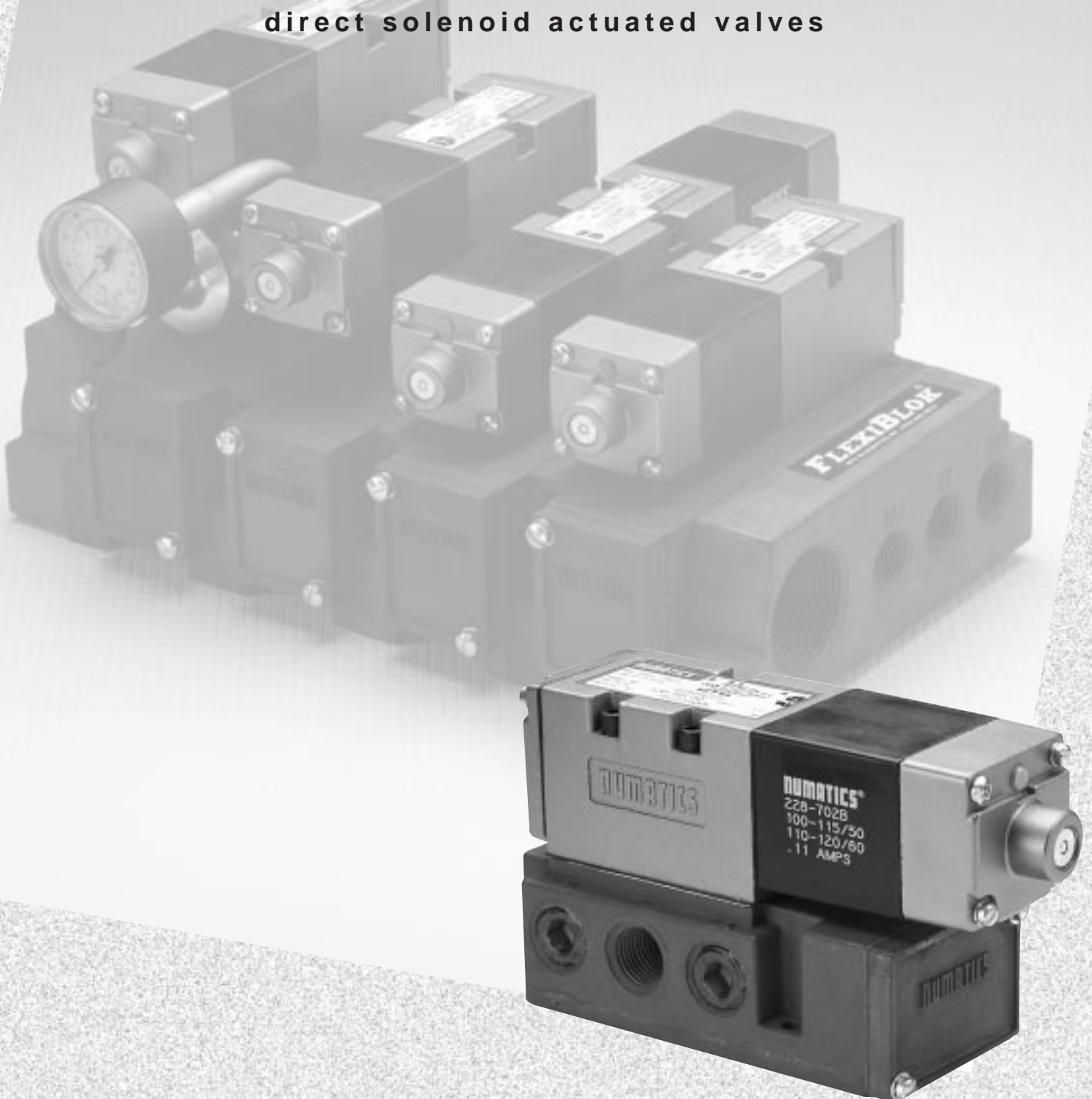


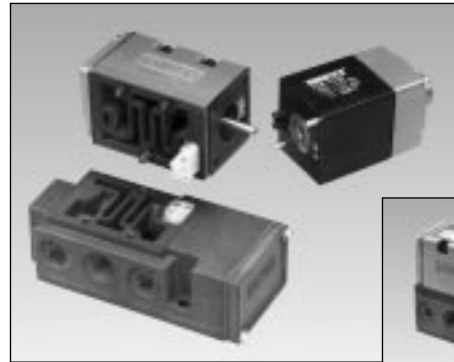
MARK 15 SERIES

direct solenoid actuated valves



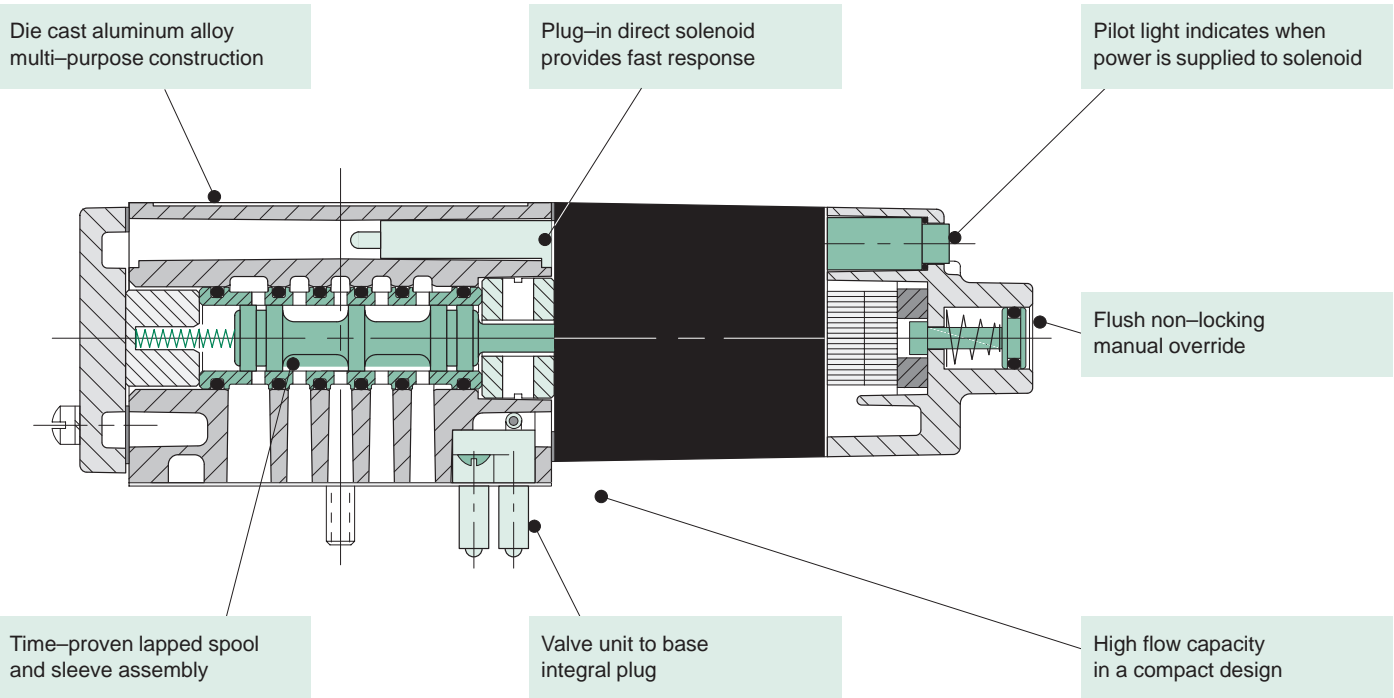
Mark 15 direct solenoid actuated valves

| | |
|------------------------------------|------|
| TECHNICAL DATA | 3 |
| VALVE MODEL SELECTION | 4 |
| VALVE/BASE DIMENSIONS | 5 |
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| REGULATOR KITS | 11 |
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| BASE ASSEMBLY KITS | 13 |
| FLEXIBLOK MANIFOLD KITS | 13 |
| VALVE SERVICE KITS | 14 |
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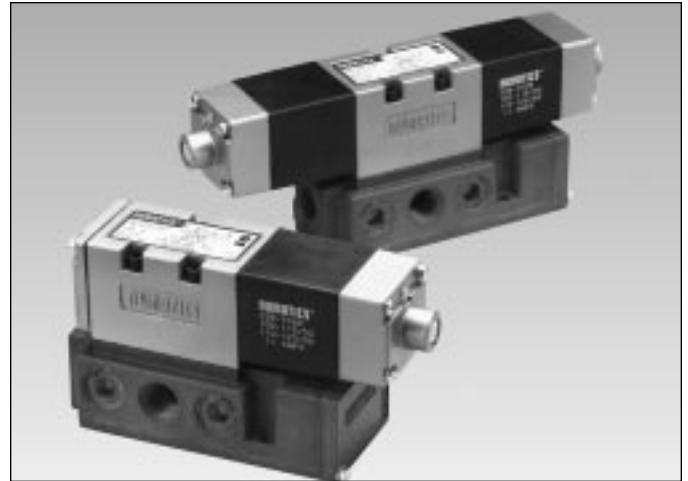
MARK 15 FEATURES:

Mark 15 valves have a plug-in base or manifold, a plug-in solenoid, and an optional speed control sandwich. The unit to base electrical plug permits instant valve unit replacement without disconnecting piping or wiring.



