

Gas Pressure Regulator HON 226



PRODUCT INFORMATION

**Serving the Gas Industry
Worldwide**

Honeywell

Introduction

- The HON 226 is a range of Low Pressure, Direct Acting, diaphragm operated, spring loaded regulators.
- Use with confidence on natural and manufactured gases of non-aggressive nature, including Nitrogen, Carbon Dioxide, Propane, and Butane etc.

Application

- Designed primarily for control of fuel gas feeds to industrial burners, heater units, boilers and other items of equipment where an accurate, safe and reliable controlled pressure supply is required.

Features

- Quick Response to Rapid Load Changes
- Installation at any angle
- Wide Operational Pressure Range
- Complies generally with specification BG/PRS 33 & EN88

| SIZE RANGE | |
|---------------|--------------------------|
| Screwed | Flanged |
| 15mm (1/2") | - |
| 20mm (3/4") | - |
| 25mm (1") | - |
| 32mm (1.1/4") | - |
| 40mm (1.1/2") | - |
| 50mm (2") | DN 50 |
| | DN 65 |
| | DN 80 |
| | DN 100 |
| | DN 150 |
| BS21 Rc, RP | PN16: BS EN 1092-2: 1997 |

| SERVICE CONDITIONS | | | |
|----------------------|------------|---------------------|-----------------------|
| Size | Max. Inlet | Max. Inlet Pressure | Outlet Pressure Range |
| 1/2", 3/4" & 1" | 226 Mk2 | 500 mbarg | 3.7 to 75 mbarg |
| 1 1/4", 1 1/2", & 2" | 226 Mk3 | | 3.7 to 80 mbarg |
| DN 50 | 226 Mk2 | | 3.7 to 80 mbarg |
| DN 65 | 226 Mk2 | | 3.7 to 80 mbarg |
| DN 80 | 226H Mk2 | | 70 to 150 mbarg |
| DN 100 | 226 Mk2 | | 7.5 to 150 mbarg |
| DN 150 | 226 Mk2 | | 12.5 to 150 mbarg |

Temperature Range: -20°C to +60°C

Options

- Available with or without Inlet & Outlet Pressure Test Points (sizes 1 1/4" and above)
- Internally or Externally Impulsed (sizes 1 1/4" and above)
- Angle Type (1 1/4", 1 1/2", 2" screwed)
- Safety Diaphragm (sizes 1 1/4" and above)
- Fitting of Lead Wire Seal

Installation

- Any orientation, but moisture or debris must not ingress the vent hole.

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Spring Selection

| SPRING SELECTION | | | | | | | | |
|----------------------------------|--------------------|------------------|--------------|---------|----------|------------------|-----------|-----------|
| Outlet Pressure Range (in mbarg) | Spring Colour | Spring Number | | | | | | |
| | | 15, 20 & 25mm Sc | 32 & 40mm Sc | 50mm Sc | DN 50 FL | DN 65 & DN 80 FL | DN 100 FL | DN 150 FL |
| 3.7 to 7.5 | Red | 397 | - | - | 292 | 545 | - | - |
| 3.7 to 10 | White | - | 1153 | 1154 | - | - | - | - |
| 7.5 to 15 | Blue | 398 | - | - | 293 | 547 | - | - |
| | White/Gold | - | - | - | - | - | 409 | - |
| 8 to 14 | Red | - | 1067 | 1072 | - | - | - | - |
| 12 to 25 | Green | - | 1068 | 1073 | - | - | - | - |
| 12.5 to 25 | Self | 399 | - | - | 283 | 548 | - | - |
| | Black/Gold | - | - | - | - | - | 410 | - |
| | Lt. Blue/Dk. Green | - | - | - | - | - | - | 419 |
| 21 to 35 | Blue | - | 1069 | 1074 | - | - | - | - |
| 23 to 37 | Green | - | - | - | 284 | 549 | - | - |
| | Yellow/Gold | - | - | - | - | - | 412 | - |
| | Yellow/Lt. Blue | - | - | - | - | - | - | 420 |
| 24 to 37 | Green | 1045 | - | - | - | - | - | - |
| 33 to 55 | Yellow | - | 1070 | 1075 | - | - | - | - |
| 35 to 60 | Black | - | - | - | - | 550 | - | - |
| | Lt. Green/Brown | - | - | - | - | - | - | 430 |
| 35 to 75 | Yellow | 805 | - | - | - | - | - | - |
| 35 to 80 | Yellow | - | - | - | 285 | - | - | - |
| | Brown/Gold | - | - | - | - | - | 414 | - |
| 50 to 80 | Black | - | 1071 | 1076 | - | - | - | - |
| 55 to 80 | Grey | - | - | - | - | 598 | - | - |
| 55 to 112 | Lt. Green/Grey | - | - | - | - | - | - | 431 |
| 70 to 112 | Brown | - | - | - | - | 774* | - | - |
| 70 to 150 | Grey/Maroon | - | - | - | - | - | 407 | - |
| 100 to 150 | Orange | - | - | - | - | 775* | - | - |
| | Self | - | - | - | - | - | - | 617 |

