



Room Operating Panels

Our room operating panels are designed for temperature detection and integrated operation of HVAC, lighting and blinds for single room control. Thanks to the high-graded optics and a variety of different designs these products are ideal for design-oriented applications.

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thanos L white

thanos®



thanos L black

thanos S black

Application

The touch room operating panel **thanos** is designed for temperature and humidity detection as well as for integrated operation of HVAC, lighting and blind for single room control. By means of high-graded optics, the device is specially ideal for design-oriented applications. The operating functions can be flexibly adapted to the most different room layouts.

Functions and Features at a glance:

- Control of automatic HVAC applications by simple touch
- Temperature and humidity detection
- For wireless communication compatible to EnOcean (bidirectional)
- Connection to LON, BACnet, Modbus or KNX
- Touch surface made of glass for intuitive operation
- High-resolution 3,5" TFT graphic display
- Anodised aluminium function clip
- Wireless EasySens types available with 868MHz (for European market) or 315MHz



TECHNICAL DATA

Interfaces	LON: RS485 Modbus: 9600 or 57600 Baud, configurable BACnet: MS/TP RS485 KNX: TP-UART	FTX
Operational functions	Light on/off/dimming, set point adjustment, blinds up/down/adjusting, fan stages, presence...	
Display	Room temperature, set point, operating mode, fan stage, presence, failure, date and time ...	
Display/Buttons	3,5" TFT, 320x640 pixel, 262.144 colours, capacitive touch technology, large thanos types additionally with up to 8 touch buttons	
Legend of buttons	Individually by software configuration or inlaid foil	
Function clip	Anodised aluminium, with proximity sensor, free parameterizable functions (occupied/unoccupied, light on/off...)	
Measuring rang temp.	0°C...+50°C	
Accuracy temperature	±0,5K	
Measuring range hum.	0...100%rH, Humidity sensor optionally depending on device type	
Accuracy humidity	typ. ±3% between 20...80%rF	
Ambient temperature	0°C...+50°C	
Power supply	15-24V= (±10%) or 24V~ (±10%)	
Clamps	screwing terminal, max. 1,5mm ²	
Dimensions (HxWxD)	thanos S: 125,0mmx80,8mmx17mm thanos L/LQ: 195,2mmx80,8mmx17mm	
Mounting	Flush-mounting in standard deep installation box (1 pc.)	
Enclosure	Materials glass and PC	
Protection	IP20	

Touch Room Operating Panel – thanos «

TOUCH ROOM OPERATING PANEL BUS System

thanos		PG2			
BUS		BUS System			
Type	Sensor	LON	BACnet	Modbus	KNX
L white / black	Temperature	394,00 €	382,00 €	369,00 €	394,00 €
LQ white / black	Temperature	394,00 €	382,00 €	369,00 €	394,00 €
S white / black	Temperature	365,00 €	353,00 €	340,00 €	365,00 €
rH L white / black	Temperature/humidity	436,00 €	424,00 €	411,00 €	436,00 €
rH LQ white / black	Temperature/humidity	436,00 €	424,00 €	411,00 €	436,00 €
rH S white / black	Temperature/humidity	407,00 €	395,00 €	382,00 €	407,00 €

TOUCH ROOM OPERATING PANEL Gateway Function

thanos		PG2			
BUS + EasySens wireless (868MHz)*		BUS System			
Type	Sensor	LON	BACnet	Modbus	KNX
SR L white / black	Temperature	436,00 €	424,00 €	411,00 €	436,00 €
SR LQ white / black	Temperature	436,00 €	424,00 €	411,00 €	436,00 €
SR S white / black	Temperature	407,00 €	395,00 €	382,00 €	407,00 €
SR rH L white / black	Temperature/humidity	478,00 €	466,00 €	453,00 €	478,00 €
SR rH LQ white / black	Temperature/humidity	478,00 €	466,00 €	453,00 €	478,00 €
SR rH S white / black	Temperature/humidity	449,00 €	437,00 €	424,00 €	449,00 €

TOUCH ROOM OPERATING PANEL Stand-Alone

thanos		PG2
EasySens wireless (868MHz)*		
Type	Sensor	Funk
SR L white / black	Temperature	399,00 €
SR LQ white / black	Temperature	399,00 €
SR S white / black	Temperature	370,00 €
SR rH L white / black	Temp. / humidity	441,00 €
SR rH LQ white / black	Temp. / humidity	441,00 €
SR rH S white / black	Temp. / humidity	412,00 €

*315MHz on request

Please indicate requested colour when ordering



thanos L Q white



thanos L white

» WRF08 LON / RS485 MODBUS / BACnet – Multifunction Room Operating Panel



WRF08 12T anthracite,
frame stainless steel brushed



LON	
WRF08	PG2
Type	€
WRF08 2T LON	325,44 €
WRF08 4T LON	331,68 €
WRF08 8T LON	338,82 €
WRF08 12T LON	354,86 €

RS485 MODBUS	
WRF08	PG2
Type	€
WRF08 2T RS485 MODBUS	289,79 €
WRF08 4T RS485 MODBUS	296,02 €
WRF08 8T RS485 MODBUS	303,15 €
WRF08 12T RS485 MODBUS	319,21 €

BACnet	
WRF08	PG2
Type	€
WRF08 2T BACnet	306,50 €
WRF08 4T BACnet	312,70 €
WRF08 8T BACnet	319,92 €
WRF08 12T BACnet	336,43 €

DESIGN FRAMES (others on request)	
WRF08	PG2
Type	€
Dusk	27,15 €
Midnight	27,15 €
Glass grooved	32,30 €
Stainless steel brushed	27,15 €

Application

The room operating panel is designed for temperature detection and integrated operation of HVAC, lighting and blinds for single room control. By means of high-graded optics and corresponding design frames made of glass, stone or stainless steel, the device is specially ideal for design-oriented applications.