Mark 15 valves

- direct solenoid actuated
- plug-in solenoid with indicator light
- multi-purpose
- 5-ported, 4-way, 2 and 3 position
- lapped spool and sleeve assembly
- Cv to 1.5
- 1/4 and 3/8 NPTF or G Tap
- for unlubricated or lubricated service
- integral regulators available
- integral speed control available
- modular building block system
- NEMA 4



MARK 15

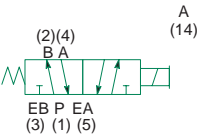
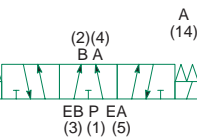
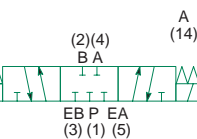
Technical data

| Valve Data | NPTF | | G tap | |
|--|----------------------------|-------------------|--|-----------------|
| Cv: | 1/4 NPTF = 1.4 | 3/8 NPTF = 1.5 | 1/4 G Tap = 1.4 | 3/8 G Tap = 1.5 |
| Flow Capacity: upstream pressure to atmosphere | 65 SCFM @ 80 PSIG | 69 SCFM @ 80 PSIG | 1379 NI/m 6 Bar upstream/5 Bar downstream | 1477 NI/m |
| Operating Pressure Range: | 28" Hg. Vacuum to 150 PSIG | | Vacuum to 10 Bar | |
| Temperature Range: | -10° F to +115° F ambient | | -23° C to +46° C ambient | |

Operating data

| All solenoids are continuous duty rated. | | 12 VDC | 24 VDC | 24 V AC 50 Hz. | 24 V AC 60 Hz. | 115 V AC 50 Hz. | 120 V AC 60 Hz. | 230 V AC 50 Hz. | 240 V AC 60 Hz. |
|--|-----------------------------------|--------|--------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|
| Power (Watts) | | 6.0 | 6.0 | — | — | — | — | — | — |
| Holding Current (Amps.) | | 0.50 | 0.250 | 0.59 | 0.42 | 0.11 | 0.09 | 0.07 | 0.05 |
| Inrush Current (Amps.) | | N/A | N/A | 2.85 | 2.53 | 0.63 | 0.58 | 0.31 | 0.29 |
| Time to Energize in Seconds | 2-Position, Single, Spring Return | 0.038 | 0.034 | 0.010 | 0.010 | 0.010 | 0.010 | 0.010 | 0.010 |
| | 2-Position, Double, Detented | 0.035 | 0.035 | 0.010 | 0.010 | 0.010 | 0.010 | 0.010 | 0.010 |
| | 3-Position, Spring Centered | 0.040 | 0.040 | 0.010 | 0.010 | 0.010 | 0.010 | 0.010 | 0.010 |
| Time to De-Energize in Seconds | 2-Position, Single, Spring Return | 0.016 | 0.011 | 0.015 | 0.015 | 0.015 | 0.015 | 0.015 | 0.015 |
| | 2-Position, Double, Detented | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| | 3-Position, Spring Centered | 0.010 | 0.010 | 0.012 | 0.012 | 0.012 | 0.012 | 0.012 | 0.012 |

Mark 15 model selection table (standard valve/mounting combinations)

| Valve Function | Port Size | AC or DC * | Individual base with side ports and common exhaust | | Individual base with side ports and individual exhaust | | FlexiBlok manifold, with side & bottom cylinder ports | | |
|--|---|------------|--|--------------------|--|--------------------|---|--------------------|-----------|
| | | | without speed control | with speed control | without speed control | with speed control | without speed control | with speed control | |
| | NPTF | | | | | | | | |
| UNIT ONLY 152SA400K (AC) 152SA400M (DC) | 1/4 | AC | 152SA431K | 152SA435K | 152SA43AK | 152SA43CK | 152SA415K | 152SA425K | |
| | 1/4 | DC | 152SA431M | 152SA435M | 152SA43AM | 152SA43CM | 152SA415M | 152SA425M | |
| |  | 3/8 | AC | 153SA431K | 153SA435K | 153SA43AK | 153SA43CK | 153SA415K | 153SA425K |
| | | 3/8 | DC | 153SA431M | 153SA435M | 153SA43AM | 153SA43CM | 153SA415M | 153SA425M |
| UNIT ONLY 152SS400K (AC) 152SS400M (DC) | 1/4 | AC | 152SS431K | 152SS435K | 152SS43AK | 152SS43CK | 152SS415K | 152SS425K | |
| | 1/4 | DC | 152SS431M | 152SS435M | 152SS43AM | 152SS43CM | 152SS415M | 152SS425M | |
| |  | 3/8 | AC | 153SS431K | 153SS435K | 153SS43AK | 153SS43CK | 153SS415K | 153SS425K |
| | | 3/8 | DC | 153SS431M | 153SS435M | 153SS43AM | 153SS43CM | 153SS415M | 153SS425M |
| UNIT ONLY 152SS500K (AC) 152SS500M (DC) | 1/4 | AC | 152SS531K | 152SS535K | 152SS53AK | 152SS53CK | 152SS515K | 152SS525K | |
| | 1/4 | DC | 152SS531M | 152SS535M | 152SS53AM | 152SS53CM | 152SS515M | 152SS525M | |
| |  | 3/8 | AC | 153SS531K | 153SS535K | 153SS53AK | 153SS53CK | 153SS515K | 153SS525K |
| | | 3/8 | DC | 153SS531M | 153SS535M | 153SS53AM | 153SS53CM | 153SS515M | 153SS525M |
| UNIT ONLY 152SS600K (AC) 152SS600M (DC) | 1/4 | AC | 152SS631K | 152SS635K | 152SS63AK | 152SS63CK | 152SS615K | 152SS625K | |
| | 1/4 | DC | 152SS631M | 152SS635M | 152SS63AM | 152SS63CM | 152SS615M | 152SS625M | |
| |  | 3/8 | AC | 153SS631K | 153SS635K | 153SS63AK | 153SS63CK | 153SS615K | 153SS625K |
| | | 3/8 | DC | 153SS631M | 153SS635M | 153SS63AM | 153SS63CM | 153SS615M | 153SS625M |

* Specify volts and Hz. after the model number.

G tap options: For G tap ports, add a "G" to the model number. **EXAMPLE: 153SS431MG**

DIN solenoid options: Replace "K" with "6" for DIN AC plug-in with light. For DIN DC plug-in w/out light replace "M" with "4".

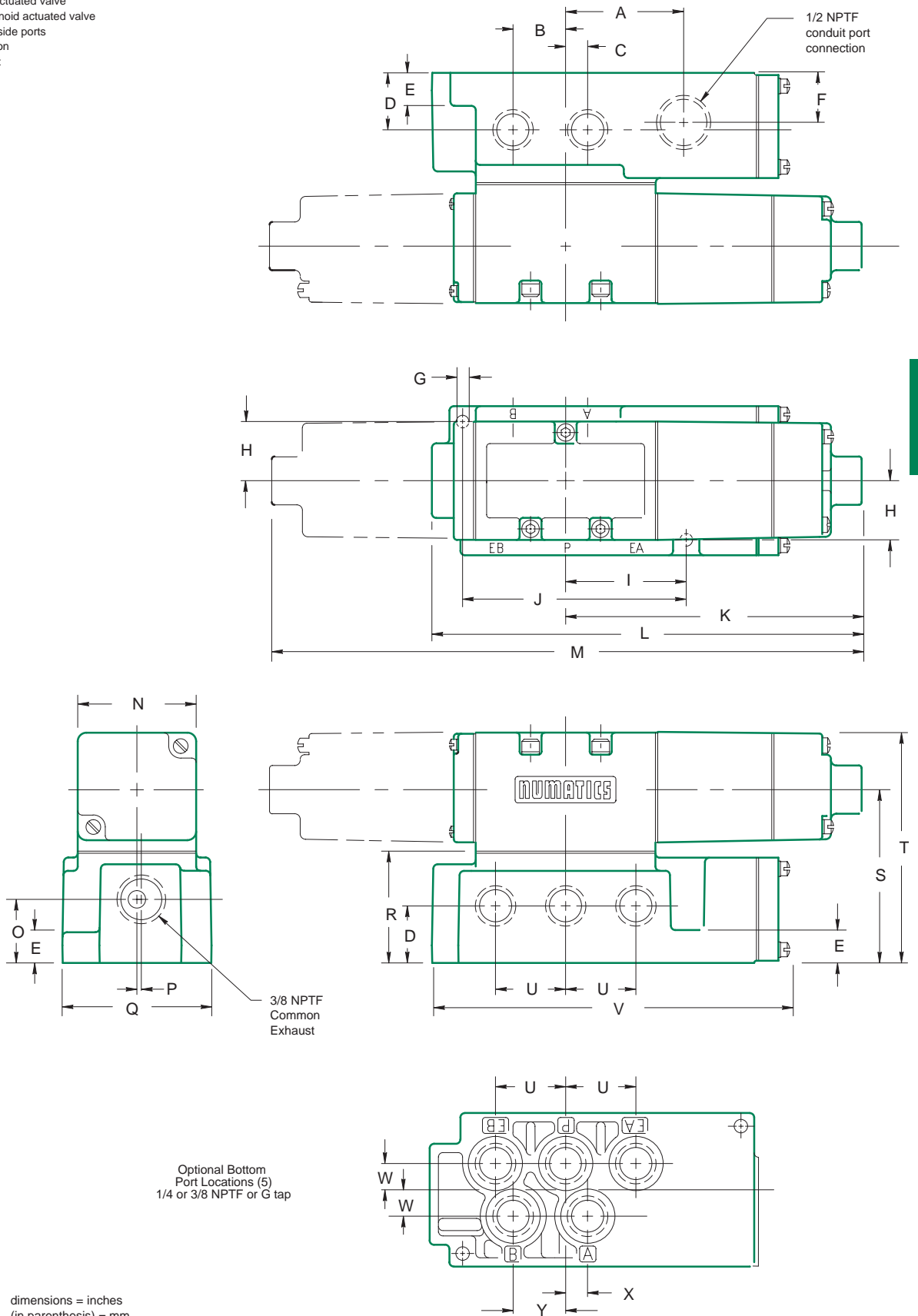
EXAMPLES: DIN AC w/LIGHT: 153SS4316 DIN DC: 153SS4314 (for plug assemblies, see page MK15-15)

