



Update 09/2016
Terminal control



Building HVAC components

Belparts is specialized in the development, production and marketing of components for the automation of HVAC-systems in buildings. We design field components that exactly match market needs. Throughout the development process, we ensure functionality, quality and reliability.

Belparts produces field components for all areas of HVAC, whether production, distribution, or terminal control of heating and cooling, as well as ventilation. Whatever the HVAC-application, we have it covered.

Our field components are designed to be smoothly integrated with any Building Management System (BMS), Direct Digital Controller (DDC), Programmable Logic Controller (PLC), and Supervisory Control and Data Acquisition (SCADA) system.

A leading player for more than two decades

Belparts was established in 1987 by professionals from the HVAC-industry. Since then, we have developed a reputation for intelligent product design and reliable solutions. Our company has enjoyed a healthy success ever since its foundation.

Market driven innovation

We constantly strive for product and system optimizations. Our engineers incorporate the latest proven technological developments into the design of new HVAC-components and understand how to combine high quality with product affordability.

Shared competency and values

The Belparts staff shares a common passion for technology, product design, quality, and HVAC-applications. Each of our team members is both customer and results-oriented, and is trained to think 'innovation'. Integrity and responsibility are prerequisites for every employee.



energetx



Belparts produces a broad range of components that save costs at every single point in your HVAC-system. By selecting the optimal component for each individual situation, considerable amounts of energy can be saved. Our **energetx**-range of products includes control valves, rotating valves, valve and air damper actuators, terminal control valves, and sensors.

dynamx



Based on our revolutionary Dynamic Flow Networking (DFN) concept, our **dynamx**-valves adjust the flow of energy exactly to the desired conditions. This ensures that only the exact amount of energy is delivered at the right place and at the right time. The result is optimal comfort and reduced energy costs.

