



IDCT 563

Industrial Pressure Transmitter with IO-Link Interface

Ceramic Sensor

accuracy according to IEC 60770: 0.5 % FSO

Nominal pressure

from 0 ... 600 mbar up to 0 ... 600 bar

Digital output signal

- IO-Link according to specification V 1.1
- data transfer 38.4 kbit/s
- smart sensor profile

Special characteristic

- good thermal behaviour
- good long term stability

Optional versions

- pressure port G 1/2" flush for pasty media (up to 25 bar)
- pressure port G 1/2" open port PVDF for aggressive media (up to 60 bar)
- oxygen application

IO-Link is a digital interface for sensors and actuators, which is worldwide standardized by IEC 61131-9. IO-Link does not have a bus topology, but it is a powerful point to - point communication, where the device can be parameterized and the measured values transferred. The integration to the master is easy by using the IODD-file.

The sensor technology of the IDCT 563 is the same as those of the proven pressure transmit-ter <IMK 331, whereby the IDCT 563 is suitable for pasty, polluted and aggressive media as well as for low-pressure oxygen applications.

The modular concept of the pressure transmitter allows customized electrical or mechanical connections, so it is easy to adapt the IDCT 563 to different conditions on-site.

Preferred areas of use are



Plant and machine engineering



Environmental engineering (water - sewage - recycling)

В

Medical technology



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Input pressure range ¹											
Nominal pressure gauge	[bar]	-10 ²	0.6	1	1.6	2.5	4	6	10	16	
Nominal pressure abs.	[bar]	-	0.6	1	1.6	2.5	4 6		10	16	
Overpressure	[bar]	3	2	3	5	5	12	12 12		50	
Burst pressure ≥	[bar]	4	4	4	7	7.5	15	15 18		70	
		·		,	,		·				
Nominal pressure		25	40	60	100) 1	160 250		400	600	
gauge / abs.	[bar]	50	100	100	000				050	000	
	[bar]	50	120	120	200		400 400		650	800	
Buist pressure 2	[bai]	75	150	180	300) 5		750	1000	1100	
1 BVDE proceurs part possible	for nom		icuum resisi								
² accuracy ≤ 1 % FSO											
Output signal / Supply											
Standard	andard IO-Link (measured value / status transmission) / V _s = 18 30 VDC										
		SIO (switching output)									
IO-Link		V 1.1 / slave / smart sensor profile									
Data transfer		COM2 38.4 kbit/s									
Mode		SIO / IO-Lir	SIO / IO-Link (COMx)								
Standard		IEC 61131-	2, IEC 6113	31-9							
Performance	Performance										
Accuracy ³	Accuracy ³ $\leq \pm 0.5 \%$ FSO										
Switching current (SIO-Mod	de)	max. 200 mA									
Switching frequency max. 200 Hz											
Switching cycles	> 100 x 10 ⁶										
Long term stability		\leq ± 0.1 % FSO / year at reference conditions									
Turn-on time		SIO modus: approx. 20 msec									
Response time		SIO modus: < 4 msec									
Measuring rate	asuring rate 400 Hz										
³ accuracy according to IEC 60	9770 – lir	nit point adjust	ment (non-lin	earity, hyster	resis, repeata	bility)					
Thermal effects (offset an	nd spar	ר <u>)</u>									
Thermal error		≤ ± 0.3 % F	SO / 10 K								
In compensated range 0 85 °C											
Permissible temperatures ⁴											
Medium		-25 125 °	°C								
Electronics / environment		-25 85 °C									
Storage		-40 85 °C									
⁴ for pressure port in PVDF the	e mediun	n temperature	is -25 60 °	С							
Electrical protection											
Short-circuit protection	rt-circuit protection permanent										
Reverse polarity protection		no damage, but also no function									
Electromagnetic compatibil	lity	emission a	nd immunity	according	to EN 6132	6					
Mechanical stability											
Vibration		10 g RMS (25 2000	Hz) acc	cording to D	IN EN 600	68-2-6				
Shock		500 g / 1 m	sec	aco	cording to D	IN EN 600	68-2-27				
Materials											
Pressure port		standard: s	stainless ste	el 1.4404 (316 L)						
		optional for	G1/2" open	port with r	nominal pres	sure range	e up to 60 b	ar: PVDF	others	on request	
Housing		stainless st	eel 1.4404 ((316L)							
Seals (media wetted)		standard: F	KM								
Diaraharaaraa		options: E	PDM (for p	$_{\rm N} \le 160$ bar	-)				others	on request	
Diaphragm Madia wattad parts		ceramic Al ₂	O ₃ 96 %								
		pressure po	ort, seal, dia	pnragm							
Miscellaneous				. =							
Option oxygen application		for $p_N \le 25$	bar: O-rinę 25 ba	g in FKM Vi ir / 150° C	1 567 (with E	3AM-appro	val); permis	ssible max	mum values	are	
Current consumption		max. 20 m/	<u>\</u>								
Weight		approx. 140) g								
Installation position		any									
Protection class		IP 67									
Operational life		100 million load cycles									
CE-conformity		EMC Direct	ive: 2014/3	BO/EU			5				
5	Pressure Equipment Directive: 2014/68/EU (module A) ⁵										
I his directive is only valid for	devices	with maximum	permissible (overpressure	e > 200 bar						

IDCT 563

Industrial Pressure Transmitter with IO Link interface



⁶ possible for nominal pressure ranges $p_N \le 25$ bar; absolute pressure ranges on request

Ordering code IDCT 563											
IDCT 563	<u></u> -]-[]-[]	-]-[]		-	- 🗌 -	- 🗌	-		
Pressure											
absolute	D C 6							_			
Input [bar] 0.6	6 0 0 0)									
1.0		1									
2.5	2 5 0 1	1									
4.0	4 0 0 1	1									
10	1 0 0 2	2									
16	1 6 0 2	2									
40	4 0 0 2	2									
60	6 0 0 2	2									
160	1 6 0 3	3									
250	2 5 0 3	3									
400 600	4 0 0 3	3									
-1 0	X 1 0 2	2									
Output	9 9 9 9	9									consult
IO-Link (COMx) / SIO		IO									
Accuracy		5									
customer		9									consult
Electrical connection male plug M12x1 (4-pin) / metal	_		M 1 7								
customer			9 9 9								consult
Mechanical connection		_	-	1 (
G1/2" EN 837				2 (0 0						
G1/4" DIN 3852				3 (0 0						
G1/4" EN 837 G1/2" DIN 3852 with				4 (
semi-flush sensor				F							
1/2" NPT				N (
1/4" NPT				N	4 0						
Seals				9 9	9 9						consult
FKM						1					
EPDM						3					consult
Pressure port											
stainless steel 1.4404 (316L)							1 R				
customer							9				consult
Diaphragm								2			
customer								2			consult
Special version									0	0 0	
oxygen application									0	0 7	
customer									9	99	consult

¹ metric threads and others on request

 2 possible for nominal pressure ranges $p_N \leq 25$ bar; absolute pressure ranges on request

 3 possible for nominal pressure range $p_{\text{N}} \leq$ 160 bar

⁴ PVDF only with G1/2" DIN 3852 open pressure port (up to 60 bar); permissible medium temperature: -25 ... 60 °C
⁵ oxygen application with FKM-seal up to 25 bar