X-VENTISO by earthcore

SUBMITTAL DATA

MERIDIAN DRAFT CONTROLLER

XV-MERD-CTRL · XV-MERD-DUO · Self-modulating draft control for gas appliances

PROJECT INFORMATION

Project _____ **Location** _____

Contractor _____ **Engineer / Architect** _____

Submitted by _____ **Date** _____

MODEL SELECTION (CHECK AS SUPPLIED)

	PART NUMBER	FLUES	DRAFT INDUCERS	ELECTRICAL	QTY	TAG(S)
☐	**XV-MERD-CTRL**	1	One XV150, XV250 or XV350	120 VAC, 6.0 A		
☐	**XV-MERD-DUO**	2, each held on its own	One per flue (different models: call first)	120 VAC, 12.0 A		

Vented gas appliances with an electronic ignition control. Not for solid fuel, cooking appliances, standing pilot / millivolt valves or vent-free appliances (solid fuel and cooking: XV-SUB-CP-WBC). Three or four flues, or Meridian with VMASS on one call: XV-INTG; call before you install.

DESCRIPTION

Holds draft automatically, with no speed to set. Meridian measures pressure in the flue (stack probe) and in the room the appliance serves (room sensor), and continuously adjusts the draft inducer to hold a set draft between them: harder when exhaust pulls the room negative, quieter when conditions ease. On every call it proves the damper open and proves draft before it releases the gas appliance.

SEQUENCE OF OPERATION

1. The appliance (or a switch, remote or automation contact) closes Blue + Orange. Meridian never fires the appliance.
2. The draft inducer starts; Meridian proves the damper open, then proves draft.
3. Only then does the proven draft relay release the appliance to light. Modulation holds the setpoint through wind, stack temperature and exhaust.
4. Call ends: the interlock releases, then a 15-second post-purge. Draft lost: coded alarm, appliance shut down, post-purge.
5. Power loss: the relay opens and the appliance shuts off, including battery-backup ignition; the gas damper springs closed.

KEY DATA

Fuel	Vented gas appliances, electronic ignition. NFPA 54 installations
Draft control	Continuous modulation (XV-FLUX) on the flue-to-room pressure difference. Nothing to commission
Draft proving	Stack probe in the flue, referenced to the room sensor
Room sensor	Single-gang wall plate in the room served, never the chase. DUO: two, or one with the Y splitter
Damper	Required, sold separately. XV-GFD, XV-TMD or XV-INLD, proven open before ignition
Gas interlock	Proven draft relay, dry contact, 3 A at 250 VAC / 30 VDC
On / off input	3.3 VDC from the controller, dry contact only; up to 300 ft on 18 AWG
Ignition	4 ft lead, SIT Proflame 2 terminal blocks factory-installed. Dexen, Resideo / Honeywell; Robertshaw with XV-IGN-ADPT-RS
Alarm	Visual, coded on the status display (ALARM 1 to 4)
Post-purge	15 seconds
BAS	BACnet/IP (XV-BACnet INTF) or Modbus, set up at the factory. Read status, draft, alarm, speed, damper; write enable only
Electrical	120 VAC, 50/60 Hz. 6.0 A; DUO 12.0 A
Power	8 ft cord, NEMA 5-15P, 15 A receptacle. DUO with two XV350s: dedicated 20 A circuit
Termination	Vertical, or sidewall with the sidewall adapter

X-VENTISO by earthcore

SUBMITTAL DATA

MERIDIAN DRAFT CONTROLLER

XV-MERD-CTRL · XV-MERD-DUO · Self-modulating draft control for gas appliances

PRODUCT VIEWS AND DIMENSIONS



XV-MERD-CTRL



XV-MERD-DUO

PART NUMBER	A WIDTH	B HEIGHT	C DEPTH	MOUNTING	WEIGHT
XV-MERD-CTRL	11-3/8	6-1/8	3-1/8	Fins at each end	8 lb
XV-MERD-DUO	15-1/4	13-1/4	5-3/16	Metal brackets, factory-attached	12.5 lb

Inches, overall, including mounting fins (XV-MERD-CTRL shares the Controlled Power enclosure). Dimensioned drawings: XV-IM-MERD, Section 11.

SYSTEM (CHECK AS SUPPLIED)

Draft inducer (one per flue)
☐ XV150 ☐ XV250 ☐ XV350

Damper (required, one per flue)
☐ XV-GFD ☐ XV-TMD ☐ XV-INLD

Per flue
☐ Test port flue length ☐ Flue adapter ☐ XV-VBD

Building automation
☐ None ☐ BACnet/IP ☐ Modbus

Ignition, integration
☐ XV-IGN-ADPT-RS ☐ XV-IGN-PFAK ☐ XV-IGNEXT
☐ XV-INTG

CONSTRUCTION AND LISTING

Connections	Plug-in Molex, factory-wired: draft inducer and damper per flue, ignition lead (4-pin)
Stock leads	30 ft, draft inducer and damper. Extensions 20 / 50 / 100 ft, or one custom run
In the box	Ignition lead, stack probe, room sensor, two 20 ft tubes per flue. DUO adds a Y splitter
Enclosure	NEMA 1, indoor or under cover. Factory-sealed
Operating range	0 to 120°F, dry, non-condensing
Warranty	2 years, with a documented annual inspection
Standards	UL 508 Industrial Control UL/ULC 378 Draft Equipment
Mark	ETL Listed (c/us), on the product label
Control no.	Intertek 4007025

INSTALLATION NOTES

1. Install per XV-IM-MERD, XV-IM-DMP (damper) and the appliance manufacturer's instructions.
2. Gas appliances and gas dampers only. Never solid fuel or cooking: grease clogs the stack probe.
3. Test port flue length as the first section above the appliance flue adapter. Never drill the vent.
4. Both pressure tubes open and reachable: no pinches, kinks or low loops, each on its own port. Room sensor clear of doors, windows, registers and grilles.
5. Service disconnect mounted vertical (NEMA 3, rain-resistant, not waterproof); exterior conduit runs downward.
6. Never wire a switch, remote or relay to the ignition module as well as to Meridian.
7. Factory-sealed; opening the controller voids the warranty. Codes are adopted and amended locally, and the authority having jurisdiction makes the final call on every installation. Specifications subject to change.

ENGINEER / ARCHITECT REVIEW

☐ No exceptions taken
☐ Make corrections noted
☐ Revise and resubmit
☐ Rejected

Reviewed by _____

Date _____

REMARKS