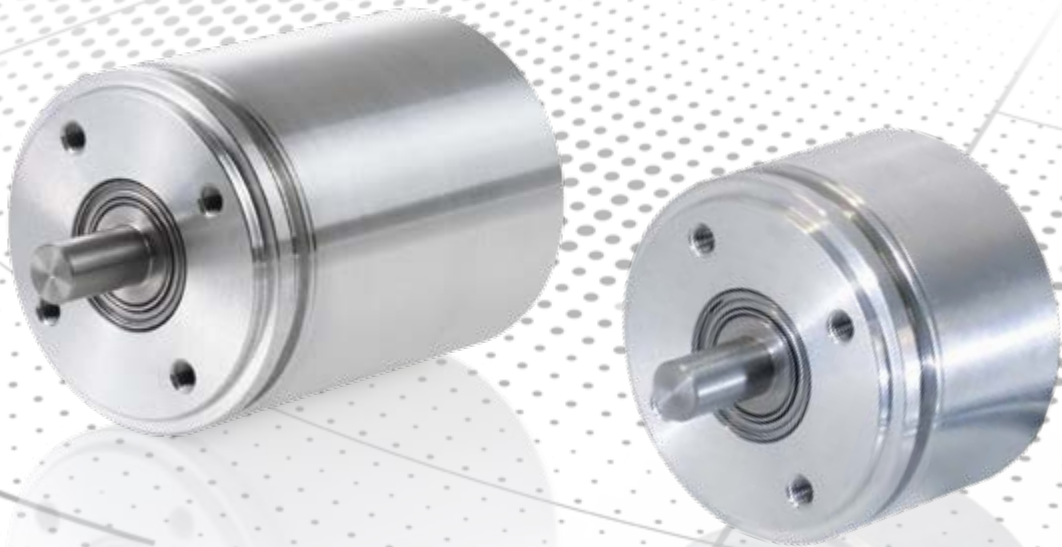


Absolute Rotary Encoders

Family C__36



Absolute encoder with completely encapsulated electronics IM_36, CM_36S, CD_36S

- _ completely encapsulated single-turn encoder
- _ extremely robust and extremely tight (IP 69 K)
- _ for areas where the temperature fluctuates (thawing)
- _ compact design, only 36 mm in diameter
- _ professional solution for your outdoor applications
- _ optional double scanning for redundancy (2 x SSI)
- _ optionally as incremental rotary encoder
- _ optional separate bearing (completely free from wear and tear)
- _ magnetic scanning

Area of application

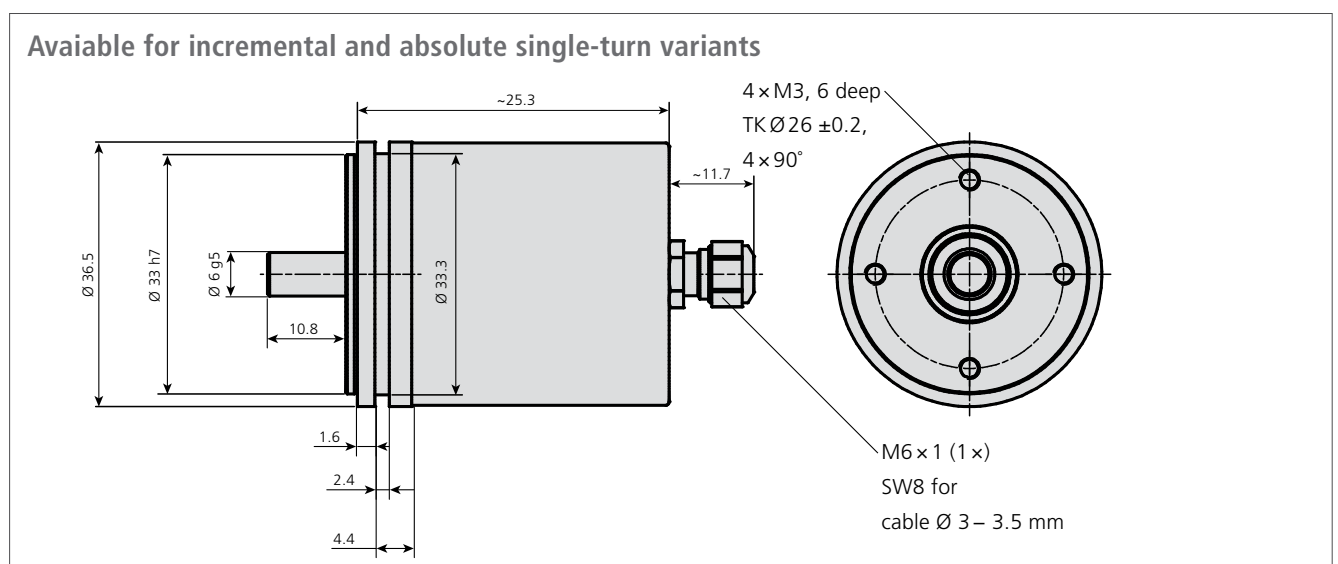
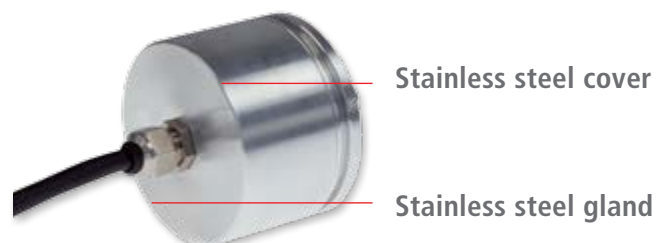
This standard applies to the IP protection classes for electrical fittings in road vehicles.



