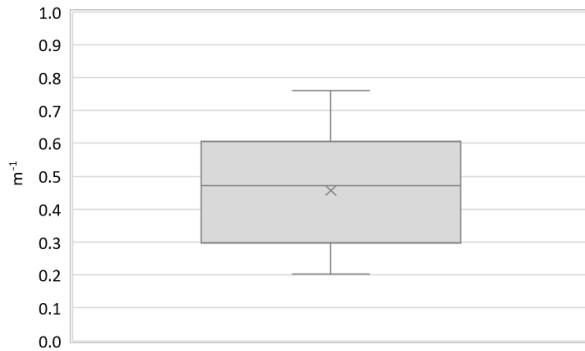


Region:		Calabria					Archetype code: RES_APPBLOCK_ 1971-1980_D_CAL	
Building category:		Residential buildings – Apartments (in multifamily blocks)						
Period of construction:		1971-1980						
Climatic zone:		D	Number of records:		31			
Description (the codes associated with walls and slabs refer to the structures described in UNI/TR 11552:2014): External walls: double layer of hollow bricks (12 cm + 12 cm) with uninsulated air gap (cod. MCV01). Roof slabs: no data available							Data sources: Survey data (52%) Measured data (16%) Expert assumptions (12%) Others (20%) #	
	Data	Symbol	Unit of measure	Mean value	Standard deviation	Q1 (first quartile)	Median value	Q3 (third quartile)
BUILDING GEOMETRY	Number of floors	n_f	-	2.67	1.42	2.00	2.50	3.00
	Gross height	H_g	m	-	-	-	-	-
	Footprint area	$A_{\text{footprint}}$	m ²	-	-	-	-	-
	Heated gross floor area	$A_{H,g}$	m ²	-	-	-	-	-
	Heated net floor area	$A_{H;n}$	m ²	-	-	-	-	-
	Heated gross volume	$V_{H,g}$	m ³	-	-	-	-	-
	Heated net volume	$V_{H;n}$	m ³	-	-	-	-	-
	Compactness ratio	$A_{\text{env}}/V_{H,g}$	m ⁻¹	0.46	0.18	0.30	0.47	0.61
	WWR – North orientation	WWR_N	-	0.11	0.07	0.05	0.10	0.16
	WWR – South orientation	WWR_S	-	0.15	0.09	0.07	0.17	0.24
	WWR – East orientation	WWR_E	-	0.16	0.14	0.04	0.13	0.23
	WWR – West orientation	WWR_W	-	0.16	0.17	0.05	0.14	0.24
	Window to useful floor area ratio	A_{wi}/A_{use}	-	0.14	0.07	0.09	0.12	0.18
ENVELOPE	Roof type	-						
	U-value of the roof	$U_{f;up}$	W/(m ² ·K)	1.10	0.58	0.43	1.20	1.52
	External walls type	Hollow brick masonry: 84%, Solid brick masonry: 16%						
	U-value of the wall	U_{wl}	W/(m ² ·K)	0.78	0.36	0.43	0.73	0.97
	Slab on ground floor type	-						
	U-value of the floor	$U_{f;lw}$	W/(m ² ·K)	0.97	0.63	0.44	0.97	1.23
	Windows type	Double glazing, aluminum frame, no thermal break: 42%, Single glazing, wooden frame: 32%, Single glazing, aluminum frame: 10%, Double glazing, PVC frame: 7%, Double glazing, aluminum frame with thermal break: 3%, Double glazing, wooden frame: 3%, Unknown: 3%						
	U-value of the windows	U_W	W/(m ² ·K)	3.42	1.14	2.70	2.90	4.90
Shading system type	Roller blinds: 58%, Shutter: 36%, Curtains: 3%, Unknown: 3%							
GAINS and VENTILATION	Occupancy density	O_C	person/m ²	0.039	0.032	0.019	0.033	0.046
	Lighting power density *	W_L	W/m ²	UNI EN 16798-1 - A.8.3				
	Equipment power density *	W_A	W/m ²	UNI EN 16798-1 - A.8.3				
	Type of ventilation	Natural: 100%						
	Air exchange rate *	n	h ⁻¹	0.30	0.00	0.30	0.30	0.30
THERMAL SYSTEMS	Heating system type	Autonomous: 97%, Centralized: 3%						
	Heating generator	Traditional Boiler: 67%, Fireplace: 16%, Condensing Boiler: 10%, Unknown: 7%						
	Daily operating time of the heating system *	t_H	h	8.00	0.00	8.00	8.00	8.00
	Energy carrier	Natural Gas: 61%, Solid biomass: 16%, LPG: 10%, Electricity: 7%, Gas Oil 3%, Unknown: 3%						
	Heating emission sub-system	Radiators: 97%, Unknown: 3%						
	Cooling system type	Absent: 100%						
	Daily operating time of the cooling system	t_C	h	-	-	-	-	-
	Cooling emission sub-system	-						
	DHW system type	-						
	DHW generator	-						
	# Standards (8%), Municipal database (8%), EPC database (4%). * These values were not available in the considered sources, and are thus derived from UNI EN Standards							

