# DENLAR FIRE PROTECTION

# SUBMITTAL DATA SKU: D1030-D-FB0-NFPA-PRO-DED

**30" PRE-ENGINEERED RANGE HOOD** 

# **BASE MODEL: D1030-D-FBO-NFPA-PRO**

Job Name:	[	Date:	Mark:	
Reference:	Unit Location:		Prepared By:	
Engineer:	Contractor:		Approval:	
Expected Job Date:	ľ	Notes:		
MODEL FAN OPTIONS Integral Fans: F - Recirculating R - Rear D Top Discharging External Fans: FBO - Fan by SELECT OPTIONAL ACCESSORIES	• •	- Inline Fan 🗌 <b>RF</b> - Roof Mo	ounted Fan 🗌 <b>WF</b> - Wall Mounted Fan	
ADA: ADA Fan/Light Control		MACM: Make-Up	Air Control Module	
CC: Custom Color – (Stainless Standard)	Specify Color:	CLBX-PRO: Cloc	kBox Pro with integrated ADA	
TANK-TEST: Test Tank	TANK-TEST: Test Tank STROBE: Horn and Light Strobe Alarm			
MPK: Manual Pull Station	CFCS: Common Fan Control			
D1030-TC-D: Top Cover RANGE FUEL SOURCE DISCONNECT OPTIC	•			
<b>G:</b> 3/4" NPT Natural Gas (DED Needed if	Electric Components N		nt (includes 3/4" NPT Natural Gas and Electric) -	
to be Controlled on a Gas Range)		,	220VAC O 5-20R, 120VAC	
<b>E:</b> Electric -		DRD: Dual Recep		
O 14-50R, 220VAC O 6-20R, 220		O 6-20R, 2	220VAC O 5-15R, 120VAC O 5-20R, 120VAC	
O 10-50R, 220VAC O 5-20R, 120	VAC			
O 5-15R, 120VAC ELECTRIC NEMA (RECEPTACLE) OPTIONS				
	D-50R 6-2		G 5-20R 120VAC 20AMP	

# REQUIREMENTS

#### Hood shall:

- Be D1000 Series by DENLAR Fire Protection
- Be wall mounted so that the bottom of the mounting bracket sits 24" to 30" above the range
- Be of stainless-steel construction (#18 & #20 GA, polished 304) with no sharp edges and brushed finish
- Have factory installed fire suppression system
- Have 212° F degree fusible link (30") which will activate the mechanical fire suppression system
- Have wet chemical extinguishing agent: Low PH Amerex
  660 (pressurized potassium citrate / potassium acetate mix)
- Fan by others must have centrifugal fan with air delivery
- Be ETL listed, tested to UL300A standard



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- Contact factory for any special circumstances
- Fan by others motor shall be permanently lubricated and meet UL507 standard, CFM should achieve at least 500CFM for compliance
- Include a power disconnect for gas and/or electric appliances, deactivated at suppression system discharge
- Automatically disconnect range element once a certain preset temperature is reached or under particular predefined events or conditions
- Unit shall have multiple alarm contacts pre-installed (local, remote and trouble alarms) and an audible buzzer
- Lighting shall be by LED bulb







DL1224A 3/24



# **BASE MODEL: D1030-D-FBO-NFPA-PRO**



### **GENERAL FEATURES**

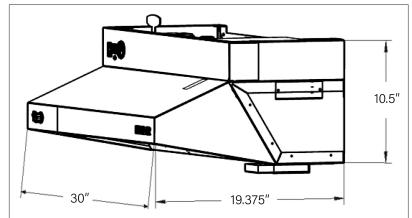
- ETL/CSA listed
- 304 Brushed Stainless Steel
- Fail-Safe mechanical actuation
- Two step pre-suppression
- Plenum nozzle
- Main power switch and reset switch
- Service switch

