



Level



Pressure



Flow



Temperature



Liquid
Analysis



Registration



Systems
Components



Services

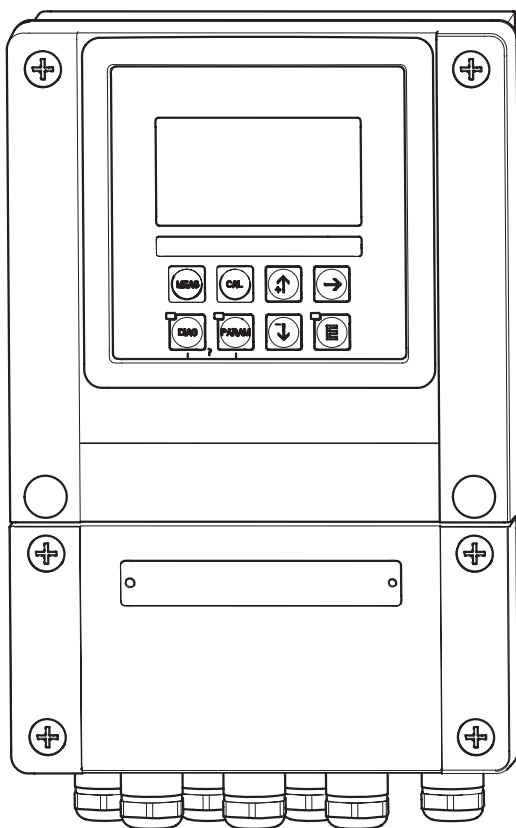


Solutions

Safety Instructions

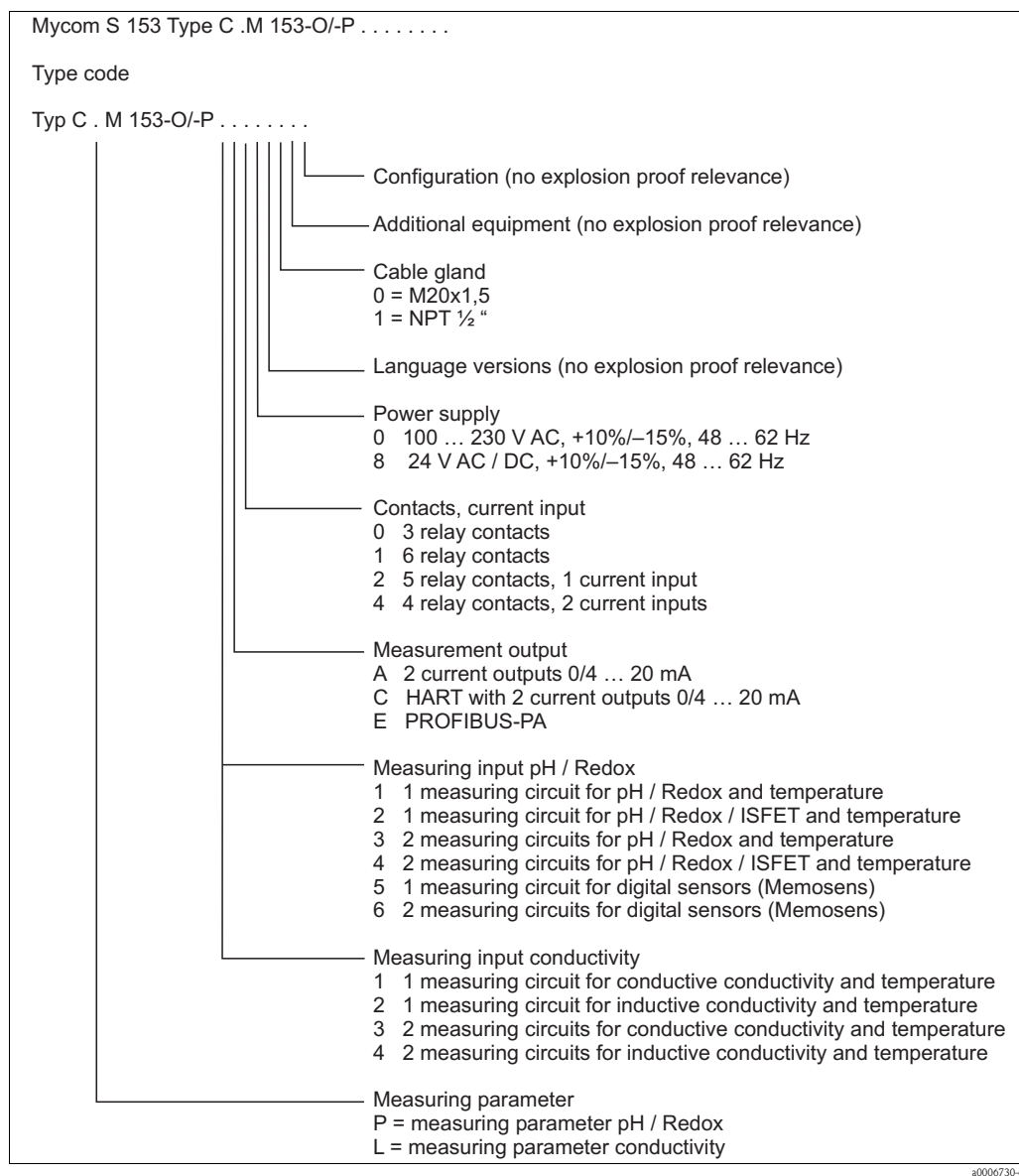
Mycom S CXM153-O/-P

Transmitter for pH/ORP or conductivity measurement



Identification

Device identification



Equipment rating






For the Mycom S CPM153-O and Mycom S CLM153-O transmitters the rating is

- Nonincendive apparatus for Class I, Division 2, Groups A, B, C & D;
dust-ignition proof for Class II and III, Division 1, Groups E, F & G
with intrinsically safe connections to Class I, II & III, Division 1, Groups A, B, C, D, E, F & G and Class I, Zone 1, Group IIC hazardous (classified) locations in accordance with Control Drawing 136620, utilizing Type 4 enclosure and a temperature class of T4 @ Ta = 50 °C.

For the Mycom S CPM153-P and Mycom S CLM153-P transmitters the rating is






- Nonincendive apparatus for Class I, Division 2, Groups A, B, C & D; Class I, Zone 2, Group IIC; and dust-ignition proof for Class II and III, Division 1, Groups E, F & G
with nonincendive field wiring parameters to Class I, II & III, Division 2, Group A, B, C, D, F & G and Class I, Zone 2, Group IIC hazardous (classified) locations in accordance with Control Drawing 136626, utilizing Type 4 enclosure and a temperature class of T4.
