

BALOGH



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IDENTIFICATION SYSTEMS

R/W head

ERC 85

DESCRIPTION

The ERC 85 is an R/W head intended for reading /writing data to/from OMX Series electronic tags; it has to be connected to an appropriate Balogh control board (suffix: X).

DATA FOR ASSEMBLY

Assembly by four Ø 5.5 mm oblong holes; average right-angled distances: 65 x 65 mm :

Travel direction

Wiring chamber

Connection:

The ERC 85 features a wiring chamber (through-holes outlined for cables Ø8 to 12 mm on the front, bottom and left sides):

Terminal	Description
V	+U supply
S	Output
E	Input
O	0 V

Use a cable with Twin Shielded and Twin Twisted pairs, with or without an overall foil/braid shield, complying with the following:

- Max. length: 50 m.
- Min. lead section (mm^2) = $0.005 \times \text{cable length (in/m)}$.
- Overall max. capacity between leads and shield: 14 nF.
- Input and Output leads must be apart.
- The shield of either pair must be connected to 0 V.

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FUNCTIONAL	Parameters	Tags			Unit
		MIN	AVG	MAX	
S_n "nominal" range		50			mm
S_r recommended range		from S_{min} to $0.4 \times S_n$			mm
S_{min} operation lower threshold		5			mm
LS_r transmission zone length @ $S_{r\ max}$		100 *			mm
$D_{\text{ét}}$ distances between two tags		150			mm
time to read or write n bytes		1 + 0.5 x n			ms

* Max. allowed offsets to have the published value guaranteed:

- Angular: $\pm 20^\circ$
- Lateral (mm): ± 25 mm.

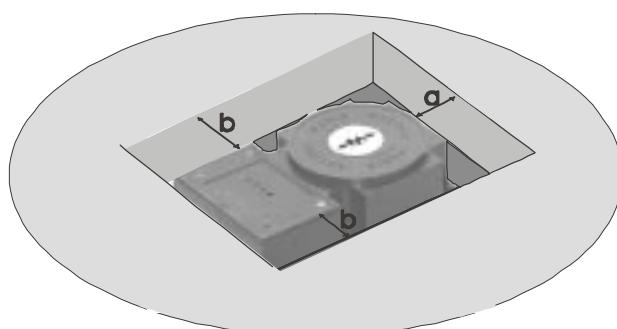
Test conditions: tag in a non-metallic environment.

Electronics	Parameters	MIN	AVG	MAX	Unit
	Ambient temperature	- 25		+70	°C
	Supply voltage (ripple included)	21	24	29	V
	Supply current @ 24V			90	mA
	Protection against reverse polarity		yes		-
	Transmission frequency		1.5		MHz

Packaging	Casing	Rilsan	-
	Weight	600	g
	Protection rating	IP 65	-

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

a > 30 mm
b > 30 mm



To avoid interference between two ERC 85, there must be a minimum space between them:

