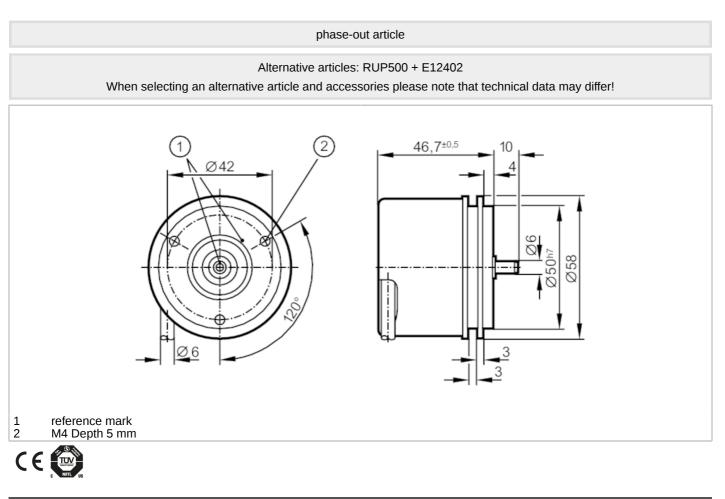
## RU1036

## Incremental encoder with solid shaft

RU-2500-105/L2





Product characteristics		
Resolution		2500 resolution
Shaft design		solid shaft
Shaft diameter	[mm]	6
Application		
Function principle		incremental
Electrical data		
Operating voltage tolerance	[%]	10
Operating voltage	[V]	5 DC
Current consumption	[mA]	150
Outputs		
Electrical design		TTL
Max. current load per output	[mA]	20
Switching frequency	[kHz]	300
Phase difference A and B	[°]	90
Measuring/setting range		
Resolution		2500 resolution
Operating conditions		
Ambient temperature	[°C]	-40100
Note on ambient temperature		for firmly laid cable: -40 °C