The operating functions can be flexibly adapted to the most different room layouts. Thus, various types with several numbers of operating buttons are available. The universal room operating panel has a LON, RS485 MODBUS or BACnet interface by which the functions of the operating buttons and the display can be polled and controlled.

TYPES AVAILABLE			
Type	Button	Interfaces	Colours
WRF08 2T	2	LON, RS485 MODBUS, BACnet	pure white, anthracite, aluminium
WRF08 4T	4	LON, RS485 MODBUS, BACnet	pure white, anthracite, aluminium
WRF08 8T	8	LON, RS485 MODBUS, BACnet	pure white, anthracite, aluminium
WRF08 12T	12	LON, RS485 MODBUS, BACnet	pure white, anthracite, aluminium

DESIGNRAHMEN	
Type	Material
Dusk	Corian
Midnight	Corian
Glass grooved	Glass
Stainless steel brushed	Alloy stainless steel

TECHNICAL DATA	
Interfaces	LON: FT10A RS485: 9600 or 57600 Baud, configurable, operating mode, half duplex, inside terminating resistor, parity even BACnet: MS/TP RS485
Operating functions	Light on/off/dim, set point adjustment blind up/down/adjust, fan stages
Display	Room temperature, set point, operating mode, fan stage, presence, alarm
LCD	51mm x 39mm, black/white
Button labelling	Individually by paper strips
Ambient temperature	0°C...+50°C
Measuring range temp.	0°C...+50°C
Accuracy temperature	±0,5K
Power supply	15-24V (=±10%) or 24V~ (=±10%)
Power consumption	Typ. 1,5W/2,9VA
Clamps	Screwing terminal, max. 1,5mm ²
Dimensions (H x W x D)	158,3mm x 87,3mm x 32mm (incl. frame)
Mounting	Flush-mounting in standard deep installation box
Enclosure	Material ABS
Protection	IP30



WRF08 2T pure white



WRF08 4T anthracite



WRF08 12T aluminium



WRF08 12T pure white
frame glass grooved



WRF08 8T anthracite,
frame Dusk



WRF08 8T aluminium,
frame Midnight



» *Various Design Options*

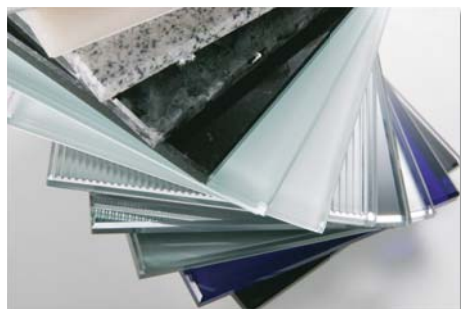
» WRFo6LCD – Multifunction Room Operating Panel



WRFo6LCD Type 2
pure white, Gira Esprit aluminium



WRFo6LCD Type 1
pure white, Gira E2 pure white



Various designs

Application

For temperature measuring, set point and fan stage adjustment as well as presence detection in living and office spaces etc. With integrated controller heating/cooling and digital inputs for window contacts/dew point detector and analogue outputs for control valves.

With IO-extension in deep or additional installation box with relay or triac outputs for control valves.

As stand-alone version, with LON (FTT or LPT) or RS485-MODBUS interface.

TECHNICAL DATA

Outputs	LON FTT, LON LPT, RS485 MODBUS or 2V (0-10V)
Colours at option	Pure white, anthracite, aluminium
Display (selection)	Room temperature, set point adjustment, fan stage, presence, failure
LC-Display	34mm x 21mm, black/white
Ambient temperature	0°C...+50°C
Measuring range temperature	0°C...+50°C
Accuracy temperature	±0,5K
Power supply	15-24V= (±10%) or 24V~ (±10%) LON LPT: 42,4V= net work
Clamps	Screwing terminal, max. 1,5mm ²
Mounting	Flush-mounting in standard box
Frames	The multifunction room operating panel fits in various switch frames of different switch manufacturers having a 55x55mm recess
Protection	IP30
Notice	When ordering, please indicate printing layout WRFo6LCD 2V only available with printing variants Type 1 and Type 3 Prices incl. frame Gira E2

Suitable Switch Programmes

Berker: S1, B1, B3, B7 Glas
Gira: StandardS5, E2, Event, Esprit
Jung: A500, A5500, Aplus
Merten: M-Smart, M-Arc, M-Plan
Peha: Aura
Feller: Edizio Due

