

The following unit ranges with different features are listed according to their performance capacity. Find the reference in the foot line of the pertaining unit series.

Assembly dimension **72x24**

Interface panel meter (page 1)

PB4

- 24 VDC galv. insulated
- 4-digit
- character height 14 mm
- interfaces RS232/RS485/**BCD multiplex/Profibus DP/CANopen** (2004)
- last character displayed in °C or °F

Assembly dimension **72x36**

Interface panel meter (page 7)

PB4

- 24 VDC galv. insulated
- 4-digit
- character height 14 mm
- interfaces RS232/RS485/**BCD multiplex/Profibus DP/CANopen** on demand
- last character displayed in °C or °F

Assembly dimension **96x24**

Interface panel meter (page 13)

PB6

- **230 VAC or 115 VAC**
- 24 VDC galv. insulated
- **6-digit**
- character height 14 mm
- interfaces RS232/RS485/**BCD multiplex/Profibus DP/CANopen** on demand
- last character displayed in °C or °F

Assembly dimension **96x48**

Interface panel meter (page 19)

PB6

- **230 VAC oder 115 VAC**
- 24 VDC galv. insulated
- **6-digit**
- character height 14 mm
- interfaces RS232/RS485/**BCD multiplex/Profibus DP/CANopen** on demand
- last character displayed in °C or °F

Digital panel meter with microprocessor based technology **5-digit** (page 23)
Interface CANopen

PVS5
PTS5

Accessories (page 29)

ZU

- dimension strips
- fastening clips
- fixing clasps
- blind covers

Interfaces



Interface panel meter 4-digit

PB4

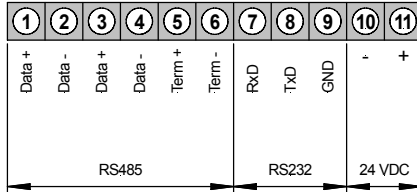
- RS232
- RS485
- BCD address codified
- CANopen on demand
- Profibus DP
- Protection IP54 standard

Interface panel meter

- RS232/RS485
- CANopen (on demand)
- BCD (address codified)
- Profibus DP



• RS232/RS485



Power supply 24 VDC
(galvanic insulated)

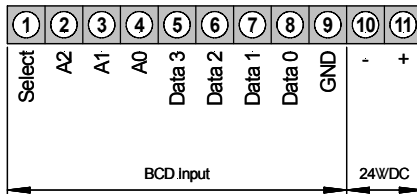
ORDER NUMBER OF TYPE
(without options)

EUR

PB 4.A000.5750B

250,00

• BCD (address codified)

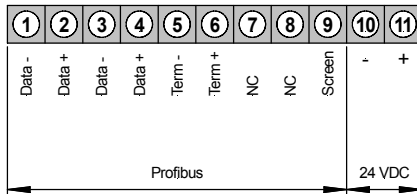


Power supply 24 VDC
(galvanic insulated)

PB 4.B000.5750B

250,00

• Profibus DP



Power supply 24 VDC
(galvanic insulated)

PB 4.9000.5750B

450,00

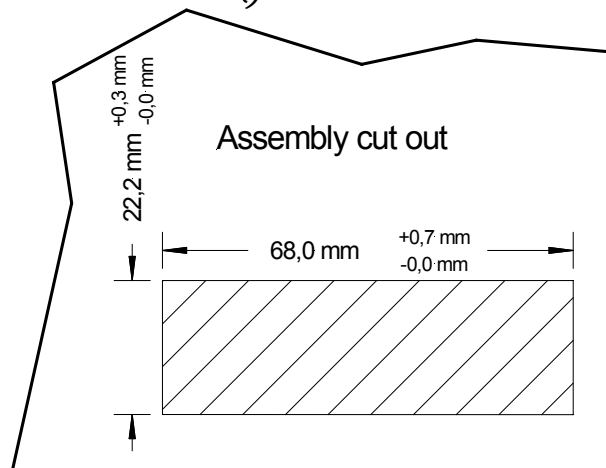
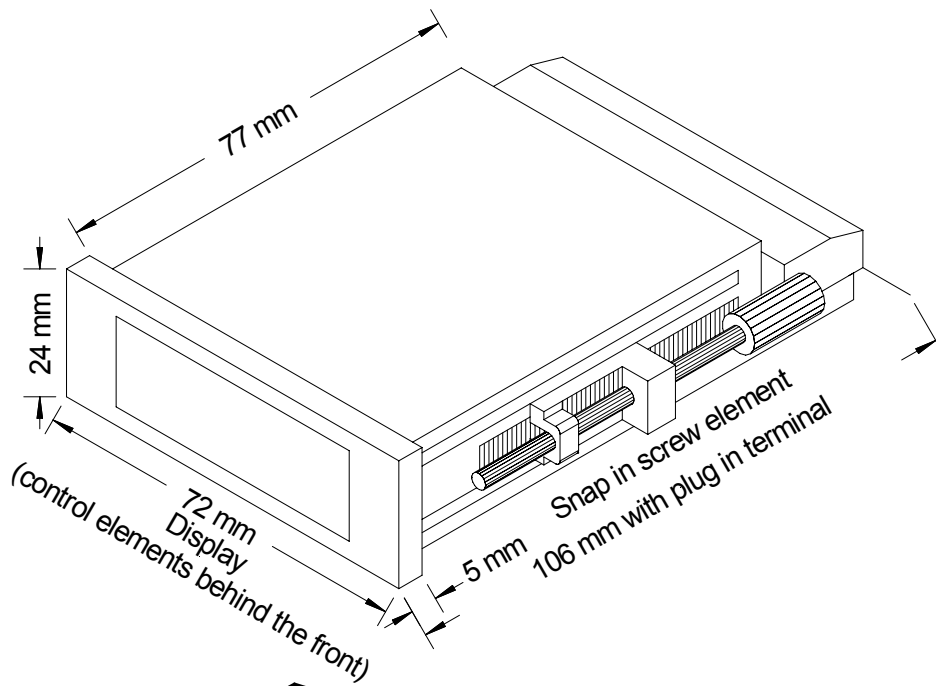
OPTIONS