## RU1036

## Incremental encoder with solid shaft



RU-2500-105/L2

Protection         IP 64; (on the housing: IP 67; on the shaft: IP 64)           Tests/approvals         200 g           Shock resistance         30 g           Vibration resistance         30 g           MTTF         [years]           Dimensions         [mm]           Veight         [G]           Materials         aluminium           Makerials         solid shaft           Shaft deaign         10           Makerials	induit relative all	humidity [%]	98
Shock resistance     200 g       Vibration resistance     30 g       MTTF     [years]       Mechanical data       Weight     [g]       Weight     [g]       Mechanical data       Weight     [g]       Methanical data       Weight     [g]       Materials     atuminum       Materials     atuminum       Max. starting torque     [Nm]       Reference temperature     [°C]       torque     Solid shaft       Shaft design     solid shaft       Shaft dameter     [mm]       Ax. shaft load axial (at the [N]     10       Shaft design     20       Fixing flange     synchro-flange       Electrical connection     20       Cable: 2 m, PUR; Maximum cable length: 100 m; radial, can also be used axially       brown     A       green     A inverted       grey     B       pink     B inverted       red     O index inverted       black     Ovdex inverted       black     Ovdex inverted       grey     B       pink     B inverted       red     O index inverted       screen     housing	Protection		IP 64; (on the housing: IP 67; on the shaft: IP 64)
Vibration resistance         30 g           MTTF         [years]           Mechanical data           Weight         [a]           Dimensions         [mm]           Ø 483.4           Dimensions         [mm]           Materials         aluminium           Materials         aluminium           Max. staring torque         [Nm]           Max. staring torque         [Vmin]           Reference temperature         [°C]           torque         [°C]           Shaft design         20           Shaft design         solid shaft           Shaft data         10           Max. start load axial (at the [N]         10           Shaft diange         synchro-flange           Electrical connection         synchro-flange           Greene A inverted         synchro-flange           preven A         index inverted           green A         index inverted           green A         index inverted           preven B         pink           pink         B inverted           reference V(Un)         index inverted           green A inverted         index inverted           pink         B inverted <td>Tests / approva</td> <td>als</td> <td></td>	Tests / approva	als	
MTTF         [years]         190           Mechanical data         Image: Second	Shock resistance	e	200 g
Weight       [g]       483.4         Dimensions       [mm]       Ø 58 / L = 46.7         Materials       aluminium         Max. revolution, mechanical [U/min]       16000         Max. starting torque       [Nm]       1         Reference temperature       [°C]       20         Shatt design       solid shaft       Shatt design         Shatt design       solid shaft       Shatt design         Shatt dameter       [mm]       6         Shatt dameter       [mm]       10         Max. shaft load axial (at the [N]       10       10         Shatt end)       10       20         Fixing flange       synchro-flange       Synchro-flange         Electrical connection       Cable: 2 m, PUR; Maximum cable length: 100 m; radial, can also be used axially       Down         brown       A       green       A inverted         ref       0 index       Diadex inverted       Diadex         black       0 index inverted       Diadex       Diadex	Vibration resista	ance	
Weight         [g]         483.4           Dimensions         [mm]         Ø 58 / L = 46.7           Materials         atuminium           Max. revolution, mechanical [U/min]         16000           Max. staring torque         [Mm]         1           Reference temperature         [°C]         20           Shaft design         solid shaft         5           Shaft design         solid shaft         6           Shaft dameter         [mm]         10           Max. shaft load axial (at the [N] shaft end)         10         20           Fixing flange         synchro-flange         synchro-flange           Electrical connection         Cable: 2 m, PUR; Maximum cable length: 100 m; radial, can also be used axially         brown           prev         B         inverted         green           red         0 index         black         0 index inverted           black         0 index inverted         black         0 index inverted           black         0 index inverted         green         0 index           black         0 index inverted         green         output           black         0 index inverted         green         output           black         0 index invert	MTTF	[years]	190
Dimensions       [mmi]       Ø 58 / L = 46.7         Materials       aluminium         Max. revolution, mechanical [U/min]       16000         Max. starting torque       [Nmi]       1         Reference temperature       [°C]       20         Shaft design       solid shaft       5         Shaft design       solid shaft       6         Shaft dameter       [mm]       6         Shaft data daial (at the [N]       10       10         Max. shaft load axial (at the [N]       10       20         Fixing flange       synchro-flange       Synchro-flange         Electrical connection       20       20         Cable: 2 m, PUR; Maximum cable length: 100 m; radial, can also be used axially       20         brown       A       green       A inverted         grey       B       pink       B inverted         ed       0 index       index inverted       black         black       0 index inverted       black       black       black         black       0 index inverted       streen       black       black       black         black       failure inverted       streen       failure inverted       failure inverted         bla	Mechanical da	ta	