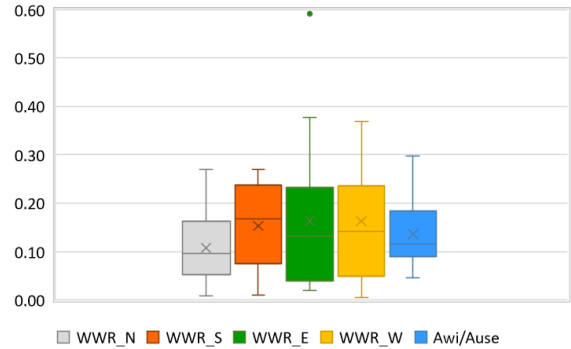
Region:	Calabria	Archetype code: RES_APPBLOCK_ 1971-1980_D_CAL
Building category:	Residential buildings – Apartments (in multifamily blocks)	
Period of construction:	1971-1980	
Climatic zone:	D	
Number of records:		31

Numerical variables – GEOMETRY

COMPACTNESS RATIO

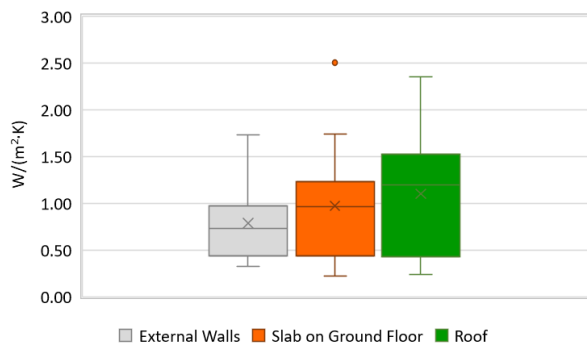


WINDOWS TO WALL RATIO

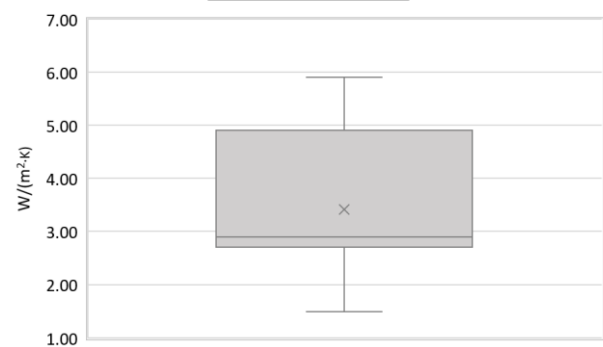


Numerical variables – ENVELOPE

OPAQUE BUILDING COMPONENTS U-VALUE



WINDOWS U-VALUE