	PB4...	Additional price
		EUR
Green LED on demand	X	
Protection IP65/handling rear side	X	10,25
Other power supplies on demand		

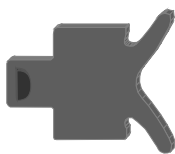
Technical data

Housing	Dimensions	72 x 24 x 115 mm (WxHxD) including plug in terminal
	Assembly cut out	68.0 ^{+0.7} x 22.0 ^{+0.6} mm
	Fastening	snap in screw element
	Thickness/wall	0-50 mm
	Housing material	PC/ABS-plastic blend, colour black, UL94V-0
	Protection	standard IP54 (front), IP00 (rear side)
	Weight	approx. 0.120 kg
	Connection	screw-/plug in-terminal; wire cross-section up to 1.5 mm ²
Indication	Size of digits	14 mm
	Colour of segments	red
	Indication	4 digits

Interface	Protocol	parametricable ASCII-report
	Baud rates	300, 1.200, 2.400, 4.800, 9.600, 19.200, 38.400, 57.600
	Interfaces	RS232 / RS485 parametricable
	Length/conductor RS232	max. 3 m
	Length/conductor RS485	max. 1.000 m
	Bus-participants	32
Interface BCD	Term schedule HIGH / LOW	to get activated via connection terminal $\geq 4.5 \text{ V} / < 4 \text{ V}$
	Interface Profibus	Protocol Baud rate Interface Cable length Bus termination Termination
		Profibus DP auto recognition up to 12 Mbaud RS485 max. 1.000 m Pullup/-down to EN50170 can be activated via connecting terminal
Supply unit	Power supply	24 VDC / +/-10%
	Power consumption	max. 5 VA
Memory		parameter memory EEPROM
	Data life	>30 years
Ambient conditions	Working temperature	0 up to + 60 °C
	Storing temperature	-20 up to + 80 °C
	Climatic resistance	rel. humidity $\leq 75\%$ in the average / year without dew
EMV		DIN 61326
CE-sign		conformity according to 89/336/EWG
Safety standard		DIN 61010
Housing		



Fastening clips



ORDER NUMBER

EUR

ZU-KK2

0,50

Fixing screws



ZU-KS2

2,00



Interface panel meter 4-digit

PB4

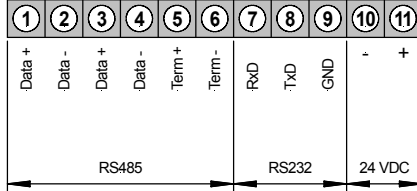
- RS232
- RS485
- BCD address codified
- CANopen on demand
- Profibus DP
- Protection IP54

Interface panel meter

- RS232/RS485
- CANopen (on demand)
- BCD (address codified)
- Profibus DP



• RS232/RS485



Power supply 24 VDC
(galvanic insulated)

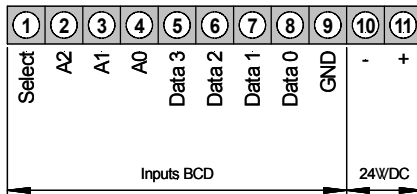
ORDER NUMBER OF TYPE
(without options)

EUR

PB 4.A000.6740B

250,00

• BCD (address codified)

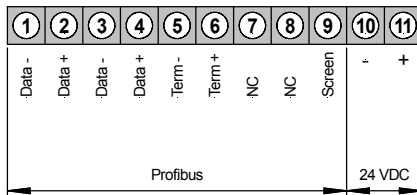


Power supply 24 VDC
(galvanic insulated)

PB 4.B000.6740B

250,00

• Profibus DP



Power supply 24 VDC
(galvanic insulated)

PB 4.9000.6740B

450,00

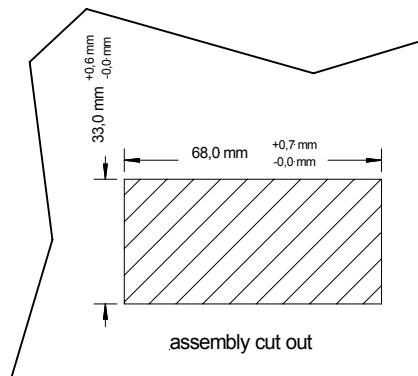
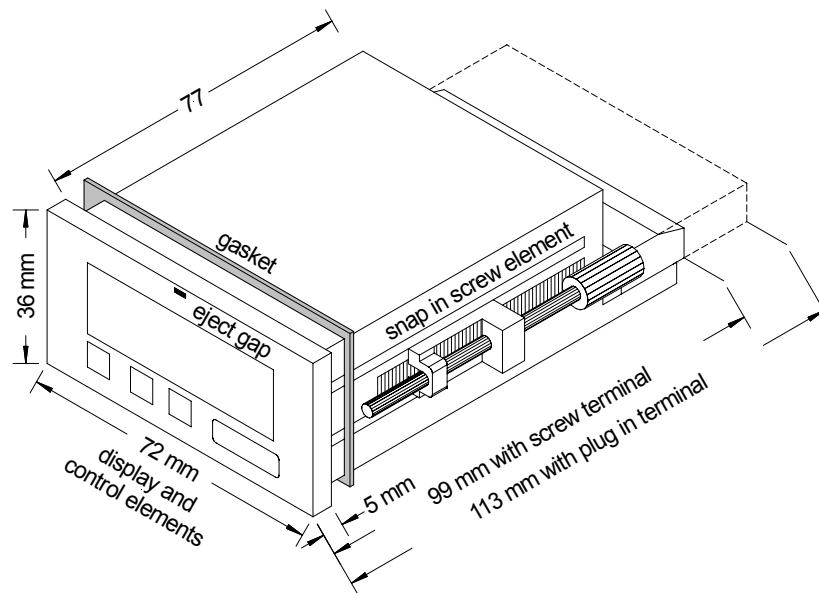
OPTIONS

