

Technical characteristics

- Flow rates: from 248 to 2650 lph @ 50Hz
- Max Pressure: 4 MPa (40 bar)
- Ambient temperature: -10 °C + 40 °C
- Max altitude: 1000 m (A.S.L.)
- Fluid operating temperature: -10 °C + 70 °C
- Viscosity up to 1000 mPa•s (1000 cP) (Higher on request)
- Stroke adjustment during operation from 0 to 100%
- Accuracy $\pm 1\%$ on the turndown ratio 10:1
- Multiheads (up to six) solutions
- API 675 compliance
- CE marking
- ATEX Ex II 2 G c IIB T4 compliance
- Protection: IP 55
- Epoxy painting at 125 micron

nEXa series includes plunger and hydraulic diaphragm dosing pumps designed in compliance with **API 675 Standards**; the conformity to the API Standards implies a “heavy duty” design, high safety and severe controls of the performances during the tests. The broad variety of heads execution offers a wide selection of dosing pumps to cover practically any application needs. In addition the full compliance with the **ATEX** European Directive gives the possibility to install these pumps in classified areas too.

Mechanism

Available in different sizes, they are mechanical return type, giving the maximum reliability in all working conditions.

General Specifications:

- Low noise integral gearbox, worm type, oil bath lubricated
- Reduced energy consumption based on low friction rolling bearings design
- High flexibility multiple mechanism solution to permit different piston speeds (SPM) on the same group
- Micrometric stroke length adjustment both manually and/or automatically actuated.
- Automatic stroke length variation by electrical servomotor, pneumatic actuator or frequency converter.
- Linearity and repeatability in compliance with API 675 Standards.
- Easy “on field” installation of electrical servomotor on manual stroke adjustment mechanism.

Plunger Pumphead:

- Reliable and easy maintenance
- Ready for flushing connection or for leakage recovery system connection
- Plunger coating or mechanical surface hardening for heavy-duty application

PUMP KEY CODE

1°	Number of pump head					
1	Simplex pump					
2°	Type of pump head (double diaphragm or packed-plunger)					
P	Packed plunger with square section rings					
3°/4°	Plunger diameter					
50-C0	50 - 70 - 90 - C0(120) mm					
5°/6°	Mechanism model					
N2	Stroke length 35 mm					
7°/8°	Pump head material					
	HEAD	PLUNGER	SEAL PACK	BALL	VALVE SEAL	VALVE SEAT
7Y	316SS	316SS	PTFE	316SS	316SS	316SS
9°	Valve type					
A	Single ball					
B	Double balls					
10°	General options					
7	Standard execution					
F	Flanged connections ANSI B16.5					
11°	Flow rate adjustment					
M	Manual with adjustment knob (Standard execution)					
E	Electric actuator					
P	Pneumatic actuator					
12°	Gear ratio					
D	1:12					
F	1:15					
13°	Electric motors poles					
4	4 poles					
6	6 poles					
14°	Installed power					
H	1,50 kW					
I	2,20 kW					
15°	Pump head options					
F	Flushing connections					
16°	Mechanism options					
0	Standard execution					
5	Compliance with regulation "ATEX" 94/4/CE II 2 G c IIB T4 (for zone 1) (*)					