*Applicable to 80mm HON 226H only, connections: Sc=Screwed, FL=Flanged.
Spring Data based on Spring Housing vertically upwards.

GAS PRESSURE REGULATOR HON 226

Capacities

| SET POINT: 12.5 MBARG | | | | | | | | | |
|-----------------------|---------|----|--|-----|------|------|------|------|------|
| | | | Capacities in sm ³ /hr (SG 0.6) | | | | | | |
| Inlet Pressure mbarg | | | 25 | 50 | 75 | 100 | 150 | 200 | 350 |
| Droop 10% | | | | | | | | | |
| 20mm | 226 MK2 | Sc | 7.5 | 7.5 | 4 | 4 | 2 | 1 | |
| 25mm | 226 MK2 | Sc | 14 | 16 | 7 | 7 | 5 | 2 | |
| 32mm | 226 MK3 | Sc | 22 | 27 | 27 | 27 | 14 | 8 | |
| 40mm | 226 MK3 | Sc | 30 | 36 | 36 | 36 | 27 | 16 | |
| 50mm | 226 MK3 | Sc | 80 | 128 | 260 | 310 | 350 | 450 | 485 |
| DN 50 | 226 MK2 | FL | 80 | 128 | 260 | 310 | 350 | 450 | 485 |
| DN 65 | 226 MK2 | FL | 234 | 234 | 310 | 390 | 475 | 580 | 710 |
| DN 80 | 226 MK2 | FL | 260 | 260 | 350 | 435 | 520 | 650 | 750 |
| DN 100 | 226 MK2 | FL | 390 | 390 | 500 | 650 | 780 | 960 | 1000 |
| DN 150 | 226 MK2 | FL | 780 | 780 | 1000 | 1300 | 1560 | 1920 | 2000 |

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| SET POINT: 20 MBARG | | | | | | | | | |
|----------------------|---------|----|--|------|------|------|------|------|------|
| | | | Capacities in sm ³ /hr (SG 0.6) | | | | | | |
| Inlet Pressure mbarg | | | 25 | 50 | 75 | 100 | 150 | 200 | 350 |
| Droop 10% | | | | | | | | | |
| 20mm | 226 MK2 | Sc | 5.5 | 8 | 5 | 5 | 5 | 3 | |
| 25mm | 226 MK2 | Sc | 6 | 11 | 13 | 13 | 9 | 5 | |
| 32mm | 226 MK3 | Sc | 19 | 32 | 39 | 37 | 30 | 25 | |
| 40mm | 226 MK3 | Sc | 36 | 70 | 77 | 32 | 60 | 40 | |
| 50mm | 226 MK3 | Sc | 56 | 126 | 160 | 218 | 260 | 375 | 685 |
| DN 50 | 226 MK2 | FL | 56 | 126 | 160 | 218 | 260 | 375 | 635 |
| DN 65 | 226 MK2 | FL | 120 | 205 | 290 | 335 | 400 | 510 | 750 |
| DN 80 | 226 MK2 | FL | 130 | 300 | 465 | 610 | 720 | 750 | 830 |
| DN 100 | 226 MK2 | FL | 435 | 580 | 700 | 790 | 940 | 1050 | 1250 |
| DN 150 | 226 MK2 | FL | 780 | 1160 | 1400 | 1580 | 1830 | 2050 | 2470 |