energetx

7. Terminal control

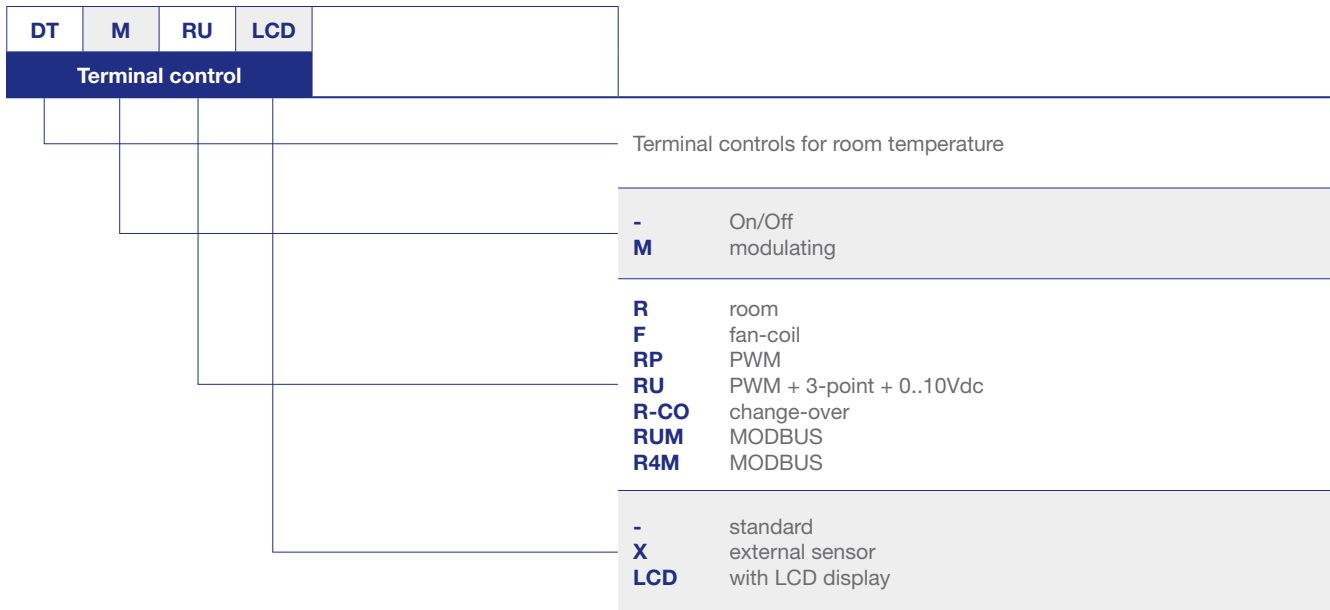


On/Off	6
Proportional	7
MODBUS	9

Product key

The product identification key contains all essential data defining the unique features of the terminal controls.

Example: type DTM.RU.LCD

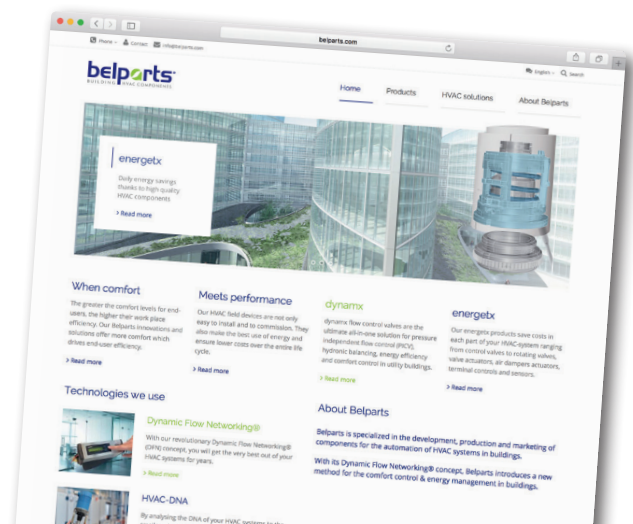


Belparts online 24h/24h, 7/7




Innovation, advice and tailored solutions: that is what you expect your HVAC specialist to deliver. On top: top-notch quality, because at that level you do not want to make concessions. You are more than right. Because by choosing **field equipment of the highest quality**, you choose not only for **comfort** but also for **sustainable installations and profitable investments**.

For the most up-to-date technical specifications of our products, you can always consult our online product data sheets on our website: www.belparts.com ▶ **products**. Of course we can provide you with a printed version of our product data sheets on simple request.

www.belparts.com



Overview

	SERIE	Bi-metal	Electronic	Cooling	Heating	Control options					Output				Page
						Change-over	On/Off switch	3-speed switch	Setpoint potentiometer	LCD	On/Off	PWM	3-point	0..10Vdc	
	On/Off														
	DT-R..	•		•	•				+/-		•				6
	DT-FB	•		•	•		•	•	°C		•				6
	Proportional														
	DTM-R		•	•	•				+/-					•	7
	DTM-R-CO		•	C/O	C/O	•			+/-					•	7
	DTM-RP		•	•	•			1)	+/-		•				7
	DTM-RP-CO		•	C/O	C/O	•			+/-		•				7
	DTM-RU		•	•	•				+/-		•	•	•		7
	MODBUS														
	DTM-RUM..	•	•	•				2)	2)	•	•	•	•		9
	DTM-R4M..	•	•	•				2)	2)	•	•		•		9
	DTM-RUM-LCD-FH	•	C/O	C/O	•				2)	•	•	•	•		9

1) optional
2) by menu on LCD

C/O by change-over

On/Off room thermostats


- Room temperature controls
- Bi-metal
- On/Off switching outputs
- U_v: AC 24 Volt or AC 230 Volt
- Housing neutral white, IP20

DT..



