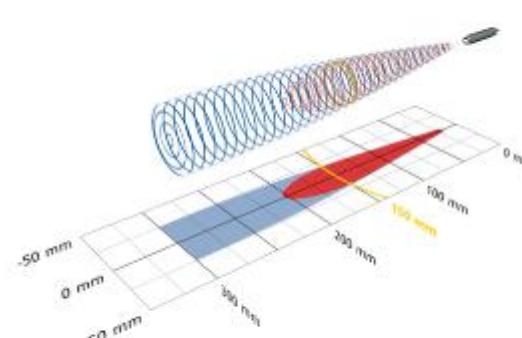
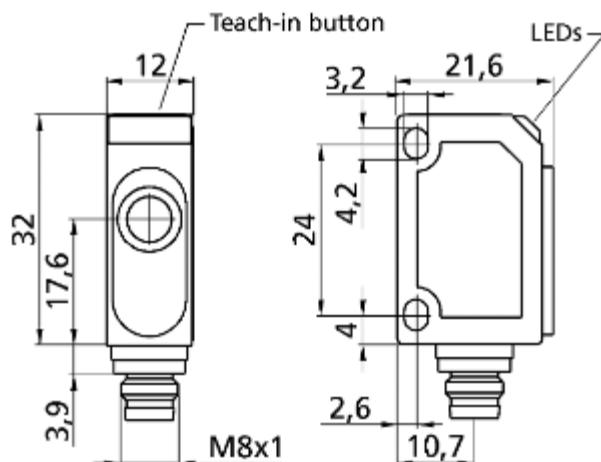


ZWS-15/CD/QS

ε mark for sensor comparison

housing detection zone



1 x pnp250 mm

operating range	20 - 150 mm
design	colloidal
operating mode	proximity switch/reflective mode reflective barrier window mode

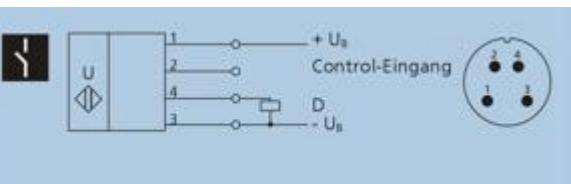
ultrasonic -specific

means of measurement	echo propagation time
transducer frequency	380 kHz
blind zone	20 mm
operating range	150 mm
maximum range	250 mm
angle of beam spread	please see graphics detection zone
resolution/sampling rate	0.20 mm
reproducibility	± 0.15 %
accuracy	temperature 0.17 %/K

electrical data

operating voltage U_B	20 - 30 V d.c., reverse polarity protection
voltage ripple	± 10 %
no-load current consumption	≤ 25 mA
type of connection	4-pin M8 initiator plug
outputs	

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output 1	switching output pnp: $I_{max} = 200 \text{ mA}$ ($U_B=2\text{V}$) NOC/NCC adjustable, short-circuit-proof
switching hysteresis	2.0 mm
switching frequency	25 Hz
response time	24 ms
delay prior to availability	< 300 ms
inputs	
input 1	com input
description	external synchronisation from rectangular signal with a defined pulse width
housing	
material	ABS
ultrasonic transducer	polyurethane foam, epoxy resin with glass contents
class of protection to EN 60529	IP 67
operating temperature	-25°C to +70°C
storage temperature	-40°C to +85°C
weight	10 g
further versions	high chemical resistance cable connection (on request)
further versions	crz-15/CD/QS zws-15/CD/QS /K0.15 zws-15/CD/QS /K10,0
technical features/characteristics	
temperature compensation	no
controls	1 pushbutton
scope for settings	teach-in
synchronization	yes
multiplex	no
indicators	1 x LED green: working, 1 x LED yellow: switch status
particularities	small colloidal design narrow sound field
documentation & accessories	
user's manual	BA_ENG_zws-xxxCD.pdf
STEP	zws-15_XX_QS_STP.zip
IGS	zws-15_XX_QS_IGS.zip
IPT	zws-15_XX_QS_IPT.zip
PDF	zws-15_XX_QS_PDF.zip
SAT	zws-15_XX_QS_SAT.zip
deployable accessory	KST4A-2/M8 KST4A-5/M8 KST4G-2/M8 KST4G-5/M8 MW-ZWS 2 MW-ZWS 3 SoundPipe zws1
pin assignment	
order no.	zws-15/CD/QS