Materials       aluminium         Max. revolution, mechanical [U/min]       16000         Max. starting torque       [Nm]         Reference temperature       [°C]         corque       Solid shaft         Shaft design       Solid shaft         Shaft design       6         Shaft diameter       [mm]         Shaft design       Solid shaft         Shaft design       10         Max. shaft load axial (at the [N] shaft end)       10         Shaft end)       20         Fixing flange       synchro-flange         Electrical connection       Electrical connection         Cable: 2 m, PUR; Maximum cable length: 100 m; radial, can also be used axially         brown       A green         green       A inverted         green       A inverted         black       0 index inverted         black       0 index inverted         black       0 index inverted         black       fallure inverted         screen	Weight	[g]	483.4
Max. revolution, mechanical [U/min]       16000         Max. starting torque       [Nm]       1         Reference temperature       [°C]       20         torque       Solid shaft       1         Shaft design       solid shaft       6         Shaft diameter       [mm]       6         Shaft diameterial       steel (1.4104)       10         Max. shaft load radial (at the [N] shaft end)       10       10         Max. shaft load radial (at the [N] shaft end)       20       20         Fixing flange       synchro-filange       20         Electrical connection       20       30       30         Cable: 2 m, PUR; Maximum cable length: 100 m; radial, can also be used axially       30       30         brown       A green       A inverted grey       B pink       B inverted       30         black       0 index       30       30       30       30       30         black       0 index       30 <td< td=""><td>Dimensions</td><td>[mm]</td><td>Ø 58 / L = 46.7</td></td<>	Dimensions	[mm]	Ø 58 / L = 46.7
Max. starting torque       [Nm]       1         Reference temperature       [°C]       20         Shaft design       solid shaft         Shaft design       6         Shaft design       6         Shaft design       10         Max. shaft load axial (at the [N] shaft end)       10         Max. shaft load radial (at the [N] shaft end)       20         Fixing flange       synchro-flange         Electrical connection       20         Cable: 2 m, PUR; Maximum cable length: 100 m; radial, can also be used axially         brown       A green         green       A inverted greey         grey       B pink the green of index inverted blue         black       0 index inverted         screen       housing	Materials		aluminium
Reference temperature       [°C]       20         Shaft design       solid shaft         Shaft design       6         Shaft diameter       [mm]         Shaft diameterial       steel (1.4104)         Max. shaft load axial (at the [N] shaft end)       10         Max. shaft load radial (at the [N] shaft end)       20         Fixing flange       synchro-flange         Etectrical connection       20         Cable: 2 m, PUR; Maximum cable length: 100 m; radial, can also be used axially         brown       A green         A inverted greey       B pink         B inverted red       0 index inverted blue         L + sensor       white         White W vsnowr       A green         L+ (Up)       white inverted screen         Ulac       failure inverted screen         Ilac       failure inverted screen         Ulac       failure inverted screen         Screen       housing </td <td>Max. revolution</td> <td>, mechanical [U/min]</td> <td>16000</td>	Max. revolution	, mechanical [U/min]	16000
torque       20         Shaft design       solid shaft         Shaft design       6         Shaft material       6         Max, shaft load axial (at the [N] shaft end)       10         Max, shaft load radial (at the [N] shaft end)       20         Fixing flange       synchro-flange         Electrical connection       20         Cable: 2 m, PUR; Maximum cable lenth: 100 m; radial, can also be used axially         brown       A         green       A inverted         grey       B         pink       B inverted         red       0 index         black       0 index inverted         black       0 index inverted         black       0 index inverted         black       0 index inverted         screen       housing	Max. starting to	rque [Nm]	1
Shaft design     solid shaft       Shaft diameter     [mmi]       Shaft material     6       Max. shaft load axial (at the [N] shaft end)     10       Max. shaft load radial (at the [N] shaft end)     20       Fixing flange     5       Electrical connection     20       Cable: 2 m, PUR; Maximum cable length: 100 m; radial, can also be used axially       brown     A       green     A inverted       grey     B       pink     B inverted       grey     B       black     0 index       black     0 index inverted       screen     housing		perature [°C]	20
Shaft material       steel (1.4104)         Max. shaft load axial (at the [N] shaft end)       10         Max. shaft load radial (at the [N] shaft end)       20         Max. shaft load radial (at the [N] shaft end)       20         Fixing flange       synchro-flange         Electrical connection       20         Cable: 2 m, PUR; Maximum cable length: 100 m; radial, can also be used axially         brown       A         green       A inverted         grey       B         pink       B inverted         red       0 index         black       0 index inverted         blue       L + sensor         white       OV sensor         brown/green       L + (Up)         white/green       OV (Un)         Illac       failure inverted         screen       housing	Shaft design		solid shaft
Max. shaft load axial (at the [N] shaft end)       10         Max. shaft load radial (at the [N] shaft end)       20         Shaft end)       20         Fixing flange       synchro-flange         Electrical connection       Cable: 2 m, PUR; Maximum cable length: 100 m; radial, can also be used axially         brown       A         green       A inverted         grey       B         pink       B inverted         red       0 index         black       0 index inverted         blue       L + sensor         white       OV sensor         brown/green       L+ (Up)         white/green       OV (Un)         llac       failure inverted         screen       housing         Diagrams and graphs	Shaft diameter	[mm]	6