Purpose of application – the following has been defined

Name and definition of IP protection classes and degrees through the housing around the electrical fittings in road vehicles to protect the electrical fittings inside the housing against the ingress of water and foreign bodies. There is also a regulation in place for the protection of people.

stainless steel-housing (IP 69 K)



Assembly of a magnet holder

For bearing free __F36

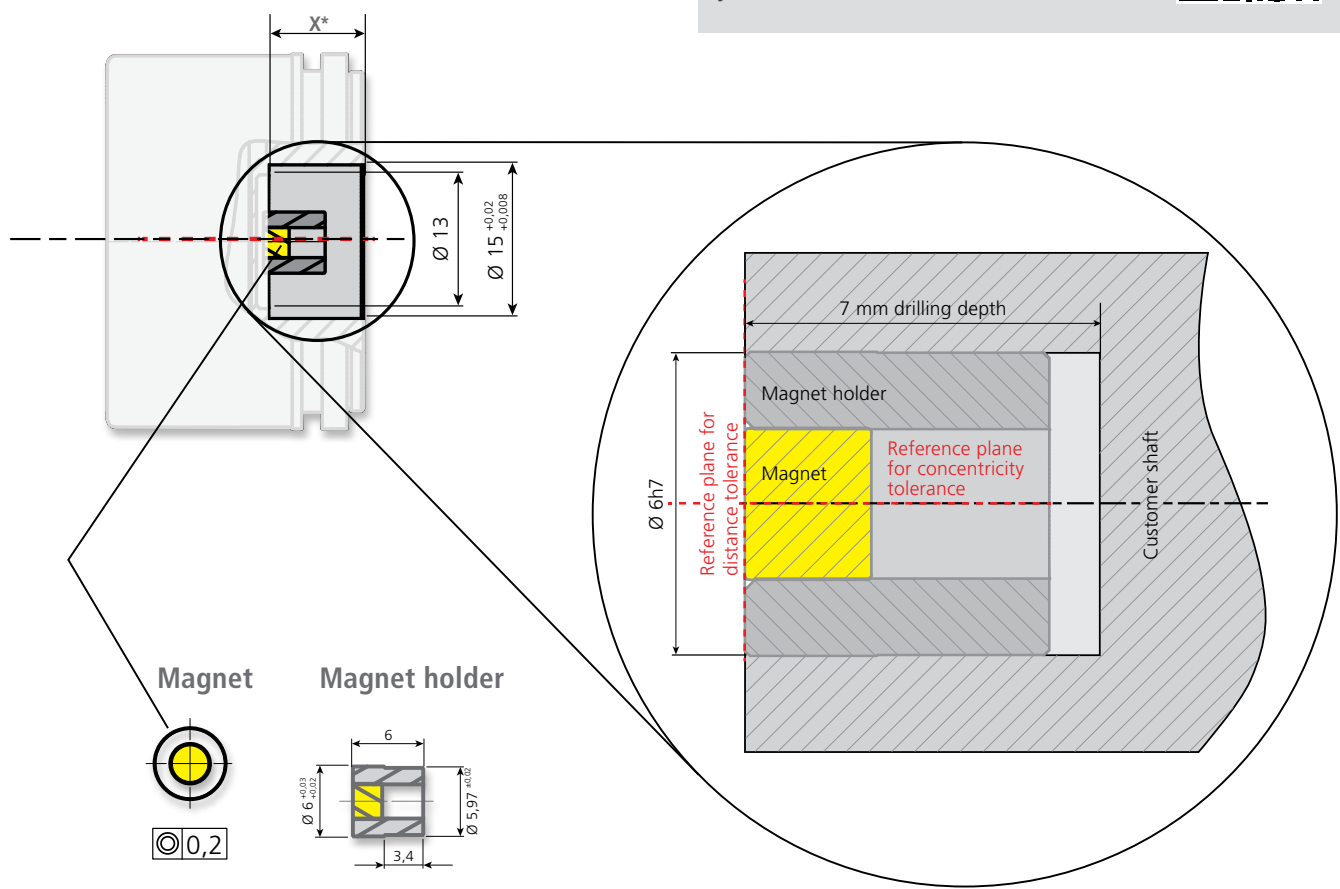
TR-Electronic constructs and manufactures the magnet holder custom fit for your application and delivers it with a built-in magnet. The example shows a magnet holder pressed into the face-sided drilling 6h7 (7 mm deep) of the shaft

(order no. 49150092). The magnet holder is not part of delivery. Please order this item separately. Magnet holders in other sizes will be designed and delivered according to customers' specifications.

Exemplary illustration for a face-sided drilling 6h7 of 7 mm depth at the IMF 36

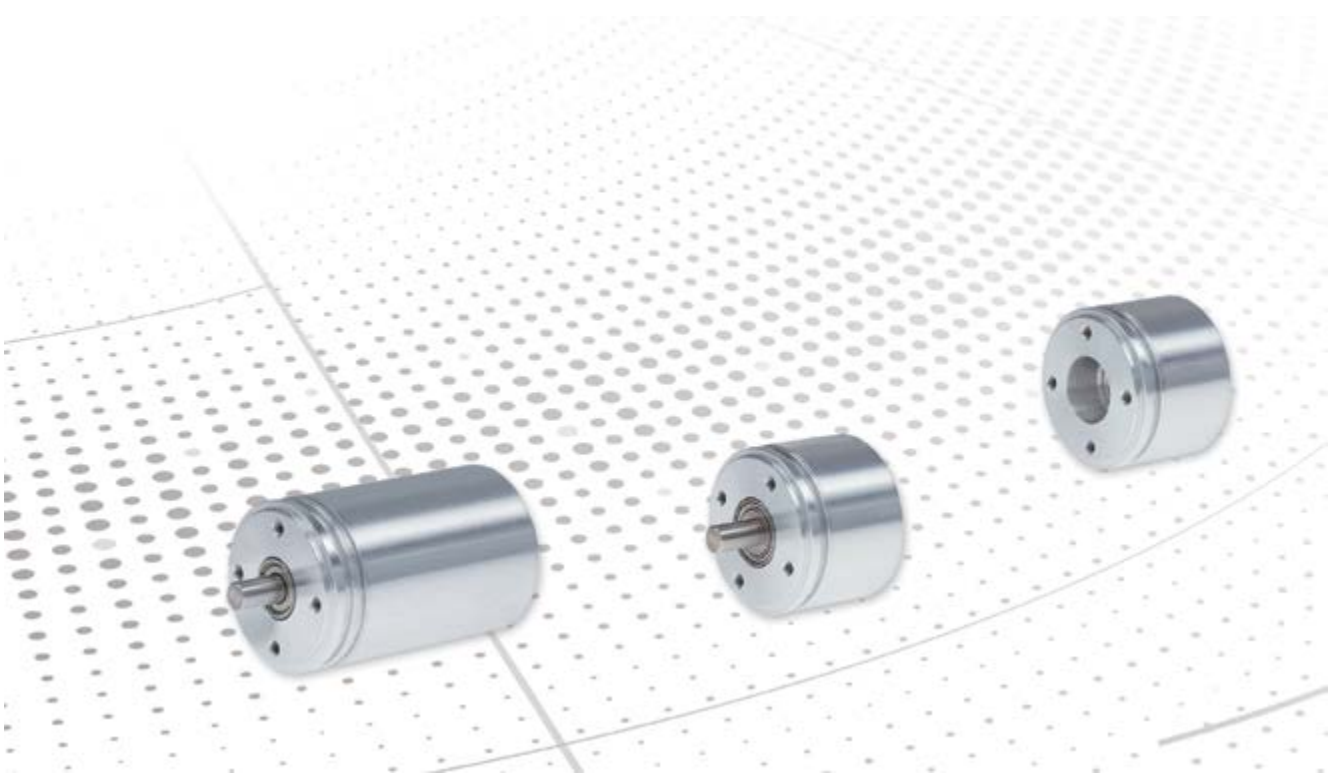
X* depends on device. See all information at TR-Web
www.tr-electronic.com/s/S006824

