	14.98	68.0	17.96	3: 20~210			26 (57.2)
	PQ 42	42.0	2.56	63.0	16.23	76.0	19.58	4: 20~250			26 (57.2)
4	PQ 50	51.5	3.14	77.2	20.37	92.7	24.48	1: 8~70			56 (123.2)
	PQ 70	69.7	4.25	104.5	27.6	125.4	33.10	2: 15~140 3: 20~210			56 (123.2)

1. Install outlet on top, the pipe pressure needs less than 2 bar.
2. Using at max. pressure, please under 6 sec for per-cycle time.
3. Hydraulic oil clean, please follow instruction manual.
4. HYDRAUT. supply combinable pumps with different series, standard with Metric / SAE size.

TYPE CODE FOR STANDARD PROGRAM

PQ	15	A	3	R			-							
1	2	3	4	5	6	7		8	9	10	11	12	13	14
Series	Size and displacement	Control device	Pressure adjusting	Rotation	Direction of pipe connections	Shaft type		Voltage	Threads type	Thru drive & 2nd pump	Special spec.	Mounting	Seals	Design No.

Series

1	Axial piston pump variable displacement high pressure version	nominal pressure : 250 bar max. pressure : 280 bar	PQ
		version rear threaded port	PQR

2	Code	15	23	38	42	50	70	
	Size		2	3	4			
	Displacement	cm ³ / rev	15	23.0	37.8	42.0	51.5	69.7
		In ³ / rev	0.90	1.40	2.31	2.56	3.14	4.25

Control device

	Standard pressure control		A	✳
	Remote pressure control		G	✳
	Load-sensing control	Pressure		
		A Low : 7 bar	HL <input type="checkbox"/>	✳
		B Mid : 14 bar		
C High : 21 bar				
3	Muti-stage flow & Single-stage pressure control (with cylinder)		B	
	2-stage pressure & Flow control		C	
	2-stage pressure & Flow control + Remote		CG	
	2-stage pressure & Flow control + Low tension unloading		CR	
	Low tension unloading + Pressure control		D	
	Low tension unloading + Pressure control + Remote		DG	
	Electric 2-stage pressure control		E	
	Electric 2-stage pressure control + Remote		EG	
	Electric 2-stage pressure control & Flow control		F	
	Electric 2-stage pressure control & Flow control + Remote		FG	
	Remote pressure compensator with NG6 interface		GM	
	Remote pressure compensator + Proportional pressure valve		GJ	
	Remote pressure compensator + Electrical unloading		GR	
	Remote pressure compensator + 2-stage pressure control		GB	
	Remote pressure compensator + Electrical unloading + 2-stage pressure control		GC	
	Load-sensing compensator + Proportional flow valve + Relief valve	Pressure		HQ <input type="checkbox"/>
A Low : 7 bar				
B Mid : 14 bar				
Load-sensing compensator + Proportional pressure valve + Proportional flow valve	Pressure		HK <input type="checkbox"/>	
	A Low : 7 bar			
	B Mid : 14 bar			
	C High : 21 bar			

● on request

■ = available ● = on request ✳ = standard type △ = custom made

TYPE CODE FOR STANDARD PROGRAM

1	15	A	3	R			-								
Series	Size and displacement	Control device	Pressure adjusting	Rotation	Direction of pipe connections	Shaft type		Voltage	Threads type	Thru drive & 2nd pump	Special spec.	Mounting	Seals	Design No.	

Pressure adjusting

4	8~70 bar (0.8~6.9 Mpa)	1
	15~140 bar (1.5~13.7 Mpa)	2
	20~210 bar (2.0~20.6 Mpa)	3
	20~250 bar (2.0~24.5 Mpa)	4

Rotation

5	 Clockwise	R
	 Counter clockwise on request	L

Direction of pipe connections

		15	23	38	42	50	70	
6	None: Side port (Flange)	■	■	■	■	■	■	☐ ※
	Rear port (Flange)	■	■	■	■	■	■	B
	Side port + Rear port (Flange)	■	■	■	■	-	-	B2

B2 valid only for pumps from 23 to 70 cc/rev

Shaft type

Displacement		Code		
7	None	Key: ☐		
	PQ15	● Splined shaft: ☐ S 13T 16/32 DP	S1 9T 16/32 DP	S2 11T 16/32 DP
	PQ23 PQ38, PQ42	● Splined shaft: ☐ S 13T 16/32 DP	S1 15T 16/32 DP	
	PQ50, PQ70	● Splined shaft: ☐ S 14T 12/24 DP		

Voltage

8	None	☐
	AC100V (50/60HZ)	A ●
	AC110V (60HZ)	B ●
	AC220V (50/60HZ)	C ●
	AC220V (60HZ)	D ●
	DC 12V	E ●
	DC 24V	F ※

■ = available ● = on request ※ = standard type △ = custom made

TYPE CODE FOR STANDARD PROGRAM

PQ	15	A	3	R			-							
1	2	3	4	5	6	7		8	9	10	11	12	13	14
Series	Size and displacement	Control device	Pressure adjusting	Rotation	Direction of pipe connections	Shaft type		Voltage	Threads type	Thru drive & 2nd pump	Special spec.	Mounting	Seals	Design No.

Threads

9	PT (RC)	■	■	■	■	■	■	■	■	■	■	■	■	10
	BSPP (G)	■	■	■	■	■	■	■	■	■	■	■	■	40
	NPT	△	△	△	△	△	△	△	△	△	△	△	△	50
	UNF (SAE o-ring)	■	■	■	■	■	■	■	■	■	■	■	■	60
	Metric	△	△	△	△	△	△	△	△	△	△	△	△	70

Thru drive & 2nd pump

10	without Thru drive													
	Ø 50.8 mm SAE AA													C
	Ø 82.55 mm SAE A													D
	Ø101.6 mm SAE B													E
	Ø 127 mm													F
	Ø 63 mm													I
	Ø 80 mm													J
	Ø 100 mm													K
Ø 125 mm													L	

(Please contact **HYDRAUT**, if other size required.)

Special specification

11	Standard type													X
	Low Pressure type													X1
	Deahead pressure relief type													Z

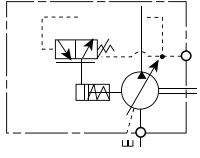
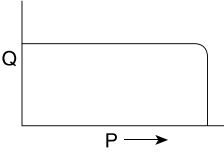
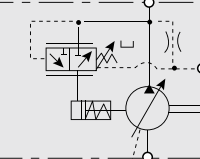
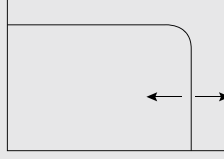
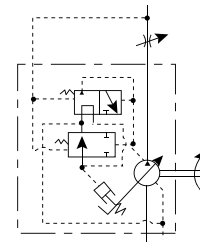
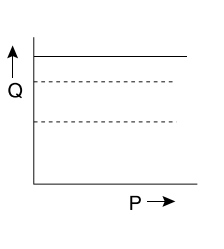
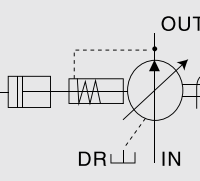
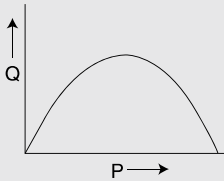
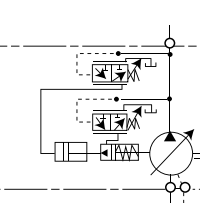
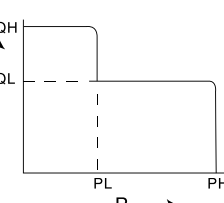
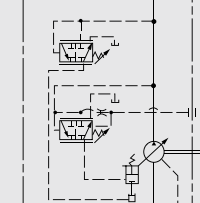
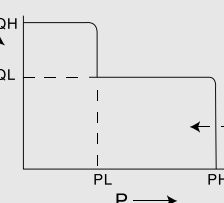
Mounting

12	Only for select "A", other displacement only select "None: Standard"	None : Standard												
		SAE A 2 bolt												

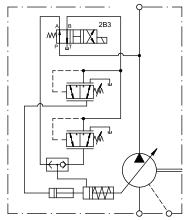
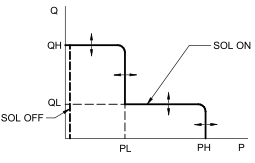
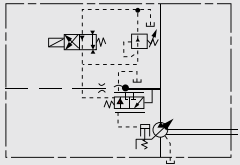
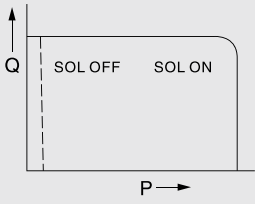
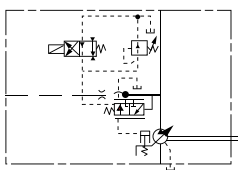
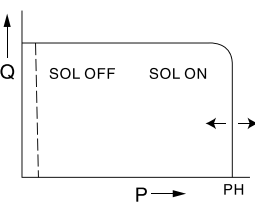
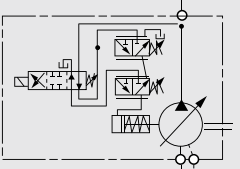
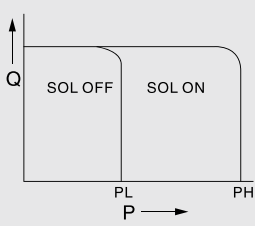
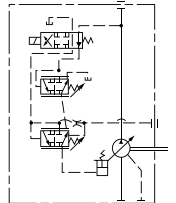
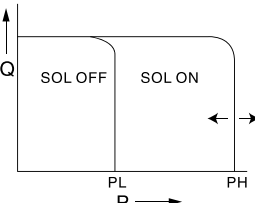
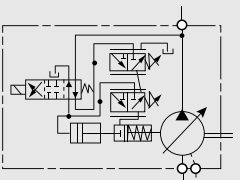
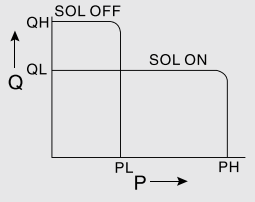
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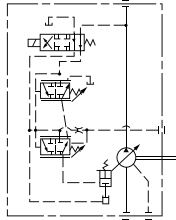
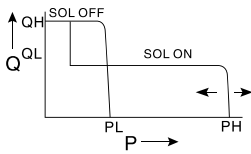
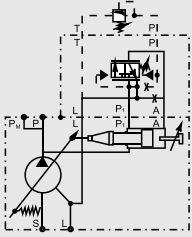
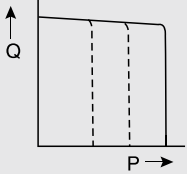
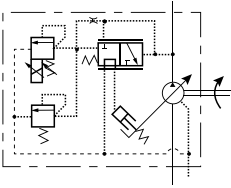
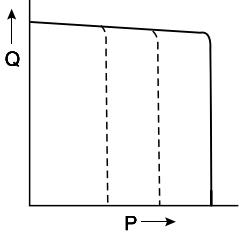
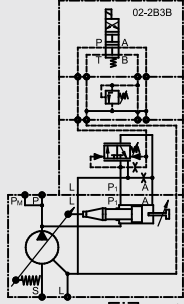
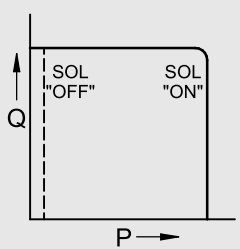
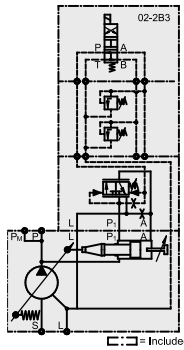
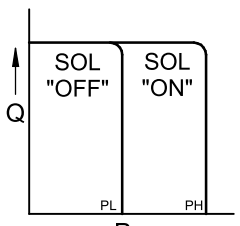
13	NBR													
	VITON													A

■ = available ● = on request ✖ = standard type △ = custom made

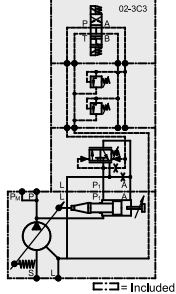
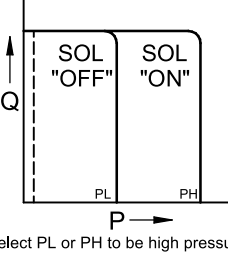
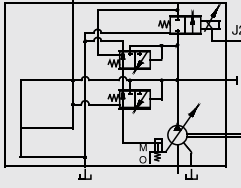
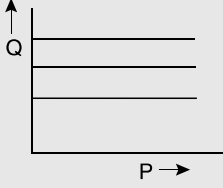
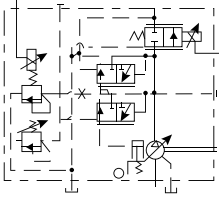
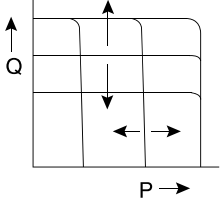
Controls	Circuit diagram	Curve	Specifications
<p>A type: Standard pressure control</p>			<ol style="list-style-type: none"> 1. When the system pressure increases and reaches the working pressure, the flow decreases automatically and the pressure remains constant. 2. Pressure and flow can be adjusted manually.
<p>G type: Remote pressure control</p>			<ol style="list-style-type: none"> 1. The same functions of A control type. 2. Pressure can be adjusted remotely by a remote control valve.
<p>HL type: Load-sensing control</p>			<ol style="list-style-type: none"> 1. HL valve with two different pressure control displacements. 2. The flow can be changed by the HL valve. The sensing feedback can reach low oil temperature and energy saving.
<p>B type: Multi-stage flow & Single-stage pressure control (with cylinder)</p>			<ol style="list-style-type: none"> 1. The flow can be adjusted from 0 to the maximum, and pressure can be maintained at the preset pressure. 2. It reduces impact and vibration produced by up-down motions. It is suitable for lifting equipment etc.
<p>C type: 2-stage pressure & Flow control</p>			<ol style="list-style-type: none"> 1. Two-stage pressure control to adjust LP to HF and : HP to LF 2. When the pressure increases and reaches the preset pressure HP, the flow is reduced to LF. 3. It is suitable for long dead head and short pressurizing machines, fast and energy saving. 4. HP, LP pressure values and HF, LF flow values can be adjusted optionally.
<p>CG type: 2-stage pressure & Flow control + Remote</p>			<ol style="list-style-type: none"> 1. The same function as C control type. 2. The pressure and the range can be adjusted by a remote control valve.

CONTROL TYPE

Controls	Circuit diagram	Curve	Specifications
<p>CR type: 2-stage pressure & Flow control + Low tension unloading</p>			<p>CR is a combination of FG and flow control low tension unloading valve (included). It is suitable for constant speed lifting equipments, and 2 stage working pressure. SOL OFF: low tension unloading SOL ON: 2-stage pressure and flow.</p>
<p>D type: Low tension unloading + Pressure control</p>			<p>D type is a combination of A type and low tension unloading valve (included). It is suitable for long uploading operations. When the system stops, the oil temperature and noise maintain low levels thanks to the unloading function.</p>
<p>DG type: Low tension unloading + Pressure control + Remote</p>			<p>DG type is a combination of D and G types.</p>
<p>E type: Electric 2-stage pressure control</p>			<p>2-stage pressure values can be controlled by a solenoid control valve. It is suitable for constant speed lifting equipments and setting 2-stage working pressure.</p>
<p>EG type: Electric 2-stage pressure control + Remote</p>			<p>EG is a combination of E and G types.</p>
<p>F type: Electric 2-stage pressure control & Flow control</p>			<p>F type is a combination of E type and HL.</p>

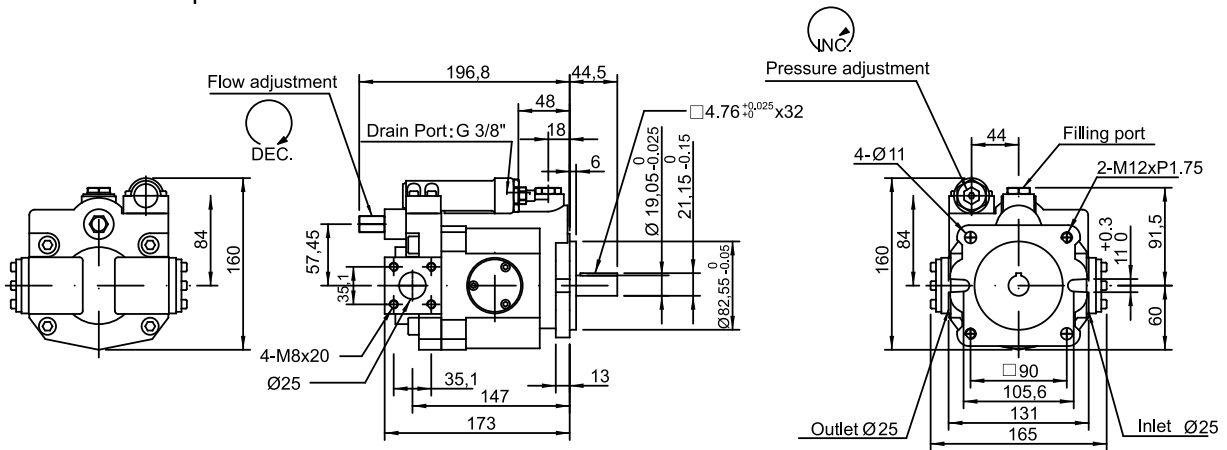
Controls	Circuit diagram	Curve	Specifications
<p>FG type: Electric 2-stage pressure control & Flow control + Remote</p>			<ol style="list-style-type: none"> 1. It is an electrical two-stage pressure and flow control to adjust LP to HF and HP to LF. 2. Pressure can be adjusted by a remote control valve. 3. LP and HP pressure values and HF flow value can be adjusted optionally.
<p>GM type: Remote pressure compensator with NG6 interface</p>			<ol style="list-style-type: none"> 1. It is a remote pressure compensator with NG6 interface. 2. Quick response, stable pressure supply. 3. Suitable for manual or electrical control.
<p>GJ type: Remote pressure compensator + Proportional pressure valve</p>			<ol style="list-style-type: none"> 1. GJ is a combination of GM control with a proportional relief control valve (included). 2. The proportional valve is installed on the NG6 interface to achieve energy saving.
<p>GR type: Remote pressure compensator + Electrical unloading</p>	 <p style="text-align: right; font-size: small;">☐ = Included</p>		<p>Thanks to a relief valve and a solenoid control valve on the compensator it is possible to obtain remote pressure and electrical unloading controls.</p>
<p>GB type: Remote pressure compensator + 2-stage pressure control</p>	 <p style="text-align: right; font-size: small;">☐ = Included</p>	 <p>Select PL or PH to be high pressure</p>	<p>GB type is a combination of GR control and a two-stage pressure control valve (included).</p>

CONTROL TYPE

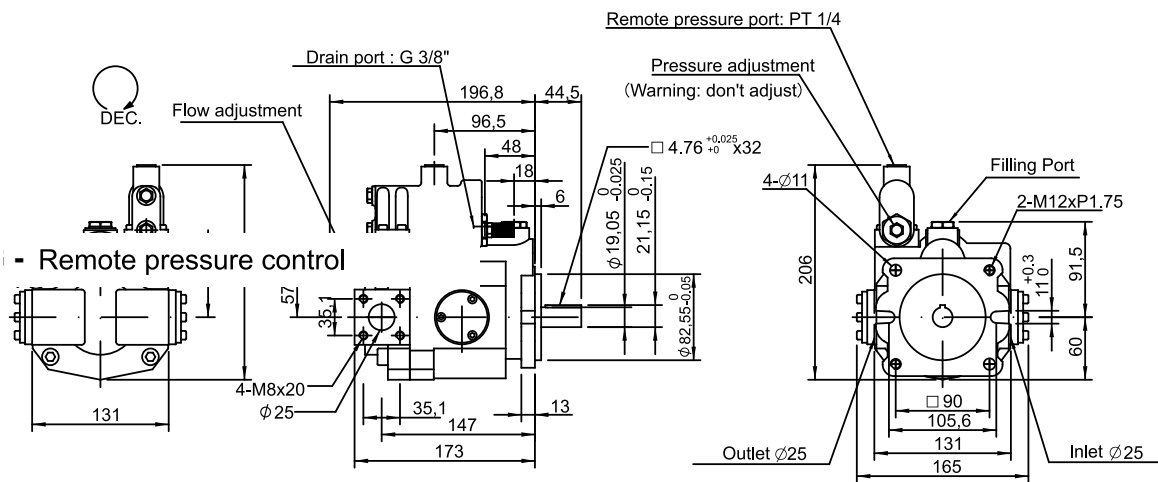
Controls	Circuit diagram	Curve	Specifications
<p>GC type: Remote pressure compensator + Electrical unloading + 2-stage pressure control</p>			<ol style="list-style-type: none"> 1. It controls two different pressure stages, by adding a solenoid valve with unloading function. 2. When the system stops, the oil temperature and noise maintain low levels thanks to the unloading function.
<p>HQ type: Load-sensing compensator + Proportional flow valve + Relief valve</p>			<ol style="list-style-type: none"> 1. HQ control with load-sensing and proportional flow control. 2. The pump displacement is controlled by an electrical signal provided by an external driver.
<p>HK type: Load-sensing compensator + Proportional pressure valve + Proportional flow valve</p>			<ol style="list-style-type: none"> 1. HK is a combination of HQ control and a proportional relief control valve (included). 2. Compared to a traditional vane/gear pump system this control can reach 30-50% energy saving.



