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IDENTIFICATION SYSTEMS

R/W head

ERC 100

DESCRIPTION

The **ERC100** is an R/W head (transceiver): used in conjunction with an appropriate (suffix: X) Balogh control board it enables to read /write data to / from OMX electronic tags.

It features an M12 plug for a quick connection to the control board.

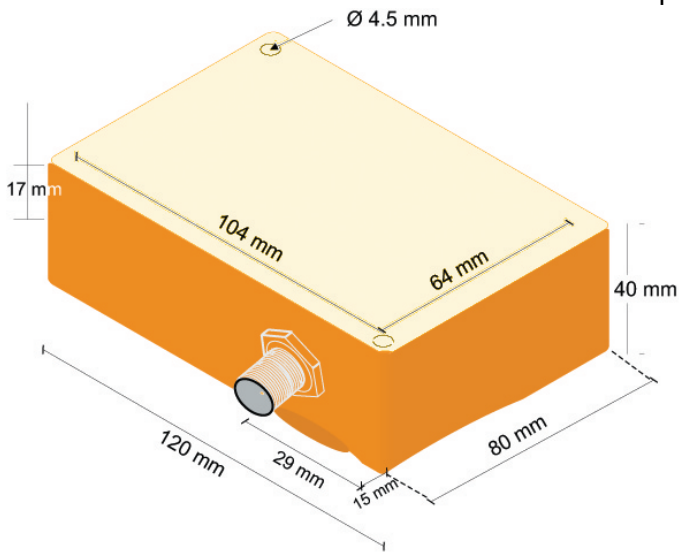
DATA FOR ASSEMBLY

Assembly via two through-holes:

two M4 screws required:
(body length ≥ 35 mm)

Connection:

- Through the M12 male connector;
  Round-shielded **metallic** cable connector;
  Clearance for the cable connector: ca. 50 mm.
- The cable must contain Twin Shielded and Twin Twisted pairs (Input and Output leads apart, shields connected to 0 V on both sides);
  Cable length: 50 m max.;
  Min. lead section (mm^2) = 0.005 x cable length (in/m);
  Max. capacity between leads: 100 pF/m.



View of the rear side

Keying at 10:00 allows you to plug some right-angled cable connectors (check to make sure that yours are OK):

Pin	Assignment
1	+Ucc supply
2	output from ERC
3	input into ERC
4	0 V supply

CHARACTERISTICS

	Parameters	Tags OMX 931 MIN	AVG	MAX	Unit
TRANSM.	S_n "nominal" range		50		mm
	S_r **recommended** range		from S_{min} to 0.4 x S_n		mm
	S_{min} operation lower threshold		5		mm
	LS_r transmission zone length @ S_{rmax}		100 *		mm

Maximum allowed offsets for LS_r to have the published value guaranteed:

- Angular: ± 20°
- Lateral: 12 mm.

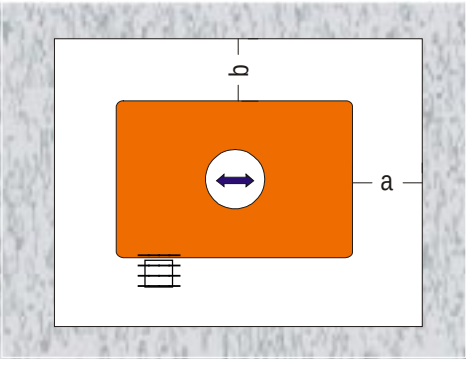
Test conditions: these data are valid when the tag is in non metallic environment.

	Parameters	MIN	AVG	MAX	Unit
Electronics	Ambient temperature	- 25		+70	°C
	Supply voltage (ripple included)	21	24	29	V
	Supply current @24 V			90	mA
	Protection against reverse voltage		yes		-
	Transmission frequency		1.5		MHz
Packaging	Casing		Rilsan		-
	Weight		550		g
	Protection rating		IP 65		-

ASSEMBLY RECOMMENDATIONS

The ERC is not to be mounted directly in a recessed metal cavity.
A 30-mm metal-free clearance surrounding the head is required:

a = b = 30 mm



Do not install another head within a radius of 600 mm around an ERC 100 so that they do not interfere: