



PROGRESSIV SYSTEM PROGRESSIVE SYSTEM

PROGRESSIVVERTEILER

BESCHREIBUNG

Ilcolube vereinigt die Verteilung und Dosierung des Schmiermittels in einer progressiven Bewegung von Kolben, die nach einander alle mittels eines einzigen Versorgungsstroms unabhängig voneinander gesteuert werden.

Dieses System eignet sich für die Dosierung von Öl und Schmierfett für eine oder mehrere Schmierstellen. Jeder Kolben ist in Serie mit dem vorigen montiert. Sollte einer der Kolben blockieren, so hört die Verteilung auf und blockiert das ganze System. Dasselbe passiert im Falle einer externen Verstopfung. Zur Überwachung des Betriebes des ganzen Systems genügt es auf nur einem Kolben ein visuelles oder elektrisches Kontrollelement zu montieren. Bei den Systemen mit Schmiermittelverlust, die intermittierend funktionieren, gleicht die Fördermenge der Addierung der verschiedenen Kolben. Bei diesen Anwendungen ist die Fördermenge pro Zeiteinheit nicht immer gleich durch die Stopposition des letzten Kolbens.

Trotzdem sollte Überdruck so viel wie möglich verhindert werden. Der Hauptverteiler kann unterstehende Verteiler versorgen und diese können wiederum unterstehende Verteiler versorgen. Theoretisch kann man unendlich weitergehen, aber aus Gründen von Kompression und Ventilation der Schmiermittel empfehlen wir nicht mehr als 2 Verteiler nach dem Hauptverteiler zu montieren, denn bei mehr als 2 Verteilern kann der Betrieb unregelmäßig werden, vor allem bei Fett mit einer niedrigen Viskosität.

Ilcolube hat drei Progressivverteiltertypen: Monoblock **DPM** in Aluminium oder rostfrei Stahl, **DPA** und **DPX** Scheibenverteiler in Stahl verzinkt.

- **DPA:** 0,05 – 0,50 cc/ per Impuls und Ausgang
- **DPX:** 0,025 – 0,105 cc/ per Impuls und Ausgang
- **DPM:** 0,10 – 0,20 cc/ per Impuls und Ausgang

HAUPTVORTEILE DES ILCOLUBE PROGRESSIVSYSTEMS

GEWÄHRLEISTET POSITIVE ABGABE VON ABGEMESSENER MENGE SCHMIERSTOFF

ENTWICKELT FÜR DIE ANWENDUNG MIT EINER SYSTEMÜBERWACHUNGSFUNKTION

LANGE STANDZEIT VERSICHERT DURCH DIE WAHL VON QUALITÄTSVOLLEN MATERIALIEN UND EINER GENAUEN QUALITÄTSKONTROLLE

VERFÖGBAR MIT VERSCHIEDENEN KONTROLLSYSTEMEN

DURCH DAS AUSGEBREITETE ANGEBOT GIBT ES VIELE MÖGLICHKEITEN

PROGRESSIVE DIVIDERS

DESCRIPTION

Ilcolube is the lubrication system which identifies distribution and dosing with a progressive movement of pistons that are controlled one by the other in an interdependent sequence.

This is obtained by only one delivery flow. This system is highly qualified for dosing oil and grease to one or more journals or bearing. Each piston is in series with the component before or the one after it and therefore malfunctioning of one of these causes stopping of the sequence and consequently inhibiting of the system. This inhibition occurs also during any external clogging or when outlet not being utilized anymore might be plugged. The application of only one component, which is provided with visual or electrical control, is sufficient for an efficient and complete checking of the entire distribution. In system with off-flowing oil, which operates intermittently, the pump discharge is determined by the sum of the deliveries of all dosing elements. In circulation system, the quantity of delivery during a certain time is less strict. However in this case any overpressure, which is not justified for the pumps and components, shall be avoided. The rate of flow for the pump is fractionable when the doser blocks are arranged in cascade. Through a doser block, the so-called master, it is possible to supply another block of dosers by uniting one or more outlets and from there another and from there another. Theoretically this may be continued infinitely more, however for reasons of compressibility and aerations of lubricants, is not suitable to have more than two cascades after the master, since beyond this there might be irregular running especially with grease as lubricant or at minimum rates of flow.

Ilcolube system has three progressive dividers type: monoblock **DPM** in alloy or stainless steel, **DPA** and **DPX** are sector dividers in steel.

