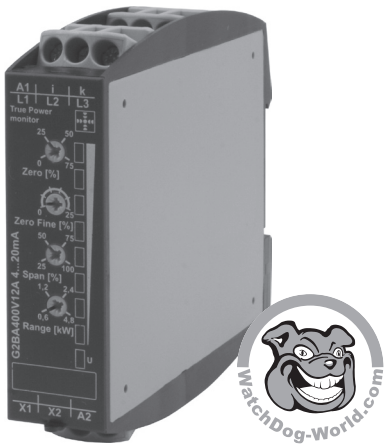
Measuring transducer - GAMMA series G2BA480V12A 4...20mA

- Active power transducer
- True power monitoring in 1- or 3-phase mains
- Analog output 4...20mA
- Suitable for VFI (10 to 100Hz)
- Zoom voltage 24V to 240V DC and 48V to 240V AC
- Width 22.5mm
- Industrial design



Technical data

1. Functions

True power monitoring in 1- and 3-phase mains with analog output 4 ... 20mA and the following settings (selectable by means of rotary switch):

Zero	setting of zero point (0%, 25%, 50%, 75% of nominal value)
Zero Fine	fine setting of zero point (0% ... 25% of nominal value)
Span	span (100%, 75%, 50%, 25% of nominal value)
Range	measuring range reversible between 0.75kW, 1.5kW, 3kW, 6kW

2. Indicators

Green LED U ON:	indication of supply voltage
Yellow LED's ON/OFF:	indication analog output 4...20mA

3. Mechanical design

Self-extinguishing plastic housing, IP rating IP40
Mounted on DIN-Rail TS 35 according to EN 60715

Mounting position:	any

Shockproof terminal connection according to VBG 4 (PZ1 required), IP rating IP20

Tightening torque:	max. 1Nm

Terminal capacity:
- 1 x 0.5 to 2.5mm² with/without multicore cable end
- 1 x 4mm² without multicore cable end
- 2 x 0.5 to 1.5mm² with/without multicore cable end
- 2 x 2.5mm² flexible without multicore cable end

4. Input circuit

Supply voltage:	24V to 240V DC 48V to 240V AC
Terminals:	A1-A2 (galvanically seperated)
Tolerance:	
48V to 240V AC	-15% to +10%
24V to 240V DC	-20% to +25%
Rated frequency:	
48 to 400Hz	48V to 240V AC
Rated consumption:	2.5VA (1.3W)
Duration of operation:	100%
Reset time:	500ms
Ripple and noise:	-
Drop-out voltage:	>30% of supply voltage
Overvoltage category:	III (in accordance with IEC 60664-1)
Rated surge voltage:	4kV

5. Output circuit

1 analog output	4...20mA
Terminals:	X1(+) - X2(-)
Settling time:	<300ms
Burden:	max. 500Ω
Galvanic isolation:	3kV DC

6. Measuring circuit

Measuring range P_N:	reversible between 0.75kW, 1.5kW, 3kW, 6kW
Wave form	
AC Sinus:	10 to 400Hz
Sinus weighted PWM:	10 to 100Hz
Measuring input voltage:	terminals L1-L2-L3
1-phase mains	0 to 480V AC
3-phase mains	3~ 0 to 480/277V
Overload capacity:	
1-phase mains	550V AC
3-phase mains	3~ 550/318V
Input resistance:	1.25MΩ
Measuring input current:	terminal i-k
Measuring range 0.75kW, 1.5kW:	0 to 6A
Measuring range 3kW, 6kW:	0 to 12A (for I>8A distance >5mm)
Overload capacity:	12A permanent
Input resistance:	<10mΩ
Overvoltage category:	III (in accordance with IEC 60664-1)
Rated surge voltage:	4kV

7. Accuracy

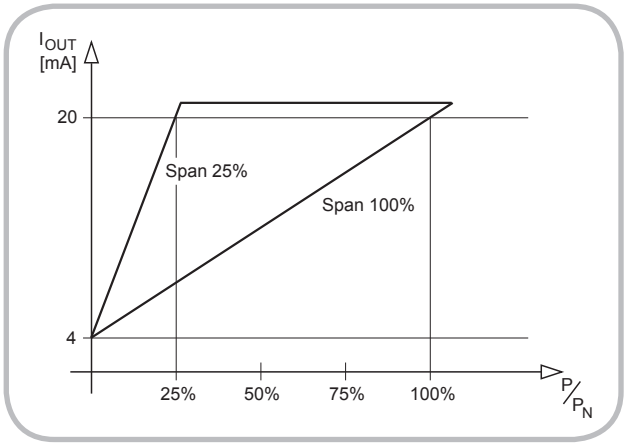
Base accuracy:	±2% (of maximum scale value)
Frequency influence:	±0.025% / Hz
Voltage influence:	-
Temperature influence:	≤0.05% / °C

