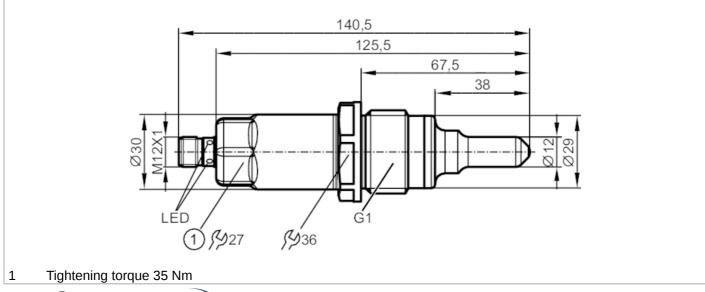
LMT392

Sensor for point level detection



LMCCE-A01E-QPKG-2/US



Product characteristics			
Number of inputs and outputs		Number of digital outputs: 2	
Factory setting		hydrous media	
Process connection		G 1 external thread	
Application			
Special feature		Gold-plated contacts	
Installation		suited for installation in existing tuning fork adapters	
Media		Liquids	
Recommended media		water; hydrous media; oils; oil-based media	
Cannot be used for		See the operating instructions, chapter "Function and features".	
Probe length	[mm]	38	
Tank pressure	[bar]	-140; (applications subject to the German Federal Water Act : -0,510 bar)	
Oil			
Medium temperature	[°C]	-25100; (applications subject to the German Federal Water Act 0100 °C)	
Medium temperature short time	[°C]	-25150; (1 h; applications subject to the German Federal Water Act : 0100 $^{\circ}\text{C}$)	
Water			
Medium temperature	[°C]	-2585; (applications subject to the German Federal Water Act : 085 $^{\circ}$ C)	
Medium temperature short time	[°C]	-25150; (1 h; applications subject to the German Federal Water Act : 0100 $^{\circ}\text{C}$)	
Electrical data			
Operating voltage	[V]	1830 DC	
Current consumption	[mA]	< 50	
Protection class		III	
Reverse polarity protection		yes	
Inputs / outputs			
Number of inputs and outputs		Number of digital outputs: 2	

