



CHARACTERISTICS

- OPERATES UP TO 300 BAR (4350 PSI)
- DIVIDES OIL OR GREASE
- TOP OR SIDE OUTPUTS AS STANDARD
- SINGLE OR DUAL OUTLET SETTABLE BY CENTRAL PLUG
- FULL RANGE OF PRESSURE AND SPOOL MONITORING ACCESSORIES INTERCHANGEABLE WITH SMO PRODUCT LINE
- THE TWO OUTPUTS ARE COMBINED BY REPLACING THE ADAPTER. JUST TAKE ONE ITEM OF STOCK
- SECURE AND CONTROLLED LUBRICATION
- SIMPLE AND FLEXIBLE ASSEMBLY WITH LOW MAINTENANCE COSTS
- BRIGHT LEFT/RIGHT/BOTH ELEMENTS ELIMINATE THE NEED FOR EXTERNAL CROSS PORTING
- DIFFERENT INLET MODULE WITH DIFFERENT HOLES FOR EASY INTERCHANGEABILITY

METERING DIVIDER ELEMENTS FOR THE VOLUMETRIC DISTRIBUTION OF OILS AND GREASE

Dropsa's **nano-Progressive (nP)** thanks to their compact and solid design are the ideal solution for grease lubrication applications that require small and accurately dispensed quantity of lubricant in a confined space.

Thanks to a patented **RigidLock**, **nano-Progressive (nP)** novel interlocking mechanism between the elements it has the rigidity of a mono-block divider but the flexibility of a modular segmented unit.

nP is a distributor that allows the feed flow rate be regulated in order to dispense very precise amounts to diverse outlets by means of the progressive movement of coupled pistons with micrometre-sized gears on the inside of the sliding hole.

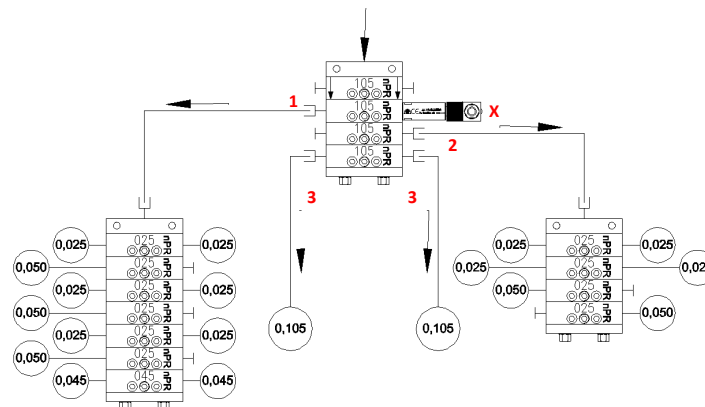
The lubrication cycle can be controlled by a single sensor including the Dropsa solid state Ultrasensor product.

These divider elements may be used in a variety of system configurations and have different operating configurations making them flexible for use in multiple applications as a result.

These dividers can be used in a variety of system configurations with different operating configurations making them flexible for use in multiple applications. The compactness makes them particularly suitable for use in confined spaces.

OPERATING PRINCIPLE

The system can be easily extended and the modular concept provides low cost replacement of component.

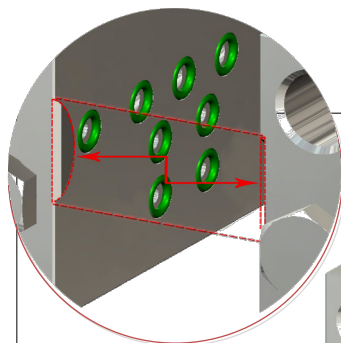


The **nP105** metering element (1) pilots a block of 6 metering 0,025 nP delivering elements and one 0,045 nPr.

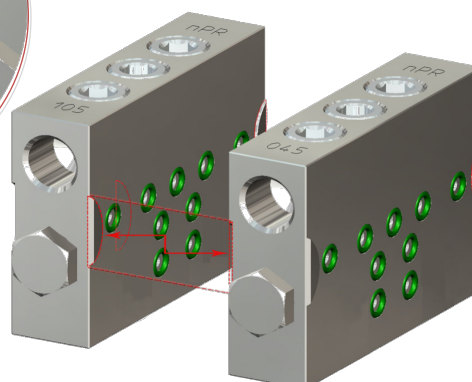
The **nP105** metering element (2) pilots a block of 4 0,025 nP delivering elements.

