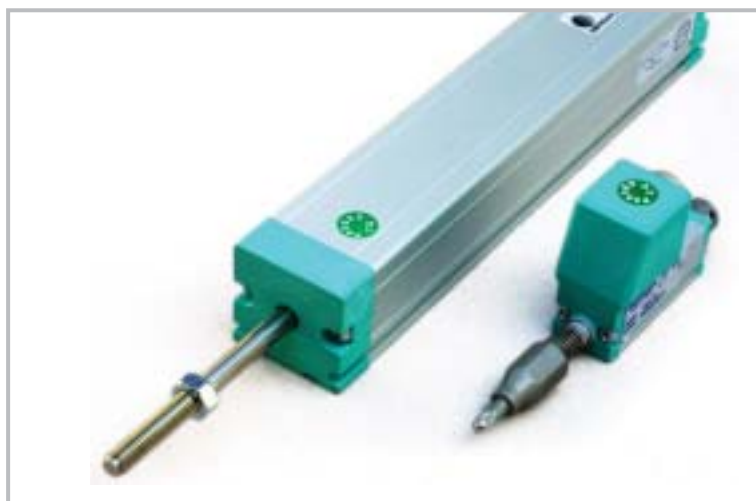




Linear Displacement Transducers

Rectilinear displacement transducers are used to measure the travel of sliding or moving parts. Typical fields of use are plastics injection moulding machines as well as pneumatic or hydraulic installations.

The LT, PC and PK series are cost efficient, based on a cursor sliding along a resistive strip. The measuring principle is that of a potentiometer.

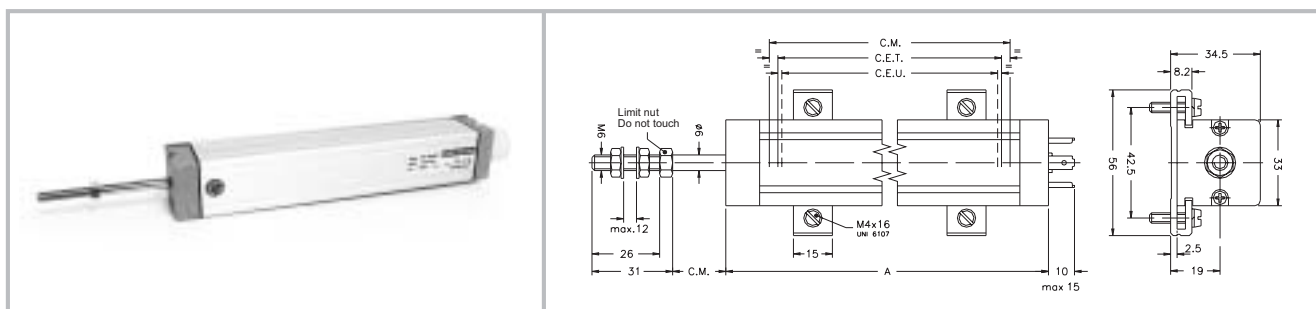
MK4A are contactless transducers using magnetostriction. The advantages of contactless transducers are wear and tear free operation, a virtually unlimited lifetime, high immunity to dust, dirt and moisture and resistance to vibration or mechanical shock.

stock code	stroke length
Model LT Rectilinear transducers, IP65 protection	
UCGD-LTM-100-P-	100mm
UCGD-LTM-130-P-	130mm
UCGD-LTM-150-P-	150mm
UCGD-LTM-175-P-	175mm
UCGD-LTM-200-P-	200mm
UCGD-LTM-225-P-	225mm
UCGD-LTM-275-P-	275mm
UCGD-LTM-300-P	300mm
UCGD-LTM-375-P-	375mm
UCGD-LTM-400-P-	400mm
UCGD-LTM-450-P-	450mm
UCGD-LTM-500-P	500mm
UCGD-LTM-600-P-	600mm
UCGD-LTM-750-P-	750mm
UCGD-LTM-900-P-	900mm
Model MK contactless transducers, 0-10Vdc output	
UCGD-MK4AB100N	100mm
UCGD-MK4AB150N	150mm
UCGD-MK4AB200N	200mm
UCGD-MK4AB225N	225mm
UCGD-MK4AB250N	250mm
UCGD-MK4AB300N	300mm
UCGD-MK4AB350N	350mm
UCGD-MK4AB400N	400mm
UCGD-MK4AB450N	450mm