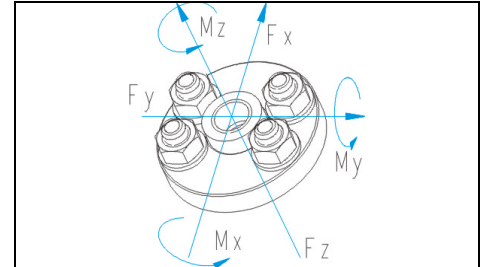
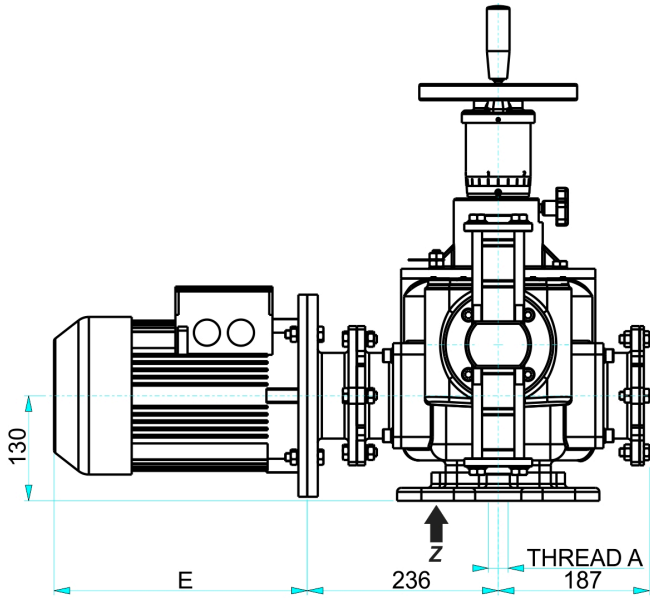
1	P	50	N2	7Y	B	7	M	D	6	H	F	0
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(*) for toxic, inflammable, hazardous and/or pyrophoric liquids packed plunger pumps are not suitable.

HYDRAULIC CHARACTERISTICS

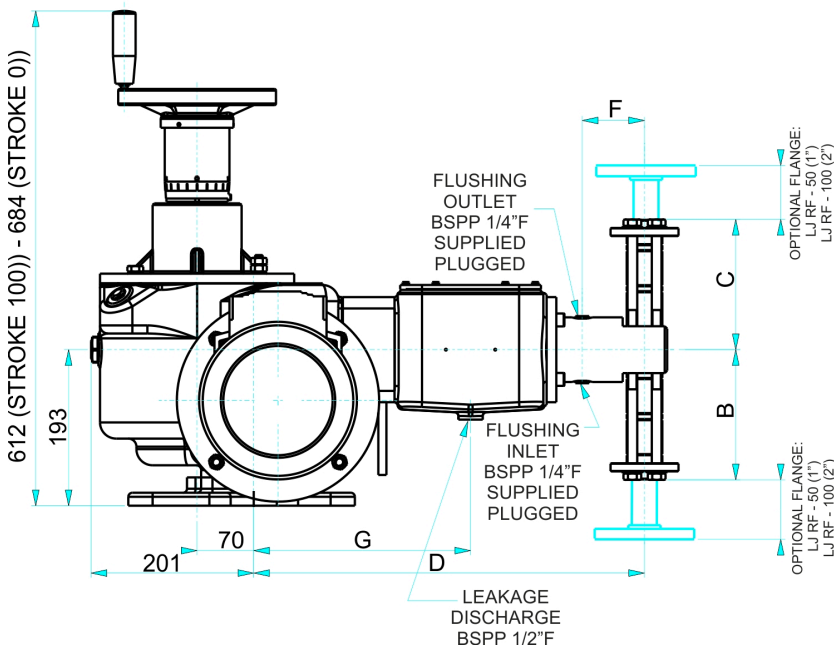
Performances:												50 Hz		60Hz						Liquid end material		316L	
						248/2650 40/6		l/h bar		gph p.s.i.		83/900 580/87						316L					
						Flow rate at max pressure		Max speed		Flow rate at max pressure		Max speed		Electric motor kW				Suc/Dis Connec					
														1,5		2,2							
														H		I							
Pump Model																		Max pressure				Ø BSP	NPSHr [barg]
												lph	gph	Strokes /min	lph	gph	Strokes /min	bar	p.s.i.	bar	p.s.i.		
1 P 5 0 N 2 7 Y A 7 M F 6 H F 0	248	66	62	298	79	74	40	580	-	-	1" F	-0,50											
1 P 5 0 N 2 7 Y A 7 M D 6 H F 0	312	82	78	374	99	94	38	551	-	-	1" F	-0,50											
1 P 5 0 N 2 7 Y A 7 M F 4 I F 0	372	98	93	446	118	112	-	-	40	580	1" F	-0,50											
1 P 5 0 N 2 7 Y A 7 M D 4 I F 0	468	124	117	562	148	140	-	-	40	580	1" F	-0,50											
1 P 7 0 N 2 7 Y A 7 M F 6 H F 0	486	128	62	583	154	74	21	305	-	-	1" F	-0,50											
1 P 7 0 N 2 7 Y A 7 M D 6 H F 0	612	162	78	734	194	94	19	276	-	-	1" F	-0,50											
1 P 7 0 N 2 7 Y A 7 M F 4 I F 0	730	193	93	876	231	112	-	-	21	305	1" F	-0,50											
1 P 7 0 N 2 7 Y A 7 M D 4 I F 0	918	243	117	1102	291	140	-	-	21	305	1" F	-0,50											
1 P 9 0 N 2 7 Y A 7 M F 6 H F 0	804	212	62	965	255	74	12	174	-	-	2" F	-0,50											
1 P 9 0 N 2 7 Y A 7 M D 6 H F 0	1012	267	78	1214	321	94	12	174	-	-	2" F	-0,50											
1 P 9 0 N 2 7 Y A 7 M F 4 I F 0	1206	319	93	1447	382	112	-	-	12	174	2" F	-0,50											
1 P 9 0 N 2 7 Y A 7 M D 4 I F 0	1518	401	117	1822	481	140	-	-	12	174	2" F	-0,50											
1 P C 0 N 2 7 Y A 7 M F 6 H F 0	1400	370	62	1680	444	74	7	102	-	-	2" F	-0,50											
1 P C 0 N 2 7 Y A 7 M D 6 H F 0	1799	475	78	2159	570	94	6	87	-	-	2" F	-0,50											
1 P C 0 N 2 7 Y A 7 M F 4 I F 0	2100	555	93	2520	666	112	-	-	7	102	2" F	-0,50											
1 P C 0 N 2 7 Y A 7 M D 4 I F 0	2650	700	117	3180	840	140	-	-	6	87	2" F	-0,50											