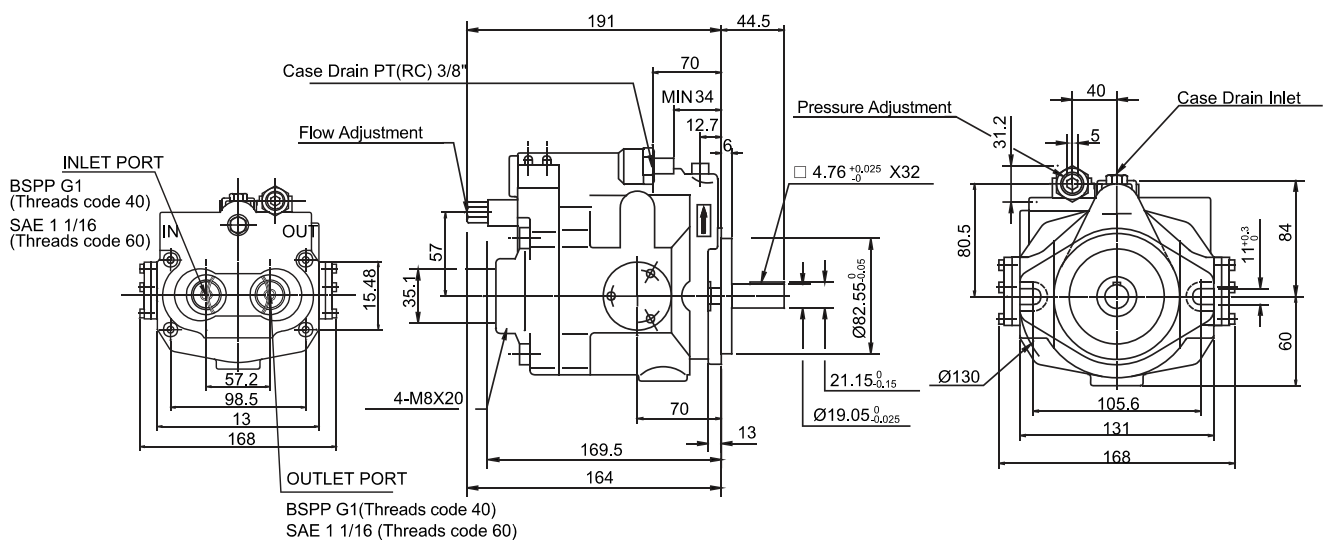
PQ15A - Standard pressure control



PQ15G - Remote pressure control

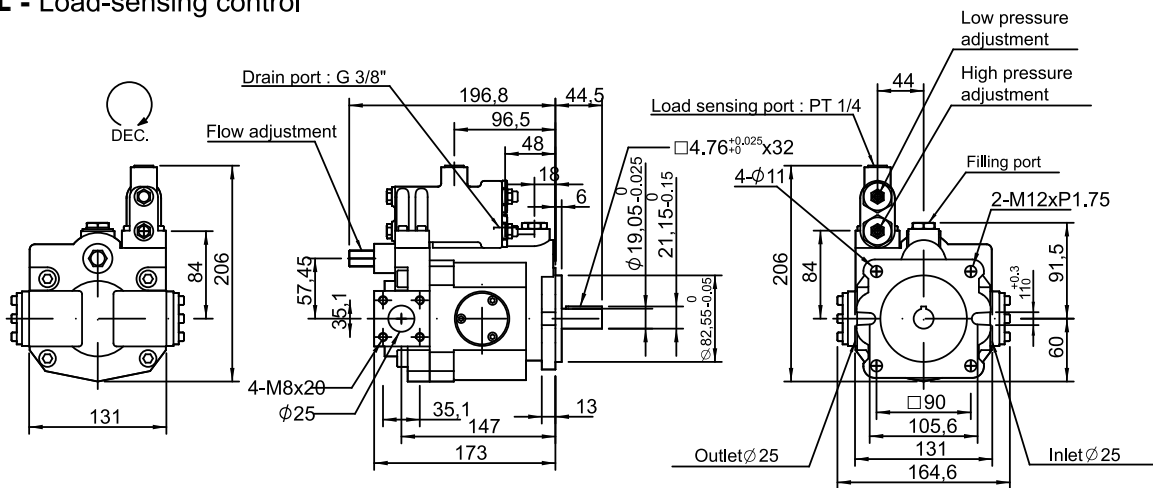


PQR15A - Standard pressure control - Version rear threaded port



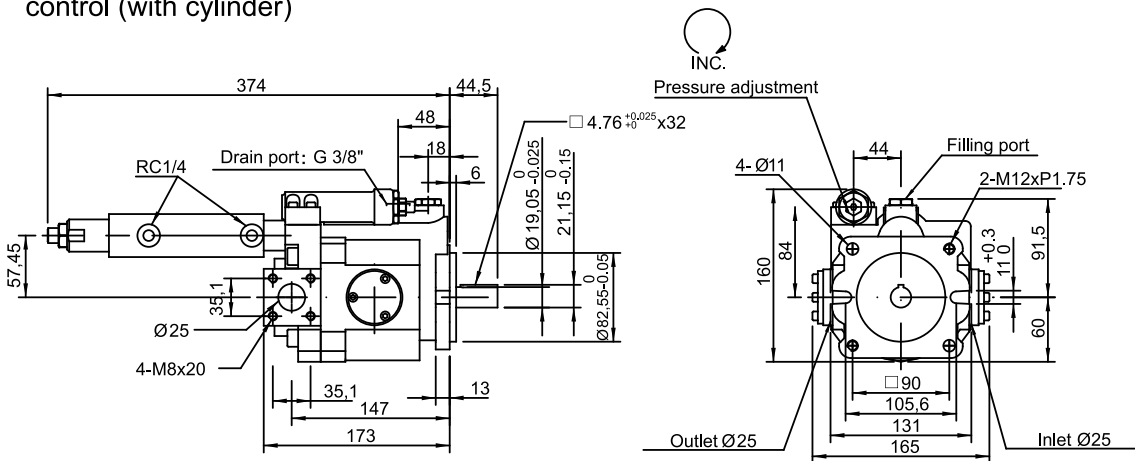
DIMENSIONS

PQ15HL - Load-sensing control

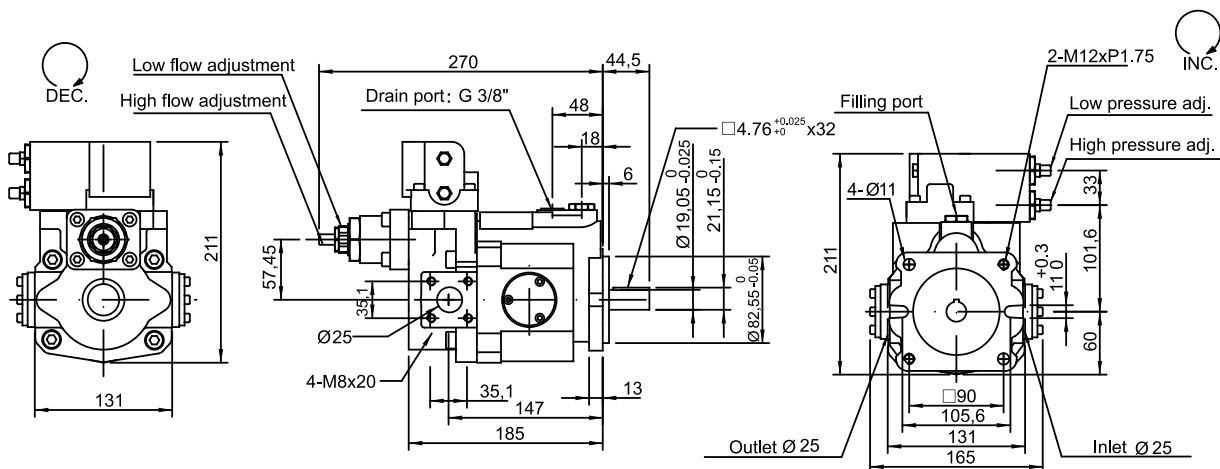


PQ15B - Multi-stage flow & Single-stage pressure control (with cylinder)

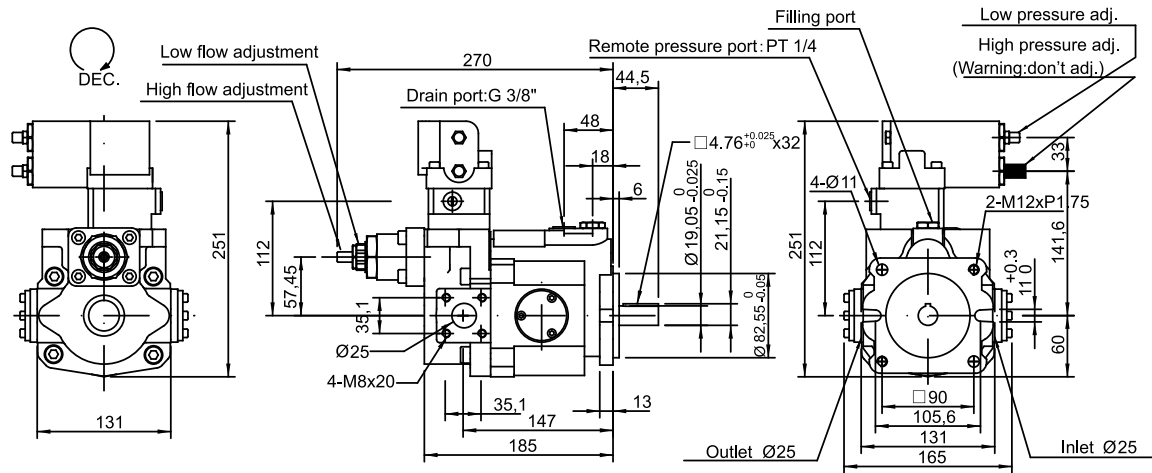
(Remark : Install with A type control)



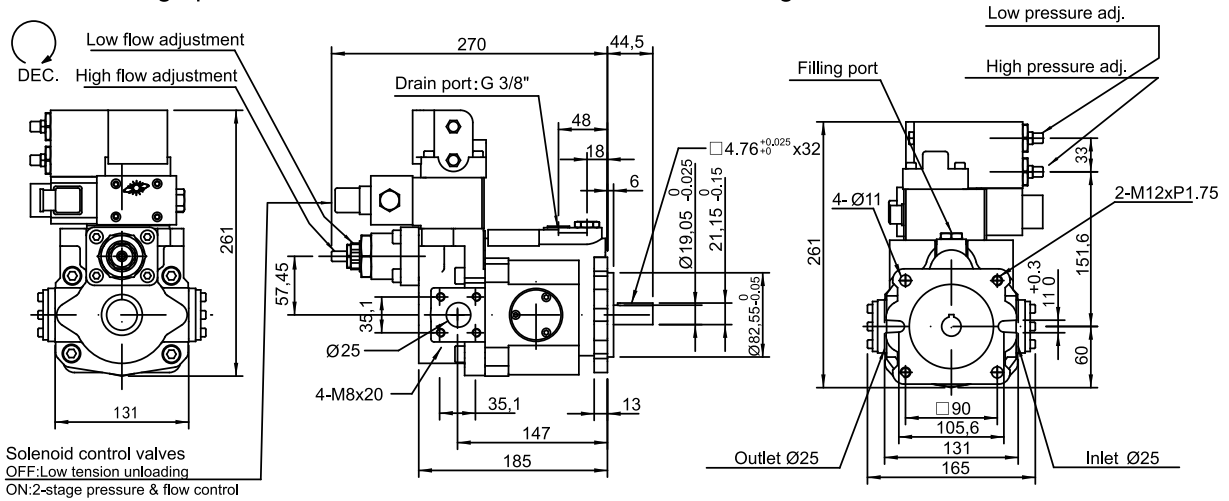
PQ15C - 2-stage pressure & Flow control



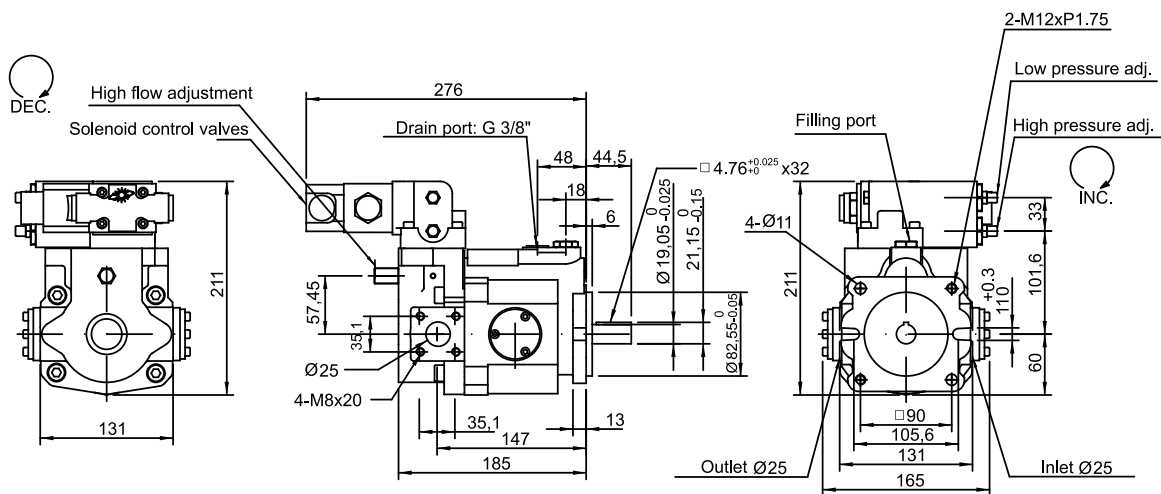
PQ15CG - 2-stage pressure & Flow control + Remote



PQ15CR - 2-stage pressure & Flow control + Low tension unloading

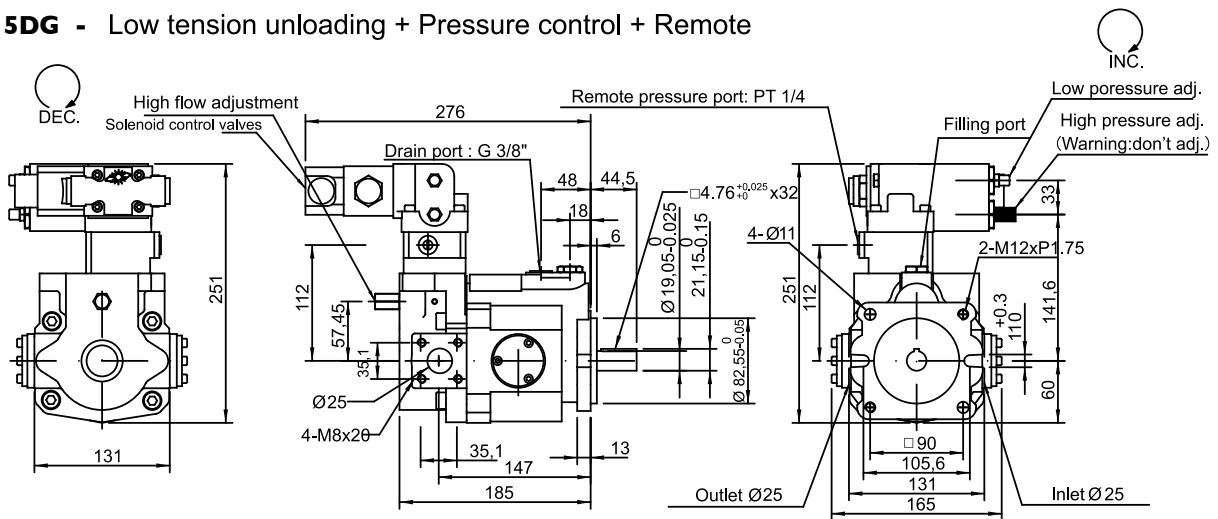


PQ15D - Low tension unloading + Pressure control

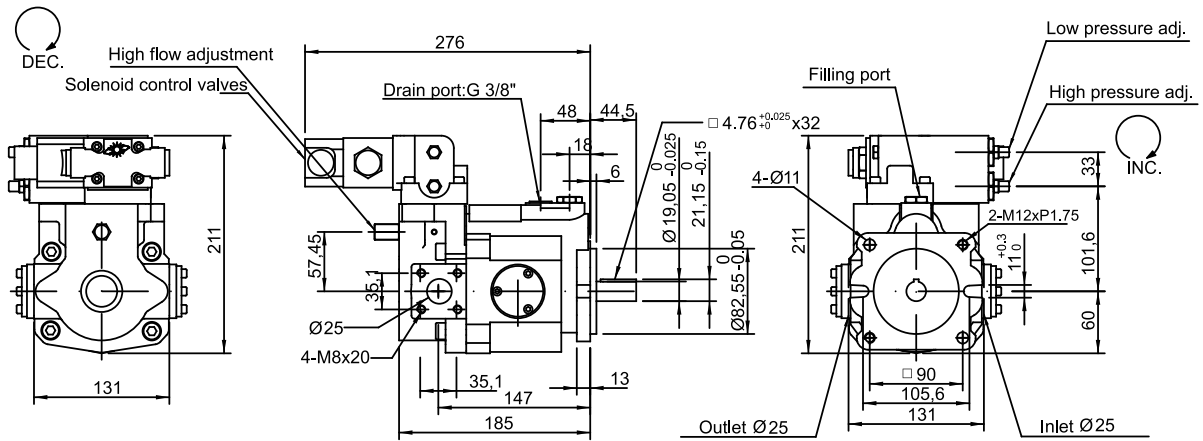


DIMENSIONS

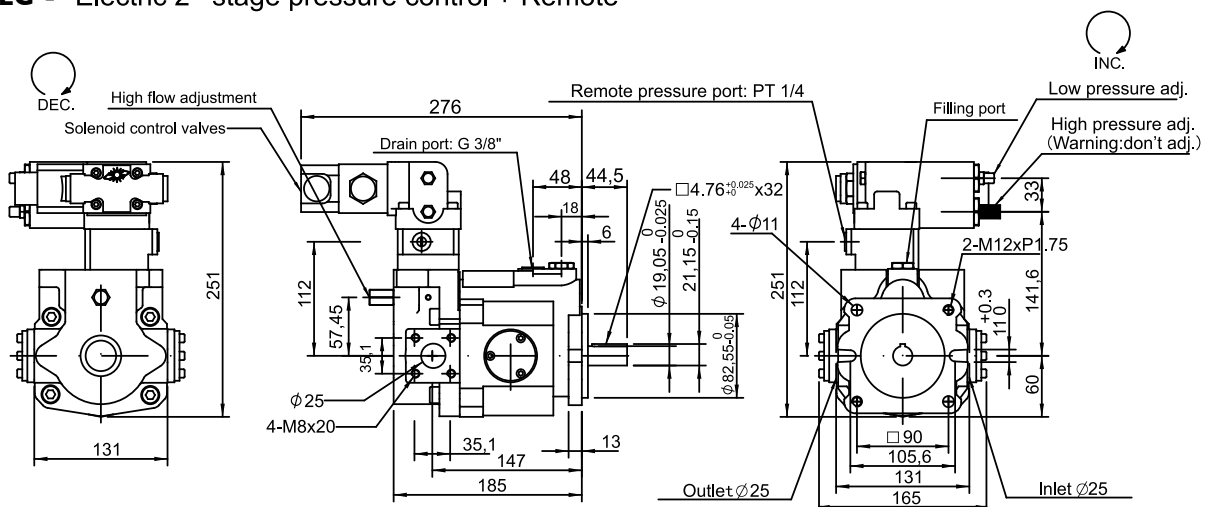
PQ15DG - Low tension unloading + Pressure control + Remote



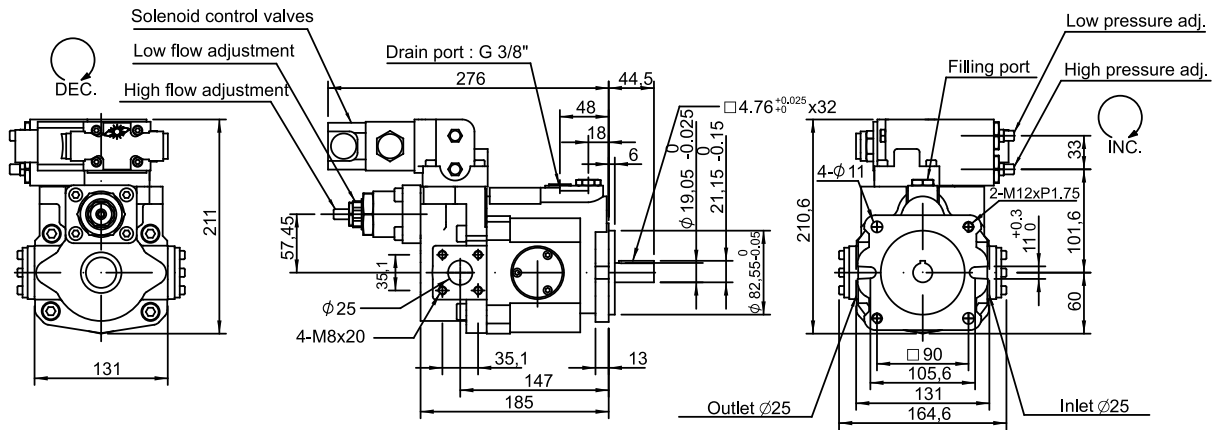
PQ15E - Electric 2 - stage pressure control



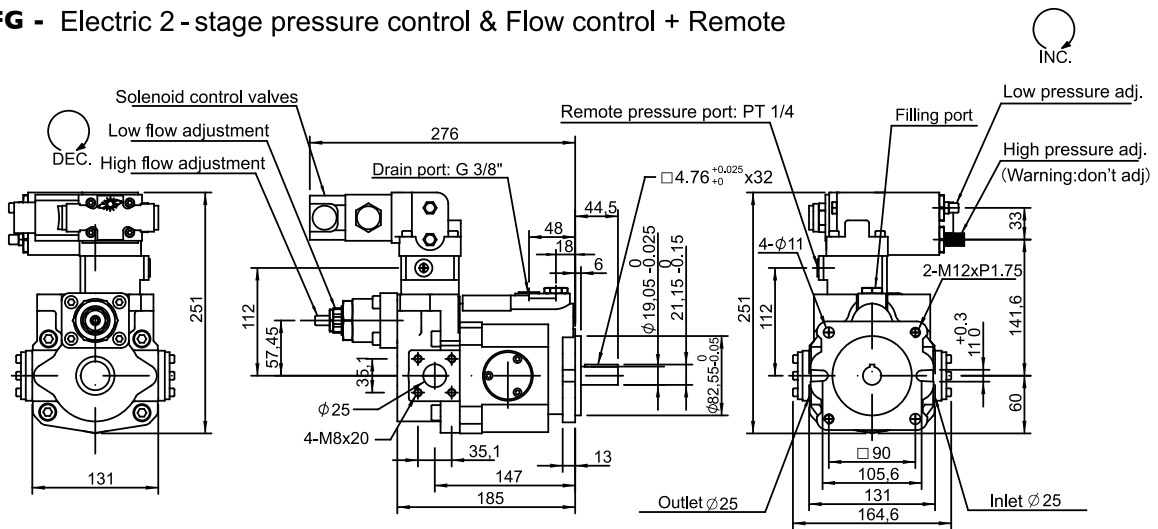
PQ15EG - Electric 2 - stage pressure control + Remote



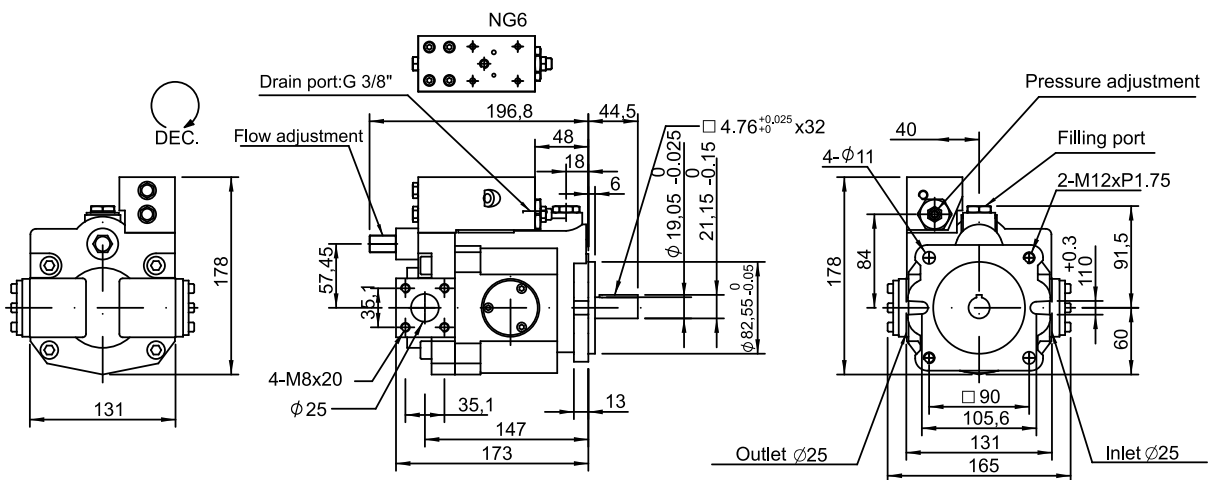
PQ15F - Electric 2-stage pressure control & Flow control



PQ15FG - Electric 2-stage pressure control & Flow control + Remote

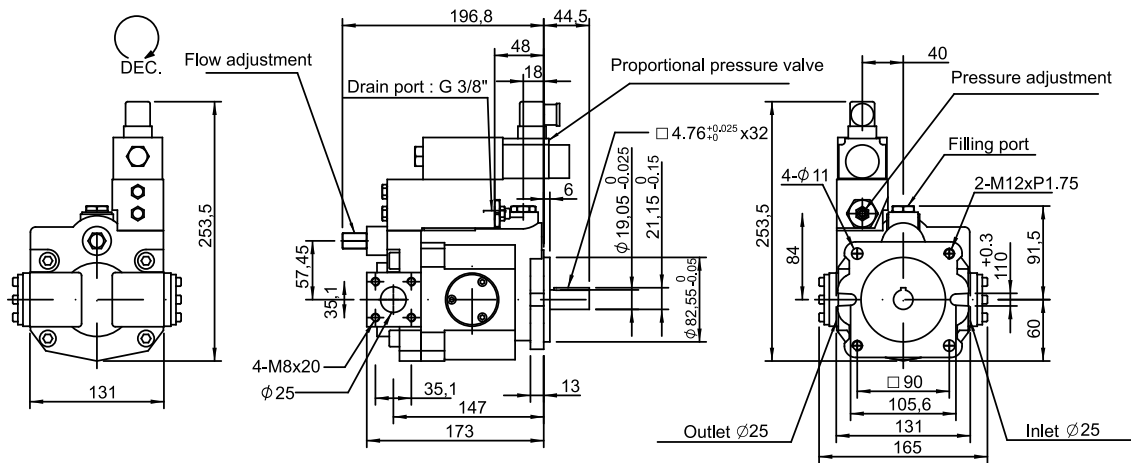


PQ15GM - Remote pressure compensator with NG6 interface

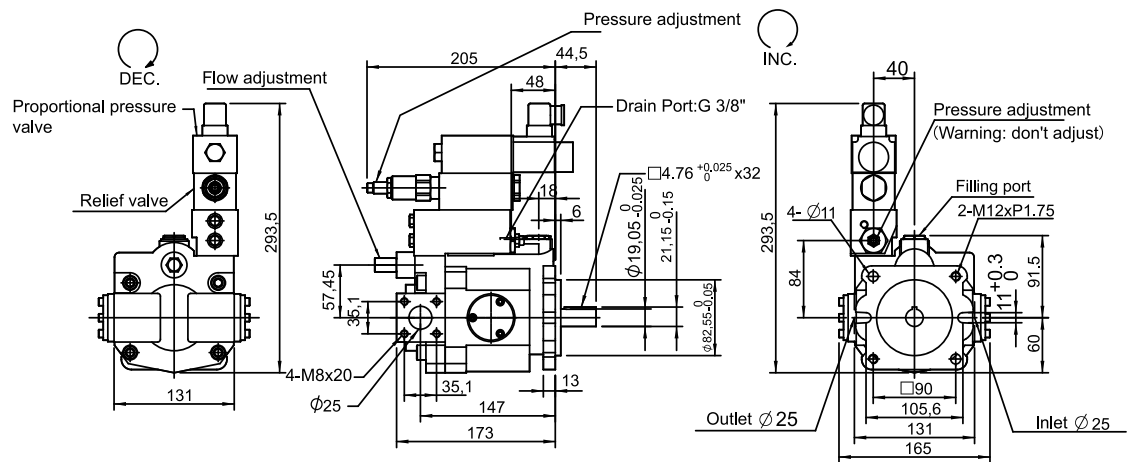


DIMENSIONS

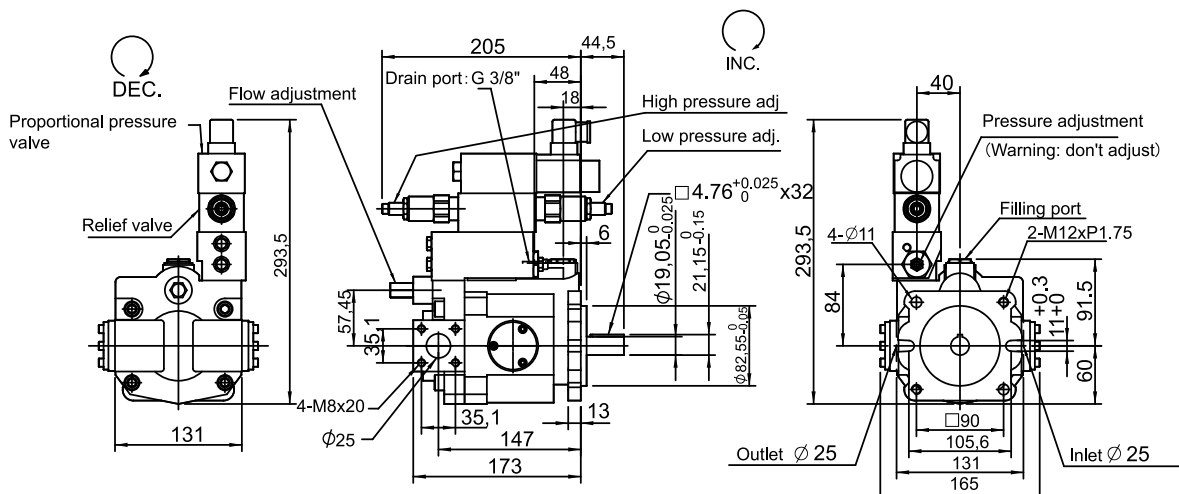
PQ15GJ - Remote pressure compensator + Proportional pressure valve



