

Technical data

ESW[®]-small-Transmitter-Ex-i_M-10-30

operating voltage	24 DC, +/-10% (max. 10V to 30V DC)
current input	4 to 20 mA, max. 27 mA
temperature range	-40°C to +50°C
type of protection	IP 68
case	high grade steel V4A (1.4571)
case dimensions	102 x 54mm (h x Ø)
weight	approx. 1kg(without cable), approx. 1,5kg (with cable)
connection cable	3m, 2 x 0,75mm ² , with shield cover material: PUR, temperature range: -40°C to +90°C,min. bending radius: 57mm
screw-type conduit fitting	TEC/MS-WD-AD M16, M16x1,5
sensor	integrated acceleration sensor
measured value	vibration velocity in mm/s
measurement range	0 to 20mm/s
frequency range	10Hz to 1kHz (-3dB)
filter	Butterworth, 40dB/dek
signal assessment	Peak, decay time 0,08s arithm. average aligned to RMS
analog output	4mA - 20mA (correspond to 0 – 20mm/s)
dynamic range	4 - 22mA linear (up to 25mA -1dB)
supply	Constant voltage supply Modulation of the supply current within the range 4 - 20mA Measurement of current consumption or extraction as voltage across load resistance
max. load resistance	dependant on supply voltage
Dimensioning	$U_{\text{int-min}} = 10\text{V}$, $I_{\text{out-max}} = 27\text{mA}$ $\text{supply} = U_{\text{int-min}} + (R_{\text{load}} \times I_{\text{out-max}})$
example	Default:: $R_{\text{load}} = 500\text{Ohm} \gg \text{output: } 0,5\text{V/mA}$ $U_{\text{load-max}} = 27\text{mA} \times 500\text{Ohm} = 13,5\text{V}$ $U_{\text{B-min}} = U_{\text{load-max}} + U_{\text{int-min}} = 13,5\text{V} + 10\text{V} = 23,5\text{V}$
cable connection	white 4 to 20mA + current loop brown 4 to 20mA reference potential ground on earth terminal, BARTEC, 4,0mm ² threaded pin, M10x25mm, V4A

Electrical data Supply and signal circuit permanently connected cable,
wires white (+) and brown (-)

Max. input voltage	Ui	28,8V, DC
Max. input current	Ii	125 mA
Max. input power	Pi	1 W

The effective capacitance Ci and effective inductance Li of the apparatus are composed of the (concentrated) capacitance and inductance of the apparatus and the parameters of the connected cable:

Effective concentrated capacitance	10	nF
Effective concentrated inductance	30	μH
Cable capacitance	211	nF/km
Cable inductance	0,65	mH/km

Ambient temperature range T_a -40 °C...50 °C

Marking

The marking shall be visible, legible and durable. It shall contain the following:

Name and adress of the manufacturer	Holthausen Elektronik GmbH Wevelinghoven 38 41334 Nettetal
designation	ESW small Transmitter Ex-i M 10-**
Year of production	2015
Certificate number	 II 2G Ex ia IIC T4 Gb
Serial number	zB. 3615-0123 (KW/Jahr- lfd.Nr.) -40 °C ≤ T _a ≤ 50 °C