The **nP105** metering element (3) directly lubricates two point of the machine.

The cycle is controlled by the Ultrasensor cycle indicator (X).



RIGIDLOCK



THE RIGIDLOCK SYSTEMS
CREATES A RIGID
INTERLOCKING
MECHANISM BETWEEN
THE ELEMENTS
ALLOWING FOR THE
QUICK REPLACEMENT
AND CORRECT
REPOSITIONING OF THE
ELEMENT

APPLICATIONS

- MACHINE TOOLS
- TEXTILES

ADVANTAGES

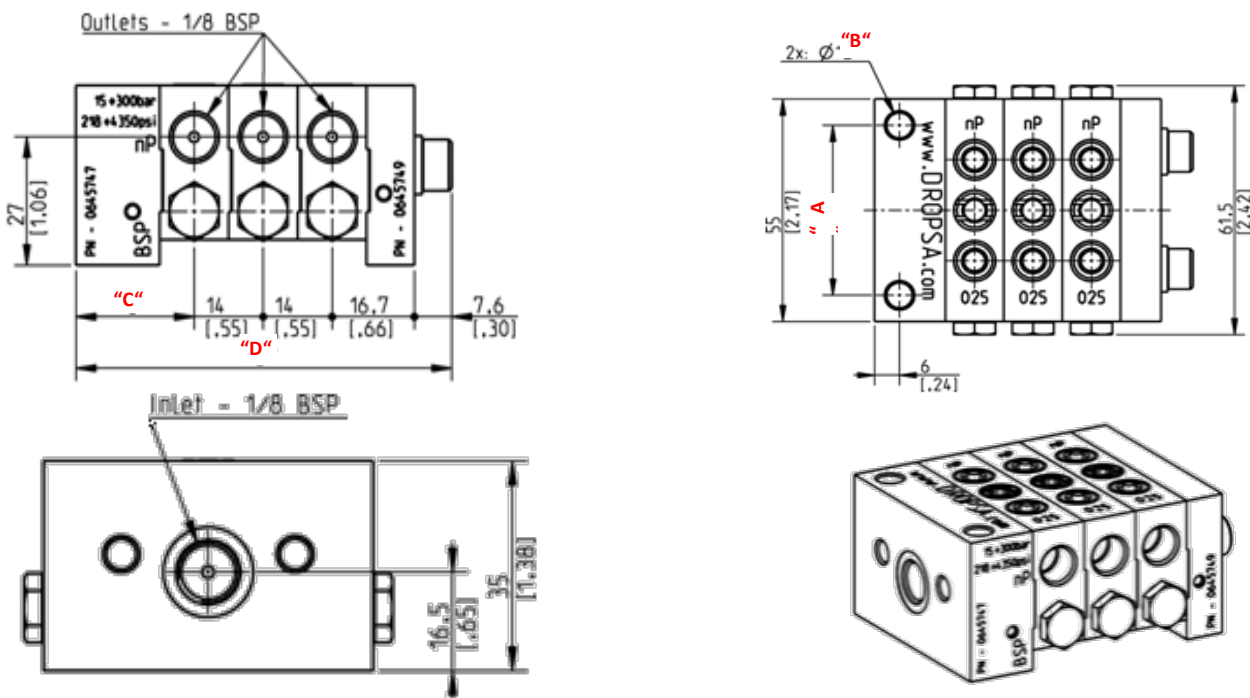
- By combining a reduced space-envelope and maintaining modularity in a single package the nano-Progressive dividers offer many of the features found in top-of-line dividers at a fraction of the cost.
- The RigidLock Systems creates a rigid interlocking mechanism between the elements allowing for the quick replacement and correct repositing of the element;
- A full range of accessories and bridge elements allows for flexible engineering choices.