#### Pressure switch

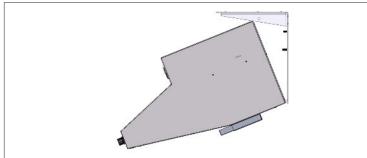
- Pressure gauge
- Temperature switches
- Hard wired fuel source disconnect
- Dry alarm contacts
- On board diagnostics
- Status LED

- Trouble signal
- Service key
- Audible buzzer (90db)
- LED bulb
- Grease baffle with drip tray
- Integrated ADA light and fan controls through ClockBox Pro

# UNIT DIMENSIONS



### **REQUIRED FOR ALL MODELS**



The main unit requires clearance to tilt to a 45° degree angle for maintenance purposes



# 

**SPECIFICATIONS** 

Compliance	UL300A, NSF, UL507, and NFPA101, ADA compliant
Weight	53.4 lbs
Min / Max Install Height Above Top of Residentail Range / Cook Top	24" - 30"
Voltage	120 AC
Phase	1
Hz	60 Hz
Amps	3.15 Amps
Circuit Breaker Size	15-20 Amps
Operating Current	N/A
Fan Operating Current	N/A
Output Operating Current	0.25 to 0.5 Amps
Input Wiring	Power Cord
Output Wiring	14/2 MC Wire
Fan Type	Fan By Others / 3rd Party Supplies
	Fan (Fan is External)
MOCP	15 Amps
Duct Type	See Local Codes
Fire Control	Programmable Logic Controller
Tank Type	Stainless Steel
Tank Pressure	102+-8% Psi
Tank Volume	1300 mL
Suppression Agent	Low pH Wet Chemical Amerex 660
No. of Nozzles / Spray	5 / 60 Degree Conical
Protection Device / Limit	3 Globe Links / 212° F



