

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	$U_{int-min} = 10V$, $I_{out-max} = 27mA$ $supply = U_{int-min} + (R_{load} \times I_{out-max})$
example	Default:: $R_{load} = 500\Omega \gg$ output: 0,5V/mA $U_{load-max} = 27mA \times 500\Omega = 13,5V$ $U_{B-min} = U_{load-max} + U_{int-min} = 13,5V + 10V = 23,5V$
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	U _i	28,8V, DC
Max. input current	I _i	125 mA
Max. input power	P _i	1 W


The effective capacitance C_i and effective inductance L_i 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