Mark 15 valve and base dimensions

152SA4 single direct solenoid actuated valve
 152SS4, 5, 6 double direct solenoid actuated valve
 Base 1/4 or 3/8 NPTF or G tap side ports
 1/2 NPTF conduit port connection
 3/8 NPTF common exhaust port

Dimensions

| | |
|-----------------|----------------|
| A | 1.72 (43.7) |
| B | 0.78 (19.8) |
| C | 0.31 (7.9) |
| D | 0.84 (21.3) |
| E | 0.47 (11.9) |
| F | 0.72 (18.3) |
| G | 0.20 (5.2) |
| H | 0.88 (22.4) |
| I | 1.75 (44.4) |
| J | 3.25 (82.5) |
| K _{AC} | 4.22 (107) |
| K _{DC} | 4.95 (126) |
| L _{AC} | 6.13 (156) |
| L _{DC} | 6.86 (174) |
| M _{AC} | 8.44 (214) |
| M _{DC} | 9.90 (251) |
| N | 1.76 (44.7) |
| O | 0.91 (23) |
| P | 0.06 (1.6) |
| Q | 2.16 (54.8) |
| R | 1.56 (39.6) |
| S | 2.47 (62.7) |
| T | 3.30 (83.8) |
| U | 1.00 (25.4) |
| V | 5.11 (130) |
| W | 0.37 (9.5) |
| X | 0.31 (7.9) |
| Y | 0.78 (19.8) |



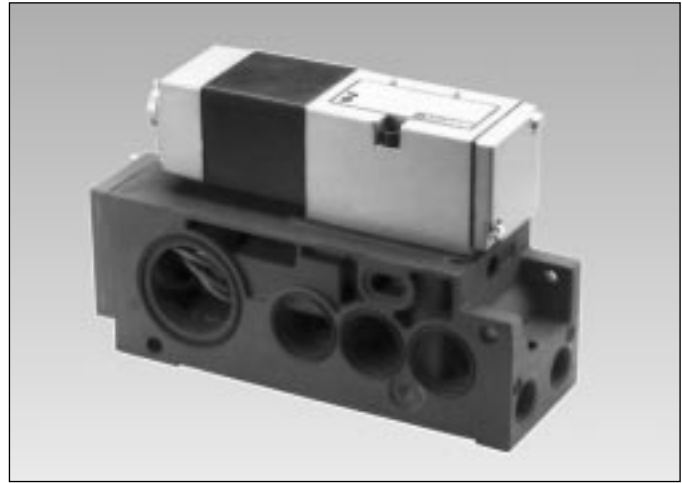
Mark 15 FlexiBlok manifolds

- stackable manifold mounting
- single supply and 2 common exhaust galleries
- end plate tapped, both ends

How to order

List in order, left to right, facing cylinder ports A & B: (example)

| | | |
|------------------|----------------------|-----------|
| Assembly kit* | AK151-4 | |
| Pipe Plug: | 129-102 in P gallery | |
| Station 1 | 153SA416K | 120/60 |
| Blocking Disc | 124-141 in P gallery | |
| Station 2 | 152SA400K | 120/60 |
| | 153RT118J016N | Regulator |
| Blocking Disc | 124-141 in P gallery | |
| Station 3 | 152SA400K | 120/60 |
| | 153RT11BJ | Regulator |
| Station 4 | 153SA415K | 120/60 |
| ASSEMBLED | | |



MARK 15

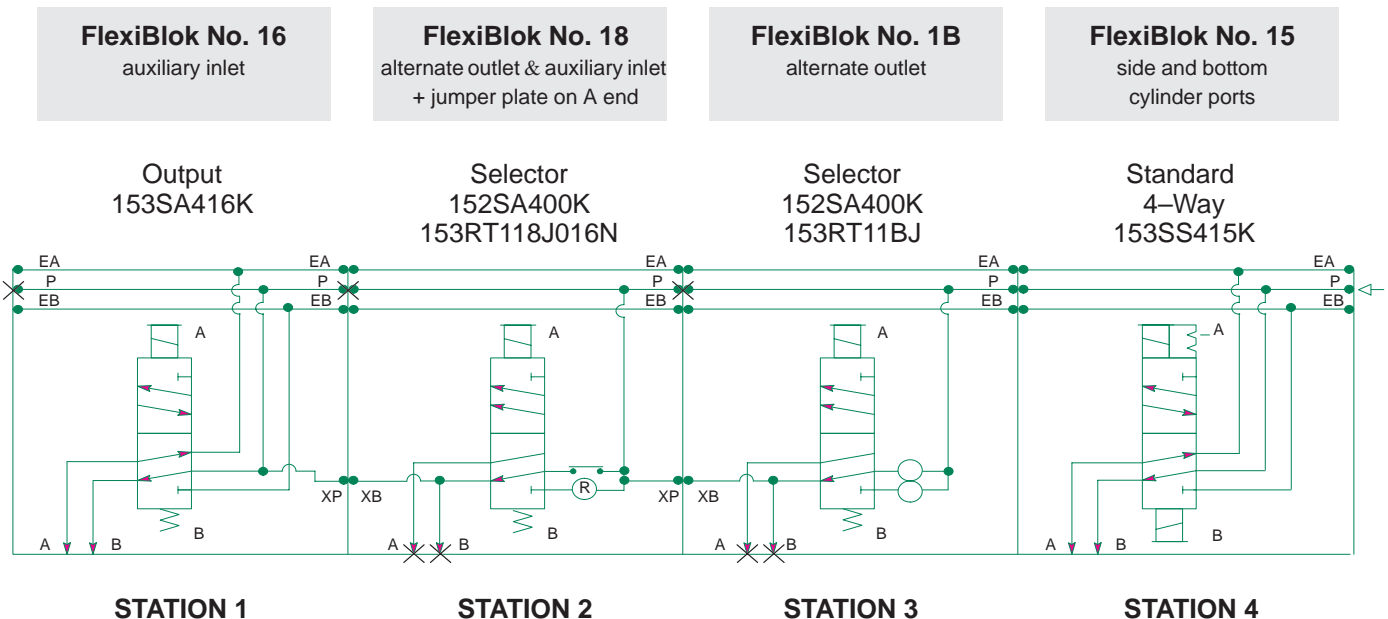
*
AK151- + No. of Stations + Port Type — [Blank = NPTF
G = G Tap Galleries and Metric Conduit
C = G Tap Galleries and NPTF Conduit

Assembly kits are for factory assembled units only. Kits consist of end plates, and screw assemblies; and also include assembly and testing of the entire FlexiBlok manifold for proper operation. Due to flow, wiring, and practical assembly limitations, a maximum of 12 stations per assembly is recommended.

FlexiBlok Diagram

Sample diagram with regulators

Mark 15 3–pressure selector FlexiBlok with output valve and separate 4–way (3/8 NPTF)



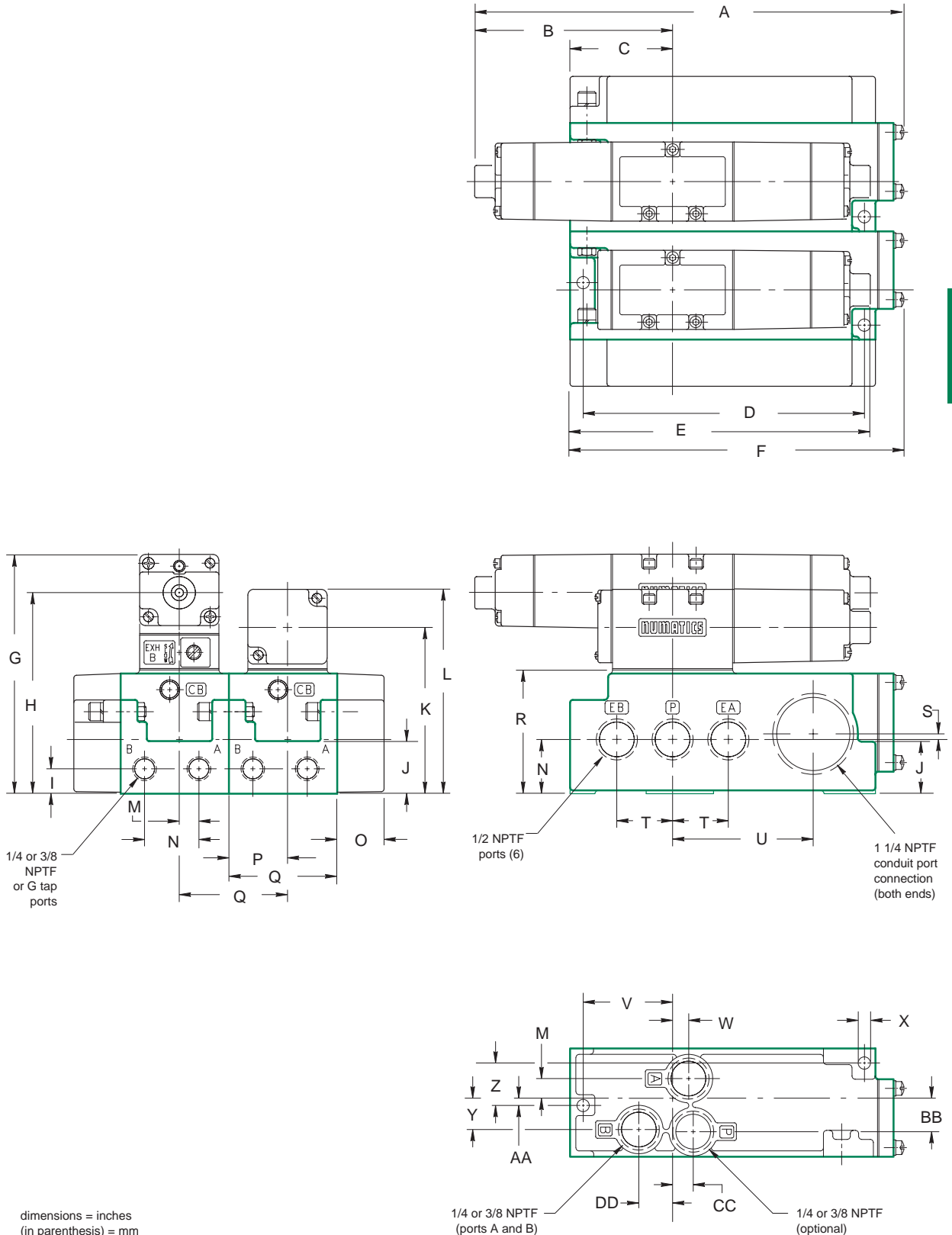
Blocking discs must be installed in "P" gallery, as shown.