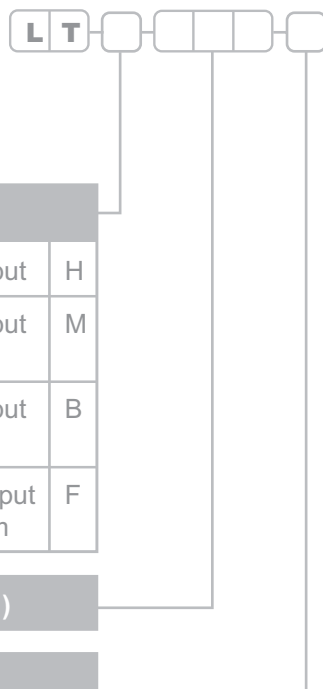
stock code	stroke length	
Model PC Selfloading Rectilinear Displacement Transducers with Cylindrical Case, IP65 protection, independent linearity: 0.05%		
UCGD-PCM-50	50mm	
UCGD-PCM-100	100mm	
UCGD-PCM-130	130mm	
UCGD-PCM-200	200mm	
UCGD-PCM-225	225mm	
UCGD-PCM-300	300mm	
UCGD-PCM-375	375mm	
UCGD-PCM-400	400mm	
UCGD-PCM-450	450mm	
UCGD-PCM-500	500mm	
Model PK Rodless Rectilinear Displacement Transducers (PK-M=4pole DIN/ISO connector), IP40 protection, independent linearity: 0.01%		
stock code	stroke length	kohms
UCGD-PKM-150-L-	150mm	5
UCGD-PKM-225-L-	225mm	5
UCGD-PKM-300-L-	300mm	5
UCGD-PKM-400-L-	400mm	10
UCGD-PKM-450-L-	450mm	10
UCGD-PKM-500-L-	500mm	10
UCGD-PKM-600-L-	600mm	10
UCGD-PKM-750-L-	750mm	10
UCGD-PKM-900-L-	900mm	10
UCGD-PKM-1000-L	1000mm	10
UCGD-PKM-1250-L	1250mm	20

Accessories	
stock code	description
UCGM-CON021	6 pin connector for d=5mm Cable, for MK4A
UCGM-CON023	6 pin connector, angled for d=5mm Cable, for MK4A
UCGM-PCUR035	sliding cursor, axial joint (standard) for MK4A
UCGM-PCUR037	sliding cursor, angled joint for MK4A
UCGM-PKIT-091-01	Mounting bracket, interaxis 50mm, for MK4A
UCGM-CON006	4 pole connector for LTM and PKM
UCGM-CON008	4 pole connector for PCM
UCGM-CON002	3 pole connector for PCM

LT



Order code



Connector output

3 pole connector output	H
4 pole connector output DIN43650 ISO4400	M
5 pole connector output DIN43322	B
3 pole PVC cable output 3x0,25, tail length=1m	F

Stroke length (mm)

Protection

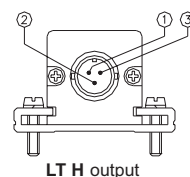
Standard version IP60	S
Version IP65	P

Example: **LT - M - 275 - S**

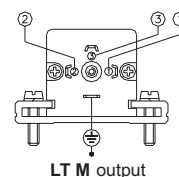
Displacement transducer model LT, 4 pole connector output
DIN 43650 - ISO 4400, useful electrical stroke (C.E.U.)
275mm, standard version IP60.

