



Encoders that provide you with all the extras

Leine & Linde was founded in 1967 and are today situated in the town of Strängnäs on Lake Mälaren in central Sweden. Over the course of four decades Leine & Linde has developed into an internationally recognized company represented in more than 30 different markets worldwide. With our global branch offices, Leine & Linde's competence and service are brought into the local markets to enhance our customer partnerships and ensure long term business relationships.

Advanced technical innovations, quality-guaranteed production, highly efficient internal processes, and a market driven sales organization allow Leine & Linde to offer world class rotating incremental and absolute pulse encoders and accessories for use in advanced measurement systems. Leine & Linde's high level of product quality and reliability, coupled with the accelerated production and delivery capabilities, has ensured that Leine & Linde is the first choice of customers with demanding applications that require feedback of speed or position.

The continuous focus at Leine & Linde to develop and use state of the art techniques and innovative processes has led to certification according to the ISO 9001 quality management system. The long service life of our products, the careful use of natural resources and optimized energy consumption provide the basis for Leine & Linde's certification according to the ISO 14001 environmental management system.

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Product Overview

LEINE LINDE

300 series



Model
Properties
Resolution (ppr)
Diameter (mm)
Supply voltage (Vdc)
Current consumption (mA @ 5 V / 24 V)
Output interface
Maximum cable length (m)
Vibration 55...2000 Hz (m/s²)
Shock 6 ms (m/s²)
Shaft load radial / axial (N)
Operating temperature (°C)
Encapsulation class
Options

MSI 301 ●
EXTRA ROBUST
1...1250
30
5 / 9...36
30 / 10
TTL / HTL
100
300
5000
10 / 10
-40°...+70°
IP 67
STATUS

MSI 303 ●
STANDARD
1...1250
30
5 / 9...36
30 / 10
TTL / HTL
100
200
3000
10 / 10
-40°...+70°
IP 67
STATUS

Key to the table of signs

- Incremental**
- Absolute**
- **Shaft**
- **Hollow shaft**
- MSI** Miniature Shaft Incremental
- RHI** Ruggedized Hollow shaft Incremental
- RSI** Ruggedized Shaft Incremental
- RHA** Ruggedized Hollow shaft Absolute
- RSA** Ruggedized Shaft Absolute
- RSD** Ruggedized Shaft Dual

- 607 series** Singleturn encoders
- 608 series** Multiturn encoders
- TTL** Output amplitude = 5 Vdc
- RS-422** Output amplitude = 5 Vdc (differential)
- HTL** Output amplitude ~ Power supply
- ADS™** Advanced Diagnostic System (preventive maintenance)
- STATUS** Diagnostic output for condition monitoring
- SSI** Serial point-to-point communication protocol
- EnDat** Serial point-to-point communication protocol

500 series



Model
Properties
Resolution (ppr)
Diameter (mm)
Supply voltage (Vdc)
Current consumption (mA @ 5 V / 24 V)
Output interface
Maximum cable length (m)
Vibration 55...2000 Hz (m/s²)
Shock 6 ms (m/s²)
Shaft load radial / axial (N)
Operating temperature (°C)
Encapsulation class
Options

RHI 503 ○
STANDARD
1...10 000
58
5 / 9...30
45 / 50
TTL / HTL / RS-422
200
300
2000
20 / 10
-40°...+70°
IP 67 / IP 66
STATUS

RHI 504 ○
HIGH TEMPERATURE
1...10 000
58
5 / 9...30
45 / 50
TTL / HTL / RS-422
200
300
2000
20 / 10
-20°...+100°
IP 67 / IP 66
STATUS

RSI 501 ●
EXTRA ROBUST
1...5000
58
9...36
55 @ 24 V
HC-HTL
200
300
2000
120 / 100
-40°...+70°
IP 67 / IP 66

RSI 503 ●
STANDARD
1...10 000
58 / 68
5 / 9...30
45 / 50
TTL / HTL / RS-422
200
300
2000
60 / 50
-20°...+70°
IP 67 / IP 66
STATUS

RSI 504 ●
HIGH TEMPERATURE
1...10 000
58 / 68
5 / 9...30
45 / 50
TTL / HTL / RS-422
200
300
2000
60 / 50
-20°...+100°
IP 67 / IP 66
STATUS

RSI 505 ●
IMPERIAL
1...10 000
58
5 / 9...30
45 / 50
TTL / HTL / RS-422
200
300
2000
60 / 50
-40°...+70°
IP 67 / IP 66
STATUS

RHA 507 ○
PARALLEL, SSI
13 bit (8192)
58
5 / 9...36
100 / 50
Parallel, SSI
100 (SSI 200)
300
2000
20 / 10
-40°...+80°
IP 67 / IP 66
Code sequence

RHA 507 ○
CANopen, BiLL
13 bit (8192)
58
9...36
100 @ 24 V
CANopen, BiLL, RS-485
200
300
2000
20 / 10
-40°...+80°
IP 67 / IP 66

RSA 507 ●
PARALLEL, SSI
13 bit (8192)
58 / 68
5 / 9...36
100 / 50
Parallel, SSI
100 (SSI 200)
300
2000
60 / 50
-40°...+80°
IP 67 / IP 66
Code sequence

