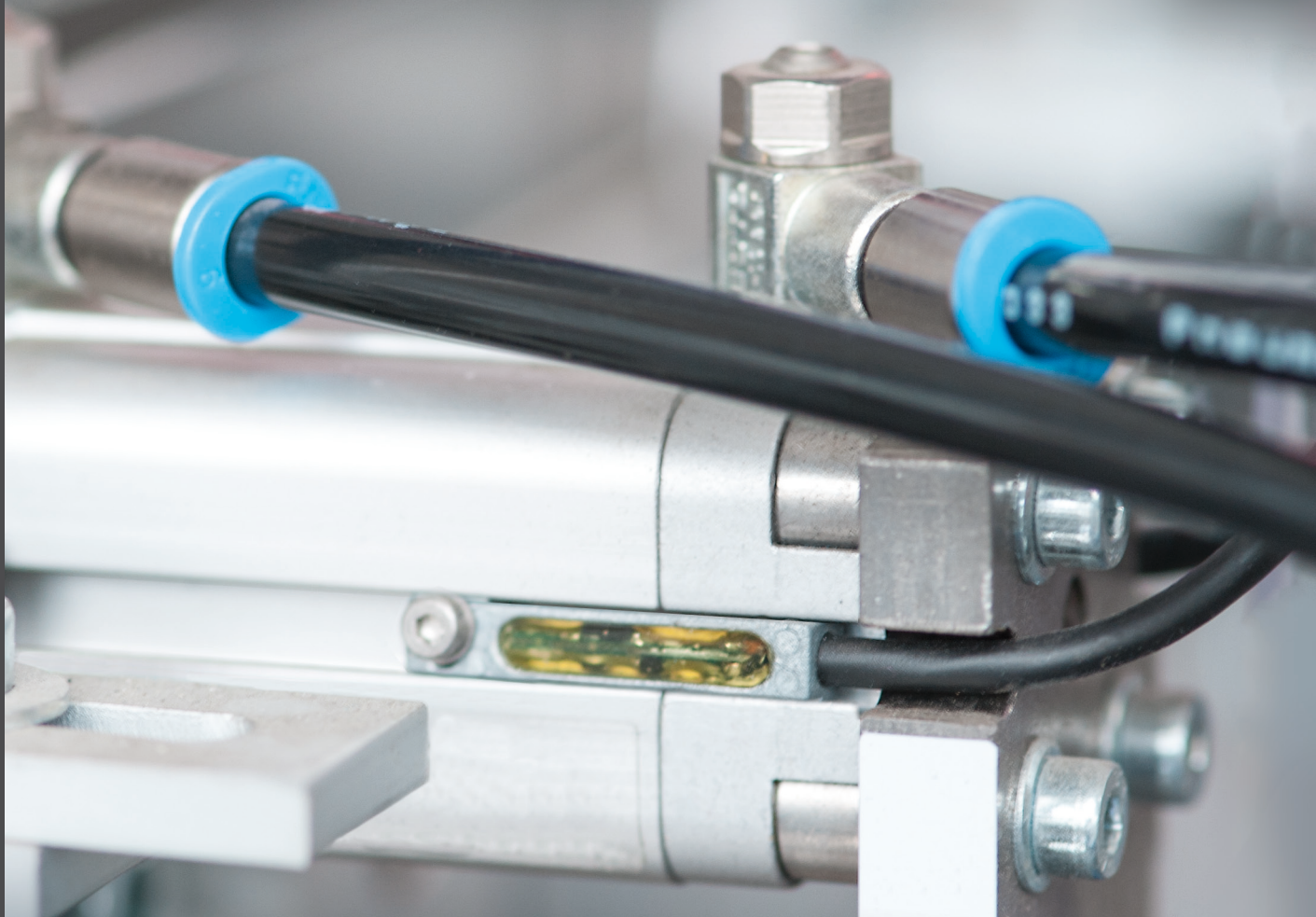


Zylindersensoren Cylinder Sensors



Made in Germany

Kolbenstellung durch die Wand erfasst
Piston position detected even through walls



Zylindersensoren

di-soric Zylindersensoren sind für Pneumatikzylinder mit eingebauten Magneten konzipiert. Die Kolbenposition wird durch die Zylinderwand hindurch abgefragt.

Die Sensoren arbeiten verschleißfrei und bieten somit ein hohes Maß an Betriebssicherheit und Zuverlässigkeit.

Ein umfangreiches Befestigungssortiment ermöglicht die einfache Montage an allen gängigen Zylinderbauformen namhafter Hersteller.

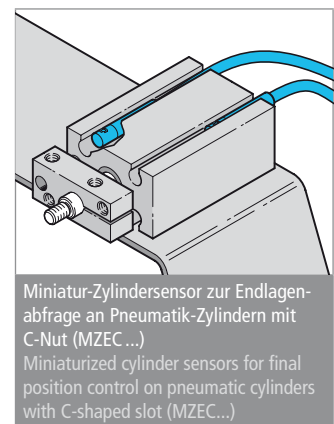
Cylinder Sensors

di-soric cylinder sensors are designed for pneumatic cylinders with integrated magnets. The piston position is scanned through the cylinder wall, these sensors are wear-free thus offering a high degree of safety and reliability.

A wide range of mounting accessories enables the simple mounting on all popular cylinder types of well-known manufactures.

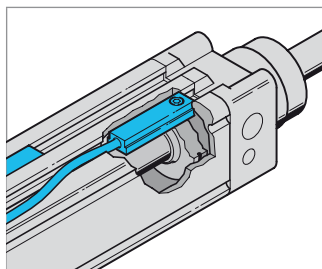
Zylindersensoren für C-Nut Cylinder sensors for C-shaped slot

MZEC...

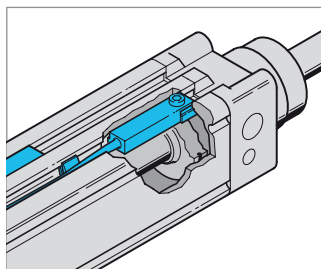


Zylindersensoren für T-Nut Cylinder sensors for T-shaped slot

MZET ... / MZEK...