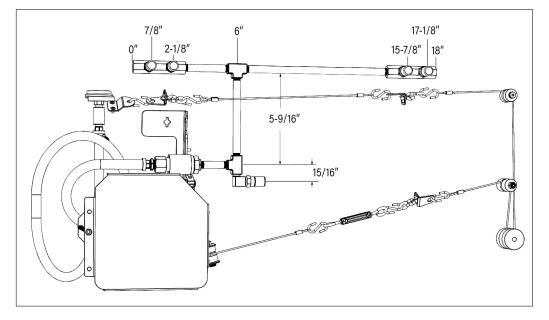




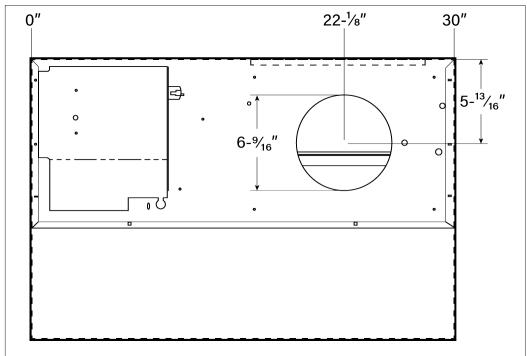


# **BASE MODEL: D1030-D-FB0-NFPA-PR0**

# **NOZZLE PLACEMENT**



# **TOP DUCTED EXHAUST**



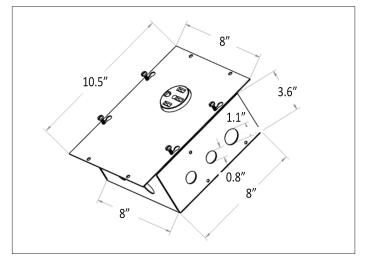




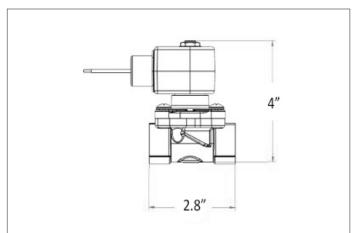
# DENLAR FIRE PROTECTION

# **DUAL ELEMENT POWER SOURCE DISCONNECT: -DED (D1000)**

# **ELECTRIC RECEPTACLE DIMENSIONS**



# **GAS VALVE DIMENSIONS**



# ELECTRIC RECEPTACLE SPECIFICATIONS

Models	-DED-220 14-50	-DED 120 5-20		
Weight	5.4 lbs.			
NEMA	14-50 R	5-20 R		
Output Volts	220 AC	120 AC		
Output Current	50 Amps	20 Amps		
Coil Voltage	120			
Phase	1			
Frequency	60 Hz			
Fuse	0.5 Amps			
Fuse Type	5 X 20mm cartridge			
Operating Current	0.25 Amps			
Material	Galvanized			
Mounting Type	Surface or flush mount			
Mounting Height	See local codes			

# **GAS VALVE SPECIFICATIONS**

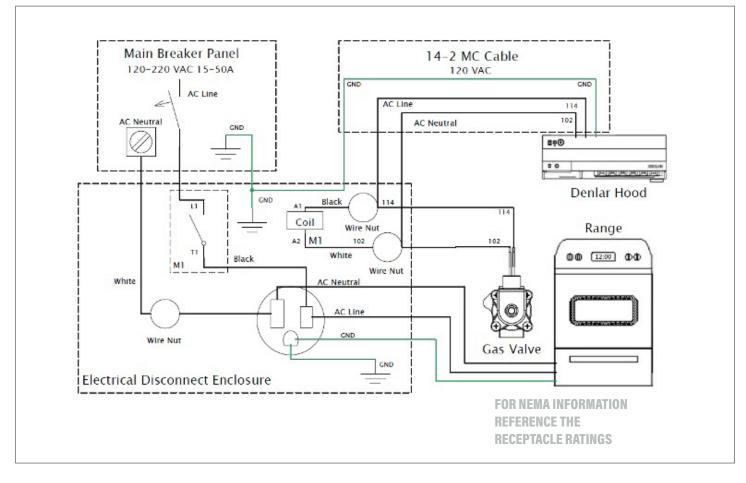
Coil Voltage	120 AC
Phase	1
Frequency	60 Hz
Fuse	0.5 Amps
Operating Current	0.25 Amps
Valve Type	2-Way
Function	Normally closed
Actuation Type Coil Type	Direct lift
Coil Type	1⁄2" NPT conduit, 18' leads, class F, NEMA 4X
Body Material	Brass
Seal Material	NBR
Orifice Size	7/16″
Port Size	3/4"
Number Of Ports	2
Port Type	NPT
Media	General purpose for air, liquids, and gases
Min. Pressure Differential	0 PSI
Max. Pressure Differential	100 PSI (AC) PSI
Min. Fluid Temperature	0° F
Max. Fluid Temperature	185° F
Flow Coefficient	5 CV





