

# Strain Link with CANopen DSRT 22DJ

## Features

- Digital linearization
- Decoupling of torsion and bending
- Taring function with PDO- or SDO-command
- Measuring range  $\pm 100$  up to  $\pm 750 \mu\epsilon$ , extension and compression



## S/G Data

Strain gage type      Foil strain gage

## Mechanical Data

Material  
 - Housing                    1.7225 chemically nickel-plated  
 - Cover                      1.4301

Electrical connection    5 pin (M12 x 1)

Application position      any

Sensor stiffness          1 N/ $\mu\epsilon$  @100  
                                      0,2 N/ $\mu\epsilon$  @250 - 750

## Environmental Conditions

Operating temp. range    0...+70 °C

Storage temp. range      -40...+85 °C

EMC                            EN 61000-6-2  
                                      EN 61000-6-4

Vibration IEC 60068-2-6   10 - 2000 Hz 10 g (amplitude  
                                       $\pm 0,75$  mm, 10 - 58 Hz)

Random IEC 60068-2-64   20 - 1000 Hz, 0,1 g<sup>2</sup>/Hz

Shock IEC 60068-2-27    50 g / 11 ms

Protection class          IP 67

## Delivery Contents

Mounting screws          4 pcs. M6 x 25  
                                      strength class 12.9

## Order Code

DSRT 22DJ-S5-

**0100** Measuring range 100  $\mu\epsilon$   
**0250** Measuring range 250  $\mu\epsilon$   
**0500** Measuring range 500  $\mu\epsilon$   
**0750** Measuring range 750  $\mu\epsilon$

## Electrical Data

Measuring range             $\pm 100 \mu\epsilon$  ...  $\pm 750 \mu\epsilon$   
                                      (1  $\mu\epsilon$  = 0,001 mm/m resp.  
                                      1  $\mu\epsilon$  equals 0,001 mm  
                                      strain per meter)

Output / Protocol          CANopen DS404

Resolution                  0,1  $\mu\epsilon$

Measuring rate             1000 x / sec.

Data format                Fix points

Total error                 < 0,5% FS  
 at ambient temperature

Hysteresis                  < 0,4% FS

Repeatability               < 0,1% FS

Taring time                  < 9 ms

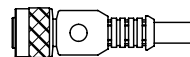
Supply voltage range      10 - 33 VDC

Current draw                < 60 mA

## Accessories (not included in delivery)



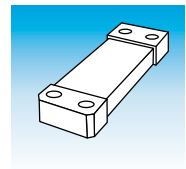
Connector female, control side, 5-pin, Part No. 10135462



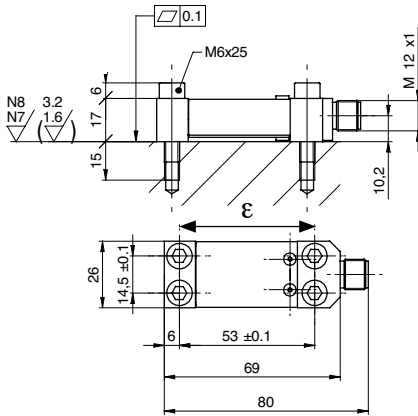
Connector female with cable, control side, 5-pin  
 ESG 34CH0200G 5-pin (shielded) 2 m, PUR,  
 (Part No. 11046264)

ESG 34CH0500G 5-pin (shielded) 5 m, PUR,  
 (Part No. 11046266)

ESG 34CH1000G 5-pin (shielded) 10 m, PUR,  
 (Part No. 10155587)



**Dimensions (mm)**



**Supported Objects**

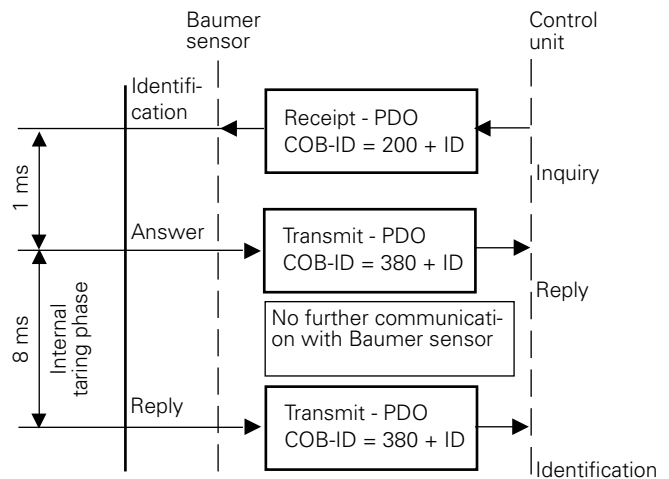
Object	Description
1000	Device profile
1001	Error register
1002	Serial number
1003	Emergency history
1005	Sync ID
1008	Device description
1009	Hardware version
100A	Software version
1010	Store
1011	Load default values
1017	Heartbeat
1018	Device identity
1400	Reception PDO1 parameter
1600	PDO 1 Mapping parameter
1800	Transmit PDO1 parameter
1801	Transmit PDO2 parameter
1802	Transmit PDO3 parameter
1A00	1. PDO Mapping
1A01	2. PDO Mapping
1A03	3. PDO Mapping
2000	Averaging time
2001	Auto zero store
2100	Baud rate
2101	Identification
6110	Sensor Type
6112	Operating mode
6125	Auto zero
6131	Process unit
6132	Decimal places
6150	Status of measurement
7130	Interrogate measured value (Process value)
7133	Delta Value

**Electrical Connections**



Pin	Signal
1	n.c.
2	+VS
3	GND
4	CANH
5	CANL
Housing	Shield

**Temporal Course**



**Example**

ID	DLC
201h	0

**First answer of strain link**

(Command realized)

ID	DLC	Byte 1
381h	1	75h

**Second answer of strain link**

(Taring finished)

ID	DLC	Byte 1	Byte 2
381h	2	66	0

**Error (Unstable signal)**

ID	DLC	Byte 1	Byte 2
381h	2	65h	72h