	PBA...	Additional price
		EUR
Green LED on demand	X	
Protection IP65 at the front	X	10,25
Plug in terminal	X	9,20
Other power supplies on demand		
Dimension strip selectable		

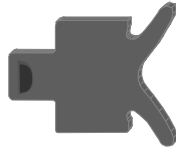
Technical data

Housing	Dimensions	72 x 36 x 103 mm (WxHxD) including screw terminal 72 x 36 x 115 mm (WxHxD) including plug in terminal 68.0 ^{+0.7} x 33.0 ^{+0.6} mm
	Assembly cut out	snap in screw element
	Fastening	0-50 mm
	Thickness/wall	PC/ABS-plastic blend, colour black, UL94V-0
	Housing material	standard IP54 (front), IP00 (rear side)
	Protection	approx. 0,140 kg
	Weight	screw- /plug in-terminal; wire cross-section up to 2.5 mm ²
	Connection	
Indication	Size of digits	14 mm
	Colour of segments	red
	Indication	4 digits

Interface	Protocol	parametricable ASCII-report
	Baud rates	300, 1.200, 2.400, 4.800, 9.600, 19.200, 38.400, 57.600
	Interfaces	RS232 / RS485 parametricable
	Length/conductor	
	RS232	max. 3 m
	Length/conductor	
	RS485	max. 1.000 m
	Bus-participants	32
	term schedule	to get activated via connection terminal
	HIGH / LOW	$\geq 4.5 \text{ V} / < 4 \text{ V}$
Interface BCD	Protocoll	Profibus DP
	Baud rate	auto recognition up to 12 Mbaud
Interface Profibus	Interface	RS485
	Cable length	max. 1.000 m
	Bus termination	Pullup/-down to EN50170
	Termination	can be activated via connecting terminal
Supply unit	Power supply	24 VDC / +/-10 %
	Power consumption	max. 5 VA
Memory		parameter memory EEPROM
	Data life	>30 years
Ambient conditions	Working temperature	0 up to + 60 °C
	Storing temperature	-20 up to + 80 °C
	Climatic resistance	rel. humidity $\leq 75\%$ in the average / year without dew
EMV		DIN 61326
	CE-sign	conformity according to 89/336/EWG
Safety standard		DIN 61010
Housing		



Fastening clips



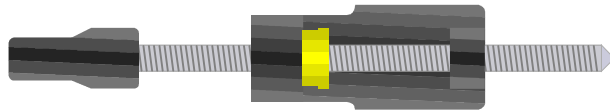
ORDER NUMBER OF TYPE

EUR

ZU-KK2

0,50

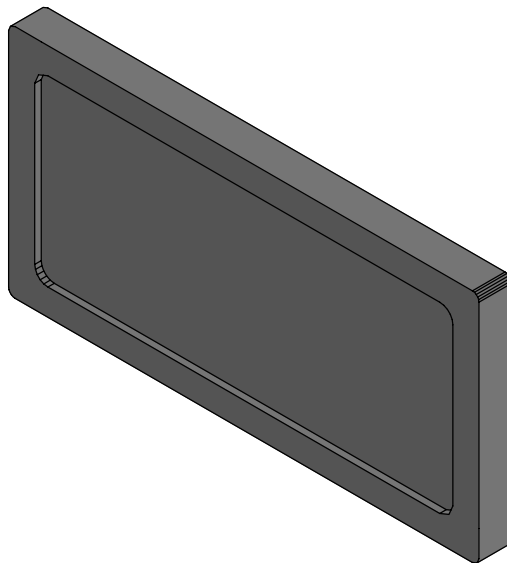
Fixing screws



ZU-KS2

2,00

Blind covers with fastening clamps



GH014-07

5,25

Dimension strips

Montwill digital panel meter are equipped with an insertable dimension strip. Each dimension strip is bilateral printed with two different dimensions. The table below shows the available dimension strips which are attached to every panel meter. (free of charge)

ORDER NUMBER

GH014-48-**XX**

l/min	l/h	01	Gramm	MPa	22	mmWs	mm	43
l/s	K	02	pH	kPa	23	m	cm	44
mg	mg/l	03	Hz	kHz	24	m/h	m³	45
bar	psi	04	Pa	hPa	25	mm/s	m/s	46
mbar	bar abs	05	%Nm	%daN	26	s	min	47
kg	kg/h	06	O₂	mV	27	%	‰	48
Kp	% Vol	07	V	kV	28	h	%rel F	49
mNN	N	08	m³/h	l	29	VA	KVA	50
daN	Ω	09	Fl/h	ft/min	30	gal/h	gal/min	51
Nm	kN	10	Fl/min	Tabl/h	31	ppm	vpm	52
PS	Grad	11	tr/min	rpm	32	rpm	m/min	53
NO	kA	12	mS/cm	uS/cm	33	mWs	ml/ m³	54
NO₂	NO_x	13	cm³	cm/min	34			
°C	°F	14	N/m²	N/mm²	35			
CO	CO₂	15	%rH	g/m³	36			
min⁻¹	U/min	16	~	=	37			
l/min	mm/min	17	ml	ml/min	38			
mA	A	18	Ncm	MN	39			
W	kW	19	MW	Mp	40			
upm	yd/min	20	Var	Mvar	41			
t	t/h	21	km/h	m³/min	42			

