



48 SERIES

Limit Switch Box

Technical Data

The Max-Air 48 Series Explosion Proof aluminum and stainless steel limit switch boxes are available for the highest level of safety in hazardous environments. Extremely reliable, robust, and time tested the 48 Series is an excellent solution for your position monitoring needs. Switches available with mechanical, proximity and inductive types, and fully certified to North American and European standards.

Features and Benefits

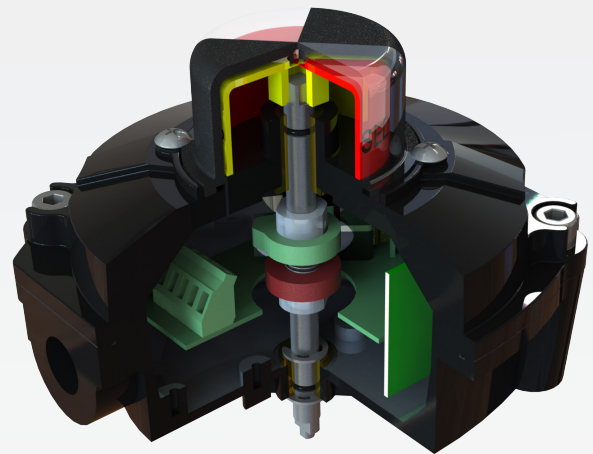
- NEMA 4/4X/7/9 Corrosion Resistant
- Compact Design
- Quick Set Cams
- Easy Wiring Through PCB Terminal, 10pt.
- Single and Dual-Coil Solenoid Valve Options
- High Visibility Open/Close Beacon
- 3-Way T-Port & L-Port Beacon Options
- Inclusive 30x80x30 NAMUR Mounting Bracket
- Other Mounting Brackets Available
- Captive Cover Bolts

Materials of Construction

| | |
|-----------|--|
| Enclosure | Die Cast Aluminum, Epoxy Coated AISI 316 Stainless Steel |
| Bracket | AISI 300 Series Stainless Steel |
| Indicator | Polycarbonate |
| Bearings | Brass |
| Fasteners | Stainless Steel |
| Seals | BUNA-N |
| Shaft | AISI 304 Stainless Steel (for Aluminum LSB) AISI 316 Stainless Steel (for SS LSB) |
| Cams | ABS |
| Switches | See Available Switch Options |



NEMA 4/4X/7/9 enclosure



Cutaway View

Magnetic Switches

Magnetic Reed Hamlin
(Low Power, 5W Max)



Proximity Switches

IFM NS5002 EExia
(7.5-30 DC, NC;
Nominal 8.2 DC)

Optional

P&F NJ2-V3-N
Namur 2 Wire
(8.2V, NC, EExia Rated)



Mechanical Switches

Omron D3V11 or Cherry
D44 250VAC/DC
11A MAX (50/60 HZ)

Optional

Honeywell V7
250VAC/DC 0.1A MAX
(50/60 HZ)



***Other Switch**
Options Available
See Page 3

The Best Way to Automate Your Process

Technical Data Cont.