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Total number of outputs 2 Output signal Switching signal; IO-Link Electrical design PP Number of digital outputs 2 Max. voltage drop switching output DC IM Permanent current rating of switching output DC IMA Short-circuit protection yes Type of short-circuit protection yes Aeasuring/setting range	Outputs				
Electrical design PNP Number of digital outputs 2 Max. voltage dep switching output DC I/O Permanent current rating of protection I/O Short-fricault protection yes Type of short-fricault protection ges Overload protection yes Permanent current rating of protection I/O Prote of short-fricault protection ges Overload protection yes Pactory setting range Nydrous media Response time [S] Communication interface I/O-Link Communication interface I/O-Link Communication interface I/O-Link Communication interface I/O-Link I/O-Link device ID Oxocoult I D/O-Link device ID Oxocoult I SIO mode yes Required master port type A Process data analogue 1 Process data indigue I/O Num process cycle time I/O Reguined master port type A Process data indigue I/O Process data indigue I/O Process data indigue I/O Process data indigue I/O Storage temperature I/O	Total number of outputs		2	2	
Number of digial outputs 2 Max. voltage drop switching output DC Max. Permanent current rating of switching output DC [mA] Short-circuit protection yes Overhoad protection yes Overhoad protection yes Measuring/setting range	Output signal		switching signal;	switching signal; IO-Link	
Max. voltage drop switching V 2.5 Permanent current rating of (mA) 100 switching output PC (mA) Short-circuit protection yes Type of short-circuit protection yes Overload protection yes Pactory setting 0 Measuring/Setting range Factory setting Not on media Response times < 0.5	Electrical design		PNP		
output DCIV2.5Permanent current rating of switching output DC100Short-circuit protectionyesType of short-circuit pulsedpulsedOverload protectionyesMeasuring/setting rangehydrous mediaResponse times100Response times100Communication interface0.1 inkCommunication interface0.2 inkInterfaces1.1Communication interface1.0 0.1 inkIO-Link revision1.1SDC1 standard1.1SDC1 standard1.1SDC1 standard1.1SDC1 standard1.1SDC1 standard9.8 int Sensor: Process Data Variable; Device IdentificationSIO modeyesProcess data analogue1Process data binary2.3Operating conditions1.0 - 0.0.150 °CNote on ambient temperature[°C]Protection1.0 - 0.5 °CStora que temperature1.0 - 0.0.150 °CNote on ambient temperature[°C]Protection1.9 (Stora - 4060 °CStora gettemperature[°C]Protection1.9 (Stora - 4060 °CStor	Number of digital outputs		2	2	
switching output DC and intervention of the section			2.5		
Type of short-circuit protection pulsed Overload protection yes Measuring/setting range Interface Factory setting Interface Response times S Response time Interface Communication interface IO-Link Transmission type COM2 (38,4 kBaud) IO-Link revision 1.1 SOCI standard IEC 61131-9 IO-Link device ID Ox00001C1 Protess Smart Sensor: Process Data Variable; Device Identification SIO mode yes Required master port type A Process data analogue 1 Process data analogue 1 Process data analogue 2 Min. process cycle time [ms] 2.3 Required master port type -4060 °C Note on ambient temperature 100150 °C Note on ambient temperature (°C) Response time S Protection IP 68; IP 69K External OPIN EN 61000-6-2 ONI EN 61000-6-3 oclosed tanks <td></td> <td>[mA]</td> <td>100</td> <td></td>		[mA]	100		