- **DPA:** 0,05 – 0,50 cc/ per impulse and outlet
- **DPX:** 0,025 – 0,105 cc/ per impulse and outlet
- **DPM:** 0,10 – 0,20 cc/ per impulse and outlet

PRINCIPAL ADVANTAGES FROM THE USE OF THE ILCOLUBE PROGRESSIVE SYSTEM

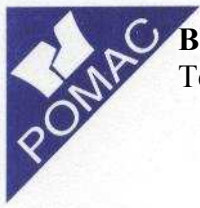
GUARANTEES POSITIVE DISCHARGE OF MEASURED QUANTITY OF LUBRICANT

DESIGNED FOR USE WITH A SYSTEM MONITORING FUNCTION

LONG OPERATIONAL LIFE ASSURED BY CAREFUL SELECTION OF HIGH GRADE MATERIAL AND STRICT QUALITY CONTROL

AVAILABLE WITH INDICATORS AND/OR CONTACT PLUGS WHICH GIVE CONFIRMATION OF OPERATION OR FAULT WARNING

LARGE RANGE AND COMBINATION OF SIZES GIVES FLEXIBILITY TO THE SYSTEM DESIGNER



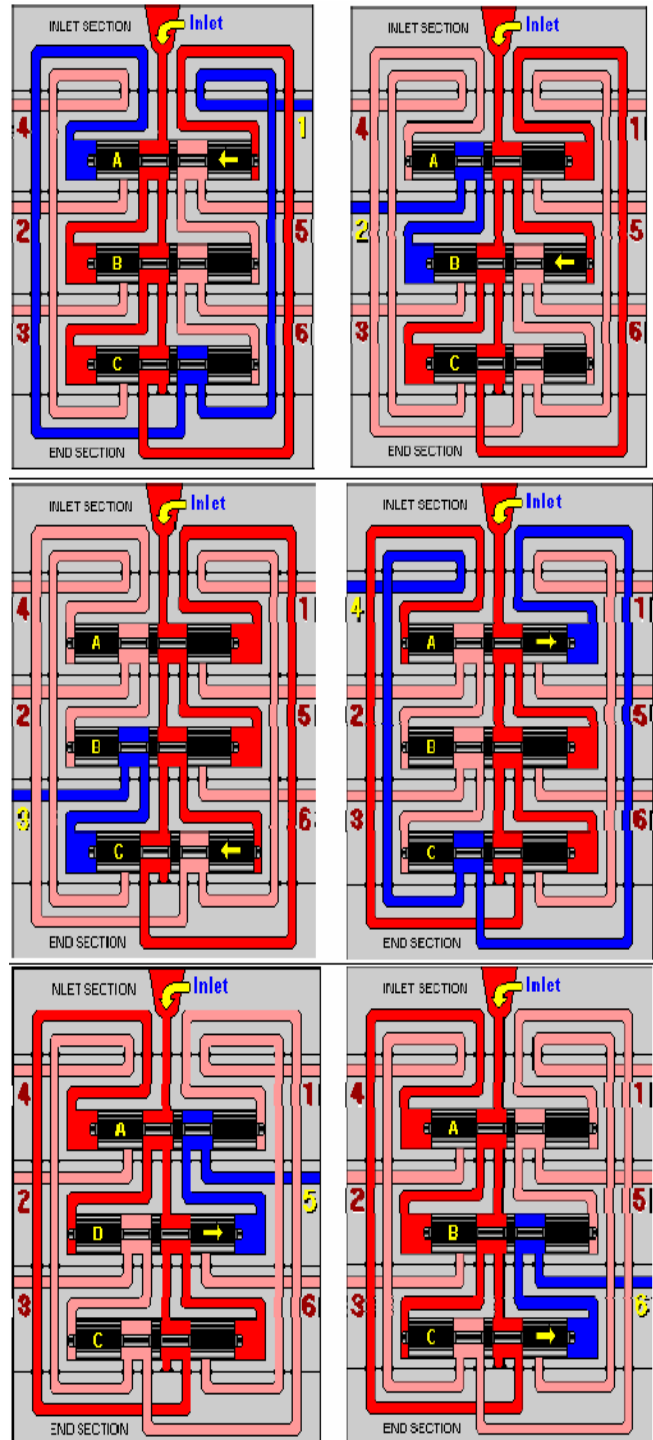
PROGRESSIVE DIVIDER DPX OPERATING SEQUENCE

1. Supply pressure through internal passages moves piston "a" left while holding pistons "b" and "c" fixed. A measured dose of lube discharges from port 4.

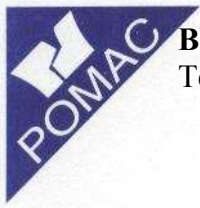
2. Piston "a" bottoms. It opens internal passages directing supply pressure to right end of piston "b". Lube discharges from port 1.

3. Piston "b" bottoms. It opens internal passages directing supply pressure to right end of piston "c". Lube discharges from port 2.

4. Piston "c" bottoms. It opens internal passages directing supply pressure to left end of piston "a" which returns on its initial position as lube discharges from port 3.