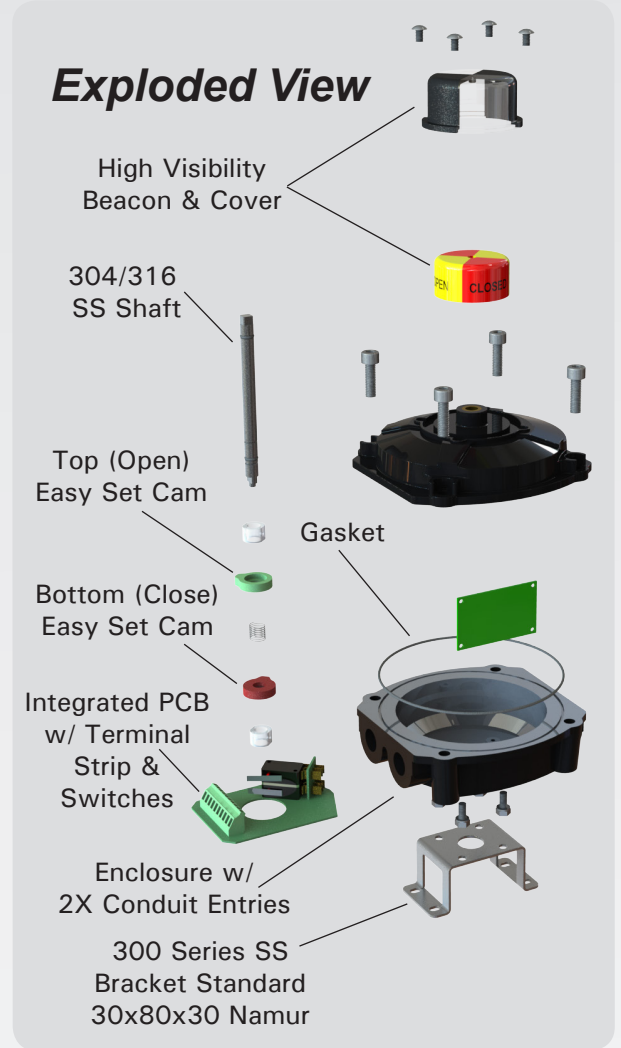
Certifications

- CE
- ATEX II 3 D
- ATEX II 2 G Ex d IIC T6 Gb
- ATEX II 2 D Ex t IIIC T*
- SIL-2 Rating
- Class I, Division 1, Groups C and D; Class II, Division 1, Groups E, F and G; Class III; Temp Code T4A
- Class I, Division 2, Groups A, B, C and D; Class II, Division 1, Groups E, F and G; Class III; Temperature Code T4A
- Ex d IIB T5 Gb; Ex tb IIIC T108°C Db
- Ex nA IIC T5 Gc; Ex tb IIIC T108°C Db
- Class I Zone 1, AExd IIB T5 Gb;
Class II, Zone 21 AEx tb IIIC T108°C Db
- Class I, Zone 2 AEx nA IIC T5Gc;
Class II, Zone 21, AEx tb IIIC T108°C Db

