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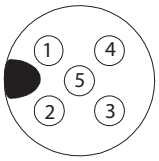
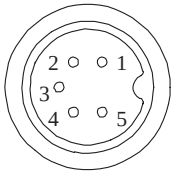
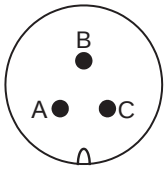
Technical Datasheet

VTE02 / VIE02

Carrier-Frequency and Inductive Pulse Amplifiers

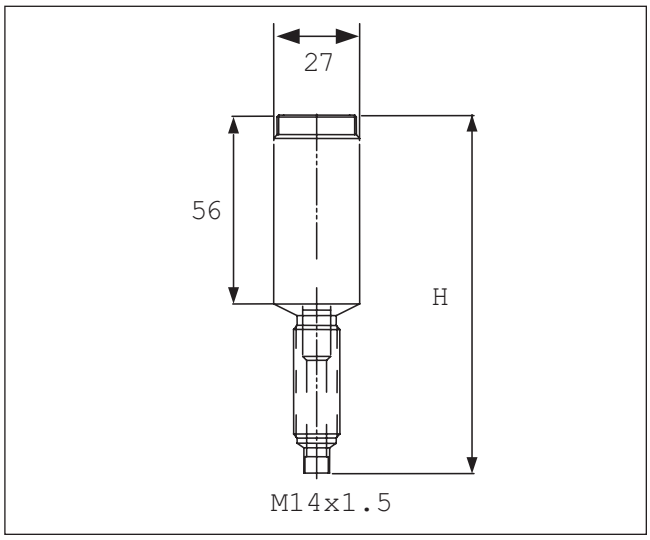
Technical Data

Supply voltage U_B	10 up to 30 V DC, regulated 7 up to 30 V DC („U“, NAMUR operation) 5 up to 10,5 V („N“)	
Quiescent current	< 1 mA	
Frequency range	0.5 up to 5,000 Hz	
Ambient temperature	-40 up to +80°C (T3) -40°C up to +60°C (T4)	
Medium temperature	-40 up to +125°C[1)]	
Housing	Stainless steel as per DIN 1.4104	
Dimensions	see drawing	
Ingress protection	IP 65	
Ex protection	CSA: Ex ia IIC T4; ATEX, IECEx: in preparation	
Electrical Connection[2)]	5-pin plug M12 SPEEDCON 1 = +UB 2 = n.c. / NAMUR- („N“, „U“) 3 = 0 V (not „N“) 4 = Signal Push Pull (not „N“) 5 = n.c.	
	5-pin plug M16 423 (upon request) 1 = +UB 2 = Signal Push Pull 3 = 0 V 4 = n.c. 5 = n.c.	
	3-pin amphenol plug (upon request) A = +UB B = 0 V C = output	

1) Minimum distance between VTE* housing and meter: 25 mm
2) Other connectors / pinnings on request.

Ex-Supply Data		
Supply circuit (pin 1 and 3) (Version P, U)	Voltage Current Power effective internal capacitance	Ui=DC 30 V Ii = 120 mA Pi = 850 mW Ci = 8 nF
Signal current circuit push/ pull/pin 3 and 4 version, P, U)	Voltage Current Power effective internal capacitance	Ui=30 V Ii = 24.6 mA Pi =185 mW Ci = 8 nF
Ex-Supply Data Version „N“ NAMUR		
Supply and signal circuit (pin 1 and 2)	Voltage Current Power effective internal capacitance	Ui=DC 10,5 V Ii = 16 mA Pi = 40 mW Ci = 8 nF