Mark 15 FlexiBlok assembly dimensions

FlexiBlok Manifold Block, Mark 15 valve shown with speed control
 1/4 and 3/8 NPTF or G tap side ports (A & B)
 1 1/4 NPTF conduit port connection

Dimensions

| | | |
|----|----|----------------|
| A | AC | 9.13 (232) |
| A | DC | 9.86 (250) |
| B | AC | 4.22 (107) |
| B | DC | 4.95 (126) |
| C | | 2.19 (56) |
| D | | 6.00 (152) |
| E | AC | 6.41 (163) |
| E | DC | 7.14 (181) |
| F | | 7.12 (181) |
| H | | 4.29 (109) |
| I | | 0.53 (13.5) |
| J | | 1.12 (28.4) |
| K | | 3.54 (89.9) |
| L | | 4.36 (110) |
| M | | 0.42 (10.7) |
| N | | 1.16 (29.5) |
| O | | 1.06 (26.9) |
| P | | 1.25 (31.7) |
| Q | | 2.31 (58.7) |
| R | | 2.62 (66.5) |
| S | | 0.12 (3.0) |
| T | | 1.19 (30.2) |
| U | | 3.00 (7.62) |
| V | | 1.91 (48.5) |
| W | | 0.34 (8.6) |
| X | | 0.90 (23.1) |
| Y | | 0.67 (17) |
| Z | | 0.90 (23.1) |
| AA | | 0.15 (4.1) |
| BB | | 0.74 (18.8) |
| CC | | 0.44 (11.1) |
| DD | | 0.72 (18.3) |



MARK 15

dimensions = inches
(in parenthesis) = mm

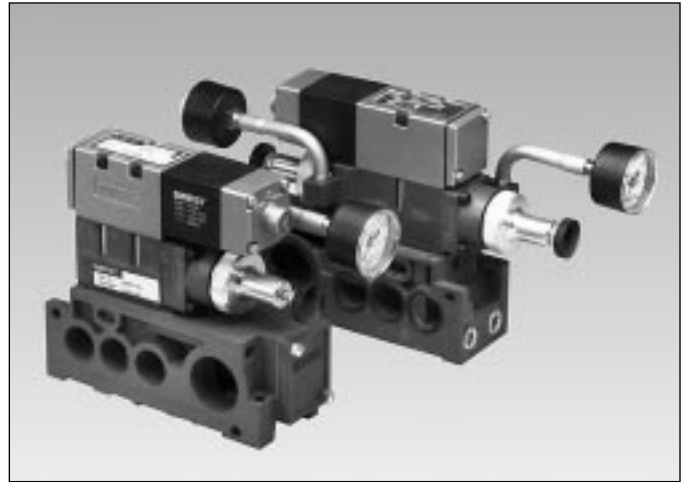
Mark 15 sandwich pressure regulators

Types: RS/RD/RE/RT/RC/RQ

When ordering a valve plus regulator mounted on a base or manifold, list the valve unit only model number and include the mounting requirements only with the regulator. Specify "Assembled."

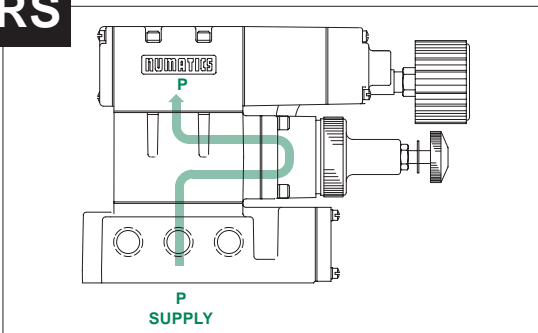
Examples:

| | | |
|------------|------------------------|------------------------|
| | TYPE RS | TYPE RD |
| Valve: | 152SA400K 120/60 | 152SA400K 120/60 |
| Regulator: | 153RS115J ASSEMBLED | 153RD115J ASSEMBLED |



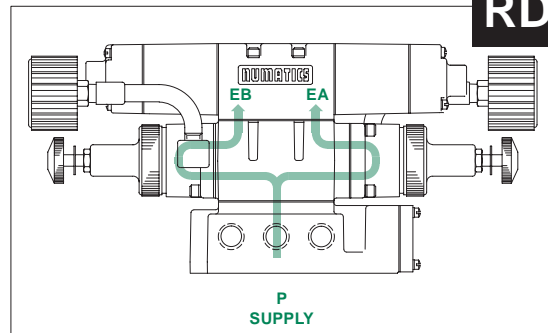
MARK 15

TYPE
RS



Single pressure from a single supply.

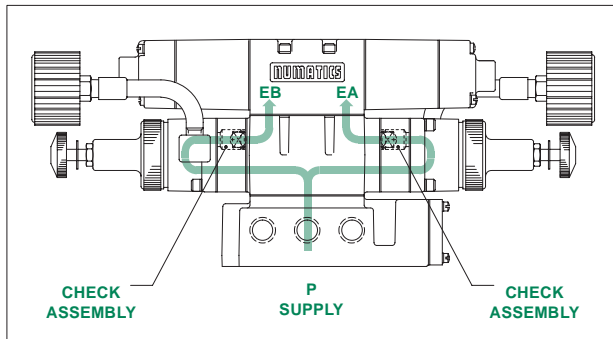
TYPE
RD



Dual pressure from a single supply.

TYPE
RC

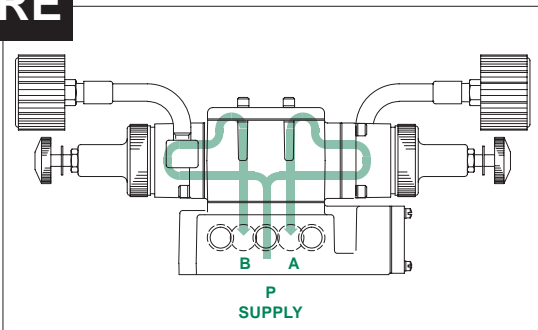
Type RC is Non-Relieving: traps downstream pressure if upstream pressure is exhausted. Recommended for accurate cylinder positioning when used with valve model 152SS500K.



TYPE
RQ

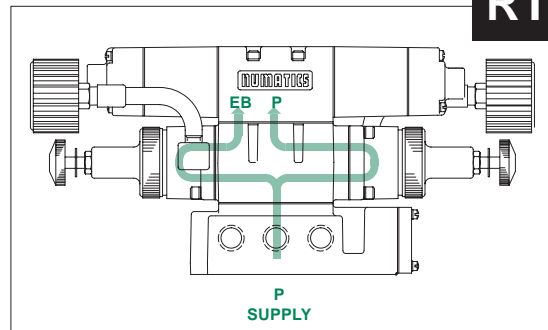
Type RQ is Relieving: exhausts pressure in cylinder if upstream pressure is exhausted. Recommended for accurate cylinder positioning when used with valve model 152SS500K.

TYPE
RE



External outlet regulator used with jumper plate for single or dual pressure.

TYPE
RT



Two-pressure selector used for multi-pressure applications.

Mark 15 regulator model selection (Standard regulator/mounting combinations)

| Regulator Function | Port Size | Individual base, side ports, common exhaust with plug-in receptacle | | | FlexiBlok manifold, side and bottom cylinder ports with plug-in receptacle | | |
|--|-----------|---|-------------|-----------|--|-------------|-----------|
| | | NPTF | 10-130 PSIG | 3-30 PSIG | 5-60 PSIG | 10-130 PSIG | 3-30 PSIG |
| Type RS | 1/4 | 152RS131J | 152RS331J | 152RS431J | 152RS115J | 152RS315J | 152RS415J |
| UNIT ONLY 152RS_00J | 3/8 | 153RS131J | 153RS331J | 153RS431J | 153RS115J | 153RS315J | 153RS415J |
| Type RS* <i>no receptacle (used with valve + speed control + mounting)</i> | 1/4 | 152RS131O | 152RS331O | 152RS431O | 152RS115O | 152RS315O | 152RS415O |
| | 3/8 | 153RS131O | 153RS331O | 153RS431O | 153RS115O | 153RS315O | 153RS415O |
| Type RD | 1/4 | 152RD131J | 152RD331J | 152RD431J | 152RD115J | 152RD315J | 152RD415J |
| UNIT ONLY 152RD_00J | 3/8 | 153RD131J | 153RD331J | 153RD431J | 153RD115J | 153RD315J | 153RD415J |
| Type RE** <i>no receptacle</i> | 1/4 | 152RE131O | 152RE331O | 152RE431O | 152RE115O | 152RE315O | 152RE415O |
| UNIT ONLY 152RE_00O | 3/8 | 153RE131O | 153RE331O | 153RE431O | 153RE115O | 153RE315O | 153RE415O |
| Type RT | 1/4 | 152RT131J | 152RT331J | 152RT431J | 152RT115J | 152RT315J | 152RT415J |
| UNIT ONLY 152RT_00J | 3/8 | 153RT131J | 153RT331J | 153RT431J | 153RT115J | 153RT315J | 153RT415J |
| Type RC | 1/4 | 152RC131J | 152RC331J | 152RC431J | 152RC115J | 152RC315J | 152RC415J |
| UNIT ONLY 152RC_00J | 3/8 | 153RC131J | 153RC331J | 153RC431J | 153RC115J | 153RC315J | 153RC415J |
| Type RQ | 1/4 | 152RQ131J | 152RQ331J | 152RQ431J | 152RQ115J | 152RQ315J | 152RQ415J |
| UNIT ONLY 152RQ_00J | 3/8 | 153RQ131J | 153RQ331J | 153RQ431J | 153RQ115J | 153RQ315J | 153RQ415J |