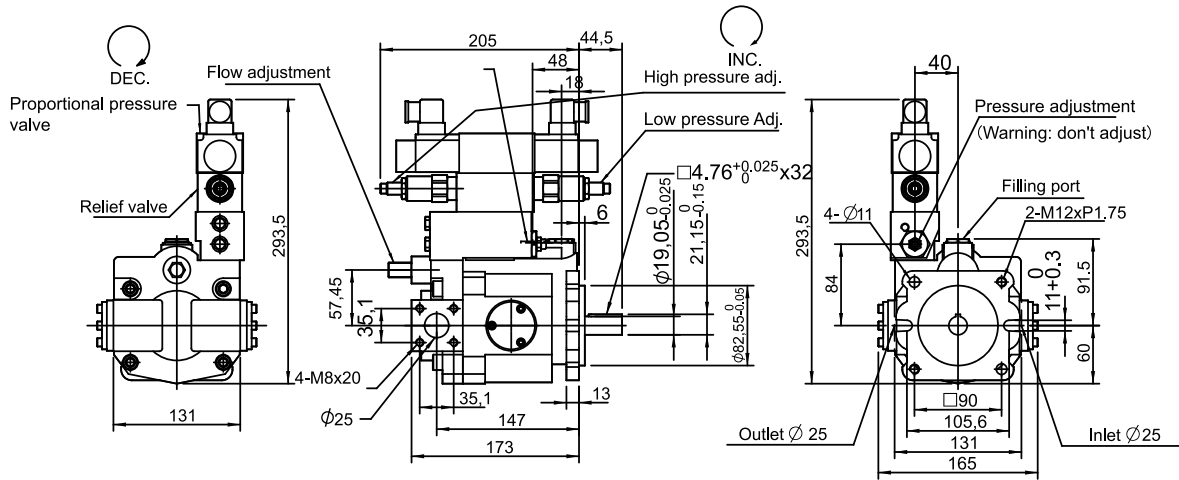
PQ15GR - Remote pressure compensator + Electrical unloading



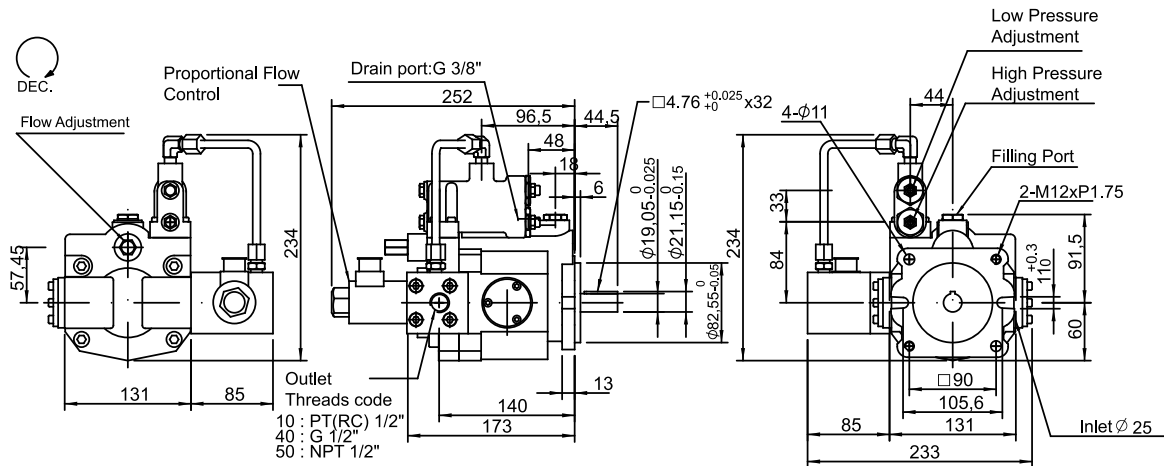
PQ15GB - Remote pressure compensator + 2-stage pressure control



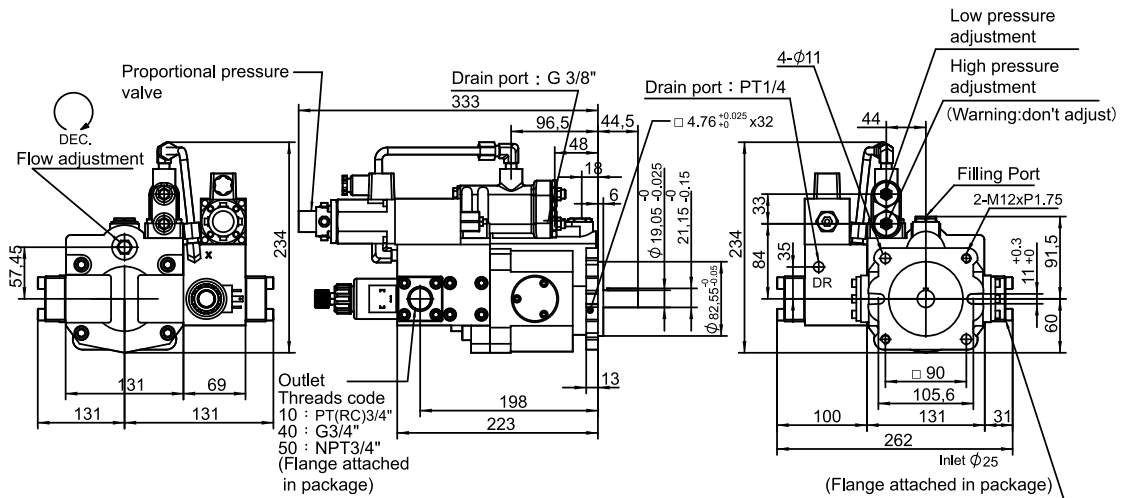
PQ15GC - Remote pressure compensator + Electrical unloading + 2-stage pressure control



PQ15HQ - Load-sensing compensator + Proportional flow valve + Relief valve



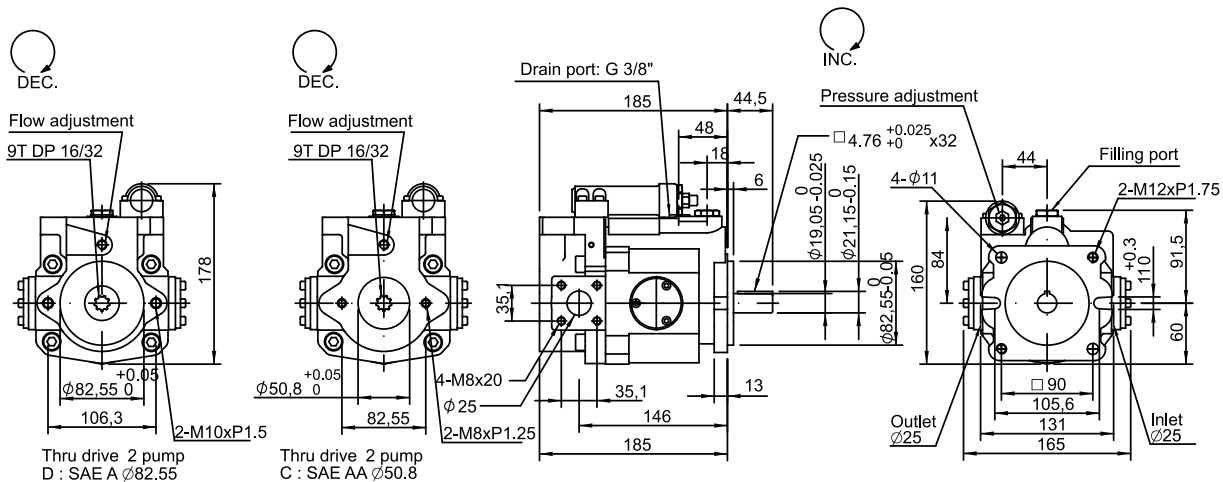
PQ15HK - Load-sensing compensator + Proportional pressure valve + Proportional flow valve



DIMENSIONS

**PQ15 - Thru drive (SAE AA $\varnothing 50.8$, code C)
Thru drive (SAE A $\varnothing 82.55$, code D)**

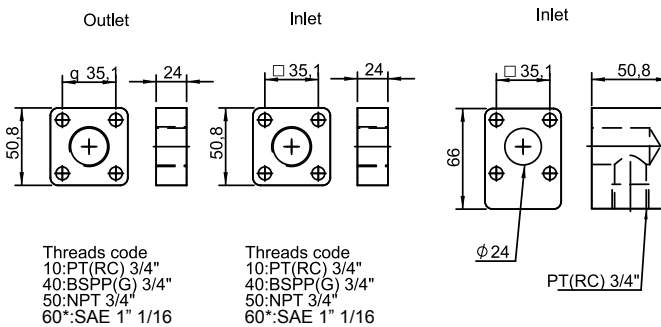
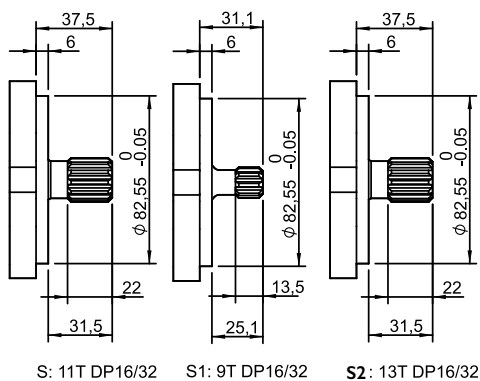
PQ	15																C			
PQ	15																D			



Type	A	B	C	CG	CR	D	DG	E	EG	F	FG	G	GJ	GM	HL	HK	HQ
○ Thru drive option	○					○	○	○	○			○	○	○	○	○	○

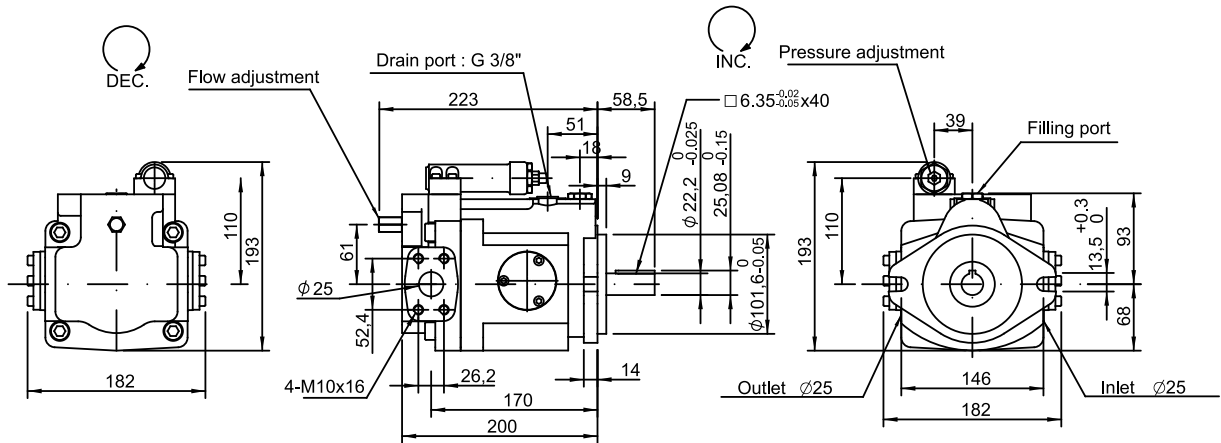
PQ15 - Splined shaft type

PQ15 - Inlet / Outlet

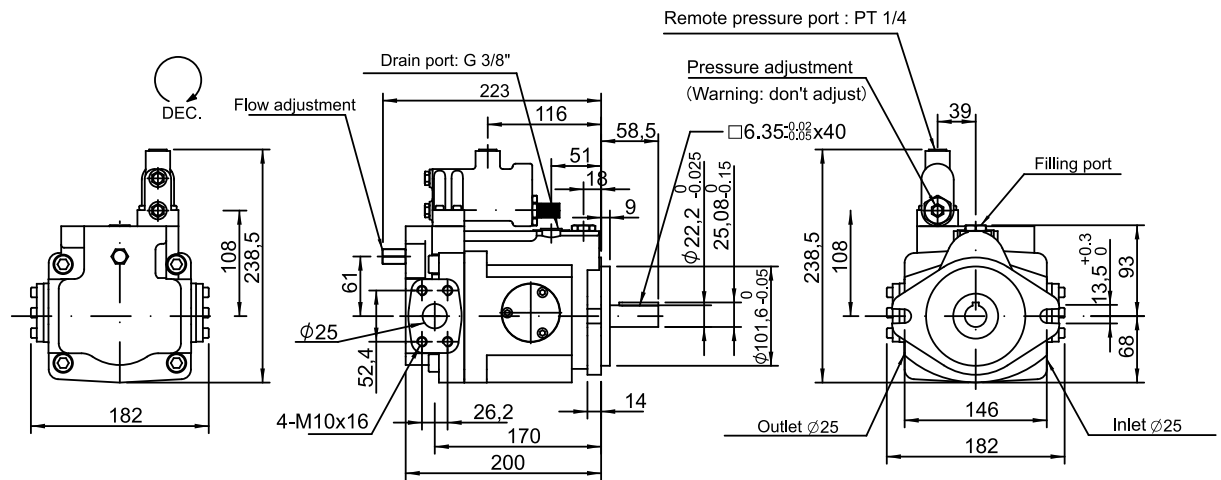


*flange included in the scope of supply the scope of supply

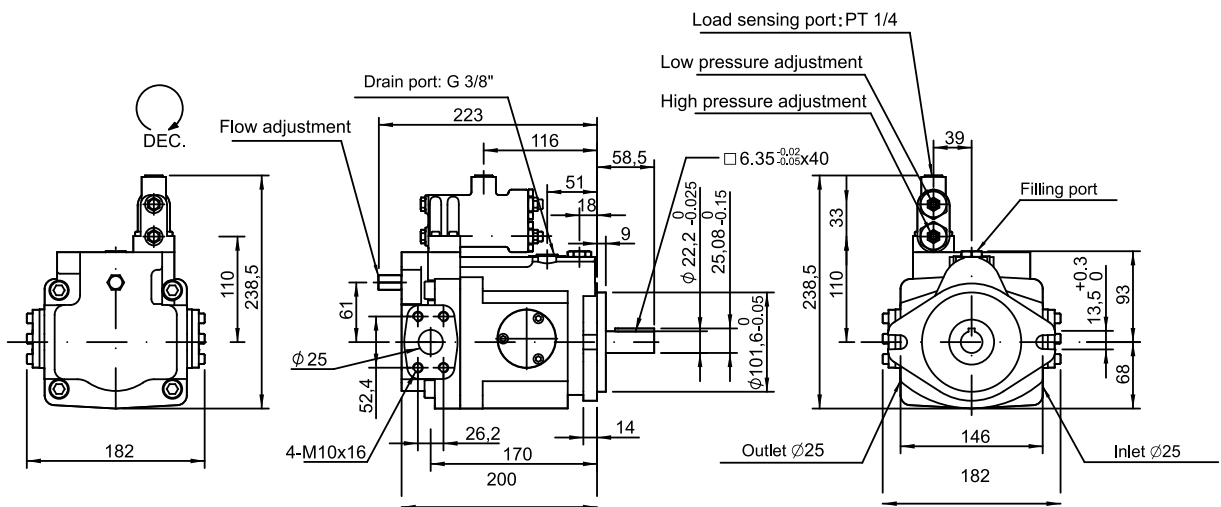
PQ23A - Standard pressure control



PQ23G - Remote pressure control

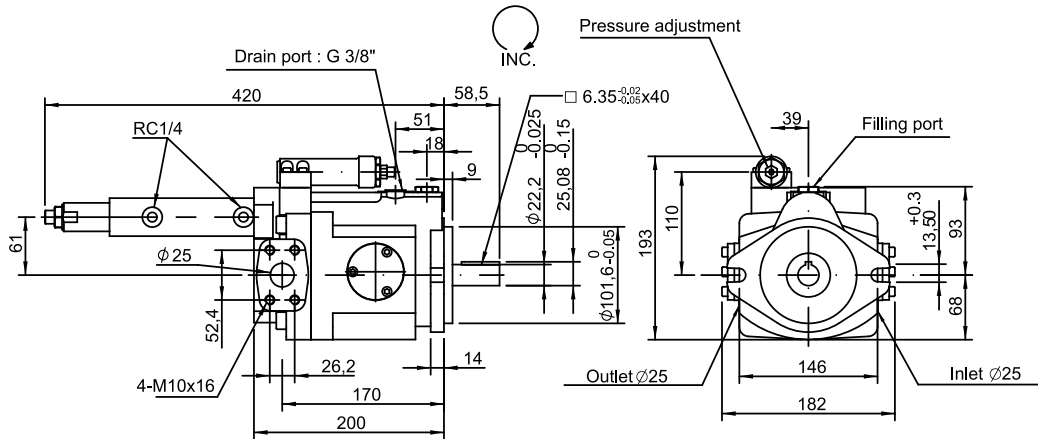


PQ23HL - Load-sensing control

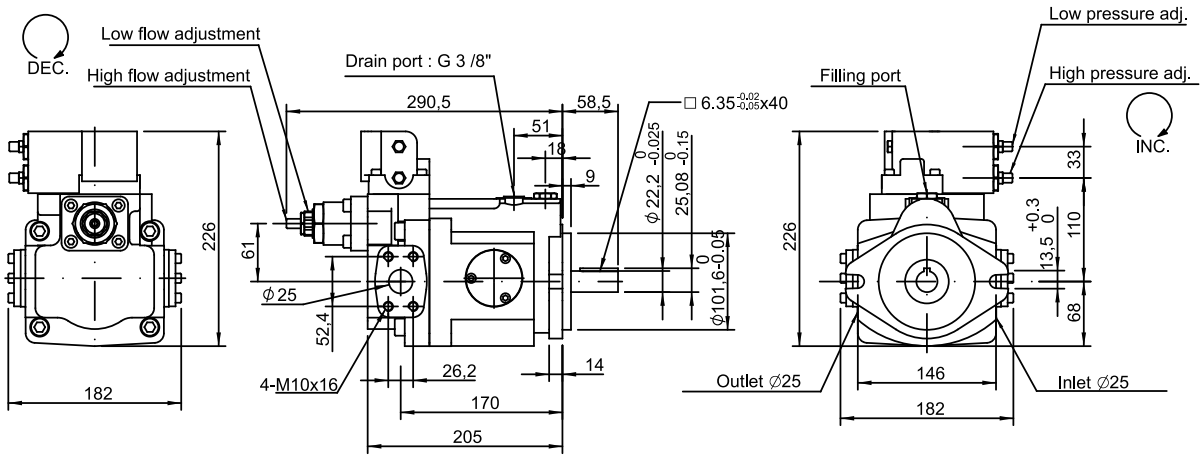


DIMENSIONS

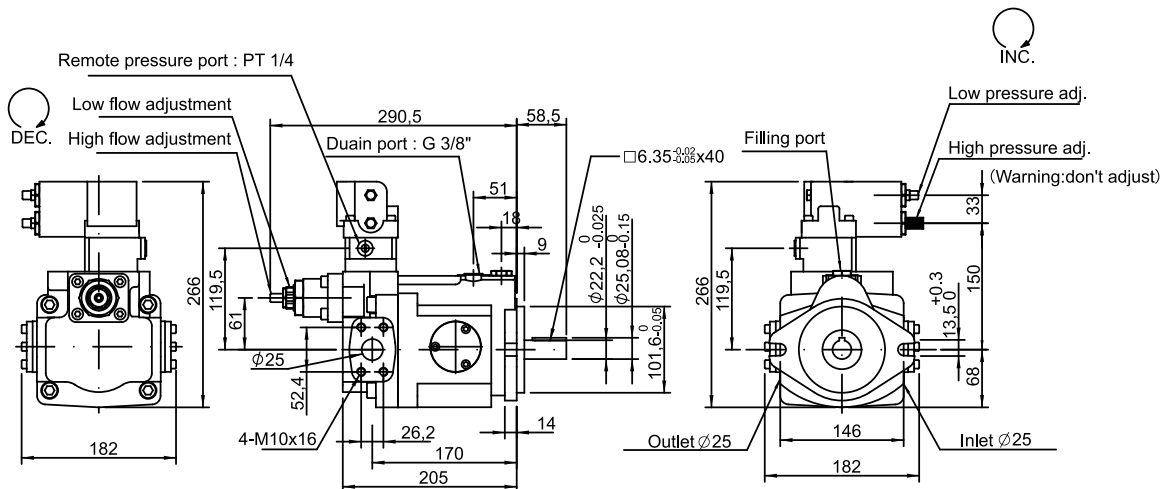
PQ23B - Multi-stage flow & Single-stage pressure control (with cylinder)



