Extract from our online catalogue:

nero ultrasonic sensors

Current to: 2023-07-11



Ultrasonic proximity switch nero in M18 plastic sleeve with 4 detection ranges

HIGHLIGHTS

- > Variant with 90° angled head
- UL Listed to Canadian and US safety standards

BASICS

- 1 switching output, pnp or npn basis
- ➤ Analogue output 4–20 mA or 0–10 V
- > 4 detection ranges with a measurement range of 20 mm to 1.3 m
- microsonic Teach-in on pin 2
- > 0.2 mm resolution
- ➤ 10-30 V operating voltage

Description

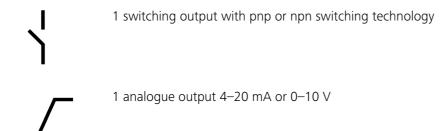
nero ultrasonic proximity switches

are available in a M18 plastic sleeve. In addition to the axial beam direction variant, there is also a housing variant with a 90° angled head and radial beam direction.

The ultrasonic proximity switches detect contactless and reliable objects with four detection ranges from 20 mm to 1.3 m.

For the nero sensor family

there are 2 output stages and 4 detection ranges available:

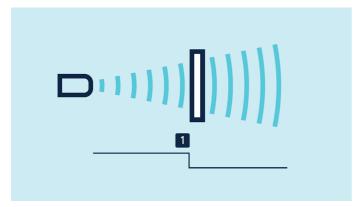


Sensors with switching output have three operating modes:

- > Single switching point
- > Two-way reflective barrier
- > Window mode

Teach-in of a single switching point

- > Place object to be detected (1) at the desired distance
- > Apply +U_B to pin 2 for about 3 seconds
- > Then apply +U_B to pin 2 again for about 1 second



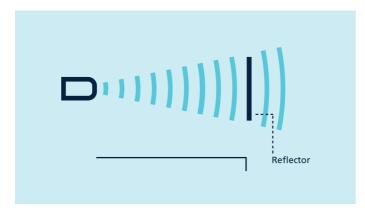
Teach-in of a switching point

Teach-in of a two-way reflective barrier



with a fixed reflector

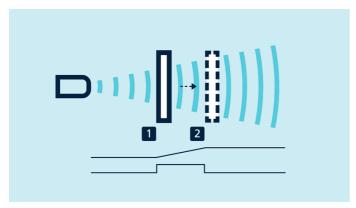
- > Apply +U_B to pin 2 for about 3 seconds
- > Then apply +U_B to pin 2 again for about 10 seconds



Teach-in of a two-way reflective barrier

For configuration of a window

- > Place object at the near edge of the window (1)
- > Apply +U_B to pin 2 for about 3 seconds
- > Then move the object to the far edge of the window (2)
- > Then apply +U_B to pin 2 again for about 1 second



Teach-in of an analogue characteristic or a window with two switching points

NCC/NOC

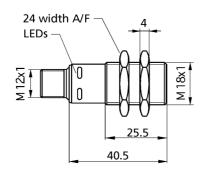
and rising/falling analogue characteristic curve can also be set via pin 2.

One green and one yellow LED

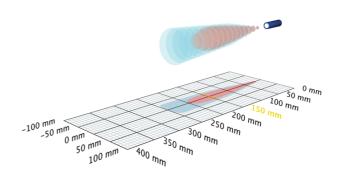
indicate the state of the output and support microsonic Teach-in.

nero-15/CD

scale drawing



detection zone





1 x pnp



measuring range	25 - 250 mm
design	cylindrical M18
operating mode	proximity switch/reflective mode reflective barrier window mode
particularities	UL Listed

ultrasonic-specific

means of measurement	echo propagation time measurement
transducer frequency	380 kHz
blind zone	25 mm
operating range	150 mm
maximum range	250 mm
resolution	0.20 mm
reproducibility	± 0.15 %
accuracy	temperature drift 0.17 %/K

operating voltage U _B	10 - 30 V d.c., reverse polarity protection
voltage ripple	± 10 %
no-load current consumption	≤ 40 mA
type of connection	4-pin M12 initiator plug

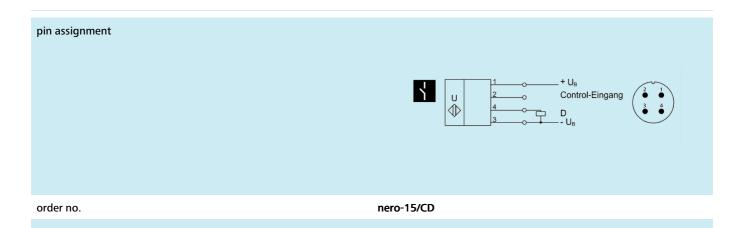
nero-15/CD

outputs	
output 1	switching output
	pnp: $I_{max} = 200 \text{ mA } (U_B-2V)$
switching hysteresis	2.0 mm
switching frequency	25 Hz
response time	32 ms
delay prior to availability	< 300 ms
inputs	
input 1	Teach-in input
housing	
material	PBT
ultrasonic transducer	polyurethane foam, epoxy resin with glass contents
max. tightening torque of nuts	1 Nm
class of protection to EN 60529	IP 67
operating temperature	-25°C to +70°C
storage temperature	-40°C to +85°C
weight	15 g
further versions	90° angular head
further versions	nero-15/WK/CD
technical features/characteristics	
temperature compensation	no
controls	control input
scope for settings	Teach-in
Synchronisation	no
multiplex	no
indicators	1 x LED green: working, 1 x LED yellow: switch status

UL Listed

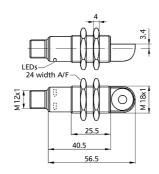
particularities

nero-15/CD

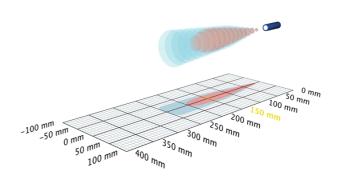


nero-15/WK/CD

scale drawing



detection zone





1 x pnp



measuring range	25 - 250 mm
design	cylindrical M18
operating mode	proximity switch/reflective mode reflective barrier window mode
particularities	90° angular head UL Listed

ultrasonic-specific

means of measurement	echo propagation time measurement
transducer frequency	380 kHz
blind zone	25 mm
operating range	150 mm
maximum range	250 mm
resolution	0.20 mm
reproducibility	± 0.15 %
accuracy	temperature drift 0.17 %/K

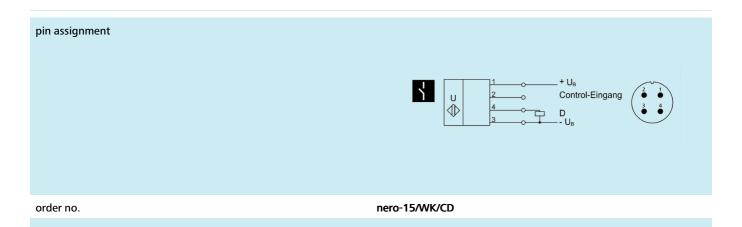
operating voltage $U_{\rm B}$	10 - 30 V d.c., reverse polarity protection
voltage ripple	± 10 %
no-load current consumption	≤ 40 mA
type of connection	4-pin M12 initiator plug

nero-15/WK/CD

outputs	
output 1	switching output pnp: $I_{max} = 200 \text{ mA } (U_B-2V)$
switching hysteresis	2.0 mm
switching frequency	25 Hz
response time	32 ms
delay prior to availability	< 300 ms
inputs	
input 1	Teach-in input
housing	
material	PBT
ultrasonic transducer	polyurethane foam, epoxy resin with glass contents
max. tightening torque of nuts	1 Nm
class of protection to EN 60529	IP 67
operating temperature	-25°C to +70°C
storage temperature	-40°C to +85°C
weight	20 g
technical features/characteristics	
temperature compensation	no
controls	control input
scope for settings	Teach-in
Synchronisation	no
multiplex	no
indicators	1 x LED green: working, 1 x LED yellow: switch status
particularities	90° angular head

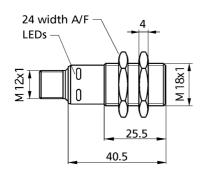
UL Listed

nero-15/WK/CD

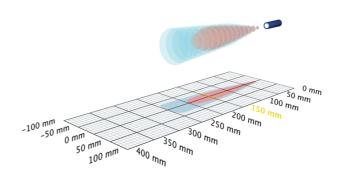


nero-15/CE

scale drawing



detection zone





1 x npn



measuring range	25 - 250 mm
design	cylindrical M18
operating mode	proximity switch/reflective mode reflective barrier window mode
particularities	UL Listed

ultrasonic-specific

means of measurement	echo propagation time measurement
transducer frequency	380 kHz
blind zone	25 mm
operating range	150 mm
maximum range	250 mm
resolution	0.20 mm
reproducibility	± 0.15 %
accuracy	temperature drift 0.17 %/K

operating voltage U _B	10 - 30 V d.c., reverse polarity protection
voltage ripple	± 10 %
no-load current consumption	≤ 40 mA
type of connection	4-pin M12 initiator plug

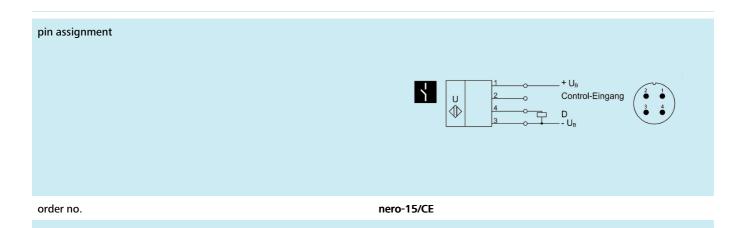
nero-15/CE

outputs	
output 1	Schaltausgang npn: $I_{max} = 200 \text{ mA (-U}_{B}+2\text{V)}$
switching hysteresis	2.0 mm
switching frequency	25 Hz
response time	32 ms
delay prior to availability	< 300 ms
inputs	
input 1	Teach-in input
housing	
material	РВТ
ultrasonic transducer	polyurethane foam, epoxy resin with glass contents
max. tightening torque of nuts	1 Nm
class of protection to EN 60529	IP 67
operating temperature	-25°C to +70°C
storage temperature	-40°C to +85°C
weight	15 g
further versions	90° angular head
further versions	nero-15/WK/CE
technical features/characteristics	
temperature compensation	no
controls	control input
scope for settings	Teach-in
Synchronisation	no
multiplex	no
indicators	1 x LED green: working, 1 x LED yellow: switch status