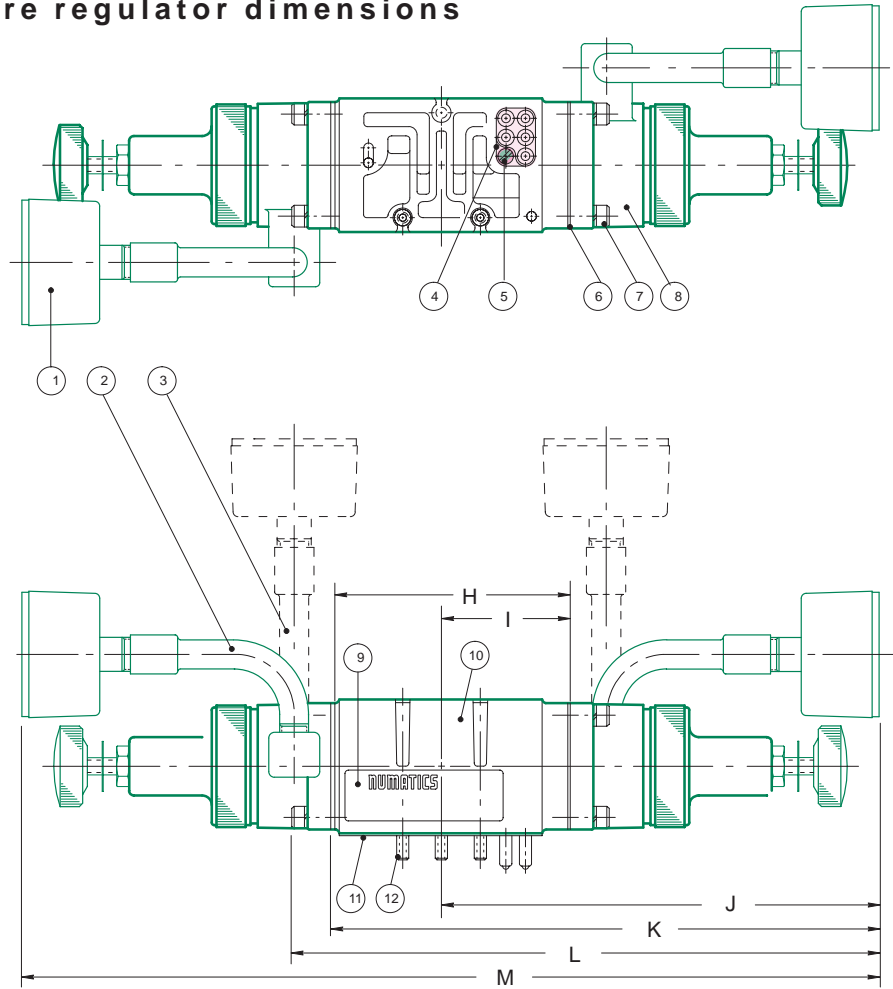
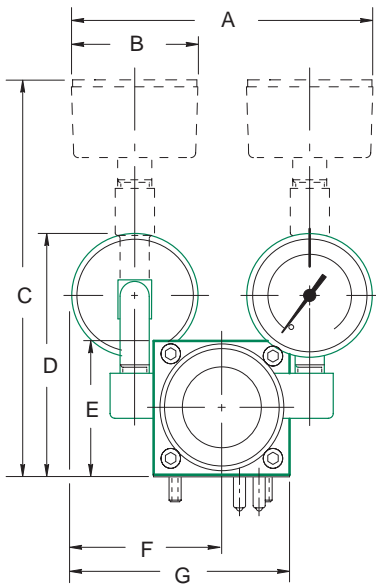
G tap options: For G tap ports, add a "G" to the model number. **EXAMPLE: 153RD115JG**

* Speed control can only be used with TYPE RS. These model numbers indicate regulators with no receptacle. The plug-in receptacle is installed in the speed control body. For more information, see page 11.

** Type RE includes jumper plate kit #229-620

Mark 15 sandwich pressure regulator dimensions

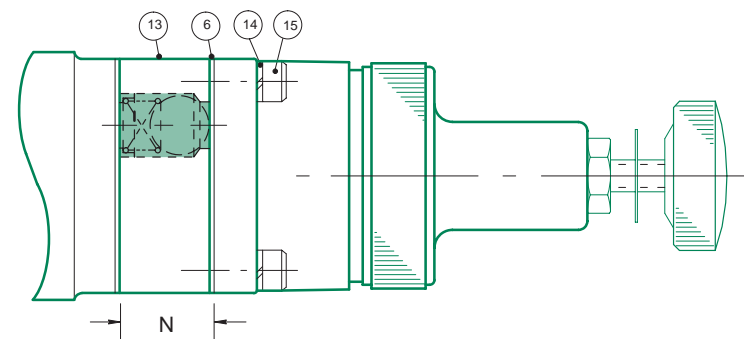
MARK 15



Dimensions dimensions = inches (in parenthesis) = mm

| A | B | C | D | E | F | G |
|-----------------|----------------|---------------|---------------|---------------|----------------|-----------------|
| 3.87 (98) | 1.62 (41) | 5.70 (144) | 3.15 (80) | 1.73 (44) | 1.94 (49) | 2.80 (71) |
| H | I | J | K | L | M | N |
| 3.025 (76.8) | 1.66 (42.2) | 5.68 (144) | 7.02 (178) | 7.33 (186) | 10.92 (277) | 0.657 (16.7) |

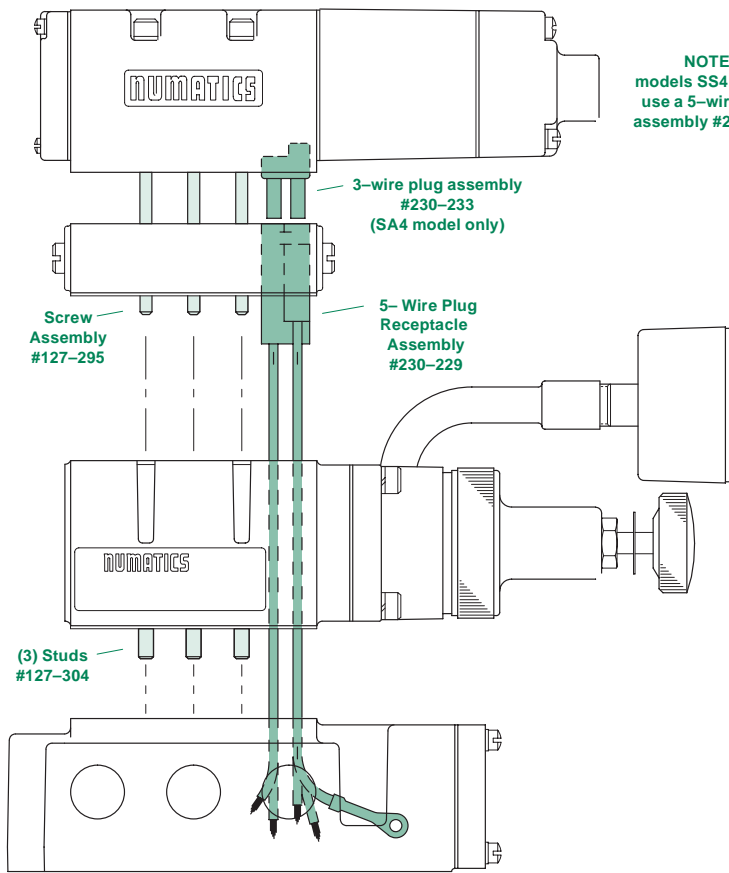
Dual check assembly kits: RC 239-533
 (For converting RD into RC or RQ.) **RQ 239-537**



| DET. NO. | NO. REQ'D | PART NAME | PART NO. |
|----------|-----------|---|--|
| 1 | *2 | Gauge See chart on page 11 | |
| 2 | *2 | 90 Tube Fitting | 134-289 |
| 3 | *2 | Straight Fitting | 134-293 |
| 4 | 1 | Plug Receptacle Assembly | 230-257 |
| 5 | 1 | Screw | 127-342 |
| 6 | ** | Gasket to regulator | 113-272 |
| 7 | ~8 | Screw | 127-235 |
| 8 | *2 | Reg. Assembly (not sold separately) | |
| 9 | 1 | Nameplate | 122-551 |
| 10 | 1 | Regulator Block: RS RD, RC, RQ RT RE | 125-311 125-312 125-313 125-316 |
| 11 | 1 | Gasket body to base | 113-264 |
| 12 | 3 | Studs | 127-304 |
| 13 | 2 | Check Assembly (not sold separately) | |
| 14 | 8 | Hi-Collar Lockwasher (RC, RQ only) | 128-144 |
| 15 | 8 | Screw (RC, RQ only) | 127-227 |