| SET POINT: 30 MBARG | | | | | | | | | |
|----------------------|---------|----|--|------|------|------|------|------|------|
| | | | Capacities in sm ³ /hr (SG 0.6) | | | | | | |
| Inlet Pressure mbarg | | | 25 | 50 | 75 | 100 | 150 | 200 | 350 |
| Droop 10% | | | | | | | | | |
| 20mm | 226 MK2 | Sc | | 8.5 | 8.5 | 8.5 | 6 | 5 | |
| 25mm | 226 MK2 | Sc | | 13 | 17 | 20 | 15 | 10 | |
| 32mm | 226 MK3 | Sc | | 28 | 36 | 36 | 36 | 33 | |
| 40mm | 226 MK3 | Sc | | 65 | 82 | 100 | 113 | 124 | |
| 50mm | 226 MK3 | Sc | | 126 | 178 | 210 | 355 | 440 | 625 |
| DN 50 | 226 MK2 | FL | | 126 | 178 | 210 | 355 | 440 | 625 |
| DN 65 | 226 MK2 | FL | | 200 | 222 | 315 | 500 | 610 | 780 |
| DN 80 | 226 MK2 | FL | | 260 | 650 | 730 | 670 | 830 | 1040 |
| DN 100 | 226 MK2 | FL | | 610 | 760 | 930 | 1100 | 1250 | 1450 |
| DN 150 | 226 MK2 | FL | | 1220 | 1520 | 1850 | 2140 | 2430 | 2850 |

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Capacities

| SET POINT: 45 MBARG | | | Capacities in sm ³ /hr (SG 0.6) | | | | | | |
|----------------------|---------|----|--|-----|------|------|------|------|------|
| Inlet Pressure mbarg | | | 25 | 50 | 75 | 100 | 150 | 200 | 350 |
| Droop 10% | | | | | | | | | |
| 32mm | 226 MK3 | Sc | | 22 | 32 | 36 | 50 | 43 | |
| 40mm | 226 MK3 | Sc | | 43 | 73 | 87 | 108 | 137 | |
| 50mm | 226 MK3 | Sc | | 80 | 97 | 159 | 226 | 375 | 580 |
| DN 50 | 226 MK2 | FL | | 80 | 97 | 159 | 226 | 375 | 580 |
| DN 65 | 226 MK2 | FL | | 171 | 273 | 286 | 425 | 506 | 820 |
| DN 80 | 226 MK2 | FL | | 252 | 433 | 575 | 700 | 900 | 1200 |
| DN 100 | 226 MK2 | FL | | 440 | 730 | 900 | 1150 | 1350 | 1750 |
| DN 150 | 226 MK2 | FL | | 870 | 1440 | 1800 | 2220 | 2700 | 3500 |

| SET POINT: 50 MBARG | | | Capacities in sm ³ /hr (SG 0.6) | | | | | | |
|----------------------|---------|----|--|----|------|------|------|------|------|
| Inlet Pressure mbarg | | | 25 | 50 | 75 | 100 | 150 | 200 | 350 |
| Droop 10% | | | | | | | | | |
| 32mm | 226 MK3 | Sc | | | 31 | 36 | 56 | 60 | |
| 40mm | 226 MK3 | Sc | | | 70 | 92 | 115 | 140 | |
| 50mm | 226 MK3 | Sc | | | 114 | 178 | 226 | 380 | 600 |
| DN 50 | 226 MK2 | FL | | | 114 | 178 | 226 | 380 | 600 |
| DN 65 | 226 MK2 | FL | | | 245 | 422 | 565 | 860 | 1080 |
| DN 80 | 226 MK2 | FL | | | 380 | 550 | 750 | 950 | 1200 |
| DN 100 | 226 MK2 | FL | | | 720 | 950 | 1200 | 1400 | 1800 |
| DN 150 | 226 MK2 | FL | | | 1440 | 1900 | 2350 | 2680 | 3600 |