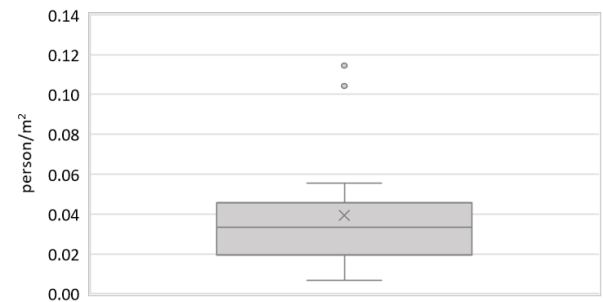


Numerical variables – GAINS, VENTILATION and SYSTEMS USAGE

AIR EXCHANGE RATE



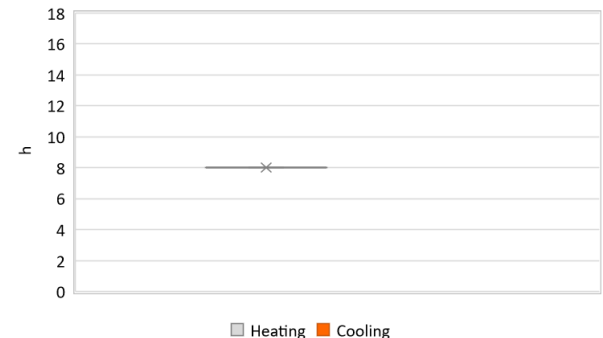
OCCUPANCY DENSITY



INTERNAL GAINS POWER DENSITY



DAILY OPERATING TIME

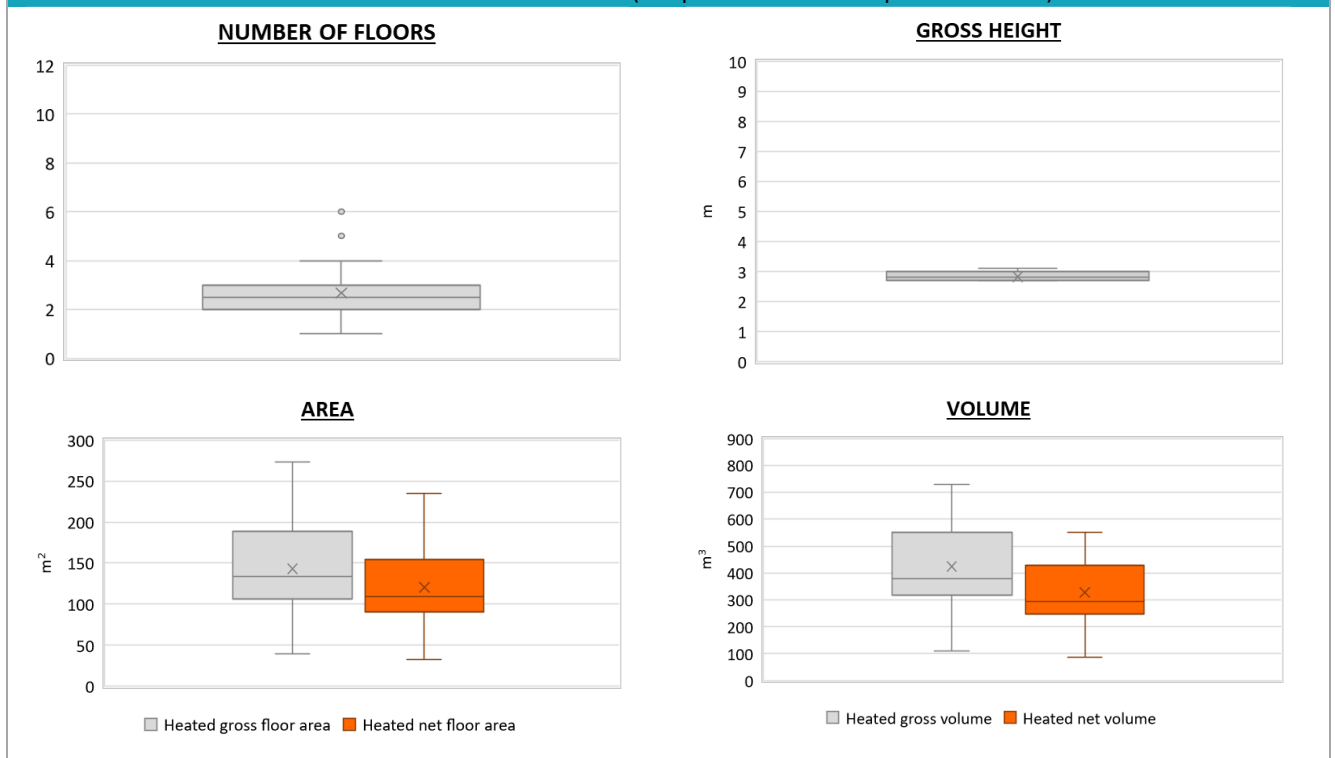


Region:	Calabria			Archetype code: RES_APPBLOCK_ 1971-1980_D_CAL
Building category:	Residential buildings – Apartments (in multifamily blocks)			
Period of construction:	1971-1980			
Climatic zone:	D	Number of records:	31	