protection puised Overload protection yes Measuring/setting range hydrous media Factory setting hydrous media Response times Response times Communication interface IO-Link Transmission type OCM2 (38,4 kBaud) IO-Link revision 1.1 SOCI standard IEC 6(131-9) IO-Link device ID 0x00001C1 Profiles Smart Sensor: Process Data Variable; Device Identification SIO mode yes Required master port type A Process data analogue 1 Process data binary 2 Operating conditions 2.0.85 Note on ambient temperature "CO Note on ambient temperature "CO Vorection IP 68; IP 69K Tests / approvals WG; General building authority approval; overflow prevention Protection IP 68; IP 69K EMC DIN EN 61000-6-2 DIN EN 61000-6-3 closed tanks DIN EN 61000-6-3 So g	Short-circuit protection		yes		
Measuring/setting range Factory setting hydrous media Response times Response time [s] < 0.5			pulsed	pulsed	
Factory setting hydrous media Response times Interfaces Communication interface IO-Link Transmission type COM2 (38,4 kBaud) IO-Link revision 1.1 SDCI standard IEC 61131-9 IO-Link device ID Ox00001C1 Profiles Smart Sensor: Process Data Variable; Device Identification SIO mode yes Required master port type A Process data analogue 1 Process data analogue 2 Min. process cycle time [m3] 2.3 Operating conditions -2085 Note on ambient temperature ["C] -4085 Protection IP 68; IP 69K Tests / approvals UNEG; General building autority approval; overflow prevention DIN EN 61000-6-2 DIN EN 61000-6-2 EMC DIN EN 61000-6-2 DIN EN 61000-6-2 DIN EN 61000-6-3 closed tanks DIN EN 610000-6-3	Overload protection		yes		
Response times [s] < 0.5 Interfaces IO-Link IO-Link Communication interface IO-Link IO-Link Transmission type COM2 (38, 4 kBaud) IO-Link IO-Link revision 1.1 ID-Link revision ID-Link revision SDCI standard IEC 61131-9 ID-Link device ID 0x0001C1 IO-Link device ID 0x0001C1 Ox0001C1 ID-Link device ID 0x0001C1 IO-Link device ID 0x0001C1 ID-Link device ID 0x0001C1 ID-Link device ID 0x0001C1 ID-Link device ID	Measuring/setting range				
Response time [s] < 0.5 Interfaces IO-Link Communication interface IO-Link Transmission type COM2 (38,4 kBaud) IO-Link revision 1.1 SDC1 standard IEC 61131-9 IO-Link device ID 0x0001C1 Profiles Smart Sensor: Process Data Variable; Device Identification SIO mode yes Required master port type A Process data analogue 1 Process data analogue 2 Min. process cycle time [ms] 2.3 Operating conditions 2 Ambient temperature [°C] Medium temperature 100150 °C Note on ambient temperature °C Storage temperature [°C] IP 66K Protection IP 66K Protection IP 66K EMC OIN EN 61000-6-2 DIN EN 61000-6-2 Open tanks DIN EN 61000-6-2 Open tanks DIN EN 61000-6-2 So g (11 ms) DIN EN 61000-6-2 DIN EN 61000-6-2 DIN EN 61000-6-2 So g	Factory setting		hydrous me	dia	
Interfaces Communication interface IO-Link Transmission type COM2 (38.4 kBaud) IO-Link revision 1.1 SDCI standard IEC 61131-9 IO-Link device ID 0x0001C1 Profiles Smart Sensor: Process Data Variable; Device Identification SIO mode yes Required master port type A Process data analogue 1 Process data analogue 2 Min. process cycle time [ms] 2.3 Operating conditions -2085 Note on ambient temperature [°C] -4085 Protection IP 68; IP 69K Tests / approvals UHG; General building authority approval; overflow prevention DIN EN 61000-6-2 DIN EN 61000-6-2 EMC DIN EN 61000-6-3 closed tanks DIN EN 61000-6-3 closed tanks DIN EN 61000-6-2 DIN EN 60068-2-7 50 g (11 ms) Vibration resistance DIN EN 60068-2-7 50 g (12200 Hz) Vibration resistance DIN EN 60068-2-7 50 g (12200 Hz)	Response times				
Communication interface IO-Link Transmission type COM2 (38,4 kBaud) IO-Link revision 1.1 SDCI standard IEC 61131-9 IO-Link device ID 0x00001C1 Profiles Smart Sensor: Process Data Variable; Device Identification SIO mode ys Required master port type A Process data analogue 1 Process data binary 2 Min. process cycle time [ms] 2.3 Operating conditions 2 Ambient temperature [°C] -2085 Note on ambient temperature °C Storage temperature [°C] -4060 °C Protection IP 68; IP 69K Tests / approvals DIN EN 61000-6-2 EMC DIN EN 61000-6-3 DIN EN 61000-6-3 closed tanks DIN EN 61000-6-3 c	Response time	[s]	< 0.5		