| SET POINT: 60 MBARG | | | Capacities in sm ³ /hr (SG 0.6) | | | | | | |
|----------------------|---------|----|--|----|------|------|------|------|------|
| Inlet Pressure mbarg | | | 25 | 50 | 75 | 100 | 150 | 200 | 350 |
| Droop 10% | | | | | | | | | |
| 32mm | 226 MK3 | Sc | | | 30 | 37 | 58 | 64 | |
| 40mm | 226 MK3 | Sc | | | 60 | 95 | 125 | 142 | |
| 50mm | 226 MK3 | Sc | | | 126 | 192 | 283 | 400 | 620 |
| DN 50 | 226 MK2 | FL | | | 126 | 192 | 283 | 400 | 620 |
| DN 65 | 226 MK2 | FL | | | 282 | 344 | 422 | 685 | 820 |
| DN 80 | 226 MK2 | FL | | | 295 | 570 | 710 | 800 | 900 |
| DN 100 | 226 MK2 | FL | | | 640 | 860 | 1050 | 1200 | 1350 |
| DN 150 | 226 MK2 | FL | | | 1280 | 1700 | 2070 | 2270 | 2650 |

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Capacities and Correction Factors

| SET POINT: 70 MBARG | | | Capacities in sm ³ /hr (SG 0.6) | | | | | | |
|----------------------|---------|----|--|----|------|------|------|------|------|
| Inlet Pressure mbarg | | | 25 | 50 | 75 | 100 | 150 | 200 | 350 |
| Droop 10% | | | | | | | | | |
| 32mm | 226 MK3 | Sc | | | 27 | 50 | 62 | 73 | |
| 40mm | 226 MK3 | Sc | | | 55 | 90 | 140 | 146 | |
| 50mm | 226 MK3 | Sc | | | 97 | 170 | 270 | 425 | 630 |
| DN 50 | 226 MK2 | FL | | | 97 | 170 | 270 | 425 | 630 |
| DN 65 | 226 MK2 | FL | | | 198 | 373 | 560 | 910 | 950 |
| DN 80 | 226 MK2 | FL | | | 235 | 470 | 660 | 955 | 1000 |
| DN 100 | 226 MK2 | FL | | | 600 | 850 | 1100 | 1350 | 1450 |
| DN 150 | 226 MK2 | FL | | | 1200 | 1700 | 2060 | 2640 | 2850 |

| SET POINT: 100 & 150 MBARG | | | Capacities in sm ³ /hr (SG 0.6) | | | | |
|----------------------------|----------|----|--|------|------|-----------|------|
| Inlet Pressure mbarg | | | 100 mbarg | | | 150 mbarg | |
| Droop 10% | | | 150 | 200 | 350 | 200 | 350 |
| DN 65 | 226H MK2 | FL | 422 | 565 | 1100 | 424 | 900 |
| DN 80 | 226H MK2 | FL | 550 | 750 | 1200 | 550 | 1000 |
| DN 100 | 226 MK2 | FL | 1050 | 1150 | 1750 | 1250 | 1800 |
| DN 150 | 226 MK2 | FL | 2040 | 2280 | 3500 | 2450 | 3600 |

Correction Factors

The capacities given in the above tables are calculated in terms of natural gas of SG 0.6. To find the equivalent capacities of other gases, multiply the figures given by the appropriate correction factor listed below.

| Type of Gas | Specific Gravity | Correction Factor |
|-------------------------|------------------|-------------------|
| Air | 1.0 | 0.77 |
| Propane | 1.53 | 0.63 |
| Propane/Air (1350 BthU) | 1.2 | 0.71 |
| Butane | 2.0 | 0.55 |
| Nitrogen | 0.97 | 0.79 |