To get information faster, just scan the QR code.



This type:
 Order no. 49150092

Rotary Encoder - Family C__36 - Housing 36 mm



Compact absolute rotary encoder family - also washdown safe (IP69K)


A new design size is taking the market by storm: with a diameter of 36 mm, advanced encoder technology is moving in where there is no room for typical industrial design sizes. And there is absolutely no need for the 36 mm series of encoders from TR to hide behind the bigger design sizes. The series is made up of incremental, single and real multi-turn rotary encoders, some with single-scan, some with double-scan functionality, and implemented according to the redundancy concept from the gears to the scan, power supply and interface.

Compact encoders C__36 are available with magnetic and optic detection with up to 18 bit resolution per revolution.

Contents

Products.....	5	Assembly Examples	11
Suggested Products.....	8	Samples	12
Dimensional Drawings.....	9		
Flanges	10		




Magnet detection (M)

Products	CMV36-S	CMV36-S+FS	CMV36-M
			
Detection	Magnet detection (M)	Magnet detection (M)	Magnet detection (M)
Single / multi	(S) Single	(S) Single	(M) Multi
Supply	11...27 VDC	11...27 VDC	11...27 VDC
Steps per turn	32, 40, 64, 80, 100, 128, 160, 200, 256, 320, 400, 500, 512, 1,000, 1,024, 1,600, 2,000, 2,048, 4,096, 8,192*	4096	32, 40, 64, 80, 100, 128, 160, 200, 256, 320, 400, 500, 512, 1,000, 1,024, 1,600, 2,000, 2,048, 4,096, 8,192*
Number of turns	1	1	4,096 (option: 16,777,216)
Shaft diameters available	6mm	6mm	6mm
Connectors	Cable gland axial	Cable gland axial	Cable gland axial, M12 axial (DRIVE CLiQ)
Maximum SIL/PL		SIL2/PLd	
Ambient temperature	-25...+70°C	-25...+70°C	-25...+70°C
Protection class	IP65 (option IP69k)	IP65 (option IP69k)	IP54 (option IP65)
Interface	SSI ASI Analog CAN	Analog	SSI  ASI CAN
Option, additional interfaces (on request)	INC	INC	INC
Weblink	www.tr-electronic.com/s/S007174		www.tr-electronic.com/s/S007175
QR-Code			

*Factory set

Can't find the right variant? Please contact us (info@tr-electronic.de)

Magnet detection (M)









Products	CMS36-M	CMF36-S	CDV36-S	
				
Detection	Magnet detection (M)	Magnet detection (M)	Magnet detection (M)	
Single / multi	(M) Multi	(S) Single	(S) Single	
Supply	11...27 VDC	11...27 VDC	11...27 VDC	
Steps per turn	32, 40, 64, 80, 100, 128, 160, 200, 256, 320, 400, 500, 512, 1,000, 1,024, 1,600, 2,000, 2,048, 4,096, 8,192*	32, 40, 64, 80, 100, 128, 160, 200, 256, 320, 400, 500, 512, 1,000, 1,024, 1,600, 2,000, 2,048, 4,096, 8,192*	32, 40, 64, 80, 100, 128, 160, 200, 256, 320, 400, 500, 512, 1,000, 1,024, 1,600, 2,000, 2,048, 4,096, 8,192*	
Number of turns	4,096 (option: 16,777,216)	1	1	
Shaft diameters available	8mm blind shaft	See drawings section	6mm	
Connectors	Cable gland axial, M12 axial (DRIVE CLiQ)	Cable gland axial	2x cable gland axial	
Maximum SIL/PL				
Ambient temperature	-25...+70°C	-25...+70°C	-25...+70°C	
Protection class	IP54 (option IP65)	IP65 (option IP69k)	IP65 (option IP69k)	
Interface	SSI  ASI CAN	SSI ASI Analog CAN	SSI	
Option, additional interfaces (on request)	INC	INC	SSI	
Weblink	www.tr-electronic.com/s/S007176	www.tr-electronic.com/s/S007177	www.tr-electronic.com/s/S007178	
QR-Code				

*Factory set

Magnet detection (M)

Optical 15 bit (E)

Optical 18 bit (O)