# **DUAL ELEMENT POWER SOURCE DISCONNECT: -DED**

### **SCHEMATIC**

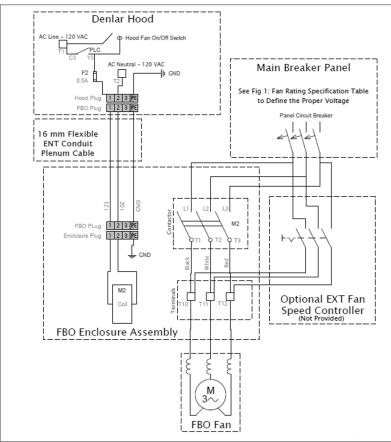






# FAN: -FBO-NFPA (PRO) 30"

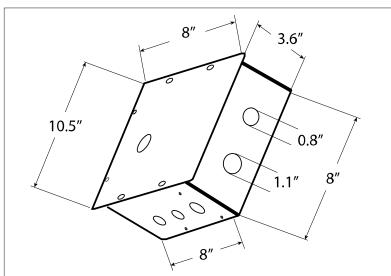
### **SCHEMATIC**



# **SPECIFICATIONS**

Style	N/A
Туре	3rd party supplied
Weight	6.4 lbs.
Operating Current	0.25 Amps
Voltage	120 AC
Phase	1
Frequency	60 Hz
CFM + -2.5% (Low-High)	N/A (500 Required for Compliance)
Pressure (In Water)	N/A
dBA (Low-High)	N/A
Hood Outlet (Low-High)	7 in (Dia)
Duct	N/A
Fan Inlet	N/A
Fan Outlet	N/A
Control	ON/OFF
Speeds	Single Speed
Fuse	0.5 Amps
Fuse Type	5 mm x 20 mm
Mounting Configuration	Surface Mount or Flush Mount

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			_	<b>U</b>	



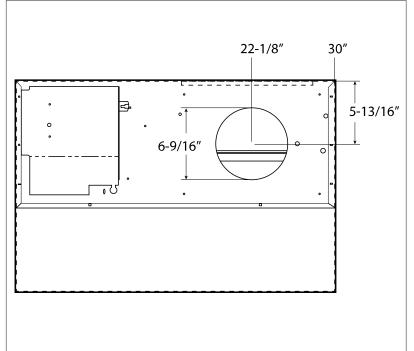


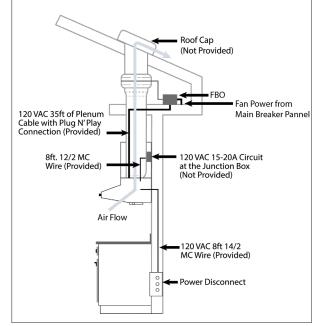
Fan Rating Specification					
Phase	Voltage	Max HP	Max Amps		
1 PH	120	2	24		
1 PH	240	3	17		
3 PH	200 - 208	7.5	25.3		
3 PH	220 - 240	7.5	22		
3 PH	440 - 480	15	21		
3 PH	550 - 600	20	22		

# DENLAR FIRE PROTECTION

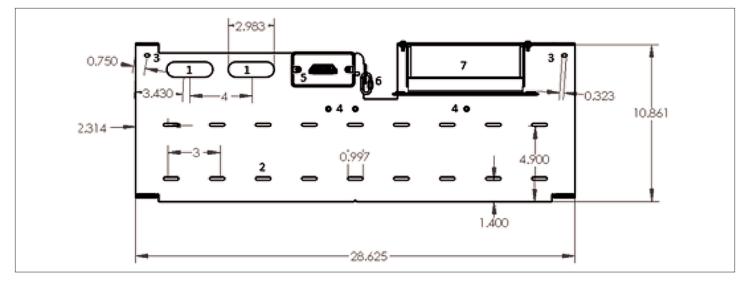
# FAN: -FBO-NFPA (PRO) 30"

# **DUCT LOCATION**





# **TOP DISCHARGING MOUNTING BRACKET (D1000-BPSI)**





# SAMPLE EXHAUST LAYOUT



# CLOCKBOX PRO<sup>™</sup>: -CLBX-PRO



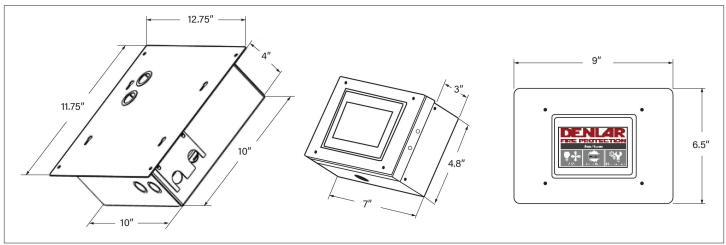
### **SPECIFICATIONS**

Mounting	Surface Mount or Flush Mount
Weight	18 lbs
Voltage	120 VAC
Phase	1
Frequency	60 Hz
Breaker Size (Amps)	15 A
Operating Current (Amps)	0.1 A
Fuse (Amps)	1 A
Output Current Maximum (Amps)	10 A
Touch Screen Voltage	24 DC
Conduit	25 ft 16 mm Flexible ENT Conduit