Printing Layout

Type 1 LON / RS485 / 2V				
Type 2 LON / RS485				
Type 3 2V	Esc			

Multifunction Room Operating Panel – WRFo6LCD «

MULTIFUNCTION ROOM OPERATING PANEL

WRFo6LCD (incl. frame Gira E2)

PG2

Type	Input		Outputs			€
	floating	switch contact	0-10V	Relay	Triac	
WRFo6LCD 2V (0-10V)	2		2	-	-	196,82 €
WRFo6LCD LON FTT / AO2V	2		2	-	-	256,15 €
WRFo6LCD LON FTT / LPT DI4	4		-	-	-	256,15 €
WRFo6LCD LON FTT DO2R*	2		-	2	-	284,11 €
WRFo6LCD LON FTT / DO2T*	2		-	-	2	284,11 €
WRFo6LCD LON FTT / OVR*	2		1	1	-	284,11 €
WRFo6LCD LON FTT / OVT*	2		1	-	1	284,11 €
WRFo6LCD RS485 Modbus AO2V	2		2	-	-	230,54 €
WRFo6LCD RS485 Modbus DI4	4		-	-	-	230,54 €
WRFo6LCD RS485 Modbus DO2R*	2		-	2	-	258,47 €
WRFo6LCD RS485 Modbus DO2T*	2		-	-	2	258,47 €
WRFo6LCD RS485 Modbus OVR*	2		1	1	-	258,47 €
WRFo6LCD RS485 Modbus OVT*	2		1	-	1	258,47 €

* with IO extension (double frame)

When ordering, please indicate printing layout



WRFo6LCD Typ 2
pure white, Gira Esprit glass



WRFo6LCD Type 1
anthracite, Peha Aura Glass grooved



WRFo6LCD Type 2
pure white, Peha Aura light-grey



WRFo6LCD Type 1 with IO-extension
pure white, Gira E2 pure white

» WRF07 – Room Operating Panel

For further design examples please refer to page 62



Design example:
WRF07PTD
Gira Standard 55 pure white
special legend



Design example:
WRF07P3T3D
Busch-Jaeger alpha nea studio white
standard legend



TECHNICAL DATA – PASSIVE OUTPUT

Switch programmes available	Berker, ABB/Busch-Jaeger, Gira, Jung, Merten, Siemens
Labelling	Standard of switch manufacturers
Ambient temperature	-35°C...+70°C
Clamps	Screwing terminal, max. 1,5mm ²
Mounting	Flush-mounting in standard deep installation box, for pre-wiring the terminal screw can be withdrawn from the device
Protection class	IP20
Notice	Rocker switch "S" not feasible for ABB/Busch-Jaeger switch programmes Special legend possible (see page 225) Other sensors, switch programmes and combinations of operating elements on request

Application

For temperature measuring, set point and fan stage adjustment as well as presence detection in living and office spaces etc. Designed for locking on control and display systems.

TYPES AVAILABLE

Type	Version	Output	Input
WRF07 with operating elements	no Sensor PTC/NTC TRV	- passive, resistor active, 0-10V	- - -
WRF07 LON DI4	LON FTT LON LPT	active, FTT10 active, LPT11	4x digital 4x digital
WRF07 RS485 Modbus DI4	RS485	-	4x digital
WRF07 RS485 Modbus AO2V	RS485	active, 2x 0-10V	2x digital

POSSIBLE OPERATING ELEMENTS

Potentiometer „P“ for set point adjustment	Standard values 1kOhm, 5kOhm, 10kOhm (further values on request), 3-wire conduction as a standard, optionally with output 0-10V for Uv=15-24V~/24V~
Rocker switch „S“ for fan stage adjustment	Multi conductor, 2 or 3 stages, breaking capacity max. 5VA
Button „T“ for presence detection	2-wire conductor, breaking capacity max. 600mW
Light emitted diode „D“ for status response	2-wire conductor, Uv=15-24V~/24V~, several LEDs possible, available in the colours: green, red, yellow

TECHNICAL DATA – ACTIVE OUTPUT / LON / RS485

Measuring range	TRV 3: 0-10V / 0°C...+50°C LON/RS485: 0°C...+50°C
Accuracy	TRV 3/LON: ±1% of measuring range RS485: Typ. ±0,5K
Ambient temperature	0°C...+50°C
Switch programmes available	Berker, Busch-Jaeger, Gira, Jung, Merten, Siemens
Labelling	Standard of switch manufacturers
Power supply	TRV/LON FTT/RS485: 15-24V= (±10%) or 24V~ (±10%) LON LPT: 42,4V= network
Power consumption	TRV: max. 12mA/24V= LON FTT: max. 50mA/24V= LON LPT: 5V~/25mA= 1LPU or 8mA/42VDC RS485: Typ. 0,9W/1VA
Clamps	Screwing terminal, max. 1,5mm ²
Mounting	Flushing-mounting in standard deep installation box, for pre-wiring the terminal screw can be withdrawn from the device
Protection	IP20
Notice	Rocker switch "S" not feasible for ABB/Busch-Jaeger switch programmes Special legend possible (see page 225) Other sensors, switch programmes and combinations of operating elements on request

without sensor

WRF07			
			PG1
Type	Operating elements	Sensor	€
WRF07	P	without sensor	62,00 €
WRF07	PTD	without sensor	90,26 €
WRF07	PSD	without sensor	93,40 €