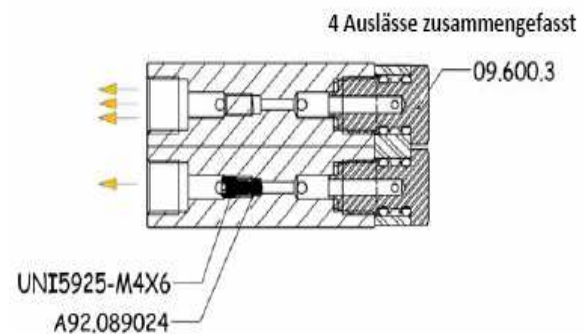
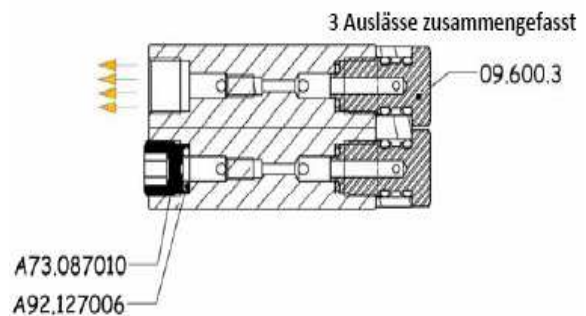
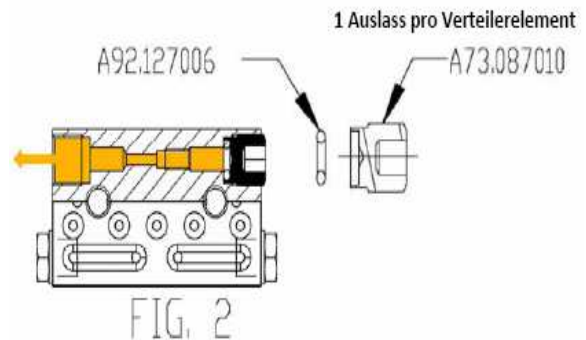
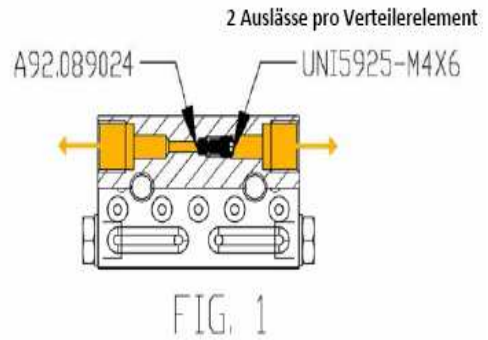
Subject to changes

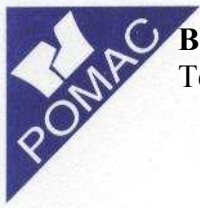


PROGRESSIVE DIVIDERS DPX OUTLETS USE

Each divider piston is arranged in order to feed 1 or 2 outlets. When the separation dowel is inserted (see Fig.1), the discharge is carried out in both sides. When the dowel is not inserted (see Fig. 2), the double discharge is carried out in one of the two available outlets. If it is necessary to use one outlet extract the sphere (A92.087015), besides the separation dowel (A92.089002) and insert a plug (A73.087010 + A73.127039) in the outlet no more used. The dividers are supplied with the separation dowel inserted and the two outlets open as standard.

IMPORTANT: IT IS NOT POSSIBLE TO CLOSE BOTH THE OUTLETS OF A SAME PISTON. ALL THE WORK HAVE TO BE MADE IN A CLEAN ENVIRONMENT





PROGRESSIVE DIVIDER DPX

Progressive dividers care for distribution and dosing with a progressive movement of pistons that are controlled one by the other in an interdependent sequence.

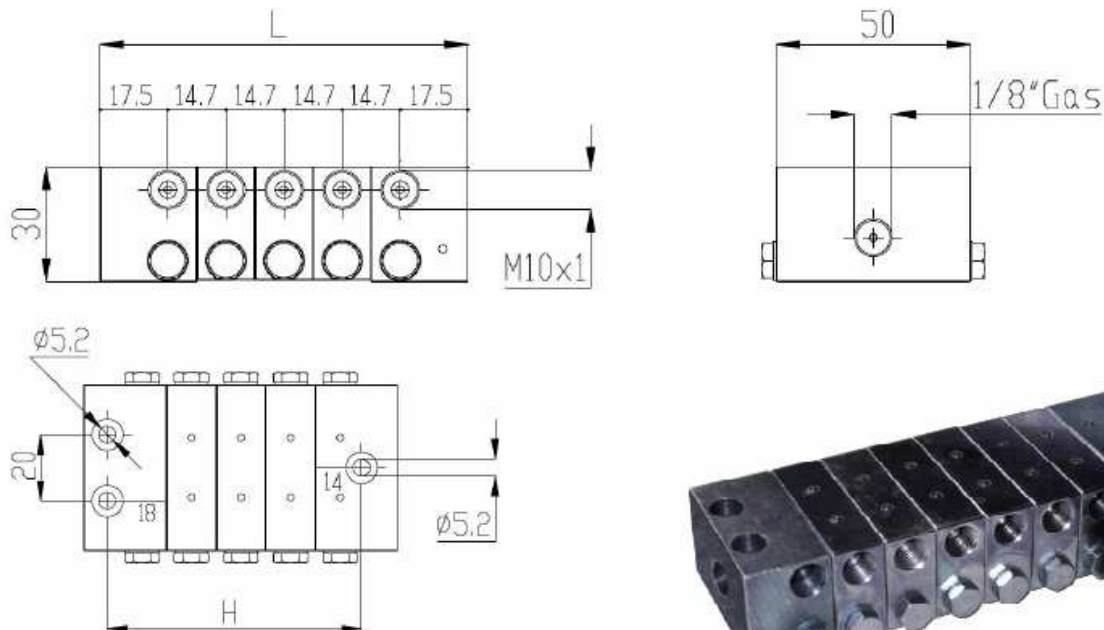
This is obtained by only one delivery flow. This system is highly qualified for dosing oil and grease to one or more journals or bearing. Each piston is in series with the component before or the one after it and therefore malfunctioning of one of these causes stopping of the sequence and consequently inhibiting of the system. This inhibition occurs also during any external clogging or when outlet not being utilized anymore might be plugged. The application of only one component, which is provided with visual or electrical control, is sufficient for an efficient and complete checking of the entire distribution. In system with off-flowing oil, which operates intermittently, the pump discharge is determined by the sum of the deliveries of all dosing elements. In circulation system, the quantity of delivery during a certain time is less strict. However in this case any overpressure, which is not justified for the pumps and components, shall be avoided. The rate of flow for the pump is fractionable when the doser blocks are arranged in cascade. Through a doser block, the so-called master, it is possible to supply another block of dosers by uniting one or more outlets and from there another and from there another. Theoretically this may be continued infinitely more, however for reasons of compressibility and aerations of lubricants, is not suitable to have more than two cascades after the master, since beyond this there might be irregular running especially with grease as lubricant or at minimum rates of flow.

TECHNICAL DETAILS

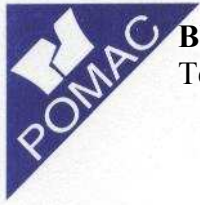
Working pressure = FROM 15 BAR TO 300 BAR
 Temperature range = FROM -20°C TO 100 °C
 Lubricants = OIL – SOFT GREASE – GREASE

Codes for order

Code	No. of outlets	H	L	Code	No. of outlets	H	L		
2.1N.03	DPX-3	3	46.7	64.4	2.1N.08	DPX-8	8	120.2	137.9
2.1N.04	DPX-4	4	61.4	79.1	2.1N.09	DPX-9	9	134.9	152.6
2.1N.05	DPX-5	5	76.1	93.8	2.1N.10	DPX-10	10	149.6	167.3
2.1N.06	DPX-6	6	90.8	108.5	2.1N.11	DPX-11	11	164.3	182
2.1N.07	DPX-7	7	105.5	123.2	2.1N.12	DPX-12	12	179	196.7



Subject to change

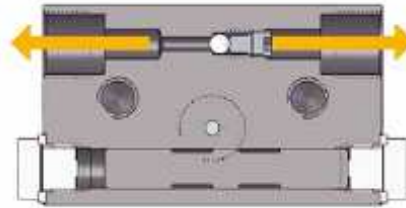


PROGRESSIVE DIVIDER DPX ELEMENTS

DPX progressive distributors consist of an inlet valve section, valve section and an outlet valve section

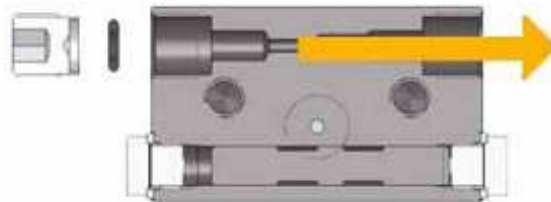
2 outlets per divider element

Discharge	Inlet valve section	Valve section	Outlet valve section
25 mm ³ /cycle	2.A.025.D.1N	2.B.025.D.1N	2.C.025.D.1N
45 mm ³ /cycle	2.A.045.D.1N	2.B.045.D.1N	2.C.045.D.1N
75 mm ³ /cycle	2.A.075.D.1N	2.B.075.D.1N	2.C.075.D.1N
105 mm ³ /cycle	2.A.105.D.1N	2.B.105.D.1N	2.C.105.D.1N



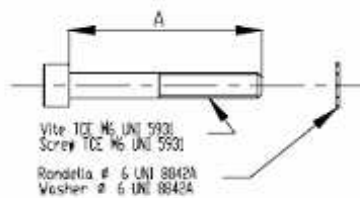
1 outlet per divider element

Discharge	Inlet valve section	Valve section	Outlet valve section
50 mm ³	2.A.025.S.1N	2.B.025.S.1N	2.C.025.S.1N
90 mm ³	2.A.045.S.1N	2.B.045.S.1N	2.C.045.S.1N
150 mm ³	2.A.075.S.1N	2.B.075.S.1N	2.C.075.S.1N
210 mm ³	2.A.105.S.1N	2.B.105.S.1N	2.C.105.S.1N



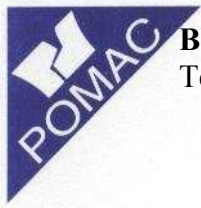
Tie rods

No. of elements	A (mm)	Code
3	45	2.TR.03
4	60	2.TR.04
5	75	2.TR.05
6	90	2.TR.06
7	105	2.TR.07
8	120	2.TR.08
9	135	2.TR.09
10	150	2.TR.10
11	165	2.TR.11
12	180	2.TR.12



Be ty dikker uses No. 2 as tie rod!