### **FEATURES**

o Hour imer	Password Protected	Adjustable Time	Change Password	ADA Compatible	Language Selection	Input/Output To A Monitoring Station/ Alarm System	Interacts with Hood	Displays User Instructions	Displays Hood Faults	Locks Out if There is a Fault with the Hood
Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Υ

### **UNIT DIMENSIONS**

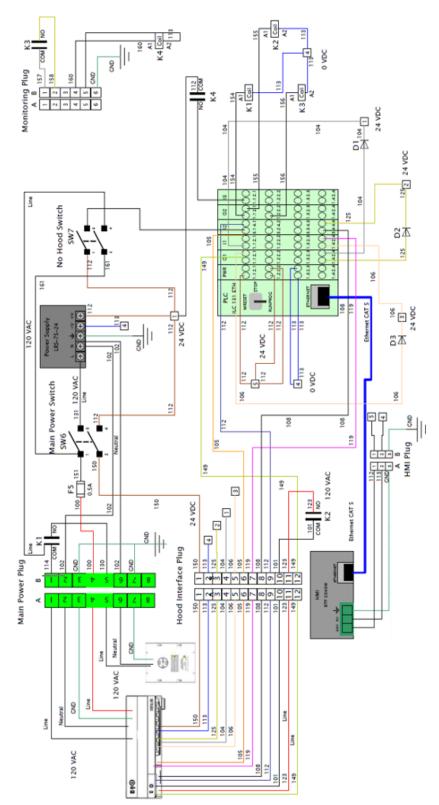






# CLOCKBOX PRO<sup>™</sup>: -CLBX-PRO

**SCHEMATIC** 







# **MANUAL PULL STATION: -MPK (D1000)**

# THE D1000-MPK COMES EQUIPPED WITH THE FOLLOWING





1x Enclosure 4" x 1.5" Octagon Metal Box



3x 90 Degree **Corner Pulleys** 

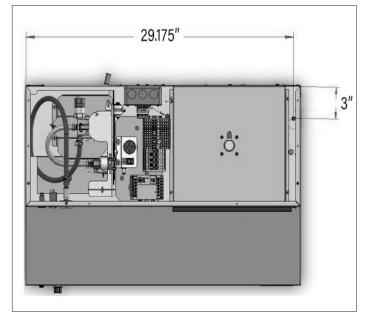


1x 1/2" ENT Conduit Connector



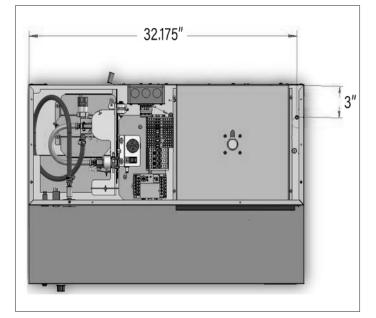
1x 25' Stainless-Steel Cable with Clevis Pin

### **30" MODEL PULL-PIN LOCATION**





# **36" MODEL PULL-PIN LOCATION**



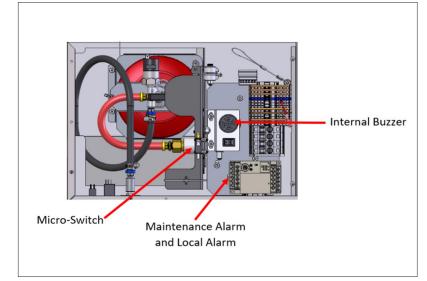
The Manual Pull Station (D1000-MPK) is designed to discharge the D1000 Model when a user pulls the tab from the Manual Pull Station Face Plate. The D1000-MPK is provided with 25 feet Stainless-Steel Cable and with three 90 Degree Corner Pulleys. It is required to have 7-10 inches extra Stainless-Steel Cable at the Pull Station Box.