(For substitute deliveries)

Price/pcs EUR 0,75



Interface panel meter 6-digit

PB6

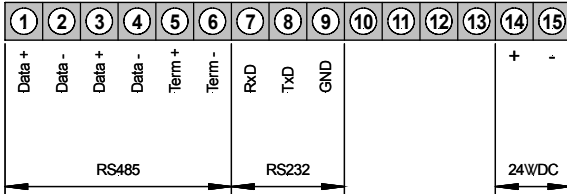
- RS232
- RS485
- BCD address codified
- CANopen on demand
- Profibus DP
- Protection IP54 standard

Interface panel meter

- RS232/RS485
- CANopen (on demand)
- BCD (address codified)
- Profibus DP



• RS232/RS485



Power supply 24 VDC
(galvanic insulated)

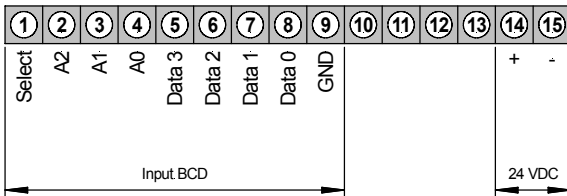
ORDER NUMBER OF TYPE
(without options)

EUR

PB 6.A000.3730B

270,00

• BCD (address codified)

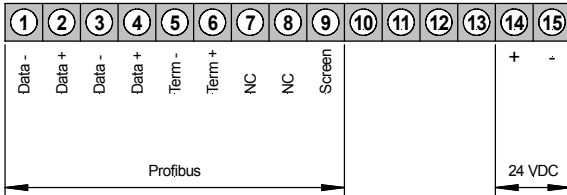


Power supply 24 VDC
(galvanic insulated)

PB 6.B000.3530B

270,00

• Profibus DP



Power supply 24 VDC
(galvanic insulated)

PB 6.9000.3730B

470,00

OPTIONS

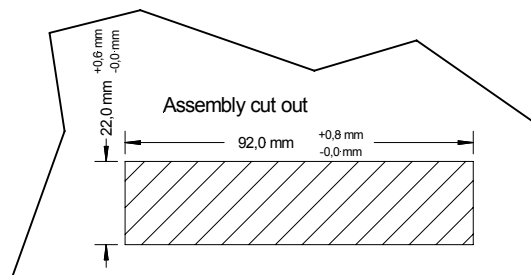
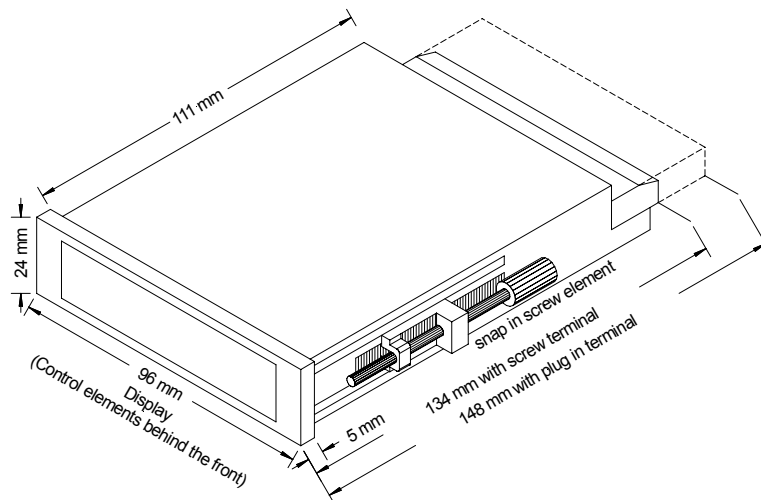
	PB6...	Additional price
		EUR
Green LED on demand	X	
Plug in terminal	X	14,30
Protection IP65 on demand	X	
Other power supplies on demand		

Technical data

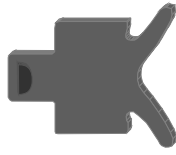
Housing	Dimensions	96 x 24 x 134 mm (WxHxD) including screw terminal 96 x 24 x 148 mm (WxHxD) including plug in terminal
	Assembly cut out	92.0 ^{+0.8} x 22.0 ^{+0.6} mm
	Fastening	snap in screw element
	Thickness/wall	0-50 mm
	Housing material	PC/ABS-plastic blend, colour black, UL94V-0
	Protection	standard IP40 (front), IP00 (rear side)
	Weight	approx. 0.250 kg
	Connection	screw- /plug in-terminal; wire cross-section up to 2.5 mm ²

Technical data

Indication	Size of digits Colour of segments Indication	14 mm red 4 digits
Interface	Protocol Baud rates Interfaces Length/conductor RS232 Length/conductor RS485 Bus-participants Term schedule HIGH / LOW	parametricable ASCII-report 300, 1.200, 2.400, 4.800, 9.600, 19.200, 38.400, 57.600 RS232 / RS485 parametricable max. 3 m max. 1.000 m 32 to get activated via connection terminal $\geq 4.5 \text{ V} / < 4 \text{ V}$
Interface BCD	Protocol	Profibus DP
Interface Profibus	Baud rate Interface Cable length Bus termination Termination	auto recognition up to 12 Mbaud RS485 max. 1.000 m Pullup/-down to EN50170 can be activated via connecting terminal
Supply unit	Power supply Power consumption	24 VDC / +/-10 % max. 5 VA
Memory	Data life	parameter memory EEPROM >30 years
Ambient conditions	Working temperature Storing temperature Climatic resistance	0 up to + 60 °C -20 up to + 80 °C rel. humidity $\leq 75\%$ in the average / year without dew
EMV		DIN 61326
CE-sign		conformity according to 89/336/EWG
Safety standard		DIN 61010
Housing		