UL Listed

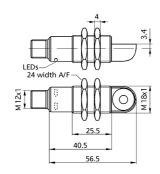
particularities

nero-15/CE

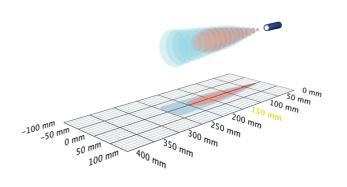


nero-15/WK/CE

scale drawing



detection zone





1 x npn



measuring range	25 - 250 mm
design	cylindrical M18
operating mode	proximity switch/reflective mode reflective barrier window mode
particularities	90° angular head UL Listed

ultrasonic-specific

means of measurement	echo propagation time measurement
transducer frequency	380 kHz
blind zone	25 mm
operating range	150 mm
maximum range	250 mm
resolution	0.20 mm
reproducibility	± 0.15 %
accuracy	temperature drift 0.17 %/K

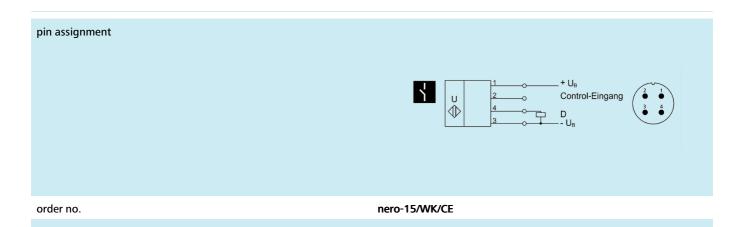
operating voltage $U_{\rm B}$	10 - 30 V d.c., reverse polarity protection
voltage ripple	± 10 %
no-load current consumption	≤ 40 mA
type of connection	4-pin M12 initiator plug

nero-15/WK/CE

outputs	
output 1	Schaltausgang npn: $I_{max} = 200 \text{ mA } (-U_B+2V)$
switching hysteresis	2.0 mm
switching frequency	25 Hz
response time	32 ms
delay prior to availability	< 300 ms
inputs	
input 1	Teach-in input
housing	
material	PBT
ultrasonic transducer	polyurethane foam, epoxy resin with glass contents
max. tightening torque of nuts	1 Nm
class of protection to EN 60529	IP 67
operating temperature	-25°C to +70°C
storage temperature	-40°C to +85°C
weight	20 g
technical features/characteristics	
temperature compensation	no
controls	control input
scope for settings	Teach-in
Synchronisation	no
multiplex	no
indicators	1 x LED green: working, 1 x LED yellow: switch status
particularities	90° angular head

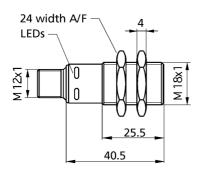
UL Listed

nero-15/WK/CE

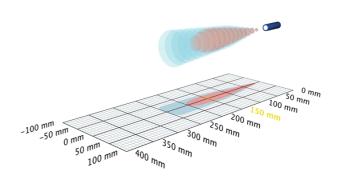


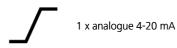
nero-15/CI

scale drawing



detection zone







measuring range	20 - 250 mm
design	cylindrical M18
operating mode	analogue distance measurements
particularities	UL Listed

ultrasonic-specific

means of measurement	echo propagation time measurement
transducer frequency	380 kHz
blind zone	20 mm
operating range	150 mm
maximum range	250 mm
resolution	0.056 mm to 0.297 mm, depending on the analogue window
reproducibility	± 0.15 %
accuracy	temperature drift 0.17 %/K

operating voltage U_{B}	10 - 30 V d.c., reverse polarity protection
voltage ripple	± 10 %
no-load current consumption	≤ 40 mA
type of connection	4-pin M12 initiator plug

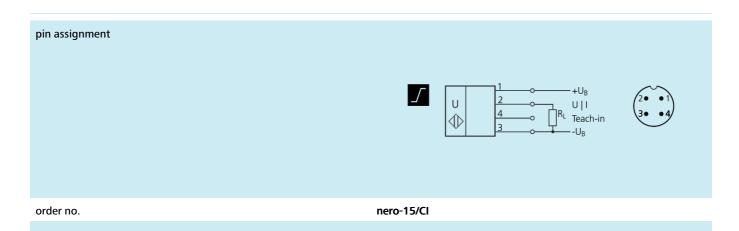
nero-15/CI

outputs	
output 1	analogue output current: 4-20 mA switchable rising/falling
response time	32 ms
delay prior to availability	< 300 ms
inputs	
input 1	Teach-in input
housing	
material	PBT
ultrasonic transducer	polyurethane foam, epoxy resin with glass contents
max. tightening torque of nuts	1 Nm
class of protection to EN 60529	IP 67
operating temperature	-25°C to +70°C
storage temperature	-40°C to +85°C
weight	15 g
further versions	90° angular head
further versions	nero-15/WK/CI
technical features/characteristics	
temperature compensation	no
controls	control input
scope for settings	Teach-in
Synchronisation	no
multiplex	no
indicators	LED green: working, LED yellow: state of output

UL Listed

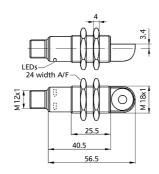
particularities

nero-15/CI

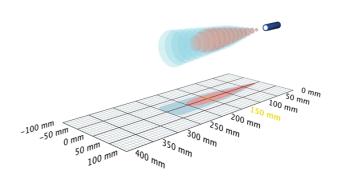


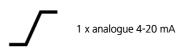
nero-15/WK/CI

scale drawing



detection zone







measuring range	20 - 250 mm
design	cylindrical M18
operating mode	analogue distance measurements
particularities	90° angular head UL Listed

ultrasonic-specific

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means of measurement	echo propagation time measurement
transducer frequency	380 kHz
blind zone	20 mm
operating range	150 mm
maximum range	250 mm
resolution	0.056 mm to 0.297 mm, depending on the analogue window
reproducibility	± 0.15 %
accuracy	temperature drift 0.17 %/K

operating voltage U _B	10 - 30 V d.c., reverse polarity protection
voltage ripple	± 10 %
3 11	
no-load current consumption	≤ 40 mA
no roud carrett consumption	2.10.11.0
type of connection	4-pin M12 initiator plug
type of confiection	4-pin ivi iz initiator piug

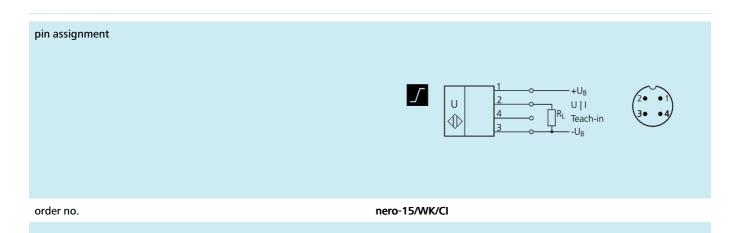
nero-15/WK/CI

outputs	
output 1	analogue output current: 4-20 mA switchable rising/falling
response time	32 ms
delay prior to availability	< 300 ms
inputs	
input 1	Teach-in input
housing	
material	PBT
ultrasonic transducer	polyurethane foam, epoxy resin with glass contents
max. tightening torque of nuts	1 Nm
class of protection to EN 60529	IP 67
operating temperature	-25°C to +70°C
storage temperature	-40°C to +85°C
weight	20 g
technical features/characteristics	
temperature compensation	no
controls	control input
scope for settings	Teach-in
Synchronisation	no
multiplex	no
indicators	LED green: working, LED yellow: state of output

90° angular head UL Listed

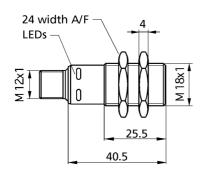
particularities

nero-15/WK/CI

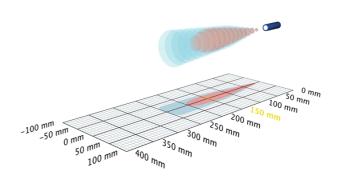


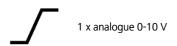
nero-15/CU

scale drawing



detection zone







measuring range	20 - 250 mm
design	cylindrical M18
operating mode	analogue distance measurements
particularities	UL Listed

ultrasonic-specific

means of measurement	echo propagation time measurement
transducer frequency	380 kHz
blind zone	20 mm
operating range	150 mm
maximum range	250 mm
resolution	0.056 mm to 0.297 mm, depending on the analogue window
reproducibility	± 0.15 %
accuracy	temperature drift 0.17 %/K

operating voltage U_{B}	15 V bis 30 V DC, verpolfest
voltage ripple	± 10 %
no-load current consumption	≤ 40 mA
type of connection	4-pin M12 initiator plug

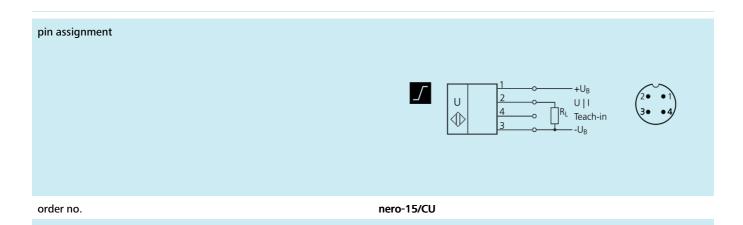
nero-15/CU

outputs	
output 1	analogue output voltage: 0-10 V, short-circuit-proof switchable rising/falling
response time	32 ms
delay prior to availability	< 300 ms
inputs	
input 1	Teach-in input
housing	
material	PBT
ultrasonic transducer	polyurethane foam, epoxy resin with glass contents
max. tightening torque of nuts	1 Nm
class of protection to EN 60529	IP 67
operating temperature	-25°C to +70°C
storage temperature	-40°C to +85°C
weight	15 g
further versions	90° angular head
further versions	nero-15/WK/CU
technical features/characteristics	
temperature compensation	no
controls	control input
scope for settings	Teach-in
Synchronisation	no
multiplex	no
indicators	LED green: working, LED yellow: state of output