The product was also examined for a Division 2, FISCO application, in accordance with Control Drawing 136626.

Nameplate

Made in Germany, D-70839 Gerlingen		Endress+Hauser 	
MYCOM S pH / Redox			
Order code CPM153-PA2A00A010			
Serial no. 55000505G08			
Meas. range: -2 ... +16 pH -1500 mV ... +1500 mV		NEMA 4	
Temperature: -50 ... +150 °C		CL. I, DIV 2, GP A, B, C, D:	
Channels: 1		Dust-Ignitionproof CL. II, III,	
Output 1: 0/4 ... 20 mA		DIV 1, GP, E, F, G	
Output 2: 0/4 ... 20 mA		CL. I, ZONE 2 GP IIC, T4;	
Mains: 100-230 VAC 50/60 Hz 10 VA		IS outputs per DWG 136626	
		-10 < Ta < +50 °C	
 		 	

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Fig. 1: Nameplate Mycom S CXM153-P (example)

Made in Germany, D-70839 Gerlingen		Endress+Hauser 	
MYCOM S Conductivity			
Order code CLM153-OA2A00A010			
Serial no. 42000505G08			
Meas. range: 0.04 µS/cm ... 2000 mS/cm		NEMA 4	
Temperature: -35 ... +250 °C (NTC -20 ... +100 °C)		CL. I, DIV 2, GP A, B, C, D:	
Channels: 1		Dust-Ignitionproof CL. II, III,	
Output 1: 0/4 ... 20 mA		DIV 1, GP, E, F, G	
Output 2: 0/4 ... 20 mA		CL. I, ZONE 2 GP IIC, T4;	
Mains: 100-230 VAC 50/60 Hz 10 VA		IS outputs per DWG 136620	
		-10 < Ta < +50 °C	
 		 	

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Fig. 2: Nameplate Mycom S CXM153-O (example)