TYPE	AC 24 Volt	AC 230 Volt	Heating					Cooling					Bi-metal	Comment	Price €/pc
			On/Off	PWM	3-point	0..10Vdc	4..20mA	On/Off	PWM	3-point	0..10Vdc	4..20mA			

Bi-metal thermostats with change/over contact - ultra slim housing (no dead zone)

	DT-R-SF3		●	●					●					●	1)	55,-
---	-----------------	--	---	---	--	--	--	--	---	--	--	--	--	---	----	-------------

Fan-coil thermostats with 0-I switch and 3-speed switch

	DT-FB1		●	●					●					●	2)	100,-
---	---------------	--	---	---	--	--	--	--	---	--	--	--	--	---	----	--------------

Fan-coil thermostats with 0-I switch, H-V-C switch and 3-speed switch + LED

	DT-FB2		●	●					●					●	2)	131,-
---	---------------	--	---	---	--	--	--	--	---	--	--	--	--	---	----	--------------

1) 1x contact heating/cooling 2 (1) A

2) 1x contact heating/cooling 6 (3) A

▲ standard

Stand-alone terminal room controls

DTM ..

- Room temperature controls
- Electronic
- 3-point, PWM or 0..10Vdc proportional outputs
- U_v: AC 24 Volt
- Housing neutral white, IP20



TYPE	AC 24 Volt	AC 230 Volt	Heating					Cooling					LCD	Comment	Price €/pc		
			On/Off	PWM	3-point	0..10Vdc	4..20mA	On/Off	PWM	3-point	0..10Vdc	4..20mA					
PWM terminal control heating/cooling																	
	DTM-RP	●			●					●							70,-
	DTM-RP-LCD	●			●					●			●				120,-
	DTM-RP-X	●			●					●					1)		70,-
	DTM-RP-X-LCD	●			●					●			●		1)		120,-
	DTM-RP-X-S5	●			●					●					2)		90,-
	DTM-RP-X-S5-LCD	●			●					●			●		2)		140,-
PWM terminal control heating/cooling, with change-over input																	
	DTM-RP-CO	●			●					●					3)		64,-
	DTM-RP-CO-LCD	●			●					●			●		3)		113,-
Universal terminal control heating/cooling																	
	DTM-RU	●			●	●	●			●	●	●					89,-
	DTM-RU-LCD	●			●	●	●			●	●	●	●				139,-
	DTM-RU-X	●			●	●	●			●	●	●			1)		89,-
	DTM-RU-X-LCD	●			●	●	●			●	●	●	●		1)		139,-
Modulating terminal control 2x 0..10Vdc heating/cooling																	
	DTM-R	●					●					●					96,-
Modulating terminal control 1x 0..10Vdc with change-over input																	
	DTM-R-CO	●					●					●			3)		119,-