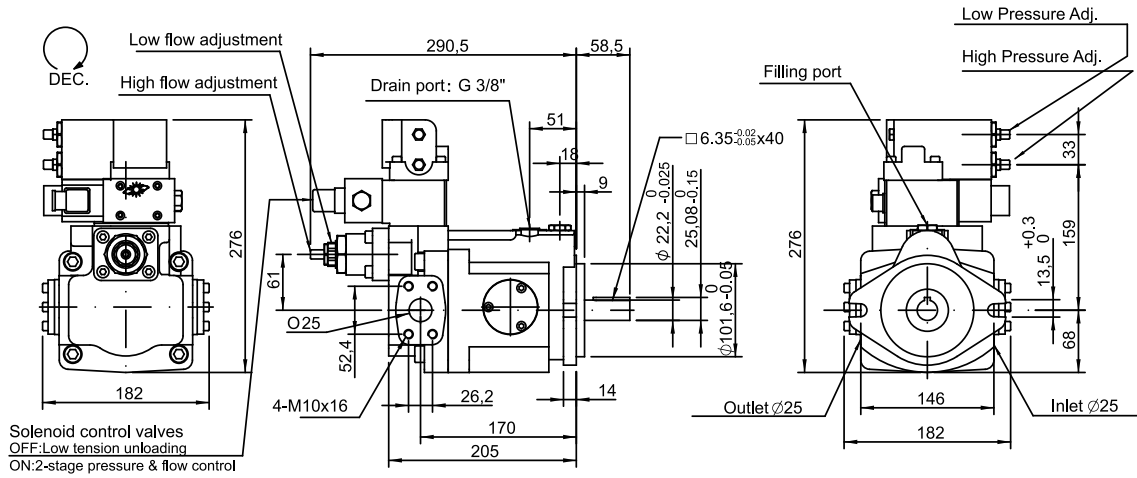
PQ23C - 2-stage pressure & Flow control



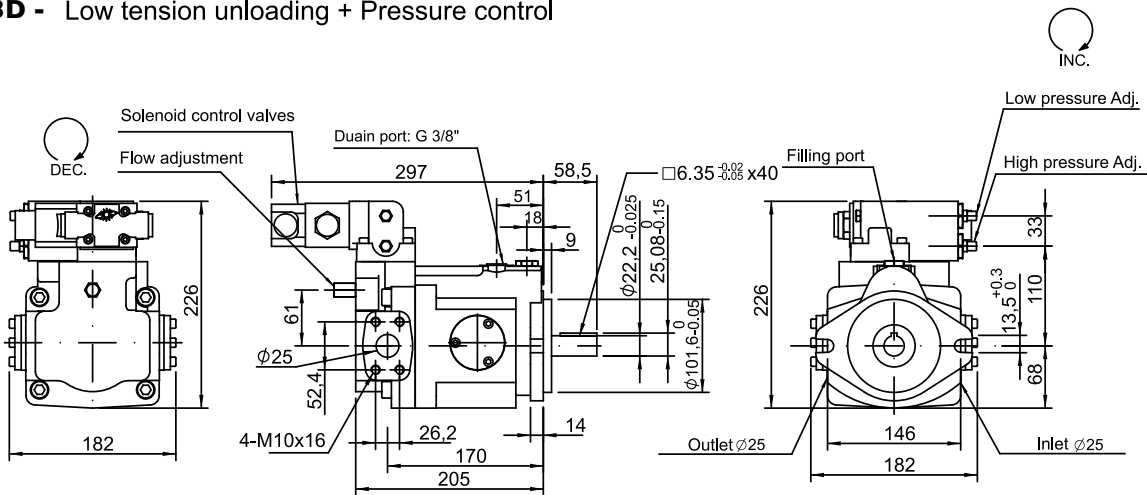
PQ23CG - 2-stage pressure & Flow control + Remote Remote



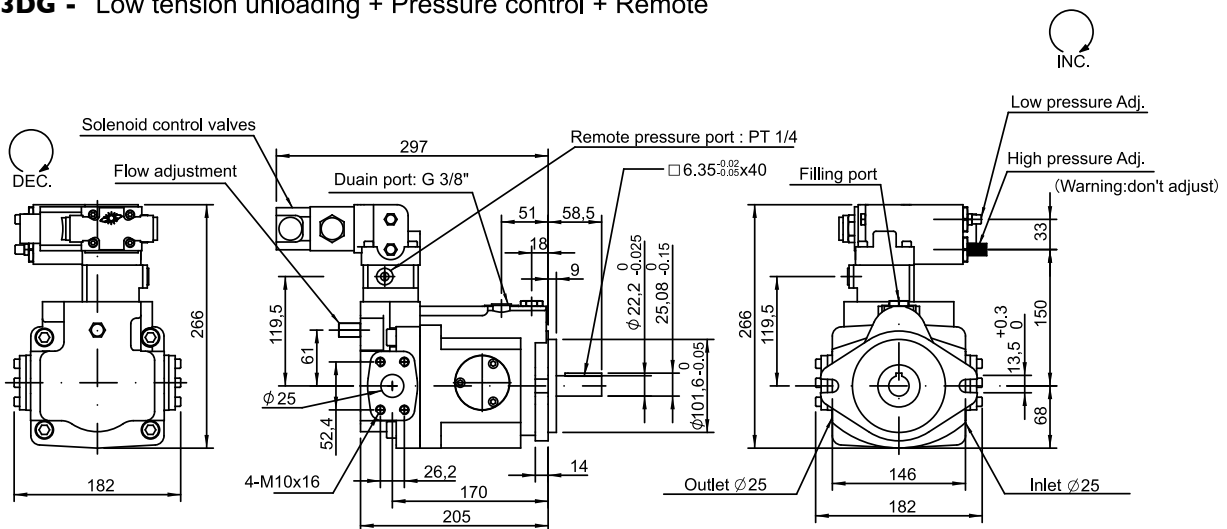
PQ23CR - 2-stage pressure & Flow control + Low tension unloading



PQ23D - Low tension unloading + Pressure control

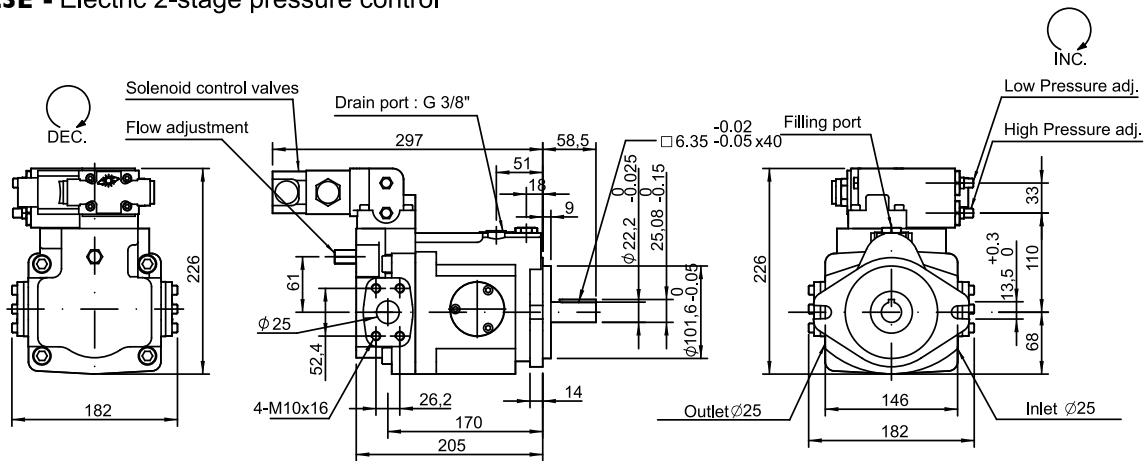


PQ23DG - Low tension unloading + Pressure control + Remote

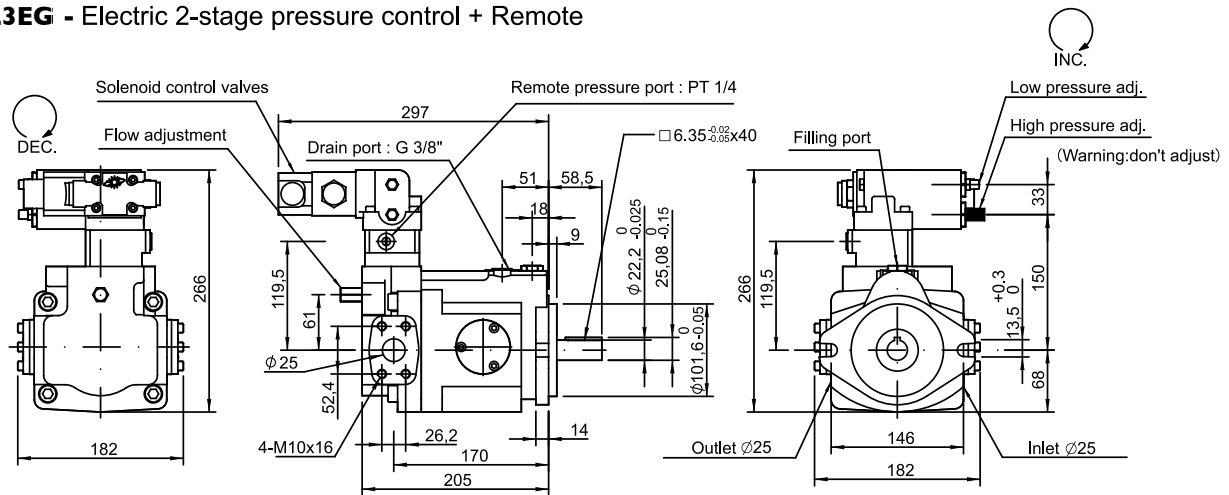


DIMENSIONS

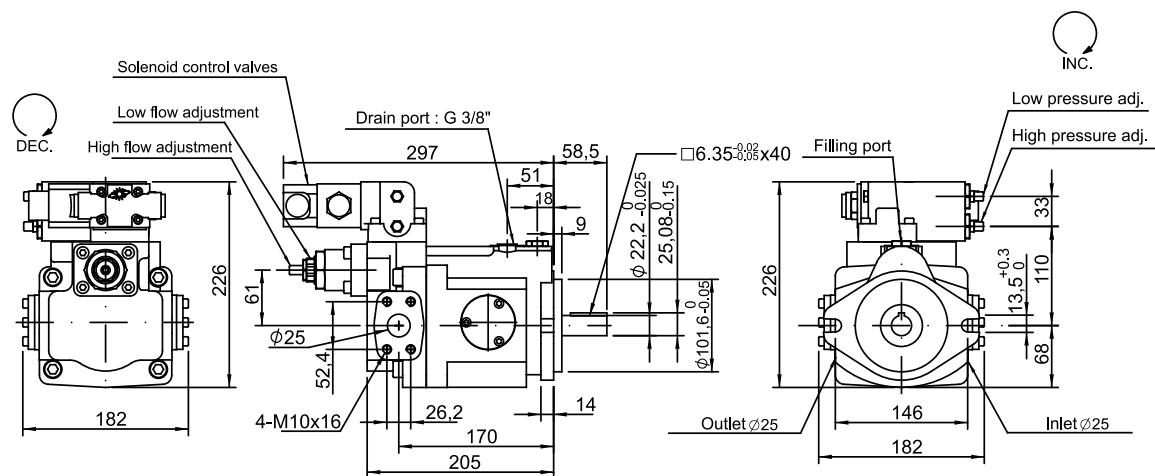
PQ23E - Electric 2-stage pressure control



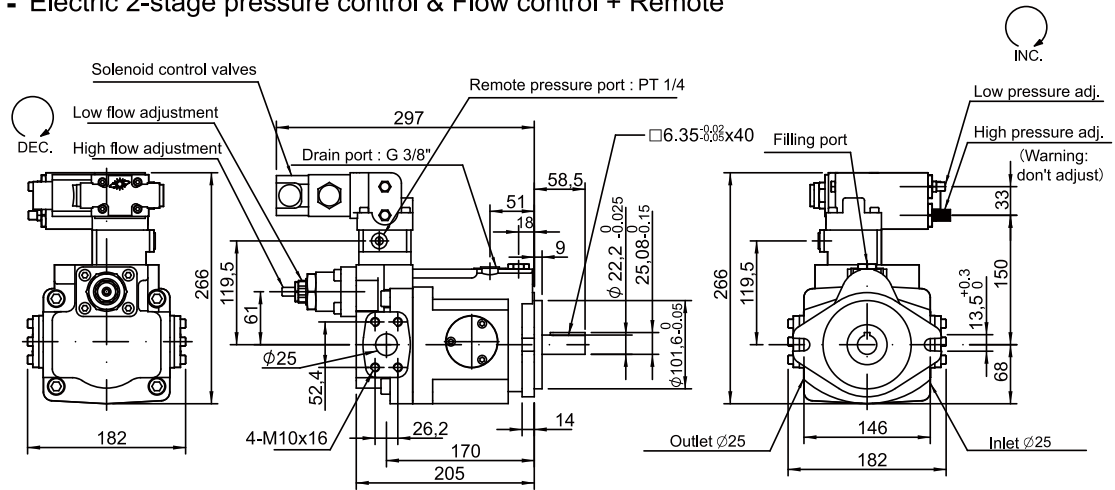
PQ23EG - Electric 2-stage pressure control + Remote



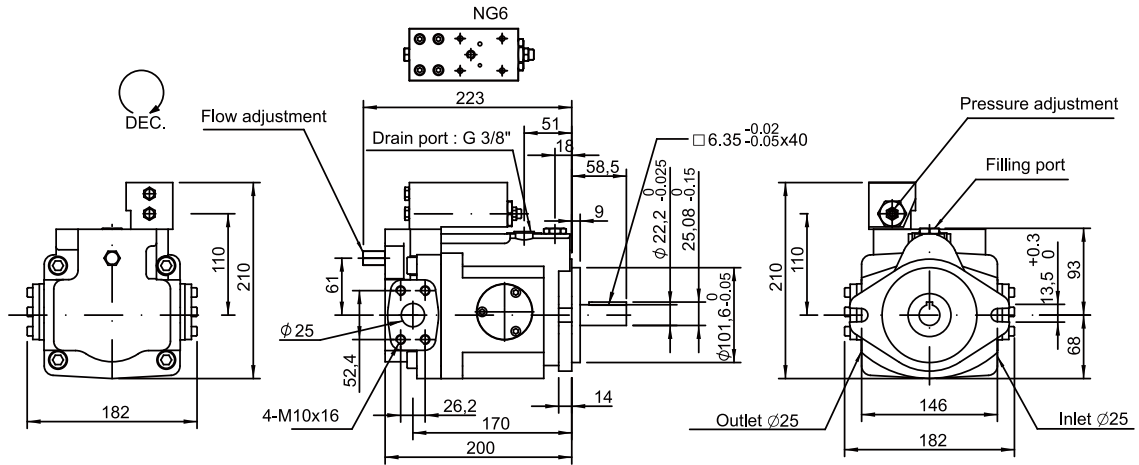
PQ23F - Electric 2-stage pressure control & Flow control



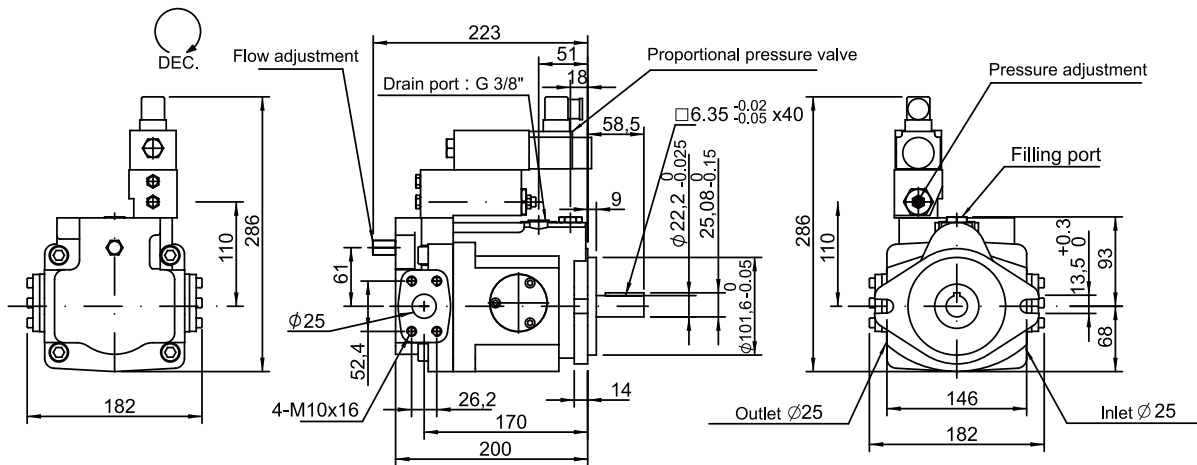
PQ23FG - Electric 2-stage pressure control & Flow control + Remote



PQ23GM - Remote pressure compensator with NG6 interface

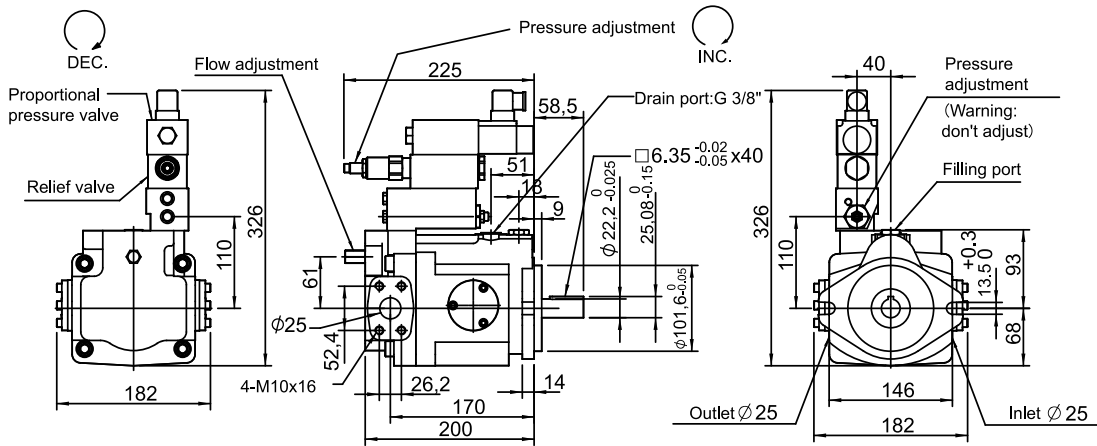


PQ23GJ - Remote pressure compensator + Proportional pressure valve

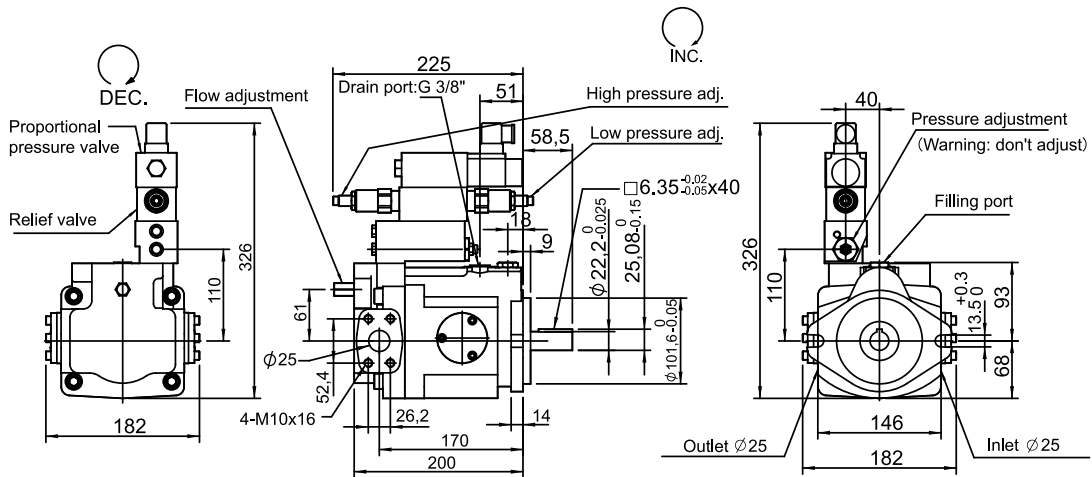


DIMENSIONS

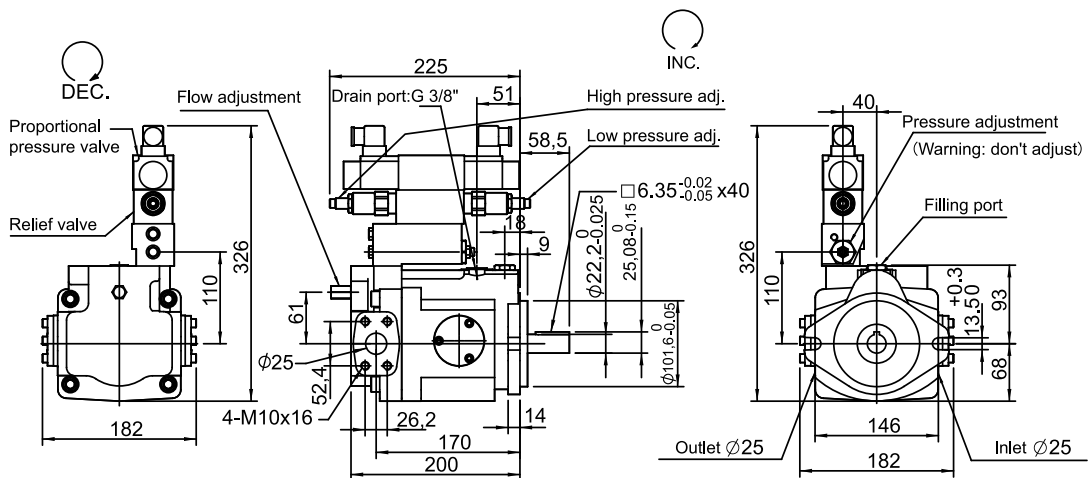
PQ23GR - Remote pressure compensator + Electrical unloading



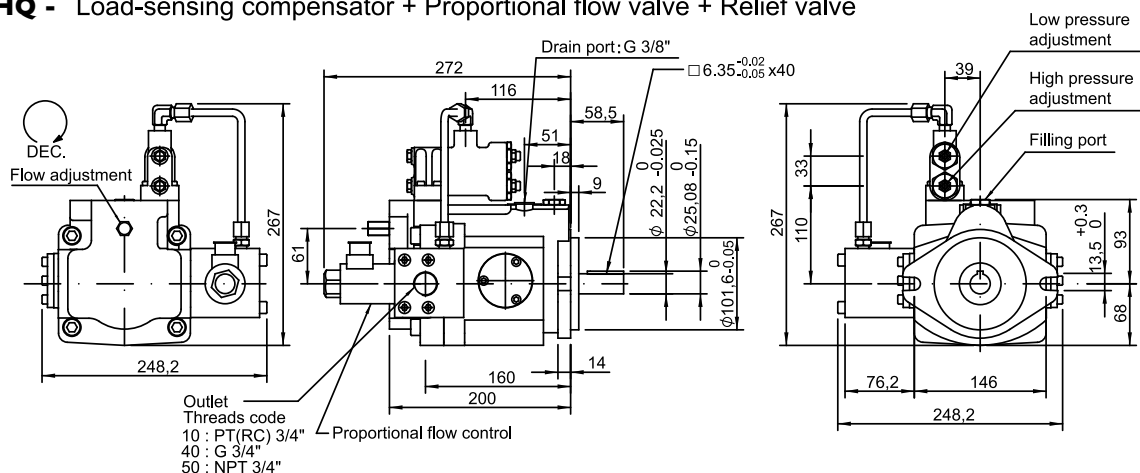
PQ23GB - Remote pressure compensator + 2-stage pressure control



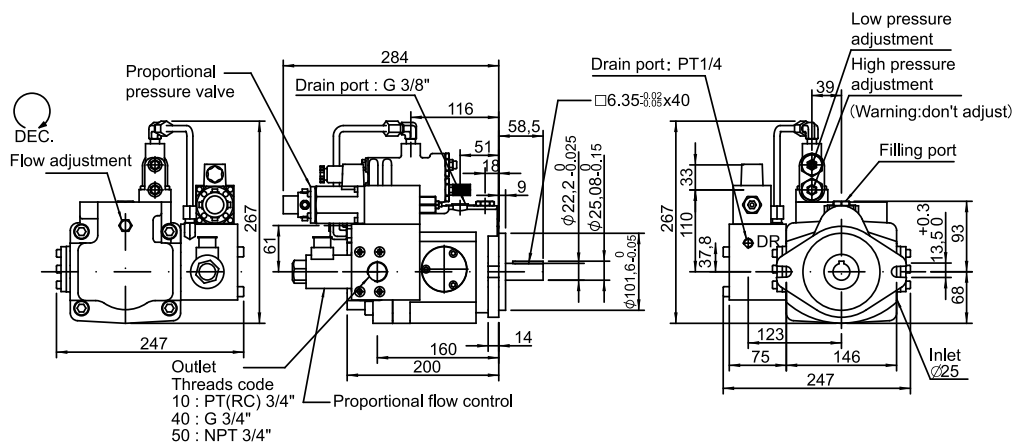
PQ23GC - Remote pressure compensator + Electrical unloading + 2-stage pressure control



PQ23HQ - Load-sensing compensator + Proportional flow valve + Relief valve



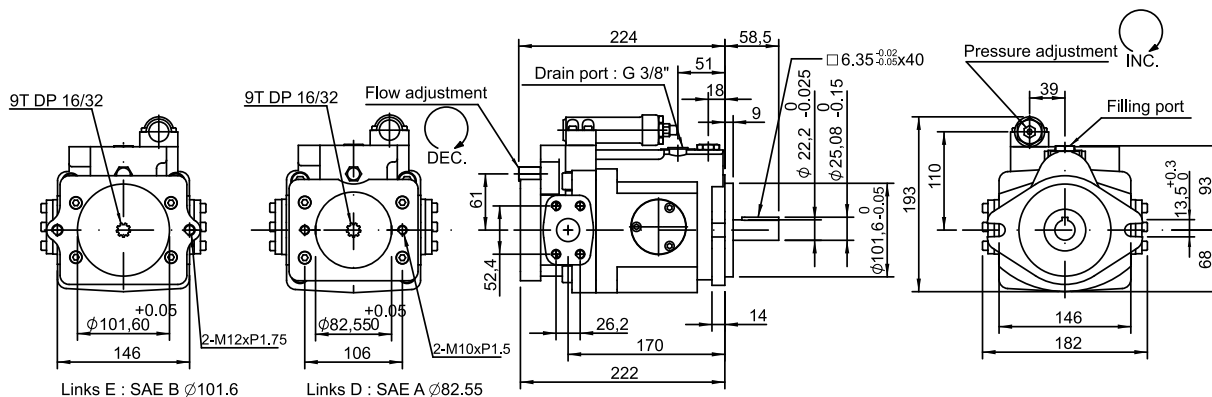
PQ23HK - Load-sensing compensator + Proportional pressure valve + Proportional flow valve