Note: LT transducers are supplied complete with fixing kit

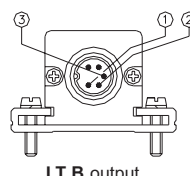
Electrical connections



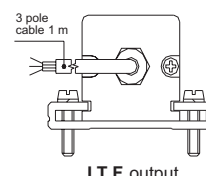
LT H output



LT M output

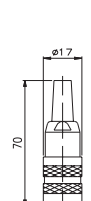


LT B output

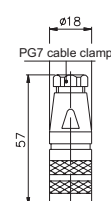


LT F output

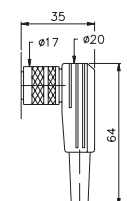
Accessories



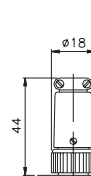
CON011 - IP40 Prot.
(DIN43322 5 pole
female connector)
for LTB



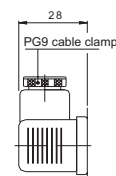
CON012 - IP67 Prot.
(DIN43322 5 pole
female connector)
for LTB



CON013 - IP40 Prot.
(DIN43322 5 pole
female connector)
for LTB

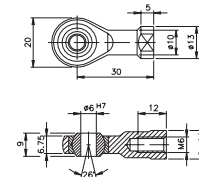


CON002 - IP40 Prot.
(3 pole female
connector)
for LTH



CON006 - IP65 Prot.
(DIN43650 4 pole
female connector)
for LTM

Extraction length of the connector
10mm. Coupling ball-joint - **PKIT015**

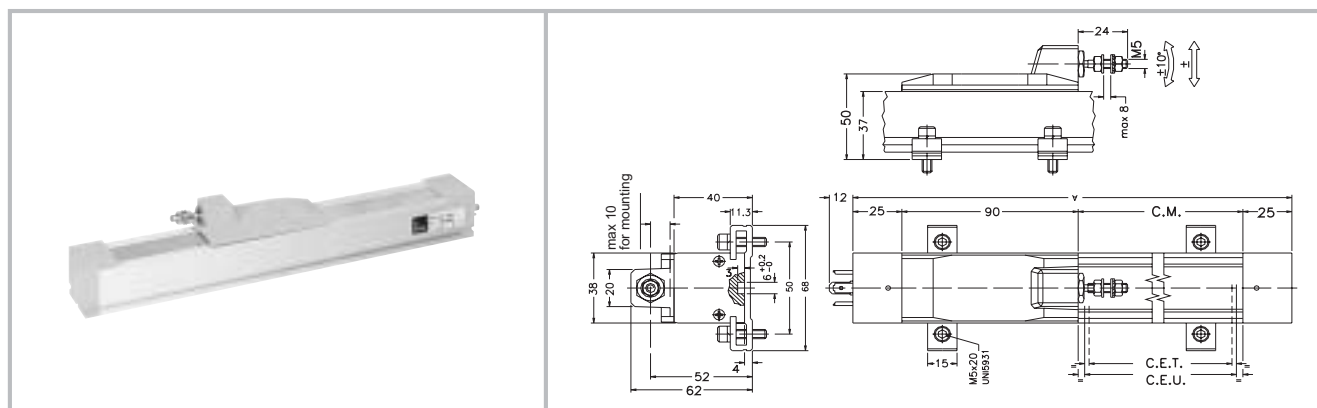


Mechanical / Electrical data

stroke (C.E.U.) +3/-0	mm	50	100	130	150	175	200	225	275	300	375	400	450	500	600	750	900	
Theoretical electrical stroke (C.E.T.) ± 1	mm	C.E.U. + 3					C.E.U. + 4				380	406	457	508	609	762	914	
Resistance (C.E.T.)	kW	5					5				5	5	5	5	5	10	10	
Mechanical stroke (C.M.)	mm	C.E.U. + 9					C.E.U. + 10				386	412	463	518	619	772	924	
Case length (A)	mm	C.E.U. + 62					C.E.U. + 63				439	465	516	571	672	825	977	
Power supply		10V typically (60V max.)																

unitemp reserves the right to make any kind of design or functional modification without prior notice.