Test with water @ 20°C.

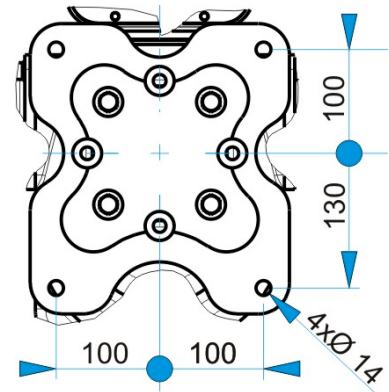


Allowable loads referred to pump nozzles

Fx	0.10 kN	Mx	0.04 kNm
Fy	0.12 kN	My	0.04 kNm
Fz	0.10 kN	Mz	0.04 kNm



FIXING HOLES – VIEW FROM Z



PUMP MODEL	DIMENSIONS [mm]						ESTIMATED WEIGHT kg (without motor)	OPTIONAL FLANGE ANSI 300 MAX. TEMP. 38°C MAX. PRESSURE 40BAR SIZE
	A (EN10226)	B	C	D	F	G		
1P50N27YA..	BSPP 1" F	152	152	484	73	268	125	1"
1P70N27YA..	BSPP 1" F	157	157	492	81	268	125	1"
1P90N27YA..	BSPP 2" F	223	223	520	90	279	172.5	2"
1PC0N27YA..	BSPP 2" F	223	223	520	88	279	172.5	2"

Electric motor size	4 Poles kw	6 Poles kw	TEFC 1xM20x1.5		EExde 1xM25x1.5	
			E	kg	E	kg
90	1.5	0.75	260	12	340	33
100	2.2	1.5	320	22	370	46