**PQ23 - Thru drive (SAE A $\varnothing 82.55$, code D)
Thru drive (SAE B $\varnothing 101.6$, code E)**

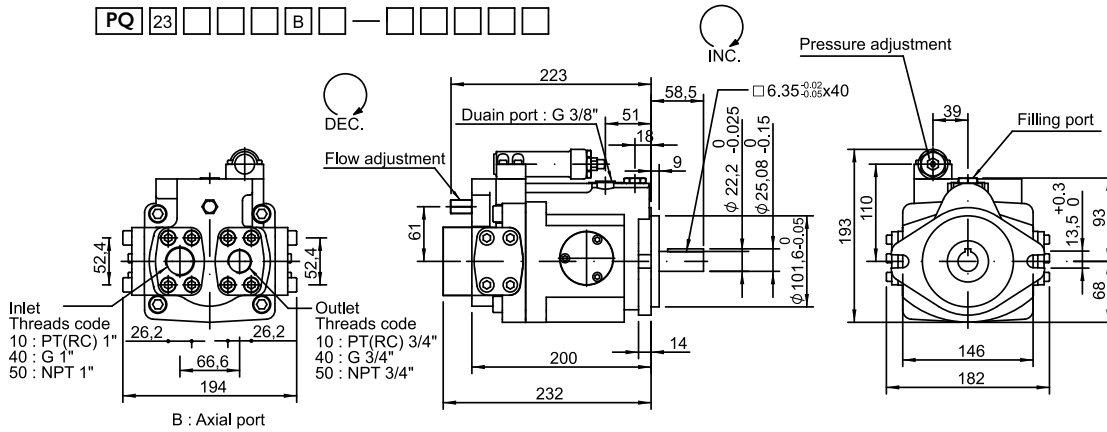
PQ	23																D		
PQ	23																E		

Type	A	B	C	CG	CR	D	DG	E	EG	F	FG	G	GJ	GM	HL	HK	HQ
○ Thru drive option	○					○	○	○	○	○	○	○	○	○	○	○	○

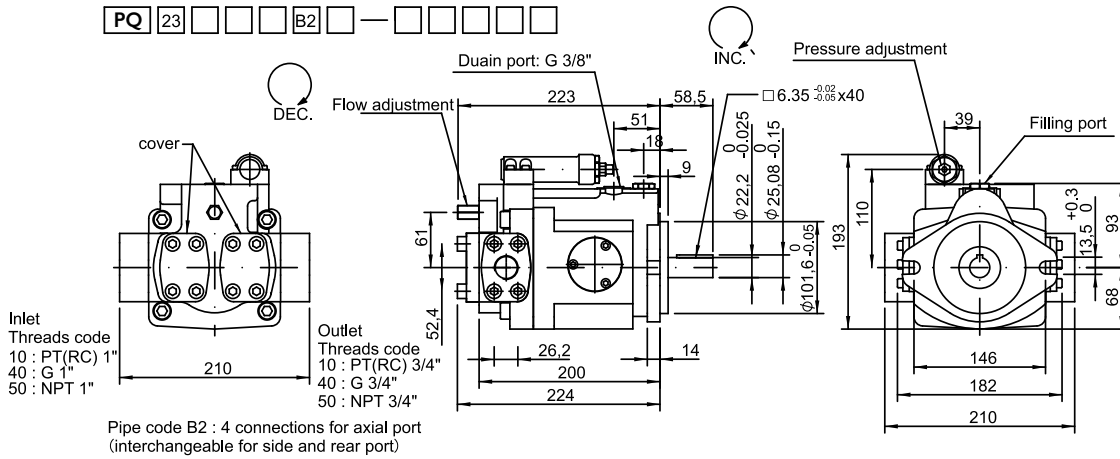


DIMENSIONS

PQ23 - Rear port (Please flowing order code no.6, add "B")

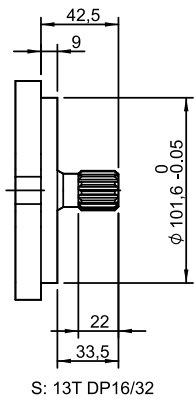


PQ23 - 4 Connections for rear port (Please flowing order code no.6, add "B2")

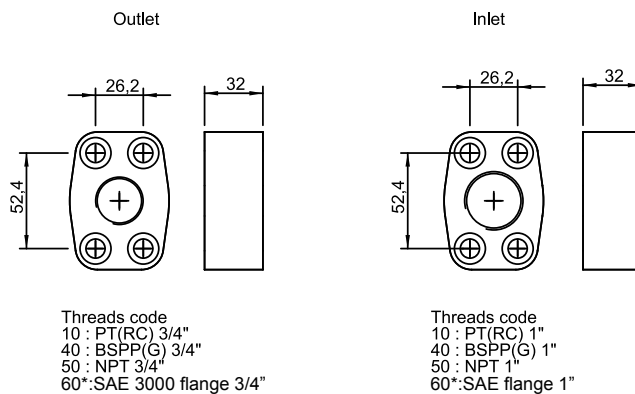


Type	A	B	C	CG	D	DG	E	EG	F	FG	G	GJ	GM	HL	HK	HQ
○ Axial port option	○	○									○	○	○	○		

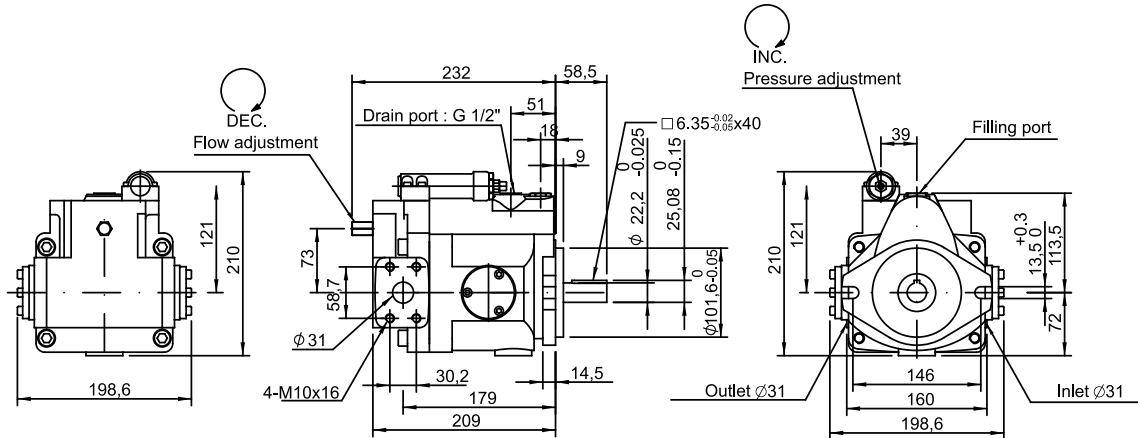
PQ23 - Splined shaft type



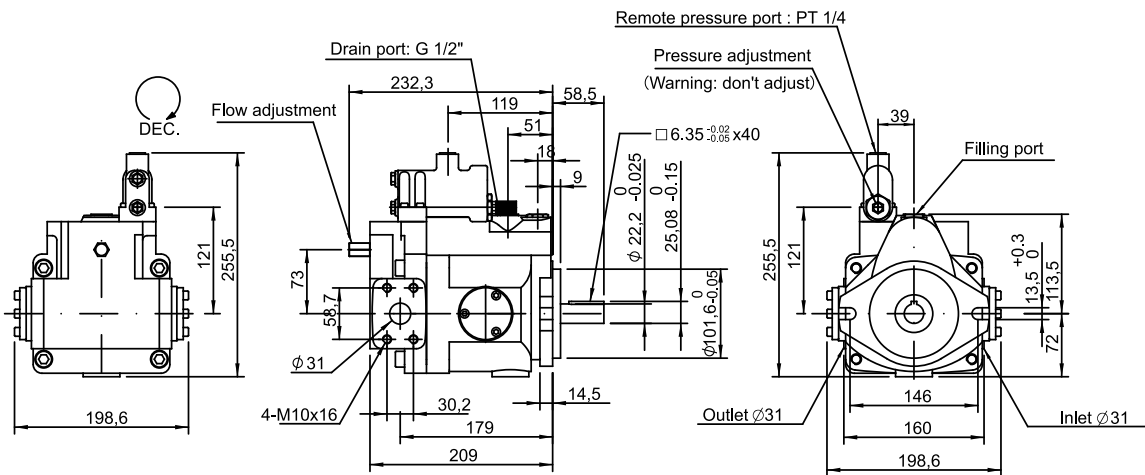
PQ23 - Inlet / Outlet



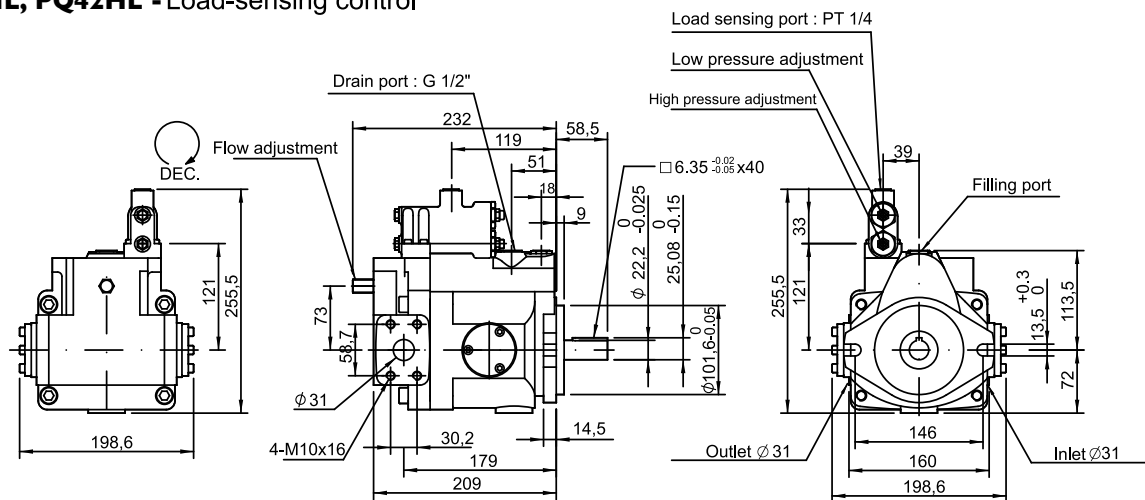
PQ38A, PQ42A - Standard pressure control



PQ38G, PQ42G - Remote pressure control

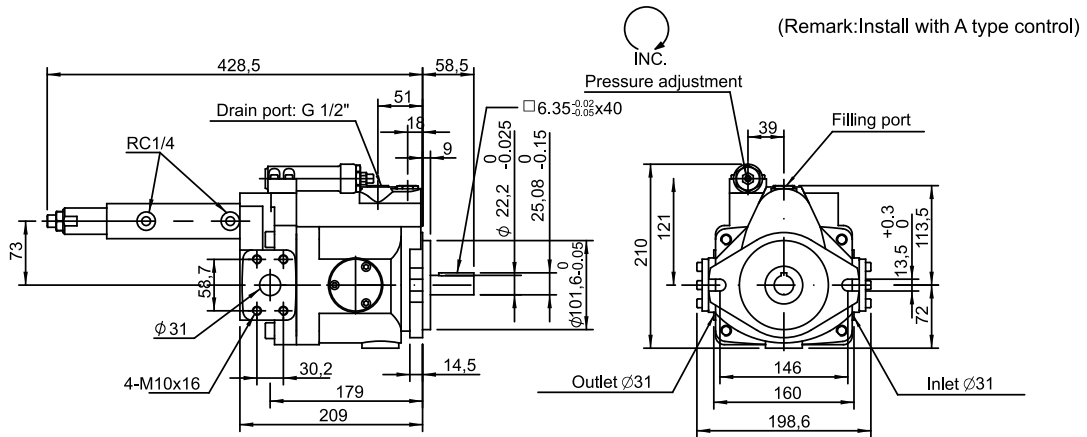


PQ38HL, PQ42HL - Load-sensing control

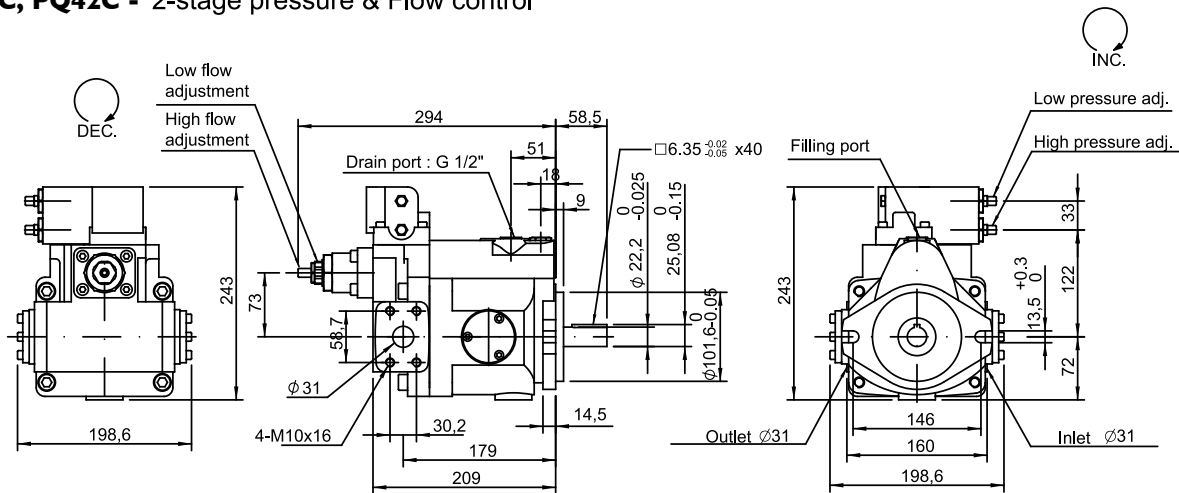


DIMENSIONS

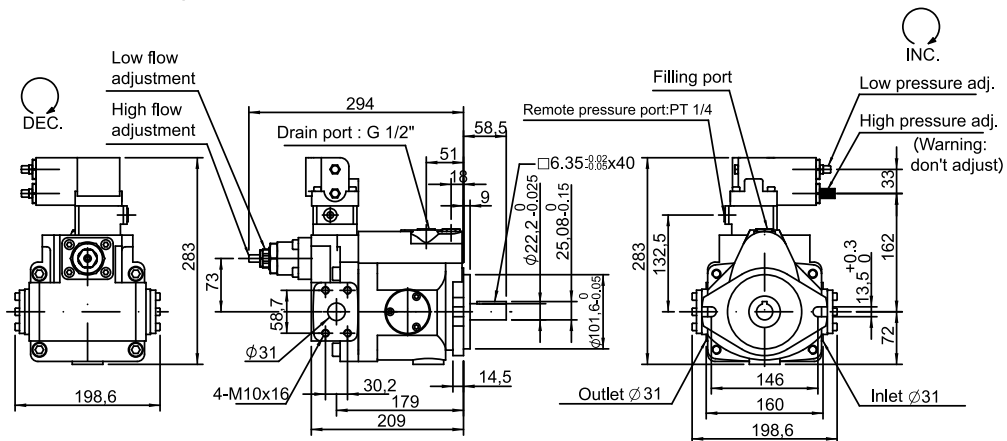
PQ38B, PQ42B - Multi-stage flow & Single-stage pressure control (with cylinder)



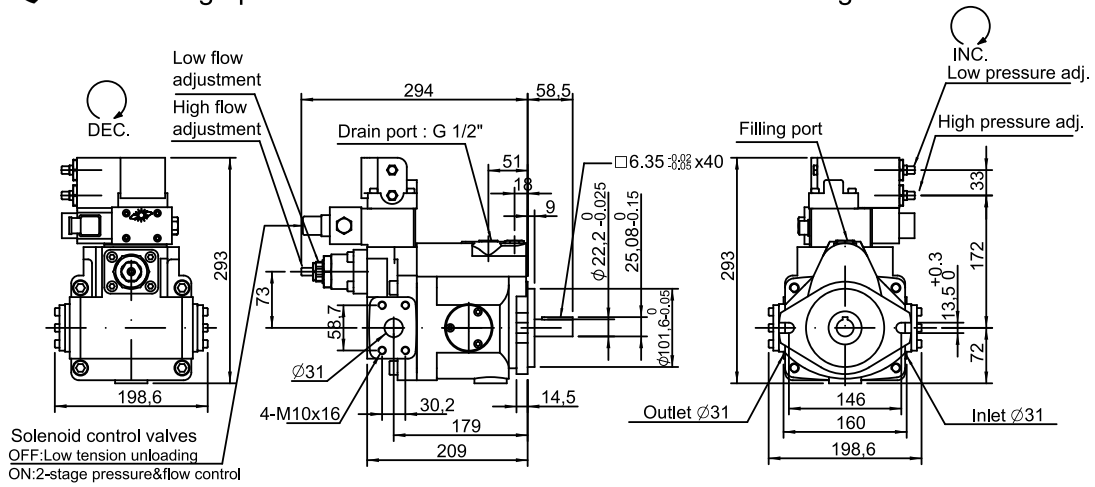
PQ38C, PQ42C - 2-stage pressure & Flow control



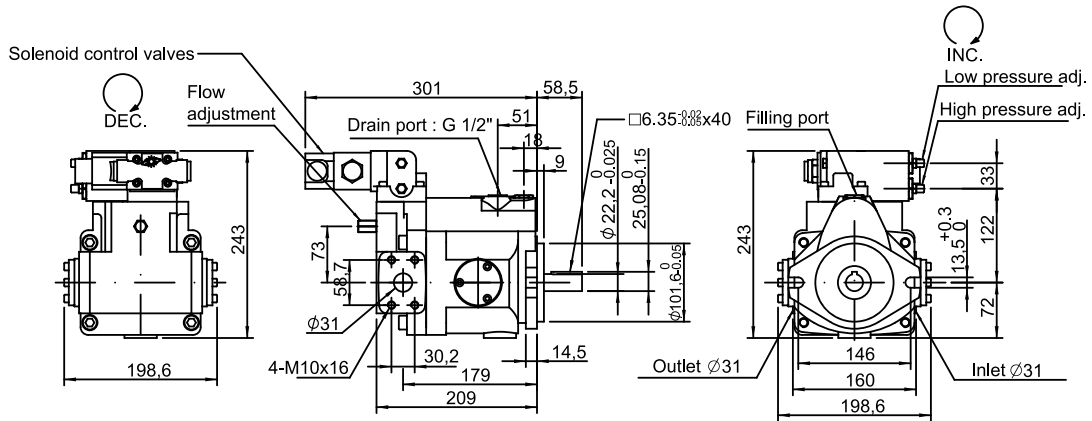
PQ38CG, PQ42CG - 2-stage pressure & Flow control + Remote



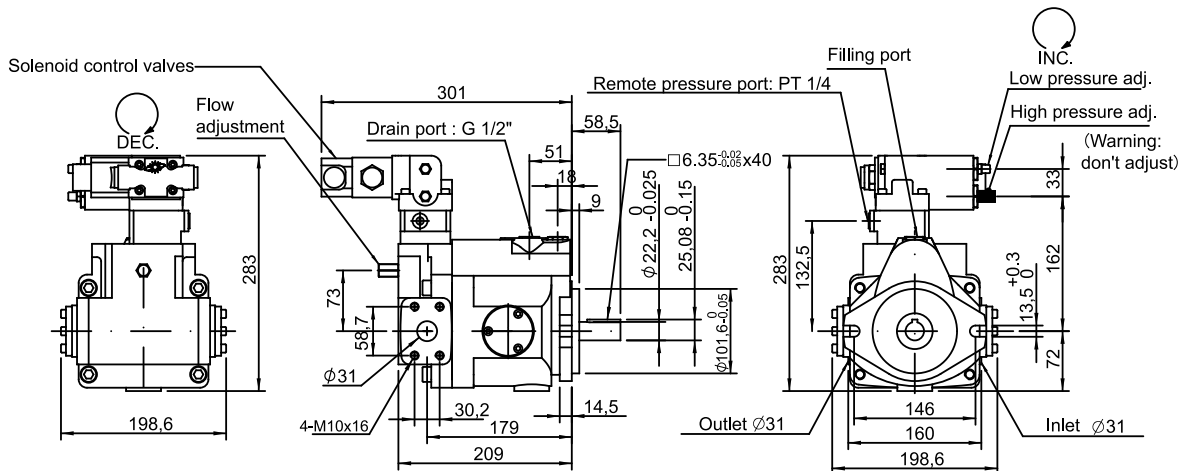
PQ38CR, PQ42CR - 2-stage pressure & Flow control + Low tension unloading



PQ38D, PQ42D - Low tension unloading + Pressure control

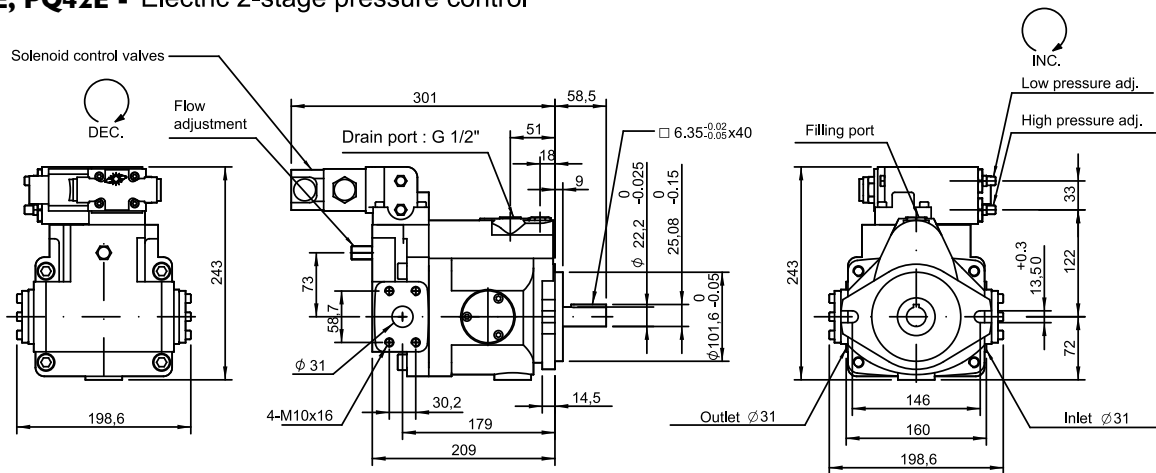


PQ38DG, PQ42DG - Low tension unloading + Pressure control + Remote

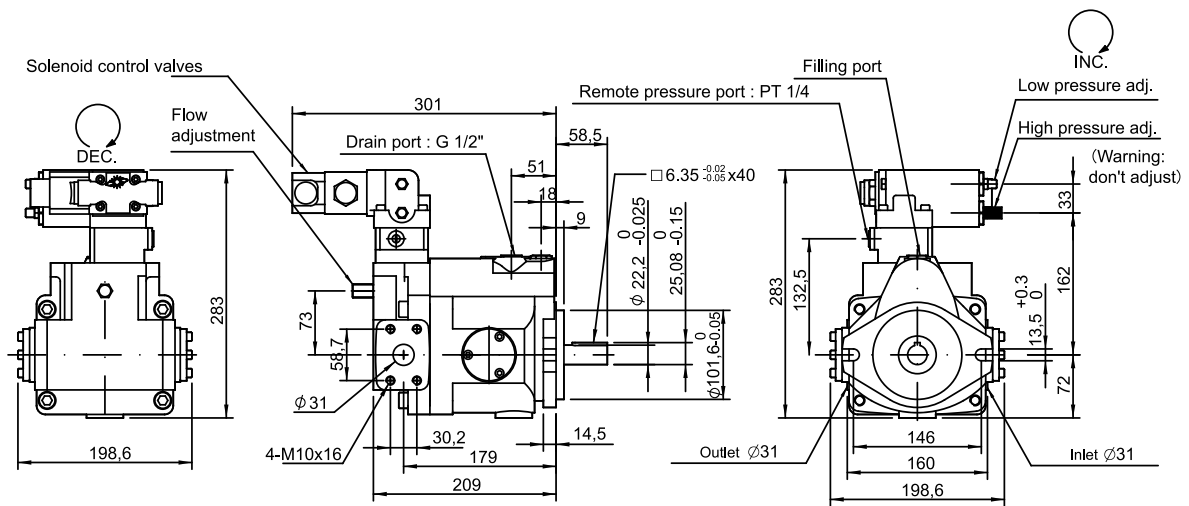


DIMENSIONS

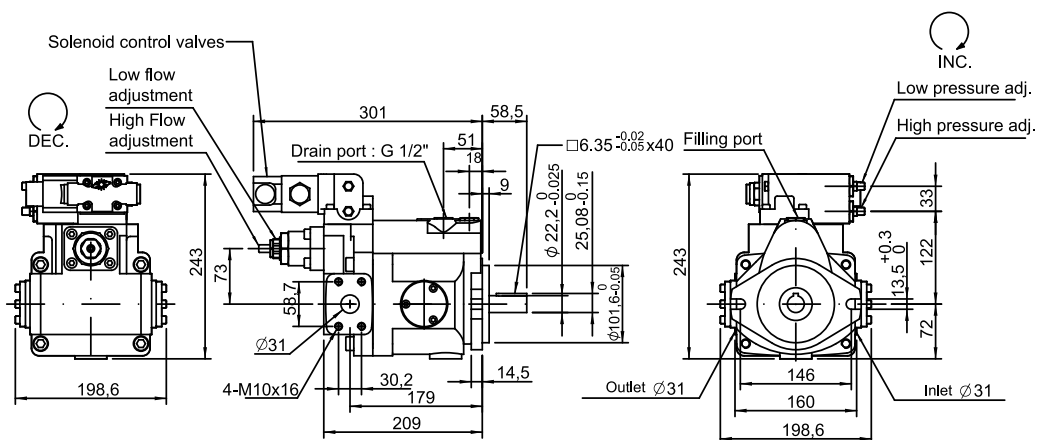
PQ38E, PQ42E - Electric 2-stage pressure control