PK



Order code

P K [] [] [] [] []

Connector output

4 pole connector output DIN43650 ISO4400	M
5 pole connector output DIN43322	B

Stroke length (mm)

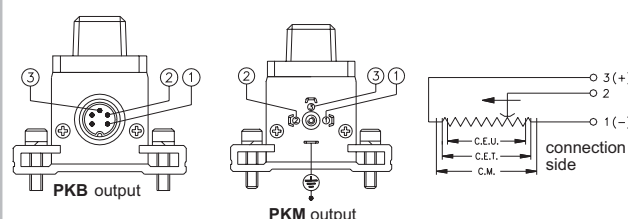
Displacement speed

up to 4m/s	L
up to 10m/s	H

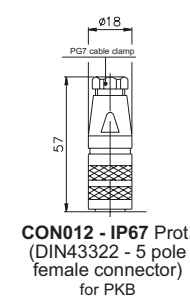
Example: **PK - M - 275 - L**

Displacement transducer model PK, 4-pole connector output
DIN43650 -9 ISO 4400, useful electrical stroke (C.E.U.)
275mm, displacement speed up to 4 m/s.

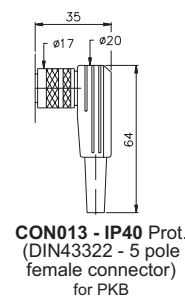
Electrical connections



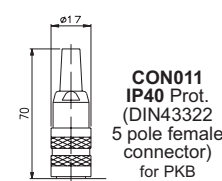
Accessories



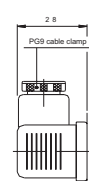
CON012 - IP67 Prot.
(DIN43322 - 5 pole
female connector)
for PKB



CON013 - IP40 Prot.
(DIN43322 - 5 pole
female connector)
for PKB



**CON011
IP40 Prot.**
(DIN43322
5 pole female
connector)
for PKB



CON006 - IP65 Prot.
(DIN43650 - 4 pole
female connector)
for PKM

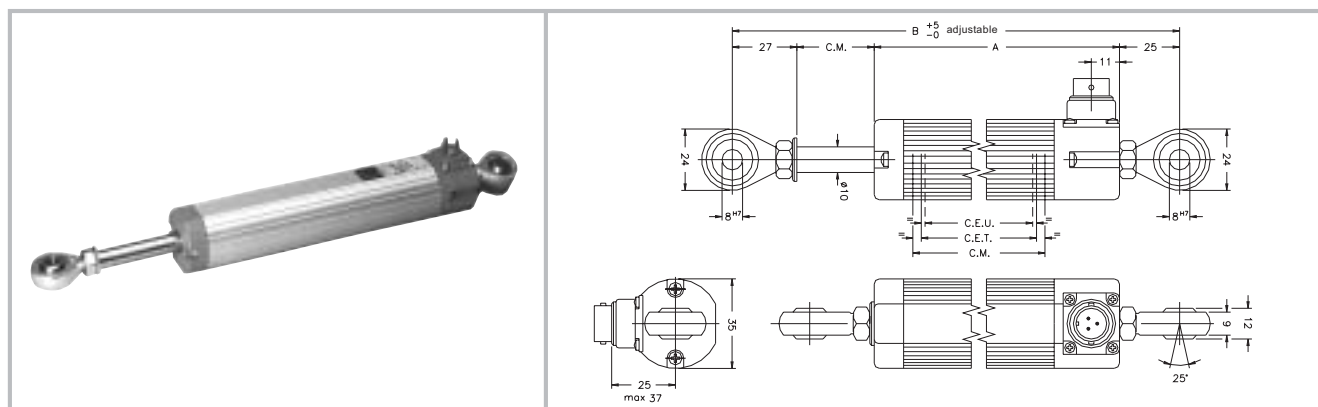
Extraction length of the connector 10mm

Mechanical / Electrical data

stroke (C.E.U.) +3/-0	mm	100	130	150	200	225	300	400	450	500	600	750	900	1000	1250	1500	1750	2000
Theoretical electrical stroke (C.E.T.) ±1	mm	103	133	153	204	229	305	406	458	509	611	763	915	1017	1271	1521	1771	2021
Resistance (C.E.T.)	kW	5					10					20						
Mechanical stroke (C.M.)	mm	113	143	163	214	239	315	416	468	519	621	773	925	1027	1281	1531	1781	2031
Case length (A)	mm	253	283	303	354	379	455	556	608	659	761	913	1065	1167	1421	1671	1921	2171

