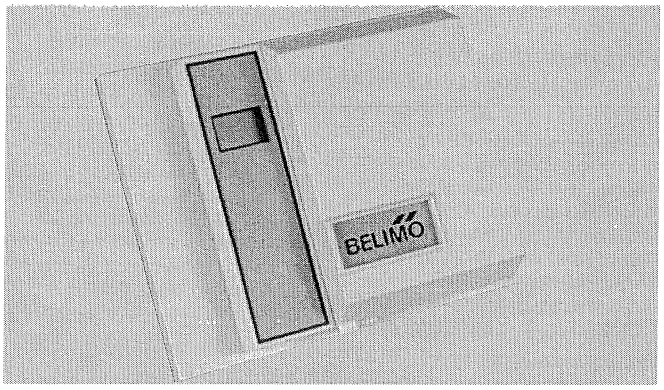
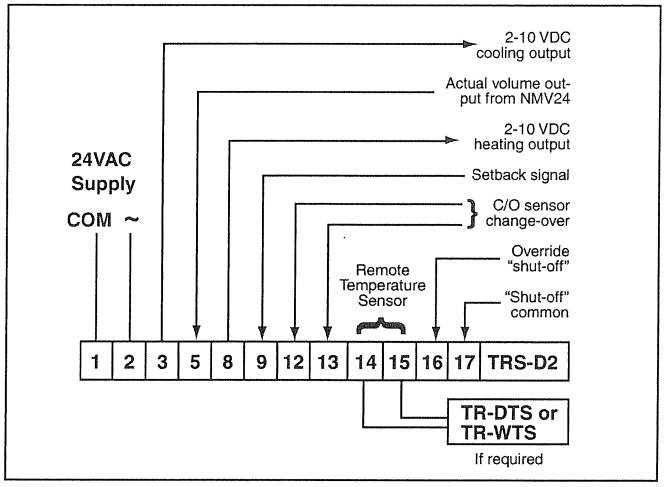
BELIMO

Room temperature controller TRS-D2

Microprocessor based room temperature controller



Wiring diagram



Technical Data	TRS-D2
Power supply	24 VAC ± 20% 50/60 Hz
Power consumption	< 3 W
Electrical connection	12 screw terminals, 16 to 22 Ga.
Display	2 digit LCD, .35" character height
Control / adjustments	All adjustments by pushbutton
Temperature sensor	NTC 40 to 90° F [4 to 32° C]
Output cooling, Yc	0 to 10 VDC
Output reheating, YH	2 to 10 VDC
Max. output current, Yc, YH	10 mA per output
Heat/cool changeover of Yc	80° F [26.6° C] with TR-DTS or contact closure
Adjustments - user	
Heat/Cool	40 to 90° F [4 to 32° C]
Setback	Pushbutton engage/disengage or with remote setback control, pushbutton invokes 3 hour override of setback
Adjustments - installer	
Setback/up	40 to 90° F [4 to 32° C] for each
Deadband	For YH, -1.8 to +9°F [-1 to +5° C] Default -3.8° F [-2° C]
Min volume	0 to 80%
Max volume	30 to 100%
Max vol. for heat	30 to 80% of Yc
Weight	4 oz. [140 g]

Application

The TRS-D2 microprocessor based room temperature controller is primarily designed for use with the NMV-D2 pressure independent VAV controller. It may also be used for pressure dependent VAV control with any actuator using a 0 to 10 VDC input signal. The TRS-D2 provides two proportional/integral (PI) outputs; a 0 to 10 VDC for cooling and a 2 to 10 VDC for reheat. For energy conservation, an adjustable deadband is provided for sequencing between cooling and reheat modes. The TRS-D2 is designed to be room mounted. It may also be mounted in a panel or on the VAV terminal unit utilizing a TR-WTS or TR-DTS remote temperature sensor. With the use of the ADS-100 analog to digital switch, the reheat output may be used to switch up to three stages of electric heat.

Operation

The microprocessor based TRS-D2 maintains room temperature with two PI outputs; one cooling (0 to 10 VDC) and one heating (2 to 10 VDC). All control parameters are programmable. A lock out device prevents unauthorized access to all control parameters except for temperature setpoint adjustment. The control parameters are displayed on a large LED readout. During normal operation, room temperatures are continuously displayed. The controller is capable of automatic or manual changeover from cooling to heating mode with a duct mounted temperature sensor or an input from a building automation system (BAS).

The controller has a night setback/setup input for a BAS. Manual night setback/setup can also be accomplished from the room controller. In addition there is push button override for the setback mode in 3 hour intervals. Setback operation is indicated by an illuminated LED on the controller.

Utilizing the communication port under the controller cover, the ZEV Service Tool or other programming device can access the NMV-D2 software.

Accessories

TR-DTS	Duct mounted, remote temperature or change over sensor
TR-WTS	Wall mounted, remote temperature sensor
TR-WI	Wiring interface for use between a ZEV, ZEVO, or RS-232 programmer or DVM to the RJ-11 connector on the TRS-D2

Dimensions (All numbers in brackets are metric)