PT100 1/3 DIN

WRF07			
			PG1
Type	Operating elements	Sensor	€
WRF07	P	PT100 1/3 DIN	72,10 €
WRF07	PTD	PT100 1/3 DIN	100,36 €
WRF07	PSD	PT100 1/3 DIN	103,50 €

PT1000 1/3 DIN

WRF07			
			PG1
Type	Operating elements	Sensor	€
WRF07	P	PT1000 1/3 DIN	73,48 €
WRF07	PTD	PT1000 1/3 DIN	101,72 €
WRF07	PSD	PT1000 1/3 DIN	104,87 €

Ni1000TK5000

WRF07			
			PG1
Type	Operating elements	Sensor	€
WRF07	P	Ni1000TK5000	73,67 €
WRF07	PTD	Ni1000TK5000	101,95 €
WRF07	PSD	Ni1000TK5000	105,08 €

NTC1,8k

WRF07			
			PG1
Type	Operating elements	Sensor	€
WRF07	P	NTC1,8k	68,61 €
WRF07	PTD	NTC1,8k	96,85 €
WRF07	PSD	NTC1,8k	100,01 €

NTC10k Precon

WRF07			
			PG1
Type	Operating elements	Sensor	€
WRF07	P	NTC10k Precon	67,36 €
WRF07	PTD	NTC10k Precon	95,60 €
WRF07	PSD	NTC10k Precon	98,76 €

LM235Z

WRF07			
			PG1
Type	Operating elements	Sensor	€
WRF07	P	LM235Z	69,00 €
WRF07	PTD	LM235Z	97,27 €
WRF07	PSD	LM235Z	100,40 €

PT100

WRF07			
			PG1
Type	Operating elements	Sensor	€
WRF07	P	PT100	68,60 €
WRF07	PTD	PT100	96,84 €
WRF07	PSD	PT100	99,99 €

PT1000

WRF07			
			PG1
Type	Operating elements	Sensor	€
WRF07	P	PT1000	70,64 €
WRF07	PTD	PT1000	98,92 €
WRF07	PSD	PT1000	102,05 €

Ni1000

WRF07			
			PG1
Type	Operating elements	Sensor	€
WRF07	P	Ni1000	70,38 €
WRF07	PTD	Ni1000	98,64 €
WRF07	PSD	Ni1000	101,77 €

FeT

WRF07			
			PG1
Type	Operating elements	Sensor	€
WRF07	P	FeT	76,42 €
WRF07	PTD	FeT	104,69 €
WRF07	PSD	FeT	107,81 €

NTC10k

WRF07			
			PG1
Type	Operating elements	Sensor	€
WRF07	P	NTC10k	67,36 €
WRF07	PTD	NTC10k	95,60 €
WRF07	PSD	NTC10k	98,76 €

NTC20k

WRF07			
			PG1
Type	Operating elements	Sensor	€
WRF07	P	NTC20k	67,36 €
WRF07	PTD	NTC20k	95,60 €
WRF07	PSD	NTC20k	98,76 €

ALL PRICES ARE BASED ON THE SWITCH PROGRAMME
BUSCH-JAEGER DURO 2000 SI

» WRF07 – Room Operating Panel

TRV 3		0-10V / 0°C...+50°C	
WRF07			PG1
Type	Operating elements	Output	€
WRF07	P	TRV 3	128,11 €
WRF07	PTD	TRV 3	156,37 €
WRF07	PSD	TRV 3	159,51 €

ALL PRICES ARE BASED ON THE SWITCH PROGRAMME
BUSCH-JAEGER DURO 2000 SI

DI4 LON FTT			
WRF07			PG2
Type	Operating elements	Input	€
WRF07	P	4x Digital	211,67 €
WRF07	PTD	4x Digital	222,54 €

DI4 LON LPT			
WRF07			PG2
Type	Operating elements	Input	€
WRF07	P	4x Digital	211,67 €
WRF07	PTD	4x Digital	222,54 €

DI4 RS485 MODBUS			
WRF07			PG2
Type	Operating elements	Input	€
WRF07	P	4x Digital	190,50 €
WRF07	PTD	4x Digital	200,28 €

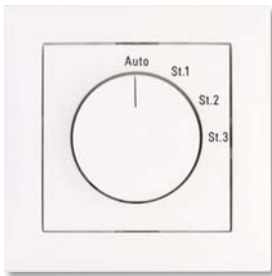
AO2V RS485 MODBUS			
WRF07			PG2
Type	Operating elements	Input/Output	€
WRF07	P	2x Digital/2x 0-10V	190,50 €
WRF07	PTD	2x Digital/2x 0-10V	200,28 €

OPTIONS		PG1
WRF07		€
Description		€
Potentiometer 0-10V		21,09 €
Switch programme Busch-Jaeger Reflex SI		8,25 €
Switch programmes Busch-Jaeger Solo / Future / Impuls / Axcnt		13,42 €
Switch programme Gira Esprit Gira Esprit		33,02 €
Switch programme stainless steel		26,83 €
Other switch programmes		12,06 €

For further design examples please refer to page 62



WRF063T3D
ABB/Busch-Jaeger Reflex SI alpine white
special legend



Design Example:
WRF065
Berker S.1 polar white
special legend

Application

For temperature measuring, fan stage adjustment and presence detection in living and office spaces etc. Designed for locking on control and display systems.