TECHNICAL INFORMATION

GENERAL CHARACTERISTICS	
Singular outlet Flowrate	0.0015 cu.inch – 0.0027 cu.inch – 0.0045 cu.inch - 0.0064 cu.inch (0,025cm ³ - 0,045cm ³ - 0,075cm ³ - 0,105cm ³)
Number of Dividers elements	3 ÷ 12
Working pressure	15bar (218psi) ÷ 300bar (4350psi)
Working temperature	-20°C ÷ +80°C
Material	Nickel-plated steel
Number of inversion at minute	200 max (according to pressure and viscosity)
Inlet thread	1/8" BSP
Outlet thread	1/8" BSP
Lubricants	Min. Oil. 32 cSt –max. 2 NLGI grease

N.B.: The pressure drop is directly proportional to the number of cycles.
The oil and grease viscosity values always refer to the operating temperature.

DIMENSIONS



N° elements	INLET nP – standard version mm [inch]				INLET nP -S 20mm reduced hole centers mm [inch]			
	"A"	"B"	"C"	"D"	"A"	"B"	"C"	"D"
3	42 [1.65]	6.2 [.24]	24 [.94]	76.3 [3]	20 [.79]	5.5 [.22]	30.5 [1.2]	82.8 [3.26]
4				90.3 [3.55]				96.8 [3.82]
5				104.3 [4.11]				110.8 [4.36]
6				118.3 [4.66]				124.8 [4.91]
7				132.3 [5.21]				138.8 [5.46]
8				146.3 [5.76]				152.8 [6.02]
9				160.3 [6.31]				166.8 [6.57]
10				174.3 [6.86]				180.8 [7.12]
11				188.3 [7.41]				194.8 [7.67]
12				202.3 [7.96]				208.8 [8.22]



CONFIGURATION INFORMATION

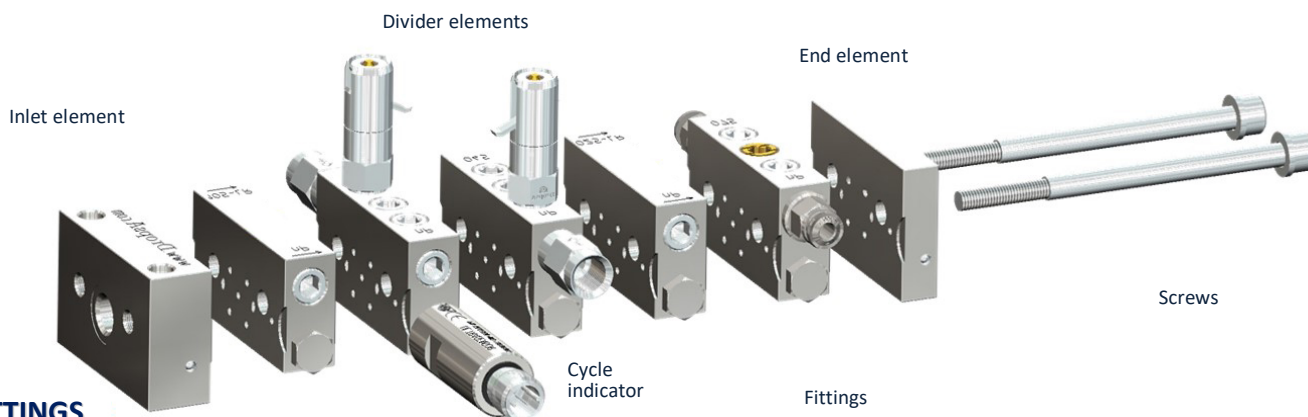
IN FEW STEPS YOU CAN COMPOSE DIFFERENT KIND OF MODULES AS YOU NEED :

1. INLET ELEMENT

2. DIVIDER ELEMENT (REPEAT FOR NUMBER OF ELEMENTS)

3. END ELEMENT

STANDARD ELEMENT	-S 20mm reduced	FLOWRATE Q.cm ³	STANDARD ELEMENT	ELEMENT WITH INDICATOR	BRIDGE ELEMENT			PART NO.
					LEFT	RIGHT	LEFT/RIGHT	
0645747	0645748	0.025	0645750	0645778	0645754	0645758	0645762	0645749 + 0016047 (ø6 washer)
		0.045	0645751	0645779	0645755	0645759	0645763	
		0.075	0645752	0645780	0645756	0645760	0645764	
		0.105	0645753	0645781	0645757	0645761	0645765	