Control drawing Mycom S CXM153-O

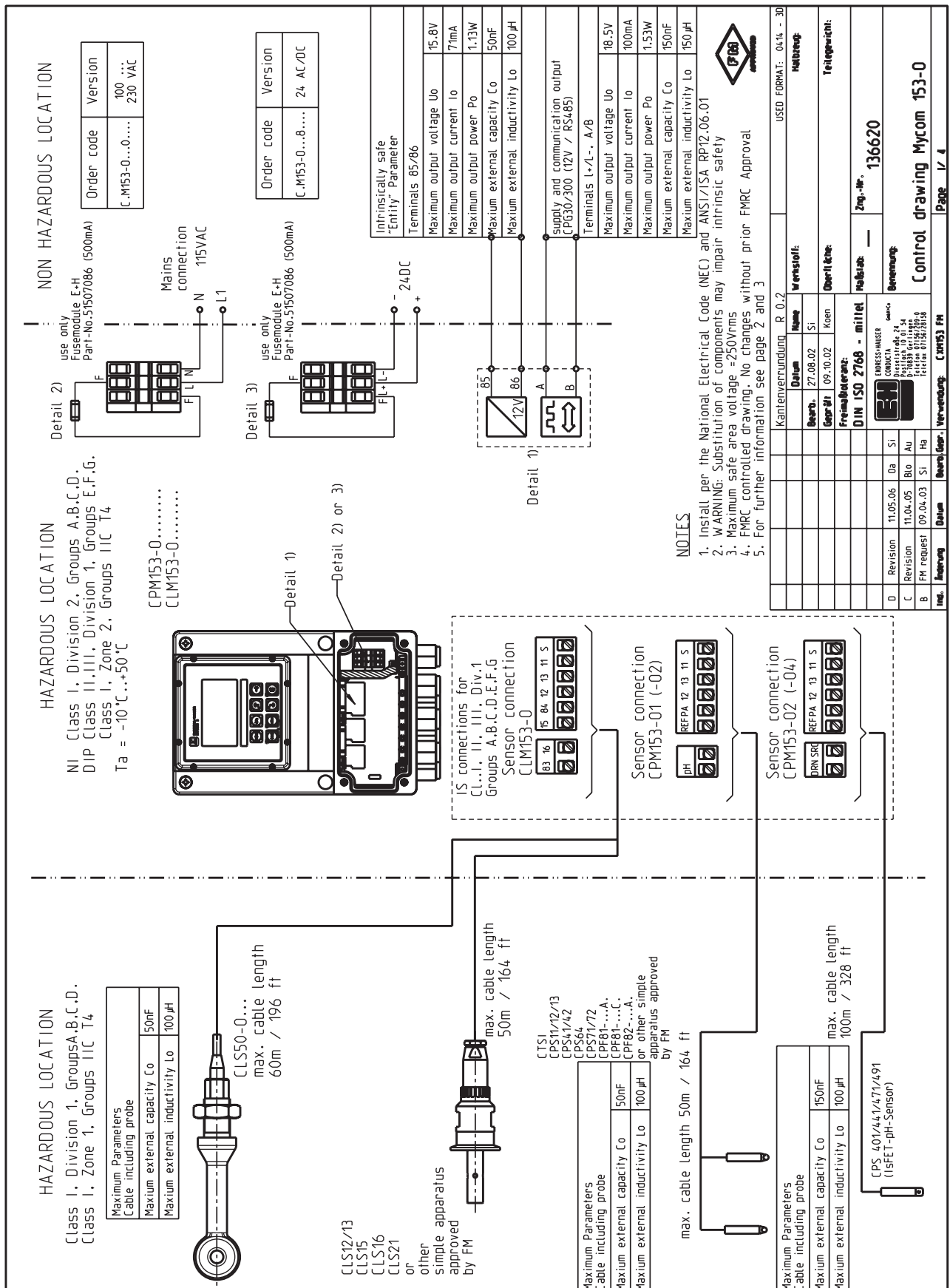


Fig. 3: Control drawing