			
Magnet detection (M)	Magnet detection (M)	Optical 15 bit (E)	Optical 18 bit (O)
(M) Multi	(S) Single	(M) Multi	(M) Multi
11...27 VDC	11...27 VDC	5...27 VDC	5...27 VDC
32, 40, 64, 80, 100, 128, 160, 200, 256, 320, 400, 500, 512, 1,000, 1,024, 1,600, 2,000, 2,048, 4,096, 8,192*	32, 40, 64, 80, 100, 128, 160, 200, 256, 320, 400, 500, 512, 1,000, 1,024, 1,600, 2,000, 2,048, 4,096, 8,192*	1...32,768*	1...262,144*
4.096	1	65.536	65.536
6mm	See drawings section	6mm	6mm
2x cable gland axial	2x cable gland axial	M12 axial	M12 axial
-25...+70°C	-25...+70°C	-25...+70°C	-25...+70°C
IP54 (option IP65)	IP65 (option IP69k)	IP54 (option IP65)	IP54 (option IP65)
SSI	SSI	SSI	SSI
SSI	SSI		
www.tr-electronic.com/s/S007179	www.tr-electronic.com/s/S007180	www.tr-electronic.com/s/S007293	www.tr-electronic.com/s/S007294
			

*Factory set

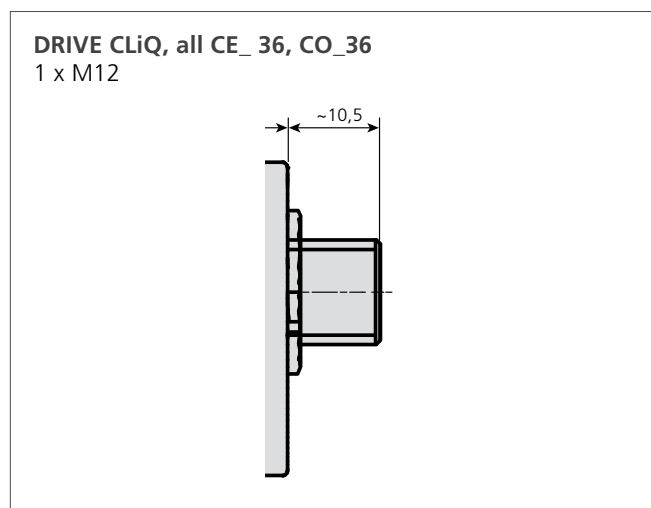
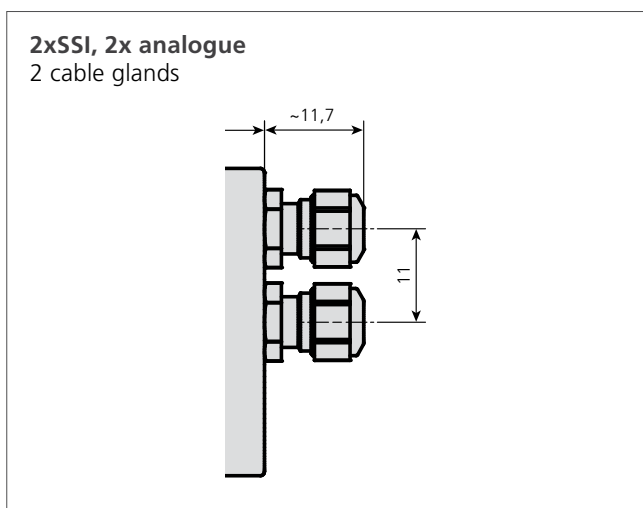
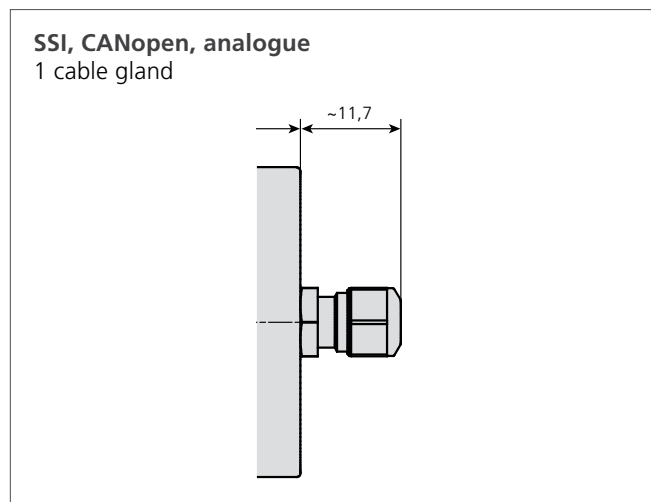
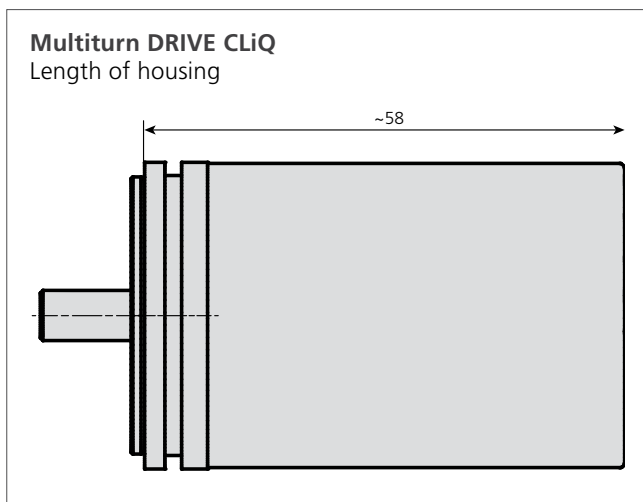
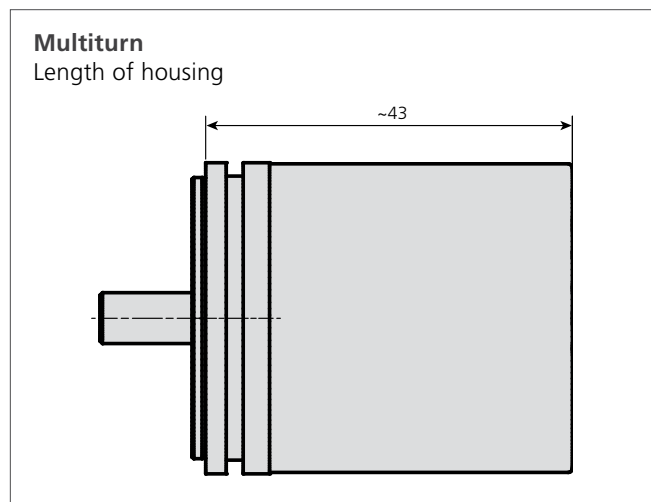
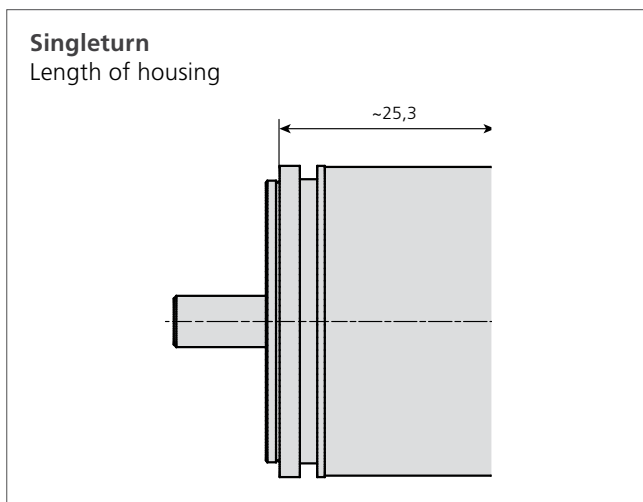
Can't find the right variant? Please contact us (info@tr-electronic.de)