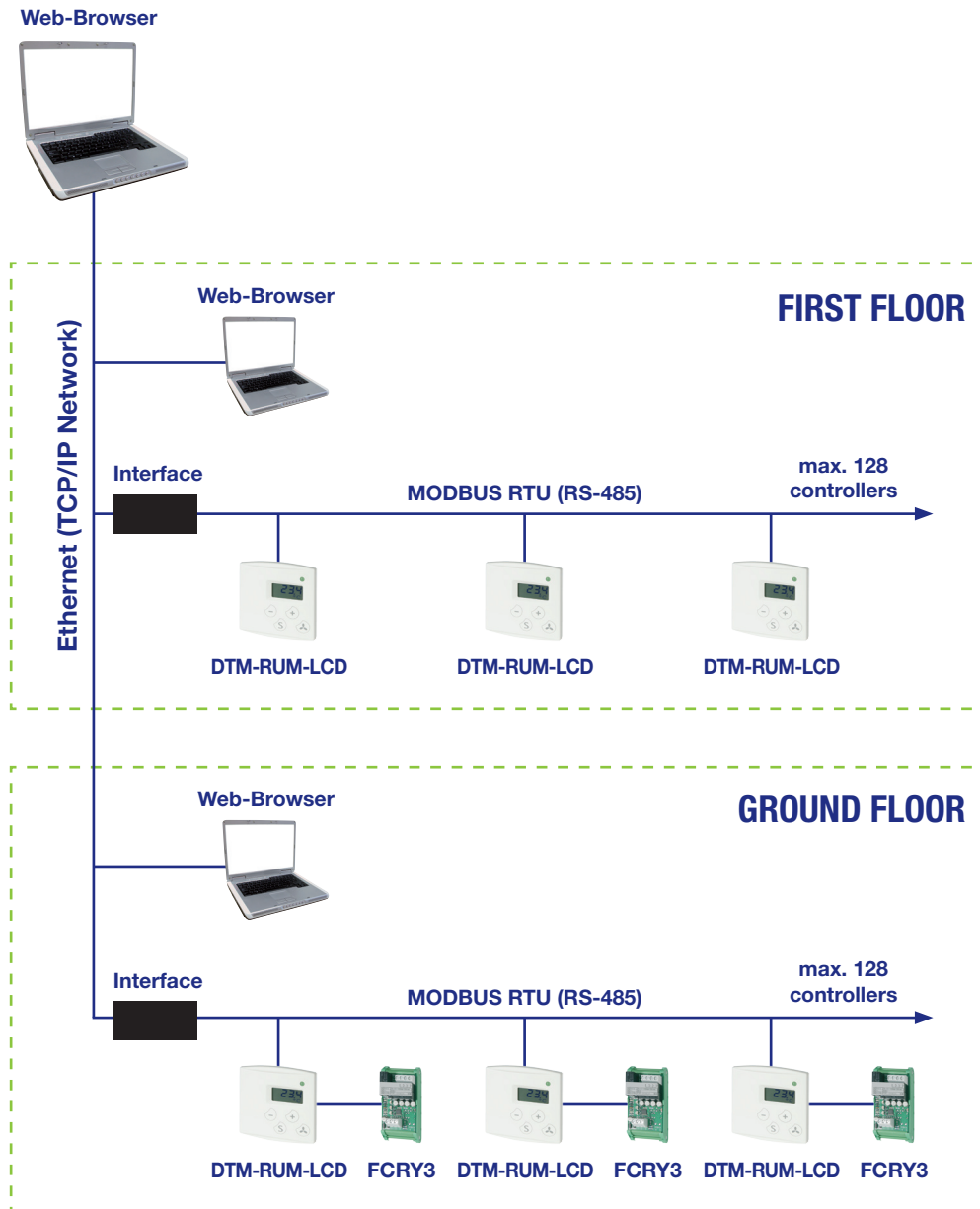
1) suitable for connection of an external sensor (NTC 10kΩ)

2) with 5 position switch (0-A-1-2-3)

3) with change-over input for remote switching between heating/cooling (external contact)

▲ standard

Network diagram



Communicating terminal room controls

DTM-RUM

- Room temperature controls
- MODBUS RTU/RS485
- 3-point, PWM of 0..10Vdc proportional outputs
- U_v: AC 24 Volt ⁴⁾
- Housing neutral white, IP20
- With LCD display



TYPE	AC 24 Volt	AC 230 Volt	Heating					Cooling					LCD	Buttons	Price €/pc
			On/Off	PWM	3-point	0..10Vdc	4..20mA	On/Off	PWM	3-point	0..10Vdc	4..20mA			

MODBUS terminal control with outputs heating/cooling

	DTM-RUM-LCD	●			●	●	●			●	●	●		●	4	70,-
	DTM-RUM-LCD-2B	●			●	●	●			●	●	●		●	2	120,-
	DTM-RUM-LCD-3B	●			●	●	●			●	●	●		●	3	90,-
	DTM-RUM-LCD-FH ²⁾	●			●	●	●			●	●	●		●	3	140,-
	DTM-R4M-LCD	●			●		●			●		●		●	4	89,-
	DTM-R4M-LCD-2B	●			●		●			●		●		●	2	139,-
	DTM-R4M-LCD-3B	●			●		●			●		●		●	3	89,-
	DTM-R4M-LCD-L ³⁾	●			●					●				●	4	139,-

- ¹⁾ on request
²⁾ with change-over input
³⁾ lighting controls through PIR
⁴⁾ U_v: DC 24 Volt (only 0..10Vdc output)
▲ standard

Accessories like for example relay, type FCRY3: chapter 9