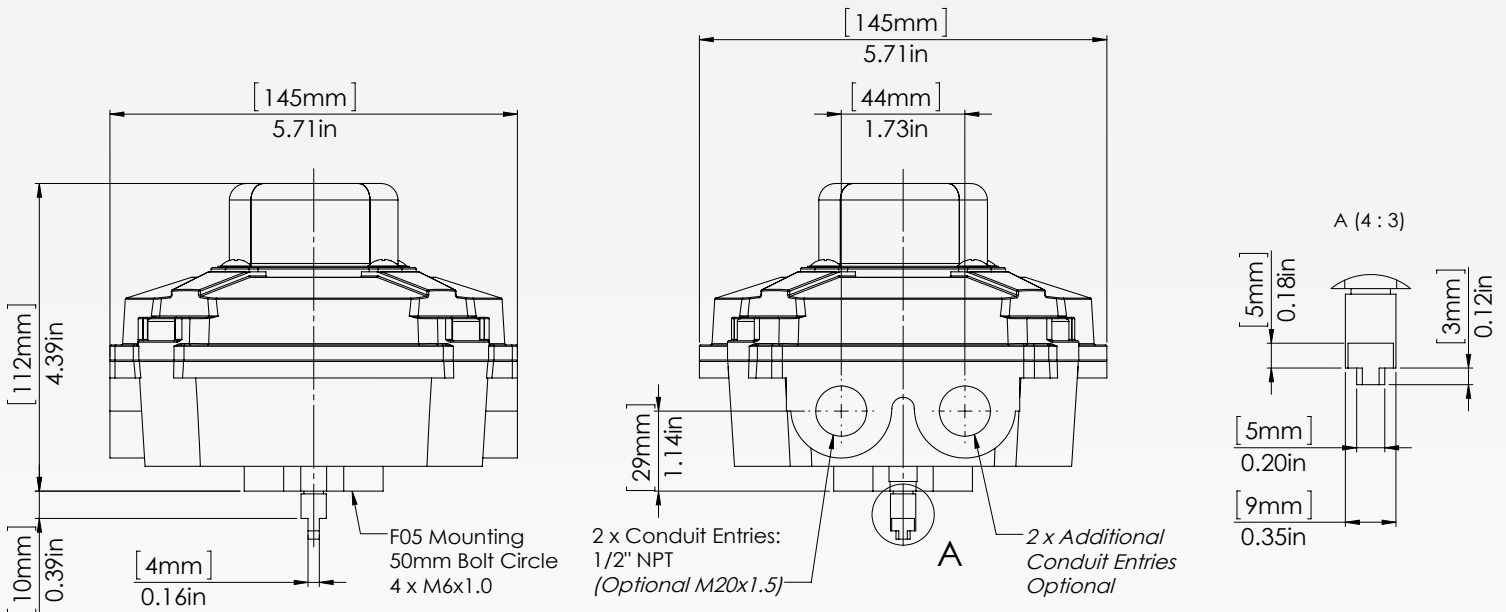
Specifications

IP67/NEMA4/4X/7/9 Protection Rating

| | |
|----------------|--|
| Cable Entry | Standard 1/2" NPT (2 places) |
| | Optional M20x1.5 (2 places) |
| Temperature | -4°F to +140°F Standard (-20°C to +60°C) |
| Terminal Strip | 10 Pt. Single Coil Solenoid Valve 10 Pt. Dual Coil Solenoid Valve |
| Weights | Aluminum 3.79 lbs (1.72 kg) |
| | Stainless 9.85 lbs (4.47 kg) |



Dimensional Data



Product Ordering Matrix

Part No.

MS 48 - 1 2 0 M 0 3

| | |
|-----------|---------------------|
| MS | Mechanical |
| IS | Inductive Proximity |
| PS | Magnetic |

Switch Type

| | |
|-----------|---------------------|
| 48 | NEMA 4/4X/7/9, IP67 |
|-----------|---------------------|

Series

| | |
|----------|----------------------|
| 1 | 1/2" NPT (2 Places) |
| 2 | M20 x 1.5 (2 Places) |

Conduit Entries

| | |
|----------|-------------------|
| 2 | Two (2) Switches |
| 4 | Four (4) Switches |

Switch Quantity

| | |
|----------|------------------------------|
| 0 | STD, Open/Closed, Yellow/Red |
| 2 | Lport, 3way |
| 3 | Tport, 3way |
| 4 | Arrow, 3way |

Indicator Type

| | |
|----------|-----------------|
| M | Aluminum, black |
| 7 | Steel |

Material & Color

| Code | Ref | Switches & Sensors |
|----------|-----------|---|
| 0 | MS | Omron D3V11 or Cherry D44 (250VAC/DC, 11A MAX, 50/60 HZ) |
| S | MS | Honeywell V7 (250VAC/DC, 0.1A MAX, 50/60 HZ) |
| M | PS | Magnetic Emme Reed (High Power, 100W Max, 300V, H.S.I.) |
| 0 | PS | Magnetic Reed Hamlin (Low Power, 5W Max) |
| A | IS | IFM NS5002 EExia (7.5-30 DC, NC; Nominal 8.2 DC) |
| B | IS | IFM IS5001 DC 3 Wire PNP Switch (10-36V, NO) |
| D | IS | IFM IS5026 DC 2 Wire PNP or NPN (5-36V, Programmable) |
| E | IS | IFM IS0003 AC/DC 2 Wire Inductive (20-140VAC/10-140VDC, NO) |
| F | IS | P&F NJ2-V3-N Namur 2 Wire (8.2V, NC, EExia Rated) |
| G | IS | P&F NBB2-V3-E2 DC 3 Wire PNP (10-30V, NO) |
| H | IS | P&F NBB3-V3-Z4 DC 2 Wire (5-60V, NO) |
| K | IS | P&F NBB2-V3-E3 DC 3 Wire PNP (10-30V, NC) |
| L | IS | P&F NBB2-V3-E0 DC 3 Wire NPN (10-30V, NO) |
| N | IS | P&F NCB2-V3-N0 Namur (8.2V, NC, EExia Rated) |
| P | IS | IFM IS5004 DC 3 Wire NPN (10-36V, NO) |

Switches & Sensors

| | |
|----------|--------------------|
| 0 | None |
| 3 | 80x30 Namur 30 STD |
| 6 | Universal Bracket |
| A | MS-LSB-01 |
| B | MS-LSB-02 |