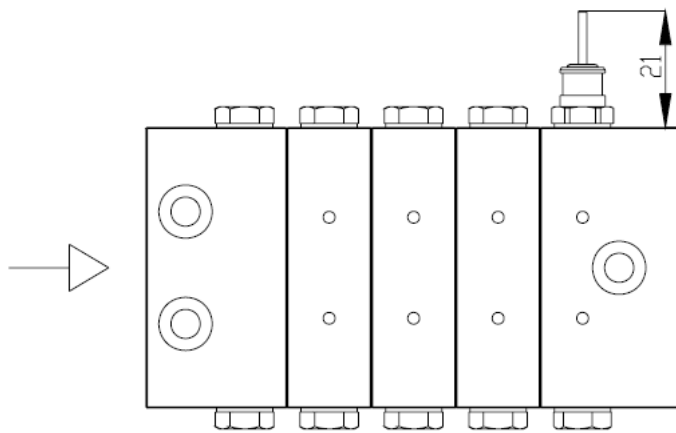
Subject to changes



DPX PROGRESSIVE DIVIDER WITH VISUAL INDICATOR

CODES TO ORDER COMPLETE DISTRIBUTORS WITH VISUAL INDICATOR

CODICE <i>CODE</i>	SIGLA <i>TYPE</i>	NUMERO DI PISTONI <i>PISTON NUMBERS</i>	CODICE <i>CODE</i>	SIGLA <i>TYPE</i>	NUMERO DI PISTONI <i>PISTON NUMBERS</i>
2.2V.03	DPX-3 V	3	2.2V.08	DPX-8 V	8
2.2V.04	DPX-4 V	4	2.2V.09	DPX-9 V	9
2.2V.05	DPX-5 V	5	2.2V.10	DPX-10 V	10
2.2V.06	DPX-6 V	6	2.2V.11	DPX-11 V	11
2.2V.07	DPX-7 V	7	2.2V.12	DPX-12 V	12

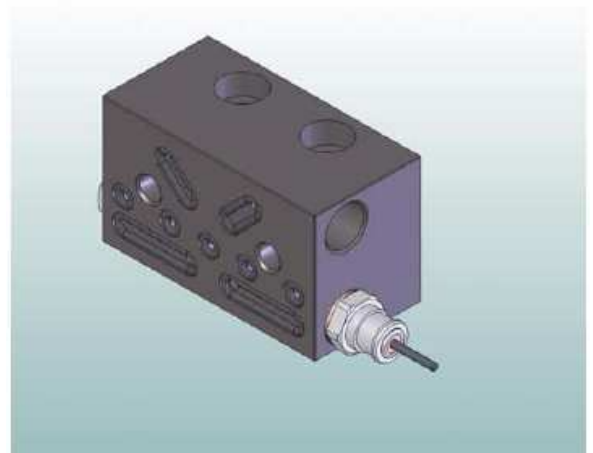


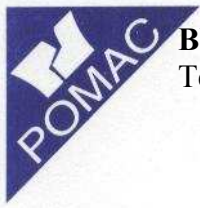
CODES TO ORDER SINGLE BLOCKS WITH VISUAL INDICATOR
 2 OUTLETS

ELEMENTO INTERMEDIO <i>VALVE SECTION</i>	ELEMENTO FINALE <i>END VALVE SECTION</i>
2.B.075.D.2V	2.C.075.D.2V
2.B.105.D.2V	2.C.105.D.2V

CODES TO ORDER SINGE BLOCKS WITH VISUAL INDICATOR
 1 OUTLET

ELEMENTO INTERMEDIO <i>VALVE SECTION</i>	ELEMENTO FINALE <i>END VALVE SECTION</i>
2.B.075.S.2V	2.C.075.S.2V
2.B.105.S.2V	2.C.105.S.2V

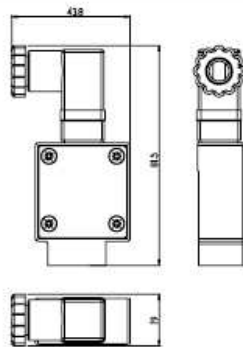
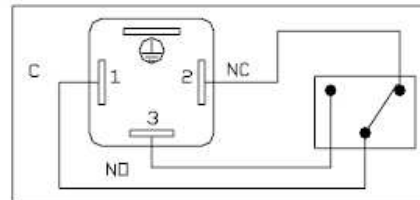




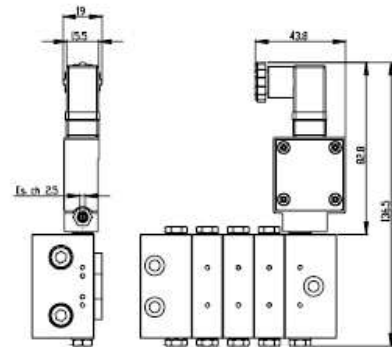
**PROGRESSIVVERTEILER DPX
 MIT MICROSCHALTER
 BESTELL- NR. 49.050.2**

Verteiler mit Microschalter werden zur Überwachung der Anlage oder bei Taktsteuerungen zur Zählung der Kolbenhöhe des Verteilers verwendet.