8. Ambient conditions

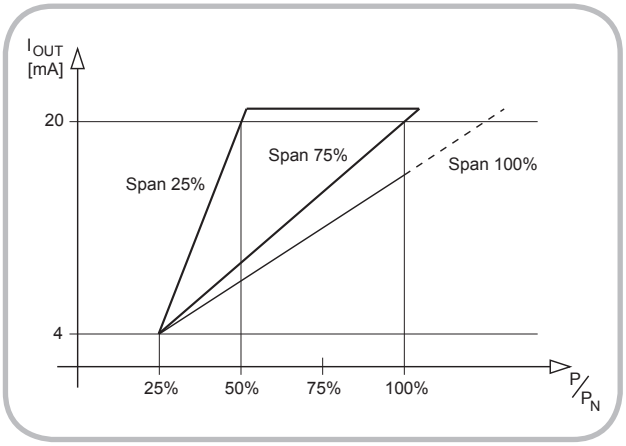
Ambient temperature:	-25 to +55°C (in accordance with IEC 60068-1) -25 to +40°C (in accordance with UL 508)
Storage temperature:	-25 to +70°C
Transport temperature:	-25 to +70°C
Relative humidity:	15% to 85% (in accordance with IEC 60721-3-3 Klasse 3K3)
Pollution degree:	3 (in accordance with IEC 60664-1)
Vibration resistance:	10 to 55Hz 0.35mm (in accordance with IEC 60068-2-6)
Shock resistance:	15g 11ms (in accordance with IEC 60068-2-27)

Functions

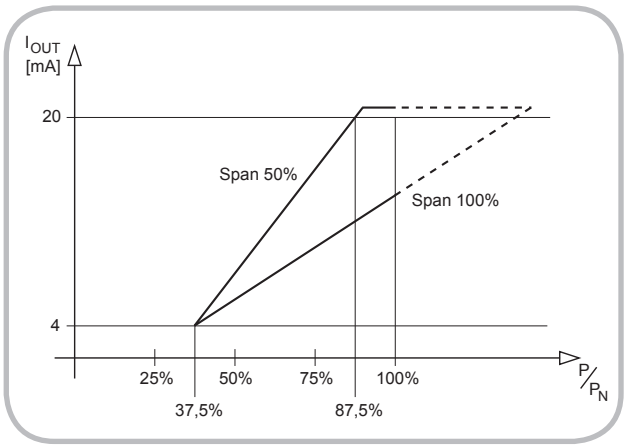
Zero = 0% / Span = 25% ; Zero = 0% / Span = 100%



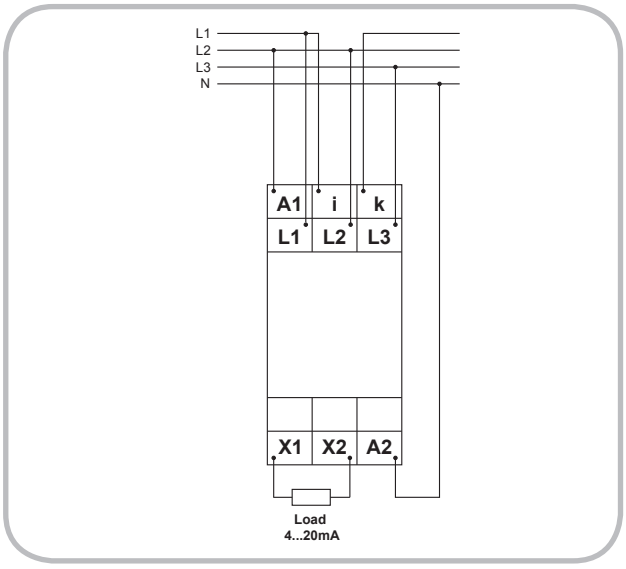
Zero = 25% / Span = 25% ; Zero = 25% / Span = 75%

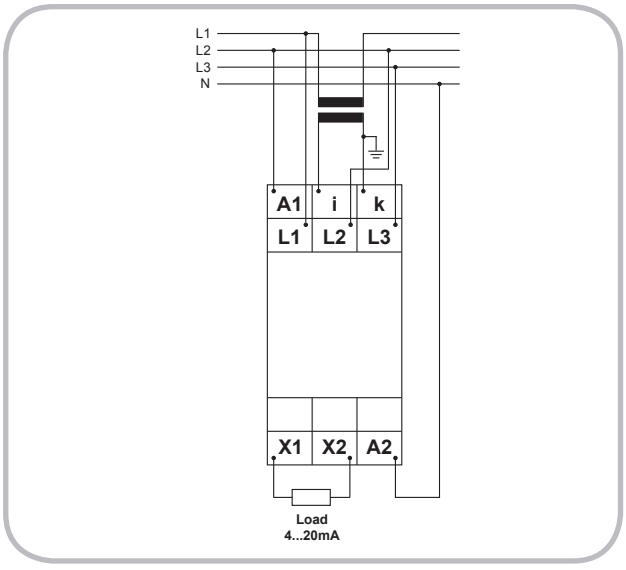


Zero = 37,5% / Span = 50% ; Zero = 37,5% / Span = 100%



Connections





Dimensions