TYPES AVAILABLE

Type	Version	Output
WRF06 no operating elements	no sensor	-
	PTC/NTC	passive, resistor
	TRV	active, 0-10V
	LON FTT LON LPT	active, FTT10 active, LPT11
WRF06 with operating elements	no Sensor PTC/NTC	- passive, resistor

POSSIBLE OPERATING ELEMENTS

Button „T“ for presence detection	2-wire conductor, breaking capacity max. 600mW
Light emitted diode „D“ for status response	2-wire conductor, Uv=15-24V=24V~, several LEDs possible, available in the colours: green, red, yellow
Rotary switch „S“ for fan	Multi conductor, max. 5 fan stages on one level, breaking capacity max. 5VA, standard legend 0, I or 0, I, II or 0, I, II, III

TECHNICAL DATA – ACTIVE OUTPUT / LON

Measuring range	TRV 3: 0-10V/0°C...+50°C LON: 0°C...+50°C
Accuracy	±1% of measuring range
Ambient temperature	0°C...+50°C
Switch programmes available	Berker, ABB/Busch-Jaeger, Gira, Jung, Merten, Siemens
Power supply	TRV/LON FTT: 15-24V= (±10%) or 24V= (±10%) LON LPT: 42,4V= network
Power consumption	TRV: max. 12mA/24V= LON FTT: max. 50mA/24V= LON LPT: 5V=/25mA= 1LPUL or 8mA/42VDC
Clamps	Screwing terminal, max. 1,5mm ²
Mounting	Flush-mounting in standard deep installation box, for pre-wiring the terminal screw can be withdrawn from the device
Protection	IP20
Notice	TRV and LON only feasible in switch programme ABB/Busch-Jaeger Special legend possible (see page 225) Other sensors, switch programmes and combinations of operating elements on request

TECHNICAL DATA – PASSIVE OUTPUT

Switch programmes available	Berker, ABB/Busch-Jaeger, Gira, Jung, Merten, Siemens
Ambient temperature	-35°C...+70°C
Clamps	Screwing terminal, max. 1,5mm ²
Mounting	Flush-mounting in standard deep installation box, for pre-wiring the terminal screw can be withdrawn from the device
Protection	IP20
Notice	Special legend possible (see page 225) Other sensors, switch programmes and combinations of operating elements on request

» WRF06 – Room Operating Panel

without sensor

WRF06				PG1
Type	Operating elements	Sensor	€	
WRF06	-	without sensor	21,97 €	
WRF06	TD	without sensor	48,11 €	
WRF06	S	without sensor	65,98 €	

PT100 1/3 DIN

WRF06				PG1
Type	Operating elements	Sensor	€	
WRF06	-	PT100 1/3 DIN	32,10 €	
WRF06	TD	PT100 1/3 DIN	58,21 €	

PT1000 1/3 DIN

WRF06				PG1
Type	Operating elements	Sensor	€	
WRF06	-	PT1000 1/3 DIN	33,48 €	
WRF06	TD	PT1000 1/3 DIN	59,58 €	

Ni1000TK5000

WRF06				PG1
Type	Operating elements	Sensor	€	
WRF06	-	Ni1000TK5000	33,66 €	
WRF06	TD	Ni1000TK5000	59,79 €	

NTC1,8k

WRF06				PG1
Type	Operating elements	Sensor	€	
WRF06	-	NTC1,8k	28,60 €	
WRF06	TD	NTC1,8k	54,70 €	

NTC10k

WRF06				PG1
Type	Operating elements	Sensor	€	
WRF06	-	NTC10k	27,35 €	
WRF06	TD	NTC10k	53,45 €	

NTC20k

WRF06				PG1
Type	Operating elements	Sensor	€	
WRF06	-	NTC20k	27,35 €	
WRF06	TD	NTC20k	53,45 €	

PT100

WRF06				PG1
Type	Operating elements	Sensor	€	
WRF06	-	PT100	28,58 €	
WRF06	TD	PT100	54,70 €	

PT1000

WRF06				PG1
Type	Operating elements	Sensor	€	
WRF06	-	PT1000	30,65 €	
WRF06	TD	PT1000	56,77 €	

Ni1000

WRF06				PG1
Type	Operating elements	Sensor	€	
WRF06	-	Ni1000	30,38 €	
WRF06	TD	Ni1000	56,41 €	

FeT

WRF06				PG1
Type	Operating elements	Sensor	€	
WRF06	-	FeT	36,42 €	
WRF06	TD	FeT	62,55 €	

NTC5k

WRF06				PG1
Type	Operating elements	Sensor	€	
WRF06	-	NTC5k	27,35 €	
WRF06	TD	NTC5k	53,45 €	

NTC10k Precon

WRF06				PG1
Type	Operating elements	Sensor	€	
WRF06	-	NTC10k Precon	27,35 €	
WRF06	TD	NTC10k Precon	53,45 €	