Spannung: 5 A 250 V AC / 0,4 A 125 V DC
 Kabel: 3P
 Schutzart: IP-65
 Umgebungstemperatur: Von -25°C bis 85°C



Bestell-Nr.	Bezeichnung	Elemente
2.4M.03	DPX-3 M	3
2.4M.04	DPX-4 M	4
2.4M.05	DPX-5 M	5
2.4M.06	DPX-6 M	6
2.4M.07	DPX-7 M	7
2.4M.08	DPX-8 M	8
2.4M.09	DPX-9 M	9
2.4M.10	DPX-10 M	10
2.4M.11	DPX-11 M	11
2.4M.12	DPX-12 M	12

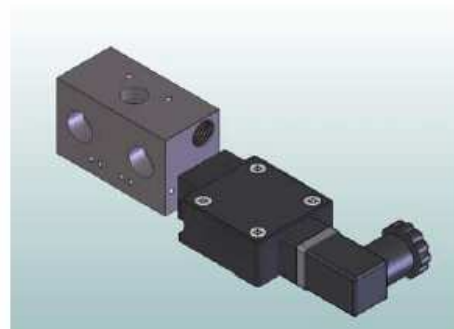


2 Auslässe pro Verteilerelement

Fördermenge	Anfangselement	Mittelement	Endelement
75 mm ³ /Hub	2.A.075.D.4M	2.B.075.D.4M	2.C.075.D.4M
105 mm ³ /Hub	2.A.105.D.4M	2.B.105.D.4M	2.C.105.D.4M

1 Auslass pro Verteilerelement

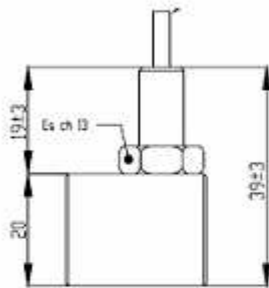
Fördermenge	Anfangselement	Mittelement	Endelement
150 mm ³	2.A.075.S.4M	2.B.075.S.4M	2.C.075.S.4M
210 mm ³	2.A.105.S.4M	2.B.105.S.4M	2.C.105.S.4M



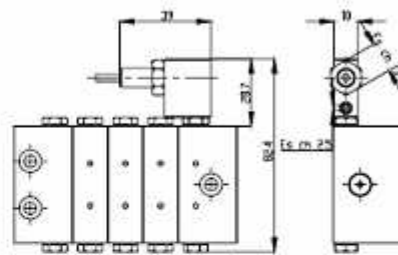
Unter Vorbehalt von Änderungen

**DPX PROGRESSIVE DIVIDER
WITH PROXIMITY SWITCH
CODE. 49.052.5 PNP**

Voltage 6-30 V DC
 Cable 3x0.14 mm² PVC
 Isolation IP-67
 Temp. Range From -25°C to 70°C

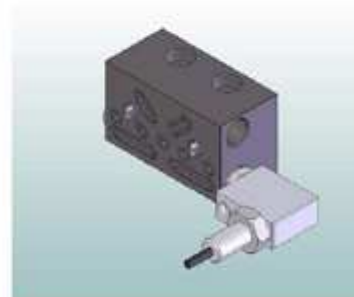


Code	Article	Outlets
2.3i.03	DPX-3 I	3
2.3i.04	DPX-4 I	4
2.3i.05	DPX-5 I	5
2.3i.06	DPX-6 I	6
2.3i.07	DPX-7 I	7
2.3i.08	DPX-8 I	8
2.3i.09	DPX-9 I	9
2.3i.10	DPX-10 I	10
2.3i.11	DPX-11 I	11
2.3i.12	DPX-12 I	12