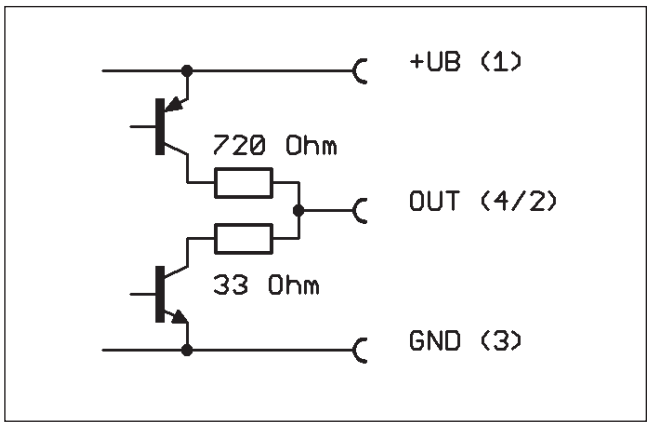
Dimensional drawing (mm)



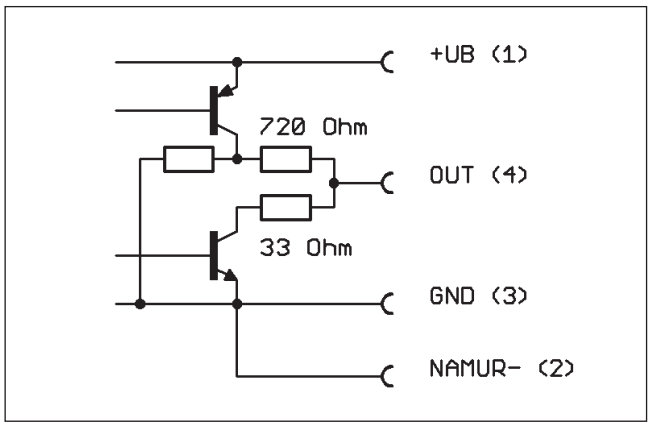
Type	H
V*E 02 - K	110 mm
V*E 02 - R	110 mm
V*E 02 - L	149 mm
V*E 02 - S	149 mm

Output (short-circuit proof)

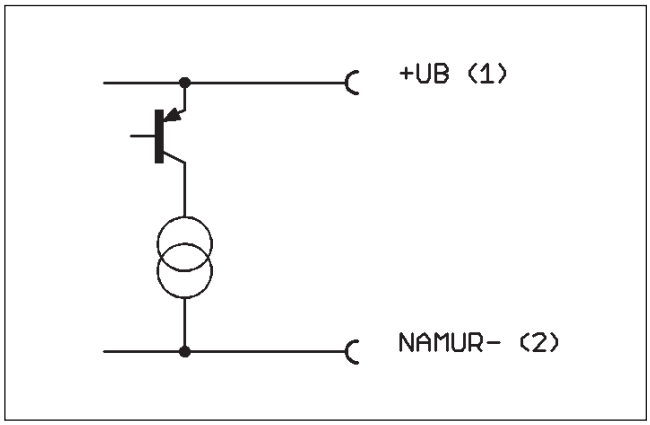
Push Pull



Push Pull + NAMUR



NAMUR



Ordering Information

V*E 02 - * - *

Output[1)]
P = M12 Push Pull
N = M12 NAMUR
U = M12 NAMUR + Push Pull

Pickup form
K = short
L = long
R = short with step for ZHM 01, LFM
S = long with step for ZHM 01, LFM

Pickup type
VTE 02 = Carrier frequency pickup
VIE 02 = Inductive pickup

1) Other connectors / pinnings on request.

Notes on Installation

The following has to be adhered to:

a. Installation instructions for electrical devices
Installation instructions for associated intrinsically-safe devices
The »Special conditions for safe use« as per EC-Type Examination Certificate

b. The amplifier has to be installed in a way that the max. ambient temperature does under no circumstances exceed +60°C (consider self heating).

c. With cables care should be taken, that the max inductivity and capacity of the respective voltage or gas group are not exceeded

d. Exceeding or falling below the regular measuring range will cause invalid frequency output signals.

e. Shielded cables are to be used as connecting lines.

f. Generally, supplied units have to be connected by an expert according to EMC stipulations.

g. Disconnect power supply before making electrical connection.