ADDITIONAL DATA								
	Data	Symbol	Unit of measure	Mean value	Standard deviation	Q1 (first quartile)	Median value	Q3 (third quartile)
GEOMETRY: apartments	Inter-storey height	H_n	m	2.83	0.14	2.70	2.82	3.00
	Heated gross floor area	$A_{H,g}$	m ²	143.20	56.04	106.39	134.00	188.60
	Heated net floor area	$A_{H,n}$	m ²	120.30	46.81	90.72	109.28	154.04
	Heated gross volume	$V_{H,g}$	m ³	440.41	174.94	323.11	379.85	559.25
	Heated net volume	$V_{H,n}$	m ³	339.85	132.27	251.41	295.06	434.55
THERMAL SYSTEMS	Heating efficiency or <i>COP</i>	$\eta_{H,gen}$ or $COP_{H,gen}$	-	This value has to be retrieved from suitable datasheets				
	Total heating power *	$P_{H,gen}$	kW	24.98	5.53	23.30	24.40	27.35
	Cooling efficiency or <i>EER</i>	$\eta_{C,gen}$ or $EER_{C,gen}$	-	This value has to be retrieved from suitable datasheets				
	Total cooling power	$P_{C,gen}$	kW	-	-	-	-	-
	Temperature of DHW	θ_w	°C	40.00	0.00	40.00	40.00	40.00
	DHW system power	$P_{W,gen}$	kW	-	-	-	-	-

* These values refer to the apartment scale

Additional data: GEOMETRY (the plots refer to the apartment scale)



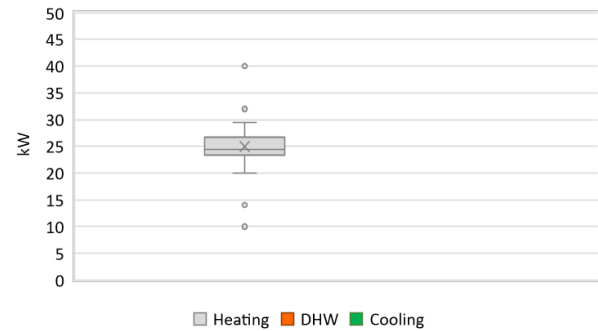
Region:	Calabria	Archetype code: RES_APPBLOCK_ 1971-1980_D_CAL
Building category:	Residential buildings – Apartments (in multifamily blocks)	
Period of construction:	1971-1980	
Climatic zone:	D	
Number of records:		31

Additional data: other numerical variables that are not included in the archetype

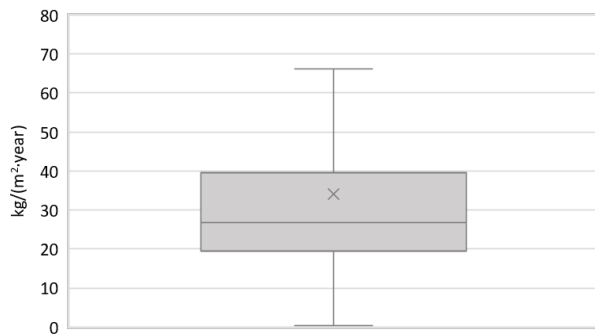
DHW SUPPLY TEMPERATURE



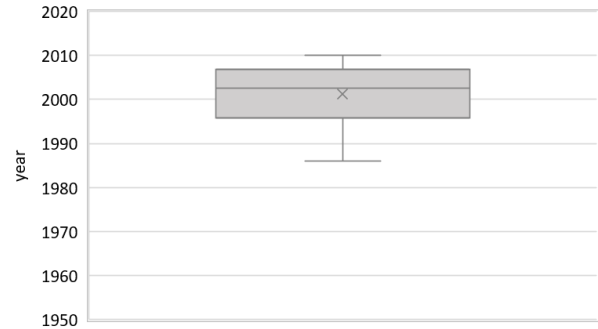
SYSTEM POWER



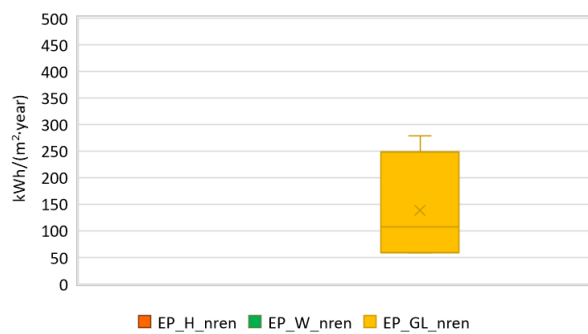
CO₂ EMISSION



HEATING SYSTEM INSTALLATION YEAR



NON-RENEWABLE PRIMARY ENERGY USE



RENEWABLE PRIMARY ENERGY USE