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PC



Order code



Connector output

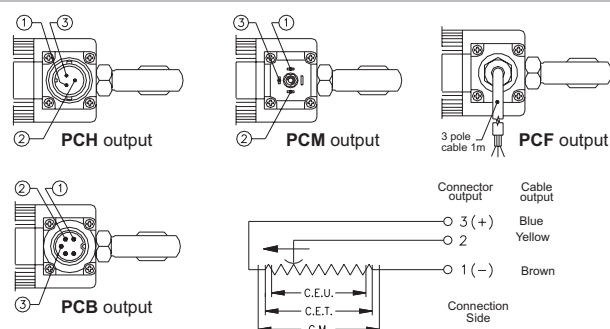
3 pole connector output	H
4 pole connector output DIN43650 ISO4400	M
5 pole connector output DIN43322	B
3 pole PVC cable output 3x0,25, tail length=1m	F

Stroke length (mm)

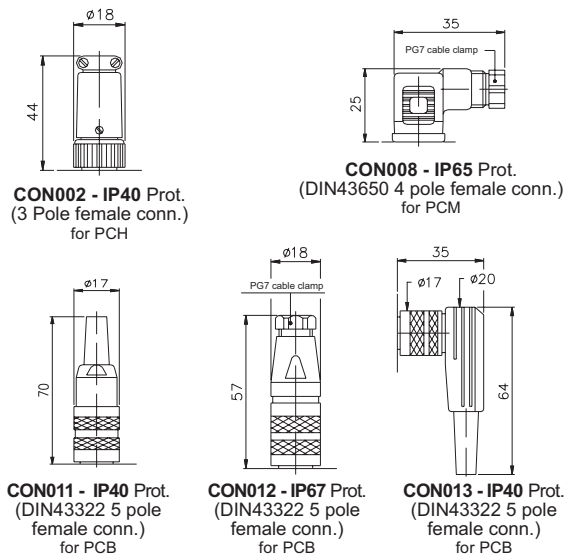
Example: PC - M - 275

Displacement transducer model PC, 4 pole connector output DIN43650 - ISO 4400, useful electrical stroke (C.E.U.) 275mm.

