

Application 2293 Dual Duct Controller–Two Air Velocity Sensors–Electronic Output–Slave Mode

Overview

Application 2293 is the slave mode application for the Dual Duct Controller–Two Air Velocity Sensors–Electronic Output (P/N 540-506 and 540-507). Slave mode is the default application that comes up when power is first applied to the controller. Slave mode provides no control. Its purpose is to allow the operator to perform equipment checkout before a control application is put into effect and to set some basic controller parameters (CTRLR ADDRESS, APPLICATION, etc.).

Using auxiliary points

It is possible to have extra points available on a Dual Duct Controller–Two Air Velocity Sensors–Electronic Output in addition to the ones used by the current application that is running in the controller. If these extra points are to be controlled by a field panel, then they must be unbundled at the field panel.

Using the controller as a point extension device

If the controller is *only* used as a point extension device, with no control application in affect, then its application must be set to slave mode *and* the points must be unbundled at the field panel. All of these points must be controlled from the field panel in order to be used. Refer to Table 2293-2 for point database information.

All DOs may be used as separate DOs. The first six may also be used in pairs, (DO 1 and DO 2), (DO 3 and DO 4), and (DO 5 and DO 6), to control a motor as shown in the example.

NOTE: If using either a motor or DOs as auxiliary points, then be sure to set the point MTR SETUP (number 58) to the correct value. Refer to Table 2293-1. If using a pair of DOs to control a motor, then the DOs cannot be unbundled or commanded separately. Only the points MTR1 COMD (number 48) and MTR2 COMD (number 52) can be unbundled to control the motors.

Table 2293-1. Motor Enable/Reverse Values for MTR SETUP (number 58).

	Motor Not Enabled			Motor 1 Enabled and Reserved			Motor 1 Not Used		
	Motor 2 Not Used	Motor 2 Enabled	Motor 2 Enabled and Reversed	Motor 2 Not Used	Motor 2 Enabled	Motor 2 Enabled and Reserved	Motor 2 Not Used	Motor 2 Enabled	Motor 2 Enabled and Reserved
Motor 3 Not Used	1	5	13	3	7	15	0	4	12
Motor 3 Enabled	17	21	29	19	23	31	16	20	28
Motor 3 Enabled and Reversed	49	53	61	51	55	63	48	52	60

Example

If using DO 1 and DO 2 as the physical terminations for a direct acting motor, then follow these steps:

1. Set MTR SETUP to 1 to enable the motor.
2. Unbundle MTR1 COMD at the field panel to command the motor from the field panel.

Table 2293-2. Point Database for Application 2293.

Point Number	Descriptor	Factory Default (SI Units)	Engr. Units (SI Units)	Slope (SI Units)	Intercept (SI Units)	On Text	Off Text
01	CTLR ADDRESS	99.000	--	1.000	0.000	--	--
02	APPLICATION	2293	--	1.000	0.000	--	--
{04}	ROOM TEMP	74.000 (23.449)	DEG F (DEG C)	0.250 (0.140)	48.000 (8.889)	--	--
{13}	RM STPT DIAL	74.000 (23.449)	DEG F (DEG C)	0.250 (0.140)	48.000 (8.889)	--	--
{15}	AUX TEMP	74.000 (23.449)	DEG F (DEG C)	0.250 (0.140)	48.000 (8.889)	--	--
18	WALL SWITCH	NO	--	--	--	YES	NO
{19}	DI OVRD SW	OFF	--	--	--	ON	OFF
{24}	DI 2	OFF	--	--	--	ON	OFF
{25}	DI 3	OFF	--	--	--	ON	OFF
{29}	DAY.NGT	DAY	--	--	--	NIGHT	DAY
{30}	AIR VOLUME 2	0.000	CFM (LPS)	4.000 (1.8876)	0.000	--	--
{35}	AIR VOLUME 1	0.000	CFM (LPS)	4.000 (1.8876)	0.000	--	--
36	FLOW COEFF 1	1.000	--	0.010	0.000	--	--
{37}	MTR3 COMD	0.000	PCT	0.400	0.000	--	--
{38}	MTR3 POS	0.000	PCT	0.400	0.000	--	--
39	MTR3 TIMING	130.000	SEC	1.000	0.000	--	--
{41}	DO 1	OFF	--	--	--	ON	OFF
{42}	DO 2	OFF	--	--	--	ON	OFF
{43}	DO 3	OFF	--	--	--	ON	OFF
{44}	DO 4	OFF	--	--	--	ON	OFF
{45}	DO 5	OFF	--	--	--	ON	OFF
{46}	DO 6	OFF	--	--	--	ON	OFF
{47}	DO 7	OFF	--	--	--	ON	OFF
{48}	MTR 1 CMD	0.000	PCT	0.400	0.000	--	--
{49}	MTR 1 POS	0.000	PCT	0.400	0.000	--	--
{50}	DO 8	OFF	--	--	--	--	--
51	MTR1 TIMING	95.000	SEC	1.000	0.000	--	--
{52}	MTR2 CMD	0.000	PCT	0.400	0.000	--	--
{53}	MTR2 POS	0.000	PCT	0.400	0.000	--	--
54	FLOW COEFF 2	1.000	--	0.010	0.000	--	--
55	MTR2 TIMING	95.000	SEC	1.000	0.000	--	--
56	DPR1 ROT ANG	90.000	--	1.000	0.000	--	--
57	DPR2 ROT ANG	90.000	--	1.000	0.000	--	--
58	MTR SETUP	0.000	--	1.000	0.000	--	--

NOTES:

1. Points not listed are not used in this application.
2. A single value in a column means that the value is the same in English units and in SI units.
3. Point numbers that appear in brackets {} may be unbundled at the field panel.

Table 2293-1. Point Database for Application 2293.

Point Number	Descriptor	Factory Default (SI Units)	Engr. Units (SI Units)	Slope (SI Units)	Intercept (SI Units)	On Text	Off Text
59	DO DIR.REV	0.000	--	1.000	0.000	--	--
60	DUCT AREA 2	1.000 (0.093)	SQ. FT (SQ. M)	0.025 (0.002323)	0.000	--	--
87	CAL MODULE	NO	--	--	--	YES	NO
{94}	CAL AIR	NO	--	--	--	YES	NO
95	CAL SETUP	4.000	--	1.000	0.000	--	--
96	CAL TIMER	12.000	HRS	1.000	0.000	--	--
97	DUCT AREA 1	1.000 (0.093)	SQ. FT (SQ. M)	0.025 (0.002323)	0.000	--	--
{99}	ERROR STATUS	0.000	--	1.000	0.000	--	--

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