UL Listed

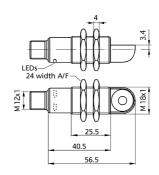
particularities

nero-15/CU

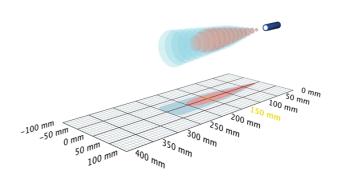


nero-15/WK/CU

scale drawing



detection zone







measuring range	20 - 250 mm
design	cylindrical M18
operating mode	analogue distance measurements
particularities	90° angular head UL Listed

ultrasonic-specific

·	
means of measurement	echo propagation time measurement
transducer frequency	380 kHz
blind zone	20 mm
operating range	150 mm
maximum range	250 mm
resolution	0.056 mm to 0.297 mm, depending on the analogue window
reproducibility	± 0.15 %
accuracy	temperature drift 0.17 %/K

operating voltage U _B	15 V bis 30 V DC, verpolfest
voltage ripple	± 10 %
no-load current consumption	≤ 40 mA
type of connection	4-pin M12 initiator plug

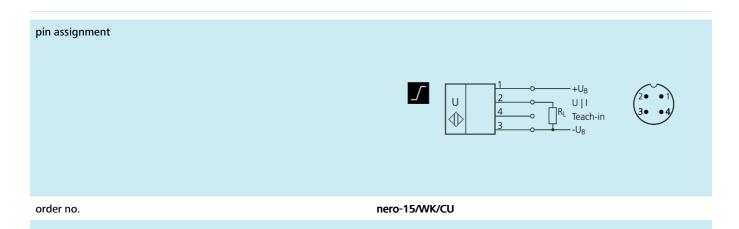
nero-15/WK/CU

outputs	
output 1	analogue output voltage: 0-10 V, short-circuit-proof switchable rising/falling
response time	32 ms
delay prior to availability	< 300 ms
inputs	
input 1	Teach-in input
housing	
material	РВТ
ultrasonic transducer	polyurethane foam, epoxy resin with glass contents
max. tightening torque of nuts	1 Nm
class of protection to EN 60529	IP 67
operating temperature	-25°C to +70°C
storage temperature	-40°C to +85°C
weight	20 g

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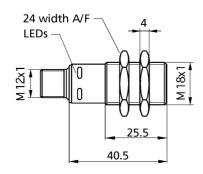
temperature compensation	no
controls	control input
scope for settings	Teach-in
Synchronisation	no
multiplex	no
indicators	LED green: working, LED yellow: state of output
particularities	90° angular head UL Listed

nero-15/WK/CU

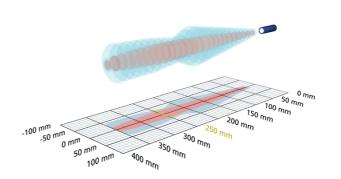


nero-25/CD

scale drawing



detection zone





1 x pnp



measuring range	30 - 350 mm
design	cylindrical M18
operating mode	proximity switch/reflective mode reflective barrier window mode
particularities	UL Listed

ultrasonic-specific

means of measurement	echo propagation time measurement
transducer frequency	320 kHz
blind zone	30 mm
operating range	250 mm
maximum range	350 mm
resolution	0.20 mm
reproducibility	± 0.15 %
accuracy	temperature drift 0.17 %/K

operating voltage U _B	10 - 30 V d.c., reverse polarity protection
voltage ripple	± 10 %
no-load current consumption	≤ 40 mA
type of connection	4-pin M12 initiator plug

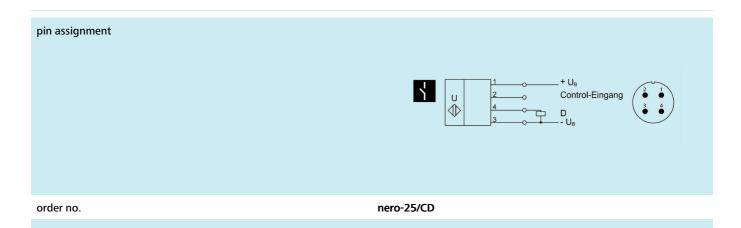
nero-25/CD

outputs	
output 1	switching output
	pnp: $I_{max} = 200 \text{ mA } (U_{B}-2V)$
switching hysteresis	3 mm
switching frequency	25 Hz
response time	32 ms
delay prior to availability	< 300 ms
inputs	
input 1	Teach-in input
housing	
material	PBT
ultrasonic transducer	polyurethane foam, epoxy resin with glass contents
max. tightening torque of nuts	1 Nm
class of protection to EN 60529	IP 67
operating temperature	-25°C to +70°C
storage temperature	-40°C to +85°C
weight	15 g
further versions	90° angular head
further versions	nero-25/WK/CD
technical features/characteristics	
temperature compensation	no
controls	control input
scope for settings	Teach-in
Synchronisation	no
multiplex	no
indicators	1 x LED green: working, 1 x LED yellow: switch status

UL Listed

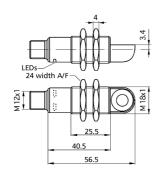
particularities

nero-25/CD

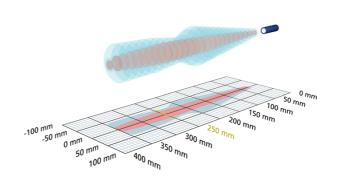


nero-25/WK/CD

scale drawing



detection zone





1 x pnp



measuring range	30 - 350 mm
design	cylindrical M18
operating mode	proximity switch/reflective mode reflective barrier window mode
particularities	90° angular head UL Listed

ultrasonic-specific

means of measurement	echo propagation time measurement
transducer frequency	320 kHz
blind zone	30 mm
operating range	250 mm
maximum range	350 mm
resolution	0.20 mm
reproducibility	± 0.15 %
accuracy	temperature drift 0.17 %/K

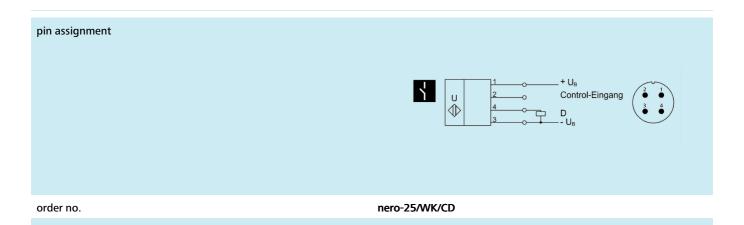
operating voltage U _B	10 - 30 V d.c., reverse polarity protection
voltage ripple	± 10 %
no-load current consumption	≤ 40 mA
type of connection	4-pin M12 initiator plug

nero-25/WK/CD

outputs	
output 1	switching output pnp: $I_{max} = 200 \text{ mA } (U_B-2V)$
switching hysteresis	3 mm
switching frequency	25 Hz
response time	32 ms
delay prior to availability	< 300 ms
inputs	
input 1	Teach-in input
housing	
material	PBT
ultrasonic transducer	polyurethane foam, epoxy resin with glass contents
max. tightening torque of nuts	1 Nm
class of protection to EN 60529	IP 67
operating temperature	-25°C to +70°C
storage temperature	-40°C to +85°C
weight	20 g
technical features/characteristics	
temperature compensation	no
controls	control input
scope for settings	Teach-in
Synchronisation	no
multiplex	no
indicators	1 x LED green: working, 1 x LED yellow: switch status
particularities	90° angular head

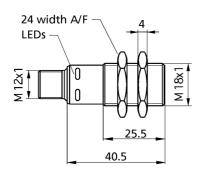
UL Listed

nero-25/WK/CD

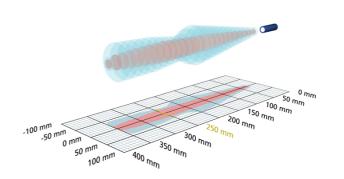


nero-25/CE

scale drawing



detection zone





1 x npn



measuring range	30 - 350 mm
design	cylindrical M18
operating mode	proximity switch/reflective mode reflective barrier window mode
particularities	UL Listed

ultrasonic-specific

means of measurement	echo propagation time measurement
transducer frequency	320 kHz
blind zone	30 mm
operating range	250 mm
maximum range	350 mm
resolution	0.20 mm
reproducibility	± 0.15 %
accuracy	temperature drift 0.17 %/K

operating voltage U _B	10 - 30 V d.c., reverse polarity protection
voltage ripple	± 10 %
no-load current consumption	≤ 40 mA
type of connection	4-pin M12 initiator plug

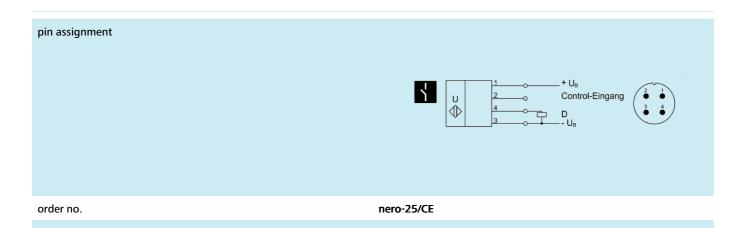
nero-25/CE

outputs	
output 1	Schaltausgang
	npn: $I_{max} = 200 \text{ mA } (-U_B + 2V)$
switching hysteresis	3 mm
switching frequency	25 Hz
response time	32 ms
delay prior to availability	< 300 ms
inputs	
input 1	Teach-in input
housing	
material	PBT
ultrasonic transducer	polyurethane foam, epoxy resin with glass contents
max. tightening torque of nuts	1 Nm
class of protection to EN 60529	IP 67
operating temperature	-25°C to +70°C
storage temperature	-40°C to +85°C
weight	15 g
further versions	90° angular head
further versions	nero-25/WK/CE
technical features/characteristics	
temperature compensation	no
controls	control input
scope for settings	Teach-in
Synchronisation	no
multiplex	no
indicators	1 x LED green: working, 1 x LED yellow: switch status