Mycom S CXM153-O, page 1

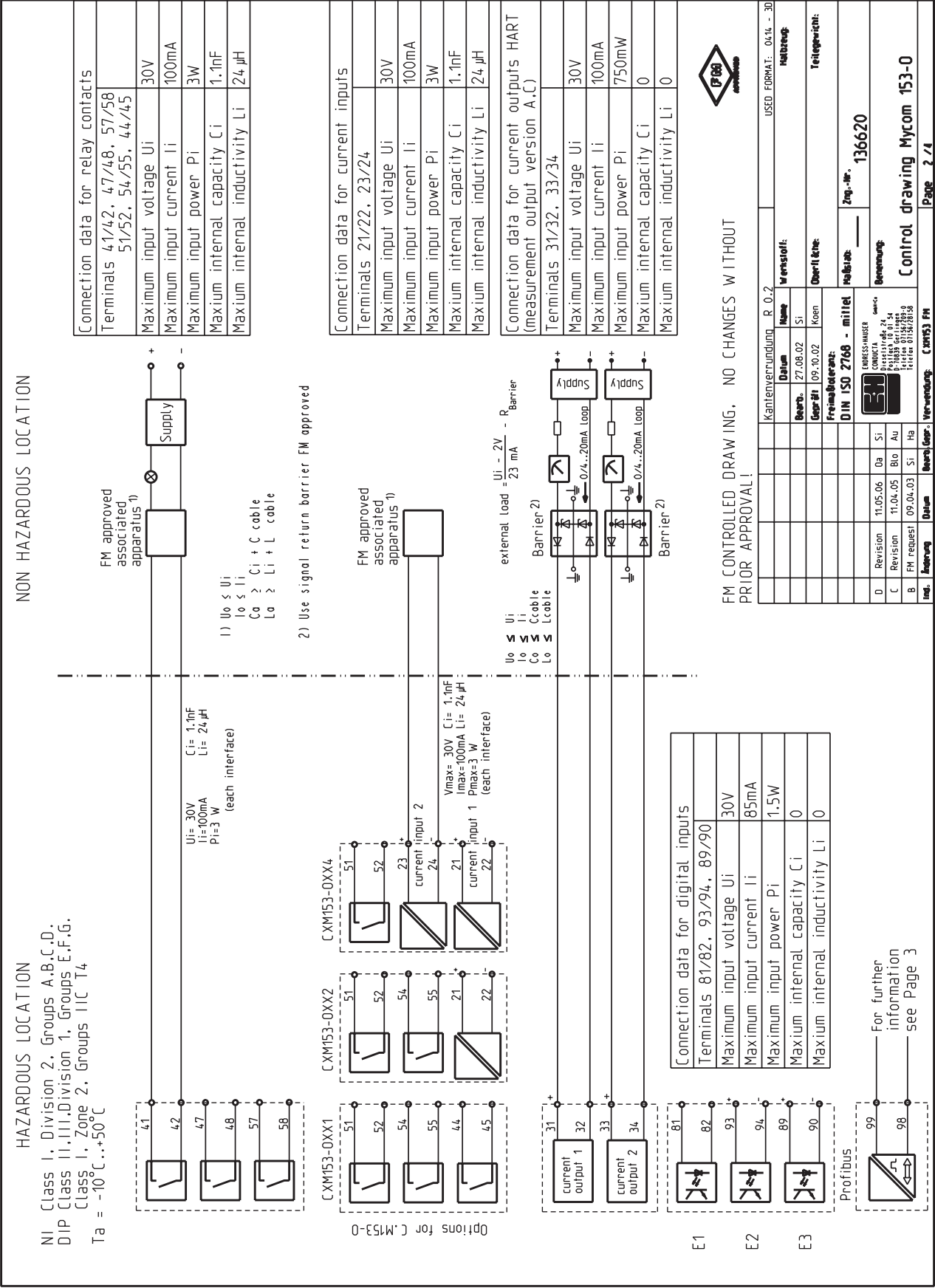


Fig. 4: Control drawing Mycom S