Zylindersensor zur Kolbenabfrage an Pneumatik-Zylinder mit T-Nut (MZET 25...)
Cylinders sensor Presence monitoring of piston in pneumatic cylinders with T-slot (MZET 25...)

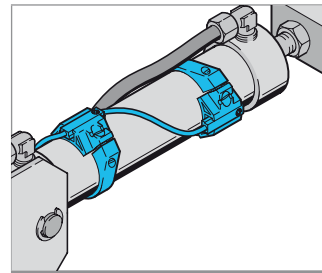
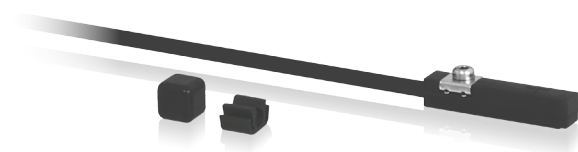


Zylindersensor in niedriger Bauform, von oben in T-Nut montierbar (MZEK 25...)
Thin type cylinder sensors to be inserted from above in the T-slot (MZEK 25...)

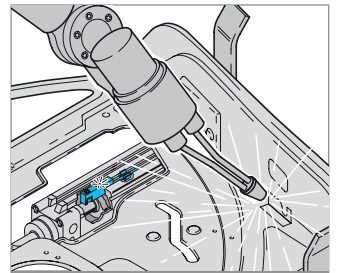


Zylindersensoren für T-Nut Cylinder sensors for T-shaped slot

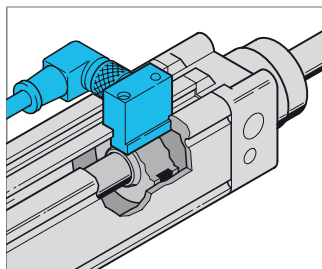
MZET ...



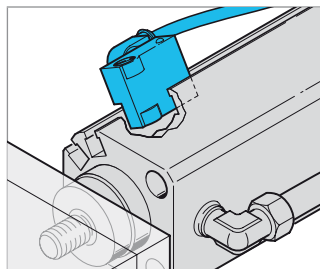
Zylindersensor MZET ... mit Sensor-
schelle MZ-S... an Rundzylinder
montiert
Cylinder sensor MZET ... with sensor
clamp MZ-S... mounted on round
cylinders



Schweißfunkenbeständige Aus-
führung, von oben in T-Nut montierbar
(MZET 28 ...)
Version resistant against welding
sparks to be inserted from above in
the T-Slot (MZET 28 ...)



Zylindersensor in kurzer Bauform mit
seitlichem Kabelabgang
(MZERT 17 ...)
Short type cylinder sensors with lateral
lead outlet
(MZERT 17 ...)



Zylindersensor in kurzer Bauform
von oben in T-Nut montierbar
(MZERT 20 ...)
Short type cylinder sensors to be
inserted from above in the T-slot
(MZERT 20 ...)

MZERT ...



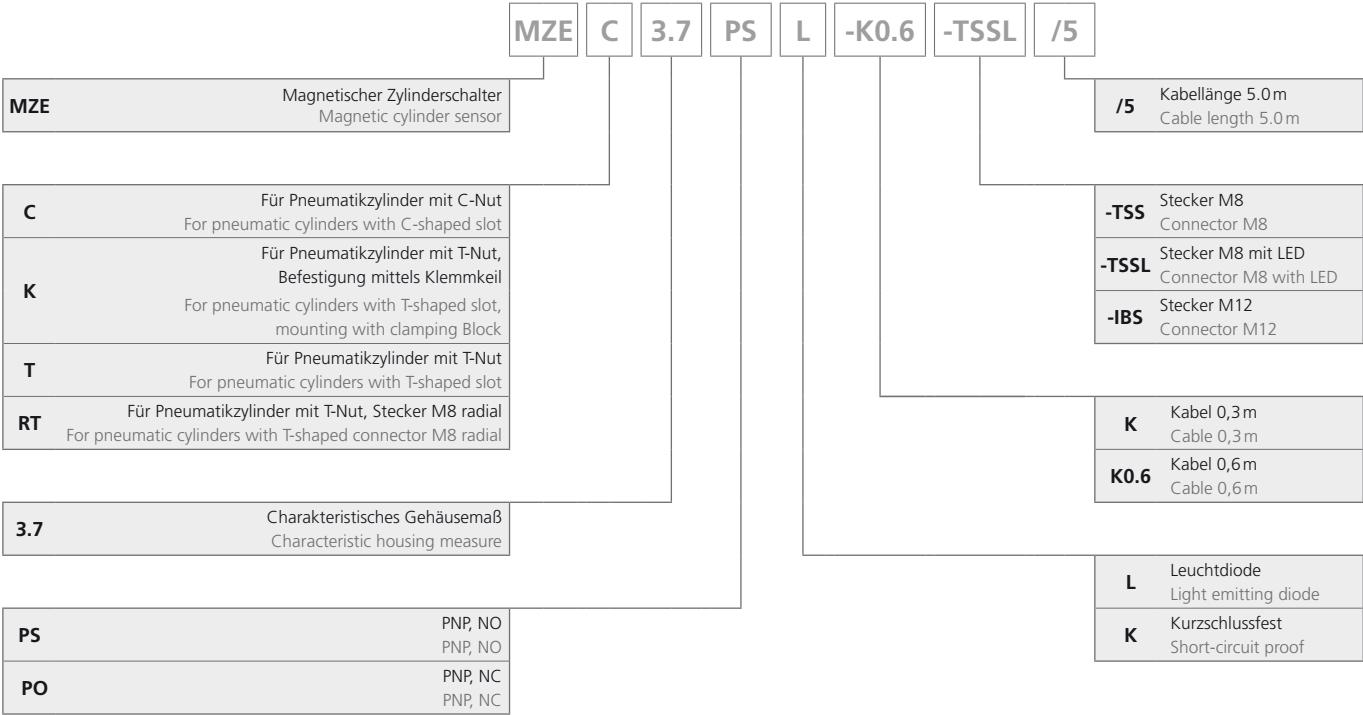
Besonderheiten

- Metallgehäuse bzw. Befestigungselemente aus Edelstahl
- Hohe Betriebssicherheit in rauer Industrieumgebung
- Verschiedene Bauformen für unterschiedliche Zylinder
- Präzise Feinjustierung möglich
- Schweißfunkenbeständiges PUR-Anschlusskabel
- Vollelektronisch
- Helle, gut sichtbare LED
- Kabel- oder Steckervariante
- Hohe Reproduzierbarkeit
- Verschleißfrei
- Kundenspezifische Ausführungen

Special features

- Metal casing or mounting elements made of stainless steel
- High operational reliability in rough industrial environments
- Various designs for different cylinders
- Precise fine adjustment possibility
- Welding spark-resistant PUR connection cable
- All-electronically
- Bright, easy visible LED
- Cable or plug-in type
- High reproducibility
- Wear-free
- Customized versions

Typenschlüssel | Type key



Inhaltsverzeichnis | Table of content

Zylindersensoren		Produktbezeichnung	Seite
Cylinder sensors		Product-ID	Page
Für Pneumatikzylinder mit C-Nut	For pneumatic cylinders with C-shaped slot	Transistor	
Für C-Nut 3,7 mm	For C-shaped slot 3,7 mm	MZEC 3.7 ...	6 ... 7
Für C-Nut 4 mm	For C-shaped slot 4 mm	MZEC 4.0 ...	6 ... 7
Für C-Nut 3,7 + 4 mm, von oben in die Nut einsetzbar	For C-shaped slot 3,7 + 4 mm, fitting from above into the slot	MZEC 9-18 ...	6 ... 7
Für C-Nut 3,7 + 4 mm, von oben in die Nut einsetzbar	For C-shaped slot 3,7 + 4 mm, fitting from above into the slot	MZEC 9-26 ...	6 ... 7
Für Pneumatikzylinder mit T-Nut	For pneumatic cylinders with T-shaped slot	Transistor	
Seitliches Einschieben in die Nut	Lateral insertion into the slot	MZET 25 ...	8 ... 9
Von oben in die Nut einsetzbar	Fitting from above into the slot	MZET 25 ...	8 ... 9
Von oben in die Nut einsetzbar	Fitting from above into the slot	MZET 28 ...	8 ... 9
Von oben in die Nut einsetzbar	Fitting from above into the slot	MZET 9-25 ...	10 ... 11
Seitliches Einschieben in die Nut	Lateral insertion into the slot	MZERT 17 ...	12 ... 13
Von oben in die Nut einsetzbar	Fitting from above into the slot	MZERT 20 ...	12 ... 13
Zubehör	Accessories		
Ersatzteilset für Zylindersensor MZEK ...	Spare part kit for cylinder sensor MZEK ...	MZ-KUS-M2	14
Montagesysteme	Assembly systems	MZ ...	14 ... 15

Alle technischen Angaben beziehen sich auf den Stand 11/13, Änderungen bleiben vorbehalten. Da Irrtümer und Druckfehler nicht auszuschließen sind, gilt für alle Angaben „ohne Gewähr“.

All technical specifications refer to the state of the art 11/13, they are subject to modifications. As typographical and other errors cannot be excluded, all data are given „without engagement“.

Zylindersensoren für C-Nut Cylinder sensors for C-shaped slot

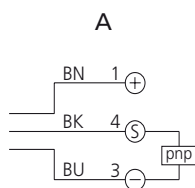
- Kurze Bauform
- Befestigungselement aus Edelstahl
- Vollelektronisch
- Umspritzte Elektronik
- Hohe Reproduzierbarkeit
- Hohe Schutzart

- Short design
- Stainless steel fastening part
- All-electronically
- Molded electronic circuitry
- High reproducibility
- High Protection class

MZEC ...



Anschlusschema
Connection diagram

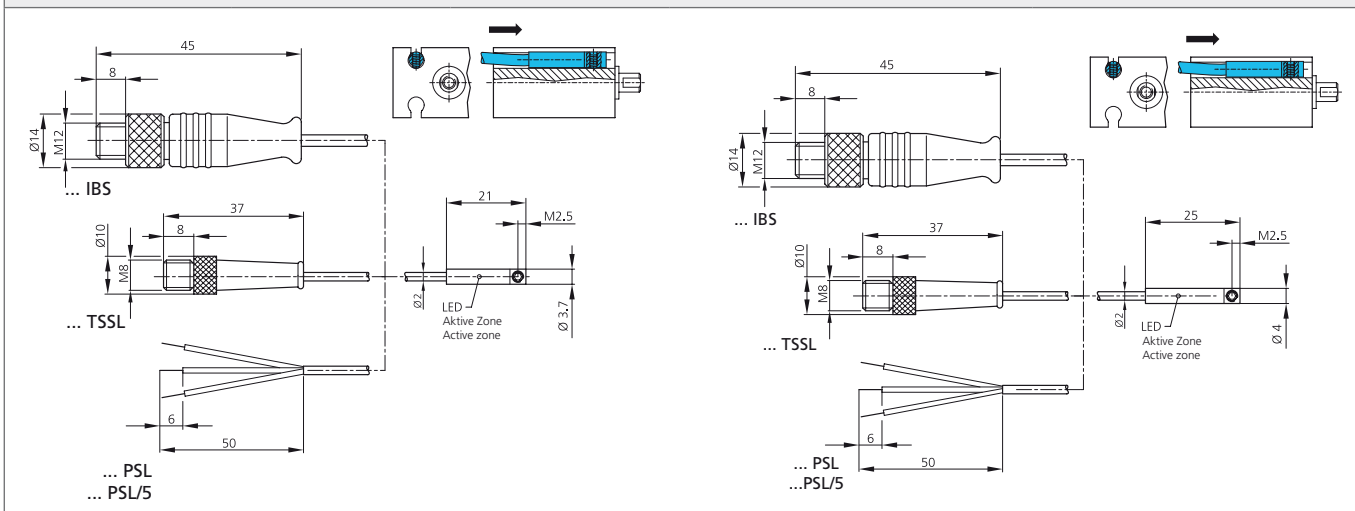


BN = Braun / brown
BK = Schwarz / black
BU = Blau / blue

Bauform / Size

1.1

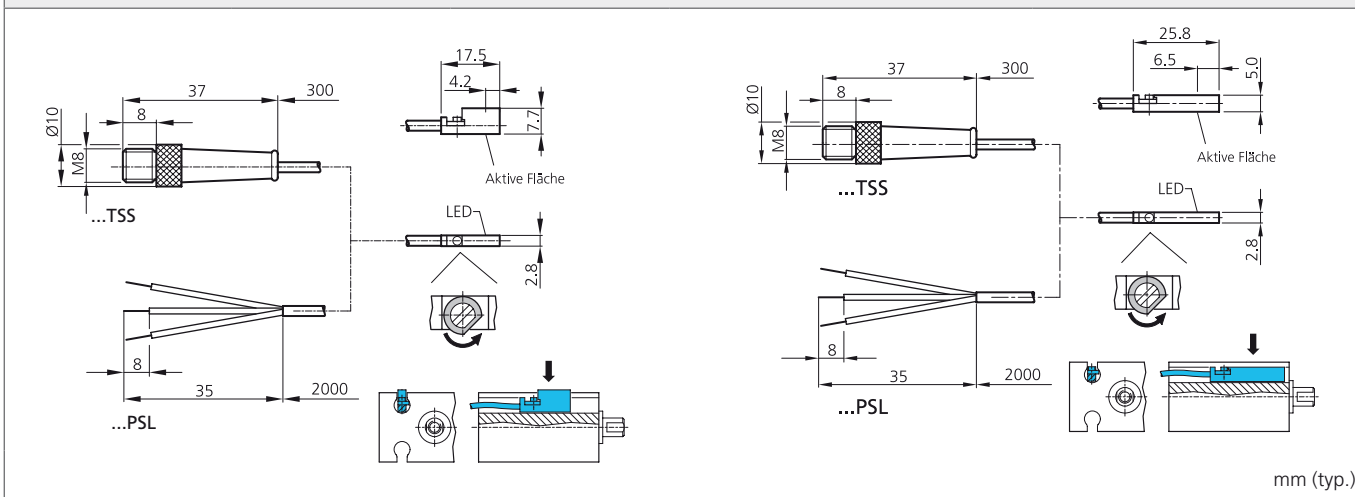
1.2



Bauform / Size

1.3

1.4



mm (typ.)

Technische Daten (typ.)	Technical data (typ.)	bei / at +20°C, 24 VDC
Betriebsspannung	Service voltage	10 ... 30 V DC
Umgebungstemperatur	Ambient temperature	-20 ... +70°C (MZEC 3.7 ... / MZEC 4.0 ...) -25 ... +80°C (MZEC 9-18 ... / MZEC 9-26 ...)
Isolationsspannungsfestigkeit	Insulation voltage endurance	500 V
Schutzart	Protection class	IP 67
Schutzklasse	Protection degree	III, Betrieb an Schutzkleinspannung / operation on protective low voltage
Anzeige	Indicators	Gelbe LED für Ausgangssignal / yellow LED for output signal
Gehäusematerial	Casing material	Kunststoff und V2A / plastics and stainless steel (MZEC 3.7 ...) V2A / stainless steel (MZEC 4.0 ...)
		PA Polyamid, Befestigungsexzenter V2A / mounting excentric stainless steel
Anschlusskabel	Connecting cable	TPU (MZEC 3.7 ... / MZEC 4.0 ...) PUR (MZEC 9-18 ... / MZEC 9-26 ...)
Befestigung	Mounting	Innensechskant / allen screw SW 1,3 mm (MZEC 3.7 ... / MZEC 4.0 ...) Exzenter / excentric (MZEC 9-18 ... / MZEC 9-26 ...)
Zubehör	Accessories	MS-Z-8/0.08 (bei Litzen mit Querschnitt / for wires with cross section 0,08 mm²) MS-Z-8/0.14 (bei Litzen mit Querschnitt / for wires with cross section 0,14 mm²)

Bauform (siehe gegenüberliegende Seite) Size (see opposite page) Transistor 100 mA, pnp, NO, verpolgeschützt Transistor 100 mA, pnp, NO, polarity-safe Kurzschlussfest Short-circuit-proof Strombelastbarkeit (mA) Maximum rating (mA) Eigenstromaufnahme (mA) Internal power consumption (mA) Reproduzierbarkeit (mm) Reproducibility (mm) Spannungsfall (V) Voltage drop (V) Schaltfrequenz (Hz) Operating frequency (Hz) Kabellänge / Steckverbinder Cable length / Connector Querschnitt Litzen For wires with cross section Anschlusskabel (sep. Datenblatt) Connecting cable (sep. data-sheet)												
Montage in Längsrichtung der C-Nut 3,7 mm Longitudinal mounting in the C-shaped slot 3,7 mm											Produktbezeichnung Product-ID	
	1.1			100	11	0,1	2,0	1.000	0,3m, M8		TK ...	MZEC 3.7 PS-K-TSSL
									0,6m, M8		TK ...	MZEC 3.7 PS-K0.6-TSSL
									0,3m, M12		VK ...	MZEC 3.7 PS-K-IBS
									2.5m	0,08mm²		MZEC 3.7 PSL
									5.0m	0,08mm²		MZEC 3.7 PSL/5
Montage in Längsrichtung der C-Nut 4,0 mm Longitudinal mounting in the C-shaped slot 4,0 mm												
	1.2			100	10	0,1	2,0	1.000	0,3m, M8		TK ...	MZEC 4.0 PS-K-TSSL
									0,6m, M8		TK ...	MZEC 4.0 PS-K0.6-TSSL
									0,3m, M12		VK ...	MZEC 4.0 PS-K-IBS
									2.5m	0,14mm²		MZEC 4.0 PSL
									5.0m	0,14mm²		MZEC 4.0 PSL/5
Von oben in die C-Nut montierbar To be inserted in the C-shaped slot from above												
	1.3			100	10	0,2	2,5	10.000	0,3m, M8		TK ...	MZEC 9-18 PSL-K-TSS
									2.0m	0,14mm²		MZEC 9-18 PSL
Von oben in die C-Nut montierbar To be inserted in the C-shaped slot from above												
	1.4			100	10	0,2	2,5	10.000	0,3m, M8		TK ...	MZEC 9-26 PSL-K-TSS
									2.0m	0,08mm²		MZEC 9-26 PSL