Suggested Products

Order code	Steps per turn	Turns	Shaft / Flange	Connector position	Cable length	Remark
CMV36-SSI (M) Magnet detection, solid shaft, SSI						
CMV36M-00011	4096	4096	6GL/10,8	Cable gland	1,000 m	
CMV36S-00005	4096	1	6GL/10,8 ZB33	Cable gland	1,000 m	
CMV36-SSI (M) Magnet detection, solid shaft, CANopen						
CMV36M-00016	4096	4096	6GL/10,8 ZB33	Cable gland	1,000 m	
CMV36-SSI (M) Magnet detection, solid shaft, ASI						
CMV36M-00009	4096	4096	6GL/10,8 ZB33	Cable gland	0,300 m	
CMV36-DQ (M) Magnet detection, solid shaft, DRIVECLiQ						
CMV36M-00010	4096	4096	6GL/10,8	1x M12 8pin		
CMF36-SSI (M) Magnet detection, bearing free, SSI						
CMF36S-00002	4096	1	See chapter drawings	Cable gland	1,000 m	
CEV36-SSI (E) Optical detection, solid shaft, SSI						
CEV36M-00002	4096	4096	6GL/10,8 ZB33	1x M12 8pin		
CDV36-SSI (D) Double detection, solid shaft, double SSI						
CDV36M-00002	4096	4096	6GL/10,8 ZB33	2x cable gland	1,000 m	
CDV36S-00002	4096	1	6GL/10,8 ZB33	2x cable gland	1,000 m	
CDF36-SSI (D) Double detection, bearing free, double SSI						
CDF36S-00002	4096	1	See chapter drawings	2x cable gland	1,000 m	

For further product information simply enter the order number in the search field at www.tr-electronic.com.

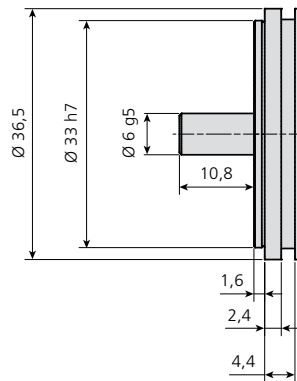
Dimensional Drawings



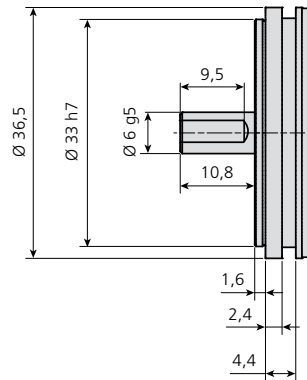
Illustrations are schematic diagrams. Binding dimension drawings and CAD data for specific order numbers at www.tr-electronic.com or on request.

Flanges

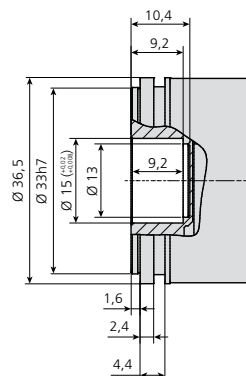
Solid shaft
6GL10,8 (round shaft)



Solid shaft
6FL10,8 (shaft with flat)