CXM153-O, page 2

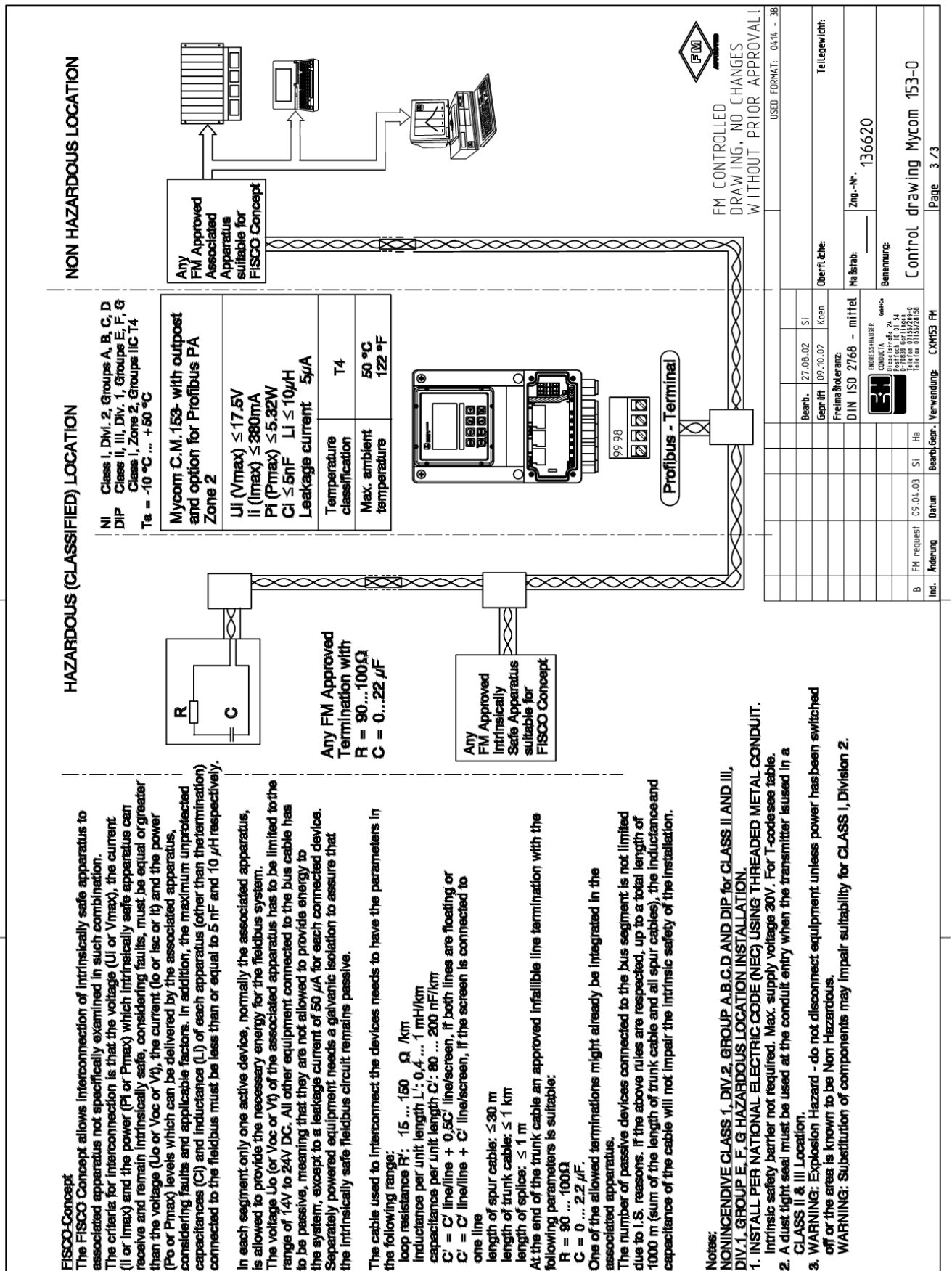
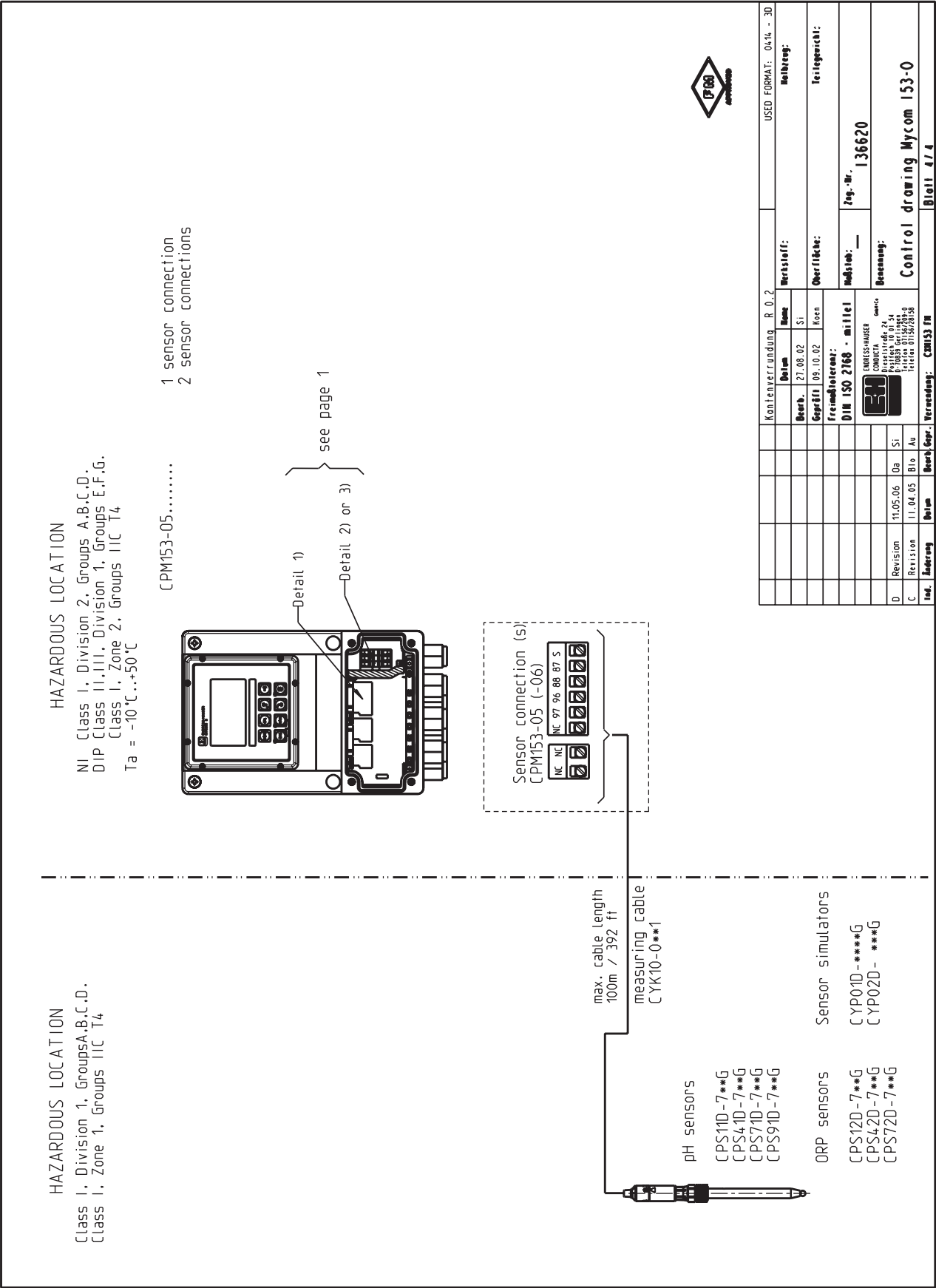