Fastening clips



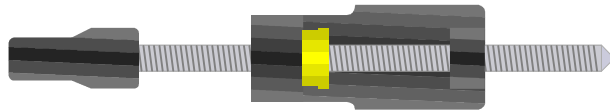
ORDER NUMBER OF TYPE

EUR

ZU-KK2

0,50

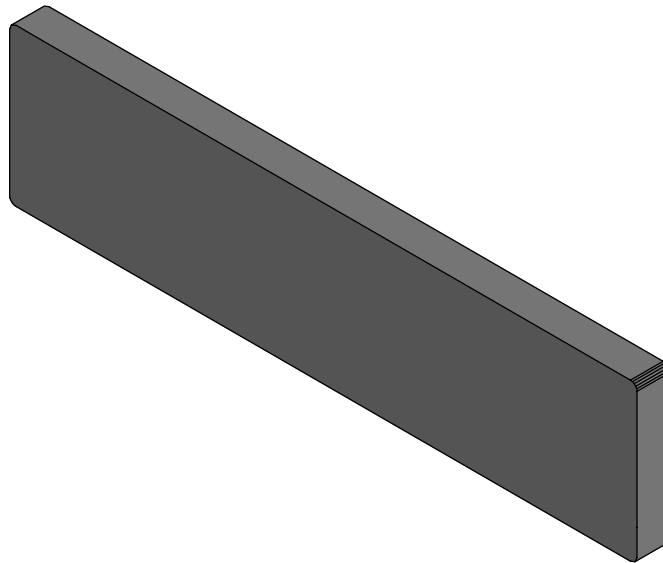
Fixing screws



ZU-KS2

2,00

Blind covers with fastening clamps



GH022-07

5,10



Interface panel meter 6-digit

PB6

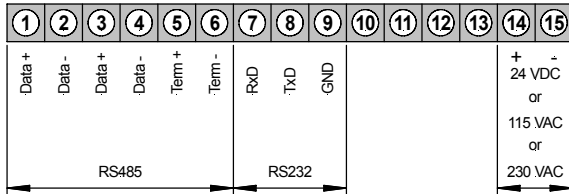
- RS232
- RS485
- BCD address codified
- CANopen on demand
- Profibus DP
- Protection IP54

Interface panel meter

- RS232/RS485
- CANopen (on demand)
- BCD (address codified)
- Profibus DP



• RS232/RS485



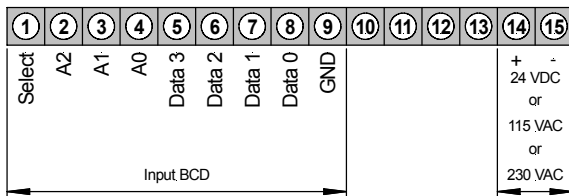
Power supply 230 VAC
Power supply 115 VAC
Power supply 24 VDC
(galvanic insulated)

ORDER NUMBER OF TYPE
(without options)

EUR

PB 6.A000.1540B 240,00
PB 6.A000.1440B 260,00
PB 6.A000.1740B 280,00

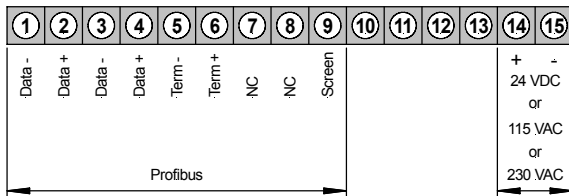
• BCD (address codified)



Power supply 230 VAC
Power supply 115 VAC
Power supply 24 VDC
(galvanic insulated)

PB 6.B000.1540B 240,00
PB 6.B000.1440B 260,00
PB 6.B000.1740B 280,00

• Profibus DP



Power supply 230 VAC
Power supply 115 VAC
Power supply 24 VDC
(galvanic insulated)

PB 6.9000.1540B 440,00
PB 6.9000.1440B 460,00
PB 6.9000.1740B 480,00

OPTIONS

	PB6...	Additional price
		EUR
Green LED on demand	x	
Protection IP65	x	10,25
Plug in terminal	x	14,30
Other power supplies on demand		
Dimension strip selectable		

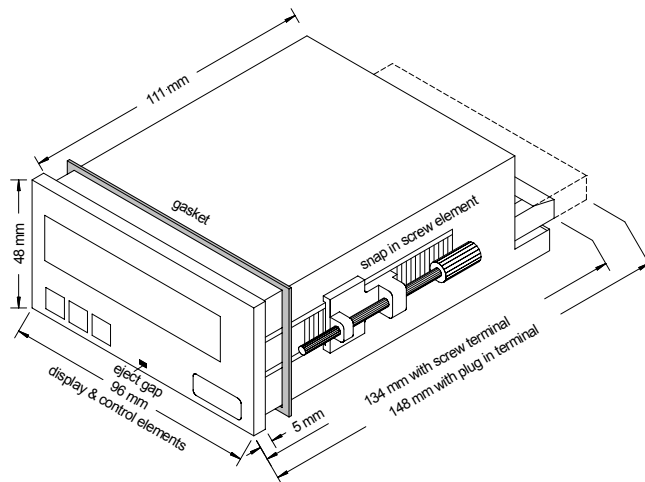
Technical data

Housing	Dimensions	
		96 x 48 x 134 mm (WxHxD) including screw terminal
		96 x 48 x 148 mm (WxHxD) including plug in terminal
		92.0 ^{+0.8} x 45.0 ^{+0.6} mm
	Assembly cut out	
	Fastening	snap in screw element
	Thickness/wall	0-50 mm
	Housing material	PC/ABS-plastic blend, colour black, UL94V-0
	Protection	standard IP54 (front), IP00 (rear side)
	Weight	approx. 0.390 kg
	Connection	screw- /plug in-terminal; wire cross-section up to 2.5 mm ²

