



# 45 SERIES

## Limit Switch Box

### Technical Data

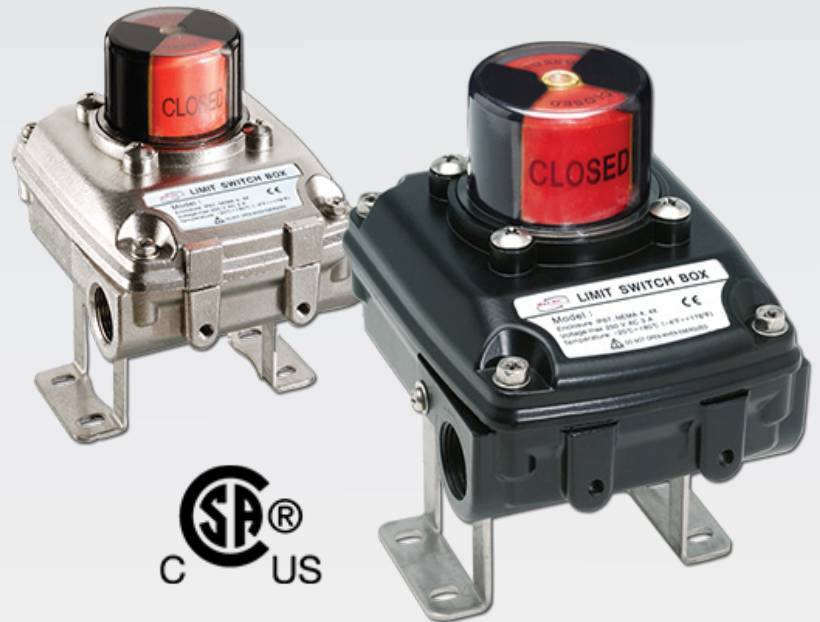
The Max-Air 45 Series aluminum and stainless steel series limit switch boxes are an extremely reliable, robust, and time tested solution for your position monitoring needs. Switches available with mechanical, proximity and inductive switch types, and fully certified to North American and European standards.

#### Features and Benefits

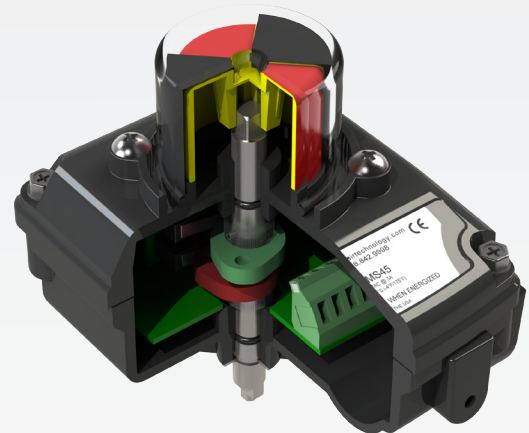
- NEMA 4/4X Corrosion Resistant
- Compact Design
- Quick Set Cams
- Easy Wiring Through PCB Terminal, 10pt.
- Single and Dual-Coil Solenoid Valve Options
- High Visibility Open/Close Beacon
- 3-Way T-Port & L-Port Beacon Options
- Inclusive 30x80x30 NAMUR Mounting Bracket
- Other Mounting Brackets Available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

#### Materials of Construction

Enclosure	Die Cast Aluminum, Epoxy Coated AISI 316 Stainless Steel
Bracket	AISI 300 Series Stainless Steel
Indicator	Polycarbonate
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 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 SS-5 or SSG,  
SPDT, 5A 250V

#### Optional

Omron SS-01, SPDT, 0.1A  
125VAC 30VDC, Gold  
Plated Contacts



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

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# Technical Data Cont.