* RS Models require (1).
 ** (1) for RS; (2) for RD RE RT; (4) for RC RQ.
 ~ RS Models require (4)

Mark 15 valve/speed control/regulator plug-in assembly



NOTE:
models SS4, 5, & 6
use a 5-wire plug
assembly #230-234

EXAMPLE

152SA401K

Single solenoid valve unit +
speed control sandwich
with 5-wire plug receptacle
and extra long screws

153RS131O

3/8 NPTF single pressure regulator
(10–130 PSIG) with no receptacle
mounted on an individual base
with side ports and common exhaust

EXAMPLE ORDER:

Valve: 152SA401K 120/60

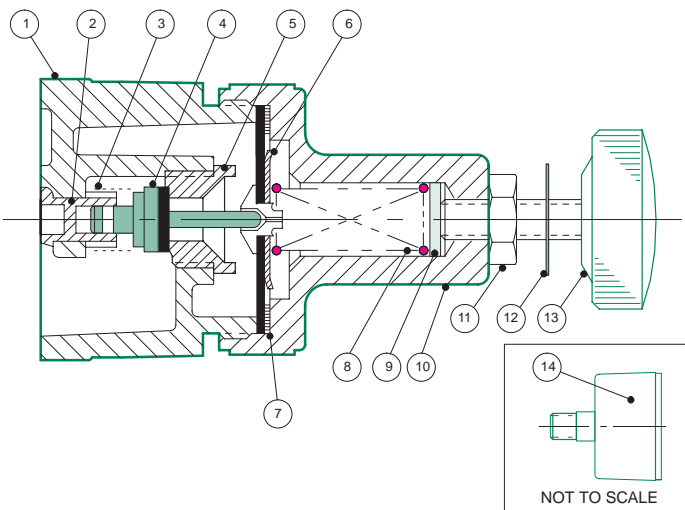
Regulator: 153RS131O

ASSEMBLED

MARK 15

Mark 15 regulator kits & service parts

Regulator service kit 229-640*



| DET. NO. | NO. REQ'D | PART NAME | PRESSURE RANGE PSIG | | |
|---|-----------|--|---------------------|--------------------|--------------------|
| | | | 3-30 | 5-60 | 10-130 |
| 1 | 1 | Regulator Assembly | Not Sold Separately | | |
| *2 | 1 | Retainer | 116-291 | 116-291 | 116-291 |
| *3 | 1 | Spring | 115-210 | 115-210 | 115-210 |
| *4 | 1 | Poppet Assembly | 221-121 | 221-121 | 221-121 |
| *5 | 1 | Poppet Seat | 124-142 | 124-142 | 124-142 |
| *6 | 1 | Diaphragm Ass'y | 213-285 | 213-285 | 213-285 |
| *7 | 1 | Washer | 116-292 | 116-292 | 116-292 |
| 8 | 1 | Bonnet Spring | 115-211 | 115-212 | 115-213 |
| *9 | 1 | Spring Guide | 116-293 | 116-293 | 116-293 |
| 10 | 1 | Bonnet | 125-314 | 125-314 | 125-314 |
| 11 | 1 | Locknut | 128-177 | 128-177 | 128-177 |
| 12 | 1 | Pressure Label | 122-508 | 122-509 | 122-510 |
| 13 | 1 | Knob Assembly | 213-284 | 213-284 | 213-284 |
| 14 | | Regulator Gauges (with PSIG of . . .) | 214-116 (0-60) | 214-117 (0-100) | 214-103 (0-160) |
| Regulator Unit Kits (includes regulator assembly, gaskets, screws) | | | 229-641 | 229-642 | 229-643 |

* Indicates all parts included in regulator service kit.

Jumper plate kit

(includes gasket #113-434 and screws #127-235)

229-644

RE top jumper plate kit

(includes gasket #113-264 and screws #127-235)

229-620

Mark 15 manifold accessory kits

End plate kits

NPTF 229-621

G Tap 229-993

G galleries with metric conduit

G Tap 239-530

G galleries with NPTF conduit

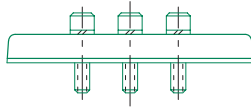


| NO. REQ'D | PART NAME | PART NUMBER | | |
|-----------|-----------------|-------------|------------------------|----------------------|
| | | NPTF | G Tap w/metric conduit | G Tap w/NPTF conduit |
| 1 | Seal | 126-121 | 126-121 | 126-121 |
| 1 | Right End Plate | 104-217 | 104-287 | 104-468 |
| 1 | Nameplate | 122-199 | 122-199 | 122-199 |
| 1 | Left End Plate | 104-218 | 104-288 | 104-469 |
| 2 | Screws | 127-152 | 127-152 | 127-152 |
| 3 | Seal | 126-209 | 126-209 | 126-209 |

Blank station plate

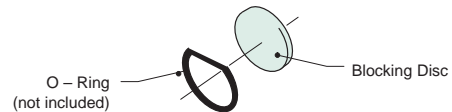
229-620

(includes plate, gasket #113-264 and (3) screws #127-235)



Blocking disc

124-141



Adaptor kits with end plates

Mark 15 RIGHT* of Mark 8

229-695

includes Kit #229-694 (adaptor, screws, seals) + Mark 15 & 8 end plates

Mark 15 LEFT* of Mark 8

229-693

includes Kit #229-692 (adaptor, screws, seals) + Mark 15 & 8 end plates

Mark 15 RIGHT* of Mark 55 Compact

229-858

includes Kit #229-857 (adaptor, screws, seals) + Mark 15 & 55 end plates

Mark 15 LEFT* of Mark 55 Compact

229-860

includes Kit #229-859 (adaptor, screws, seals) + Mark 15 & 55 end plates

Mark 15 RIGHT* of Mark Plus 6

239-766

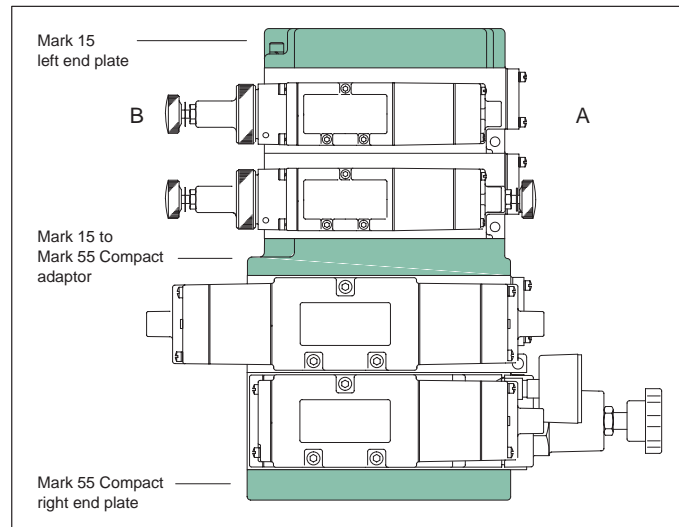
includes Kit #239-709 (adaptor, screws, seals) + Mark 15 & 6 end plates

Mark 15 LEFT* of Mark Plus 6

239-767

includes Kit #239-710 (adaptor, screws, seals) + Mark 15 & 6 end plates

* left / right when viewed from the cylinder ports of assembly

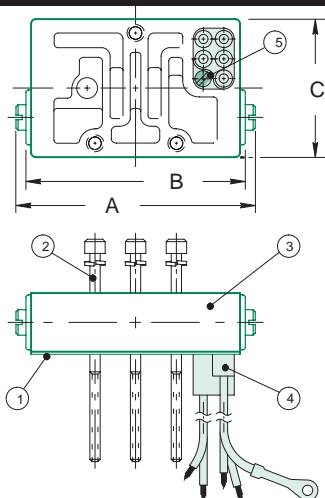


Speed control kit with plug, Cv = 2.0

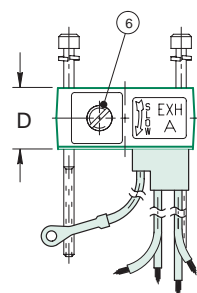
229-664

Speed control kit Cv = 2.0

229-622



Mounts between valve and base.



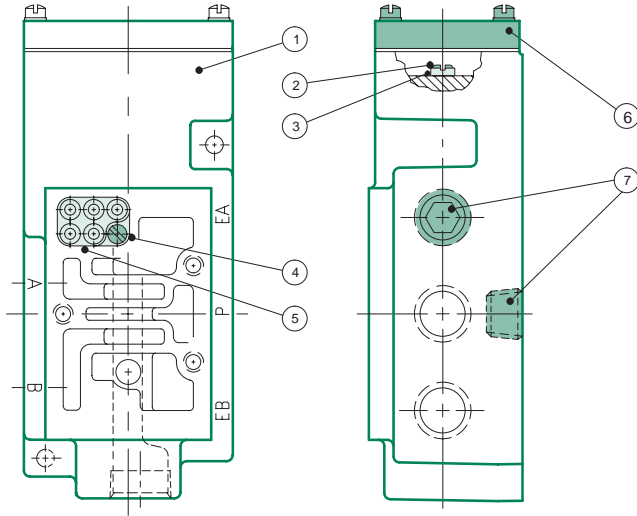
| DET. NO. | NO. REQ'D | PART NAME | PART NO. |
|----------|-----------|---|----------|
| *1 | 1 | Gasket | 113-264 |
| *2 | 3 | Screw Assembly | 127-295 |
| *3 | 1 | Speed Control Ass'y not sold separately | — |
| **4 | 1 | Receptacle Ass'y | 230-229 |
| **5 | 1 | Receptacle Screw | 127-169 |
| *6 | 2 | Needle Assembly | 213-180 |