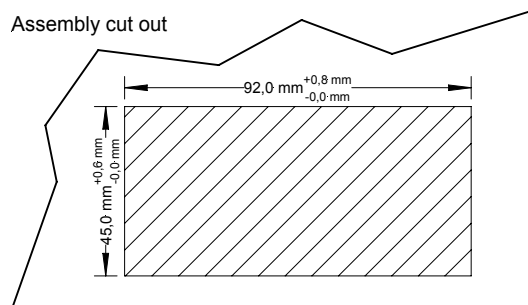
Technical data

Indication	Size of digits Colour of segments Indication	14 mm red 4 digits
Interface	Protocol Baud rates Interfaces Length/conductor RS232 Length/conductor RS485 Bus-participants Term schedule HIGH / LOW	parametricable ASCII-report 300, 1.200, 2.400, 4.800, 9.600, 19.200, 38.400, 57.600 RS232 / RS485 parametricable max. 3 m max. 1.000 m 32 to get activated via connection terminal $\geq 4.5 \text{ V} / < 4 \text{ V}$
Interface BCD	Protocoll	Profibus DP
Interface Profibus	Baud rate Interface Cable length Bus termination Termination	auto recognition up to 12 Mbaud RS485 max. 1.000 m Pullup/-down to EN50170 can be activated via connecting terminal
Power unit	Power supply Power consumption	230 VAC / 50/60 Hz / +/-10 % 115 VAC / 50/60 Hz / +/-10 % 24 VDC / +/-10 % max. 5 VA
Memory	Data life	parameter memory EEPROM >30 years
Ambient conditions	Working temperature Storing temperature Climatic resistance	0 up to + 60 °C -20 up to + 80 °C rel. humidity $\leq 75\%$ in the average / year without dew
EMV		DIN 61326
CE-sign		conformity according to 89/336/EWG
Safety standard		DIN 61010

Housing



Assembly cut out





Digital panel meter with microprocessor based technology 5-digit

PVS5

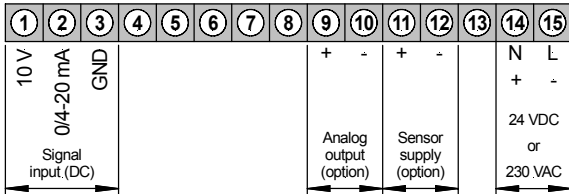
- Power supply galvanic insulated
- Parameterization via keyboard or interface
- Programmable bases for linearization
- Measuring rate 150 1/s
- Min/Max memory
- 4 free scalable setpoints / hysteresis / delay time
- Optical setpoint indication
- Sensor supply galvanic insulated
- Analog output galvanic insulated
- Serial interface RS232/RS485/CANopen

Digital panel meter

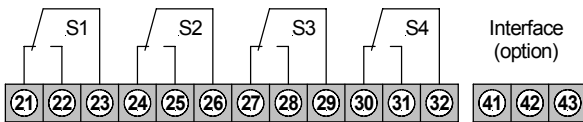
- Direct voltage
- Direct current



- **Direct voltage, direct current**



Transmitter connections see page 27



Relays (option)

**ORDER NUMBER OF TYPEEUR
(without options)**

Power supply 230 VAC

PVS 5.0001.1540B 271,00

Power supply 24 VDC (galv. insulated)