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# **ALARM: INTEGRATED TO D1000**

### **ALARM LOCATION**



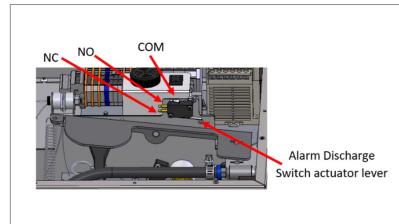
# **INTERNAL BUZZER SPECIFICATIONS**

Туре	Audible
Decibels	90
Location	Top center of main unit
Activates upon	Tank discharge hose disconnected, low pressure in tank, or high temp fault (190° F at hood)

### **MAINTENANCE ALARM SPECIFICATIONS**

Туре	Dry Contact
Type of Contacts	Com / NO
Contact Amperage	5 Amps
Location	PLC contacts C0 and Y0
Activates upon	Tank discharge hose disconnected, low pressure in tank, or high temp fault (190° F at hood)

# **MICRO-SWITCH LAYOUT**



### LOCAL ALARM SPECIFICATIONS

Туре	Dry Contact
Type of Contacts	Com / NO
Contact Amperage	5 Amps
Location	PLC contacts C1 and Y1
Activates upon	Low pressure in tank, and high temp fault (190° F at hood)

# **MICRO-SWITCH SPECIFICATIONS**

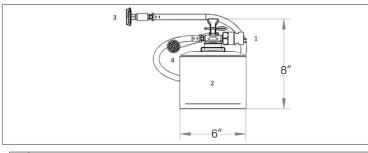
Туре	Dry Contact
Type of Contacts	Com / NO / NC
Contact Amperage	15 Amps
Location	Above tank actuation paddle
Activates upon	Mechanical discharge of the tank





# SUPPRESSION TANK: -TANK-FC/SA (D1000)

### **UNIT DIMENSIONS**

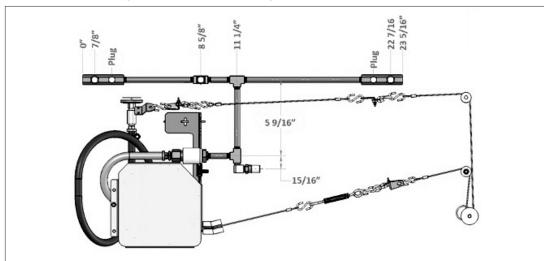


	1	ank is Equipped with a Pressure Switch which opens on discharge.	
	2	Tank is of Stainless Steel Construction.	
	3	Visual Pressure Gauge.	
ſ	4	Discharge Hose with Quick Connect fitting attached.	

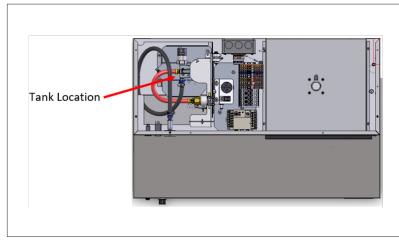
# **NOZZLE PLACEMENT (PRE-INSTALLED IN HOOD)**

# **FC SPECIFICATIONS**

Туре	Self Contained Fire Suppression System
Compliance	UL-1995
Mounting Configuration	Integral to the hood
Weight	9.4 lbs
Vessel	Stainless Steel
Chemical Type	Amerex 660
Volume	1300 mL
Chemical Weight	2.2 lbs
Pressure (PSI) +-8%	102 PSI
Height	8 in
Width	6 in



### **TANK LOCATION**



# SA SPECIFICATIONS

Туре	Self Contained Fire Suppression System
Compliance	UL-1995
Mounting Configuration	Integral to the hood
Weight	9.4 lbs
Vessel	Stainless Steel
Chemical Type	Amerex 660
Volume	1300 mL
Chemical Weight	2.2 lbs
Pressure (PSI) +-8%	Charge to 102 PSI on site
Height	8 in
Width	6 in