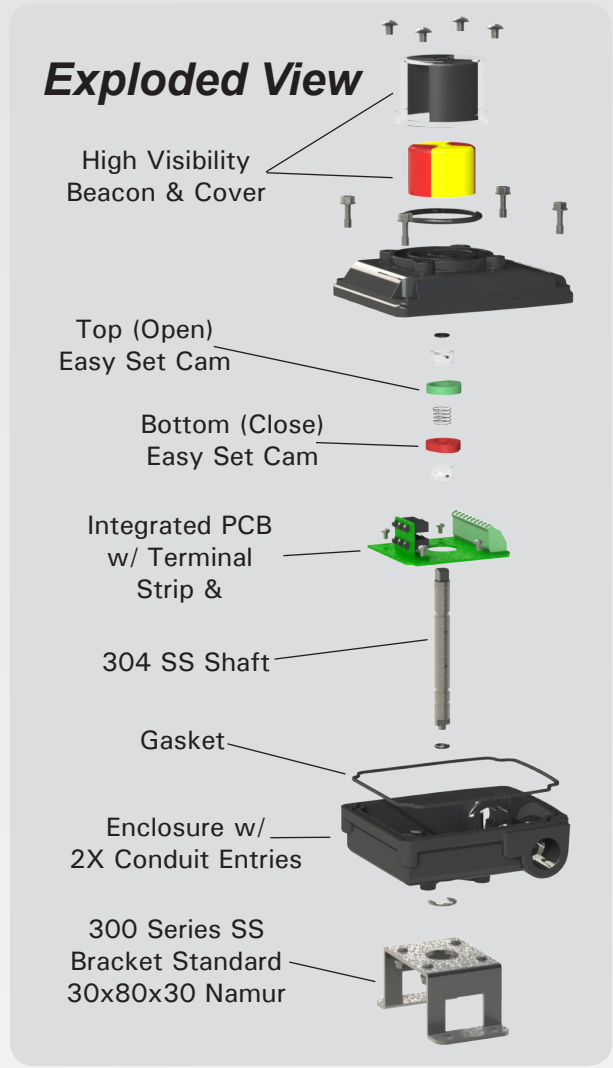
## Certifications & Test Protocol

- CE
- ATEX II 3 D
- ATEX II 2 G D EEx ia IIC T6  
(Gold-plated contacts or EExia rated switches only)
- SIL-2 Rating
- CSA C22.2 No 14-13
- ANSI/UL 508 (17th Ed)
- CSA C22.2 No 94.1-07 / ANSI/UL 50 (12th Ed)
- CSA C22.2 No 94.2-07 / ANSI/UL 50E

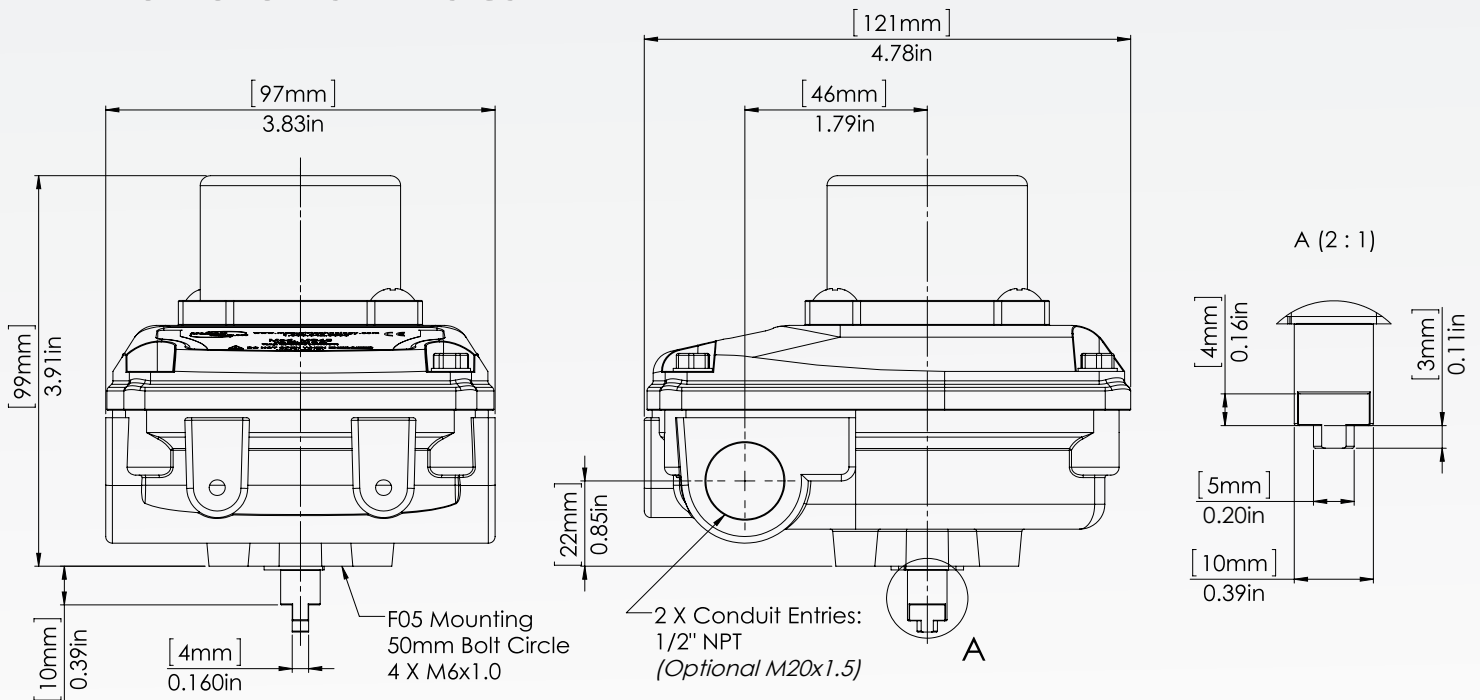
## Specifications

IP67/NEMA4/4X Protection Rating

Cable Entry	Standard 1/2" NPT (2 places) Optional M20x1.5 (2 places)
Temperature	-4°F to +176°F Standard (-20°C to +80°C) -40°F to +185°F Gold-plated Contacts (-40°C to +85°C)
Terminal Strip	10 Pt. Single Coil Solenoid Valve 10 Pt. Dual Coil Solenoid Valve
Weights	Aluminum LBS 1.62lbs (0.74kg) SS LSB 3.94lbs (1.79kg)



## Dimensional Data



# Product Ordering Matrix

Part No.

