

Technical specifications: ZD22 / ZD22 D



Measuring principle	Zirconium dioxide (ZD)		
Measuring gas supply	Diffusion		
Measuring range and measuring gas	sensor dependent		
Update time	1s		
Readiness delay	5s plus 120-180s sensor run-in phase (heating-up)		
Power supply	Operating voltage:	24V DC (12-30V DC allowable)	
	Power consumption	<u>RS485 and 0,2-1mA version</u>	<u>4-20mA version</u>
	without display *1:	typ. 110/145/175mA @24V/18V/15V	max. 132/167/197mA @24V/18V/15V
	with display *1:	typ. 115/155/185mA @24V/18V/15V	max. 137/177/207mA @24V/18V/15V
	with display + horn *1:	max. 120/165/200mA @24V/18V/15V	max. 142/187/222mA @24V/18V/15V
	without display *2:	typ. 120/155/190mA @24V/18V/15V	max. 142/177/212mA @24V/18V/15V
	with display *2:	typ. 125/165/200mA @24V/18V/15V	max. 147/187/222mA @24V/18V/15V
	with display + horn *2:	max. 130/170/210mA @24V/18V/15V	max. 152/192/232mA @24V/18V/15V
	Fuses:	250mA (not changeable)	
Climatic conditions	Short-term storage temperature:	-25...+60°C	(sensor dependent)
	Recommended storage temperature:	0...+30°C	(sensor dependent)
	Operating temperature:	-20...+50°C	(sensor dependent)
	Humidity:	5...95% r.h.	(sensor dependent)
	Air pressure:	80...120kPa	(sensor dependent)
Display & controls	Status-LEDs:	green for operation and yellow for fault or service	
	Display:	2,2" graphic display	
	Buttons:	3 function buttons (display version only)	
	AutoCal button:	for ZERO and SPAN adjustment (inboard)	
	Potentiometer:	for ZERO and SPAN adjustment (inboard)	
Service connector	Design:	3,5 mm stereo jack socket (internal)	
	Analogue output:	0,2-1,0V corresponding to 0-100% MR for sensor calibration	
	Digital input:	for configuration and firmware update	
Signal output	analogue:	4-20mA (max. load: 400 Ω/650 Ω/150 Ω @24 V/18 V/12 V supply) 0,2-1mA (max. load: 14K/9K3/4K5 @ 24 V/18 V/12 V supply)	
	or digital:	RS-485; Half duplex; 9600/19200/38400 Baud; Modbus protocol, Slide switch for 120 Ω terminating resistor	
Connection Cable	Cable glands:	1 or 2 glands M16x1,5 (for cable diameter 4,5-10 mm)	
	Connection terminals:	4 double terminals (0,08 mm ² to 2,5 mm ² conductor cross-section)	
	Cable (analogue):	3-core e.g. LiYY 3x0,75...1,5 mm ² or LiYCY	
	Cable (digital):	4-core e.g. LiYY 4x0,75...1,5 mm ² or cable Y(St)Y 2x2x0,8 *3	
Housing	Protection class:	IP54	
	Material:	Plastic	
	Dimensions:	96 x 140 x 49 mm (W x H x D) with sensor	
	Weight:	175g bzw. 220g (display version)	
Approvals / Tests	Electromagnetic compatibility:	DIN EN 50270:2006	Interference emission: Type class I Interference immunity: Type class II

to *1: For low-power sensors MK442 and MK413

to *2: For high-power sensors MK435, MK410 and MK395

to *3: Bus line cable Y(St)Y 2x2x0,8 is only suitable for supplying several bus transmitters with power using the same cable via short cabling distances.
The possible distance depends on the quantity and local distribution of the transmitters on the bus cable.