UL Listed

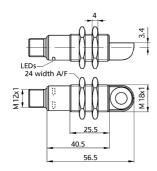
particularities

nero-25/CE

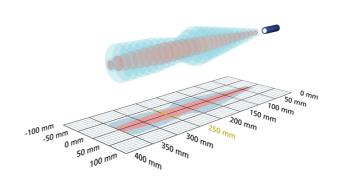


nero-25/WK/CE

scale drawing



detection zone





1 x npn



measuring range	30 - 350 mm
design	cylindrical M18
operating mode	proximity switch/reflective mode reflective barrier window mode
particularities	90° angular head UL Listed

ultrasonic-specific

means of measurement	echo propagation time measurement
transducer frequency	320 kHz
blind zone	30 mm
operating range	250 mm
maximum range	350 mm
resolution	0.20 mm
reproducibility	± 0.15 %
accuracy	temperature drift 0.17 %/K

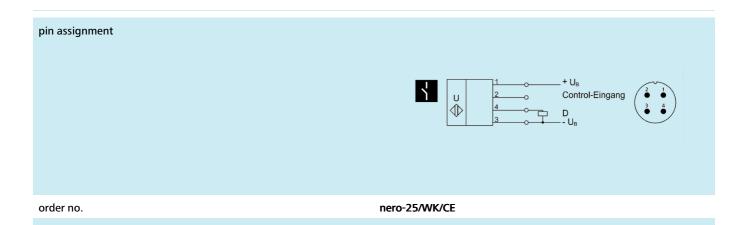
operating voltage $U_{\rm B}$	10 - 30 V d.c., reverse polarity protection
voltage ripple	± 10 %
no-load current consumption	≤ 40 mA
type of connection	4-pin M12 initiator plug

nero-25/WK/CE

outputs	
output 1	Schaltausgang npn: $I_{max} = 200 \text{ mA (-U}_{B}+2\text{V)}$
switching hysteresis	3 mm
switching frequency	25 Hz
response time	32 ms
delay prior to availability	< 300 ms
inputs	
input 1	Teach-in input
housing	
material	PBT
ultrasonic transducer	polyurethane foam, epoxy resin with glass contents
max. tightening torque of nuts	1 Nm
class of protection to EN 60529	IP 67
operating temperature	-25°C to +70°C
storage temperature	-40°C to +85°C
weight	20 g
technical features/characteristics	
temperature compensation	no
controls	control input
scope for settings	Teach-in
Synchronisation	no
multiplex	no
indicators	1 x LED green: working, 1 x LED yellow: switch status
particularities	90° angular head

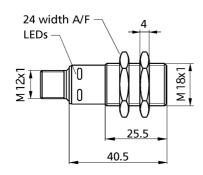
UL Listed

nero-25/WK/CE

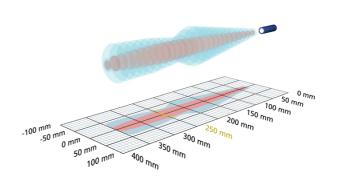


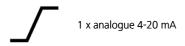
nero-25/CI

scale drawing



detection zone







measuring range	30 - 350 mm
design	cylindrical M18
operating mode	analogue distance measurements
particularities	UL Listed

ultrasonic-specific

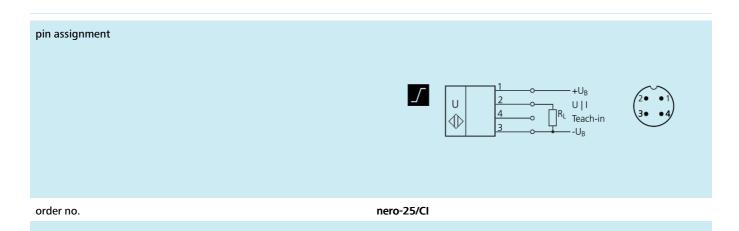
means of measurement	echo propagation time measurement
transducer frequency	320 kHz
blind zone	30 mm
operating range	250 mm
maximum range	350 mm
resolution	0.056 mm to 0.413 mm, depending on the analogue window
reproducibility	± 0.15 %
accuracy	temperature drift 0.17 %/K

operating voltage U _B	10 - 30 V d.c., reverse polarity protection
voltage ripple	± 10 %
no-load current consumption	≤ 40 mA
type of connection	4-pin M12 initiator plug

nero-25/CI

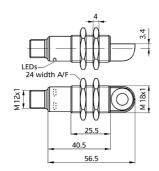
outputs	
output 1	analogue output current: 4-20 mA switchable rising/falling
response time	32 ms
delay prior to availability	< 300 ms
inputs	
input 1	Teach-in input
housing	
material	PBT
ultrasonic transducer	polyurethane foam, epoxy resin with glass contents
max. tightening torque of nuts	1 Nm
class of protection to EN 60529	IP 67
operating temperature	-25°C to +70°C
storage temperature	-40°C to +85°C
weight	15 g
further versions	90° angular head
further versions	nero-25/WK/CI
technical features/characteristics	
temperature compensation	no
controls	control input
scope for settings	Teach-in
Synchronisation	no
multiplex	no
indicators	LED green: working, LED yellow: state of output
particularities	UL Listed

nero-25/CI

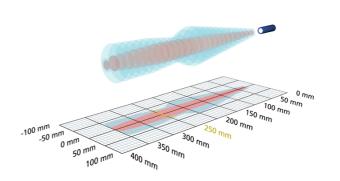


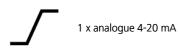
nero-25/WK/CI

scale drawing



detection zone







measuring range	30 - 350 mm
design	cylindrical M18
operating mode	analogue distance measurements
particularities	90° angular head UL Listed

ultrasonic-specific

means of measurement	echo propagation time measurement
transducer frequency	320 kHz
blind zone	30 mm
operating range	250 mm
maximum range	350 mm
resolution	0.056 mm to 0.413 mm, depending on the analogue window
reproducibility	± 0.15 %
accuracy	temperature drift 0.17 %/K

operating voltage U_{B}	10 - 30 V d.c., reverse polarity protection
voltage ripple	± 10 %
no-load current consumption	≤ 40 mA
type of connection	4-pin M12 initiator plug

nero-25/WK/CI

outputs	
output 1	analogue output current: 4-20 mA switchable rising/falling
response time	32 ms
delay prior to availability	< 300 ms
inputs	
input 1	Teach-in input
housing	
material	PBT
ultrasonic transducer	polyurethane foam, epoxy resin with glass contents
max. tightening torque of nuts	1 Nm
class of protection to EN 60529	IP 67
operating temperature	-25°C to +70°C
storage temperature	-40°C to +85°C
weight	20 g
technical features/characteristics	
temperature compensation	no
controls	control input

Teach-in

90° angular head

UL Listed

LED green: working, LED yellow: state of output

no

no

scope for settings

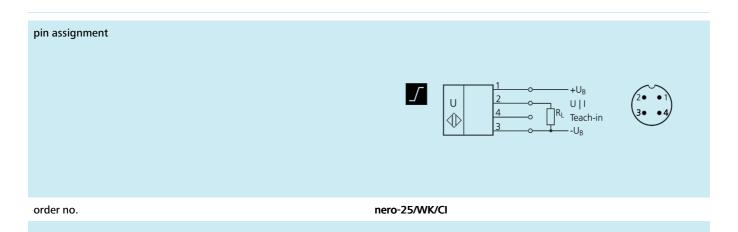
Synchronisation

multiplex

indicators

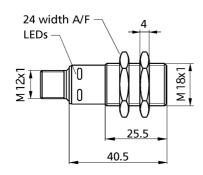
particularities

nero-25/WK/CI

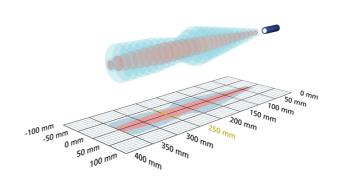


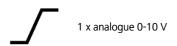
nero-25/CU

scale drawing



detection zone







measuring range	30 - 350 mm
design	cylindrical M18
operating mode	analogue distance measurements
particularities	UL Listed

ultrasonic-specific

means of measurement	echo propagation time measurement
transducer frequency	320 kHz
blind zone	30 mm
operating range	250 mm
maximum range	350 mm
resolution	0.056 mm to 0.413 mm, depending on the analogue window
reproducibility	± 0.15 %
accuracy	temperature drift 0.17 %/K

operating voltage U_{B}	15 V bis 30 V DC, verpolfest
voltage ripple	± 10 %
no-load current consumption	≤ 40 mA
type of connection	4-pin M12 initiator plug

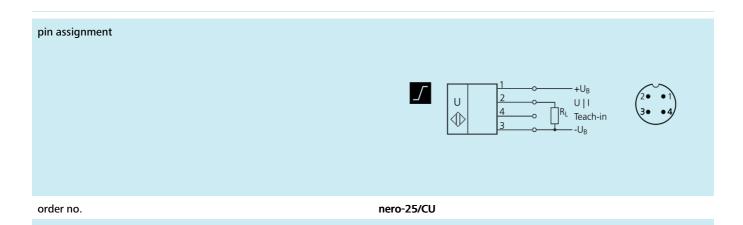
nero-25/CU

outputs	
output 1	analogue output voltage: 0-10 V, short-circuit-proof switchable rising/falling
response time	32 ms
delay prior to availability	< 300 ms
inputs	
input 1	Teach-in input
housing	
material	PBT
ultrasonic transducer	polyurethane foam, epoxy resin with glass contents
max. tightening torque of nuts	1 Nm
class of protection to EN 60529	IP 67
operating temperature	-25°C to +70°C
storage temperature	-40°C to +85°C
weight	15 g
further versions	90° angular head
further versions	nero-25/WK/CU
technical features/characteristics	
temperature compensation	no
controls	control input
scope for settings	Teach-in
Synchronisation	no
multiplex	no
indicators	LED green: working, LED yellow: state of output

