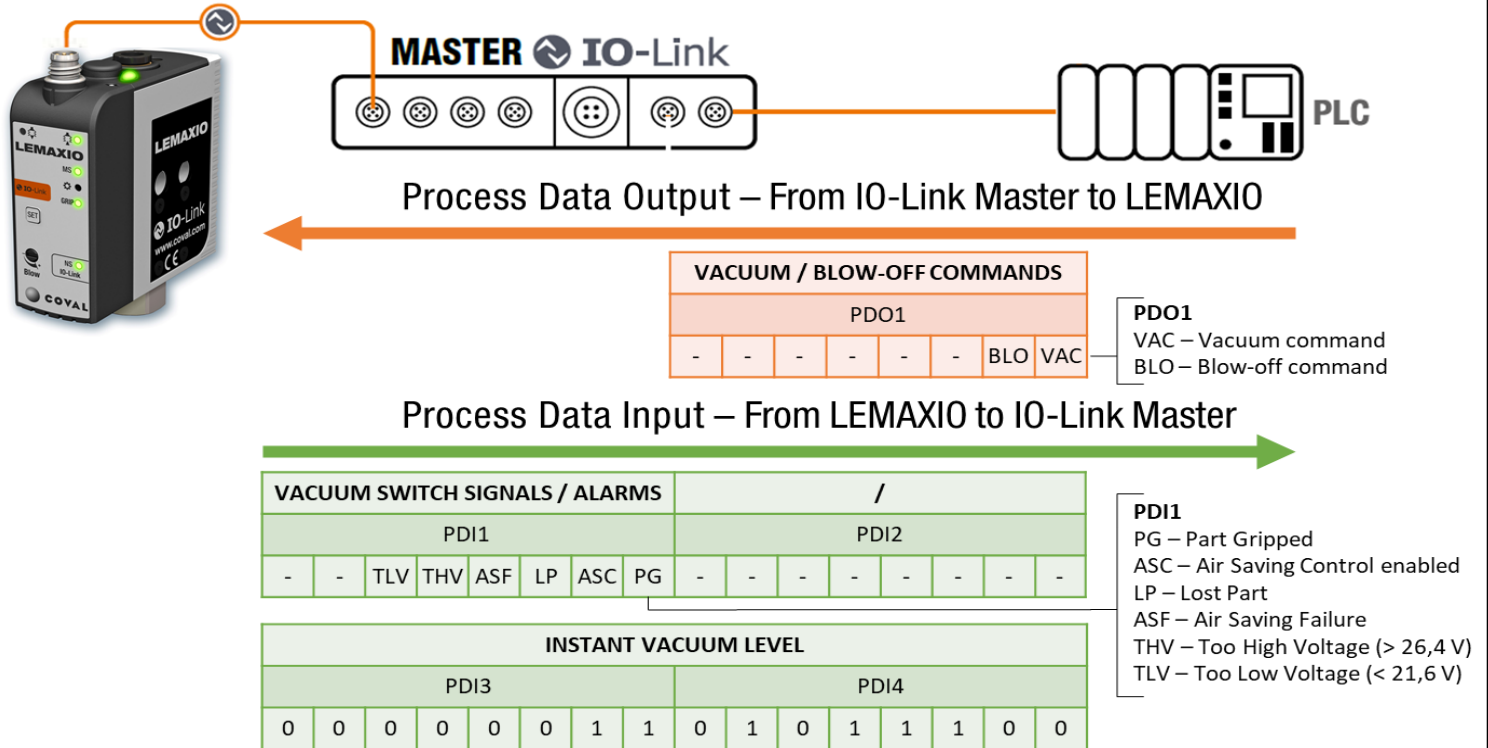


I) IO-Link communication

IO-Link revision	1.1	SIO Mode (Standard Input Output)	No
Baud rate	COM2 / 38,4 Kbit/s	Process Data Input (PDI)	4 bytes
Minimum cycle time	3,6 ms	Process Data Output (PDO)	1 byte

II) Cyclic data (PDI/PDO)



Process Data	Parameter	Bit	Length (byte)	R/W	Unit	Comment
PDI1	PG - Part gripped (L1)	0	BOOL	RO		Vacuum level greater than L1 then between L1 and L1-h1
	ASC - Air Saving Control (L2)	1	BOOL	RO		Vacuum level greater than L2 then between L2 and L2-h2
	LP - Lost Part	2	BOOL	RO		Vacuum level lower than L1-h1 during part handling
	ASF - Air Saving Failure	3	BOOL	RO		Vacuum leakages leading to a permanent vacuum state of the ejector
	THV - Too High Voltage	4	BOOL	RO		Power supply voltage greater than 26,4 V
	TLV - Too Low Voltage	5	BOOL	RO		Power supply voltage lower than 21,6 V (dynamic)
	-	6	BOOL	RO		Not used
	-	7	BOOL	RO		Not used
PDI2	-	0-7	8xBOOL	RO		Not used
PDI3 / PDI4	Instant vacuum level	0-15	2	RO	mbar	Instantaneous vacuum level (0 to -1013 mbar)
PDO1	VAC - Vacuum command	0	BOOL	RW		0 : vacuum OFF (NC vacuum control) : vacuum ON (NO vacuum control) 1 : vacuum ON (NC vacuum control) : vacuum OFF (NO vacuum control)
	BLO - Blow-off command	1	BOOL	RW		0 : Blow-off OFF 1 : Blow-off ON
	-	2-7	6xBOOL	RW		Not used