Fig. 5: Control drawing CXM153-O, page 3



Control drawing Mycom S CXM153-P

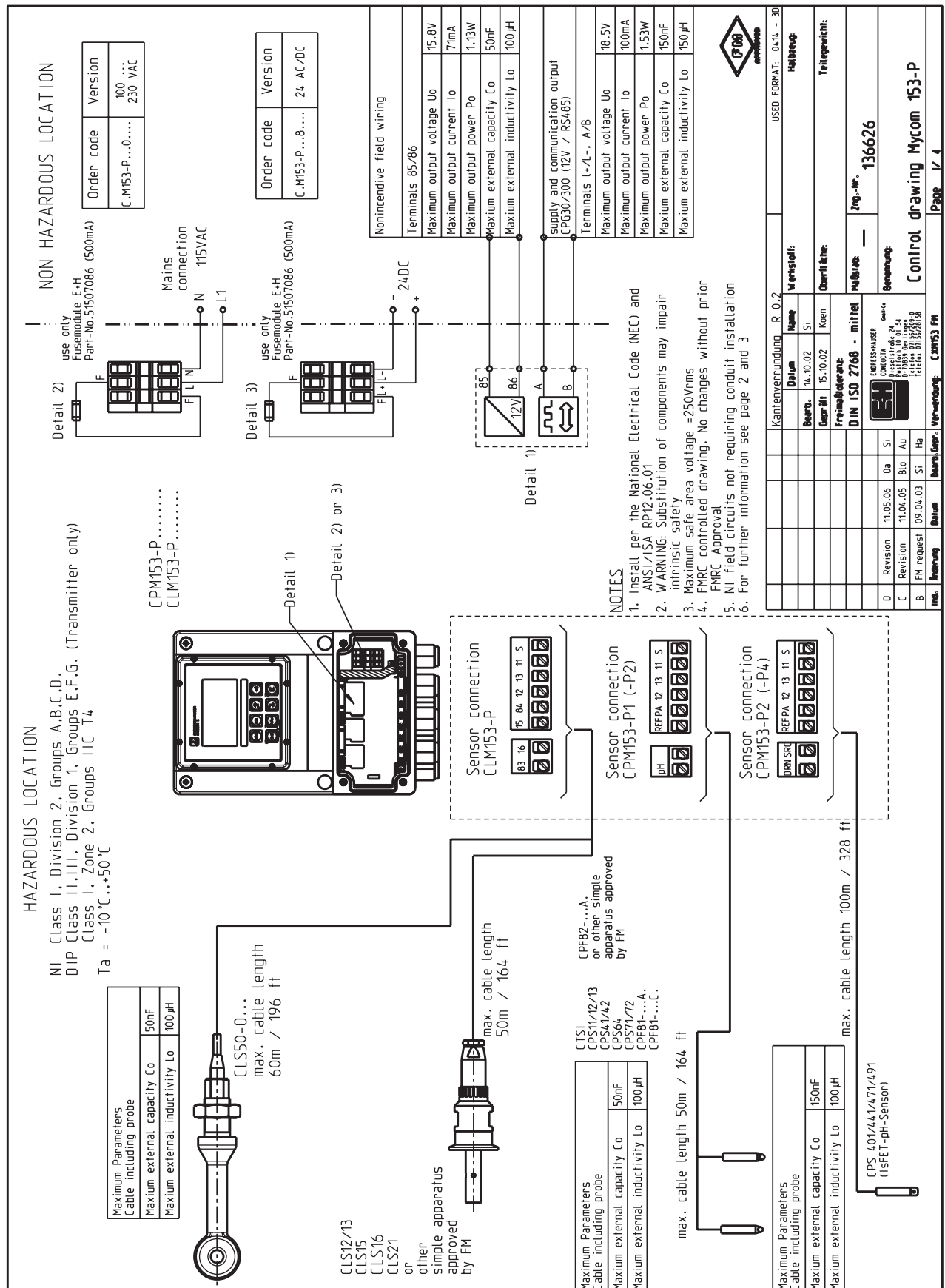
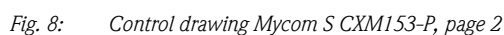
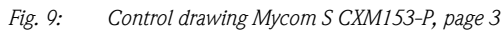