RSA 507 ●
CANopen, BiLL
13 bit (8192)
58 / 68
9...36
100 @ 24 V
CANopen, BiLL, RS-485
200
300
2000
60 / 50
-40°...+80°
IP 67 / IP 66

RSD 525 ●
DUAL
1...10 000
58
5 / 9...30
45 / 50
2 x incr. or incr.+ abs.
200
300
2000
60 / 50
-40°...+70°
IP 67 / IP 66
DUAL outputs

600 series



Model
Properties
Resolution (ppr)
Diameter (mm)
Supply voltage (Vdc)
Current consumption (mA @24 V)
Output interface
Maximum cable length (m)
Vibration 55...2000 Hz (m/s²)
Shock 6 ms (m/s²)
Shaft load radial / axial (N)
Operating temperature (°C)
Encapsulation class
Options

RHA 607/608 ○
CANopen
13 bit / 25 bit
58
9...36
90
CANopen / DeviceNet
200
100
1000
20 / 10
-40°...+70°
IP 67 / IP 64

RHA 607/608 ○
PROFIBUS
13 bit / 25 bit
58
9...36
95
Profibus DP
200
100
1000
20 / 10
-40°...+70°
IP 67 / IP 64
DPV0, DPV2

RHA 607/608 ○
SSI, EnDat
13 bit / 25 bit
58
5 / 10...30
95
EnDat / SSI
100
150
1000
20 / 10
-40°...+100° (SSI 85°)
IP 67 / IP 64
Zero set (SSI)

RSA 607/608 ●
CANopen
13 bit / 25 bit
58
9...36
90
CANopen / DeviceNet
200
100
1000
60 / 50
-40°...+70°
IP 67 / IP 66
PRESET

RSA 607/608 ●
PROFIBUS
13 bit / 25 bit
58
9...36
95
Profibus DP
200
100
1000
60 / 50
-40°...+70°
IP 67 / IP 66
DPV0, DPV2

RSA 607/608 ●
SSI, EnDat
13 bit / 25 bit
58
5 / 10...30
95
EnDat / SSI
100
150
1000
60 / 50
-40°...+100° (SSI 85°)
IP 67 / IP 66
Zero set (SSI)

632 ●
EEx ia
2500
58
4...8
15 mA @ 5 V
TTL
10
100
1000
60 / 50
-20°...+60°
IP 65

670 ●
PARALLEL
10 bit (1...1024)
58
5 / 9...30
75
Gray / Binary
100
100
1000
60 / 50
-25°...+70°
IP 66
Direction

670 ●
ANALOGUE
10 bit
58
9...36
100
0...20 mA / 4...20 mA
100
100
1000
60 / 50
-25°...+70°
IP 66
Teach-in, Direction

800 series



Model
Properties
Resolution (ppr)
Diameter (mm)
Supply voltage (Vdc)
Current consumption (mA @ 5 V / 24 V)
Output interface
Maximum cable length (m)
Vibration 55...2000 Hz (m/s²)
Shock 6 ms (m/s²)
Shaft load radial / axial (N)
Operating temperature (°C)
Encapsulation class
Options

841 ○
Ex d
1...10 000
100
9...30
60 @ 24 V
HC-HTL
350
100
1000
150 / 100
-40°...+70°
IP 66
IECEX, ATEX, ADS™

850 ●
HEAVY DUTY
1...10 000
100
5 / 9...30
85 / 60
TTL / HC-HTL / RS-422
350
100
1000
100 / 100
-20°...+80°
IP 66
ADS™

861 ○
HEAVY DUTY
1...10 000
100
5 / 9...30
85 / 60
TTL / HC-HTL / RS-422
350
100
1000
300 / 100
-20°...+80°
IP 66
ADS™

861 ○
COMMUTATION
1...10 000
100
9...30
60 @ 24 V
HTL / HC-HTL
350
100
1000
300 / 100
-20°...+80°
IP 66

862 ○
EXTRA HEAVY DUTY
1...10 000
100
9...30
60 @ 24 V
HTL / HC-HTL
350
100
1000
300 / 100
-20°...+100°
IP 66
ADS™, Extended lifetime

865 ○
DUAL HEAVY DUTY
1...10 000
100
5 / 9...30
85 / 60
2 x HC-HTL or 2 x RS-422
350
100
1000
300 / 100
-20°...+80°
IP 66
DUAL outputs

Accessories



Model
Properties
Description

Gateway
PROFIBUS
Robust DIN-rail mounted gateway between EnDat and Profibus.

Gateway
CANopen
Robust DIN-rail mounted gateway between EnDat and CANopen or Device-Net.

Interface converter
DIN-rail mounted interface converter for incremental encoders. Example between TTL to HTL or vice versa.

Couplings
Bellow- or membrane couplings suitable for all shaft encoders.

Connectors
Mating connectors to the encoders. With or without cable.

Mounting kit
Various mechanical mounting kits for shaft and hollow shaft encoders.

OptoLink
A robust DIN-rail mounted system for fibre optic transmission of incremental signals.

Draw wire
Robust draw wire for linear measurements. Permissible wire length between 2.5 to 30 m.

Overspeed switch
DIN-rail mounted system for overspeed/standstill or direction monitoring. Suitable for all incremental encoders.