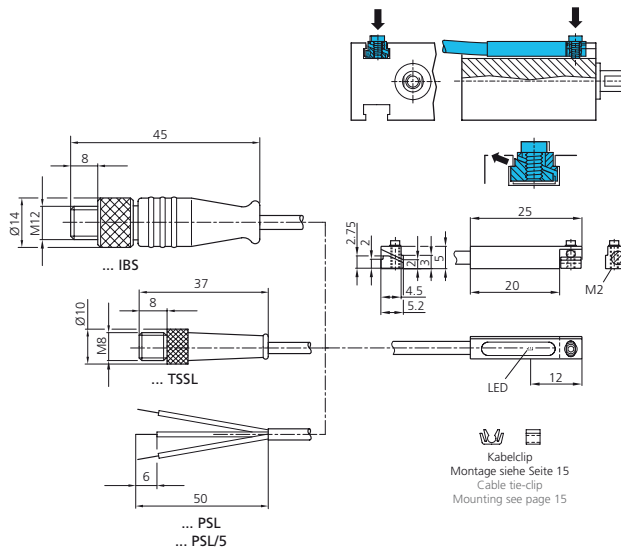
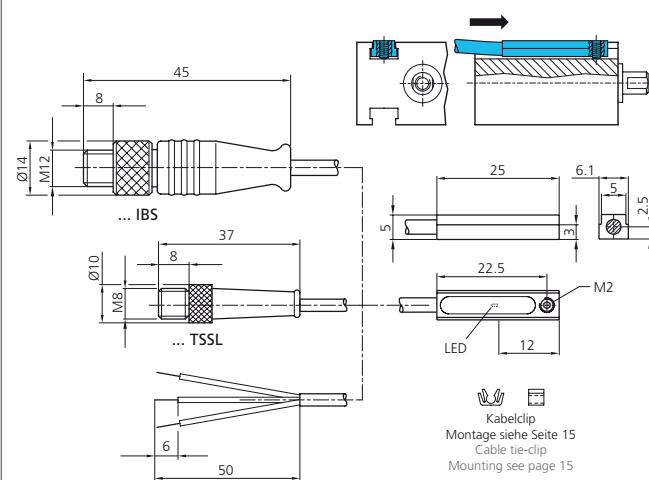
nnp-Typen stehen auf Anfrage zur Verfügung / NPN-types available upon request

- Metal casing
- All-electronically
- High reproducibility
- High protection class
- Mounting accessory available for round, pull-rod and profiled cylinders

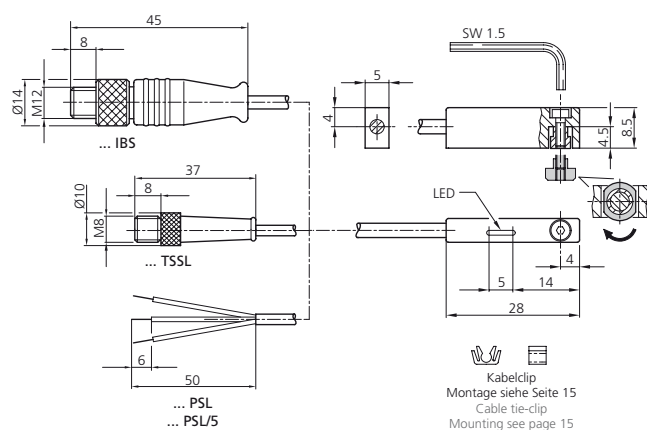
Three types of proximity sensors are shown, each with a cable and a connector. The top sensor has a small connector. The middle sensor has a larger connector. The bottom sensor has a large metal bracket.

BN = Braun / brown
BK = Schwarz / black
BU = Blau / blue

1.2



1.3



mm (typ.)

Technische Daten (typ.)	Technical data (typ.)	bei / at +20°C, 24 VDC
Betriebsspannung	Service voltage	10 ... 30 V DC
Umgebungstemperatur	Ambient temperature	-25 ... +70°C
Isolationsspannungsfestigkeit	Insulation voltage endurance	500 V
Schutzart	Protection class	IP 68 (Gerät und Kabel / device and cable) / IP 67 (Stecker / connector)
Schutzklasse	Protection degree	III, Betrieb an Schutzkleinspannung / operation on protective low voltage
Anzeige	Indicators	Gelbe LED für Ausgangssignal / yellow LED for output signal
Gehäusematerial	Casing material	Zinkdruckguss / die-cast zinc
Anschlusskabel	Connecting cable	PUR schweißfunkenbeständig / welding spark resistant
Befestigung	Mounting	Klemmschraube, Innensechskant / locking screw, allen screw SW 1,5 mm (MZET 25 ...) Klemmkeil, Innensechskant / clamping block, allen screw SW 1,5 mm (MZEK 25 ...) Klemmmutter, Innensechskant / locknut, allen screw SW 1,5 mm (MZET 28 ...)
Zubehör	Accessories	MS-Z-8/0.14 (bei Litzen mit Querschnitt / for wires with cross section 0,14 mm²)