UL Listed

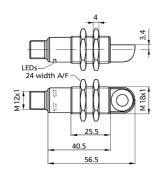
particularities

nero-25/CU

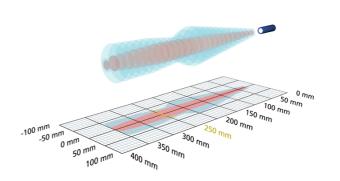


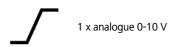
nero-25/WK/CU

scale drawing



detection zone







measuring range	30 - 350 mm
design	cylindrical M18
operating mode	analogue distance measurements
particularities	90° angular head UL Listed

ultrasonic-specific

means of measurement	echo propagation time measurement
transducer frequency	320 kHz
blind zone	30 mm
operating range	250 mm
maximum range	350 mm
resolution	0.056 mm to 0.413 mm, depending on the analogue window
reproducibility	± 0.15 %
accuracy	temperature drift 0.17 %/K

operating voltage U _B	15 V bis 30 V DC, verpolfest
voltage ripple	± 10 %
no-load current consumption	≤ 40 mA
type of connection	4-pin M12 initiator plug

nero-25/WK/CU

outputs	
output 1	analogue output voltage: 0-10 V, short-circuit-proof switchable rising/falling
response time	32 ms
delay prior to availability	< 300 ms

inputs

	input 1	Teach-in input	
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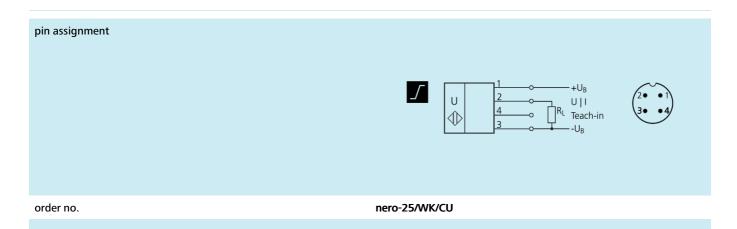
housing

material	РВТ
ultrasonic transducer	polyurethane foam, epoxy resin with glass contents
max. tightening torque of nuts	1 Nm
class of protection to EN 60529	IP 67
operating temperature	-25°C to +70°C
storage temperature	-40°C to +85°C
weight	20 g

technical features/characteristics

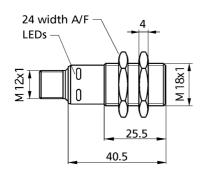
temperature compensation	no
controls	control input
scope for settings	Teach-in
Synchronisation	no
multiplex	no
indicators	LED green: working, LED yellow: state of output
particularities	90° angular head UL Listed

nero-25/WK/CU

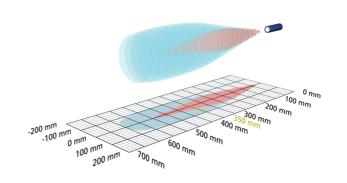


nero-35/CD

scale drawing



detection zone





1 x pnp



measuring range	65 - 600 mm
design	cylindrical M18
operating mode	proximity switch/reflective mode reflective barrier window mode
particularities	UL Listed

ultrasonic-specific

means of measurement	echo propagation time measurement
transducer frequency	400 kHz
blind zone	65 mm
operating range	350 mm
maximum range	600 mm
resolution	0.20 mm
reproducibility	± 0.15 %
accuracy	temperature drift 0.17 %/K

operating voltage U _B	10 - 30 V d.c., reverse polarity protection
voltage ripple	± 10 %
no-load current consumption	≤ 40 mA
type of connection	4-pin M12 initiator plug

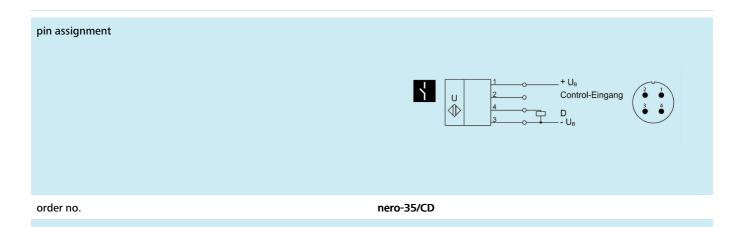
nero-35/CD

outputs	
output 1	switching output
	pnp: $I_{max} = 200 \text{ mA } (U_{B}-2V)$
switching hysteresis	5 mm
switching frequency	12 Hz
response time	64 ms
delay prior to availability	< 300 ms
inputs	
input 1	Teach-in input
housing	
material	PBT
ultrasonic transducer	polyurethane foam, epoxy resin with glass contents
max. tightening torque of nuts	1 Nm
class of protection to EN 60529	IP 67
operating temperature	-25°C to +70°C
storage temperature	-40°C to +85°C
weight	15 g
further versions	90° angular head
further versions	nero-35/WK/CD
technical features/characteristics	
temperature compensation	no
controls	control input
scope for settings	Teach-in
Synchronisation	no
multiplex	no
indicators	1 x LED green: working, 1 x LED yellow: switch status

UL Listed

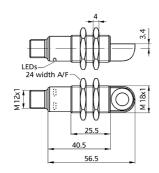
particularities

nero-35/CD

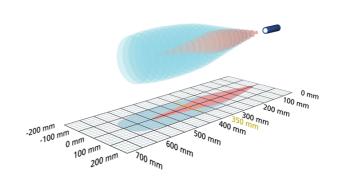


nero-35/WK/CD

scale drawing



detection zone





1 x pnp



measuring range	65 - 600 mm
design	cylindrical M18
operating mode	proximity switch/reflective mode reflective barrier window mode
particularities	90° angular head UL Listed

ultrasonic-specific

means of measurement	echo propagation time measurement
transducer frequency	400 kHz
blind zone	65 mm
operating range	350 mm
maximum range	600 mm
resolution	0.20 mm
reproducibility	± 0.15 %
accuracy	temperature drift 0.17 %/K

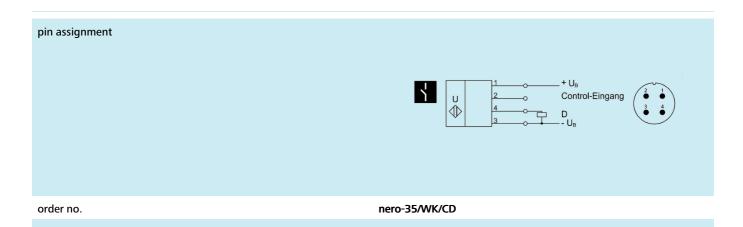
operating voltage $U_{\rm B}$	10 - 30 V d.c., reverse polarity protection
voltage ripple	± 10 %
no-load current consumption	≤ 40 mA
type of connection	4-pin M12 initiator plug

nero-35/WK/CD

outputs	
output 1	switching output pnp: $I_{max} = 200 \text{ mA} (U_B-2V)$
switching hysteresis	5 mm
switching frequency	12 Hz
response time	64 ms
delay prior to availability	< 300 ms
inputs	
input 1	Teach-in input
housing	
material	PBT
ultrasonic transducer	polyurethane foam, epoxy resin with glass contents
max. tightening torque of nuts	1 Nm
class of protection to EN 60529	IP 67
operating temperature	-25°C to +70°C
storage temperature	-40°C to +85°C
weight	20 g
technical features/characteristics	
temperature compensation	no
controls	control input
scope for settings	Teach-in
Synchronisation	no
multiplex	no
indicators	1 x LED green: working, 1 x LED yellow: switch status
particularities	90° angular head

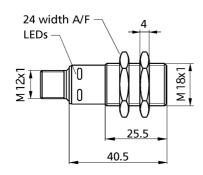
UL Listed

nero-35/WK/CD

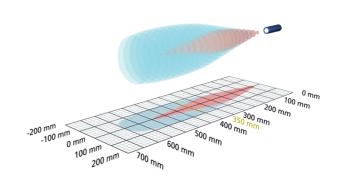


nero-35/CE

scale drawing



detection zone





1 x npn



measuring range	65 - 600 mm
design	cylindrical M18
operating mode	proximity switch/reflective mode reflective barrier window mode
particularities	UL Listed

ultrasonic-specific

means of measurement	echo propagation time measurement
transducer frequency	400 kHz
blind zone	65 mm
operating range	350 mm
maximum range	600 mm
resolution	0.20 mm
reproducibility	± 0.15 %
accuracy	temperature drift 0.17 %/K

operating voltage U _B	10 - 30 V d.c., reverse polarity protection
voltage ripple	± 10 %
no-load current consumption	≤ 40 mA
type of connection	4-pin M12 initiator plug

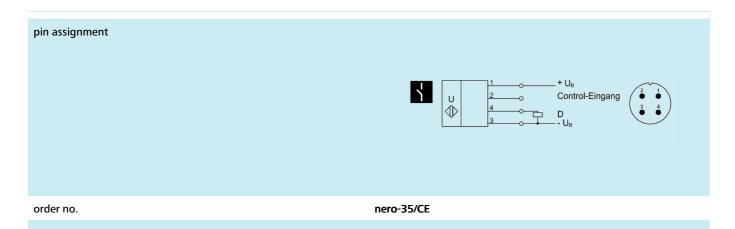
nero-35/CE

outputs	
output 1	Schaltausgang
	npn: $I_{max} = 200 \text{ mA } (-U_B + 2V)$
switching hysteresis	5 mm
switching frequency	12 Hz
response time	64 ms
delay prior to availability	< 300 ms
inputs	
input 1	Teach-in input
housing	
material	PBT
ultrasonic transducer	polyurethane foam, epoxy resin with glass contents
max. tightening torque of nuts	1 Nm
class of protection to EN 60529	IP 67
operating temperature	-25°C to +70°C
storage temperature	-40°C to +85°C
weight	15 g
further versions	90° angular head
further versions	nero-100/WK/CE
technical features/characteristics	
temperature compensation	no
controls	control input
scope for settings	Teach-in
Synchronisation	no
multiplex	no
indicators	1 x LED green: working, 1 x LED yellow: switch status

UL Listed

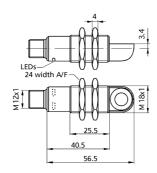
particularities

nero-35/CE

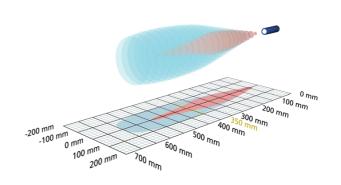


nero-35/WK/CE

scale drawing



detection zone





1 x npn



measuring range	65 - 600 mm
design	cylindrical M18
operating mode	proximity switch/reflective mode reflective barrier window mode
particularities	90° angular head UL Listed

ultrasonic-specific

means of measurement	echo propagation time measurement
transducer frequency	400 kHz
blind zone	65 mm
operating range	350 mm
maximum range	600 mm
resolution	0.20 mm
reproducibility	± 0.15 %
accuracy	temperature drift 0.17 %/K