shaft end)       IU         Max. shaft load radial (at the [N] shaft end)       20         Fixing flange       synchro-flange         Electrical connection       Electrical connection         Cable: 2 m, PUR; Maximum cable length: 100 m; radial, can also be used axially       Electrical connection         Cable: 2 m, PUR; Maximum cable length: 100 m; radial, can also be used axially       Electrical connection         Cable: 2 m, PUR; Maximum cable length: 100 m; radial, can also be used axially       Electrical connection         Cable: 2 m, PUR; Maximum cable length: 100 m; radial, can also be used axially       Electrical connection         Cable: 2 m, PUR; Maximum cable length: 100 m; radial, can also be used axially       Electrical connection         Cable: 2 m, PUR; Maximum cable length: 100 m; radial, can also be used axially       Electrical connection         Cable: 2 m, PUR; Maximum cable length: 100 m; radial, can also be used axially       Electrical connection         green       A       netred         green       B inverted       Netred         volume       O index       Hold with the provemon set to the provemo	Shaft material		steel (1.4104)
shaft end)     20       Fixing flange     synchro-flange         Electrical connection         Cable: 2 m, PUR; Maximum cable length: 100 m; radial, can also be used axially         brown     A       green     A inverted       grey     B       pink     B inverted       red     0 index       black     0 index inverted       blue     L + sensor       white     OV sensor       brown/green     L + (Up)       white/green     OV (Un)       illac     failure inverted       screen     housing   Pulse diagram		axial (at the [N]	10
Electrical connection         Cable: 2 m, PUR; Maximum cable length: 100 m; radial, can also be used axially         brown       A         green       A inverted         grey       B         pink       B inverted         red       0 index         black       0 index inverted         blue       L + sensor         white       OV sensor         brown/green       L + (Up)         white/green       OV (Un)         liac       failure inverted         screen       housing		radial (at the [N]	20
Cable: 2 m, PUR; Maximum cable length: 100 m; radial, can also be used axially brown A green A inverted grey B pink B inverted red O index black O index inverted blue L+ sensor white OV sensor brown/green L+ (Up) white/green OV (Un) lilac failure inverted screen housing Diagrams and graphs Pulse diagram	Fixing flange		synchro-flange
brown A green A inverted grey B pink B inverted red 0 index black 0 index inverted blue L+ sensor white 0V sensor brown/green L+ (Up) white/green 0V (Un) lilac failure inverted screen housing Diagrams and graps Pulse diagram	Electrical conn	ection	
greenA invertedgreyBpinkB invertedredO indexblackO index invertedblueL+ sensorwhiteOV sensorbrown/greenL+ (Up)white/greenOV (Un)llacfailure invertedscreenhousing	Cable: 2 m, PUF	R: Maximum cable lend	th: 100 m; radial, can also be used axially
grey B pink B inverted red O index black O index inverted blue L+ sensor white OV sensor brown/green L+ (Up) white/green OV (Un) lilac failure inverted screen housing Diagrams and graphs Pulse diagram		.,	
pinkB invertedred0 indexblack0 index invertedblueL+ sensorwhite0V sensorbrown/greenL+ (Up)white/green0V (Un)lilacfailure invertedscreenhousing	brown		
red       0 index         black       0 index inverted         blue       L+ sensor         white       0V sensor         brown/green       L+ (Up)         white/green       0V (Un)         lilac       failure inverted         screen       housing		А	
black 0 index inverted   blue L+ sensor   white 0V sensor   brown/green L+ (Up)   white/green 0V (Un)   lilac failure inverted   screen housing   Pulse diagram	green grey	A A inverted B	
blue L+ sensor   white OV sensor   brown/green L+ (Up)   white/green OV (Un)   ilac failure inverted   screen housing	green grey pink	A A inverted B B inverted	
white     0V sensor       brown/green     L+ (Up)       white/green     0V (Un)       ilac     failure inverted       screen     housing         Diagrams and graphs   Pulse diagram	green grey pink red	A A inverted B B inverted 0 index	
brown/green L+ (Up) white/green 0V (Un) lilac failure inverted screen housing Diagrams and gram Pulse diagram	green grey pink red black	A A inverted B B inverted 0 index 0 index inverted	
white/green 0V (Un) lilac failure inverted screen housing       Diagrams and grams       Pulse diagram	green grey pink red black blue	A A inverted B B inverted 0 index 0 index inverted L+ sensor	
Lilac failure inverted   screen housing     Diagrams and graphs   Pulse diagram	green grey pink red black blue white	A A inverted B B inverted 0 index 0 index inverted L+ sensor 0V sensor	
screen housing          Diagrams and graphs         Pulse diagram         Image: streen with the streen withe streen withe streen withe streen with	green grey pink red black blue white brown/green	A A inverted B B inverted 0 index 0 index inverted L+ sensor 0V sensor L+ (Up)	
Diagrams and graphs Pulse diagram	green grey pink red black blue white brown/green white/green	A A inverted B B inverted 0 index 0 index inverted L+ sensor 0V sensor L+ (Up) 0V (Un)	
Pulse diagram	green grey pink red black blue white brown/green white/green lilac	A A inverted B B inverted 0 index 0 index inverted L+ sensor 0V sensor L+ (Up) 0V (Un) failure inverted	
	green grey pink red black blue white brown/green white/green lilac screen	A A inverted B B inverted 0 index 0 index inverted L+ sensor 0V sensor L+ (Up) 0V (Un) failure inverted housing	
direction of rotation clockwise (looking at the shaft)	green grey pink red black blue white brown/green white/green lilac screen Diagrams and	A A inverted B B inverted 0 index 0 index inverted L+ sensor 0V sensor L+ (Up) 0V (Un) failure inverted housing	
	green grey pink red black blue white brown/green white/green lilac screen Diagrams and	A A inverted B B inverted 0 index 0 index inverted L+ sensor 0V sensor L+ (Up) 0V (Un) failure inverted housing	