Bauform (siehe gegenüberliegende Seite) Size (see opposite page) Transistor 200 mA, pnp, NO Transistor 200 mA, pnp, NO Kurzschlussfest, verpolgeschützt Short-circuit-proof, polarity-safe Strombelastbarkeit (mA) Maximum rating (mA) Eigenstromaufnahme (mA) Internal power consumption (mA) Reproduzierbarkeit (mm) Reproducibility (mm) Spannungsfall (V) Voltage drop (V) Schaltfrequenz (Hz) Operating frequency (Hz) Kabellänge / Steckverbinder Cable length / Connector Querschnitt Litzen For wires with cross section Anschlusskabel (sep. Datenblatt) Connecting cable (sep. data-sheet)												
Montage in Längsrichtung der T-Nut Longitudinal mounting in the T-shaped slot											Produktbezeichnung Product-ID	
	1.1			200	10	0,1	2,0	1.000	0,3m, M8		TK ...	MZET 25 PSK-K-TSSL
									0,6m, M8		TK ...	MZET 25 PSK-K0.6-TSSL
									0,3m, M12		VK ...	MZET 25 PSK-K-IBS
									2.5m	0,14mm²		MZET 25 PSLK
									5.0m	0,14mm²		MZET 25 PSLK/5
Von oben in die T-Nut montierbar To be inserted in the T-shaped slot from above												
	1.2			200	10	0,1	2,0	1.000	0,3m, M8		TK ...	MZEK 25 PSK-K-TSSL
									0,6m, M8		TK ...	MZEK 25 PSK-K0.6-TSSL
									0,3m, M12		VK ...	MZEK 25 PSK-K-IBS
									2.5m	0,14mm²		MZEK 25 PSLK
									5.0m	0,14mm²		MZEK 25 PSLK/5
	1.3			200	10	0,1	2,0	1.000	0,3m, M8		TK ...	MZET 28 PSK-K-TSSL
									0,6m, M8		TK ...	MZET 28 PSK-K0.6-TSSL
									0,3m, M12		VK ...	MZET 28 PSK-K-IBS
									2.5m	0,14mm²		MZET 28 PSLK
									5.0m	0,14mm²		MZET 28 PSLK/5

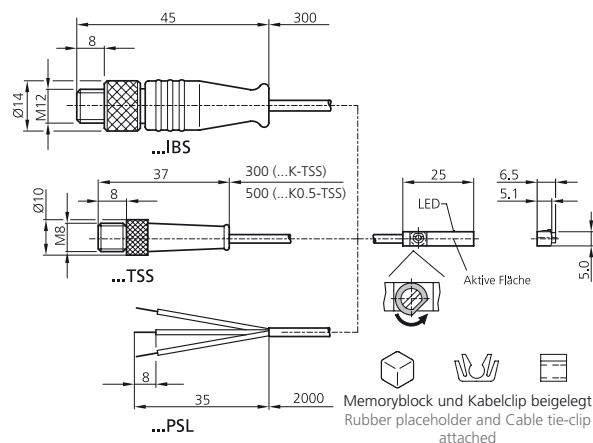
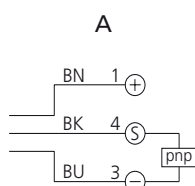
nnp-Typen stehen auf Anfrage zur Verfügung / NPN-types available upon request

- Von oben montierbar
- Kompakte Bauform
- Vollelektronisch
- Hohe Reproduzierbarkeit

- To be inserted from above
- Compact design
- All-electronically
- High reproducibility

A black cable with a metal connector and two small black components. The cable is shown against a light blue background. The metal connector is a silver-colored, cylindrical component with a threaded section. The two small black components are rectangular and appear to be part of the cable's assembly.

BN = Braun / brown
BK = Schwarz / black
BU = Blau / blue



mm (typ.)

Zylindersensoren für T-Nut Cylinder sensors for T-shaped slot

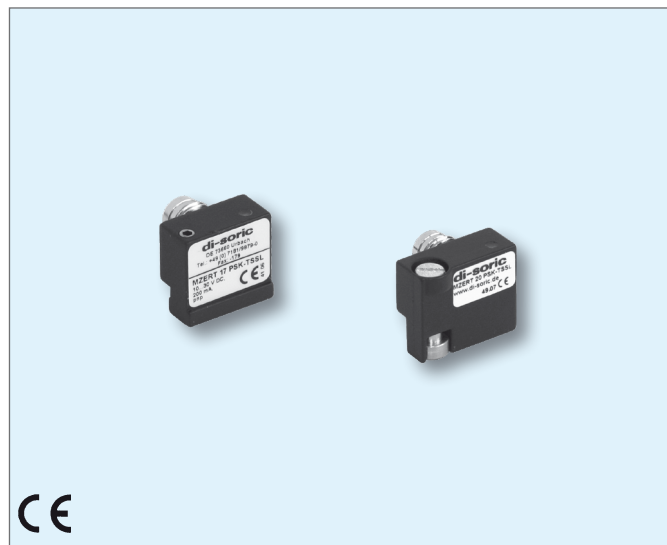
■ Metallgehäuse mit Metallstecker M8

- Vollelektronisch
- Hohe Reproduzierbarkeit
- Hohe Schutzart

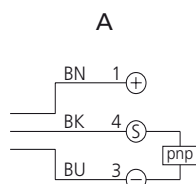
■ Metal casing with metal connector M8

- All-electronically
- High reproducibility
- High protection class

MZERT ...