Fig. 7: Control drawing Mycom S CXM153-P, page 1





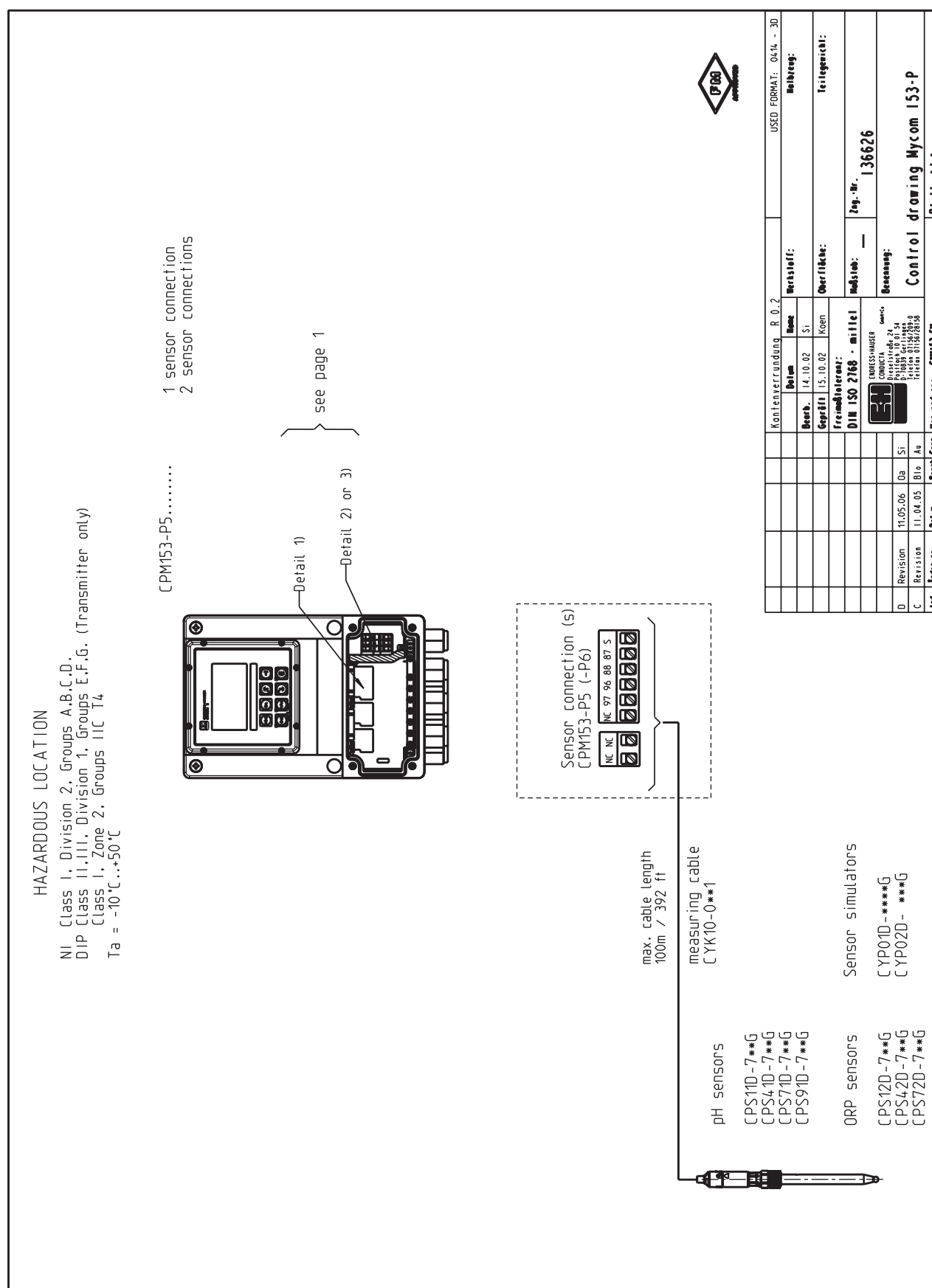


Fig. 10: Control drawing CXM153-O, page 4

Replacing the device fuses



Warning!

- Danger of injury! Make sure the device is voltage-free before replacing the fuse!
- Use only the Ex-approved fuse module M3F/500 mA (Pos. 30).
- Position of the fuse holder: "A"
- The safety module is directly connected to the terminals "F" at the mains terminal block (see connection diagram in the connection compartment cover of the instrument).