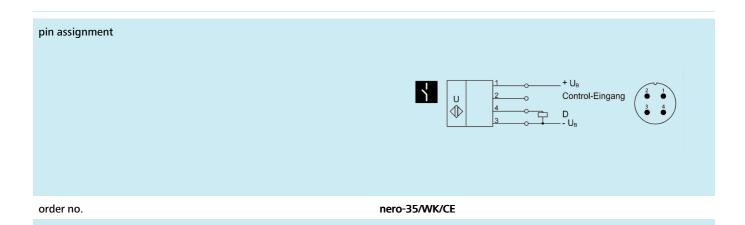
operating voltage $U_{\rm B}$	10 - 30 V d.c., reverse polarity protection
voltage ripple	± 10 %
no-load current consumption	≤ 40 mA
type of connection	4-pin M12 initiator plug

nero-35/WK/CE

outputs	
output 1	Schaltausgang
	npn: $I_{max} = 200 \text{ mA } (-U_B + 2V)$
switching hysteresis	5 mm
switching frequency	12 Hz
response time	64 ms
delay prior to availability	< 300 ms
inputs	
input 1	Teach-in input
housing	
material	PBT
ultrasonic transducer	polyurethane foam, epoxy resin with glass contents
max. tightening torque of nuts	1 Nm
class of protection to EN 60529	IP 67
operating temperature	-25°C to +70°C
storage temperature	-40°C to +85°C
weight	20 g
technical features/characteristics	
temperature compensation	no
controls	control input
scope for settings	Teach-in
Synchronisation	no
multiplex	no
indicators	1 x LED green: working, 1 x LED yellow: switch status
particularities	90° angular head

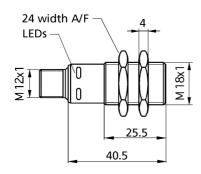
UL Listed

nero-35/WK/CE

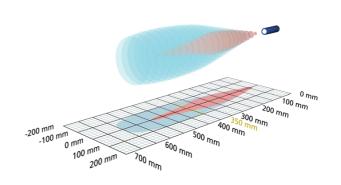


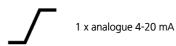
nero-35/CI

scale drawing



detection zone







measuring range	65 - 600 mm
design	cylindrical M18
operating mode	analogue distance measurements
particularities	UL Listed

ultrasonic-specific

means of measurement	echo propagation time measurement
transducer frequency	400 kHz
blind zone	65 mm
operating range	350 mm
maximum range	600 mm
resolution	0.056 mm to 0.691 mm, depending on the analogue window
reproducibility	± 0.15 %
accuracy	temperature drift 0.17 %/K

operating voltage U_{B}	10 - 30 V d.c., reverse polarity protection
voltage ripple	± 10 %
no-load current consumption	≤ 40 mA
type of connection	4-pin M12 initiator plug

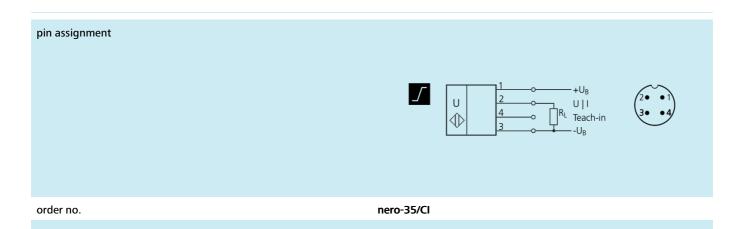
nero-35/CI

outputs	
output 1	analogue output current: 4-20 mA switchable rising/falling
response time	64 ms
delay prior to availability	< 300 ms
inputs	
input 1	Teach-in input
housing	
material	PBT
ultrasonic transducer	polyurethane foam, epoxy resin with glass contents
max. tightening torque of nuts	1 Nm
class of protection to EN 60529	IP 67
operating temperature	-25°C to +70°C
storage temperature	-40°C to +85°C
weight	15 g
further versions	90° angular head
further versions	nero-35/WK/CI
technical features/characteristics	
temperature compensation	no
controls	control input
scope for settings	Teach-in
Synchronisation	no
multiplex	no
indicators	LED green: working, LED yellow: state of output

UL Listed

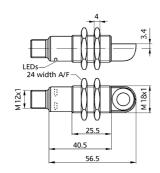
particularities

nero-35/CI

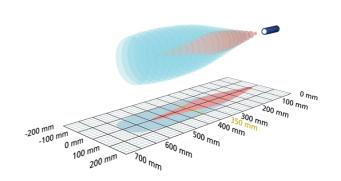


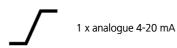
nero-35/WK/CI

scale drawing



detection zone







measuring range	65 - 600 mm
design	cylindrical M18
operating mode	analogue distance measurements
particularities	90° angular head UL Listed

ultrasonic-specific

means of measurement	echo propagation time measurement
transducer frequency	400 kHz
blind zone	65 mm
operating range	350 mm
maximum range	600 mm
resolution	0.056 mm to 0.691 mm, depending on the analogue window
reproducibility	± 0.15 %
accuracy	temperature drift 0.17 %/K

operating voltage U _B	10 - 30 V d.c., reverse polarity protection
voltage ripple	± 10 %
no-load current consumption	≤ 40 mA
type of connection	4-pin M12 initiator plug

nero-35/WK/CI

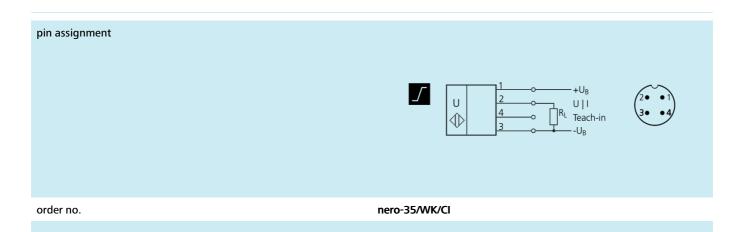
outputs	
output 1	analogue output current: 4-20 mA switchable rising/falling
response time	64 ms
delay prior to availability	< 300 ms
inputs	
input 1	Teach-in input
housing	
material	РВТ
ultrasonic transducer	polyurethane foam, epoxy resin with glass contents
max. tightening torque of nuts	1 Nm
class of protection to EN 60529	IP 67
operating temperature	-25°C to +70°C
storage temperature	-40°C to +85°C
weight	20 g
technical features/characteristics	
temperature compensation	no
controls	control input
scope for settings	Teach-in
Synchronisation	no
multiplex	no

LED green: working, LED yellow: state of output

90° angular head UL Listed

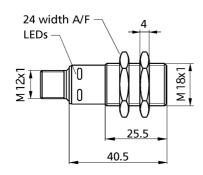
indicatorsparticularities

nero-35/WK/CI

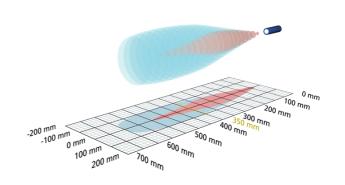


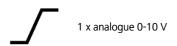
nero-35/CU

scale drawing



detection zone







measuring range	65 - 600 mm
design	cylindrical M18
operating mode	analogue distance measurements
particularities	UL Listed

ultrasonic-specific

means of measurement	echo propagation time measurement
transducer frequency	400 kHz
blind zone	65 mm
operating range	350 mm
maximum range	600 mm
resolution	0.056 mm to 0.691 mm, depending on the analogue window
reproducibility	± 0.15 %
accuracy	temperature drift 0.17 %/K

operating voltage U_{B}	15 V bis 30 V DC, verpolfest
voltage ripple	± 10 %
no-load current consumption	≤ 40 mA
type of connection	4-pin M12 initiator plug

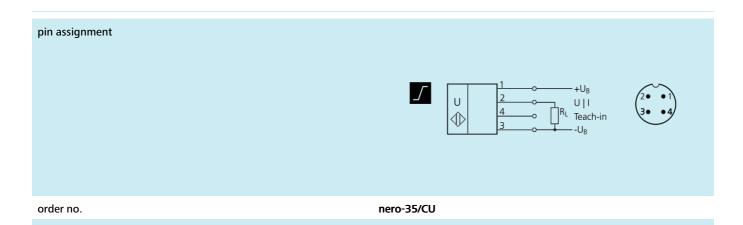
nero-35/CU

outputs	
output 1	analogue output voltage: 0-10 V, short-circuit-proof switchable rising/falling
response time	64 ms
delay prior to availability	< 300 ms
inputs	
input 1	Teach-in input
housing	
material	PBT
ultrasonic transducer	polyurethane foam, epoxy resin with glass contents
max. tightening torque of nuts	1 Nm
class of protection to EN 60529	IP 67
operating temperature	-25°C to +70°C
storage temperature	-40°C to +85°C
weight	15 g
further versions	90° angular head
further versions	nero-35/WK/CU
technical features/characteristics	
temperature compensation	no
controls	control input
scope for settings	Teach-in
Synchronisation	no
multiplex	no
indicators	LED green: working, LED yellow: state of output

UL Listed

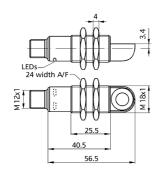
particularities

nero-35/CU

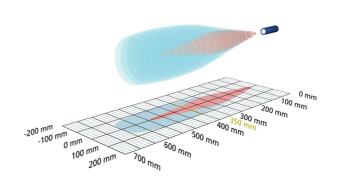


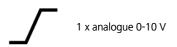
nero-35/WK/CU

scale drawing



detection zone







measuring range	65 - 600 mm
design	cylindrical M18
operating mode	analogue distance measurements
particularities	90° angular head UL Listed

ultrasonic-specific

means of measurement	echo propagation time measurement
transducer frequency	400 kHz
blind zone	65 mm
operating range	350 mm
maximum range	600 mm
resolution	0.056 mm to 0.691 mm, depending on the analogue window
reproducibility	± 0.15 %
accuracy	temperature drift 0.17 %/K

operating voltage U _B	15 V bis 30 V DC, verpolfest
voltage ripple	± 10 %
no-load current consumption	≤ 40 mA
type of connection	4-pin M12 initiator plug

