

**ABSOLUTE  
ENCODER  
WITH FIELD BUS  
990FC**

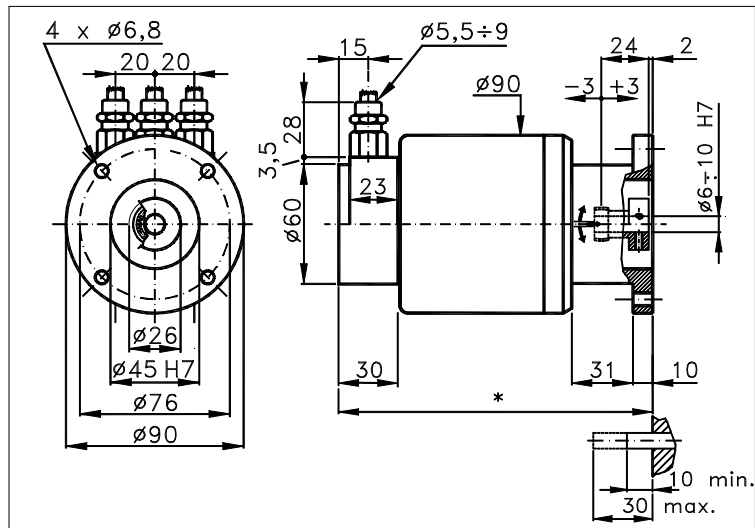
Sturdy absolute encoder with hollow shaft and inner patented star-shaped coupling (like mod.72) with high axial compensation. CANopen interface.  
High resolution. Fit to allow extremely sturdy installations.

Absolute with field bus  
page: 08.990FC 1/2  
data sheet IB 043 E00

Measures without tolerance acc. to UNI ISO 2768-mk

Max. joint compens.: ax. ±3mm, rad. ±0,05mm, ang. ±2°

CANopen



\* 150 Singleturn, 160 Multiturn

**TECHNICAL FEATURES AND POSSIBLE CONFIGURATIONS**

- **Outout codes**.....: Binary
- **Max resolut**.....: 16 bit/1 rev.  
: 30 bit/16384 rev.
- **Pulses/rev**.....: (12) 4096, (13) 8192,  
(14) 16384, (15) 32768,  
(16) 65536.
- **No. of rev**.....: 1, 4096, 16384.  
:
- **Power supply Vcc**.....: 10÷30 VDC
- **Max consumption**.....: 2,5 Watt
- **Light source**.....: LED with >= 100000 h life
- **Optical sensors**.....: IR photodiodes array
- **Step frequency LSB**....: 800 kHz
- **Operating temperature**..: -40 ÷ +85 °C
- **Storage temperature**...: -40 ÷ +85 °C
- **Humidity**.....: 98% (without liquid state)
- **Bus connection**.....: CAN transceiver (ISO 11898)
- **Status indic. with 2 LEDs**
- **Accuracy of divisions**..: ±½ LSB(<13bit), ±2 LSB(13÷16bit)
- **Output interface**.....: (C2) CANopen / CAN  
(CF) CAN Fiber optic

- **Connections** : For the codes and the descriptions of connectors see 'ORDERING CODE' on page 2.
- **Housing**.....: Aluminium (\*)
- **Weight**.....: singlet.1400g, mult. 1500g
- **Shaft**.....: Stainless steel
- **Max radial/axial load**..: 70/110 N
- **IP output side**.....: see 'CONNECTIONS' on page 2
- **IP shaft side**.....: std. 65 sealed 66
- **Contin. max RPM**...(\*\*): 5000 2500
- **Starting torque**..gcm.: 65 115
- **Impact resistance**.....: 30 G (11 ms)
- **Vibration resistance**...: 10 G (10 ÷ 1000 Hz)
- **Ball bearings life**....: >10<sup>5</sup> h @ 1000 rev./m
- **SMD technology**
- **Polarity inversion protect.**
- **Over voltage peak protect.**
- **Disc made of unbreakable and durable plastic.**
- **EMC certific. according to EN 61000-6-2, EN 61000-6-4**
- **Max transmis. rate** 1 Mbaud

(\*) Custom options.

(\*\*) Intermittent max RPM + 30% of continuous max RPM.

**POSSIBLE OPTIONS**

CODE	DESCRIPTION	CODE	DESCRIPTION	CODE	DESCRIPTION
		W	Sealed ball bear.	X	Customer options



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INTERFACE	CONNECTIONS
» (C2) CANopen / CAN	» Internal/external views of the connection cap 3PG with 2 LEDs
Programmable parameters: Direction of rotation(complement); Resolution per revolution; Total resolution; Preset value; Cams; 2 limit switches; Velocity; Baud-rate and CAN-identifier; Transmission mode: Polled mode, cyclic mode, sync mode or cos mode.	
» (CF) CAN Fiber optic	
Like (C2), but with Fiber optic connection.	
»	
»	

### ORDERING INFORMATION

( 00 ) 1(Singlet.) ( 12 ) 4096 ( 14 ) 16384	( 10 ) Ø 10 (standard) ( 952 ) Ø 9,52 ( 08 ) Ø 8 ( 06 ) Ø 6 ( ) ( n ) Ø n upon	( ) ( X ) Customer options ( W ) Sealed ball bear. ( ) ( 0 ) Standard	( 3PG ) Connection cap IP65 ( 3PG-D ) Connection cap + LEDs IP65 ( ) ( 2M20 ) Conn. cap with 2 cables IP65 ( 1BW ) 5 pin round conn. IP65 ( 2BW ) Two 5 pin round conn. IP65 ( 1HW ) Fiber optic conn. ( ) ( )				
MODEL	STEP PER REVOL.	No. OF REVOL.	POSSIBLE SHAFT Ø	CODE	INTERFACE	OPTIONS	CONNECTION
<b>990FC</b>	<b>12</b>	<b>12</b>	<b>10</b>	<b>B</b>	<b>C2</b>	<b>0</b>	<b>3PG</b>
	Binary (12) 4096, (13) 8192, (14) 16384, (15) 32768, (16) 65536.			( ) ( B ) Binary ( ) ( )	( C2 ) CANopen / CAN ( CF ) CAN Fiber optic		

Product manufactured according to UNI EN ISO 9001:2000, supplied with CHECKING and CONFORMITY declaration with CE mark and with TWO (2) YEARS WARRANTY starting from delivery date.

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