Bracket

| | |
|--------------|------------------------|
| Blank | Standard 7-8-7-8 |
| 1 | Circuit Board 7-8-7-9 |
| 2 | Circuit board 7-8-9-10 |

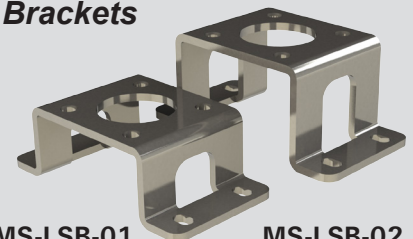
Special Options

Note:

All PS & IS model Switches rated for Class I, Division 1, Groups C&D and Class I, Division 2, Groups A, B, C & D. MS model switches only rated to Class I, Division 1, Groups C & D and Class I, Division 2, Groups C & D.

***Optional Heavy Duty SS Brackets**

Heavier gauge 300 series SS brackets available for demanding, high vibration applications. Standard Namur 20mm/30mm heights, and custom options also available.



MS-LSB-01

MS-LSB-02



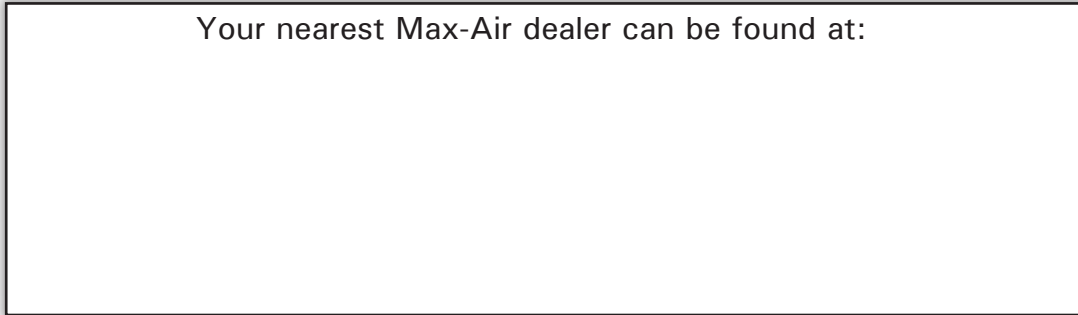
The Best Way To Automate Your Process

Crossover Guide

| Max-Air | Westlock | Soldo | Moniteur | Topworx |
|-------------|--|---|-----------|------------|
| MS48-120M03 | 2007NBY2B2M0200 2245ABYN00022FAN - | SX0120010U72A3 SK0120010U71A3 SY0120010U77A4 | SMYB-E120 | DXPM21GNEB |
| PS48-120M03 | 9479NBY2B2M0600 2249ABYN00022FAN | SFC4200-10U07A3 SKC420010U71A3 SYC420010U77A4 | SMYB-E220 | DXPR21GNEB |
| IS48-120MF3 | 2247ABYN00022FAN | - | SMYBE820 | DXPE21GNEB |
| IS48-120MG3 | - | SX7320010U72A3 SK7320010U71A3 SY7320010U77A4 | - | - |
| MS48-120703 | 2245SBYN00022FAN | SQ0120E10U71A7 SW0120E10U77A6 | - | DXSM21GMEB |
| PS48-120703 | 2249SBYN00022FAN | SQC420E10U71A7 SWC420E10U77A6 | - | DXSR21GMEB |
| IS48-1207F3 | 2247SBYN00022FAN | - | - | DXSE21GMEB |
| IS48-1207G3 | | SQ7320E10U71A7 SW7320E10U77A6 | | |

- Notes:
1. Max-Air 48 Series limit switch boxes come standard with Yellow/Red indicator
 2. Crossovers listed have standard Yellow/Black or Red/Green indicators
 3. Max-Air 48 Series limit switch boxes come standard with 2 x 1/2" NPT conduit entries
 4. Crossovers Westlock 2007 and 9479 Series only,
Moniteur and Topworx switch boxes have 2 x 3/4" NPT conduit entries

Your nearest Max-Air dealer can be found at:



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