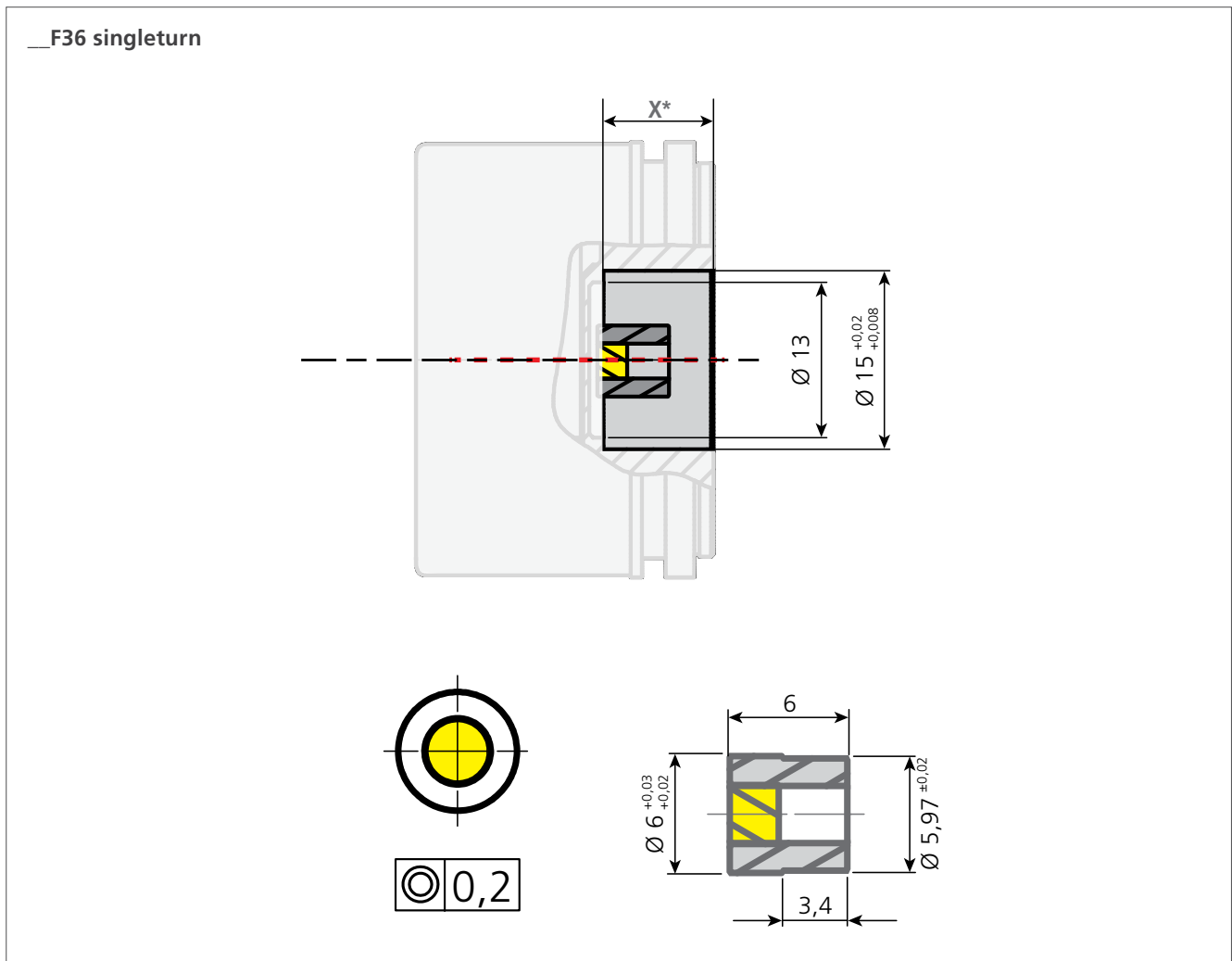


Bearing free



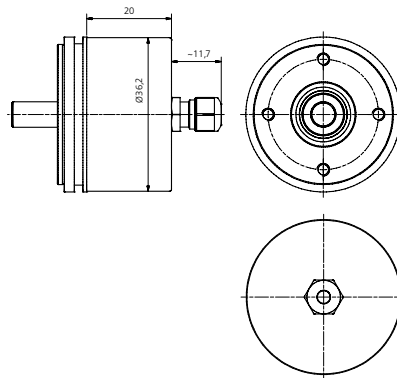
Can't find the right variant? Please contact us (info@tr-electronic.de). Illustrations are schematic diagrams. Binding dimension drawings and CAD data for specific order numbers at www.tr-electronic.com or on request.

Assembly Examples

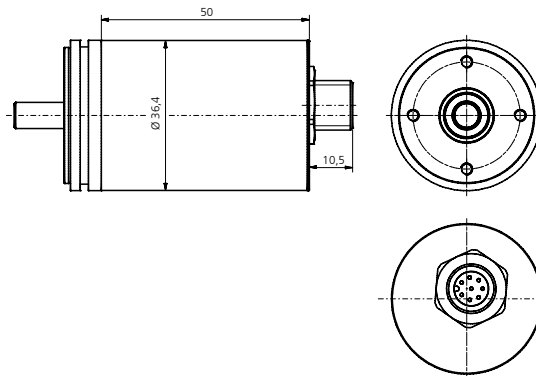


Samples

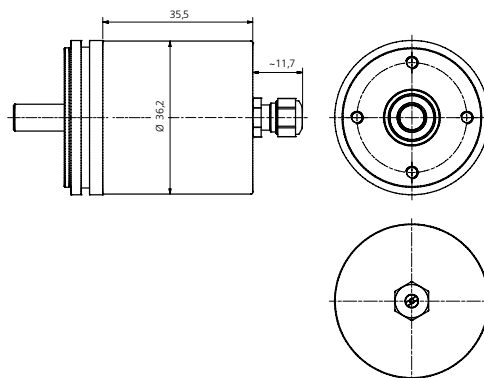
CMV36-SSI singleturn



CMV36-DRIVE CLiQ multiturn



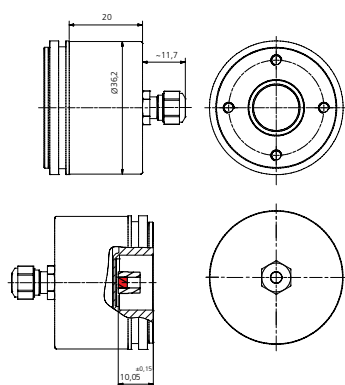
CMV36-SSI multiturn



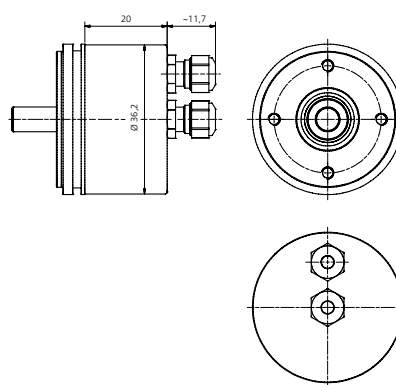
Can't find the right variant? Please contact us (info@tr-electronic.de). Illustrations are schematic diagrams. Binding dimension drawings and CAD data for specific order numbers at www.tr-electronic.com or on request.