III) Acyclic data								
IDENTIFICATION								
Index (dec)	Parameter	Length (byte)	R/W	Unit	Value			Comment
					min	Typ.	max	
7	Vendor ID	2	RO	-		0x04		0x0421 = COVAL SAS
8						0x21		
9	Device ID	3	RO	-		0x00		0x4001 = LEMAXIO Series
10						0x40		
11						0x01		
16	Vendor name	9	RO		COVAL SAS			
17	Vendor text	15	RO		Vacuum managers			
18	Product name	25	RO		LEMAXIO90X14SC14			Full reference
19	Product ID	7	RO		LEMAXIO			Simplified reference
20	Product text	38	RO		IO-Link standalone ejector			
21	Serial number	8	RO		25131097140001			
22	Hardware revision	3	RO		1.0			
23	Firmware revision	5	RO		02.06			
BASIC SETTINGS								
Index (dec)	Parameter	Length (byte)	R/W	Unit	Value			Comment
					min	Typ.	max	
64	Gripped product threshold L1	2	RW	mbar	10	650	999	Recommendations : h1 & h2 ≥ 10 L2-h2 ≥ L1 L1 > h1 & L2 > h2
65	Gripping threshold hysteresis h1	2	RW	mbar	0	100	999	
66	Air Saving threshold L2	2	RW	mbar	10	750	999	
67	Air Saving threshold hysteresis h2	2	RW	mbar	0	100	999	
68	ASC (Air Saving Control)	1	RW	-	0	1	1	0 : OFF / 1 : ON
69	DIAG Eco	1	RW	-	0	1	1	0 : OFF / 1 : ON (refer to related indexes 80/81)
70	Automatic blow-off	1	RW	-	0	0	1	0 : OFF / 1 : ON
71	Automatic blow-off duration	2	RW	msec	100	500	9999	Automatic blowing for a period of 100 to 9999ms as soon as vacuum control is disabled.
ADVANCED SETTINGS								
Index (dec)	Parameter	Length (byte)	R/W	Unit	Value			Comment
					min	Typ.	max	
80	DIAG Eco Max. bounces number	1	RW	-	1	2	10	The ejector automatically switches to permanent suction once the vacuum valve bounces more than "Maximum bounces No." during a period of "DIAG Eco analysis time".
81	Diag Eco analysis time	1	RW	sec	1	1	60	
82	Valve status	1	RW	-	0	0	4	Not used
83	Customer LED	1	RW	-	0	0	4	0 / BL1: ASC ENABLED + REGULATION ERROR Led ON if ASC option is enabled / Blinking in case of regulation issue (permanent vacuum) / OFF otherwise. 1 / BL2: ASC ENABLED Led ON if ASC option is enabled / OFF otherwise. 2 / BL3: REGULATION IN PROGRESS Led ON during regulation phase / OFF otherwise. 3 / BL4: REGULATION ERROR Led blinking in case of regulation issue (permanent vacuum) / OFF otherwise. 4 / BL5: 30M CYCLES PREVENTIVE MAINTENANCE Led ON if Vacuum counter > 30 MCycles / OFF otherwise.

DIAGNOSTIC								
Index (dec)	Parameter	Length (byte)	R/W	Unit	Value			Comment
					min	Typ.	max	
84	Custom device name	20	RW	-	LEMAXIO			Free field, 20 characters max.
▼ Cycles counters ▼								
110	External vacuum commands counter	4	RO	-	0	0	1E+08	
111	Internal vacuum commands counter	4	RO	-	0	0	1E+08	
112	Blow-off commands counter	4	RO	-	0	0	1E+08	
113	Grip counter	4	RO	-	0	0	1E+08	
114	Grip faults counter	4	RO	-	0	0	1E+08	
115	ASC counter	4	RO	-	0	0	1E+08	
116	ASC faults counter	4	RO	-	0	0	1E+08	
117	Power supply too high faults counter	4	RO	-	0	0	1E+08	
118	Power supply too low faults counter	4	RO	-	0	0	1E+08	
▼ Factory settings ▼								
2	Reset settings	1	WO	-	129 and 131			ApplicationReset (129 / 0x81) Reset all settings to factory values. BackToBox (131 / 0x83) Reset of all factory settings and application tags Requires power off / power on following this command.

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