Electrical connections



Accessories



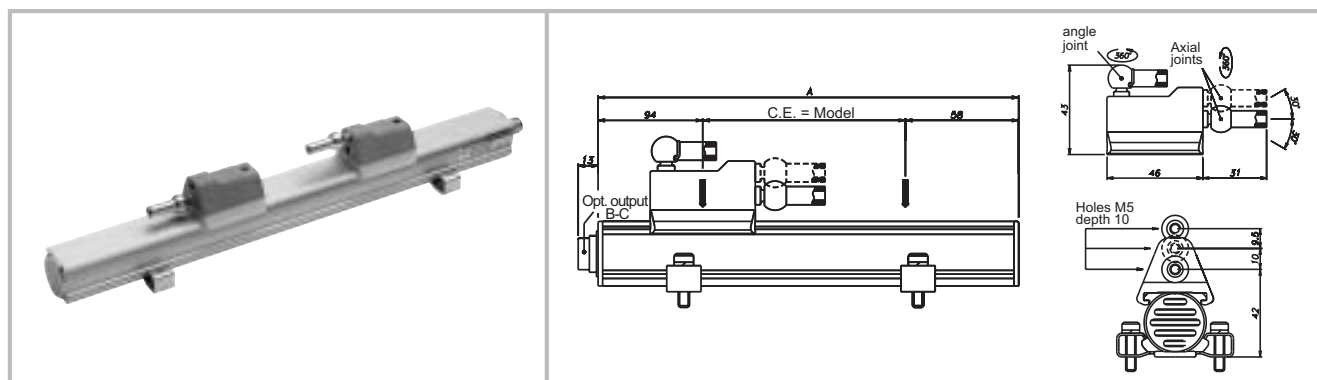
Extraction length of the connector 10mm

Mechanical / Electrical data

stroke (C.E.U.) +3/-0	mm	50	100	130	150	175	200	225	275	300	375	400	450	500	600	750
Theoretical electrical stroke (C.E.T.) ± 1	mm	C.E.U. + 3					C.E.U. + 4					380	406	457	508	762
Resistance (C.E.T.)	kW	5					5					5	5	5	5	10
Mechanical stroke (C.M.)	mm	C.E.U. + 9					C.E.U. + 10					386	412	463	518	772
Case length (A)	mm	C.E.U. + 129					C.E.U. + 130					512	538	589	664	918
Min. distance between ball-joints (B)	mm	C.E.U. + 181					C.E.U. + 182					564	590	641	716	970

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MK4 A (contactless)

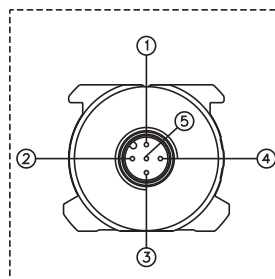


Order code

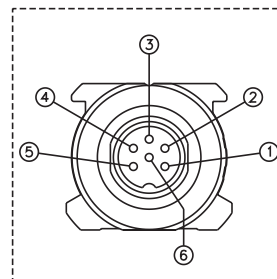
M	K	4	A				
Analog output							
Connector output							
DIN45322 6-pin				B			
Available on request							
M12 5 pin				A			
DIN45326 8-pin				C			
M12 8-pin				H			
Stroke length (mm)							
Protection							
0... 10Vdc	1 cursor (standard)	N					
0... 10Vdc	1 cursor, position and speed	P					
0... 10Vdc	2 cursor	Y					
4... 20mA	1 cursor	E					
4... 20mA	1 cursor, position and speed	F					
4... 20mA	1 cursor	H					
Available on request							
0... 20mA	1 cursor	B					
0... 20mA	1 cursor, position and speed	C					
0... 20mA	2 cursor	D					
0... ±5Vdc	1 cursor	K					
-0... ±5Vdc	1 cursor, position	L					
-10... ±10Vdc	1 cursor, position	T					

Electrical connections

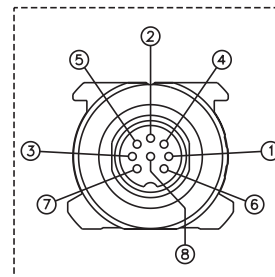
OUTPUT MK4A



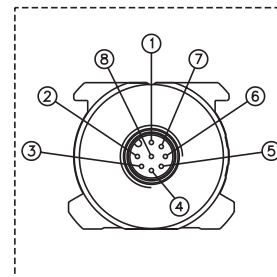
OUTPUT MK4A B



OUTPUT MK4A C



OUTPUT MK4A H



Note: Brackets and cursors are not included and must be ordered separately (see overleaf)

Mechanical / Electrical data

stroke (C.E.U.) +3/-0	mm	50	75	100	130	150	175	200	225	250	300	350	360	400	450	500	550	650	600
		700	750	800	850	900	950	1000	1100	1200	1250	1300	1400	1500	1750	2000	2250	2500	
Independent linearity	±%FS	typically 0.02% (max. 0.04%)																	
Max. dimensions (A)	mm	stroke +152																	
Repeatability	mm	< 0,01																	
Hysteresis	mm	< 0,01																	
Sampling time	ms	0.5 (1 for stroke from 300 to 1100) (1.5 for stroke from 1100 to 2000) (2 for stroke >2000)																	