Samples

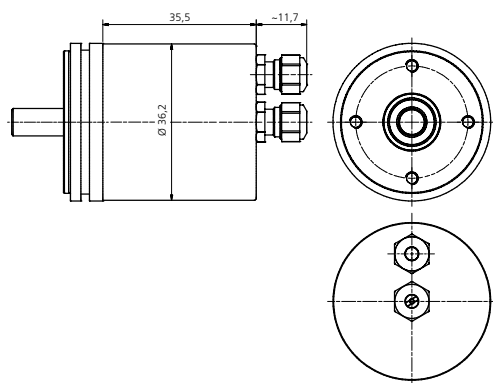
CMF36-SSI singleturn



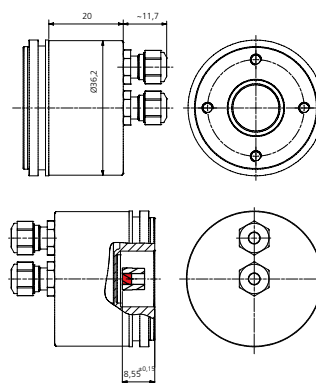
CDV36-SSI singleturn



CDV36-SSI multiturn



CDF36-SSI singleturn



Headquarters

TR-Electronic GmbH
Eglisshalde 6
D-78647 Trossingen
Germany
Tel.: +49/7425 228-0
Fax: +49/7425 228-33
info@tr-electronic.de
www.tr-electronic.de

International

Argentina

AEA Aparatos Eléctricos Automáticos S.A.C.I.E.
Asunción 2130
AR-1419 Buenos Aires
Tel.: +54/11 - 4574 1155
Fax: +54/11 - 4574 2400
servicioalcliente@aea.com.ar
www.aea.com.ar

Australia (New Zealand)

Sensor Measurement
Unit 8/26 Shields Crescent
P.O. Box 1079
AU-Booragoon
Western Australia 6154
Tel.: +61/8-93 17 25 52
Fax: +61/8-93 17 24 52
sales@sensormeasurement.com.au
www.sensormeasurement.com.au

Australia

Leuze electronic PTY Ltd.
Unit 2/843 Mountain Highway
Bayswater VIC 3153
Tel.: +61/1300 538 933
Fax: +61/3 9738 2677
sales@leuze.com.au
www.leuze.com.au

Austria

TR-Electronic GmbH
Tragösserstraße 117
A-8600 Bruck/Mur
Tel.: +43/3862-55006 0
Fax: +43/3862-55006 33
info@tr-electronic.at
www.tr-electronic.at

Belgium

TR-Electronic Benelux
Dorpstraat 18F
NL-5386AM Geffen
Tel.: +31/73 844 9600
Mobil: +31/6383 28 303
rene.verbruggen@tr-electronic.nl
www.tr-electronic.nl

Brazil

Grupo C+Tecnologia
Rua dos Caetés 601
CEP - 05419-000
BR-Perdizes - São Paulo - SP
Tel.: +55/11-2168 655-4
Fax: +55/11-2168 655-5
info@ctecnologia.com.br
www.ctecnologia.com.br

Canada

TR Electronic
P.O. Box 2543, Station B
CA-London
Ontario Canada N6A 4G9
Tel.: +1/519-452 1999
Fax: +1/519-452 1177
customercare@trelectronic.com
www.trelectronic.com

Chile

Allware
Casa Haverbeck
General Lagos 2060 2º Piso
Region de Los Rios Valdivia
CHL-Santiago Chile
Tel.: +56 63/239298
Sales@allware.cl
www.allware.cl

China

TR-Electronic (Beijing) CO., Ltd.
Room 717 / 718, Building A2
Electronic City Science Park
Jiu Xian Qiao Dong Road No. 9
Chaoyang District
CN-100027 Beijing, P.R. China
Tel.: +86/10 - 582 386 55
Fax: +86/10 - 582 372 10
lu.yu@tr-electronic.de
www.tr-electronic.com.cn

Czech Republic, Slovakia

DEL a.s.
Biskupský dvůr 1146/7
Nové Město
CZ-110 00 Praha 1
Tel.: +420/566 657 100
Fax: +420/566 621 657
tr-electronic@del.cz
www.del.cz

Denmark

TR-Electronic Danmark ApS
Hustedgårdvej 22
DK-8722 Hedensted
Tel.: +45/75 89 06 03
cbj@tr-electronic.dk
www.tr-electronic.dk

Finland

Sarlin Oy Ab
P.O. Box 750
FI-00101 Helsinki
Tel.: +358/10 - 550 4000
Fax: +358/10 - 550 4201
info@sarlin.com
www.sarlin.com

France

TR-Electronic France SARL
1 Avenue
Christian Doppler - Bat 2
FR-77700 Serris
Tel.: +33/1-64 63 68 68
Fax: +33/1-61 10 17 66
info@tr-electronic.fr
www.tr-electronic.fr

Great Britain

TR-Electronic Ltd.
4 William House, Old St.
Michaels Drive
GB-Braintree Essex CM7 2AA
Tel.: +44/1 371-876 187
Fax: +44/1 371-876 287
info@tr-electronic.co.uk
www.tr-electronic.co.uk

India

Spohn Burkhardt India
9th Main Road, 500,
33rd A Cross Road
7th Cross, 4th Block Jayanagar
IN-Bangaluru - 560 011, India
Mobile: +91/98451 46948
info@spobu-india.in
www.spobu-india.in

India

Global-Tech (India) Pvt Ltd.
"INFINITY House", Survey No-
85, A-1/4, Lalit Estate, Plot No-7,
Next to Eminent Building, Near
Ganaraj Chowk, Baner Road,
IN-Pune - 411045, Maharashtra
Tel.: +91/20 6744 0033
Fax: +91/20-2447 00 86
info@globaltechindia.com
www.globaltechindia.com

Israel

Dor Engineering
P.O.Box 6
IL-48805 Kibutz Einat
Tel.: +972/3 900 75 95
Fax: +972/3 900 75 99
info@doreng.co.il
www.doreng.co.il

Italy

Telestar S.r.l.
Via Novara, 35
IT-28010 Vaprio D'Agogna (NO)
Tel.: +39/03-21 966-768
Fax: +39/03-21 966-281
telestar@telestar-automation.it
www.telestar-automation.it

Japan

SANTEST CO. Ltd.
1-60 Tsuneyoshi, 1-Chome
Konohanaku
J-Osaka 554-8691
Tel.: +81/6-6465 5561
Fax: +81/6-6465 5921
info@santest.co.jp
www.santest.co.jp