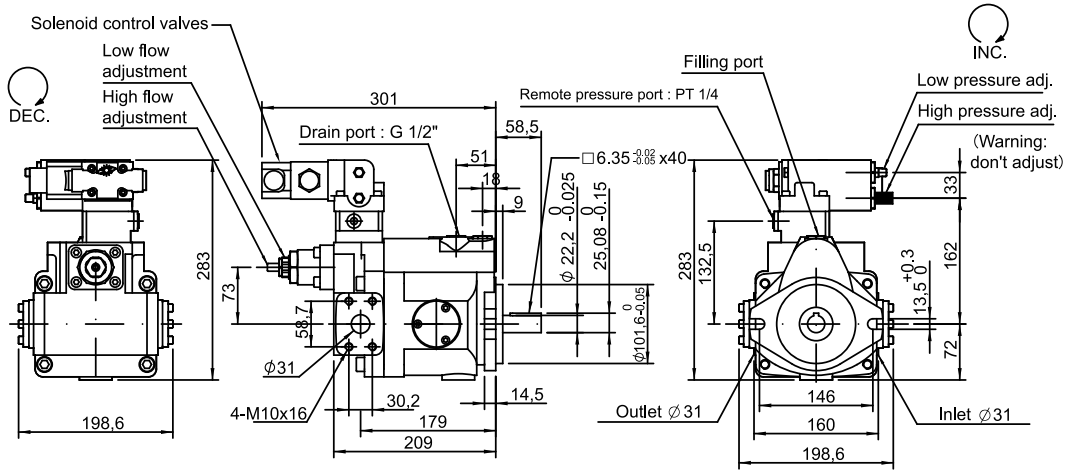
PQ38EG, PQ42EG - Electric 2-stage pressure control + Remote



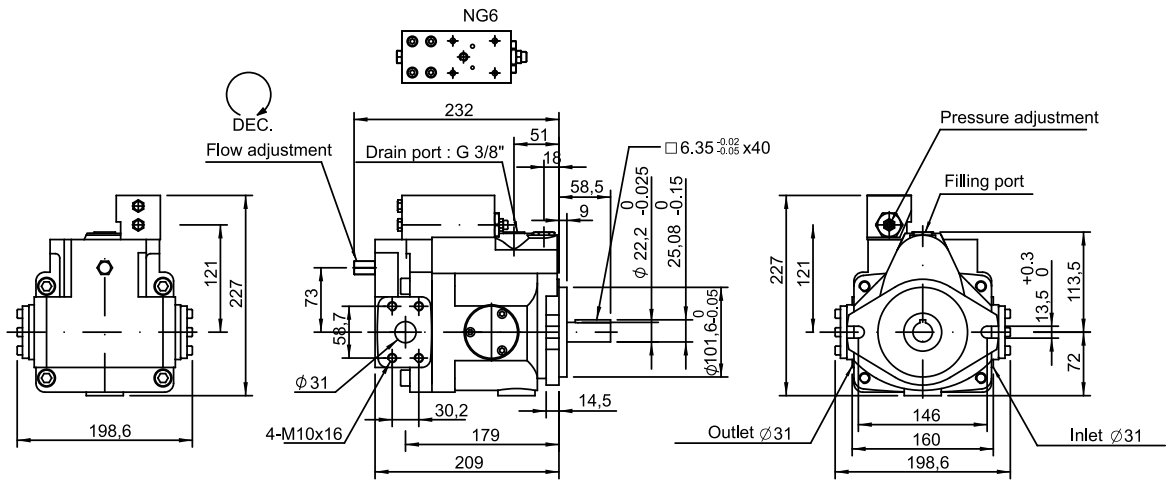
PQ38F, PQ42F - Electric 2-stage pressure control & Flow control



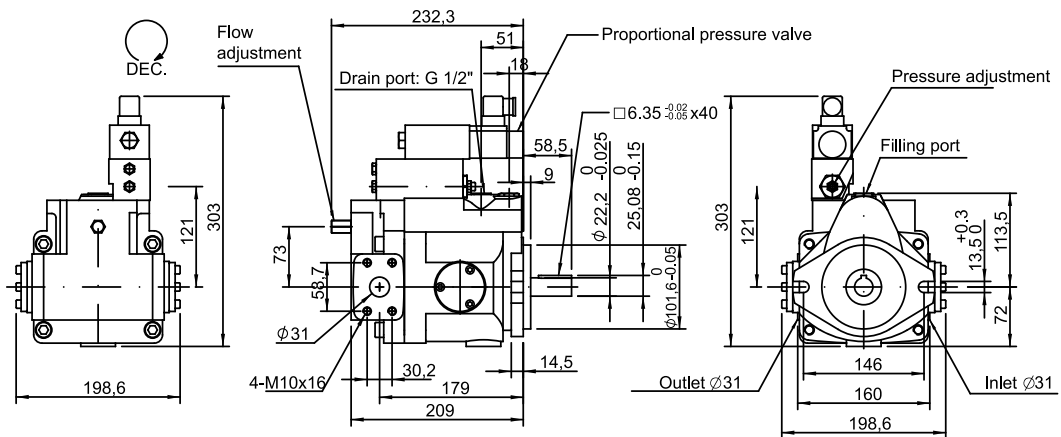
PQ38FG, PQ42FG - Electric 2-stage pressure control & Flow control + Remote



PQ38GM, PQ42GM - Remote pressure compensator with NG6 interface

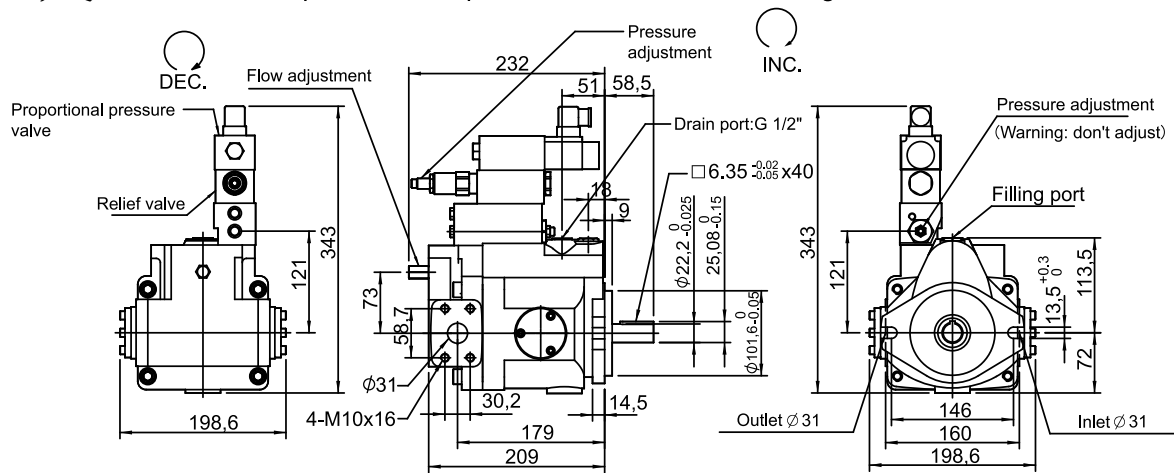


PQ38GJ, PQ42GJ - Remote pressure compensator + Proportional pressure valve

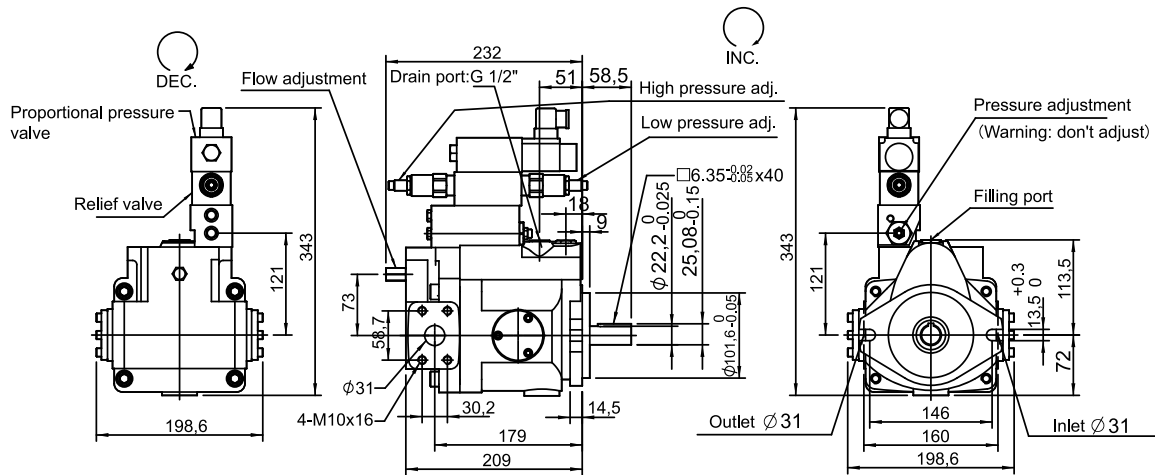


DIMENSIONS

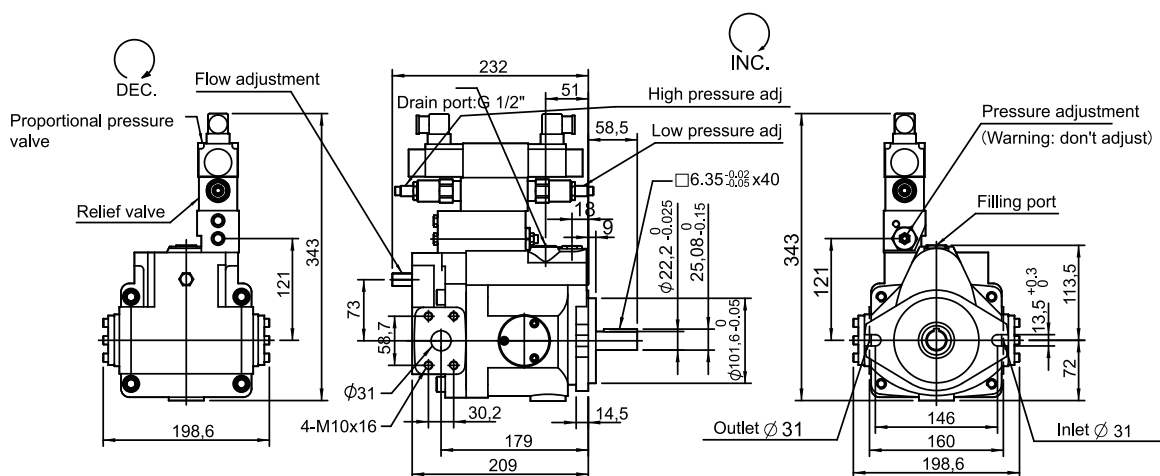
PQ38GR, PQ42GR - Remote pressure compensator + Electrical unloading



PQ38GB, PQ42GB - Remote pressure compensator + 2-stage pressure control

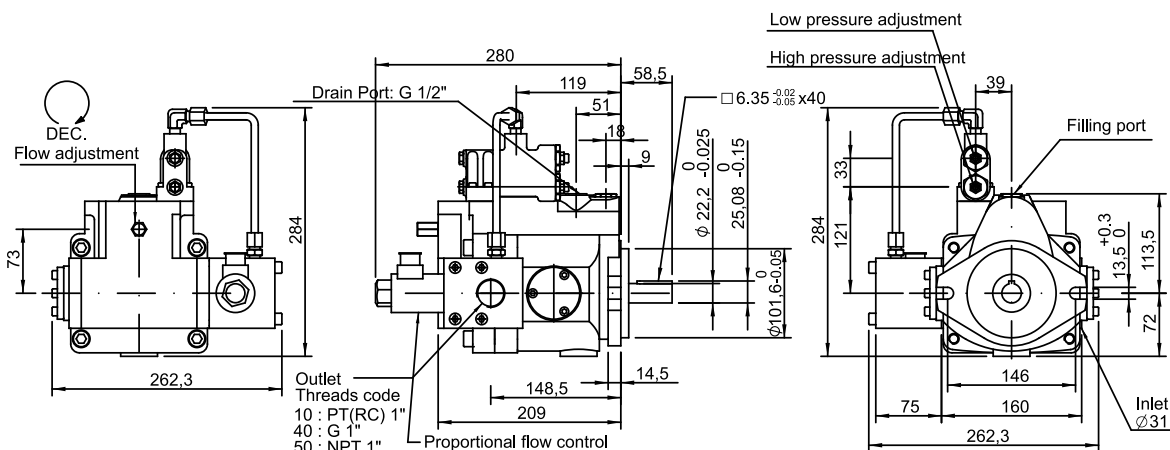


PQ38GC, PQ42GC - Remote pressure compensator + Electrical unloading + 2-stage pressure control

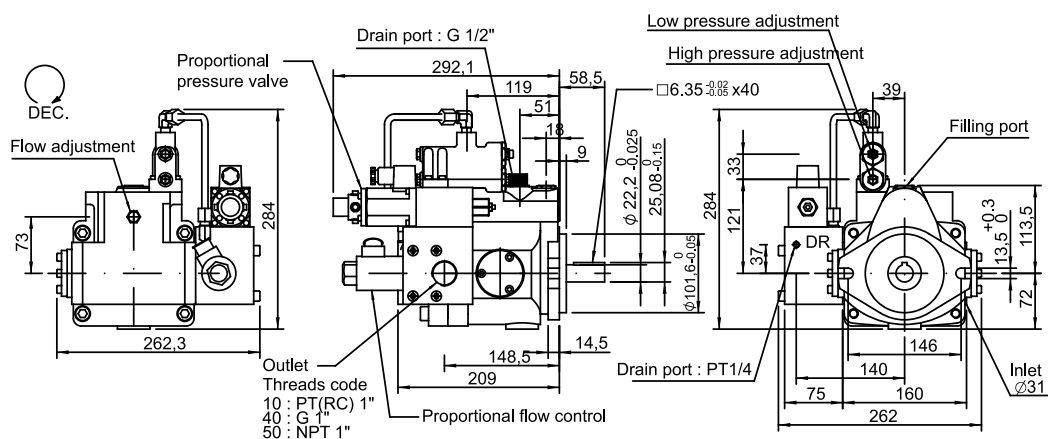


DIMENSIONS

PQ38HQ, PQ42HQ - Load-sensing compensator + Proportional flow valve + Relief valve



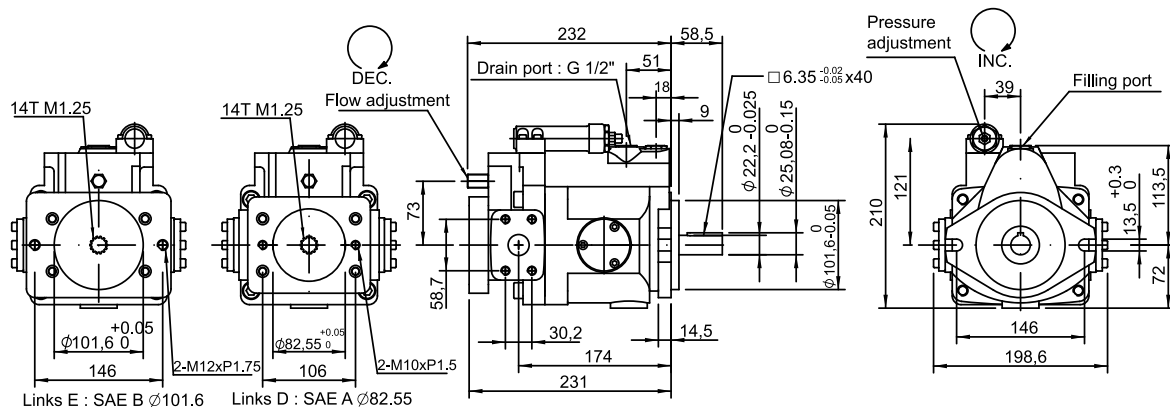
PQ38HK, PQ42HK - Load-sensing compensator + Proportional pressure valve + Proportional flow valve



PQ38, PQ42 - Thru drive (SAE A $\varnothing 82.55$, code D) Thru drive (SAE B $\varnothing 101.6$, code E)

PQ	38																	D	
PQ	38																	E	

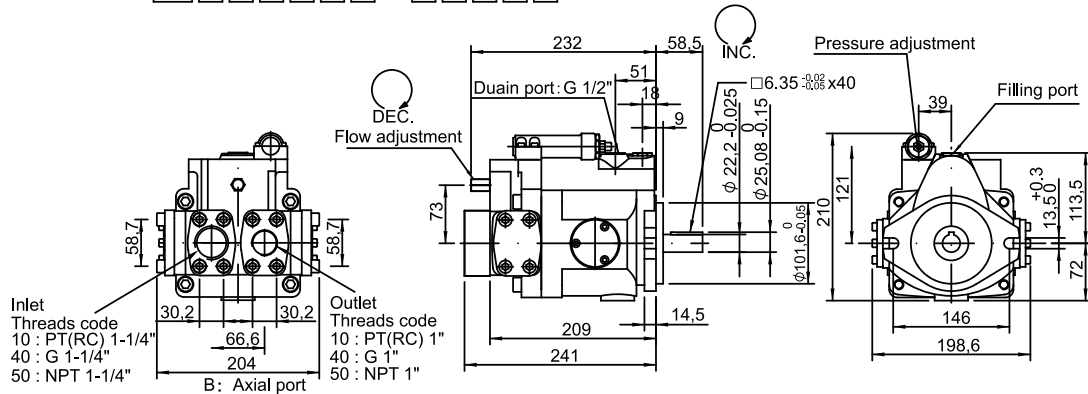
Type	A	B	C	CG	CR	D	DG	E	EG	F	FG	G	GJ	GM	HL	HK	HQ
Thru drive option	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



DIMENSIONS

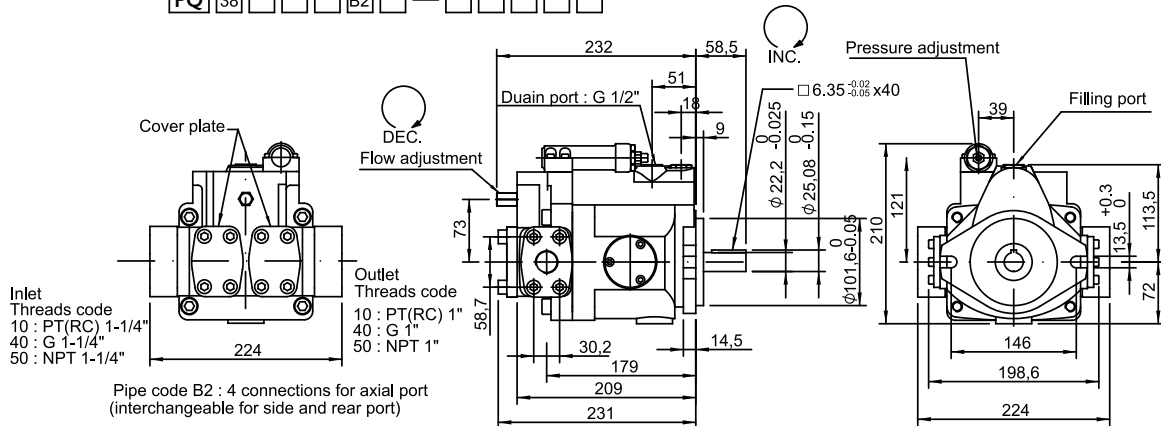
PQ38, PQ42 - Rear port (Please following order code no.6, add "B")

PQ 38 □ □ □ □ B □ — □ □ □ □ □ □



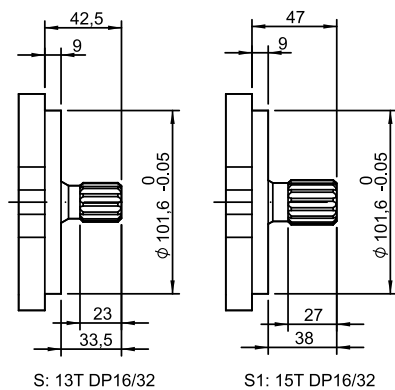
PQ38, PQ42 - 4 connections for rear port (Please following order code no.6, add "B2")

PQ 38 □ □ □ □ B2 □ — □ □ □ □ □ □

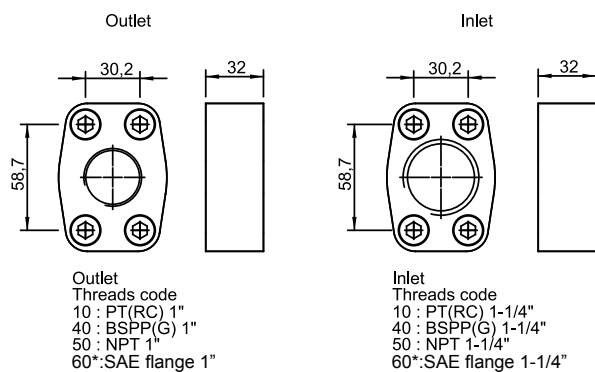


Type	A	B	C	CG	D	DG	E	EG	F	FG	G	GJ	GM	HL	HK	HQ
○ Axial port option	○	○	○	○					○	○	○	○	○	○	○	○