LM235Z

WRF06				PG1
Type	Operating elements	Sensor	€	
WRF06	-	LM235Z	29,83 €	
WRF06	TD	LM235Z	55,11 €	

TRV 3			
0-10V / 0°C...+50°C			PG1
Type	Operating elements	Output	€
WRFo6	-	TRV 3	88,93 €

LON FTT			
			PG2
Type	Operating elements	Output	€
WRFo6	-	LON FTT	165,18 €

LON LPT			
			PG2
Type	Operating elements	Output	€
WRFo6	-	LON LPT	165,18 €

ALL PRICES ARE BASED ON THE SWITCH PROGRAMME
BUSCH-JAEGER DURO 2000 SI

OPTIONS	
WRFo6	PG1
Description	€
Switch programme Busch-Jaeger Reflex SI	8,25 €
Switch programmes Busch-Jaeger Solo / Future / Impuls / Axcnt	13,42 €
Switch programme Gira Esprit	33,02 €
Switch programme stainless steel	26,83 €
Other switch programmes	12,06 €

» WRF04 – Room Operating Panel

Application

For temperature measuring, set point and fan stage adjustment as well as presence detection in living and office spaces etc. Designed for locking on control and display systems.

For further design examples please refer to page 62



Design Example:
WRF04PSTD



Design Example:
WRF04LCD PS



TECHNICAL DATA – PASSIVE OUTPUT

Legend	Potentiometer: -, 0, + Rotary switch: 0, I or 0, I, II, III or Auto, 0, I, II, III
Ambient temperature	-35°C...+70°C
Enclosure	Material ASA, colour pure white similar to RAL9010, housing bottom can be premounted and prewired separately from housing cover
Mounting	Surface-mounting in standard box
Clamps	Screwing terminal, max. 1,5mm ²
Cable entry	From behind or sidewise top/bottom
Protection	IP30
Notice	Special legend and special painting possible (see page 225) Other sensors and combinations of operating elements on request

TYPES AVAILABLE

Type	Version	Output
WRF04 with and without operating elements	without sensor PTC/NTC TRV LON RS485 Modbus	- passiv, resistor active, 0-10V active, FT10 active, RS485 Modbus
WRF04LCD with and without operating elements	TRV LON RS485 Modbus	active, 0-10V active, FT10 active, RS485 Modbus

POSSIBLE OPERATING ELEMENTS

Potentiometer „P“ for set point adjustment	Standard value 1kOhm, 5kOhm, 10kOhm (other values on request), 3-wire conductor as a standard, optionally with output 0-10V for Uv=15-24V~/24V~
Rotary switch „S“ for fan stage adjustment	Max. 5 switch stages on one level, breaking capacity max. 5VA
Button „T“ for presence detection	2-wire conductor, breaking capacity max. 600mW
Light emitted diode „D“ for status response	2-wire conductor, Uv=15-24V~/24V~, various LEDs possible, colours available: green, red, yellow

TECHNICAL DATA – ACTIVE OUTPUT / LON / RS485 MODBUS

Measuring range	TRV 3: 0-10V / 0°C...+50°C (Measuring range adjustable on the transducer) LON / RS485 Modbus: 0°C...+50°C
Accuracy	±1% of measuring range
Ambient temperature	-35°C...+70°C
Legend	Potentiometer: -, 0, + Rotary switch: 0, I or 0, I, II, III or Auto, 0, I, II, III
Power supply	15-24V= (±10%) or 24V~ (±10%)
Power consumption	TRV: max. 12mA/24V= LCD TRV: typ. 0,6W/1,0VA LON: typ. 0,6W/1,7VA LCD LON: typ. 0,8W/2,0VA RS485: typ. 0,4W/0,6VA LCD RS485: typ. 0,4W/0,6VA
Display	Room temperature
LC-Display	29mm x 12mm, black/white
Enclosure	Material ABS, colour pure white similar to RAL9010, housing bottom can be premounted and prewired separately from housing cover
Mounting	Surface-mounting in standard flush-mounting installation box
Cable entry	From behind or sidewise top/bottom
Protection	IP30
Notice	WRF04 without operating elements also available with output 4-20mA Special legend possible (see page 225) Other sensors and combinations of operating elements on request

without sensor

WRF04		PG1	
Type	Operating elements	Sensor	€
WRF04	-	without sensor	11,90 €
WRF04	TD	without sensor	37,32 €
WRF04	S	without sensor	48,79 €
WRF04	P	without sensor	33,96 €
WRF04	PTD	without sensor	56,63 €
WRF04	PSD	without sensor	74,46 €
WRF04	PSTD	without sensor	89,53 €

PT100

WRF04		PG1	
Type	Operating elements	Sensor	€
WRF04	-	PT100	18,51 €
WRF04	TD	PT100	43,92 €
WRF04	S	PT100	55,38 €
WRF04	P	PT100	40,55 €
WRF04	PTD	PT100	63,22 €
WRF04	PSD	PT100	81,05 €
WRF04	PSTD	PT100	96,11 €