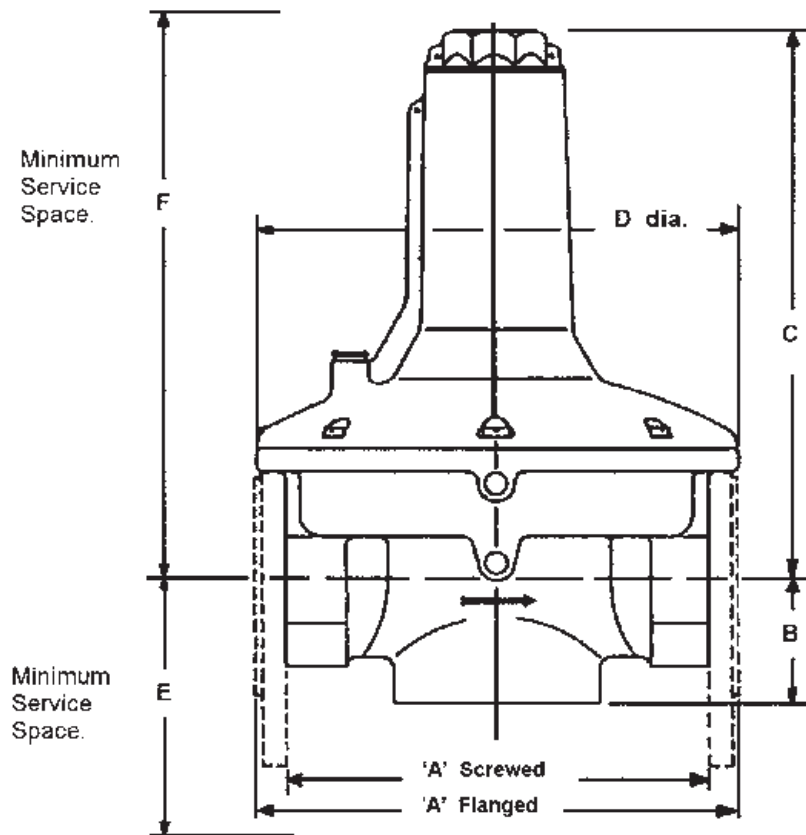
**For all other Gases,
multiply by the following correction factor:**

$$\sqrt{\frac{0.6}{\text{SG of Gas handled}}}$$

GAS PRESSURE REGULATOR HON 226

Materials of Construction

| Regulator Size | 15, 20 & 25mm Screwed | 32, 40 & 50mm Screwed | DN 50 Flanged | DN 65 & DN 80 Flanged | DN 100 & DN 150 Flanged |
|-----------------------|--|----------------------------|------------------------------------|------------------------------------|--|
| | 226 Mk2 | 226 Mk3 | 226 Mk2 | 226 Mk2 | 226 Mk2 |
| Body | Aluminium: BS 1490 LM24 | Aluminium: BS 1490 LM24 | Aluminium: BS 1490 LM24 | Aluminium: BS 1490 LM25 | Ductile Iron: BS EN 1563 Grade: EN-GJS-400-18 |
| Diaphragm Casing | Aluminium: BS 1490 LM24 | Aluminium: BS 1490 LM24 | Aluminium: BS 1490 LM24 | Aluminium: BS 1490 LM25 | Aluminium: BS 1490 LM25 |
| Top Cap | Aluminium: BS 4300 2011TD | Aluminium: BS 1490 LM24 | Zinc Die Cast: BS 1004A | Aluminium: BS 1490 LM25 | Polypropylene |
| Bottom Plug/ Cover | Aluminium: BS 4300 2011TD | Aluminium: BS 1490 LM24 | Aluminium: BS 1490 LM24 | Aluminium: BS 1490 LM25 | Cast Iron: BS 1452 GR.220 |
| Main Diaphragm | Nitrile | Nitrile | Nitrile | Reinforced Nitrile | Reinforced Nitrile |
| Balancing Diaphragm | Nitrile | Nitrile | Nitrile | Reinforced Nitrile | Reinforced Nitrile |
| Main Diaphragm Plates | Carbon Steel: BS 4360 GR 43A Zinc Plated BS1706 | Plated Mild Steel | Mild Steel bonded into Diaphragm | Plated Mild Steel | Plated Mild Steel |
| Spindle | Carbon Steel | Mild Steel, Zinc Plated | Mild Steel with Protective Coating | Mild Steel with Protective Coating | Mild Steel with Protective Coating |
| Valve Seat | Nitrile | Nitrile | Nitrile | Nitrile | Nitrile |
| Spring | Carbon Steel | Carbon Steel | Carbon Steel | Carbon Steel | Carbon Steel |
| Spring Adjuster | Acetal Hostaform: C32021 | Acetal Copolymer | Nylon 11 | Nylon 11 | Cast Iron: BS 1452 GR.220 |
| Distance Piece | Acetal Hostaform: C32021 | Acetal Copolymer | Nylon 11 | ABS | ABS |
| Impulse Tube | Acetal Hostaform: C32021 | Acetal Copolymer | Nylon 11 | Nylon 11 | Nylon 11 |
| 'O' Rings | Nitrile | Nitrile | Nitrile | Nitrile | Nitrile |
| Breather Valve | - | - | - | Polypropylene | Polypropylene |
| Vent Cap | Polypropylene | Polypropylene | Polypropylene | | |