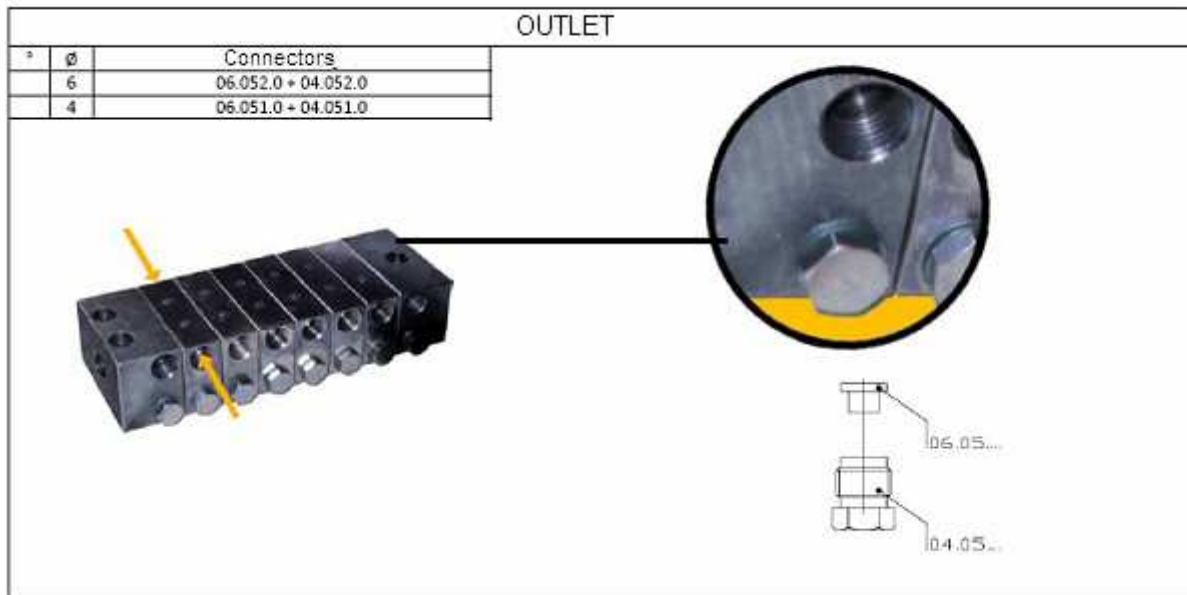
Discharge	Inlet section :	Valve section	Outlet section
75 mm ² /Hub	2.A.075.D.3i	2.B.075.D.3i	2.C.075.D.3i
105 mm ² /Hub	2.A.105.D.3i	2.B.105.D.3i	2.C.105.D.3i

Discharge	Inlet section :	Valve section	Outlet section
150 mm ²	2.A.075.S.3i	2.B.075.S.3i	2.C.075.S.3i
210 mm ²	2.A.105.S.3i	2.B.105.S.3i	2.C.105.S.3i

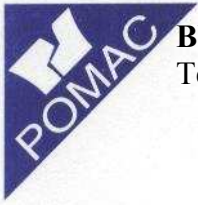


Subject to change

**PROGRESSIVE DIVIDER DPX
CONNECTORS
PLUG-IN FOR NYLON TUBE**



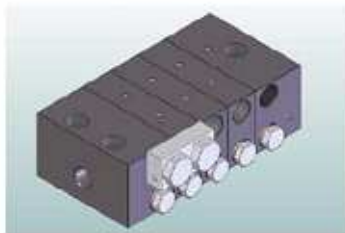
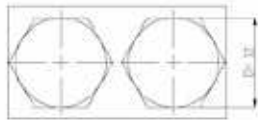
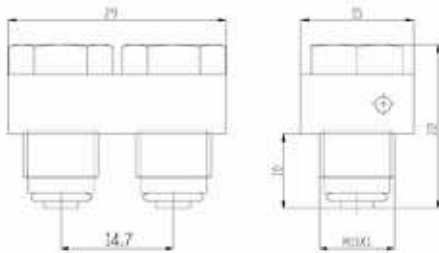
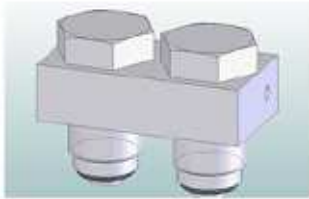
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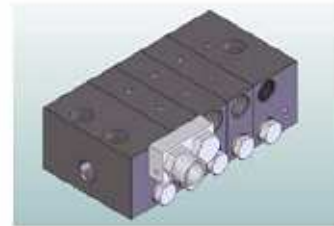
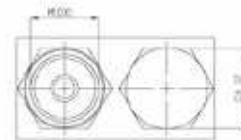
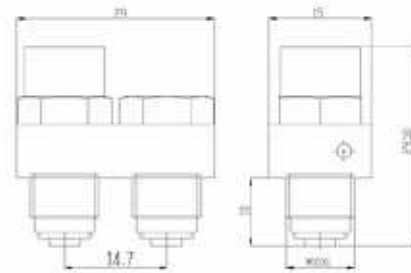
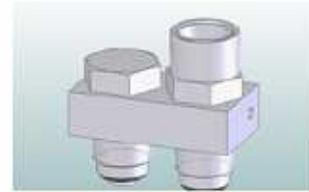
PROGRESSIVE DIVIDERS DPX CONNECTING SEVERAL OUTLETS – BRIDGE CONNECTORS

If necessary, the fat yield for one point can be increased by using a bridge connector.