MS 45 - 1 2 0 M 0 3

<b>MS</b>	Mechanical
<b>IS</b>	Inductive Proximity
<b>PS</b>	Magnetic

Switch Type

<b>45</b>	NEMA 4/4X, IP67
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Series

<b>1</b>	1/2" NPT (2 Places)
<b>2</b>	M20 x 1.5 (2 Places)

Conduit Entries

<b>2</b>	Two (2) Switches
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Switch Quantity

<b>0</b>	STD, Open/Closed, Yellow/Red
<b>2</b>	Lport, 3way
<b>3</b>	Tport, 3way
<b>4</b>	Arrow, 3way

Indicator Type

<b>M</b>	Aluminum, black
<b>7</b>	Steel

Material & Color

Code	Ref	Switches & Sensors
<b>O</b>	<b>MS</b>	Omron SS-5 or SSG, SPDT, 5A 250V
<b>S</b>	<b>MS</b>	Omron SS-01, SPDT, 0.1A 125VAC 30VDC, Gold Plated Contacts
<b>0</b>	<b>PS</b>	Magnetic Reed Hamlin (Low Power, 5W Max)
<b>A</b>	<b>IS</b>	IFM NS5002 EExia (7.5-30 DC, NC; Nominal 8.2 DC)
<b>B</b>	<b>IS</b>	IFM IS5001 DC 3 Wire PNP Switch (10-36V, NO)
<b>D</b>	<b>IS</b>	IFM IS5026 DC 2 Wire PNP or NPN (5-36V, Programmable)
<b>E</b>	<b>IS</b>	IFM IS0003 AC/DC 2 Wire Inductive (20-140VAC/10-140VDC, NO)
<b>F</b>	<b>IS</b>	P&F NJ2-V3-N Namur 2 Wire (8.2V, NC, EExia Rated)
<b>G</b>	<b>IS</b>	P&F NBB2-V3-E2 DC 3 Wire PNP (10-30V, NO)
<b>H</b>	<b>IS</b>	P&F NBB3-V3-Z4 DC 2 Wire (5-60V, NO)
<b>K</b>	<b>IS</b>	P&F NBB2-V3-E3 DC 3 Wire PNP (10-30V, NC)
<b>L</b>	<b>IS</b>	P&F NBB2-V3-E0 DC 3 Wire NPN (10-30V, NO)
<b>N</b>	<b>IS</b>	P&F NCB2-V3-N0 Namur (8.2V, NC, EExia Rated)

Switches & Sensors

<b>0</b>	None
<b>3</b>	80x30 Namur 30 STD
<b>6</b>	Universal Bracket
<b>A</b>	MS-LSB-01
<b>B</b>	MS-LSB-02

Bracket

<b>Blank</b>	Standard 7-8-7-8
<b>1</b>	Circuit Board 7-8-7-9
<b>2</b>	Circuit board 7-8-9-10

Special Options

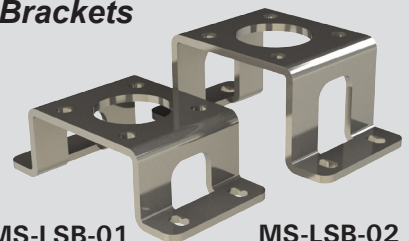
**Note:**

**Intrinsically Safe Applications**

PS and IS models, and MS model with gold-plated contacts suitable for use in intrinsically safe applications w/ appropriate barriers.

**\*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



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## Crossover Guide

Max-Air	Westlock	Soldo	Moniteur	Topworx
MS45-120M03	2004NBY2A2M0200 3245ABYN00022FANO	SF01200-10U07A3	FMYB-E120	DXPM2GNEB
PS45-120M03	3249ABYN00022FANO	SFC4200-10U07A3	FMYB-E220	DXPR2GNEB
IS45-120MF3	3247ABYN00022FANO	SF70200-10U07A3	FMYB-E820	DXPE2GNEB
MS45-120703	3245SBYN00022FANO	SS01200-10U07A7	-	DXSM2GMEB
PS45-120703	3247SBYN00022FANO	SSC4200-10U07A7	-	DXSR2GMEB
IS45-1207F3	3249SBYN00022FANO	SS70200-10U07A7	-	DXSE2GMEB

- Notes:
1. Max-Air 45 Series limit switches come standard with Yellow/Red indicator
  2. Crossovers listed have standard Yellow/Black or Red/Green
  3. Topworx has 3/4" NPT conduit entries



**FLOCONX**<sup>TM</sup>  
— USA FLOW CONTROL COMPANY —

Your nearest Max-Air dealer can be found at:

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