Anschlusschema
Connection diagram

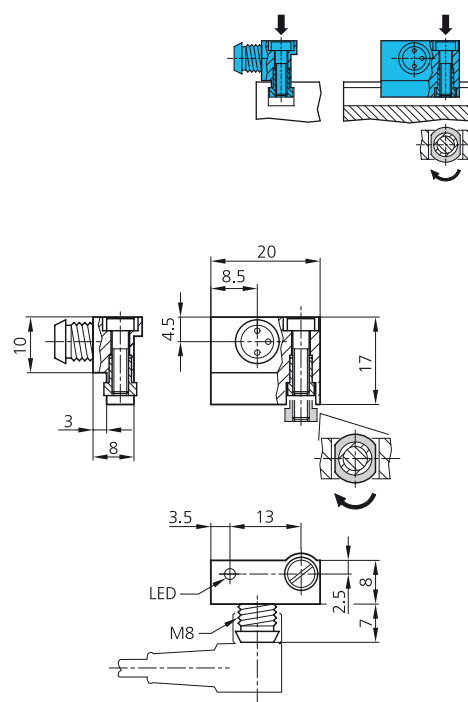
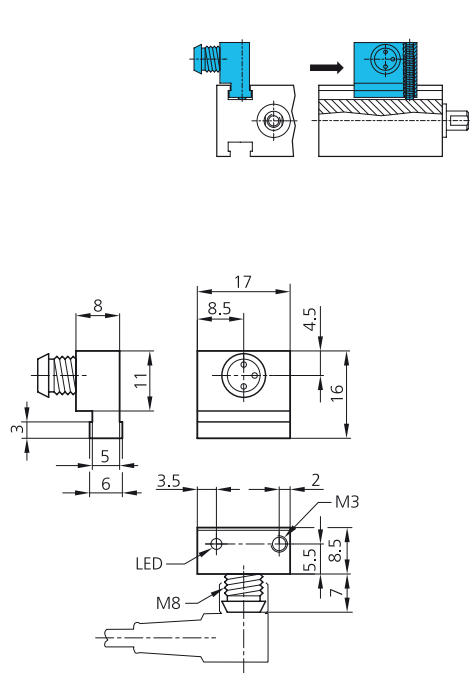


BN = Braun / brown
BK = Schwarz / black
BU = Blau / blue

Bauform / Size

1.1

1.2



mm (typ.)

Zubehör
Accessories

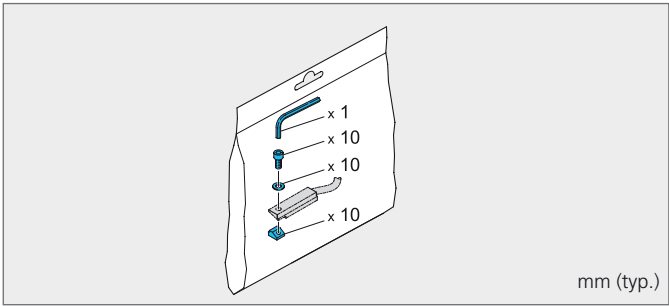
Ersatzteilset MZ-KUS-M2

Spare part set MZ-KUS-M2

Für Zylindersensoren / for cylinder sensors MZEK.

Bestehend aus / consisting of:

- 1 Innensechskantschlüssel / allen key
- 10 Innensechskantschrauben / allen screws
- 10 Unterlegscheiben / washers
- 10 Klemmkeile / clamping blocks



mm (typ.)

Sensorschelle MZ-S

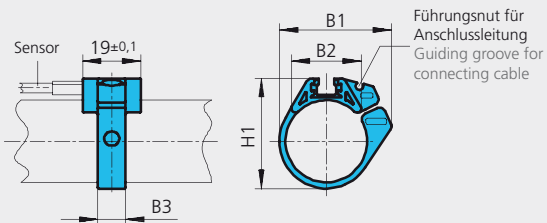
Sensor clamp MZ-S

Zur Montage von Zylindersensoren mit T-Nut (MZEK... und MZET...) an Rundzylindern mit einem Zylinderdurchmesser von 8-63 mm.

Material Kunststoff.

For mounting of T-shaped slot cylinder sensors (MZEK... and MZET...) at round cylinders with a diameter of 8-63 mm. Material plastic.

Zylinder-Ø Cylinder Ø	B1 [mm]	B2 [mm]	B3 [mm]	H1 [mm]	Produktbezeichnung Product-ID
8	18,9	12,3	7	17,5	MZ-S-8/6.5
10	20,4	13,7	7	19,9	MZ-S-10/6.5
12	22,7	14,3	7	21,9	MZ-S-12/6.5
16	26,1	17,1	7	25,7	MZ-S-16/6.5
20	33,2	20,8	9	30,4	MZ-S-20/6.5
25	36,5	22,6	9	35,6	MZ-S-25/6.5
32	41,7	24,6	9	42,7	MZ-S-32/6.5
40	47,1	26,5	9	50,7	MZ-S-40/6.5
50	56,4	28,6	9	61,5	MZ-S-50/6.5
63	69,4	32	9	74,5	MZ-S-63/6.5



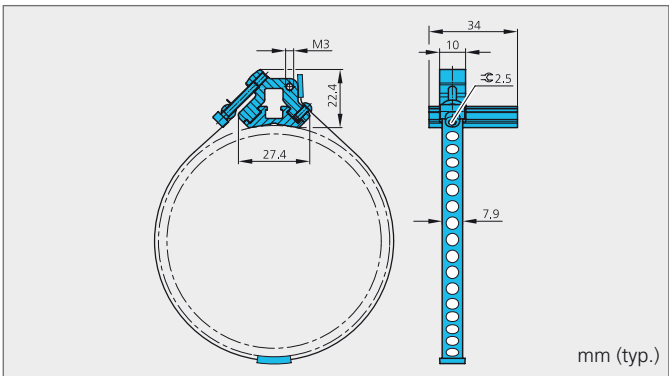
mm (typ.)

Befestigungsbausatz MZ-SB 100

Mounting kit MZ-SB 100

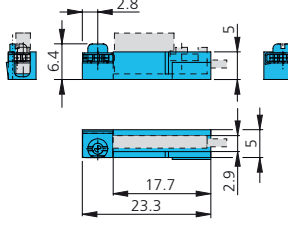
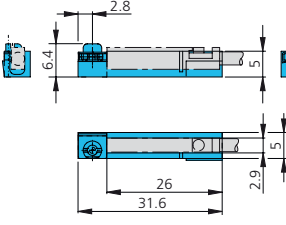
Zur Montage von Zylindersensoren mit T-Nut (MZET...) an Zylinderwandungen bis Ø 110 mm.