Mexico

TR Electronic
P.O. Box 2543, Station B
CA-London, Ontario Canada
N6A 4G9
Tel.: +1/519-452 1999
Fax: +1/519-452 1177
customercare@trelectronic.com
www.trelectronic.com

Republic of Korea

MS Intech Co., Ltd.
B-306 SK Twintech Tower
345-9 Gasan-dong/
Geumcheon-gu
KR-08589 Seoul
Tel.: +82/2-334 0577
Fax: +82/2-862 1591
sales@msintech.com
www.msintech.com

South Africa

Angstrom Engineering (Pty) Ltd.
Sybrand van Niekerk
Business Park Meyerton
19 Tom Muller Road
ZA-1960 Meyerton
Tel.: +27/362 0300
info@angstromeng.co.za
www.angstromeng.co.za

Thailand

T+R Electronic (Thailand) Co., Ltd.
120/62 Moo 8 Bang Sare
TH-Sattahip, Chonburi 20250
Tel.: +66/38 737 487
Fax: +66/38 737 171
trthailand@trelectronic.co.th
www.trelectronic.co.th

Netherlands

TR-Electronic Benelux
Dorpstraat 18F
NL-5386AM Geffen
Tel.: +31/73 844 9600
Mobil: +31/6383 28 303
rene.verbruggen@tr-electronic.nl
www.tr-electronic.nl

Russia

Sensotek LLC
Kievskoye highway 22 km
(Moskovskiy settlement)
housing estate 4, building 5,
office 505E
RU-108811 Moscow
Tel.: +7/495 181-56-67
Fax: +7/495 181-56-67
info@sensotek.ru
www.sensotek.ru

Spain, Portugal

Intertronic Internacional, SL
C/Johannes Gutenberg, 4 y 6
Parque Tecnológico Paterna
ES-46980 Valencia
Tel.: +34/963 758 050
Fax: +34/963 751 022
info@intertronic.es
www.intertronic.es

Turkey

ÜNİVERSA İÇ ve DIŞ TİC. MAK.
SAN. LTD. ŞTİ.
Cemal Gürsel Caddesi No: 11/7
TR-35600 Karşıyaka-İZMİR
Tel.: +90/232 382 23 14
Fax: +90/232 382 23 24
info@universa.com.tr
www.universa.com.tr

Norway

TR Electronic Norway AS
Fusdal Terrasse 3
N-1387 Asker
Tel.: +46 708 696 533
Fax: +46 875 676 80
info@trelectronic.se
www.trelectronic.se

Saudi-Arabia

Business Tribune Company Ltd.
4237 Ad Danah
King Abdulaziz Road
SA-32437-6887 Ad Dammam
Tel.: +966/3-832 72-17
Fax: +966/3-832 72-41
waleed@bustribune.com.sa
www.bustribune.com

Sweden

TR Electronic Sweden AB
Djupdalsvägen 10
SE-192 51 Sollentuna
Tel.: +46/8-756 72 20
Fax: +46/8-756 76-80
mailbox@trelectronic.se
www.trelectronic.se

USA (TR-Electronic)

TR Electronic
200 East Big Beaver Road
Suite 164
US-Troy, MI 48083
Tel.: +1/248-244-2280
Fax: +1/248-244-2283
customercare@trelectronic.com
www.trelectronic.com

Peru

Grupo C+Tecnologia
Rua dos Caetés 601
CEP-05419-000
BR-Perdizes - São Paulo - SP
Tel.: +55/11-2168 6554
Fax: +55/11-2168 6555
info@ctecnologia.com.br
www.ctecnologia.com.br

Singapore

Globaltec Electronics
(Far East) Pte. Ltd.
50 Bukit Batok Street 23
#06-27 Midview Building
SG-659578 Singapore
Tel.: +65/6267 9188
Fax: +65/6267 8011
janice@globaltec.com.sg
www.globaltec.com.sg

Switzerland

TR-Electronic SA
14, Ch. Pré-Fleuri
CH-1228 Plan-les-Ouates/Genève
Tel.: +41/22-7 94 21 50
Fax: +41/22-7 94 21 71
info@tr-electronic.ch
www.tr-electronic.ch

USA (TRsystems)

TRS Fieldbus Systems, Inc.
666 Baldwin Court
US-Birmingham, MI 48009
Tel.: +1/586 826-9696
Fax: +1/586 826-9697
support@trs-fieldbus.com
www.trs-fieldbus.com

Poland

Stoltronic-Polska Sp.z o.o. Sp.k.
ul. Dąbrowskiego 238
P-93-231 Łódź
Tel.: +48/42 649 12 15
Fax: +48/42 649 11 08
stoltronic@stoltronic.pl
www.stoltronic.pl

Slovenia

S.M.M. d.o.o.
Jaskova 18
SI-2001 Maribor
Tel.: +386/2450 2300
Fax: +386/2450 2302
info@smm.si
www.smm.si

Taiwan

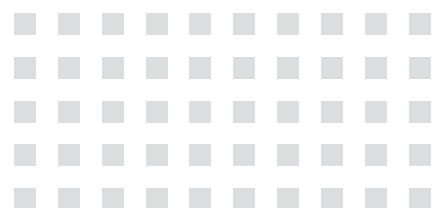
TR-Electronic (Beijing) CO., LTD.
Room 717 / 718, Building A2
Electronic City Science Park
Jiu Xian Qiao Dong Road No. 9
Chaoyang District
CN-100027 Beijing, P.R. China
Tel.: +86/10 - 582 386 55
Fax: +86/10 - 582 372 10
lu.yu@tr-electronic.de
www.tr-electronic.com.cn

TR-Electronic GmbH

Eglishalde 6
D - 78647 Trossingen

Tel. +49 7425 228-0
Fax +49 7425 228-33

info@tr-electronic.de
www.tr-electronic.de



Last update: 06/2019

68-105-105 - TR-V-PR-GB-0003-07

Subject to technology and design modifications.

Cover photo background: ©kras99-fotolia.com