* indicates parts included in kit
** included in 229-664 kit only

Dimensions

| | A | B | C | D |
|--------|--------|------|------|------|
| inches | 2.94 | 2.69 | 1.69 | 0.75 |
| (mm) | (74.7) | (68) | (43) | (19) |

Mark 15 base assembly kits



| DET. NO. | NO. REQ'D | PART NAME | PART NO. |
|----------|-----------|--|--|
| *1 | 1 | Base — not sold separately | |
| *2 | 2 | Screw | 127-176 |
| *3 | 1 | Washer | 128-162 |
| *4 | 1 | Screw | 127-342 |
| *5 | 1 | Receptacle Assembly Plug-in units only | 230-229 |
| *6 | 1 | Conduit Cover Ass'y | 205-302 |
| *7 | ** | Plug: 1/4 NPTF 3/8 NPTF G 1/4 G 3/8 | 129-101 129-102 129-161 129-163 |

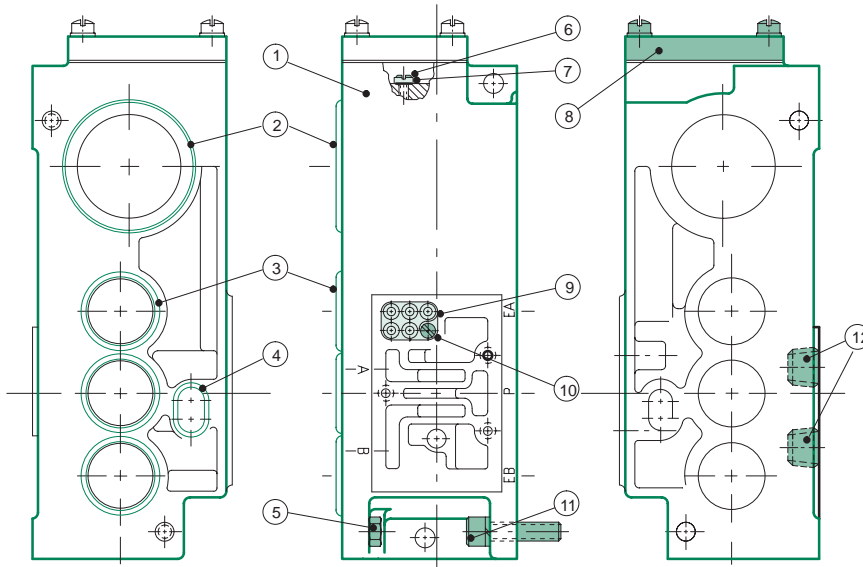
* indicates parts included in kit.

** Not used on 3A, 3C; # plugs vary – Consult factory.

| Base | Exhaust | 1/4 NPTF | | 3/8 NPTF | | G 1/4 | | G 3/8 | |
|------------------------------|------------|----------|---------|----------|---------|---------|---------|---------|---------|
| | | Plug-In | No Plug | Plug-In | No Plug | Plug-In | No Plug | Plug-In | No Plug |
| 31 & 35: Side ports only | common | 203-353 | 203-349 | 203-361 | 203-357 | 203-561 | 203-659 | 203-557 | 203-660 |
| 32 & 36: Side & bottom ports | common | 203-354 | 203-350 | 203-362 | 203-358 | 203-663 | 203-661 | 203-664 | 203-662 |
| 3A & 3C: Side ports only | individual | 203-351 | 203-347 | 203-359 | 203-355 | 203-611 | 203-665 | 203-612 | 203-645 |
| 3B & 3D: Side & bottom ports | individual | 203-352 | 203-348 | 203-360 | 203-356 | 203-668 | 203-667 | 203-670 | 203-669 |

MARK 15

Mark 15 Flexiblok manifold kits



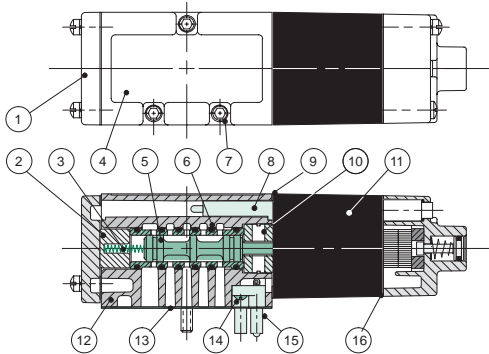
| DET. NO. | NO. REQ'D | PART NAME | PART NO. |
|----------|-----------|--|--|
| *1 | 1 | Valve blok — not sold separately. | |
| *2 | 1 | Seal | 126-121 |
| *3 | 3 | Seal | 126-209 |
| *4 | 1 | Seal (for "1B" & "18") | 126-202 |
| *5 | 2 | Nut | 128-103 |
| *6 | 2 | Screw | 127-176 |
| *7 | 1 | Washer | 128-162 |
| *8 | 1 | Conduit Cover Ass'y | 205-303 |
| *9 | 1 | Receptacle Assembly (Plug-in units only) | 230-229 |
| *10 | 1 | Screw – receptacle | 127-342 |
| *11 | 2 | Screw | 127-152 |
| *12 | 2 | Plug: 1/4 NPTF 3/8 NPTF G 1/4 G 3/8 | 129-101 129-102 129-161 129-163 |

* indicates parts included in kit.

| FlexiBlok Description | 1/4 NPTF | | 3/8 NPTF | | G 1/4 | | G 3/8 | |
|---|----------|---------|----------|---------|---------|---------|---------|---------|
| | Plug-In | No Plug | Plug-In | No Plug | Plug-In | No Plug | Plug-In | No Plug |
| #15: side & bottom cylinder ports | 229-629 | 229-627 | 229-630 | 229-628 | 239-210 | 239-367 | 229-999 | 239-368 |
| #15: side & bottom cyl. ports w/bottom P port | 229-632 | 229-631 | 229-634 | 229-633 | 239-371 | 239-369 | 239-372 | 239-370 |
| #16: auxiliary inlet | 229-792 | 229-789 | 229-798 | 229-795 | 239-375 | 239-373 | 239-376 | 239-374 |
| #1B: alternate outlet | 229-793 | 229-790 | 229-799 | 229-796 | 239-383 | 239-381 | 239-384 | 239-382 |
| #18: alternate outlet & auxiliary inlet | 229-794 | 229-791 | 229-800 | 229-797 | 239-379 | 239-377 | 239-380 | 239-378 |

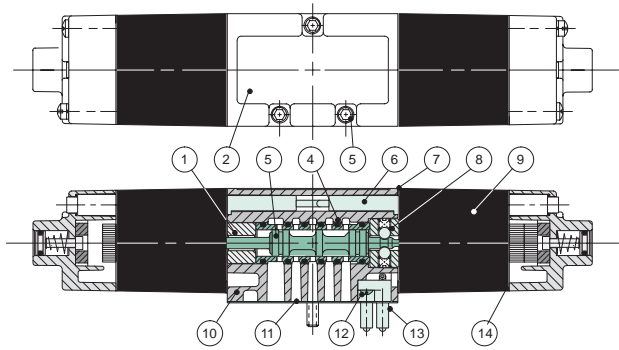
Mark 15 valve service kits and parts

Kit No. MK15-K1* (for models 152SA4, 153SA4)



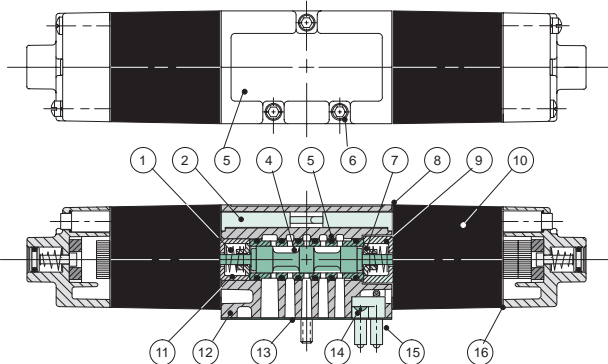
| DET. NO. | NO. REQ'D. | PART NAME | PART NO. |
|----------|------------|----------------------------------|-----------|
| 1 | 1 | End Plate Assembly | 204-215 |
| *2 | 1 | Spring Retainer | 116-286 |
| *3 | 1 | Spring | 115-214 |
| 4 | 1 | Nameplate | 122-941 |
| 5 | 1 | Sleeve Assembly with seals | 209-246 |
| *6 | 6 | Seal | 126-202 |
| 7 | 3 | Screw | 127-294 |
| 8 | 1 | Electrical Receptacle | 125-309 |
| *9 | 2 | Gasket Solenoid to Valve | 113-268 |
| *10 | 1 | Detent Body | 110-113 |
| 11 | 1 | Solenoid Capsule Assembly | See Chart |
| 12 | 1 | Valve Body (Not Sold Separately) | |
| *13 | 1 | Gasket (Body to Base) | 113-264 |
| 14 | 1 | Screw | 127-169 |
| 15 | 1 | 3-Wire Plug Assembly | 230-233 |
| *16 | 1 | Gasket Solenoid to end cap | 113-267 |

Kit No. MK15-K2* (for models 152SS4, 153SS4)