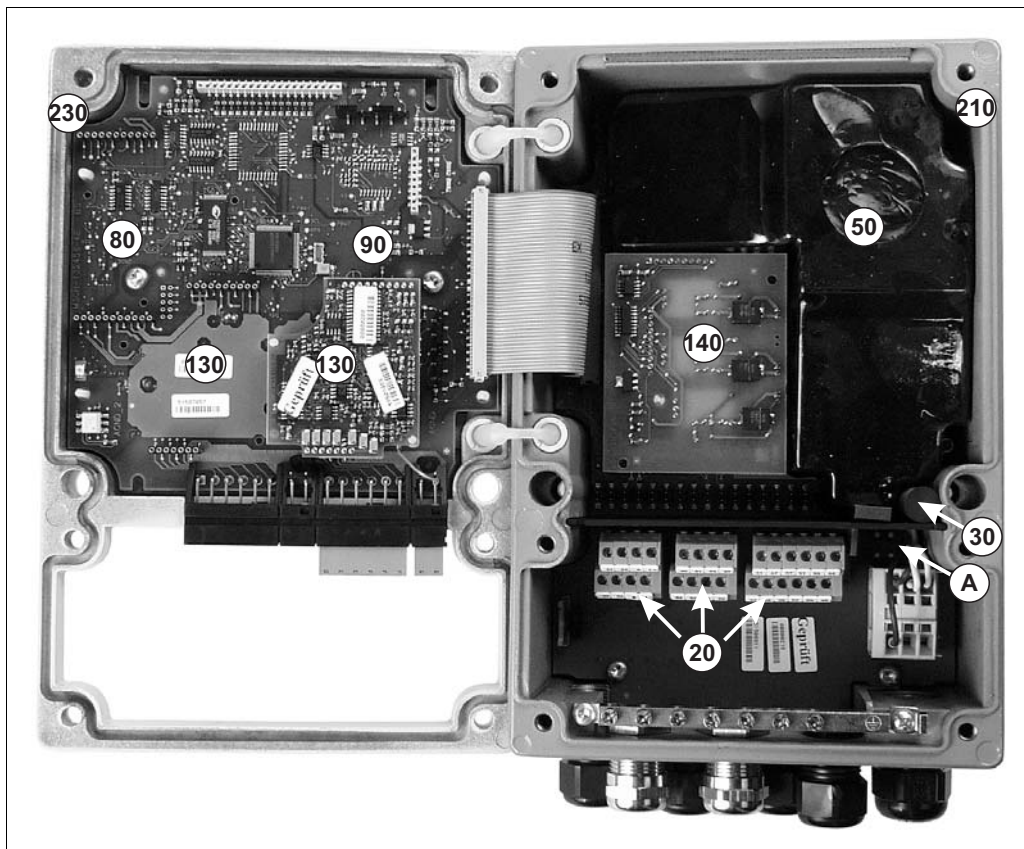


Fig. 11: Interior view of the Mycom S CXM153 transmitter

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Spare parts and accessories

Spare parts list

Pos. No.	Kit name	Contents / use	Order no.
20	Terminal module HART, 0 ... 20 mA	Module M3K	51507085
20	Terminal module PROFIBUS-PA	Module M3K-P	51510926
30	Fuse module (500 mA)	2 fuse modules M3F	51507086
50	Power supply 100 ... 230 VAC	Module M3G, power supply + 3 relays	51507088
50	Power supply 24 VAC/DC	Module M3G, power supply + 3 relays	51507090
80	DC/DC converter for circuit 2	Module M3DC	51507091
90	Controller module pH, 2 current outputs passive	Module M3CH-S2	51517385
90	Controller module pH, 2 current outputs passive + HART	Module M3CH-H2	51517387
90	Controller module pH, PROFIBUS-PA	Module M3CP-PA	51517389
90	Controller module conductivity, conductive measurement, 2 current outputs passive	Module M3CH-H2, conductive	51517391
90	Controller module conductivity, inductive measurement, 2 current outputs passive	Module M3CH-H2, inductive	51517397
90	Controller module conductivity, conductive measurement, 2 current outputs passive + HART	Module M3CH-S2, conductive	51517393
90	Controller module conductivity, inductive measurement, 2 current outputs passive + HART	Module M3CH-S2, inductive	51517399
90	Controller module conductivity, conductive measurement, PROFIBUS-PA	Module M3CP-PA, conductive	51517395
90	Controller module conductivity, inductive measurement, PROFIBUS-PA	Module M3CP-PA, inductive	51517401
130	pH input module	Module MKP2	51507096
130	pH input module Memosens	Module MKD1	51514966
130	Conductivity input module	Module MKIC	51501206
140	Relay module with 3 additional relays	Module M3R-3	51507097
140	Relay module with 2 additional relays + 1 current input	Module M3R-2	51507098
140	Relay module with 1 additional relay + 2 current inputs	Module M3R-1	51507099
210	Housing front cover	Front cover with keypad sheet, connection compartment cover, hinge, nameplate	51507105
230	Housing lower part	for one and two-circuit devices	51507107

Accessories

Designation	Use	Order no.
Junction box VBE	For cable extension between sensor and transmitter in hazardous areas zone 0	50003993
Kit power supply protection cap IP 30	For protection of non-intrinsically safe circuits	51517334

Safety instructions



Caution!

- The transmitter Mycom S CXM153-O/-P complies with the FM Approval Standards Class 3600 (1998), Class 3810 (1989/1995), Class 3611 (1999), Class 3610 (1999) and is suitable for use in hazardous areas.
- Installation
 - Installations shall comply with the requirements of the relevant edition of the National Electrical Code (ANSI/NFPA 70).
 - Installations shall comply with the latest edition of the manufacturer's control drawings and instruction manual.
 - See ANSI/ISA RP12-06.01, Installation of Intrinsically Safe Systems for Hazardous (Classified) Locations for guidance on the installation of intrinsically safe apparatus and systems.
 - The connection diagram inside the connection compartment is additionally intended to guarantee proper installation.
 - The jumpers used to set the current outputs to active or passive must not be modified. Doing so will cause loss of intrinsic safety. The current outputs must always be passive.
- Power ratings
 - Control room equipment connected to intrinsically safe associated apparatus should not use or generate more than 250 V_{rms} or DC.
 - Adherence to the specified ambient temperature range and conformance with the maximum permissible electric power ratings are prerequisites for safe operation of the equipment.
- Tightness
 - Housing cover and connection compartment cover must not be opened as long as non-intrinsically safe current circuits are still alive. A corresponding note is attached to the instrument.
 - Proper installation is required in order to maintain the housing protection type (NEMA 4): close connection compartment cover tightly, install cable glands properly.
 - Unused cable glands are to be closed up with filler plugs according to the delivery status.
 - Avoid condensate formation in the connection compartment.
- Maintenance and replacement
 - Remove the instrument from service in case of a damaged display front foil or damaged operating keys.
 - Tampering and replacement with non-factory components may adversely affect the safe use of the system.
 - Maintenance work on the instrument may only be carried out with original spare parts for Mycom S CXM153-O/-P according to the spare parts list (see page 14). Maintenance work may only be carried out by the Endress+Hauser Service or by specially trained Ex personnel.
- If the instrument is ever operated with **non-intrinsically safe** circuits, it **must not be reused** in hazardous areas.

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