4. FITTINGS

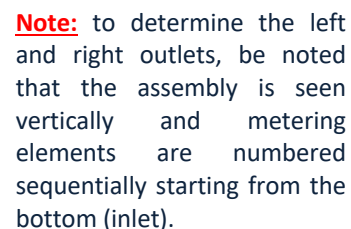
ITEM	DESCRIPTION	PART N.	ITEM	DESCRIPTION	PART N.
PRESSURE INDICATOR	30bar with memory pin	3290000	FITTINGS	1/8" valved fitting for OUTLET	0092335
	50bar with memory pin	3290001		1/8" valved fitting for INLET	0092555
	75bar with memory pin	3290022		Ø6 double-tapered terminal (150bar)	0092080
	100bar with memory pin	3290002		Ø4 double-tapered terminal (150bar)	0092069
	150bar with memory pin	3290003		Ø4 ring fitting (250bar)	0091942
	200bar with memory pin	3290004		Push-in Ø4 (65bar)	3084577
	250bar with memory pin	3290005		Push-in Ø6 (65bar)	3084578
	300bar with memory pin	3290021		Swivel Push-in 90° Ø6 (150bar)	3084695
	20bar with pin	3290019		Swivel Push-in 90° Ø4 (150bar)	3084696
	30bar with pin	3290006	TUBING	Ø6x1 Drawn steel tube (400bar)	5119812
	50bar with pin	3290007		Ø4x1 Drawn steel tube (500bar)	5119832
	100bar with pin	3290008		ASTM Ø6x0,71 Copper steel tube	5118001
	150bar with pin	3290009		ASTM Ø4x0,71 Copper steel tube	5118000
	200bar with pin	3290010		Ø4x0,5 Annealed copper tube (133bar)	5501201
	250bar with pin	3290011		Ø6x1 Annealed copper tube (200bar)	5501203
	30 bar with membrane	3290012		PA Ø4xØ2,5 Tube (60bar)	5717202
	50 bar with membrane	3290013		PA Ø6xØ4 Tube (50bar)	5717203
	100 bar with membrane	3290014		SCREWS order 2 per assembly	3 elements
	150 bar with membrane	3290015	4 elements		0014181
	200 bar with membrane	3290016	5 elements		0014397
250 bar with membrane	3290017	6 elements	0014182		
CYCLE INDICATOR	ULTRASENSOR + (M12 Connector)	1655308 + 0039999	7 elements		0014191
			8 elements		0014398
			9 elements		0014399
			10 elements		0014400
			11 elements		0014401
			12 elements		0014402

DESCRIPTION	PART N.	Each kit includes 2 screws, 2 washers, plugs and single outlet adaptors according to the number of elements.
Assembly Kit 3 elements	3140826	
Assembly Kit 4 elements	3140827	
Assembly Kit 5 elements	3140828	
Assembly Kit 6 elements	3140829	
Assembly Kit 7 elements	3140830	
Assembly Kit 8 elements	3140831	
Assembly Kit 9 elements	3140832	
Assembly Kit 10 elements	3140833	
Assembly Kit 11 elements	3140834	
Assembly Kit 12 elements	3140835	

DESCRIPTION	PART N.
JUNCTION-DOSER - nP	0640220
BRIDGE JOINT WITH OUTPUT G1/8 - nP	0640221

ITEM	DESCRIPTION	PART N.
Washer (order 2 per assembly)	ø6 washer	0016047
Plug and Adaptor	Single outlet adaptor	0641708
	Plug 1/8 BSP	3232098

3/5



nP 5 105 BLR – 105 SR USL M 75 UR OC8BK – 045 SL M 100 UL OC8BK – 025OR6D – 075 OP4S
1° 2° 3° 4° 5°

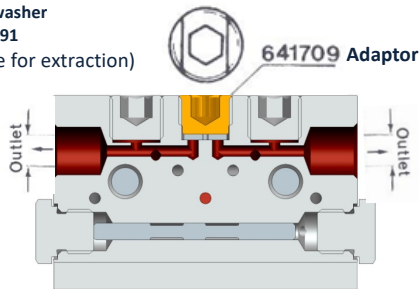
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SINGLE AND DOUBLE OUTLET CONVERSION

It is possible to combine the two flow rates of the same divider element by replacing the yellow Adapter Part No. 0641709 with the white Adapter Part No. 0641708 as shown in the drawing. When the two outlets are connected, remember to close off the one not being used with a plug (Part no. 3232098)

Sealing disc-washer
Part No. 641791
(With hole for extraction)



3232124
Plug