PQ38, PQ42 - Splined shaft type

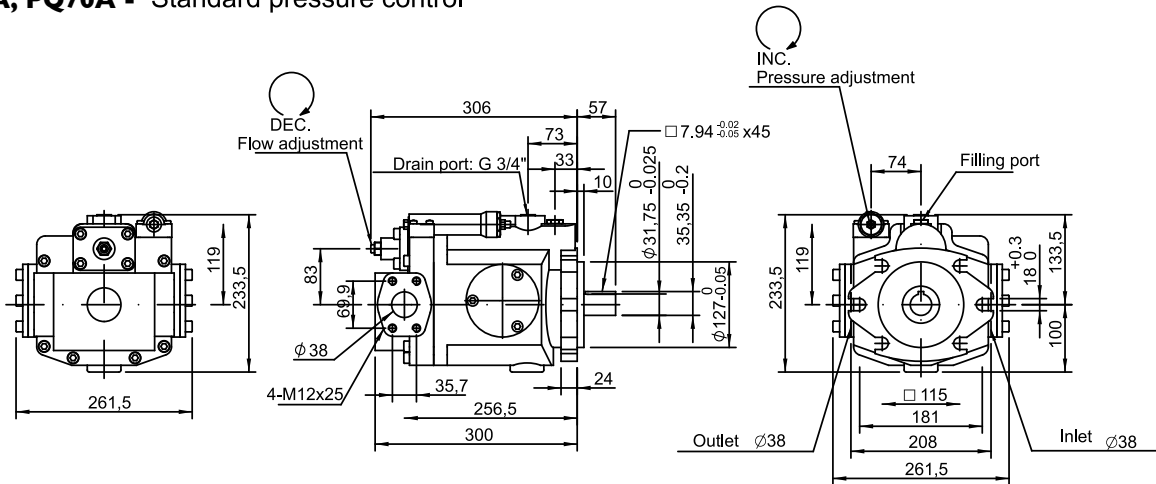


PQ38, PQ42 - Inlet / Outlet

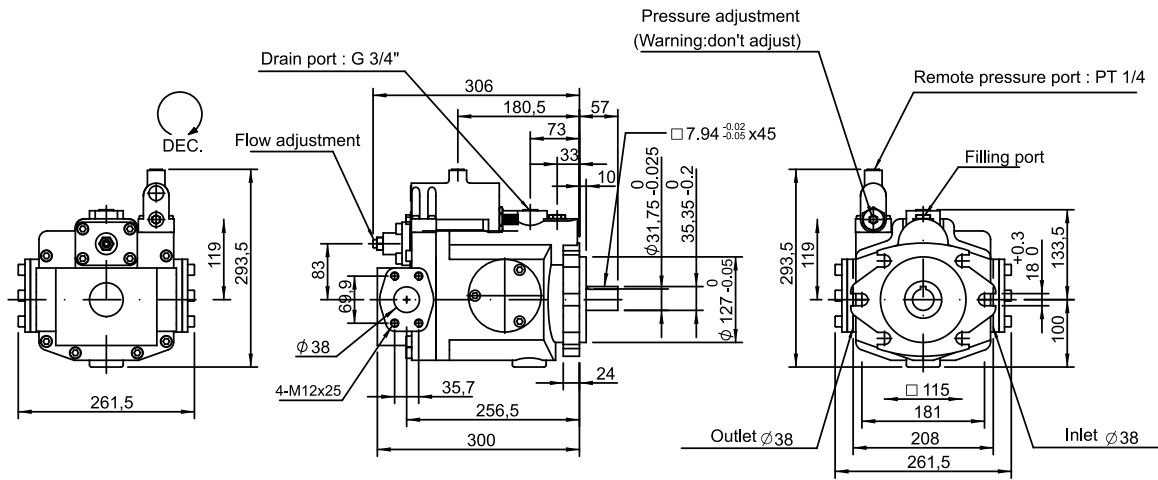


*flange included in the scope of supply in the scope of supply

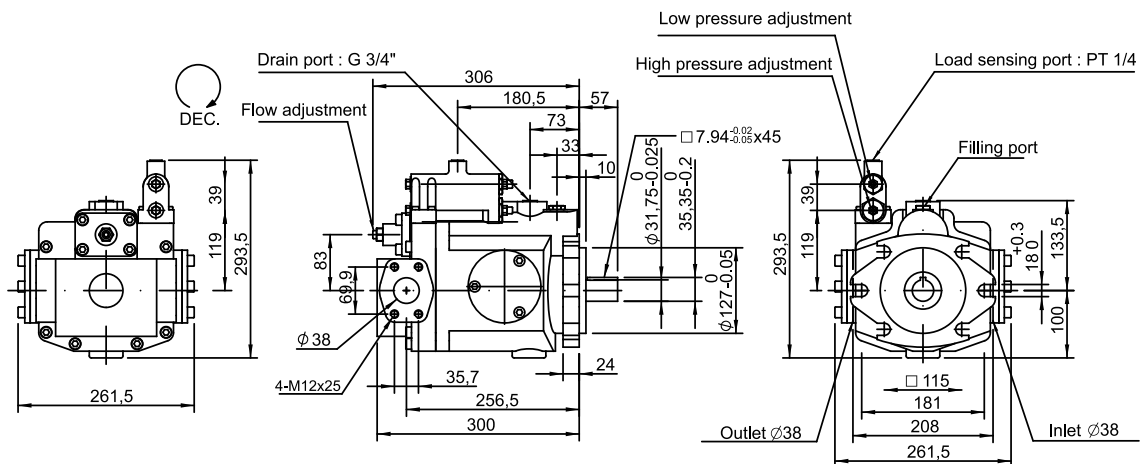
PQ50A, PQ70A - Standard pressure control



PQ50G, PQ70G - Remote pressure control

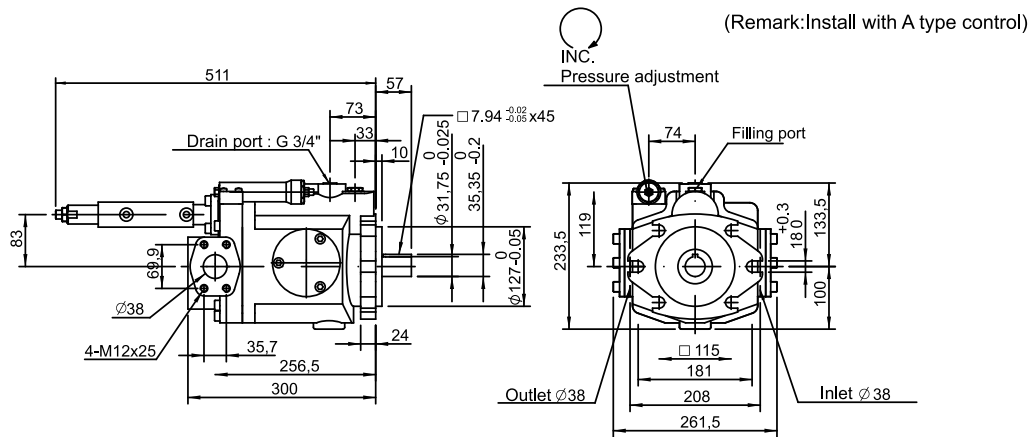


PQ50HL, PQ70HL - Load-sensing control



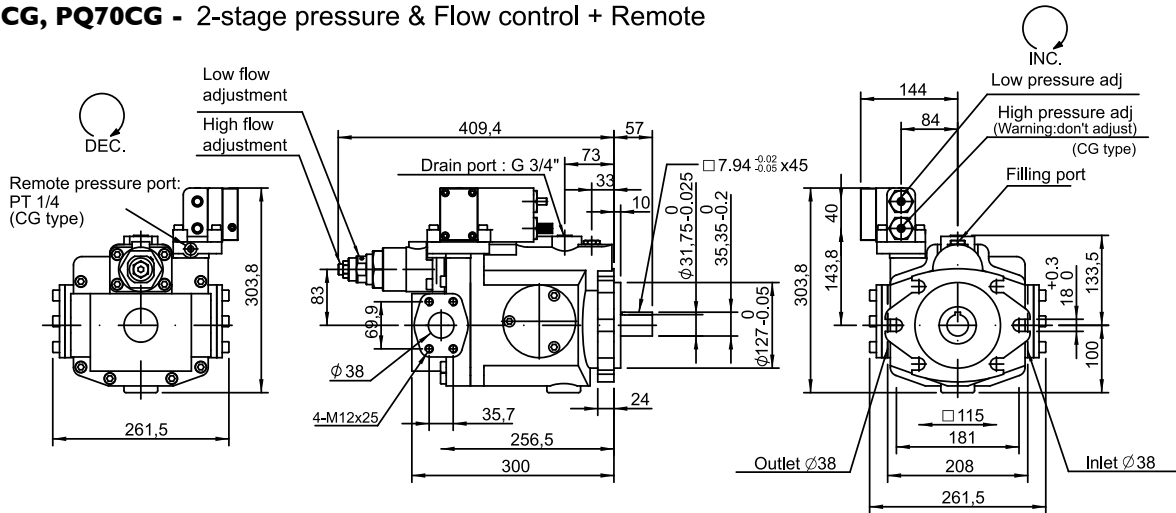
DIMENSIONS

PQ50B, PQ70B - Multi-stage flow & Single-stage pressure control (with cylinder)

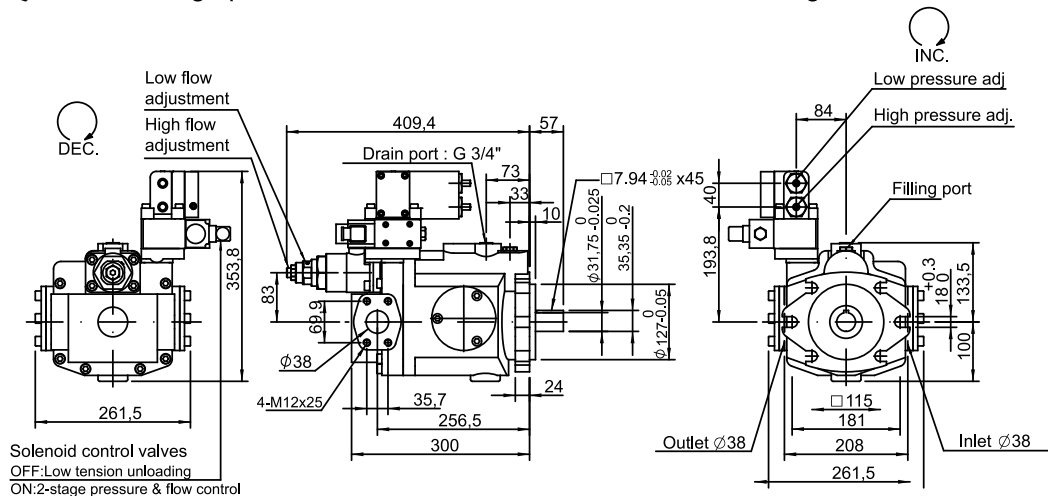


PQ50C, PQ70C - 2-stage pressure & Flow control

PQ50CG, PQ70CG - 2-stage pressure & Flow control + Remote



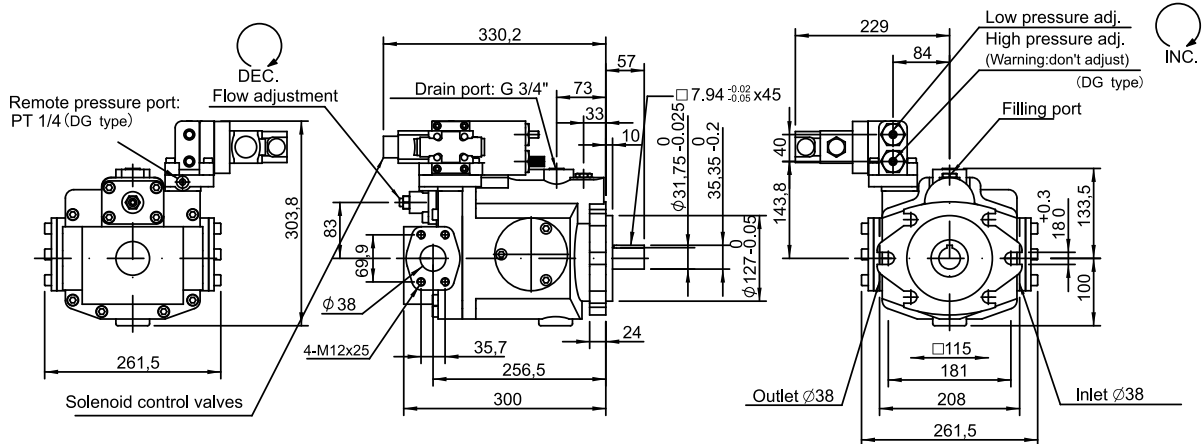
PQ50CR, PQ70CR - 2-stage pressure & Flow control + Low tension unloading



DIMENSIONS

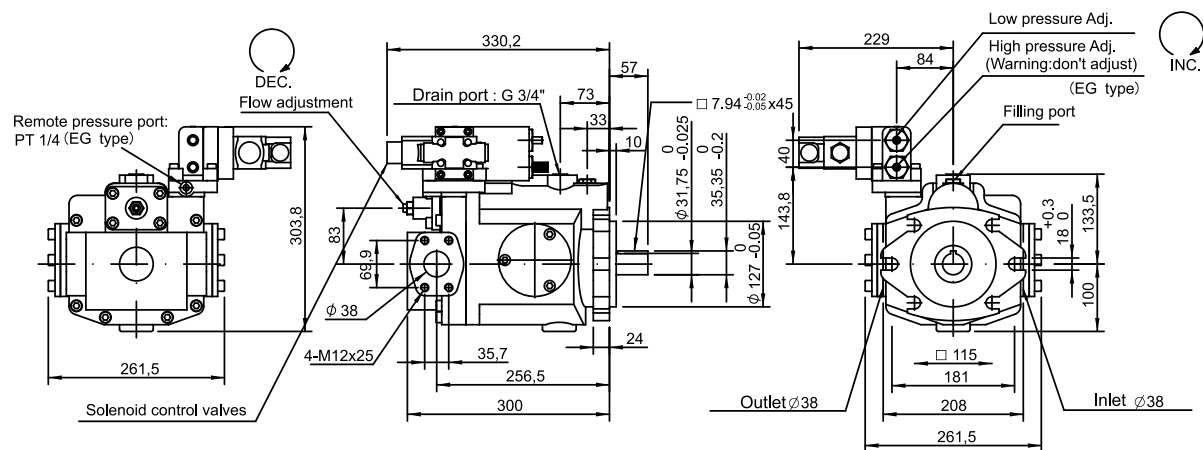
PQ50D, PQ70D - Low tension unloading + Pressure control

PQ50DG, PQ70DG - Low tension unloading + Pressure control + Remote



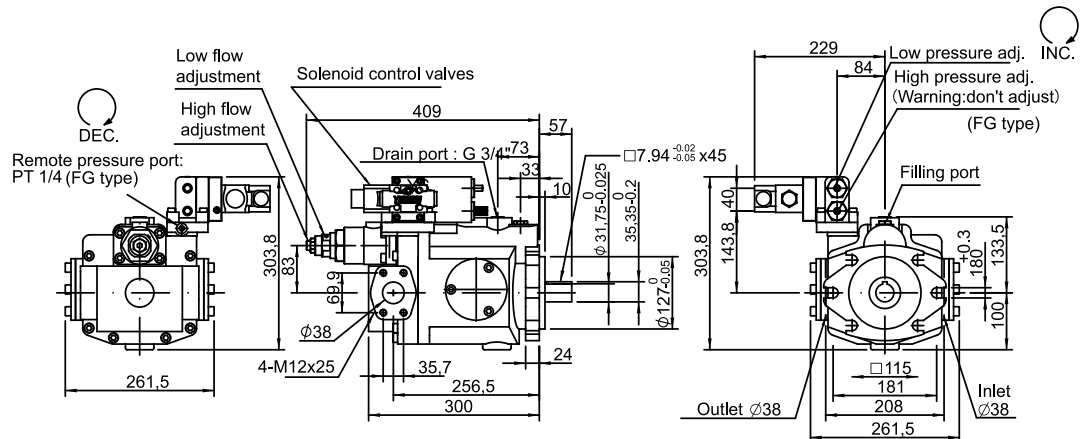
PQ50E, PQ70E - Electric 2-stage pressure control

PQ50EG, PQ70EG - Electric 2-stage pressure control + Remote



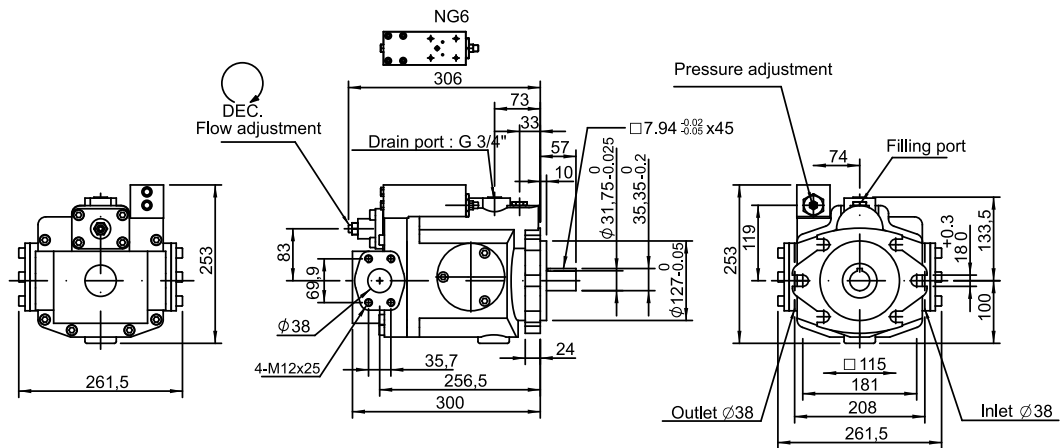
PQ50F, PQ70F - Electric 2-stage pressure control & Flow control

PQ50FG, PQ70FG - Electric 2-stage pressure control & Flow control + Remote

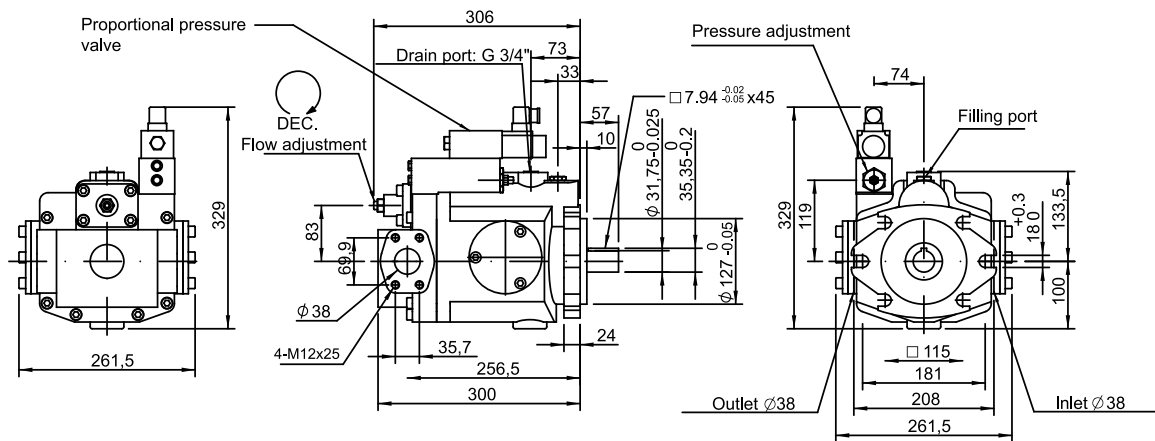


DIMENSIONS

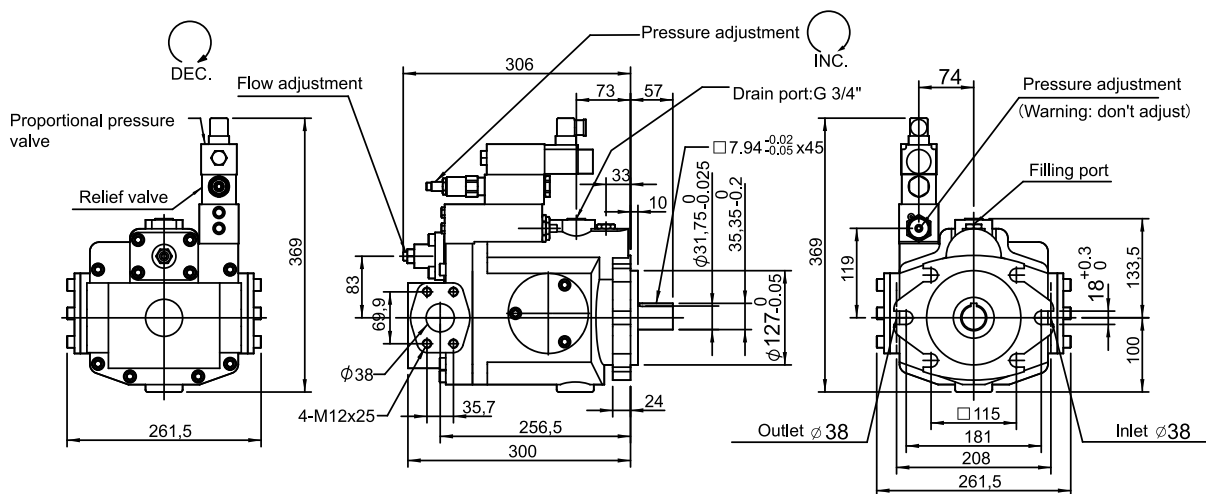
PQ50GM, PQ70GM - Remote pressure compensator with NG6 interface



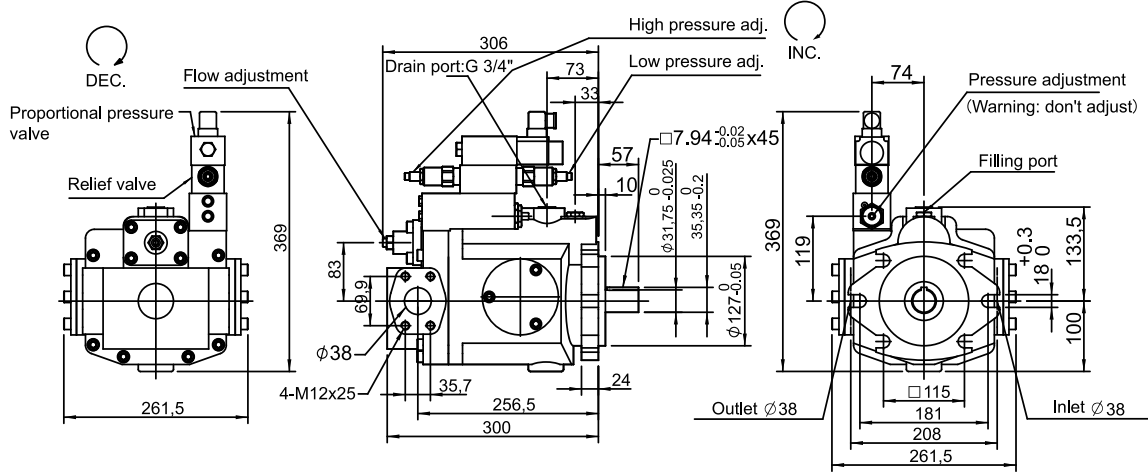
PQ50GJ, PQ70GJ - Remote pressure compensator + Proportional pressure valve



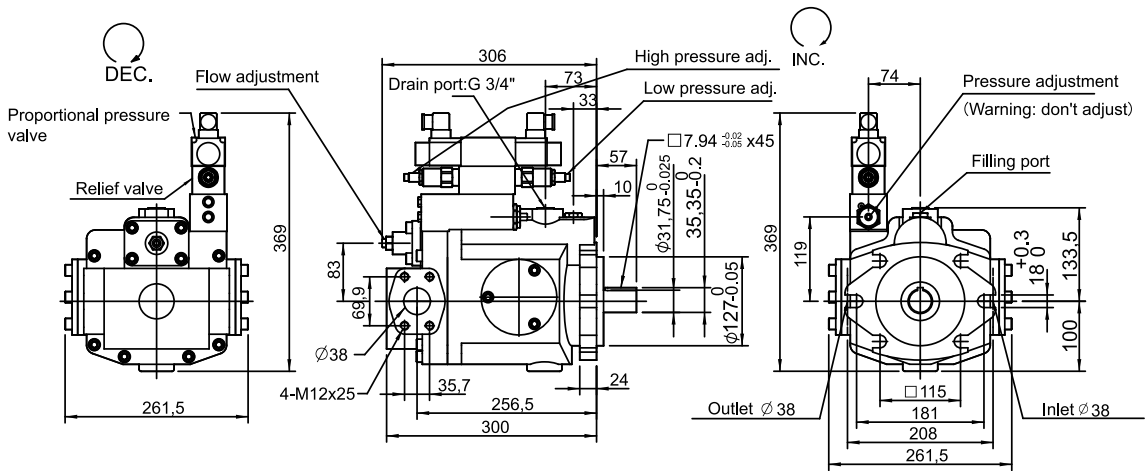
PQ50GR, PQ70GR - Remote pressure compensator + Electrical unloading



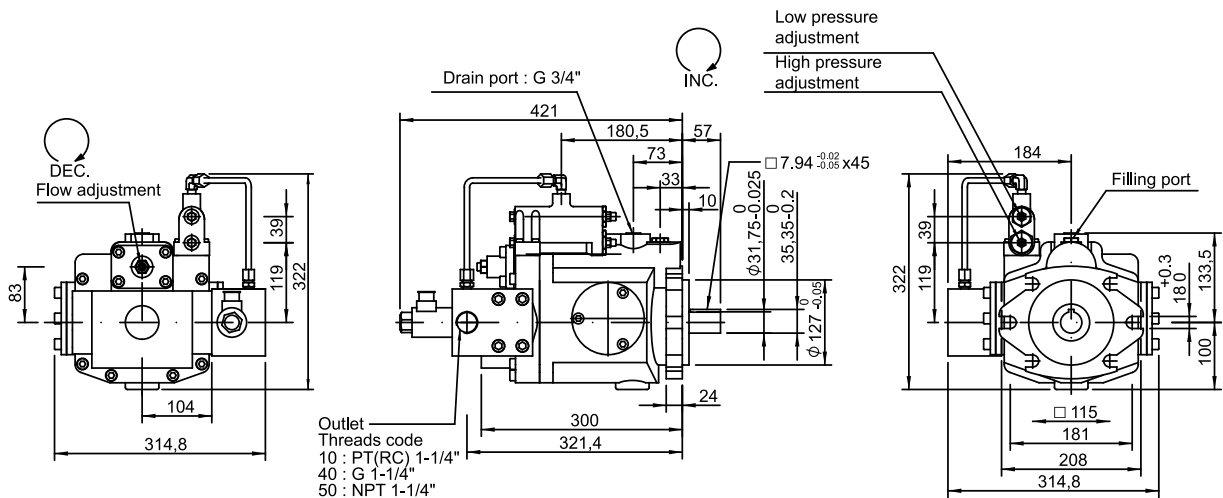
PQ50GB, PQ70GB - Remote pressure compensator + 2-stage pressure control