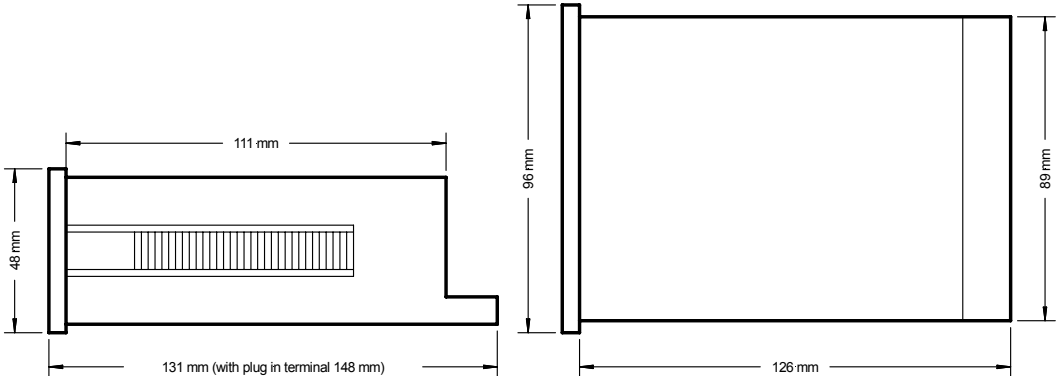
PVS 5.0001.1740B 291,45

OPTIONS

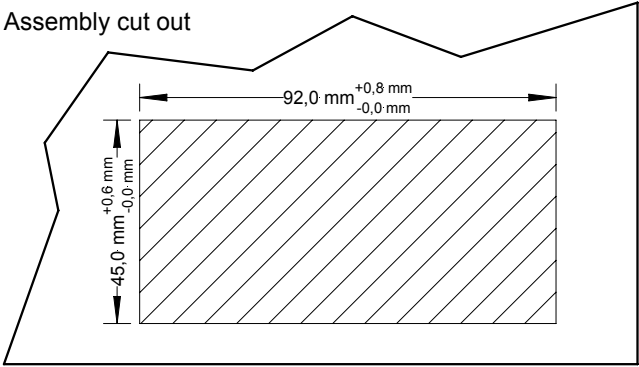
	PVS5 0001... Direct voltage	PTS 5.0108... PT100						Additional price
								EUR
Green LED	x	x						
Protection IP54 at the front	x	x						6,15
Protection IP65 at the front	x	x						10,25
Plug in terminal	x	x						14,30
Sensor supply (The sensor supply is galvanic insulated from the measuring input!)								
Sensor supply 24 VDC/50 mA	x	x						66,45
Sensor supply 10 VDC/50 mA	x	x						66,45
Analog output (The analog output is galvanic insulated from the measuring input!)								
Analog output 0-10 VDC (12 Bit)	x	x						92,05
Analog output 0-20 mA/load 500 Ω	x	x						97,15
Analog output 4-20 mA/load 500 Ω	x	x						97,15
Interfaces								
Interface RS232 without galvanic insulation	x	x						48,55
Interface RS485 without galvanic insulation	x	x						56,25
Interface RS485 with galvanic insulation	x	x						92,05
Interface CANopen with galvanic insulation	x	x						138,05
2 relays with changing contacts	x	x						46,00
4 relays with changing contacts	x	x						66,45
Other power supplies on demand	x	x						
Other sensor supplies on demand	x	x						
Base mounted housing with character height of 25 mm (Housing size: 170 mm x 130 mm)			GADE53	x	x			271,00
Fastening set for base mounted housing GADE53 (1 angle, case throats, screws)			GH008-ZA01	x	x			63,90