| DIMENSIONS & WEIGHTS | | | | | | | | | |
|----------------------|---------|-------|------|-------|-----|-----|------|----------|--|
| SIZE | Type | A | B | C | D | E | F | Wt. Kg's | |
| 15mm SC | 226 Mk2 | 103 | 35 | 90 | 108 | 80 | 140 | 0.68 | |
| 20mm SC | 226 Mk2 | 103 | 35 | 90 | 108 | 80 | 140 | 0.66 | |
| 25mm SC | 226 Mk2 | 103 | 35 | 90 | 108 | 80 | 140 | 0.60 | |
| 32mm SC | 226 Mk3 | 163.5 | 55 | 137.5 | 170 | 80 | 210 | 1.58 | |
| 40mm SC | 226 Mk3 | 163.5 | 55 | 137.5 | 170 | 80 | 210 | 1.58 | |
| 50mm SC | 226 Mk3 | 210 | 61.5 | 172.5 | 230 | 90 | 270 | 3.17 | |
| DN 50 FL | 226 Mk2 | 210 | 58 | 261 | 213 | 110 | 420 | 5.0 | |
| DN 65 FL | 226 Mk2 | 318 | 102 | 384 | 381 | 240 | 600 | 16.4 | |
| DN 80 FL | 226 Mk2 | 318 | 102 | 384 | 381 | 240 | 600 | 16.4 | |
| DN 100 FL | 226 Mk2 | 369 | 134 | 620 | 451 | 310 | 970 | 63.5 | |
| DN 150 FL | 226 Mk2 | 473 | 194 | 830 | 559 | 435 | 1270 | 114.7 | |

All Dimensions in mm, SC = Screwed, FL = Flanged

GAS PRESSURE REGULATOR HON 226

Other Products in the HON 226 Range

| RELIEF VALVES - HON 226R, HR, VR & HVR | | | |
|--|-----------------------------|---------------------------------------|------------------------------------|
| Size | Model | Max. Inlet Pressure | Relief Pressure Range |
| 3/4" & 1" | 226R - Mk4 | 350 mbarg | 15 to 300 mbarg |
| 1 1/4", 1 1/2", & 2" | 226R - Mk3 226HR - Mk3 | 350 mbarg 500 mbarg | 11 to 120 mbarg 25 to 350 mbarg |
| DN 50 | 226R - Mk2 226HR - Mk2 | 350 mbarg 500 mbarg | 10 to 120 mbarg 10 to 350 mbarg |
| DN 80 | 226R - Mk2 226HR - Mk2 | 200 mbarg 500 mbarg | 11 to 70 mbarg 10 to 215 mbarg |
| 1" | 226VR - Mk3 226HVR - Mk3 | 7 barg & 25 barg version available | 25 to 550 mbarg 0.5 to 3.5 barg |

| PILOTS - HON 226K, HK & MK | | | |
|----------------------------|---------------|------------------------|--------------------------------------|
| Size | Model | Max. Inlet Pressure | Outlet Pressure Range |
| 3/4" & 1" | 226K 226HK | 550 mbarg 550 mbarg | 7.5 to 120 mbarg 110 to 350 mbarg |
| 3/4" & 1" | 226MK | 350 mbarg | 7.5 to 120 mbarg |

| PROFILING PILOT | | | |
|-----------------|--------|---------------------|-----------------------|
| Size | Model | Max. Inlet Pressure | Outlet Pressure Range |
| 3/4" & 1" | 226DPP | 350 mbarg | 17 to 55 mbarg |

For More Information

To learn more about Honeywell's
Advanced Gas Solutions, visit
www.honeywellprocess.com or contact
your Honeywell account manager.

Honeywell Process Solutions

Honeywell Bryan Donkin Gas Technologies Ltd.

Enterprise Drive, Holmewood
Chesterfield S42 5UZ, England

Tel: +44 (0)1246 501-501

Fax: +44 (0)1246 501-500

www.honeywellprocess.com

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