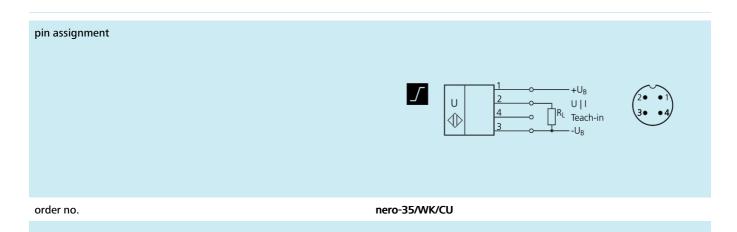
nero-35/WK/CU

outputs	
output 1	analogue output voltage: 0-10 V, short-circuit-proof switchable rising/falling
response time	64 ms
delay prior to availability	< 300 ms
inputs	
input 1	Teach-in input
housing	
material	PBT
ultrasonic transducer	polyurethane foam, epoxy resin with glass contents
max. tightening torque of nuts	1 Nm
class of protection to EN 60529	IP 67
operating temperature	-25°C to +70°C
storage temperature	-40°C to +85°C
weight	20 g

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technical	fostures/	charactor	rictics
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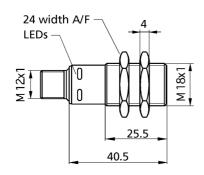
temperature compensation	no
controls	control input
scope for settings	Teach-in
Synchronisation	no
multiplex	no
indicators	LED green: working, LED yellow: state of output
particularities	90° angular head UL Listed

nero-35/WK/CU

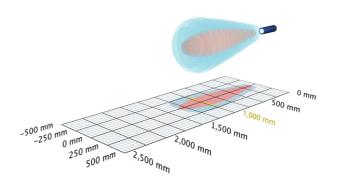


nero-100/CD

scale drawing



detection zone





1 x pnp



measuring range	120 - 1.300 mm
design	cylindrical M18
operating mode	proximity switch/reflective mode reflective barrier window mode
particularities	UL Listed

ultrasonic-specific

means of measurement	echo propagation time measurement
transducer frequency	200 kHz
blind zone	120 mm
operating range	1,000 mm
maximum range	1,300 mm
resolution	0.20 mm
reproducibility	± 0.15 %
accuracy	temperature drift 0.17 %/K

operating voltage U _B	10 - 30 V d.c., reverse polarity protection
voltage ripple	± 10 %
no-load current consumption	≤ 40 mA
type of connection	4-pin M12 initiator plug

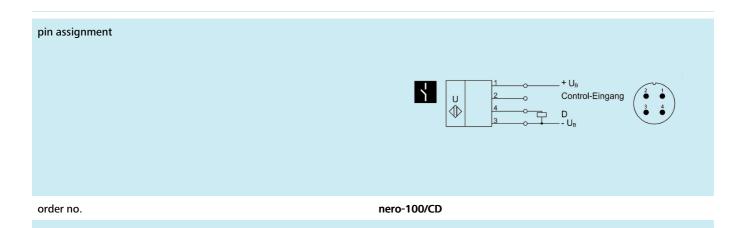
nero-100/CD

outputs	
output 1	switching output
	pnp: $I_{max} = 200 \text{ mA } (U_B-2V)$
switching hysteresis	20 mm
switching frequency	10 Hz
response time	80 ms
delay prior to availability	< 300 ms
inputs	
input 1	Teach-in input
housing	
material	PBT
ultrasonic transducer	polyurethane foam, epoxy resin with glass contents
max. tightening torque of nuts	1 Nm
class of protection to EN 60529	IP 67
operating temperature	-25°C to +70°C
storage temperature	-40°C to +85°C
weight	15 g
further versions	90° angular head
further versions	nero-100/WK/CD
technical features/characteristics	
temperature compensation	no
controls	control input
scope for settings	Teach-in
Synchronisation	no
multiplex	no
indicators	1 x LED green: working, 1 x LED yellow: switch status

UL Listed

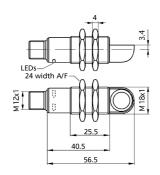
particularities

nero-100/CD

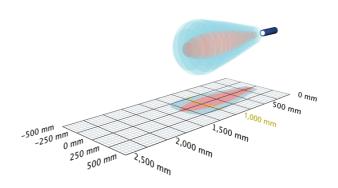


nero-100/WK/CD

scale drawing



detection zone





1 x pnp



measuring range design	120 - 1.300 mm cylindrical M18
operating mode	proximity switch/reflective mode reflective barrier window mode
particularities	90° angular head UL Listed

ultrasonic-specific

means of measurement	echo propagation time measurement
transducer frequency	200 kHz
blind zone	120 mm
operating range	1,000 mm
maximum range	1,300 mm
resolution	0.20 mm
reproducibility	± 0.15 %
accuracy	temperature drift 0.17 %/K

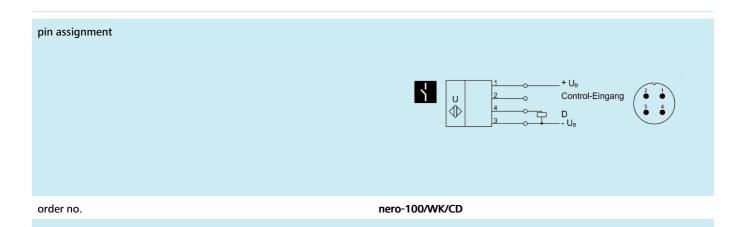
operating voltage U _B	10 - 30 V d.c., reverse polarity protection
voltage ripple	± 10 %
no-load current consumption	≤ 40 mA
type of connection	4-pin M12 initiator plug

nero-100/WK/CD

outputs	
output 1	switching output pnp: $I_{max} = 200 \text{ mA } (U_B-2V)$
switching hysteresis	20 mm
switching frequency	10 Hz
response time	80 ms
delay prior to availability	< 300 ms
inputs	
input 1	Teach-in input
housing	
material	PBT
ultrasonic transducer	polyurethane foam, epoxy resin with glass contents
max. tightening torque of nuts	1 Nm
class of protection to EN 60529	IP 67
operating temperature	-25°C to +70°C
storage temperature	-40°C to +85°C
weight	20 g
technical features/characteristics	
temperature compensation	no
controls	control input
scope for settings	Teach-in
Synchronisation	no
multiplex	no
indicators	1 x LED green: working, 1 x LED yellow: switch status
particularities	90° angular head

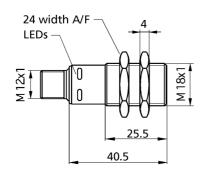
UL Listed

nero-100/WK/CD

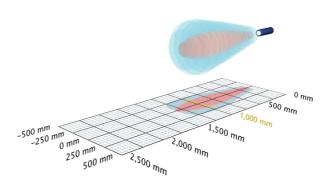


nero-100/CE

scale drawing



detection zone





1 x npn



measuring range	120 - 1.300 mm
design	cylindrical M18
operating mode	proximity switch/reflective mode reflective barrier window mode
particularities	UL Listed

ultrasonic-specific

means of measurement	echo propagation time measurement
transducer frequency	200 kHz
blind zone	120 mm
operating range	1,000 mm
maximum range	1,300 mm
resolution	0.20 mm
reproducibility	± 0.15 %
accuracy	temperature drift 0.17 %/K

operating voltage U _B	10 - 30 V d.c., reverse polarity protection
voltage ripple	± 10 %
no-load current consumption	≤ 40 mA
type of connection	4-pin M12 initiator plug

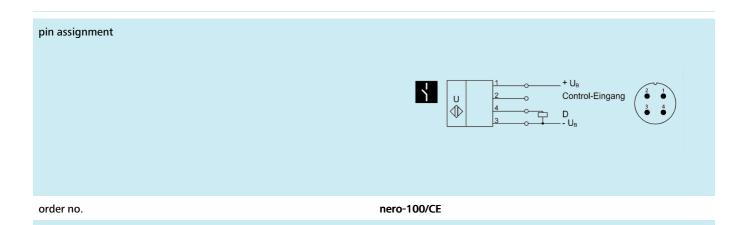
nero-100/CE

outputs	
output 1	Schaltausgang
	npn: $I_{max} = 200 \text{ mA (-U_B+2V)}$
switching hysteresis	20 mm
switching frequency	10 Hz
response time	100 ms
delay prior to availability	< 300 ms
inputs	
input 1	Teach-in input
housing	
material	PBT
ultrasonic transducer	polyurethane foam, epoxy resin with glass contents
max. tightening torque of nuts	1 Nm
class of protection to EN 60529	IP 67
operating temperature	-25°C to +70°C
storage temperature	-40°C to +85°C
weight	15 g
further versions	90° angular head
further versions	nero-100/WK/CE
technical features/characteristics	
temperature compensation	no
controls	control input
scope for settings	Teach-in
Synchronisation	no
multiplex	no
indicators	1 x LED green: working, 1 x LED yellow: switch status

UL Listed

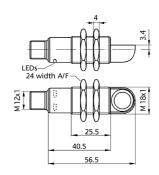
particularities

nero-100/CE

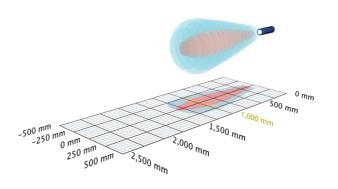


nero-100/WK/CE

scale drawing



detection zone





1 x npn



measuring range	120 - 1.300 mm
design	cylindrical M18
operating mode	proximity switch/reflective mode reflective barrier window mode
particularities	90° angular head UL Listed

ultrasonic-specific

means of measurement	echo propagation time measurement
transducer frequency	200 kHz
blind zone	120 mm
operating range	1,000 mm
maximum range	1,300 mm
resolution	0.20 mm
reproducibility	± 0.15 %
accuracy	temperature drift 0.17 %/K