Technical data

Housing



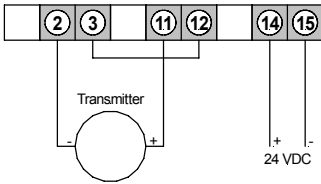
Assembly cut out



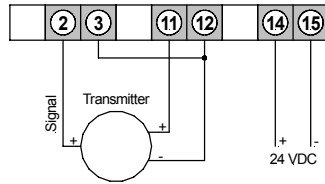
Connection diagrams

Terminal holding for transmitter connection

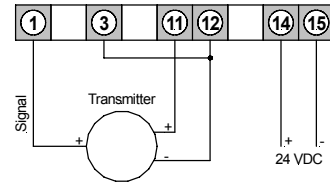
2-wire: 4-20 mA



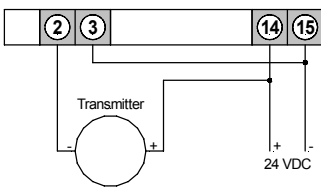
3-wire: 0-20 mA



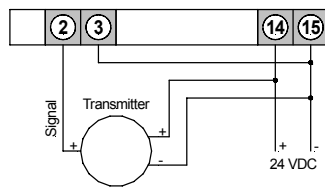
3-Leiter: 0-10 V / 0-5 V
0-1 V / 1-6 V



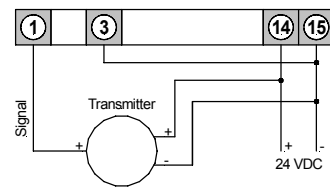
2-wire: 4-20 mA



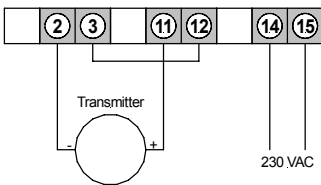
3-wire: 0-20 mA



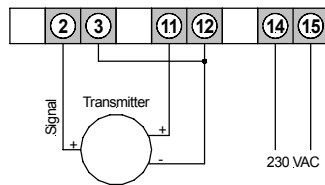
3-wire: 0-10 V / 0-5 V
0-1 V / 1-6 V



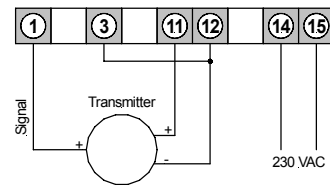
2-wire: 4-20 mA



3-wire: 0-20 mA

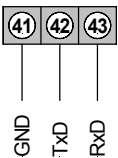


3-wire: 0-10 V / 0-5 V
0-1 V / 1-6 V

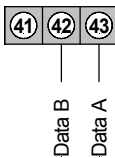


Terminal assignment for interface

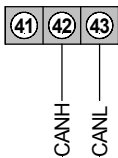
RS232



RS485



CANopen



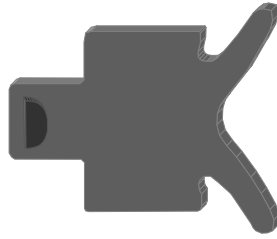
Ordering code PVS5

Digital panel meter with microprocessor

P V S 5 0 0 0 1 1 5 4 0 B

Basic model		Internal Index									
Base Voltage metering	V	Setpoints	<table border="1"> <tr><td>0</td><td>No setpoint</td></tr> <tr><td>2</td><td>2 relay outputs</td></tr> <tr><td>4</td><td>4 relay outputs</td></tr> </table>	0	No setpoint	2	2 relay outputs	4	4 relay outputs		
0	No setpoint										
2	2 relay outputs										
4	4 relay outputs										
Index		Mechanical options	<table border="1"> <tr><td>1</td><td>IP65, foil keyboard, screw terminal</td></tr> <tr><td>4</td><td>IP54, foil keyboard, screw terminal</td></tr> <tr><td>7</td><td>IP65, foil keyboard, plug in terminal</td></tr> <tr><td>9</td><td>IP54, foil keyboard, plug in terminal</td></tr> </table>	1	IP65, foil keyboard, screw terminal	4	IP54, foil keyboard, screw terminal	7	IP65, foil keyboard, plug in terminal	9	IP54, foil keyboard, plug in terminal
1	IP65, foil keyboard, screw terminal										
4	IP54, foil keyboard, screw terminal										
7	IP65, foil keyboard, plug in terminal										
9	IP54, foil keyboard, plug in terminal										
Number of digits 5 digits	5	Power supply	<table border="1"> <tr><td>5</td><td>230 VAC</td></tr> <tr><td>7</td><td>24 VDC (galvanic insulated)</td></tr> </table>	5	230 VAC	7	24 VDC (galvanic insulated)				
5	230 VAC										
7	24 VDC (galvanic insulated)										
Interface No interface CANopen (galv. insulated) RS232 RS485 (galv. insulated) RS485	<table border="1"> <tr><td>0</td></tr> <tr><td>1</td></tr> <tr><td>2</td></tr> <tr><td>4</td></tr> <tr><td>5</td></tr> </table>	0	1	2	4	5	Size of housing	<table border="1"> <tr><td>1</td><td>96x48</td></tr> </table>	1	96x48	
0											
1											
2											
4											
5											
1	96x48										
Sensor supply No sensor supply 10 V / 20 mA 24 V / 50 mA	<table border="1"> <tr><td>0</td></tr> <tr><td>2</td></tr> <tr><td>3</td></tr> </table>	0	2	3	Measuring input	<table border="1"> <tr><td>1</td><td>Direct voltage, direct current</td></tr> </table>	1	Direct voltage, direct current			
0											
2											
3											
1	Direct voltage, direct current										
Outputs No output 0-10 V 0-20 mA 4-20 mA	<table border="1"> <tr><td>0</td></tr> <tr><td>1</td></tr> <tr><td>2</td></tr> <tr><td>3</td></tr> </table>	0	1	2	3						
0											
1											
2											
3											

Fastening clips



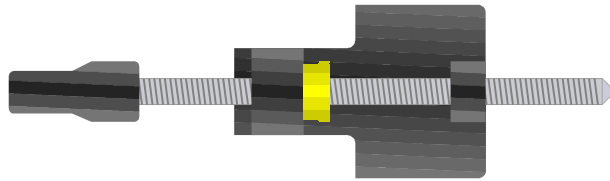
ORDER NUMBER OF TYPE

EUR

ZU-KK1

0,50

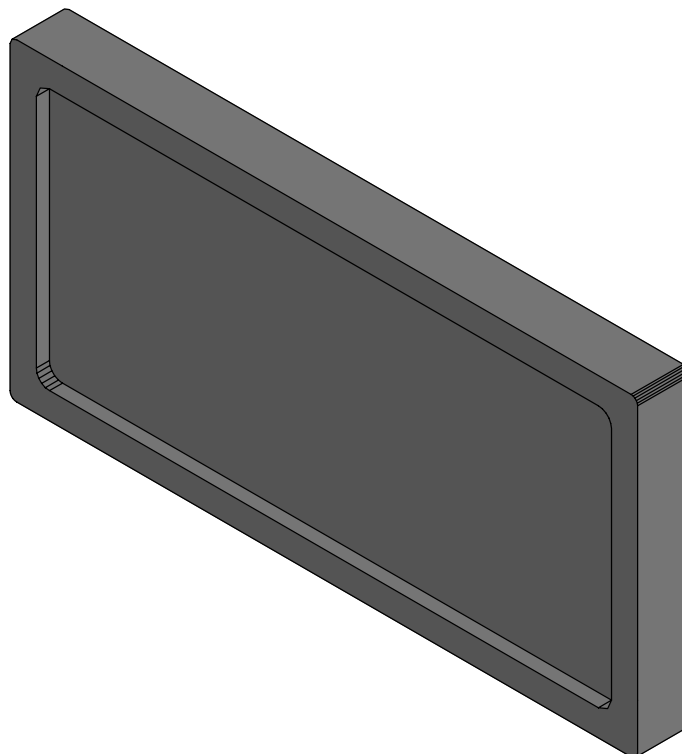
Fixing screws



ZU-KS1

2,00

Blind covers with fastening clamps



GH009-06

5,50

Dimension strips

Montwill digital panel meter are equipped with an insertable dimension strip. Each dimension strip is bilateral printed with three different dimensions plus one blank dimension. The table below shows the available dimension strips which are attached to every panel meter. (free of charge)

ORDER NUMBER GH009-48-**XX**

l/min	l/h	l/s	01	h	mg	mg/l	22
bar	psi	mbar	02	kg	kg/h	Kp	23
mNN	N	bar abs	03	ppm	vpm	% Vol	24
daN	Nm	kN	04	Pak/min	Tak/min	Stck/min	25
Ω	PS	mm/min	05	NO	NO₂	NO_x	26
°C	°F	Grad	06	mA	A	kA	27
min⁻¹	1/min	U/min	07	W	kW	m/min	28
t	t/h	Gramm	08	upm	rpm	yd/min	29
pH	kPa	MPa	09	Hz	kHz	cm/min	30
O₂	CO	CO₂	10	Pa	hPa	Hübe/min	31
mV	V	kV	11	%Nm	%daN	Hübe	32
VA	kVA	K	12	mS/cm	uS/cm	cm³	33
Fl/h	FL/min	Tabl/h	13	N/m²	N/mm²	%rH	34
ft/min	tr/min	rpm	14	~	=	g/m³	35
Var	Mvar	km/h	15	ml	ml/min	Ncm	36
m³/h	l	m³/min	16	MW	Mp	MN	37
gal/h	gal/min	mmWs	17	ml/m³	inch	mWs	38
m	cm	mm	18				
m/h	m³	m/s	19				
mm/s	s	min	20				
%	‰	%rel F	21				

(For substitute deliveries)

Price/pcs EUR 0,75