PT100 1/3 DIN

WRF04		PG1	
Type	Operating elements	Sensor	€
WRF04	-	PT100 1/3 DIN	22,01 €
WRF04	TD	PT100 1/3 DIN	47,42 €
WRF04	S	PT100 1/3 DIN	58,91 €
WRF04	P	PT100 1/3 DIN	44,07 €
WRF04	PTD	PT100 1/3 DIN	66,73 €
WRF04	PSD	PT100 1/3 DIN	84,55 €
WRF04	PSTD	PT100 1/3 DIN	99,61 €

PT1000

WRF04		PG1	
Type	Operating elements	Sensor	€
WRF04	-	PT1000	20,57 €
WRF04	TD	PT1000	45,99 €
WRF04	S	PT1000	57,45 €
WRF04	P	PT1000	42,61 €
WRF04	PTD	PT1000	65,28 €
WRF04	PSD	PT1000	83,11 €
WRF04	PSTD	PT1000	98,19 €

PT1000 1/3 DIN

WRF04		PG1	
Type	Operating elements	Sensor	€
WRF04	-	PT1000 1/3 DIN	23,39 €
WRF04	TD	PT1000 1/3 DIN	48,80 €
WRF04	S	PT1000 1/3 DIN	60,29 €
WRF04	P	PT1000 1/3 DIN	45,44 €
WRF04	PTD	PT1000 1/3 DIN	68,11 €
WRF04	PSD	PT1000 1/3 DIN	85,95 €
WRF04	PSTD	PT1000 1/3 DIN	101,01 €

Ni1000

WRF04		PG1	
Type	Operating elements	Sensor	€
WRF04	-	Ni1000	20,28 €
WRF04	TD	Ni1000	45,71 €
WRF04	S	Ni1000	57,17 €
WRF04	P	Ni1000	42,34 €
WRF04	PTD	Ni1000	65,02 €
WRF04	PSD	Ni1000	82,84 €
WRF04	PSTD	Ni1000	97,92 €

Ni1000TK5000

WRF04		PG1	
Type	Operating elements	Sensor	€
WRF04	-	Ni1000TK5000	23,59 €
WRF04	TD	Ni1000TK5000	49,00 €
WRF04	S	Ni1000TK5000	60,48 €
WRF04	P	Ni1000TK5000	45,64 €
WRF04	PTD	Ni1000TK5000	68,31 €
WRF04	PSD	Ni1000TK5000	86,13 €
WRF04	PSTD	Ni1000TK5000	101,20 €

FeT

WRF04		PG1	
Type	Operating elements	Sensor	€
WRF04	-	FeT	26,34 €
WRF04	TD	FeT	51,75 €
WRF04	S	FeT	63,22 €
WRF04	P	FeT	48,40 €
WRF04	PTD	FeT	71,06 €
WRF04	PSD	FeT	88,88 €
WRF04	PSTD	FeT	103,95 €

» WRF04 – Room Operating Panel

NTC1,8k			
WRF04			PG1
Type	Operating elements	Sensor	€
WRF04	-	NTC1,8k	18,52 €
WRF04	TD	NTC1,8k	44,61 €
WRF04	S	NTC1,8k	55,41 €
WRF04	P	NTC1,8k	40,57 €
WRF04	PTD	NTC1,8k	63,24 €
WRF04	PSD	NTC1,8k	81,06 €
WRF04	PSTD	NTC1,8k	96,13 €

NTC10k			
WRF04			PG1
Type	Operating elements	Sensor	€
WRF04	-	NTC10k	17,27 €
WRF04	TD	NTC10k	43,36 €
WRF04	S	NTC10k	54,15 €
WRF04	P	NTC10k	39,31 €
WRF04	PTD	NTC10k	62,00 €
WRF04	PSD	NTC10k	79,82 €
WRF04	PSTD	NTC10k	94,88 €

NTC20k			
WRF04			PG1
Type	Operating elements	Sensor	€
WRF04	-	NTC20k	17,27 €
WRF04	TD	NTC20k	43,36 €
WRF04	S	NTC20k	54,15 €
WRF04	P	NTC20k	39,31 €
WRF04	PTD	NTC20k	62,00 €
WRF04	PSD	NTC20k	79,82 €
WRF04	PSTD	NTC20k	94,88 €

OPTIONS

WRF04		PG1
Description		€
Potentiometer 0-10V		21,09 €
Ball stroke protection (for types without operating elements and display)		31,25 €
Rawplugs and screws (2 pcs. each)		0,72 €

TRV 3			
			0-10V / 0°C...+50°C
WRF04			PG1
Type	Operating elements	Output	€
WRF04	-	TRV 3	78,05 €
WRF04	P	TRV 3	100,26 €
WRF04	PTD	TRV 3	123,57 €
WRF04	PSD	TRV 3	141,35 €

NTC5k			
WRF04			PG1
Type	Operating elements	Sensor	€
WRF04	-	NTC5k	17,27 €
WRF04	TD	NTC5k	43,36 €
WRF04	S	NTC5k	54,15 €
WRF04	P	NTC5k	39,31 €
WRF04	PTD	NTC5k	62,00 €
WRF04	PSD	NTC5k	79,82 €
WRF04	PSTD	NTC5k	94,88 €