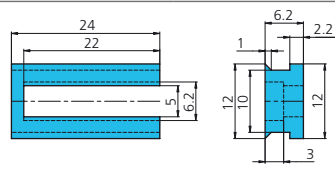
For mounting of T-slot cylinder sensors (MZET...) on cylinder cladding up to Ø 110 mm.



mm (typ.)

Memoryblock / Rubber placeholder		für Zylinderschalter in C-Nut-Ausführung for cylinder sensors with C-shaped slot	für Zylinderschalter in T-Nut-Ausführung for cylinder sensors with T-shaped slot
Zuverlässige Bestimmung der Einbaulage bei Austausch von Zylindersensoren.	Reliable determination of the mounting position when replacing cylinder sensors.		
Material	PA, Edelstahl	MZ-MB-C	MZ-MB-T
Material	PA, stainless steel		

T-Nut-Adapter / T-shaped slot adapter			
		für MZEC 9-18 ... for MZEC 9-18 ...	für MZEC 9-26 ... for MZEC 9-26 ...
T-Nut-Adapter zur Montage von Zylindersensoren MZEC 9... in einer T-Nut.	T-shaped slot adapter for mounting of cylinder sensors MZEC 9 ... in a T-shaped slot.		
Material	Zinkdruckguss, Edelstahl		
Material	Die-cast zinc, stainless steel		
		MZ-C-T-18	MZ-C-T-26

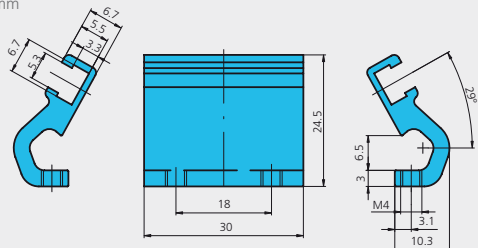
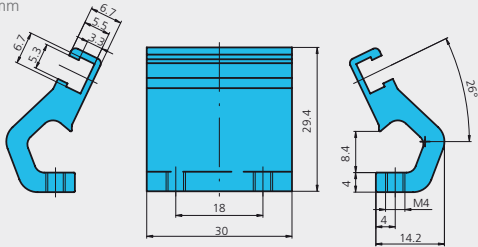
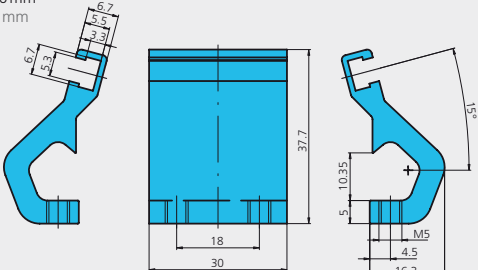
Sensoradapter / Sensor adapter		
		für MZET... for MZET...
Zur Montage von Zylindersensoren mit T-Nut (MZET...) an Schwalbenschwanz-zylindern.	For mounting of T-shaped slot cylinder sensors MZET... at dovetailed cylinders.	
Material	Aluminium	
Material	Aluminium	
		MZ-A-12/6.5

Sensorkralle MZ-K

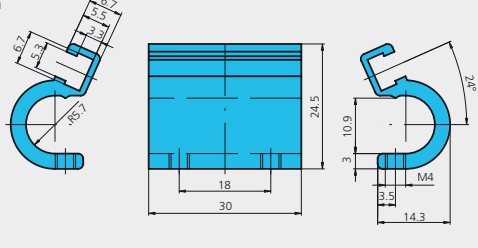
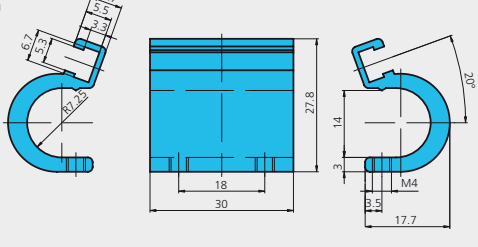
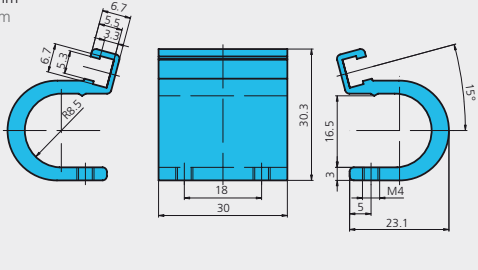
Sensor bracket MZ-K

Zur Montage von Zylindersensoren mit T-Nut (MZEK... und MZET...) an Zugstangen- und Profizylindern. Material Aluminium.

For mounting of T-shaped slot cylinder sensors MZEK... und MZET... at pull-rod cylinders and profiled cylinders. Material aluminium.

Für Zugstangenzylinder For pull-rod cylinders	
Kolben-Ø 32-40 mm Piston Ø 32-40 mm MZ-K-6/6.5	
Kolben-Ø 50-63 mm Piston Ø 50-63 mm MZ-K-8/6.5	
Kolben-Ø 80-100 mm Piston Ø 80-100 mm MZ-K-10/6.5	

mm (typ.)

Für Profizylinder For profiled cylinders	
Kolben-Ø 32-40 mm Piston Ø 32-40 mm MZ-K-11/6.5	
Kolben-Ø 50-63 mm Piston Ø 50-63 mm MZ-K-14/6.5	
Kolben-Ø 80-100 mm Piston Ø 80-100 mm MZ-K-16/6.5	

mm (typ.)

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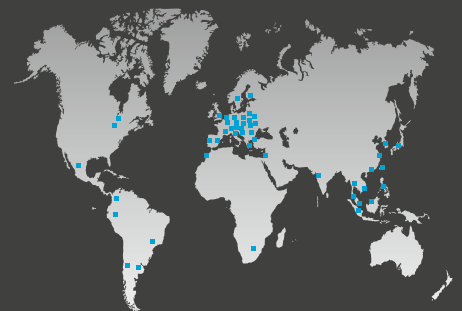
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