Transmission type COM2 (38,4 kBaud) IO-Link revision 1.1 SDCI standard IEC 61131-9 IO-Link device ID 0x0001C1 Profiles Smart Sensor: Process Data Variable; Device Identification SIO mode yes Required master port type A Process data analogue 1 Process data binary 2 Min. process cycle time [ms] 2.3 Operating conditions -2085 Mote on ambient temperature [°C] -2060 °C Note on ambient temperature [°C] -4060 °C Storage temperature [°C] -4060 °C Protection IP 68; IP 69K Emprovals DIN EN 61000-6-2 EMC DIN EN 61000-6-3 DIN EN 61000-6-3 closed tanks DIN EN 60068-	Interfaces				
IO-Link revision 1.1 SDCI standard IEC 61131-9 IO-Link device ID 0x0001C1 Profiles Smart Sensor: Process Data Variable; Device Identification SIO mode yes Required master port type A Process data analogue 1 Process data binary 2 Min. process cycle time [ms] 2.3 Operating conditions 2 Ambient temperature [°C] -2085 Note on ambient temperature 10 Storage temperature [°C] -4060 °C Storage temperature [°C] -4085 Protection IP 68; IP 69K Tests / approvals UHG; General building authority approval; overflow prevention DIN EN 61000-6-2 DIN EN 61000-6-2 EMC DIN EN 61000-6-3 closed tanks DIN EN 61000-6-3 closed tanks DIN EN 61000-6-4 Open tanks DIN EN 61000-6-3 closed tanks DIN EN 61000-6-4 Open tanks DIN EN 61000-6-3 closed tanks Shock resistance DIN EN 60068	Communication interface IO-Link				
SDCI standardIEC 61131-9IO-Link device ID0x0001C1ProfilesSmart Sensor: Process Data Variable; Device IdentificationSIO modeyesRequired master port typeAProcess data analogue1Process data analogue2Min. process cycle time [ms]2.3Operating conditionsAmbient temperature [°C]-2085Note on ambient temperature [°C]-2085Storage temperature [°C]-4060 °CStorage temperature [°C]-4060 °CStorage temperature [°C]OPORALINEProtectionIP 68; IP 69KTests / approvalsWHG; General building authorul; overflow preventionProtextionIDIN EN 61000-6-2DIN EN 61000-6-3closed tanksDIN EN 61000-6-3closed tanksShock resistanceDIN EN 60068-2-2750 g (11 ms)Vibration resistanceDIN EN 60068-2-620 g (102000 Hz)MTTF[years]22.7	Transmission type		COM2 (38,4 kBaud)		
IO-Link device ID Ox0001C1 Profiles Smart Sensor: Process Data Variable; Device Identification SIO mode yes Required master port type A Process data analogue 1 Process data binary 2 Min. process cycle time [ms] 2.3 Operating conditions -2085 Ambient temperature [°C] -2085 Note on ambient temperature -2085 Storage temperature [°C] -4060 °C Storage temperature [°C] -4085 Protection IP 68; IP 69K Tests / approvals UHG; General building authorits approval; overflow prevention Prosest DIN EN 61000-6-2 EMC DIN EN 61000-6-2 EMC DIN EN 61000-6-3 OIN EN 61000-6-3 closed tanks DIN EN 60068-2-6 20 g (102000 Hz) </td <td>IO-Link revision</td> <td></td> <td>1.1</td> <td colspan="2"></td>	IO-Link revision		1.1		
Profiles Smart Sensor: Process Data Variable; Device Identification SIO mode yes Required master port type A Process data analogue 1 Process data binary 2 Min. process cycle time [ms] 2.3 Operating conditions -2085 Ambient temperature [°C] -2085 Note on ambient temperature -2085 Protection IP 69K Storage temperature [°C] -4060 °C Protection IP 69K Emprovals UHG; General building autority approval; overflow prevention Protection IP 69K EMC DIN EN 61000-6-2 EMC DIN EN 61000-6-3 OIN EN 61000-6-3 closed tanks DIN EN 61000-6-3 closed tanks DIN EN 60068-2-27 50 g (11 ms) Vibration resistance DIN EN 60068-2-6 20 g (102000 Hz) MTTF [years] 222.77	SDCI standard		IEC 61131-9		