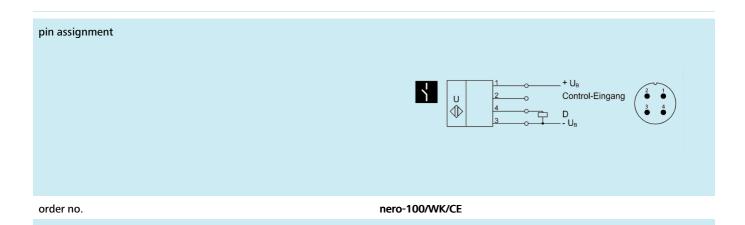
operating voltage U _B	10 - 30 V d.c., reverse polarity protection
voltage ripple	± 10 %
no-load current consumption	≤ 40 mA
type of connection	4-pin M12 initiator plug

nero-100/WK/CE

outputs	
output 1	Schaltausgang npn: $I_{max} = 200 \text{ mA (-U}_B + 2V)$
switching hysteresis	20 mm
switching frequency	10 Hz
response time	100 ms
delay prior to availability	< 300 ms
inputs	
input 1	Teach-in input
housing	
material	PBT
ultrasonic transducer	polyurethane foam, epoxy resin with glass contents
max. tightening torque of nuts	1 Nm
class of protection to EN 60529	IP 67
operating temperature	-25°C to +70°C
storage temperature	-40°C to +85°C
weight	20 g
technical features/characteristics	
temperature compensation	no
controls	control input
scope for settings	Teach-in
Synchronisation	no
multiplex	no
indicators	1 x LED green: working, 1 x LED yellow: switch status
particularities	90° angular head

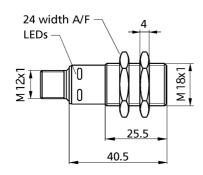
UL Listed

nero-100/WK/CE

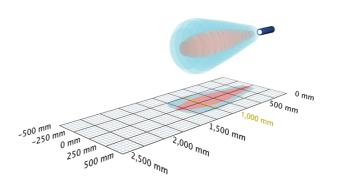


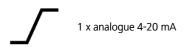
nero-100/CI

scale drawing



detection zone







measuring range	120 - 1.300 mm
design	cylindrical M18
operating mode	analogue distance measurements
particularities	UL Listed

ultrasonic-specific

means of measurement	echo propagation time measurement
transducer frequency	200 kHz
blind zone	120 mm
operating range	1,000 mm
maximum range	1,300 mm
resolution	0.056 mm to 1.525 mm, depending on the analogue window
reproducibility	± 0.15 %
accuracy	temperature drift 0.17 %/K

operating voltage U _B	10 - 30 V d.c., reverse polarity protection
voltage ripple	± 10 %
no-load current consumption	≤ 40 mA
type of connection	4-pin M12 initiator plug

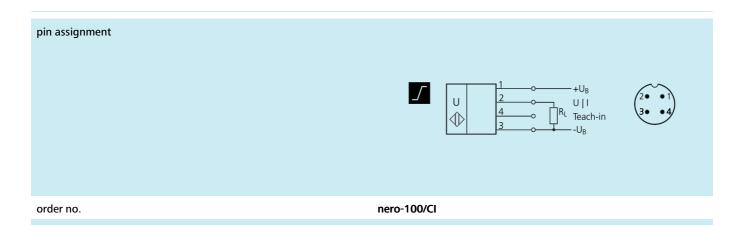
nero-100/CI

outputs	
output 1	analogue output current: 4-20 mA switchable rising/falling
response time	80 ms
delay prior to availability	< 300 ms
inputs	
input 1	Teach-in input
housing	
material	PBT
ultrasonic transducer	polyurethane foam, epoxy resin with glass contents
max. tightening torque of nuts	1 Nm
class of protection to EN 60529	IP 67
operating temperature	-25°C to +70°C
storage temperature	-40°C to +85°C
weight	15 g
further versions	90° angular head
further versions	nero-100/WK/CI
technical features/characteristics	
temperature compensation	no
controls	control input
scope for settings	Teach-in
Synchronisation	no
multiplex	no
indicators	LED green: working, LED yellow: state of output

UL Listed

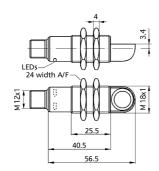
particularities

nero-100/CI

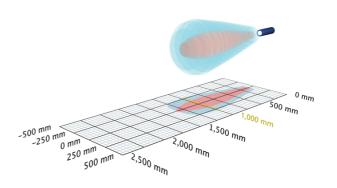


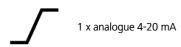
nero-100/WK/CI

scale drawing



detection zone







measuring range	120 - 1.300 mm
design	cylindrical M18
operating mode	analogue distance measurements
particularities	90° angular head UL Listed

ultrasonic-specific

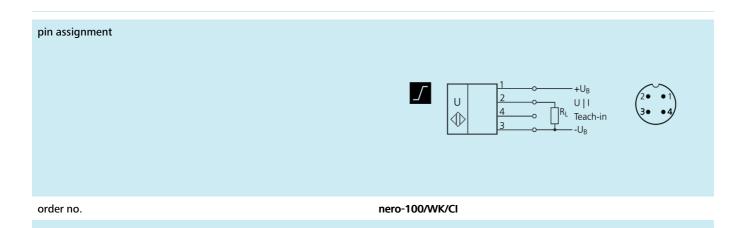
means of measurement	echo propagation time measurement
transducer frequency	200 kHz
blind zone	120 mm
operating range	1,000 mm
maximum range	1,300 mm
resolution	0.056 mm to 1.525 mm, depending on the analogue window
reproducibility	± 0.15 %
accuracy	temperature drift 0.17 %/K

operating voltage U _B	10 - 30 V d.c., reverse polarity protection
voltage ripple	± 10 %
no-load current consumption	≤ 40 mA
type of connection	4-pin M12 initiator plug

nero-100/WK/CI

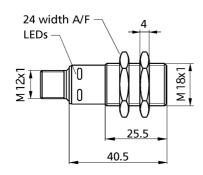
outputs	
output 1	analogue output current: 4-20 mA switchable rising/falling
response time	80 ms
delay prior to availability	< 300 ms
inputs	
input 1	Teach-in input
housing	
material	PBT
ultrasonic transducer	polyurethane foam, epoxy resin with glass contents
max. tightening torque of nuts	1 Nm
class of protection to EN 60529	IP 67
operating temperature	-25°C to +70°C
storage temperature	-40°C to +85°C
weight	20 g
technical features/characteristics	
temperature compensation	no
controls	control input
scope for settings	Teach-in

nero-100/WK/CI

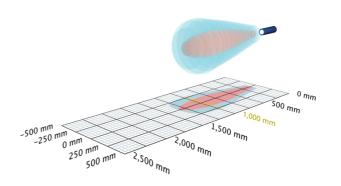


nero-100/CU

scale drawing



detection zone







measuring range	120 - 1.300 mm
design	cylindrical M18
operating mode	analogue distance measurements
particularities	UL Listed

ultrasonic-specific

means of measurement	echo propagation time measurement
transducer frequency	200 kHz
blind zone	120 mm
operating range	1,000 mm
maximum range	1,300 mm
resolution	0.056 mm to 1.525 mm, depending on the analogue window
reproducibility	± 0.15 %
accuracy	temperature drift 0.17 %/K

operating voltage U_{B}	15 V bis 30 V DC, verpolfest
voltage ripple	± 10 %
no-load current consumption	≤ 40 mA
type of connection	4-pin M12 initiator plug

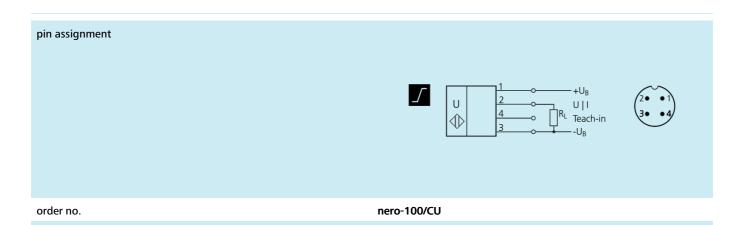
nero-100/CU

outputs	
output 1	analogue output voltage: 0-10 V, short-circuit-proof switchable rising/falling
response time	80 ms
delay prior to availability	< 300 ms
inputs	
input 1	Teach-in input
housing	
material	PBT
ultrasonic transducer	polyurethane foam, epoxy resin with glass contents
max. tightening torque of nuts	1 Nm
class of protection to EN 60529	IP 67
operating temperature	-25°C to +70°C
storage temperature	-40°C to +85°C
weight	15 g
further versions	90° angular head
further versions	nero-100/WK/CU
technical features/characteristics	
temperature compensation	no
controls	control input
scope for settings	Teach-in
Synchronisation	no
multiplex	no
indicators	LED green: working, LED yellow: state of output

UL Listed

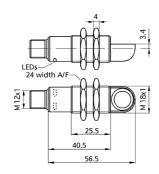
particularities

nero-100/CU

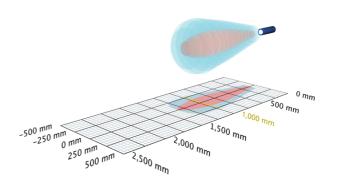


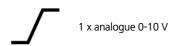
nero-100/WK/CU

scale drawing



detection zone







measuring range	120 - 1.300 mm
design	cylindrical M18
operating mode	analogue distance measurements
particularities	90° angular head UL Listed

ultrasonic-specific

means of measurement	echo propagation time measurement
transducer frequency	200 kHz
blind zone	120 mm
operating range	1,000 mm
maximum range	1,300 mm
resolution	0.056 mm to 1.525 mm, depending on the analogue window
reproducibility	± 0.15 %
accuracy	temperature drift 0.17 %/K

operating voltage U _B	15 V bis 30 V DC, verpolfest
voltage ripple	± 10 %
no-load current consumption	≤ 40 mA
type of connection	4-pin M12 initiator plug

nero-100/WK/CU

outputs	
output 1	analogue output voltage: 0-10 V, short-circuit-proof switchable rising/falling
response time	80 ms
delay prior to availability	< 300 ms
inputs	
input 1	Teach-in input

housing	
material	PBT
ultrasonic transducer	polyurethane foam, epoxy resin with glass contents
max. tightening torque of nuts	1 Nm
class of protection to EN 60529	IP 67
operating temperature	-25°C to +70°C
storage temperature	-40°C to +85°C
weight	20 g

technical features/characteristics	
temperature compensation	no
controls	control input
scope for settings	Teach-in
Synchronisation	no
multiplex	no
indicators	LED green: working, LED yellow: state of output
particularities	90° angular head UL Listed

nero-100/WK/CU