NTC10k Precon			
WRF04			PG1
Type	Operating elements	Sensor	€
WRF04	-	NTC10k Precon	17,27 €
WRF04	TD	NTC10k Precon	43,36 €
WRF04	S	NTC10k Precon	54,15 €
WRF04	P	NTC10k Precon	39,31 €
WRF04	PTD	NTC10k Precon	62,00 €
WRF04	PSD	NTC10k Precon	79,82 €
WRF04	PSTD	NTC10k Precon	94,88 €

LM235Z			
WRF04			PG1
Type	Operating elements	Sensor	€
WRF04	-	LM235Z	18,96 €
WRF04	TD	LM235Z	45,16 €
WRF04	S	LM235Z	55,80 €
WRF04	P	LM235Z	41,15 €
WRF04	PTD	LM235Z	64,47 €
WRF04	PSD	LM235Z	82,27 €
WRF04	PSTD	LM235Z	97,87 €

LCD

TRV 3			
			0-10V / 0°C...+50°C
WRF04LCD			PG1
Type	Operating elements	Output	€
WRF04LCD	-	TRV 3	115,44 €
WRF04LCD	P	TRV 3	137,64 €
WRF04LCD	PTD	TRV 3	160,95 €
WRF04LCD	PSD	TRV 3	178,74 €

LON			
WRF04			PG1
Type	Operating elements	Output	€
WRF04	-	LON	163,70 €
WRF04	P	LON	167,51 €
WRF04	PTD	LON	175,17 €
WRF04	PSD	LON	191,60 €

LCD			
LON			
WRF04LCD			PG1
Type	Operating elements	Output	€
WRF04LCD	-	LON	201,13 €
WRF04LCD	P	LON	204,90 €
WRF04LCD	PTD	LON	212,56 €
WRF04LCD	PSD	LON	228,99 €

RS485 MODBUS

WRF04							PG1
Type			Input		Outputs		€
			floating switch contact	0-10V	Relay	Triac	
WRF04	RS485 Modbus AO2V	2	2	-	-	170,28 €	
WRF04P	RS485 Modbus AO2V	2	2	-	-	174,41 €	
WRF04PTD	RS485 Modbus AO2V	2	2	-	-	181,63 €	
WRF04PSD	RS485 Modbus AO2V	2	2	-	-	198,14 €	
WRF04	RS485 Modbus DO2R	2	-	2	-	209,50 €	
WRF04P	RS485 Modbus DO2R	2	-	2	-	213,62 €	
WRF04PTD	RS485 Modbus DO2R	2	-	2	-	220,85 €	
WRF04PSD	RS485 Modbus DO2R	2	-	2	-	237,36 €	
WRF04	RS485 Modbus DO2T	2	-	-	2	209,50 €	
WRF04P	RS485 Modbus DO2T	2	-	-	2	213,62 €	
WRF04PTD	RS485 Modbus DO2T	2	-	-	2	220,85 €	
WRF04PSD	RS485 Modbus DO2T	2	-	-	2	237,36 €	
WRF04	RS485 Modbus OVR	2	1	1	-	209,50 €	
WRF04P	RS485 Modbus OVR	2	1	1	-	213,62 €	
WRF04PTD	RS485 Modbus OVR	2	1	1	-	220,85 €	
WRF04PSD	RS485 Modbus OVR	2	1	1	-	237,36 €	
WRF04	RS485 Modbus OVT	2	1	-	1	209,50 €	
WRF04P	RS485 Modbus OVT	2	1	-	1	213,62 €	
WRF04PTD	RS485 Modbus OVT	2	1	-	1	220,85 €	
WRF04PSD	RS485 Modbus OVT	2	1	-	1	237,36 €	
Option: LCD							37,39 €

Notice: All types DO2R, DO2T, OVR and OVT with separate I/O extension

OPTIONS

WRF04	PG1
Description	€
Potentiometer 0-10V	21,09 €
Ball stroke protection (for types without operating elements and display)	31,25 €
Rawlplugs and screws (2 pcs. each)	0,72 €

» Design Examples – Room Operating Panels



WRF04PST3D
custom-made version



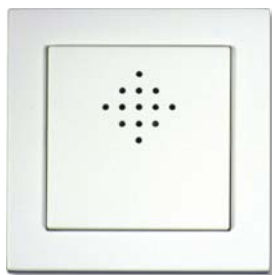
WRF04
special painting



WRF04P4T4D
special legend



WRF06
Busch-Jaeger Impulse champagner



WRF06
Gira Ezo pure white, rhomb bore



WRF06
Busch-Jaeger Future stone



WRF07PTD
Gira E2 alu, special legend



WRF07PTD Busch-Jaeger Future
studio white, special legend



WRF07PSTD
Jung LS stainless steel, special legend



WRF06INC 7D LON
Berker S.1, special legend



WRF07P-WRF062T2D
Jung LS990 white, special legend

Design Examples – Room Operating Panels «



WRF063T3D
Gira Esprit alu, special legend



WRF07PTD Jung LS990
alpine white, special legend



WRF07PSD
Merten Artec, special legend



WRF07PT
Jung LS stainless steel, special legend



WRF0652T2D
Gewiss Chorus One



WRF07PS
Vimar Idea white, special legend



WRF07P
Gewiss Chorus One



WRF06
Bticino Living