Bridge connector without outlet
Code: 09.600.3



Bridge connector with outlet
Code: 09.600.4



Subject to change

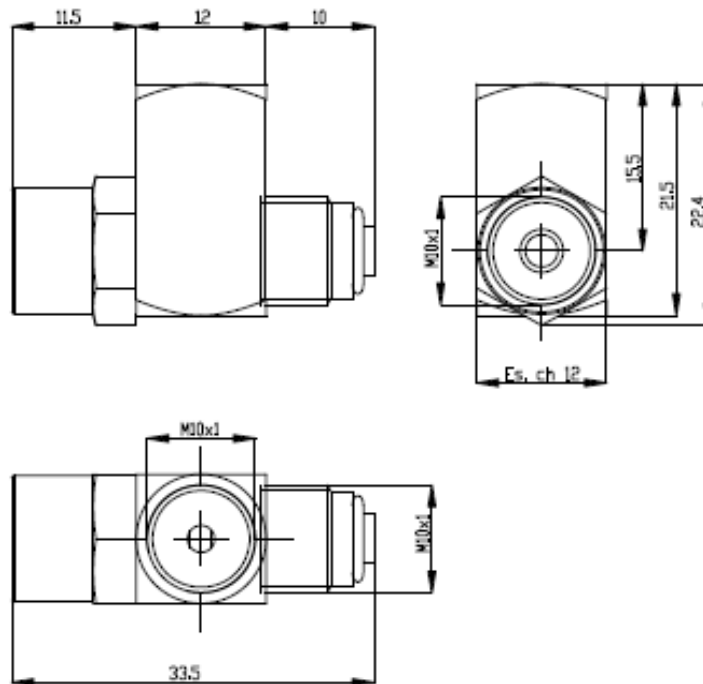
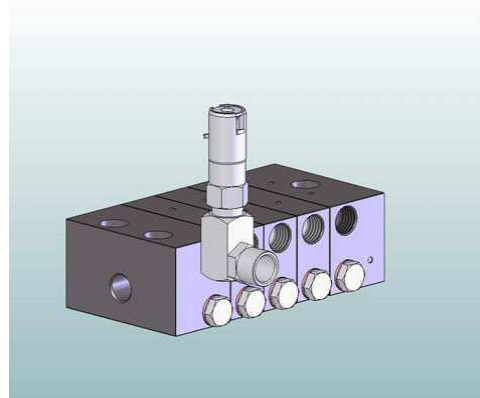
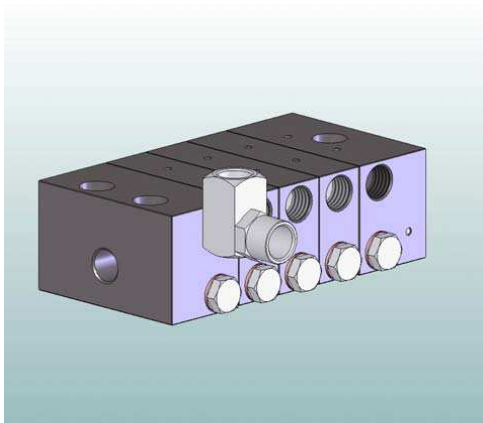


SYSTEME PROGRESSIF PROGRESSIEF SYSTEEM

PROGRESSIVE DIVIDERS TYPE DPX

T-connector for mounting
Pressure gauge

This connector is used to mount the pressure gauge on the manifold.



Subject to change



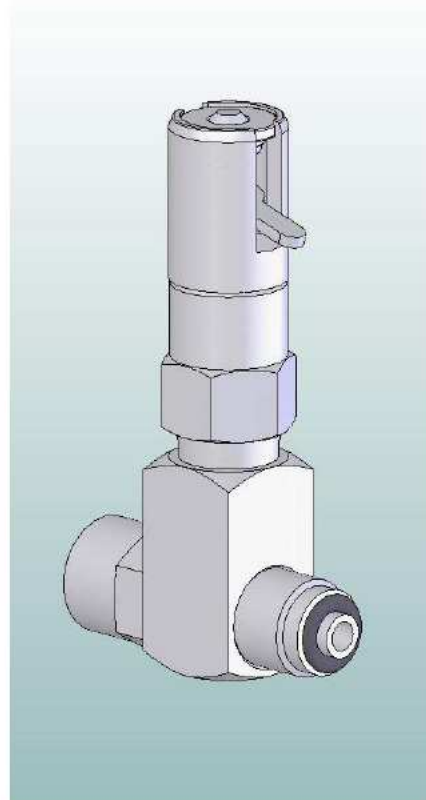
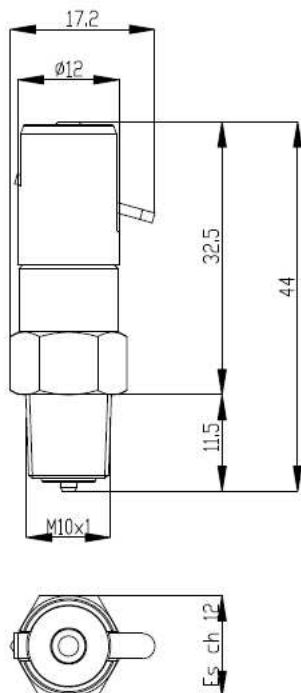
SYSTEME PROGRESSIF PROGRESSIEF SYSTEEM

PROGRESSIVE DIVIDERS DPX

Pressure indicator

Pressure indicators are used to control the pressure in the primary and secondary pipes. When there is overpressure, the pen moves out of the indicator and remains in this position until it is pushed back manually. We suggest to do this after discovering the cause and location of the error.

Code	Max. mass
09.710.2	50
09.710.3	75
09.710.4	100
09.710.5	150
09.710.6	200
09.710.7	250



Subject to change