SIO modeyesRequired master port typeAProcess data analogue1Process data binary2Min. process cycle time [ms]2.3Operating conditionsAmbient temperature [°C]-2085Note on ambient temperature [°C]Medium temperature 100150 °CStorage temperature [°C]-4060 °CStorage temperature [°C]-4085ProtectionIP 68; IP 69KTests / approvalsApprovalWHG; General building authority approval; overflow preventionDIN EN 61000-6-2DIN EN 61000-6-2EMCDIN EN 61000-6-3closed tanksShock resistanceDIN EN 61000-6-3closed tanksShock resistanceDIN EN 60068-2-2750 g (11 ms)Vibration resistanceDIN EN 60068-2-620 g (02000 Hz)MTTF[years]22.7/	IO-Link device ID	-Link device ID 0x0001C1		1	
Required master port type A Process data analogue 1 Process data binary 2 Min. process cycle time [ms] 2.3 Operating conditions 2.3 Ambient temperature [°C] -2085 Note on ambient temperature [°C] Medium temperature 100150 °C Storage temperature [°C] -4060 °C Storage temperature [°C] -4085 Protection IP 68; IP 69K Tests / approvals UHG; General building authority approval; overflow prevention DIN EN 61000-6-2 DIN EN 61000-6-2 EMC DIN EN 61000-6-3 closed tanks Shock resistance DIN EN 60068-2-27 50 g (11 ms) Vibration resistance DIN EN 60068-2-6 20 g (02000 Hz) MTTF [years] 222.77	Profiles		Smart Sensor: Process Data Variable; Device Identification		
Process data analogue1Process data binary2Min. process cycle time [ms]2.3Operating conditionsAmbient temperature [°C]-2085Ambient temperature [°C]-2085Note on ambient temperature [°C]Medium temperature 100150 °CStorage temperature [°C]-4060 °CStorage temperature [°C]-4085ProtectionIP 68; IP 69KTests / approvalsApprovalWHG; General building authority approval; overflow preventionDIN EN 61000-6-2DIN EN 61000-6-2EMCDIN EN 61000-6-3closed tanksDIN EN 61000-6-3closed tanksShock resistanceDIN EN 61000-6-3closed tanksShock resistanceDIN EN 60068-2-2750 g (11 ms)Vibration resistanceDIN EN 60068-2-620 g (102000 Hz)MTTF[years]222.77	SIO mode		yes		
Process data binary2Min. process cycle time[ms]2.3Operating conditions2.3Ambient temperature[°C]-2085Note on ambient temperature[°C]Medium temperature 100150 °CNote on ambient temperature[°C]-4060 °CStorage temperature[°C]-4085ProtectionIP 68; IP 69KTests / approvalsWHG; General building authority approval; overflow preventionApprovalWHG; General building authority approval; overflow preventionDIN EN 61000-6-2Open tanksEMCDIN EN 61000-6-3closed tanksShock resistanceDIN EN 60068-2-2750 g (11 ms)Vibration resistanceDIN EN 60068-2-620 g (102000 Hz)MTTF[years]222.77	Required master port type		А	A	
Min. process cycle time [ms] 2.3 Operating conditions	Process data analogue		1	1	
Operating conditionsAmbient temperature[°C]-2085Note on ambient temperatureMedium temperature 100150 °CNote on ambient temperature(°C]Medium temperature 100150 °CStorage temperature(°C]-4060 °CStorage temperature(°C]-4085ProtectionIP 68; IP 69KTests / approvalsApprovalWHG; General building authority approval; overflow preventionDIN EN 61000-6-2DIN EN 61000-6-2EMCDIN EN 61000-6-3closed tanksShock resistanceDIN EN 61000-6-3closed tanksShock resistanceDIN EN 60068-2-2750 g (11 ms)Vibration resistanceDIN EN 60068-2-620 g (102000 Hz)MTTF[years]222.77	Process data binary		2	2	
Ambient temperature[°C]-2085Note on ambient temperatureMedium temperature 100150 °CStorage temperature[°C]Storage temperature[°C]ProtectionIP 68; IP 69KTests / approvalsApprovalWHG; General building authority approval; overflow preventionDIN EN 61000-6-2DIN EN 61000-6-2EMCDIN EN 61000-6-3Shock resistanceDIN EN 61000-6-3Vibration resistanceDIN EN 60068-2-27MTTF[years]EMC222.77	Min. process cycle time	[ms]	2.3		