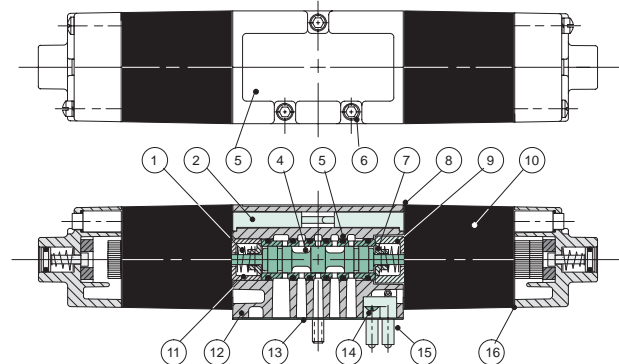
| DET. NO. | NO. REQ'D. | PART NAME | PART NO. |
|----------|------------|----------------------------------|-----------|
| *1 | 1 | Spacer | 116-285 |
| 2 | 1 | Nameplate | 122-941 |
| 3 | 1 | Sleeve Assembly with Seals | 209-247 |
| *4 | 6 | Seal | 126-202 |
| 5 | 3 | Screw | 127-294 |
| 6 | 2 | Electrical Receptacle | 125-309 |
| *7 | 2 | Gasket Solenoid to Valve | 113-268 |
| *8 | 1 | Detent Assembly | 210-116 |
| 9 | 2 | Solenoid Capsule Assembly | See Chart |
| 10 | 1 | Valve Body (Not Sold Separately) | |
| *11 | 1 | Gasket (Body to Base) | 113-264 |
| 12 | 1 | Screw | 127-169 |
| 13 | 1 | 5-Wire Plug Assembly | 230-234 |
| *14 | 2 | Gasket (Solenoid to end cap) | 113-267 |

Kit No. MK15-K3* (for models 152SS5, 153SS5)



| DET. NO. | NO. REQ'D. | PART NAME | PART NO. |
|----------|------------|----------------------------------|-----------|
| *1 | 2 | Spring | 115-204 |
| 2 | 2 | Electrical Receptacle | 125-309 |
| 3 | 1 | Nameplate | 122-941 |
| 4 | 1 | Sleeve Assembly with Seals | 209-248 |
| *5 | 6 | Seals | 126-202 |
| 6 | 3 | Screw Assembly | 127-294 |
| *7 | 2 | Spring Retainer | 116-287 |
| *8 | 2 | Gasket (Solenoid to Valve) | 113-268 |
| *9 | 1 | Spacer | 116-288 |
| 10 | 2 | Solenoid Capsule Assembly | See Chart |
| *11 | 1 | Spacer | 116-289 |
| 12 | 1 | Valve Body (Not Sold Separately) | |
| *13 | 1 | Gasket (Body to Base) | 113-264 |
| 14 | 1 | Screw | 127-169 |
| 15 | 1 | 5-Wire Plug Assembly | 230-234 |
| *16 | 2 | Gasket (Solenoid to end cap) | 113-267 |

Kit No. MK15-K3* (for models 152SS6, 153SS6)



| DET. NO. | NO. REQ'D. | PART NAME | PART NO. |
|----------|------------|----------------------------------|-----------|
| *1 | 2 | Spring | 115-204 |
| 2 | 2 | Electrical Receptacle | 125-309 |
| 3 | 1 | Nameplate | 122-941 |
| 4 | 1 | Sleeve Assembly with Seals | 209-249 |
| *5 | 6 | Seals | 126-202 |
| 6 | 3 | Screw Assembly | 127-294 |
| *7 | 2 | Spring Retainer | 116-287 |
| *8 | 2 | Gasket (Solenoid to Valve) | 113-268 |
| *9 | 1 | Spacer | 116-288 |
| 10 | 2 | Solenoid Capsule Assembly | See Chart |
| *11 | 1 | Spacer | 116-289 |
| 12 | 1 | Valve Body (Not Sold Separately) | |
| *13 | 1 | Gasket (Body to Base) | 113-264 |
| 14 | 1 | Screw | 127-169 |
| 15 | 1 | 5-Wire Plug Assembly | 230-234 |
| *16 | 2 | Gasket (Solenoid to end cap) | 113-267 |

* Indicates parts included in service kit. Spool & sleeve assemblies are precision matched sets; assemblies include (6) 126-202 seals; spools are not interchangeable.

Mark 15 solenoid assemblies

Complete solenoid capsule assemblies End cap only

includes solenoid and end cap assembly + screws and gaskets

| Override Type | Valve Function | Plug-in Style | VOLTAGE | | | | LIGHT OPTION | | | | | |
|---------------------------------------|----------------|---------------|--------------------------|--------------------------|----------|----------|--------------|----------|----------|---------|----------|----------|
| | | | AC | | DC | | AC | | DC | | NO LIGHT | |
| | | | 100-115/50 110-120/60 | 200-230/50 220-240/60 | 24/50-60 | 12 VDC | 24 VDC | 100-130V | 200-260V | 12VDC | 24VDC | NO LIGHT |
| Flush non-locking override with light | 2 position | Standard | 237-325 | 237-326 | 237-426 | 226-800 | 226-801 | 204-217 | 204-218 | 204-491 | 204-492 | 204-216 |
| | 2 position | DIN plug-in | 237-337 | 237-338 | — | 226-509* | 226-510* | 204-217 | 204-218 | N/A | N/A | 204-216 |
| | 3 position | Standard | 237-331 | 237-332 | 237-425 | 226-804 | 226-805 | 204-220 | 204-221 | 204-495 | 204-496 | 204-219 |
| | 3 position | DIN plug-in | 237-343 | 237-344 | — | 226-515* | 226-516* | 204-220 | 204-221 | N/A | N/A | 204-219 |
| Flush locking w/light | 2 position | Standard | 237-361 | 237-362 | — | — | 226-902 | 204-226 | 204-227 | — | — | 204-224 |
| | 3 position | Standard | 237-363 | 237-364 | — | — | 236-213 | 204-228 | 204-229 | — | — | 204-225 |
| Ext. rod locking w/light | 2 position | Standard | 237-365 | 237-366 | 237-612 | — | 226-906 | 204-238 | 204-239 | — | — | 204-236 |
| | 3 position | Standard | 237-367 | 237-368 | — | — | 226-553 | 204-240 | 204-241 | — | — | 204-237 |

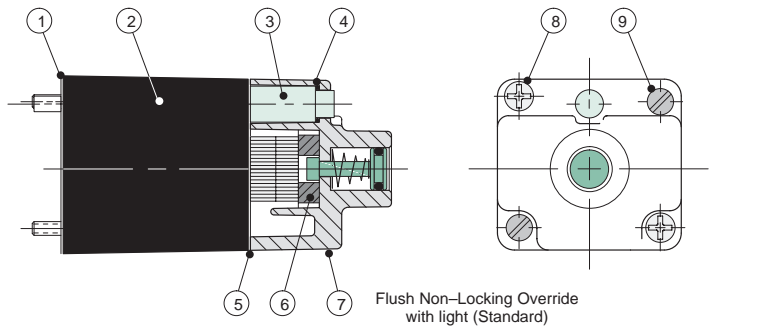
Solenoid only

no end cap; screws, gaskets are NOT included.

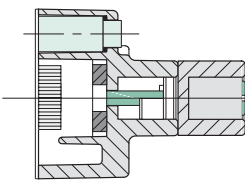
| Plug-in Style | 100-115/50 110-120/60 | 200-230/50 220-240/60 | 24/50-60 | 12 VDC | 24 VDC |
|---------------|--------------------------|--------------------------|----------|---------|---------|
| Standard | 228-702 | 228-707 | 228-708 | 225-371 | 225-372 |
| DIN plug-in | 228-694 | 228-695 | 228-696 | 225-265 | 225-266 |

* DIN DC solenoids are not available with light.

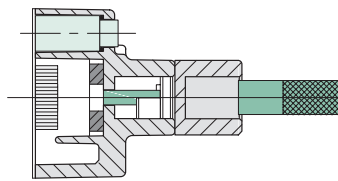
MARK 15



| DET. NO. | NO. REQ'D | PART NAME | PART NO. |
|----------|-----------|---|--|
| 1 | 1 | Gasket (sol. to valve) | 113-268 |
| 2 | 1 | Solenoid | see chart |
| 3 | 1 | Light Assembly: 100-115/50 110-120/60 200-230/50 220-240/60 12VDC 24VDC | 230-235 230-235 230-236 230-236 230-283 230-284 |
| 4 | 1 | O-Ring Seal | 126-144 |
| 5 | 1 | Gasket (Sol. to end cap) | 113-267 |
| 6 | 1 | Bumper: Black for 2-Position Red for 3-Position | 114-134 114-133 |
| 7 | 1 | End Cap Assembly | see chart |
| 8 | 2 | Screw (cap to sol.) | 127-297 |
| 9 | 2 | Screw (AC sol. to valve) Screw (DC sol. to valve) | 127-298 127-302 |



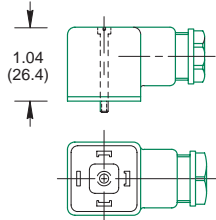
Flush Locking Override with light
(Add option "011B" to model no.)
Example: 152SA400K011B



Extended Knurled Rod Locking Override with light
(Add option "011Z" to model no.)
Example: 152SA400K011Z

Plug-in connector assemblies

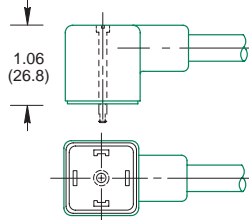
Per DIN Spec. No. 43650
Accepts cable dia. .310 - .410 For DIN plug-in solenoids wiring options 6 & 4



| Part Name | Part No. |
|------------------------|----------|
| Grey (A) Plug. Ass'y. | 230-369 |
| Black (B) Plug Ass'y. | 230-370 |
| Plug with 24VDC Light | 230-371 |
| Plug with 110VAC Light | 230-372 |
| Plug with 220VAC Light | 230-373 |
| Plug with 12VDC Light | 230-385 |

Superstructure plug connector with cord

Per DIN Spec. No. 43650
For DIN plug-in solenoids wiring options 6 & 4



| Part Name | Part No. |
|-------------------|----------|
| Plug with 4' Cord | 230-213 |
| Plug with 6' Cord | 230-215 |

dimensions = inches
(in parenthesis = mm)