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Accessories for MK4A

Cursors on request

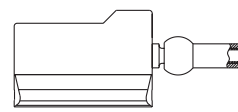
P C U R

Connector output

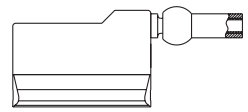
Sliding cursor, axial joint (low)	035
Sliding cursor, axial joint (high)	036
Sliding cursor, angled joint	037
Floating cursor	034

number of cursors

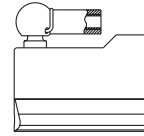
PCUR035



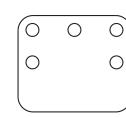
PCUR036



PCUR037



PCUR034



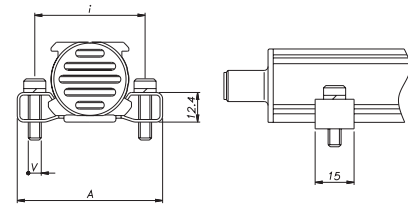
Brackets on request

P K I T

Brackets

Bracket in stainless steel, ineraxis 42.5mm	090
Bracket in stainless steel, ineraxis 50mm	091

number of brackets



Bracket code	interaxis (i)	screw (v)	dimension (A)
PKIT090	42.5	M4	56
PKIT091	50	M5	63.5

Cable connectors

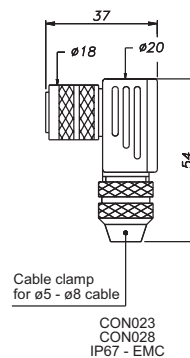
For A-H outputs, M12 thread connector

Codes: **CON031** for 5-pin output (MK4A A)
CON035 for 8-pin output (MK4A H)

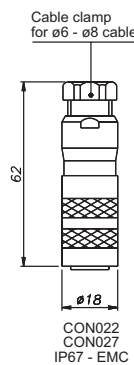
For B-C outputs, M16 thread connector

Codes: **CON021** for 6-pin output (MK4A B)
CON022 for 6-pin output (MK4A B)
CON023 for 6-pin output (MK4A B)
CON026 for 8-pin output (MK4A C)
CON027 for 8-pin output (MK4A C)
CON028 for 8-pin output (MK4A C)

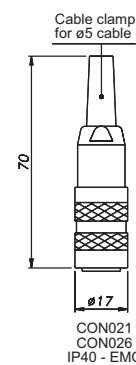
Connector extraction length: 10mm



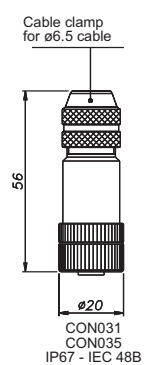
CON023
CON028
IP67 - EMC



CON022
CON027
IP67 - EMC

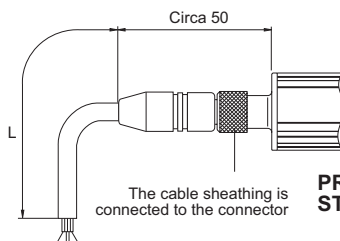


CON021
CON026
IP40 - EMC



CON031
CON035
IP67 - IEC 48B

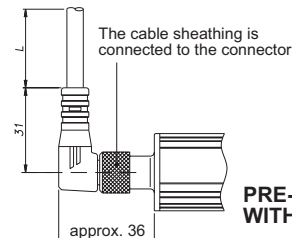
Pre-assembled cables



The cable sheathing is connected to the connector

PRE-ASSEMBLED CABLE WITH STRAIGHT CONNECTOR

6-pin cable code		MK4A - B	
Length "L"		CODE	
		straight connector	
2	mt	UCGM-C02	CON021
5	mt	UCGM-C05	CON021
10	mt	UCGM-C10	CON021
15	mt	UCGM-C15	CON021



The cable sheathing is connected to the connector

PRE-ASSEMBLED CABLE WITH 90° CONNECTOR

6-pin cable code		MK4A - B	
Length "L"		CODE	
		connector 90°	
2	mt	UCGM-C02	CON023
5	mt	UCGM-C05	CON023
10	mt	UCGM-C10	CON023
15	mt	UCGM-C15	CON023

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