Note on ambient temperatureMedium temperature 100150 °CStorage temperature[°C]Storage temperature[°C]ProtectionIP 68; IP 69KTests / approvalsApprovalWHG; General building authority approval; overflow preventionDIN EN 61000-6-2Open tanksEMCDIN EN 61000-6-2DIN EN 61000-6-3closed tanksShock resistanceDIN EN 60068-2-2750 g (11 ms)Vibration resistanceDIN EN 60068-2-620 g (102000 Hz)MTTF[years]222.T	Operating conditions				
Note on ambient temperature-4060 °CStorage temperature[°C]ProtectionIP 68; IP 69KTests / approvalsApprovalWHG; General building authority approval; overflow preventionDIN EN 61000-6-2DIN EN 61000-6-2EMCDIN EN 61000-6-4open tanksDIN EN 61000-6-3closed tanksShock resistanceDIN EN 60068-2-2750 g (11 ms)Vibration resistanceDIN EN 60068-2-620 g (102000 Hz)MTTF[years]222.77	Ambient temperature	[°C]	-2085	-2085	
Storage temperature[°C]ProtectionIP 68; IP 69KTests / approvalsApprovalWHG; General building authority approval; overflow preventionDIN EN 61000-6-2EMCDIN EN 61000-6-2DIN EN 61000-6-3closed tanksShock resistanceDIN EN 60068-2-2750 g (11 ms)Vibration resistanceDIN EN 60068-2-620 g (102000 Hz)MTTF[years]222.77	Note on ambient temperature	<u>م</u>	Medium temperature	Medium temperature 100150 °C	
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Tests / approvalsApprovalWHG; General building authority approval; overflow preventionApprovalDIN EN 61000-6-2EMCDIN EN 61000-6-4Open tanksDIN EN 61000-6-3closed tanksShock resistanceDIN EN 60068-2-2750 g (11 ms)Vibration resistanceDIN EN 60068-2-620 g (102000 Hz)MTTF[years]222.77		[°C]			
ApprovalWHG; General building authority approval; overflow preventionDIN EN 61000-6-2DIN EN 61000-6-2EMCDIN EN 61000-6-4open tanksDIN EN 61000-6-3closed tanksDIN EN 61000-6-3closed tanksShock resistanceDIN EN 60068-2-2750 g (11 ms)Vibration resistanceDIN EN 60068-2-620 g (102000 Hz)MTTF[years]222.77			IP 68; IP 68	ЭК	
DIN EN 61000-6-2 DIN EN 61000-6-2 DIN EN 61000-6-4 open tanks DIN EN 61000-6-3 closed tanks Shock resistance DIN EN 60068-2-27 50 g (11 ms) Vibration resistance DIN EN 60068-2-6 20 g (102000 Hz) MTTF [years] 222.77	Tests / approvals				
EMC DIN EN 61000-6-4 open tanks DIN EN 61000-6-3 closed tanks Shock resistance DIN EN 60068-2-27 50 g (11 ms) Vibration resistance DIN EN 60068-2-6 20 g (102000 Hz) MTTF [years] 222.77	Approval			proval; overflow prevention	
DIN EN 61000-6-3 closed tanks Shock resistance DIN EN 60068-2-27 50 g (11 ms) Vibration resistance DIN EN 60068-2-6 20 g (102000 Hz) MTTF [years] 222.77	EMC			onen terlio	
Shock resistance DIN EN 60068-2-27 50 g (11 ms) Vibration resistance DIN EN 60068-2-6 20 g (102000 Hz) MTTF [years] 222.77		-		-	
Vibration resistance DIN EN 60068-2-6 20 g (102000 Hz) MTTF [years] 222.77	Shock resistance				
MTTF [years] 222.77					
		[years]			
	UL approval		UL Approval no.	H001	

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Sensor for point level detection

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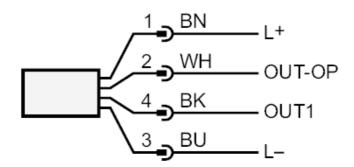


Mechanical data				
Weight	398.5			
Materials	stainless steel (1.4404 /	stainless steel (1.4404 / 316L); PEEK; PEI; FKM		
Materials (wetted parts)	PEEK			
Process connection	G 1 exter	G 1 external thread		
Surface characteristics Ra/Rz of the wetted parts	< 0.8			
Displays / operating elements				
Display	switching status	LEDs, yellow		
	operating status	LEDs, green		
Remarks				
Pack quantity	1 pcs.			
Electrical connection				

Connector: 1 x M12; Contacts: gold-plated

² 3

Connection



OUT1:	switching output
OUT-OP	switching output overflow prevention to the German Federal Water Act (WHG)
	colours to DIN EN 60947-5-2
	Core colours :
ВК =	black
BN =	brown
BU =	blue
WH =	white