PQ50GC, PQ70GC - Remote pressure compensator + Electrical unloading + 2-stage pressure control

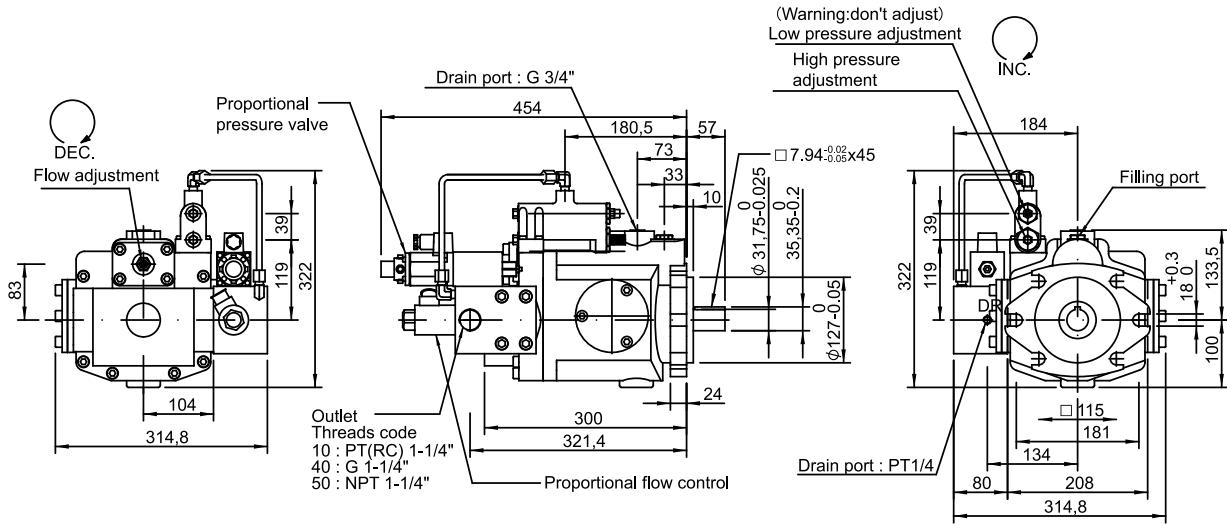


PQ50HQ, PQ70HQ - Load-sensing compensator + Proportional flow valve + Relief valve

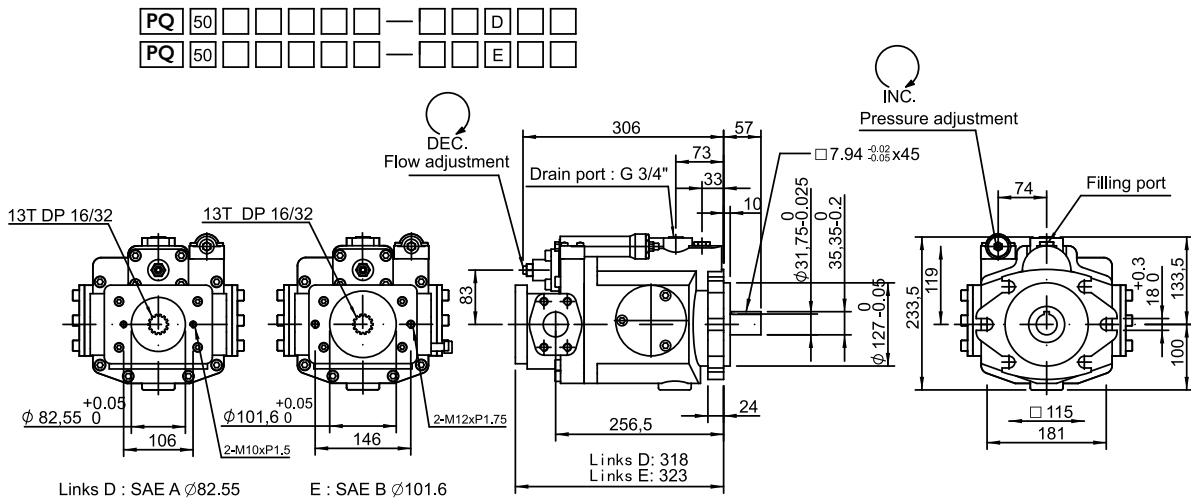


DIMENSIONS

PQ50HK, PQ70HK - Load-sensing compensator + Proportional pressure valve + Proportional flow valve



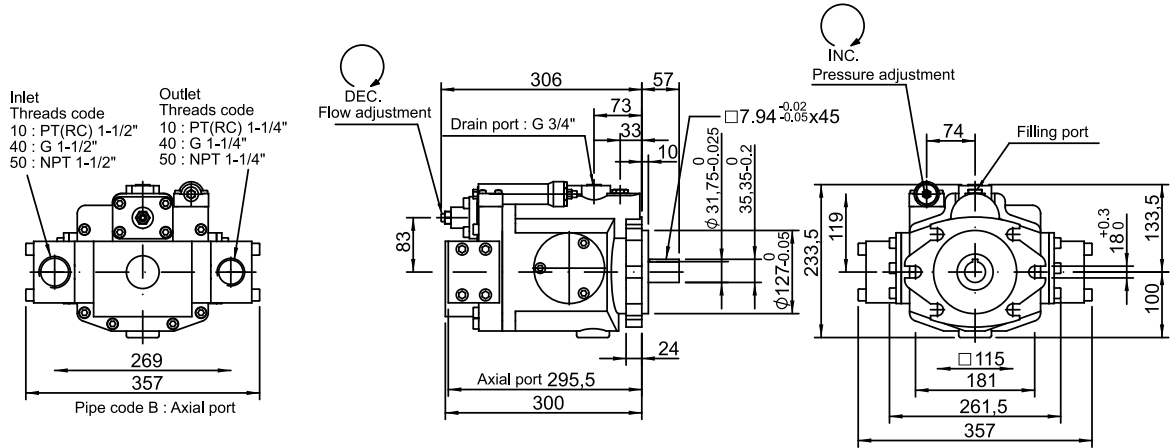
PQ50, PQ70 - Thru drive (SAE A $\phi 82.55$, SAE B $\phi 101.6$, code D or E)



Type	A	B	C	CR	CG	D	DG	E	EG	F	FG	G	GJ	GM	HL	HK	HQ
○ Thru drive option	○					○	○	○	○			○	○	○	○	○	○

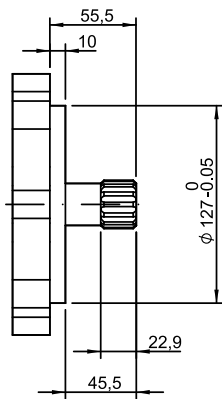
PQ50, PQ70 - Rear port (Please following order code no.6 add "B")

PQ 50 □ □ □ □ B □ — □ □ □ □ □ □



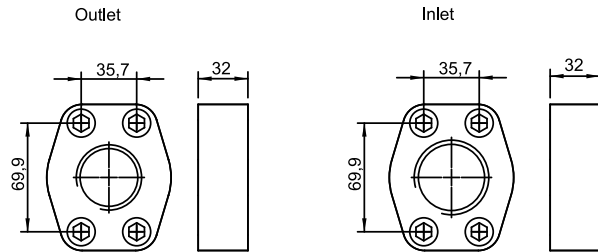
Type	A	B	C	CR	CG	D	DG	E	EG	F	FG	G	GJ	GM	HL	HK	HQ
○ Thru drive option	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○		

PQ50, PQ70 - Splined shaft type



S: 14T DP12/24

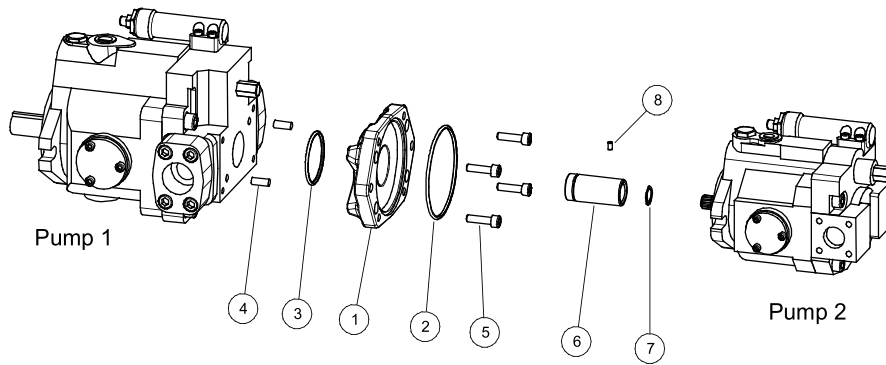
PQ50, PQ70 - Inlet / outlet



Threads code
 10 : PT(RC) 1-1/4"
 40 : G 1-1/4"
 50 : NPT 1-1/4"

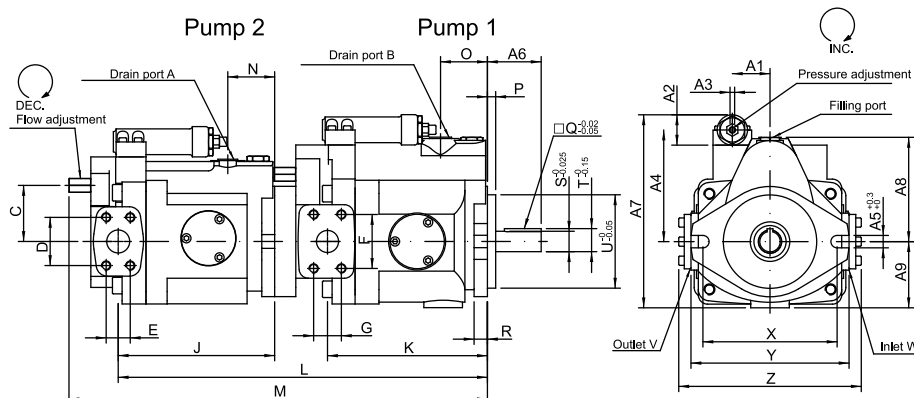
Threads code
 10 : PT(RC) 1-1/2"
 40 : G 1-1/2"
 50 : NPT 1-1/2"

PUMP COMBINATION - COUPLING

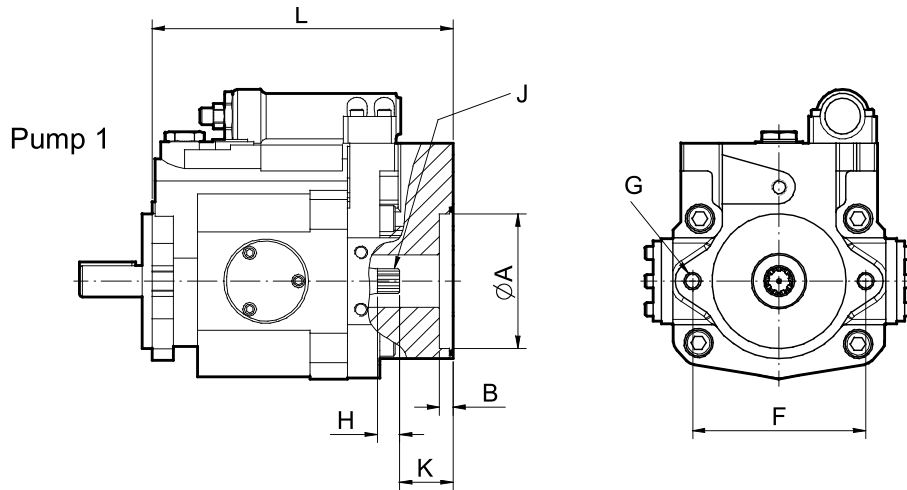


⑥ Coupling	⑦ Snap ring	Depending 2nd pump to use snap ring or not (● : With snap ring)			⑧ Screw
		Piston pump: PQ15~AR16	Gear pump: HGP- 3A	Vane pump: F30, F40	
COUP - PQ15+15	R13	●	●	●	--
COUP - PQ23-1	R13	●	●		--
COUP - PQ23-3	R20	●			--
COUP - PQ23-5	R20			●	M5 x8
COUP - PQ23-6	--				M5 x8
COUP - PQ38-1	R13	●	●		--
COUP - PQ38-3	R20	●			--
COUP - PQ38-4	--				--
COUP - PQ38-5	R20			●	M5 x8
COUP - PQ38-6	--				M5 x8
COUP - PQ38-7	--				M5 x8
COUP - PQ70-1	R13	●	●		--
COUP - PQ70-3	R20	●			--
COUP - PQ70-4	--				--
COUP - PQ70-5	R20			●	M5 x8
COUP - PQ70-6	--				M5 x8
COUP - PQ70-7	--				M5 x8

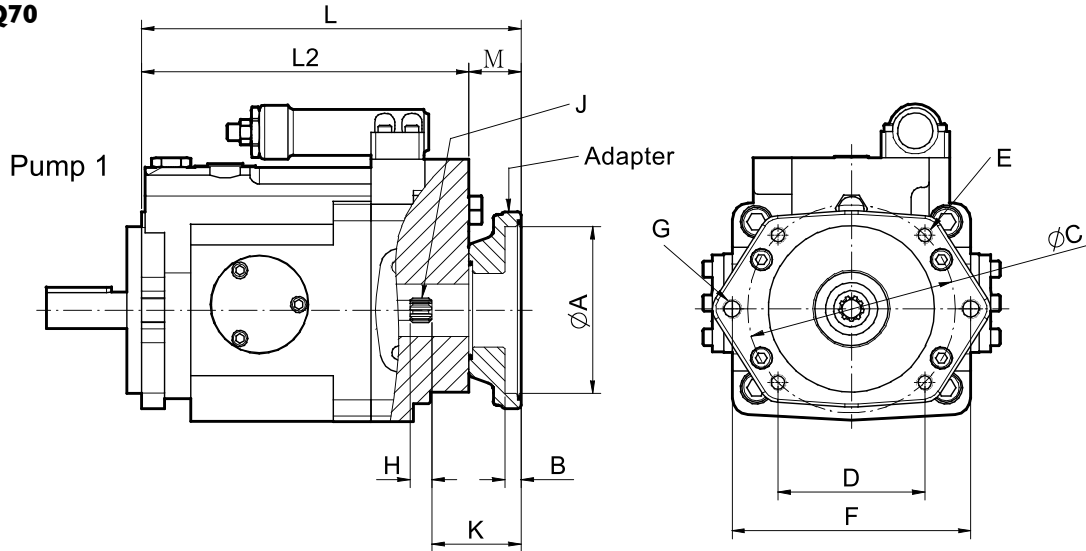
③ O-ring	G55
④ Pin	∅8x16 x2 nos
⑤ Screw	M8x30 x4 nos



PQ15



PQ23~PQ70

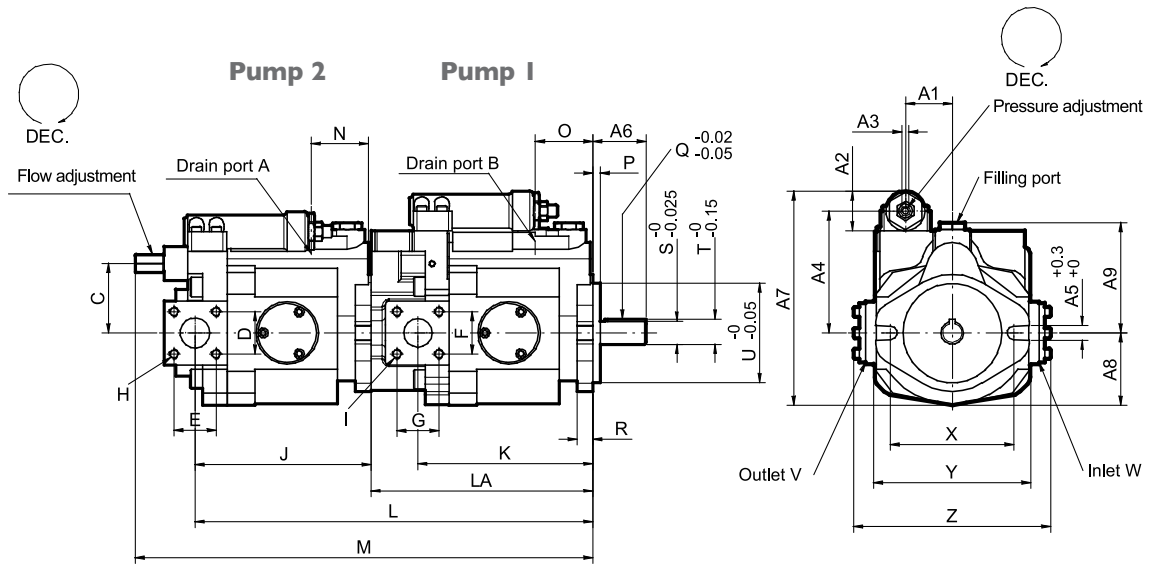


Model	2nd Pump	ϕA	B	ϕC	D	E	F	G
PQ15	SAE A	$\phi 82.55$	8.35	--	--	--	106.3	M10xP1.5
	SAE A	$\phi 82.55$	8.35	$\phi 127$	89.8	M10xP1.5	106.3	M10xP1.5
PQ23~ PQ70	SAE A	$\phi 101.6$	10	$\phi 127$	89.8	M10xP1.5	146	M12xP1.75
	Metric	$\phi 100$	10	$\phi 125$	88.39	M10xP1.5	140	M12xP1.75
	Vane Pump	$\phi 95.02$	8.35	--	90	M10xP1.5	--	--

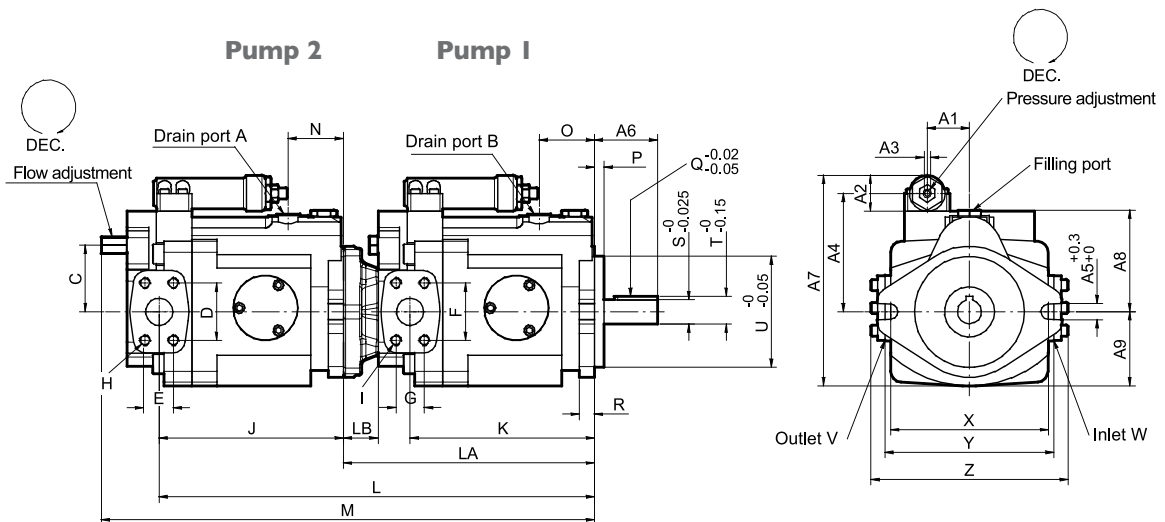
Model	K	H	J	M	L	L2		
PQ15	33	13.5	9T 16/32 DP	--	185	--		
PQ23	59	13.5	9T 16/32 DP	32	237	205		
PQ38, PQ42	66	20	14T M1.25	32	241	209		
PQ50, PQ70	64.4	22	13T 16/32DP	32	332	300		

PUMP COMBINATION - THRU DRIVE DIMENSIONS

VIEW A
PUMP 1 PQ15, PUMP 2 PQ15



VIEW B
PUMP 1 PQ23~PQ70, PUMP 2 PQ15~PQ38



PUMP COMBINATION - THRU DRIVE DIMENSIONS

Pump 1	Pump 2	A	B	C	D	E	F	G	H	I
PQ15	PQ15	G 3/8" (RC 3/8")	G 3/8" (RC 3/8")	57.45	35.1	35.1	35.1	35.1	M8xP1.25x20	M8xP1.25x20
PQ23	PQ15	G 3/8" (RC 3/8")	G 3/8" (RC 3/8")	57.45	35.1	35.1	52.4	26.2	M8xP1.25x20	M10xP1.5x16
PQ38, PQ42	PQ23	G 3/8" (RC 3/8")	G 3/8" (RC 3/8")	61	52.4	26.2	52.4	26.2	M10xP1.5x16	M10xP1.5x16
PQ38, PQ42	PQ15	G 3/8" (RC 3/8")	G 1/2" (RC 1/2")	57.45	35.1	35.1	58.7	30.2	M8xP1.25x20	M10xP1.5x16
PQ38, PQ42	PQ23	G 3/8" (RC 3/8")	G 1/2" (RC 1/2")	61	52.4	26.2	58.7	30.2	M10xP1.5x16	M10xP1.5x16
PQ38, PQ42	PQ38, PQ42	G 1/2" (RC 1/2")	G 1/2" (RC 1/2")	73	58.7	30.2	58.7	30.2	M10xP1.5x16	M10xP1.5x16
PQ50, PQ70	PQ15	G 3/8" (RC 3/8")	G 3/4" (RC 3/4")	57.45	35.1	35.1	69.9	35.7	M8xP1.25x20	M12xP1.75x25
PQ50, PQ70	PQ23	G 3/8" (RC 3/8")	G 3/4" (RC 3/4")	61	52.4	26.2	69.9	35.7	M10xP1.5x16	M12xP1.75x25
PQ50, PQ70	PQ38, PQ42	G 1/2" (RC 1/2")	G 3/4" (RC 3/4")	73	58.7	30.2	69.9	35.7	M10xP1.5x16	M12xP1.75x25

Pump 1	Pump 2	J	K	L	LA	LB	M	N	O	P	Q	R	S	T	U
PQ15	PQ15	147	147	332	185	--	382	48	48	6	4.76x32	13	∅19.05	21.15	∅82.55
PQ23	PQ15	147	170	384	237	32	411	48	51	9	6.35x40	14	∅22.22	25.08	∅101.6
PQ23	PQ23	170	170	407	237	32	455	51	51	9	6.35x40	14	∅22.22	25.08	∅101.6
PQ38, PQ42	PQ15	147	179	388	241	32	438	48	51	9	6.35x40	14.5	∅22.22	25.08	∅101.6
PQ38, PQ42	PQ23	170	179	411	241	32	464	51	51	9	6.35x40	14.5	∅22.22	25.08	∅101.6
PQ38, PQ42	PQ38, PQ42	179	179	420	241	32	473	51	51	9	6.35x40	14.5	∅22.22	25.08	∅101.6
PQ50, PQ70	PQ15	147	256.5	479	332	32	529	48	73	10	7.94x45	24	∅31.75	35.35	∅127
PQ50, PQ70	PQ23	170	256.5	502	332	32	555	51	73	10	7.94x45	24	∅31.75	35.35	∅127
PQ50, PQ70	PQ38, PQ42	179	256.5	511	332	32	564	51	73	10	7.94x45	24	∅31.75	35.35	∅127

Pump 1	Pump 2	V	W	X	Y	Z	A1	A2	A3	A4	A5	A6	A7	A8	A9
PQ15	PQ15	∅25	∅25	106	131	165	44	31.2	5	84	11	44.5	160	91.5	60
PQ23	PQ15	∅25	∅25	146	146	182	39	31.2	5	110	13.5	58.5	193	93	68
PQ23	PQ23	∅25	∅25	146	146	182	39	31.2	5	110	13.5	58.5	193	93	68
PQ38, PQ42	PQ15	∅31	∅31	146	160	198.6	39	31.2	5	121	13.5	58.5	210	113.5	72
PQ38, PQ42	PQ23	∅31	∅31	146	160	198.6	39	31.2	5	121	13.5	58.5	210	113.5	72
PQ38, PQ42	PQ38, PQ42	∅31	∅31	146	160	198.6	39	31.2	5	121	13.5	58.5	210	113.5	72
PQ50, PQ70	PQ15	∅38	∅38	181	208	261.5	74	40	8	119	18	57	233.5	133.5	100
PQ50, PQ70	PQ23	∅38	∅38	181	208	261.5	74	40	8	119	18	57	233.5	133.5	100
PQ50, PQ70	PQ38, PQ42	∅38	∅38	181	208	261.5	74	40	8	119	18	57	233.5	133.5	100

